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PROPOSED CELERON / ALL AMERICAN AND GETTY PIPELINE PROJECTS

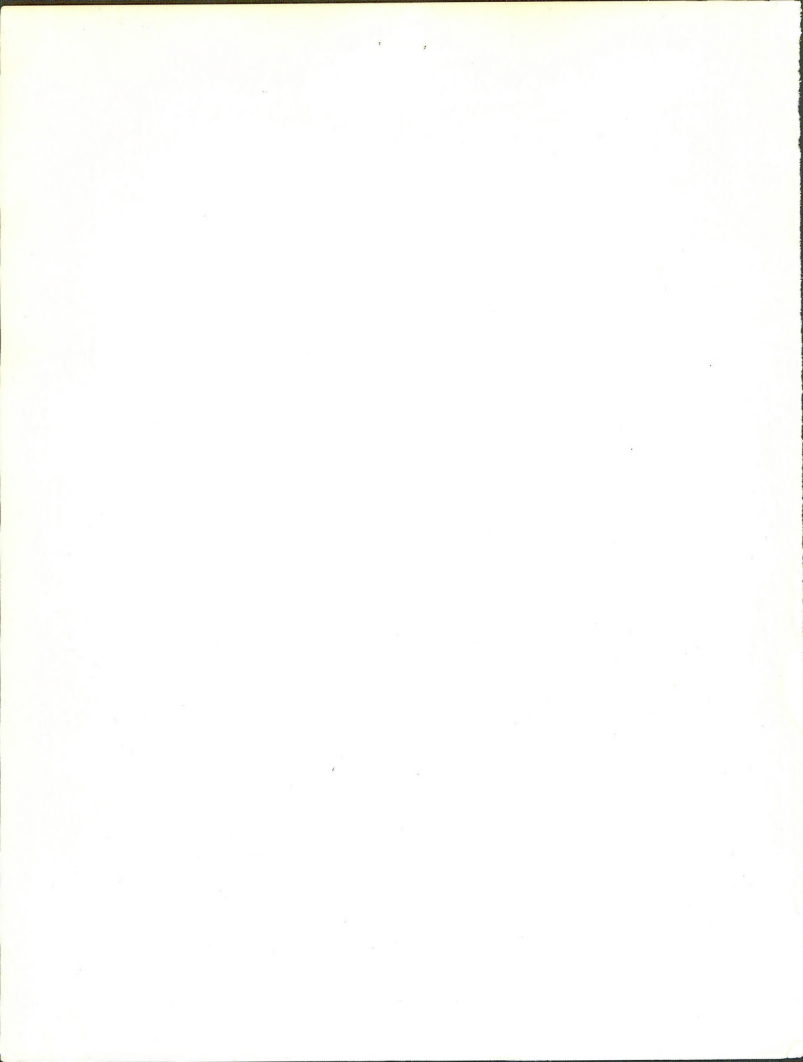
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DEPARTMENT OF THE INTERIOR**

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TO: ALL INTERESTED PARTIES

Enclosed is a copy of the Finalizing Addendum for the Environmental Impact Report/Environmental Impact Statement on the following projects:

Celeron/All American Pipeline Companies propose to construct a 1200 mile, buried pipeline to transport heated crude oil from the Santa Barbara and Santa Maria Basins through Emidio Station, California to McCamey, Texas.

Getty Trading and Transportation Company proposes to construct a 113 mile, buried pipeline to transport heated crude oil from Gaviota, California, to Emidio Station, California.

This addendum, combined with the Draft EIR/EIS, is the Final EIR/EIS for these projects.

Certification of this document is tentatively scheduled for State Lands Commission consideration at their January 31, 1985, meeting, beginning at 10:00 a.m. The location will be Room 447 of the State Capitol, Sacramento, California.

Those desiring further information on the Commission meeting or the project should call Mary Griggs at (916) 322-0354.

CLAIRE T. DEDRICK
Executive Officer

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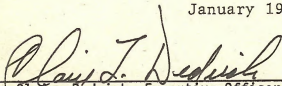
CALIFORNIA STATE LANDS COMMISSION AND
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FINAL
ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT
STATEMENT FOR THE CELERON/ALL AMERICAN AND
GETTY PIPELINE PROJECTS

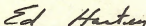
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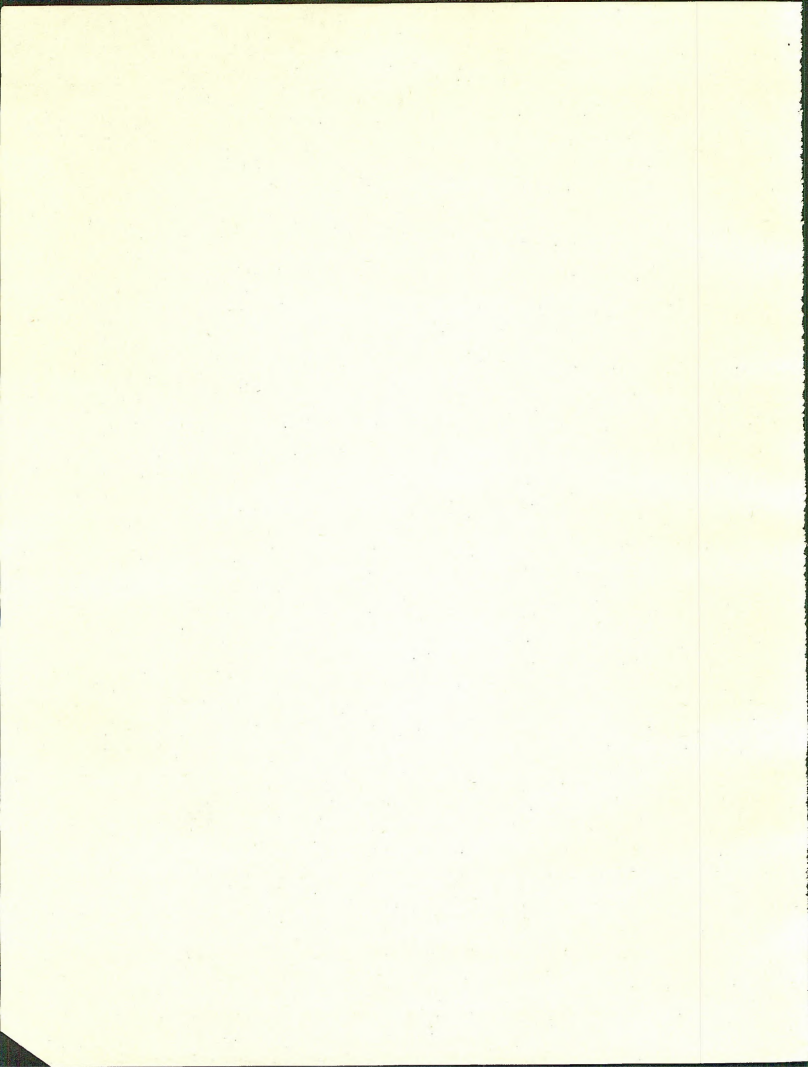


Claire Dédrick, Executive Officer, State Lands Commission



Edward Hastey, California State Director, Bureau of Land Management

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COVER SHEET

CELERON/ALL AMERICAN AND GETTY PIPELINE PROJECT

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(X) FINAL

Joint Review Panel

California State Lands Commission
Sacramento, CA (CEQA Lead)

U.S. Department of the Interior
Bureau of Land Management (NEPA Lead)
California Desert District, Riverside, CA

Santa Barbara County
Resource Management Department
Santa Barbara, CA

Cooperating Agencies

U.S. Department of Agriculture
Forest Service

U.S. Department of the Interior
Fish and Wildlife Service

U.S. Department of Transportation
Federal Highway Administration

California Secretary of Environmental
Affairs
Sacramento, CA

EIS Contact

Comments on this EIR/EIS should be directed to:

Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, California 95814
(916) 322-0354

Dates EIR/EIS Made Available to the Public

Draft: August 1, 1984

Final: January 9, 1985

ABSTRACT

The Celeron and All American Pipeline Companies propose to construct a 1,200-mile pipeline that would transport Outer Continental Shelf and other locally produced crude oils from the Santa Barbara and Santa Maria Basins through Emidio station, CA, to McCamey, TX. The 122-mile Celeron segment would extend from Las Flores, CA to Emidio, CA and the 1,084-mile All American segment would extend from Emidio, CA to McCamey, TX; both would transport heated crude oil. Getty Trading and Transportation Company (Getty) proposes to construct a 113-mile buried pipeline that would transport heated crude oil from Getty's existing

marine terminal facility at Gaviota, CA, to Emidio station, CA. The Celeron/All American pipeline proposal and the Getty pipeline proposal are not dependent upon each other. Both projects could be approved or either project could be approved independently of the other.

The Celeron/All American and Getty Pipeline Projects Environmental Impact Report/Environmental Impact Statement (EIR/EIS) addresses both applications to construct pipelines from the Santa Barbara coast to Emidio in Kern County. The EIR/EIS also addresses Celeron/All American's application for a pipeline from Emidio to McCamey, Texas.

The EIR/EIS analyzes the environmental effects of the proposed pipelines; pump, heating, and delivery stations; and a tank farm through construction, operation, maintenance, and abandonment. This report analyzes the impacts of the Celeron/All American and Getty Proposals and four routing alternatives that have been identified. These are the Santa Maria Canyon, Desert Plan Utility Corridor, Brenda, and McCamey to Freeport Alternatives. The Santa Maria Canyon Alternative crosses a portion of the Los Padres National Forest in Santa Barbara County; the Desert Plan Alternative is in the Mojave Desert in eastern California; the Brenda Alternative is in western Arizona near the Kofa National Wildlife Refuge; and the McCamey to Freeport Alternative extends from West Texas to the Gulf Coast. These alternatives were identified to provide optional locations for the pipelines in sensitive areas. The No Project Alternative is also analyzed.

The EIR/EIS has been prepared according to the requirements of the National Environmental Policy Act of 1969 (NEPA), the Council of Environmental Quality's regulations for implementing NEPA, effective July 30, 1979, and the California Environmental Quality Act (CEQA) as amended. Based on the issues and concerns identified during the scoping process, the EIR/EIS focuses on the impacts to river crossings, access, hydrology, restoration, employment, and oil spills.

PREFACE

The Final Environmental Impact Report/Environmental Impact Statement (FEIR/EIS) for the Celeron/All American and Getty crude oil pipeline projects has been prepared in an abbreviated format under Council on Environmental Quality regulations (40 CFR 1503.4 (3)(c)). This document should be used in conjunction with, rather than in place of, the Draft EIR/EIS that was released for public review on August 1, 1984.

The FEIR/EIS contains four chapters. The first chapter (Introduction) is a summary of the pipeline projects that briefly describes the projects, areas of controversy, major impact conclusions, and the Federal preferred alternatives.

The second chapter (Consultation and Coordination) presents the results of agency and public review of the Draft EIR/EIS. Comments received at public hearings and by letter, and responses to those comments, are presented.

The third chapter (Modifications and Corrections) includes changes made to the text and tables of the DEIR/EIS. These have been made in response to public comments and are referenced to the appropriate page number in the DEIR/EIS.

The final chapter contains appendices that discuss a variety of topics. Appendix 4.1 contains an updated and modified set of the mitigation measures and agency stipulations that were presented in the DEIR/EIS. A revised list of recommended mitigation measures is also included. Appendix 4.2 presents the Biological Opinions (dealing with Federally-listed Threatened and Endangered species) prepared by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Appendix 4.3 is a summary table dealing with the system safety aspects of the operation of each pipeline project. Appendix 4.4 presents a draft Oil Spill Contingency Plan for All American's crossing of the Colorado River at the California/Arizona border. The Draft EIR/EIS Air Quality Appendix has been revised and is included as Appendix 4.5. It contains revised modeling results based on changes in the equipment that would be used at pump/heater stations as well as additional detail on modeling assumptions and procedures. Appendix 4.6 contains a revised analysis of visual resource impacts on the Los Padres National Forest. This reanalysis, first prepared as Appendix E in the DEIR/EIS, is based on additional detail provided by the Applicants and the Forest Service on route locations and construction techniques.

Copies of the Draft EIR/EIS can be obtained by writing to the following address:

District Manager
Bureau of Land Management
1692 Spruce Street
Riverside, California 92507

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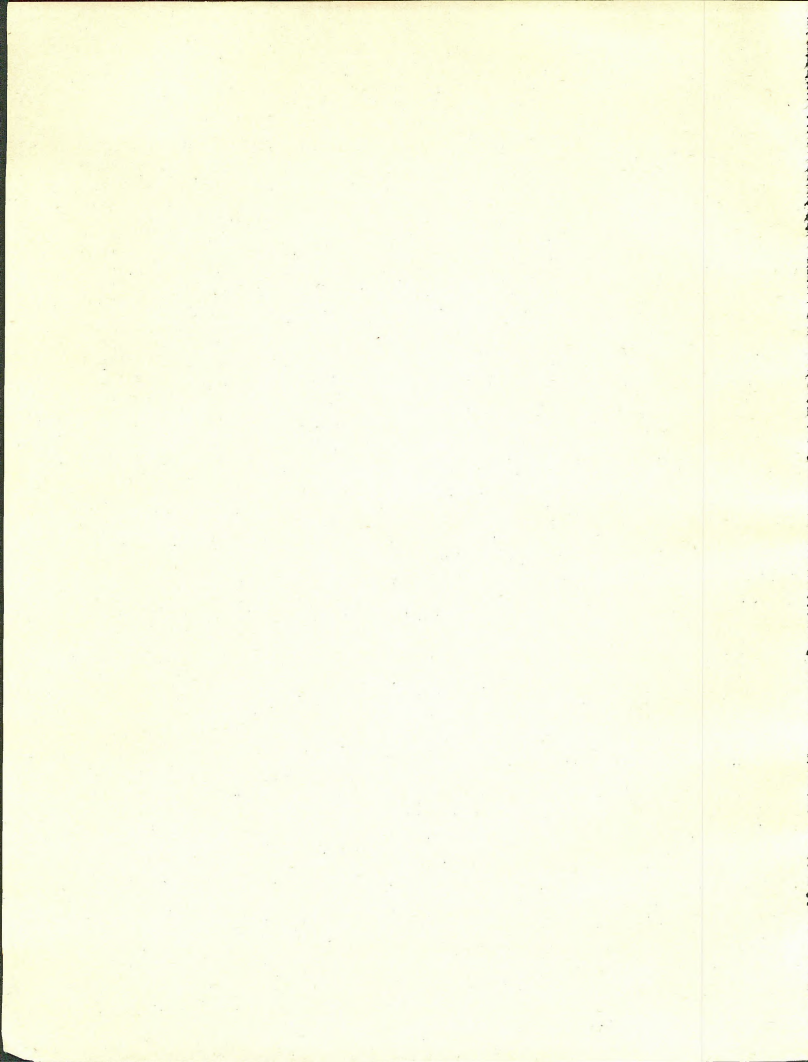
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1.0 SUMMARY



1.0 SUMMARY

1.1 Introduction

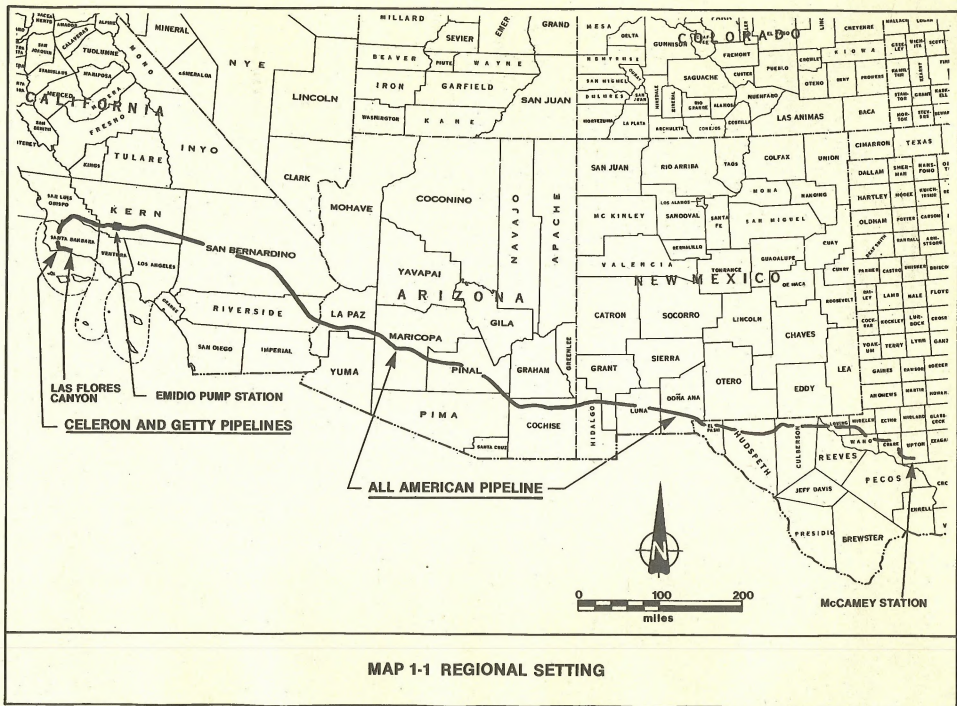
The Celeron/All American and Getty Pipeline Projects EIR/EIS is a joint document prepared for the California State Lands Commission (SLC); and the U.S. Department of the Interior, Bureau of Land Management (BLM). SLC is acting as lead agency pursuant to the California Environmental Quality Act (CEQA) and BLM, as lead agency pursuant to the National Environmental Policy Act (NEPA). SLC, BLM and Santa Barbara County have formed a Joint Review Panel (JRP) to direct the completion of this joint State and Federal document.

The Celeron/All American and Getty Pipeline projects are not dependent upon each other and either or both pipelines could be approved by the agencies independently of the other. Celeron/All American has applied for right-of-way permits from the BLM to cross Federal land managed by the BLM, Forest Service, Fish and Wildlife Service, Air Force, Army, and the Bureau of Reclamation, and from SLC for crossing land at the Colorado River.

Getty has applied for ROW permits from the BLM for crossing Federal lands managed by BLM and by the Los Padres National Forest (LPNF) and for a Conditional Use Permit from Santa Barbara County. Both applicants must receive U.S. Army Corps of Engineers 404 Permits and various county and local permits. Since the two proposed projects are independent of each other, authorization of the two ROW applications is not an either/or situation. Each project must be reviewed and approved or denied on its own merits.

The two pipeline projects would transport Outer Continental Shelf (OCS) and other locally produced crude oil from the Santa Barbara and Santa Maria Basins to other crude oil transportation networks that serve refiners in the San Joaquin Valley, San Francisco, Los Angeles, and Gulf Coast areas. The Celeron/All American Pipeline would transport up to 300,000 barrels per day (BPD). The 1,200-mile, 24 to 30-inch pipeline would travel from Exxon's proposed Santa Ynez Unit processing facility in Las Flores Canyon, west of Santa Barbara, California, across the Sierra Madre Mountains to the Bakersfield, California area, then to Blythe, California, and across Arizona and New Mexico to the McCamey, Texas area (Map 1-1). The Getty pipeline would transport up to 400,000 BPD in a 20 to 30-inch pipeline from Getty's proposed Consolidated Coastal Facility at Gaviota, west of Santa Barbara (and 6 miles east of Las Flores Canyon), to the Bakersfield area (about 113 miles).

The two proposals have similar proposed right-of-ways (ROW) from the coast to a terminal facility at Emidio, southwest of Bakersfield. Therefore, they are being considered in the same document. Getty's Consolidated Coastal Facility was evaluated in an EIR prepared for Santa Barbara County and released for public review in July, 1984; that document is incorporated by reference into this EIR/EIS. Exxon's facility was also evaluated in an EIS/EIR prepared for the County, released for public review in April 1984, finalized in July 1984, and is incorporated by reference into this EIR/EIS.



Several pipeline routing alternatives were considered. The Santa Maria Canyon routes (one proposed by Getty and one by Celeron) are alternatives for crossing the Sierra Madre Mountains; the Desert Plan Utility Corridor is an alternative for crossing the California portion of the Mojave Desert; the Brenda route is an alternative around the Kofa National Wildlife Refuge (NWR); and the McCamey to Freeport route is an alternative from West Texas to the Gulf Coast. Single pipeline and no project alternatives were also evaluated. Alternatives considered but eliminated from detailed analysis included transportation alternatives of rail, truck, and other pipeline transportation developments and an alternate route across the Sierra Madre Mountains through Tunnel Canyon. The marine tanker alternative was studied in the Oil Transportation Plan for Santa Barbara County (ADL 1984) which is incorporated herein by reference.

1.2 Areas of Environmental Concern and Issues of Public Controversy

Comments on the Draft EIR/EIS identified several areas of environmental concern or issues of public controversy regarding the Celeron/All American and Getty proposals.

Areas of environmental concern include:

- Potential oil spills (Celeron/All American and Getty).
- Contamination of groundwater from an oil spill (Celeron/All American and Getty).
- Burial depth of the pipelines at river crossings (Celeron/All American and Getty).
- Effects on threatened or endangered species from pipeline construction (Celeron/All American and Getty).
- Loss of the desert tortoise and its habitat from pipeline construction (Celeron/All American).
- Crossing the Kofa National Wildlife Refuge (Celeron/All American).
- Crossing or constructing the pipeline adjacent to Further Planning Areas within the Los Padres National Forest (Celeron/All American and Getty).
- Crossing the California Desert Conservation Area (Celeron/All American).
- The McCamey to Freeport Alternative (Celeron/All American).

Responses to these areas of concern are presented in Section 2.3 of this document.

Issues of public controversy centered on oil development and transportation in California. The following paragraphs summarize the

major areas of controversy with additional detail being provided in the responses to comments contained in Section 2.3. Areas of controversy include:

- The volume of OCS crude oil that will need to be transported.
- The final destination of crude oil to be shipped from Santa Barbara County and the San Joaquin Valley and the competition of other proposed pipeline projects in southern California.
- Marine tanker transportation versus pipeline transportation of OCS crude oil.
- Authorization of one or two crude oil pipelines between the Santa Barbara Coast and Emidio Station (see Preface).

The estimated volume of OCS crude oil that will need to be transported from the Western Santa Barbara Channel and Santa Maria Basin is currently unresolved. The California Department of Conservation (Comment 41-4) estimates that 274,000 BPD of crude oil will be produced, while the DEIR/EIS estimated 500,000 to 600,000 BPD. The exact reserves and rates of production are not known because of the proprietary nature of these statistics within the industry. However, both Applicants have proposed a range of throughputs for their pipelines to accommodate a range of final OCS production.

The final destinations of OCS crude oil to be shipped through the proposed Celeron/All American and Getty pipelines and the volume of San Joaquin Valley crude oil to be shipped by Celeron/All American is also unresolved. Both these issues would be determined by the market place at the time the pipelines come online since both pipelines would operate as common carriers, accepting oil from any producer (pipeline capacity permitting). At tie-ins with other pipeline systems (Emidio, Cadiz, Wink, Crane, and McCamey), oil producers would have the option of directing their oil to refineries with existing capacity via other pipelines. Other proposed pipeline projects are presented in Table 2-7 in the DEIR/EIS.

The transportation of OCS crude oil by marine tanker versus onshore pipeline is a controversial alternative. The issues concerning tanker and pipeline transport are oil spills that could affect recreation, sensitive marine and terrestrial resources, and the cost of that transportation. Uncertainty is associated with the cost estimates for the transportation of OCS crude oil. The tanker alternative was studied in detail in the Oil Transportation Plan for Santa Barbara County (ADL 1984). This EIR/EIS has reviewed studies that have analyzed the question of marine tanker transportation, and concludes at this time that oil can be moved to viable markets by pipeline at costs comparable to tankers.

1.3 Major Impact Conclusions

The Celeron/All American and Getty proposals have potential significant construction and operation impacts. Construction impacts would result primarily from the clearing, trenching, and backfilling construction activities, and by the presence and needs of the labor force. Operation impacts would result primarily from potential oil spills and leaks. Potential impacts have been analyzed in detail in Chapter 4 of the Draft EIR/EIS released in August 1984, and mitigation measures to be required of the Applicants are presented in Appendix 4.1 of this document. The impact summary tables summarize the significant impacts that would result from the construction and operation of the Celeron/All American and Getty proposals and the routing alternatives. This summary includes the committed (required) mitigation measures presented in Appendix 4.1; indicated numbers refer to the mitigation measures developed for each discipline. These tables also indicate whether impacts would still be significant following the implementation of mitigation measures (i.e., unavoidable adverse impacts).

1.4 Agency Preferred Alternative

Federal agencies are required by the Council on Environmental Quality's NEPA regulations (40 CFR 1502.14) to identify their preferred alternative for a project in the Draft and Final EISs prepared for the project. The preferred alternative is not a final agency decision; it is rather an indication of the agency's preliminary preference. The preferences identified below are those of the Federal lead agency; in the case of the LPNF, the preference was identified by the Forest Service and concurred by the BLM.

Construction of one or both of the proposed pipelines as mitigated in this document (rather than no action) is the Federal preferred alternative for both the Getty and Celeron/All American pipelines.

The preferred alternative through the LPNF is Santa Maria Canyon Alternative B. The Forest Service will require that both pipelines be constructed in a single ROW in order to minimize impacts. Because the alternative avoids Further Planning Areas, there would be no impacts on wilderness potential. The alternative would have no impacts on National Forest Campgrounds and avoids degradation of stream channels. This alternative has the least disturbance to riparian vegetation and is farther away from gold eagle and prairie falcon nests found along Santa Maria Canyon Alternative A. This alternative offers the greatest potential for concealing the pipeline from public view and would have significantly better future visual conditions and Visual Quality Objectives (VQO) achievement levels than the Celeron/All American and Getty proposals or Santa Maria Canyon Alternative A.

The preferred alternative across the central Mojave Desert is the Applicant's proposed route rather than the Desert Plan Utility Corridor Alternative. A pipeline route through designated corridors would be nearly twice as long (191 miles rather than 114 miles), far more expensive to construct due to its length, and would result in more significant environmental impacts. For example, the alternative would

cross desert tortoise crucial habitat and an unstable slope area. Although both routes cross Wilderness Study Areas (WSA), the area crossed by the Applicant's proposal (the Palen/McCoy WSA) would be avoided by a slight realignment of the route, while no realignment is practicable around the Coxcomb Mountains WSA crossed by the Alternative. The Desert Plan alternative would also affect more known cultural sites and more sites considered eligible for the National Register of Historic Places.

The preferred alternative in western Arizona would be the Brenda Alternative, north of the Kofa National Wildlife Refuge. Brenda is slightly longer than the proposed route through Kofa, and its eastern 20-miles would not follow an existing right-of-way. However, new information received during the public review (see Letter 23, E. Linwood Smith and Associates) indicates that the wildlife impacts of the two routes would not be equal in degree, and that construction in Copper Bottom pass in particular (along the Kofa route west of the refuge) would seriously affect bighorn sheep. The Brenda route is over 2 miles from the nearest bighorn lambing grounds, not within one-quarter mile as stated by the draft EIS. Brenda avoids impairing BLM's New Water Mountains WSA by crossing to the north side of Interstate 10 for several miles east of Quartzite. These two considerations, a lower level of impact on wildlife and the ability to avoid impairment of the WSA, have resulted in modification of the preferred alternative from that identified in the DEIR/EIS.

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Air Quality</u>				
Construction	None	NA ¹	NA	NA
Operation	None	NA	NA	NA
<u>Geology²</u>				
Construction	None	NA	NA	NA
Operation	Potential hazards and risks to pipeline due to the possible surface rupture of the South Branch Santa Ynez, San Andreas, and Garlock faults.	1, 1-A, 2, & 3	Minimize potential for serious damage leading to oil spills by site-specific definition of seismic and fault hazards in areas of high risk and implementing appropriate offset or design techniques.	No
	Potential hazards and risks due to slope failures in existing slide areas (Table 4-4).	1, 1-A, 2, & 3	Same as above	No
	Potential hazards and risks to pump and heater/pump stations and valves due to subsidence from fluid withdrawal at several locations in Arizona and karstic collapse at one location in west Texas.	1, 1-A	Identify risk areas so that appropriate design and monitoring measures can be implemented to minimize potential impacts.	No

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Soils</u>				
Construction ³	None	NA	NA	NA
Operation	Oil spill impacts on sensitive soils in agricultural lands in and around southwestern Kern County, Cuyama Valley, Barstow, Blythe, Rainbow Valley, and along the Gila and Rio Grande River valleys.	See Footnote ⁴	NA	Yes
<u>Surface Water</u>				
Construction	None	NA	NA	NA
Operation	Channel degradation could result in exposure of the pipeline and increase the possibility of an oil spill.	5	NA	Yes ⁵
	Major oil spills or leaks would degrade water quality below federal and state standards. Impacts would occur at and downstream from any stream crossing (Tables 3-10 and 3-11).	See Footnote ⁴	NA	Yes ⁵

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Groundwater</u>				
Construction	None	NA	NA	NA
Operation	Potential degradation of groundwater quality resulting from an oil spill in a sensitive groundwater basin; estimated 28.7 spills over a 30-year project life. ⁶	6 & 7	The application of mitigation measures and standard operating procedures is assumed to reduce the probability of significant impact to a sensitive groundwater basin by 50 percent.	Yes
<u>Aquatic Biology</u>				
Construction	Potential reduction in diversity and abundance of important fish species in Refugio Creek, Gaviota Creek, Colorado River, Gila River, Hot Springs Canyon Creek, Bass Canyon Creek, Rio Grande River, and the Pecos River due to fuel or lubricant spills.	8	Substantially reduce the probability and frequency of spills greater than 40 gallons reaching streams.	No

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant	
1-10	Operation	Potential reductions in diversity and abundance of important fish species in Refugio Creek, Gaviota Creek, Colorado River, Gila River, Hot Springs Canyon Creek, Bass Canyon Creek, Rio Grande River, and the Pecos River due to a major oil spill.	See Footnote ⁴	NA	Yes ⁵
		Potential reductions in abundance of intertidal invertebrates, surface-feeding fish, and shorebirds in nearshore marine areas due to a major oil spill into coastal streams between Las Flores Canyon and Gaviota.	See Footnote ⁴	NA	Yes ⁵
	<u>Terrestrial Biology</u>				
	Construction	Loss of riparian woodlands.	9, 9-A	Reduces acreage affected by 50 percent.	Yes
		Loss of oak woodlands.	9, 9-A	Same as above	Yes
		Loss of Joshua trees.	9	Same as above	No
		Loss of ironwood washes.	9	Same as above	No

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Terrestrial Biology</u>				
(continued)				
Construction	Loss of creosote scrub-land and vegetation productivity for long term; loss of wildlife habitat in Mojave Desert.	10 & 21	Minimize acreage affected by 50 percent.	Yes
	Disturbance to bighorn sheep lambing in the Dome Rock Mountains.	18	Minimizes impact	No
	Disturbance to bighorn sheep corridor movement in the Kofa National Wildlife Refuge (NWR).	19	Minimizes impact	No
	Disturbance causing raptor nest abandonment and loss of wildlife habitat in the Muleshoe Nature Preserve.	20	Minimizes impact	No
	Loss of Comanche layia and Barstow woolly sunflower (federal candidates for listing).	NA	NA	Insufficient data
Operation	Colorado River spill affecting wetlands and Yuma clapper rail (federally listed - endangered).	17	Minimizes risk of impact	Yes
	Spill in Hot Springs Creek, AZ.	8	Minimizes risk of impact	Yes

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Terrestrial Biology</u> (continued)				
Construction	Loss of dune communities.	9	Same as above	Yes
	Loss of commercial cactus.	NA	Arizona state law protects commercial species.	No
	Construction vehicle use off ROW affecting wildlife and sensitive plants or communities.	12	Minimizes impact	No
	Open trench limits wildlife access to water, especially bighorn sheep.	13 & 18	Minimizes impact	No
	Construction activity causes raptor nest abandonment.	14	Minimizes impact	No
	Loss of individual blunt-nosed leopard lizard and kit fox, and their habitats.	15	Minimizes number affected and reduces acreage disturbed by 50 percent.	Yes
	Loss of individual desert tortoise and their habitat.	11 & 16	Minimize numbers injured	Yes

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Socioeconomics</u>				
Construction	Adequate housing does not exist within a commuting distance of 170 miles round trip between Barstow and Blythe, CA, and El Paso and Pecos, TX.	22, 23, & 24	These measures will reduce competition for housing between tourists and construction workers, centralize impacts on housing in areas which have sufficient accommodations, and/or reduce commuting distances.	No
Operation	Increase in the local tax base of Hudspeth County, TX, will be greater than 10 percent.	NA	This is a positive impact.	NA
<u>Land Use and Recreation</u>				
Construction	Not consistent with Santa Barbara County Coastal Plan: --Policy 6-17, crossing of Gaviota State Park	None feasible	NA	Yes
	Alteration of La Brea Canyon and Kofa NWR recreation resources.	None feasible	NA	Yes

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Land Use and Recreation</u> (continued)	100-ft wide ROW disturbance within portions of Gaviota State Park and La Brea Canyon.	9, 9-A, 28	Reduce disturbance by 50 percent.	Yes
	Crossing of 1 Further Planning Areas (for potential wilderness) in Los Padres National Forest (LPNF).	None feasible	NA	Yes
	Inconsistent with Riverside County General Plan utility corridors.	26	Brings ROW into compliance with plan.	No
	ROW would provide access to sensitive areas previously inaccessible.	25	Limits proliferation of spur roads and enhances revegetation.	No
	Pipeline would cross Palen-McCoy WSA in California.	27	Avoids WSA	No
Operation	Major spills into Coastal streams would affect beaches and water-oriented recreational opportunities.	See Footnote ⁴	NA	Yes

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Transportation</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Cultural Resources</u>				
Construction	Potential disturbance to at least 8 sites eligible for listing on the National Register.	30	Minimize or avoid disturbance to cultural resource sites.	Yes ⁷
Operation	None	NA	NA	NA
<u>Visual Resources</u>				
Construction and Operation	Significant visual changes at 6 pump station sites and along the pipeline ROW in LPNF.	31, 32, & 33	Four pump stations will be effectively screened and ROW width will be reduced by 50 percent.	Yes ⁸
<u>Noise</u>				
Construction	Construction noise would exceed 60 dBA at residences along the pipeline ROW.	None practical ⁹	NA	Yes
Operation	Operation noise from the Gaviota pump station would exceed 60 dBA at the Vista del Mar Union School.	34	Project-related noise reduced below 60 dBA.	No ¹⁰

IMPACT SUMMARY TABLE FOR THE CELERON/ALL AMERICAN PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>System Safety and Reliability</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Oil Spill Potential</u>				
Construction	None	NA	NA	NA
Operation	Oil spill probabilities would vary based on the volume of oil lost and the age of the pipeline. There would be the probability of 1.08 spills/year of 50 barrels or greater (based on a 20-year old pipeline).	See Footnote ¹¹	NA	NA
	There would be the probability of 2.58 spills of 100 barrels or greater at the Cadiz tank farm during the life of the project (30 years).	See Footnote ¹¹	NA	NA

¹Not Applicable

²Although no significant impacts were identified, certain hazards and risks would be associated with seismicity and faulting, slope stability, subsidence, and karstic collapse.

³Although certain construction activities would accelerate soil erosion and deposition, and decrease productivity in certain areas, no significant impacts would occur with the implementation of sound mechanical erosion control and revegetation techniques contained in the Construction and Use (CU) Plan.

⁴Use of automatic block valves and check valves and oil spill contingency plans, as part of the project description, would substantially reduce the oil spill risk.

FOOTNOTES (Continued)

- ⁵Level of significance would depend upon volume of the spill, time of year, and physical characteristics of stream, and sensitivity of organisms present.
- ⁶Probability is based upon 0.0022 occurrence/pipeline-mile/year for a greater than 2.4 bbl spill (OWI 1978). This probability is the most conservative of several sources listed in Table 4-24 in the DEIR/EIS.
- ⁷Mitigation measures may not be completely effective in avoiding significant impacts to cultural resources (see Section 4.11 in the DEIR/EIS).
- ⁸Impacts still significant at 2 pump station sites and in the LPNF.
- ⁹Because of short duration of impacts, limitation to daytime hours for construction, and low probability of accomplishing effective mitigation for the noise of mobile construction activity, mitigation beyond standard use of equipment mufflers and similar OSHA requirements is not considered to be warranted.
- ¹⁰Project-related noise not significant; ambient noise will remain above 60 dBA.
- ¹¹Oil spills could cause significant impacts to various resources depending on the size and location of the spill. Specific mitigation measures for oil spill impacts to sensitive resources are contained under those resources.

IMPACT SUMMARY TABLE FOR THE GETTY PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.10)	Effectiveness	Impact Still Significant
<u>Air Quality</u>				
Construction	None	NA ¹	NA	NA
Operation	None	NA	NA	NA
<u>Geology²</u>				
Construction	None	NA	NA	NA
Operation	Potential hazards and risks to pipeline due to possible surface rupture of the South Branch Santa Ynez and San Andreas faults.	1, 1-A, 2, & 3	Minimize potential for serious damage leading to oil spills by site-specific definition of seismic and fault hazards in areas of high risk and implementing appropriate offset or design techniques.	No
	Potential hazards and risks to pipeline due to slope failures in existing slide areas (Table 4-4).	1, 1-A, 2, & 3	Same as above	No
<u>Soils</u>				
Construction ³	None	NA	NA	NA
Operation	Oil spill impacts on sensitive soils in agricultural lands of southwestern Kern County and Cuyama Valley.	See Footnote ⁴	NA	Yes

IMPACT SUMMARY TABLE FOR THE GETTY PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Surface Water</u>				
Construction	Alteration of channel geometry would cause degradation in La Brea Creek during and after construction.	4	Minimize sediment loads and degradation due to construction activities.	Yes ⁵
Operation	Channel degradation could result in exposure of the pipeline and increase the possibility of an oil spill.	5	NA	Yes ⁶
	Major oil spills or leaks would degrade water quality below federal and state standards. Impacts would occur at and downstream from any stream crossing (Tables 3-10 and 3-11).	See Footnote ⁴	NA	Yes ⁶
<u>Groundwater</u>				
Construction	None	NA	NA	NA
Operation	Potential Degradation of groundwater quality resulting from an oil spill in a sensitive groundwater basin; estimated 2.1 spills over a 30-year project life. ⁷	6 & 7	The application of mitigation measures and standard operating procedures is assumed to reduce the probability of significant impact to a sensitive groundwater basin by 50 percent.	Yes, if a spill occurs and if it also contaminates the groundwater

IMPACT SUMMARY TABLE FOR THE GETTY PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Aquatic Biology</u>				
Construction	Potential reductions in diversity and abundance of important fish species in Gaviota Creek due to fuel or lubricant spills.	8	Substantially reduce the probability and frequency of spills greater than 40 gallons reaching streams.	No
Operation	Potential reductions in diversity and abundance of important fish species in Gaviota Creek due to a major oil spill.	See Footnote ⁴	NA	Yes ⁶
	Potential reductions in diversity and abundance of intertidal invertebrates, surface-feeding fish, and shorebirds in the nearshore marine areas due to a major oil spill into Gaviota Creek.	See Footnote ⁴	NA	Yes ⁶
<u>Terrestrial Biology</u>				
Construction	Loss of riparian woodlands and oak woodlands.	9-A	Reduce clearing in riparian areas and oak woodlands.	Yes
	Construction vehicle use off ROW affecting wildlife and sensitive plants or communities.	12	Minimizes impact	No

IMPACT SUMMARY TABLE FOR THE GETTY PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Terrestrial Biology</u> (continued)				
	Open trench limiting wild- life access to La Brea Creek.	13	Minimizes impact	No
	Construction activity causes raptor nest abandon- ment.	14	Minimizes impact	No
	Loss of individual blunt- nosed lizard and kit fox, and their habitats.	15	Minimizes numbers affected and reduces acreage disturbed by 50 percent.	Yes
	Loss of Hoffman's night- shade, Refugio manzanita, and Catalina mariposa.	NA	NA	Yes
Operation	Oil spill	NA	NA	Yes
<u>Socioeconomics</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE GETTY PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant	
<u>Land Use</u>					
1-22	Construction	Not consistent with Santa Barbara County Coastal Plan: --Policy 6-17, crossing of Gaviota State Park	None feasible	NA	Yes
		Alteration of La Brea Canyon recreation resources.	None feasible	NA	Yes
		50-ft wide ROW disturbance within portions of Gaviota State Park and La Brea Canyon.	9-A	Reduce clearing of large trees along La Brea Creek.	Yes
	Operation	Major spills into coastal streams would affect beaches and water-oriented recreational opportunities.	See Footnote ⁴	NA	Yes
<u>Transportation</u>					
	Construction	None	NA	NA	NA
	Operation	None	NA	NA	NA
<u>Cultural Resources</u>					
	Construction	Potential disturbance to at least 4 sites eligible for listing on the National Register.	30	Minimize or avoid disturbance to cultural resource sites.	Yes ⁸
	Operation	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE GETTY PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Visual Resources</u>				
Construction and Operation	Significant visual changes along the pipeline ROW in LPNF.	9-A, 32	Reduce clearing in riparian areas and oak woodlands.	Yes ⁹
<u>Noise</u>				
Construction	Construction noise would exceed 60 dBA at residences along the pipeline ROW.	None practical ¹⁰	NA	Yes
Operation	Operation noise from the Gaviota pump station would exceed 60 dBA at the Vista del Mar Union School.	34	Project-related noise reduced below 60 dBA.	No ¹¹
<u>System Safety and Reliability</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Oil Spill Potential</u>				
Construction	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE GETTY PROPOSAL

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
Operation	Oil spill probabilities would vary based on the volume of oil lost and the age of the pipeline. There would be a range of probabilities of 0.04 spills/year of 50 barrels or greater (based on a new pipeline) to 0.27 spills/year (based on a 40-year old pipeline). A spill is not considered likely over the life of the project.	See Footnote ¹²	NA	Although an oil spill is not considered likely over the life of the project, if an oil spill should occur impacts would be significant (refer to other resource areas for significance)

¹Not Applicable.

²Although no significant impacts were identified, certain hazards and risks would be associated with seismicity and faulting, and slope stability.

³Although construction activities would accelerate soil erosion and deposition and decrease productivity in certain areas, no significant impacts would occur with the implementation of sound mechanical erosion control and revegetation techniques contained in the CU Plan.

⁴Use of automatic block valves and check valves and oil spill contingency plans, as part of the project description, would substantially reduce the oil spill risk.

⁵Impact would be significant because of multiple crossings.

FOOTNOTES (Continued)

⁶Level of significance would depend upon volume of the spill, time of year, physical characteristics of stream, and sensitivity of organisms present.

⁷Probability is based upon 0.0022 occurrence/pipeline-mile/year for a greater than 2.4 bbl spill (OIW 1978). This probability is the most conservative of several sources listed in Table 4-24 in the DEIR/EIS. It should be noted that a spill does not necessarily mean groundwater contamination, only a "potential" for contamination.

⁸Mitigation measures may not be completely effective in avoiding significant impacts to cultural resources (see Section 4.11 in the DEIR/EIS).

⁹Impacts still significant in the LPNF.

¹⁰Because of short duration of impacts, limitation to daytime hours for construction, and low probability of accomplishing effective mitigation for the noise of mobile construction activity, mitigation beyond standard use of equipment mufflers and similar OSHA requirements is not considered to be warranted.

¹¹Project-related noise not significant; ambient noise will remain above 60 dBA.

¹²Oil spills could cause significant impacts to various resources depending on the size and location of the spill. Specific mitigation measures for oil spill impacts to sensitive resources are contained under those resources.

IMPACT SUMMARY TABLE FOR THE SANTA MARIA CANYON ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Air Quality</u>				
Construction	None	NA ¹	NA	NA
Operation	None	NA	NA	NA
<u>Geology²</u>				
Construction	None	NA	NA	NA
Operation	Potential hazards and risks to pipeline due to possible surface rupture in vicinity of the Rinconada and south Cuyama faults.	1, 1-A, 2, & 3	Minimize potential for serious damage leading to oil spills by site-specific definition of seismic and fault hazards in areas of high risk and implementing appropriate offset design techniques.	No
	Potential hazards and risks to pipeline due to slope failure in existing or new slide areas (Table 4-4).	1, 1-A, 2, & 3	Same as above	No
<u>Soils</u>				
Construction ³	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE SANTA MARIA CANYON ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.10)	Effectiveness	Impact Still Significant
Operation	Major oil spills or leaks would contaminate soil affecting erosion rates, water uptake, and productivity. Small areas of agricultural lands, located primarily in the Sisquoc Valley, would be the most sensitive soils.	See Footnote ⁴	NA	Yes
<u>Surface Water</u>				
Construction	None ⁴	NA	NA	NA
Operation	Channel degradation could result in exposure of the pipeline and increase the possibility of an oil spill.	5	NA	Yes ⁵
	Major oil spills or leaks would degrade water quality below federal and state standards in Tepusquet Creek. ⁴	See Footnote ⁴	NA	Yes ⁵
<u>Groundwater</u>				
Construction	None	NA	NA	NA
Operation	Degradation of groundwater quality resulting from an oil spill in a sensitive groundwater basin; estimated 0.03 spills over a 30-year project life. ⁶	6 & 7	The application of mitigation measures and standard operating procedures is assumed to reduce the probability of a spill in a sensitive groundwater basin by 50 percent.	Yes

IMPACT SUMMARY TABLE FOR THE SANTA MARIA CANYON ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.10)	Effectiveness	Impact Still Significant
<u>Aquatic Biology</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Terrestrial Biology</u>				
Construction	Loss of riparian vegetation and oak woodlands.	9, 9-A	Reduces acreage affected by 50 percent for Celeron (compared to unmitigated alternative) and reduce clearing of oak woodlands for both Applicants.	Yes
	Construction vehicle use off ROW affecting wildlife and sensitive plants or communities.	12	Minimizes impact	No
	Construction activity causes raptor nest abandonment.	14	Minimizes impact	No
Operation	None	NA	NA	NA
<u>Socioeconomics</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE SANTA MARIA CANYON ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Land Use and Recreation</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Transportation</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Cultural Resources</u>				
Construction	Potential disturbance to 6 cultural resource sites; eligibility for the National Register is unknown.	30	Minimize or avoid disturbance to cultural resource sites.	No
Operation	None	NA	NA	NA
<u>Visual Resources</u>				
Construction	Significant visual changes along the pipeline ROW in LPNF.	32	ROW width will be reduced by 50 percent.	Yes
Operation	None	NA	NA	NA
<u>Noise</u>				
Construction	Construction noise would exceed 60 dBA at residences along the pipeline ROW.	None practical ⁷	NA	Yes

IMPACT SUMMARY TABLE FOR THE SANTA MARIA CANYON ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Noise (Continued)</u>				
Operation	None	NA	NA	NA
<u>System Safety and Reliability</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Oil Spill Potential</u>				
Construction	None	NA	NA	NA
Operation	Oil spill probabilities would vary based on the volume of oil lost and the age of the pipeline. There would be the probability of 0.04 spills/year of 50 barrels or greater (based on a 20-year-old pipeline). ⁹	See Footnote ⁸	NA	Yes ⁸

¹Not Applicable.

²Although no significant impacts were identified, certain hazards and risks would be associated with seismicity and faulting, and slope stability.

³Although construction activities would accelerate soil erosion and deposition, and decrease productivity in certain areas, no significant impacts would occur with the implementation of sound mechanical erosion control and revegetation techniques contained in the CU Plan.

IMPACT SUMMARY TABLE FOR THE SANTA MARIA CANYON ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>System Safety and Reliability</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Oil Spill Potential</u>				
Construction	None	NA	NA	NA
Operation	Oil spill probabilities would vary based on the volume of oil lost and the age of the pipeline. There would be the probability of 0.04 spills/year of 50 barrels or greater (based on a 20-year-old pipeline). ⁹	See Footnote ⁸	NA	Yes ⁸

¹Not Applicable.

²Although no significant impacts were identified, certain hazards and risks would be associated with seismicity and faulting, and slope stability.

³Although construction activities would accelerate soil erosion and deposition, and decrease productivity in certain areas, no significant impacts would occur with the implementation of sound mechanical erosion control and revegetation techniques contained in the CU Plan.

⁴Use of automatic block valves and check valves and oil spill contingency plans, as part of the project description, would substantially reduce the oil spill risk.

⁵Level of significance would depend upon volume of spill, time of year, physical characteristics of stream, and sensitivity of organisms.

FOOTNOTE (Continued)

⁴Use of automatic block valves and check valves and oil spill contingency plans, as part of the project description, would substantially reduce the oil spill risk.

⁵Level of significance would depend upon volume of spill, time of year, physical characteristics of stream, and sensitivity of organisms.

⁶Probability is based upon .0022 occurrence/pipeline-mile/year for a greater than 2.4 bbl spill (OIW 1978). This probability is the most conservative of several sources listed in Table 4-24 in the DEIR/EIS.

⁷Because of short duration of impacts, limitation to daytime hours for construction, and low probability of accomplishing effective mitigation for the noise of mobile construction activity, mitigation beyond standard use of equipment mufflers and similar OSHA requirements is not considered to be warranted.

⁸Oil spills could cause significant impacts to various resources depending on the size and location of the spill. Specific mitigation measures for oil spill impacts to sensitive resources are contained under those resources.

⁹Alternative segment only; 38.5 miles long.

IMPACT SUMMARY TABLE FOR THE DESERT PLAN UTILITY CORRIDOR ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Air Quality</u>				
Construction	None	NA ¹	NA	NA
Operation	None	NA	NA	NA
<u>Geology</u> ²				
Construction	None	NA	NA	NA
Operation	Potential hazards and risks to pipeline due to slope failure in existing or new slide areas (Table 4-4).	1, 1-A, 2, & 3	Minimize potential for serious damage leading to oil spills by site-specific definition of slope stability and implementing appropriate offset design techniques.	No
<u>Soils</u>				
Construction ³	None	NA	NA	NA
Operation	Major oil spills or leaks would contaminate soil affecting erosion rates, water uptake, and productivity. No agricultural lands occur along this route.	See Footnote ⁴	NA	Yes
<u>Surface Water</u>				
Construction	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE DESERT PLAN UTILITY CORRIDOR ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Surface Water</u> (continued)				
Operation	None	NA	NA	NA
<u>Groundwater</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Aquatic Biology</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Terrestrial Biology</u>				
Construction	Loss of ironwood washes.	9	Reduces acreage affected by 50 percent. (compared to unmitigated alternative)	Yes
	Construction activity causes raptor nest abandonment.	14	Minimizes impact	No
	Loss of individual desert tortoise and their habitat.	11 & 16	Minimizes numbers injured.	Yes
	Loss of creosote scrub-land vegetation productivity for long term; loss of wildlife habitat in Mojave Desert.	10 & 21	Reduces acreage affected by 50 percent.	Yes

IMPACT SUMMARY TABLE FOR THE DESERT PLAN UTILITY CORRIDOR ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Terrestrial Biology</u> (continued)				
Operation	None	NA	NA	NA
<u>Socioeconomics</u>				
Construction	Adequate housing does not exist within commuting distance (170 miles round trip) between Barstow and Blythe, CA.	22, 23, & 24	These measures will reduce competition for housing between tourists and construction workers, centralize impacts on housing in areas which have sufficient accommodations, and/or reduce commuting distances.	No
Operation	None	NA	NA	NA
<u>Land Use and Recreation</u>				
Construction	The Coxcomb WSA would be crossed by the proposed route and this would adversely affect wilderness values.	None feasible	NA	Yes
	ROW would provide access to a BLM Area of Critical Environmental Concern near Granite Pass.	29	Pipeline would avoid protected areas.	No

IMPACT SUMMARY TABLE FOR THE DESERT PLAN UTILITY CORRIDOR ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Land Use and Recreation</u> (continued)				
Operation	None	NA	NA	NA
<u>Transportation</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Cultural Resources</u>				
Construction	Potential disturbance to at least 3 sites eligible for listing on the National Register.	30	Minimize or avoid disturbance to cultural resource sites.	Yes ⁵
Operation	None	NA	NA	NA
<u>Visual Resources</u>				
Construction and Operation	Significant visual change at Essex tank farm and heating/pumping station.	31	Tank farm will be effectively screened.	No
<u>Noise</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE DESERT PLAN UTILITY CORRIDOR ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>System Safety and Reliability</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Oil Spill Potential</u>				
Construction	None	NA	NA	NA
Operation	Oil spill probabilities would vary based on the volume of oil lost and the age of the pipeline. There would be the probability of 0.17 spills/year of 50 barrels or greater (based on a 20-year-old pipeline). ⁷ There would be the probability of 2.58 spills of 100 barrels or greater at the Essex tank farm during the life of the project (30 years).	See Footnote ⁶	NA	Yes ⁶

¹Not Applicable.

²Although no significant impacts were identified, certain hazards and risks would be associated with slope stability.

FOOTNOTE (Continued)

³Although construction activities would accelerate soil erosion and deposition, and decrease productivity in certain areas, no significant impacts would occur with the implementation of sound mechanical erosion control and revegetation techniques contained in the CU Plan.

⁴Use of automatic block valves and check valves and oil spill contingency plans, as part of the project description, would substantially reduce the oil spill risk.

⁵Mitigation measures may not be completely effective in avoiding significant impacts to cultural resources (see Section 4.11 in the DEIR/EIS).

⁶Oil spills could cause significant impacts to various resources depending on the size and location of the spill. Specific mitigation measures for oil spill impacts to sensitive resources are contained under those resources.

⁷Alternative segment only; 191 miles long.

IMPACT SUMMARY TABLE FOR THE BRENDA ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Air Quality</u>				
Construction	None	NA ¹	NA	NA
Operation	None	NA	NA	NA
<u>Geology</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Soils</u>				
Construction ²	None	NA	NA	NA
Operation	Major oil spills or leaks would contaminate soil affecting erosion rates, water uptake, and productivity. No agricultural lands occur along this route.	See Footnote ⁴	NA	Yes
<u>Surface Water</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Groundwater</u>				
Construction	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE BRENDA ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Groundwater (continued)</u>				
Operation	Degradation of groundwater quality resulting from an oil spill in a sensitive groundwater basin; estimated 0.13 spills over a 30-year project life. ³	6 & 7	The application of mitigation measures and standard operating procedures is assumed to reduce the probability of a spill in a sensitive groundwater basin by 50 percent.	No
<u>Aquatic Biology</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Terrestrial Biology</u>				
Construction	Loss of ironwood washes.	9	Reduces acreage affected by 50 percent (compared to unmitigated alternative).	Yes
	Loss of commercial cactus.	NA	Arizona state laws protect commercial species.	No
	Construction activity causes raptor nest abandonment.	14	Minimizes impact	No
	Loss of individual desert tortoise and their habitat.	11 & 16	Minimizes numbers injured.	Yes

IMPACT SUMMARY TABLE FOR THE BRENDA ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Terrestrial Biology</u> (continued)				
Operation	None	NA	NA	NA
<u>Socioeconomics</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Land Use and Recreation</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Transportation</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Cultural Resources</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Visual Resources</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE BRENDA ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Noise</u>				
Construction	Construction noise would exceed 60 dBA at residences along the pipeline ROW.	None practical ⁵	NA	Yes
Operation	None	NA	NA	NA
<u>System Safety and Reliability</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Oil Spill Potential</u>				
Construction	None	NA	NA	NA
Operation	Oil spill probabilities would vary based on the volume of oil lost and the age of the pipeline. There would be the probability of 0.06 spills/year of 50 barrels or greater (based on a 20-year-old pipeline). ⁷	See Footnote ⁶	NA	Yes ⁶

¹Not Applicable.

²Although construction activities would accelerate soil erosion and deposition, and decrease productivity in certain areas, no significant impacts would occur with the implementation of sound mechanical erosion control and revegetation techniques contained in the CU Plan.

FOOTNOTE (Continued)

³Probability is based upon .0022 occurrence/pipeline-mile/year for a greater than 2.4 bbl spill (OIW 1978). This probability is the most conservative of several sources listed in Table 4-24 in the DEIR/EIS.

⁴Use of automatic block valves and check valves and oil spill contingency plans, as part of the project description, would substantially reduce the oil spill risk.

⁵Because of short duration of impacts, limitation to daytime hours for construction, and low probability of accomplishing effective mitigation for the noise of mobile construction activity, mitigation beyond standard use of equipment mufflers and similar OSHA requirements is not considered to be warranted.

⁶Oil spills could cause significant impacts to various resources depending on the size and location of the spill. Specific mitigation measures for oil spill impacts to sensitive resources are contained under these resources.

⁷Alternative segment only; 63 miles long.

IMPACT SUMMARY TABLE FOR THE McCAMEY TO FREEPORT ALTERNATIVE

Resource	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Air Quality</u>				
Construction	None	NA ¹	NA	NA
Operation	None	NA	NA	NA
<u>Geology²</u>				
Construction	None	NA	NA	NA
Operation	Potential hazards and risks of possible surface rupture and slope failures along the Balcones Fault Zone.	1	Minimize potential for serious damage leading to oil spills by site-specific definition of seismic and fault hazards in areas of high risk and implementing appropriate offset or design techniques.	No
	Potential hazards and risks to pump and heat/pump stations and valves due to subsidence from fluid withdrawal along portions of the Gulf Coastal Plain and karstic collapse on the Edwards Plateau.	1	Identify risk areas so that appropriate design and monitoring measures can be implemented to minimize potential impacts.	No
<u>Soils</u>				
Construction ³	None	NA	NA	NA

IMPACT SUMMARY TABLE FOR THE McCAMEY TO FREEPORT ALTERNATIVE

Resource	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
Operation	Potential oil spill impacts on sensitive soils in agricultural lands along the entire segment.	See Footnote ⁴	NA	Yes
<u>Surface Water</u>				
Construction	None	NA	NA	NA
Operation	Major oil spills or leaks would degrade water quality below federal and state standards. Impacts would occur at and downstream from any stream crossing (Table 3-41).	See Footnote ⁴	NA	Yes ⁷
<u>Groundwater</u>				
Construction	None	NA	NA	NA
Operation	Degradation of groundwater quality resulting from an oil spill in a sensitive groundwater basin; estimated 18.5 spills over a 30-year project life. ⁵	6 & 7	The application of mitigation measures and standard operating procedures is assumed to reduce the probability of a spill in a sensitive groundwater basin by 50 percent.	Yes

IMPACT SUMMARY TABLE FOR THE McCAMEY TO FREEPORT ALTERNATIVE

Resource	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Aquatic Biology</u> ⁶				
Construction	Potential reduction in diversity and abundance of important fish species in perennial or large intermittent streams due to fuel and lubricant spills.	8	Substantially reduce the probability and frequency of spills greater than 40 gallons reaching streams.	No
Operation	Potential reductions in diversity and abundance of important fish species in perennial or large intermittent streams due to a major oil spill.	See Footnote ⁴	NA	Yes ⁷
	Potential reduction in abundance of intertidal invertebrates (especially shrimp, oysters, and blue crabs), surface-feeding fish, and shorebirds in nearshore marine areas due to a major oil spill into the Brazos, San Bernard, and Colorado Rivers.	See Footnote ⁴	NA	Yes ⁷
<u>Terrestrial Biology</u> ⁸				
Construction	Loss of riparian woodlands.	9	Reduces acreage affected by 50 percent (compared to unmitigated alternative).	Yes
	Loss of oak woodlands	9	Sames as above	Yes

IMPACT SUMMARY TABLE FOR THE McCAMEY TO FREEPORT ALTERNATIVE

Resource	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Terrestrial Biology</u> (Continued)				
	Construction vehicle use off ROW affecting wildlife and sensitive plants or communities.	12	Minimizes impacts	No
	Construction activity causes raptor nest abandonment.	14	Minimizes impact	No
Operation	Potential reductions in abundance of vegetation, wintering waterfowl, and resident waterbirds in estuarine areas due to a major oil spill in the San Bernard, Brazos, and Colorado Rivers.	17	Minimizes risk of impact	Yes
<u>Socioeconomics</u>				
Construction	None	NA	NA	NA
Operation	See Aquatic Impacts, potential loss of commercial shrimp, oysters, and blue crab because of oil spills.	See Footnote ⁴	NA	Yes ⁷

IMPACT SUMMARY TABLE FOR THE McCAMEY TO FREEPORT ALTERNATIVE

Resource	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Land Use and Recreation</u>				
Construction	None	NA	NA	NA
Operation	See Aquatic Impacts, potential loss of fin fish and shellfish because of oil spills.	See Footnote ⁴	NA	Yes ⁷
	Potential oil spills may reach beaches along the Gulf of Mexico.	See Footnote ⁴	NA	Yes
<u>Transportation</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Cultural Resources⁹</u>				
Construction	Potential disturbance to sites eligible for listing on the National Register.	30	Minimize or avoid disturbance to cultural resource sites.	Yes ¹⁰
Operation	None	NA	NA	NA
<u>Visual Resources⁹</u>				
Construction	None	NA	NA	NA
Operation	Potential significant visual changes at pump station sites along the pipeline ROW	NA ¹¹	NA	NA

IMPACT SUMMARY TABLE FOR THE McCAMEY TO FREEPORT ALTERNATIVE

	Significant Impacts	Mitigation Measure (See Section 4.1)	Effectiveness	Impact Still Significant
<u>Noise</u>				
Construction	Construction noise would exceed 60 dBA at residences along the pipeline ROW.	None practical	NA	Yes
Operation	None	NA	NA	NA
<u>System Safety and Reliability</u>				
Construction	None	NA	NA	NA
Operation	None	NA	NA	NA
<u>Oil Spill Potential</u>				
Construction	None	NA	NA	NA
Operation	Oil spill probabilities would vary based on the volume of oil lost and the age of the pipeline. There would be the probability of 0.41 spills/year of 50 barrels or greater (based on a 20-year-old pipeline).	See Footnotes ⁴ & ¹²	NA	Yes ⁷

¹Not Applicable.

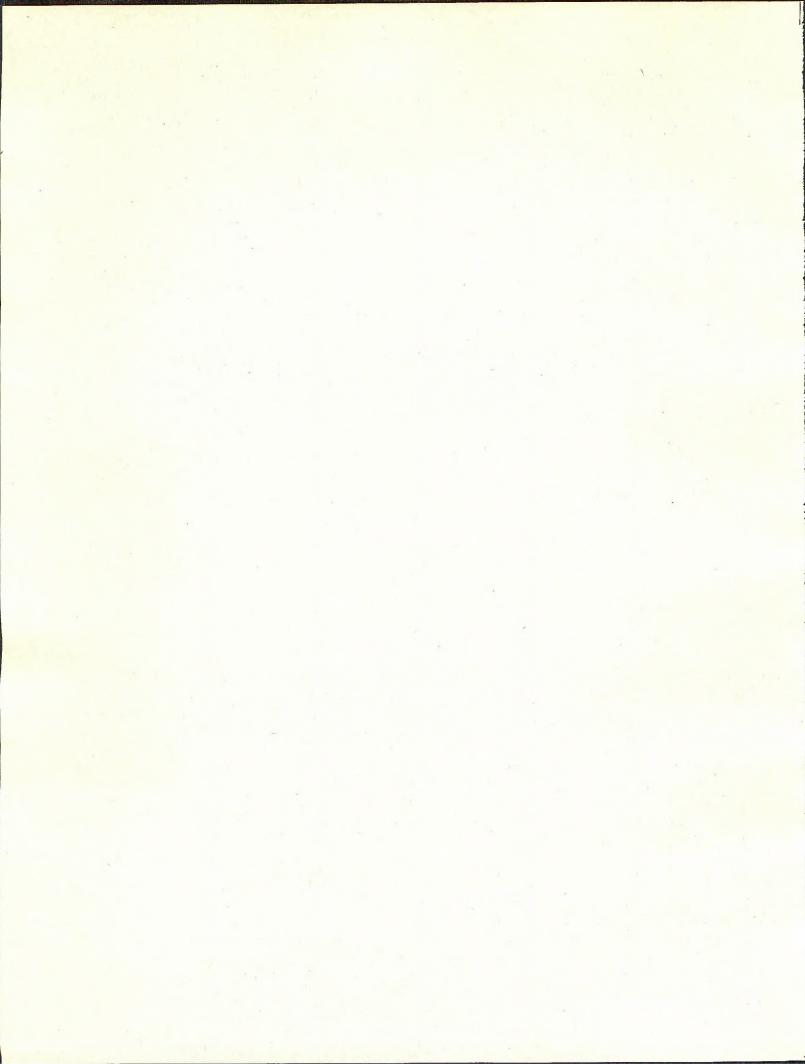
²Although no significant impacts were identified, certain hazards and risks would be associated with seismicity and faulting, slope stability, subsidence, and karstic collapse.

IMPACT SUMMARY TABLE FOR THE McCAMEY TO FREEPORT ALTERNATIVE

FOOTNOTE (Continued)

- ³Although certain construction activities would accelerate soil erosion and deposition, and decrease productivity in certain areas, no significant impacts would occur with the implementation of sound mechanical erosion control and revegetation techniques contained in the CU Plan.
- ⁴Use of automatic block valves and check valves and oil spill contingency plans, as part of the project description, would substantially reduce the oil spill risk.
- ⁵Probability is based upon 0.0022 occurrence/pipeline-mile/year for a greater than 2.4 bbl spill (OIW 1978). This probability is the most conservative of several sources listed in Table 4-24 in the DEIR/EIS.
- ⁶Since the distribution of important fish species has not been determined for individual streams at this time, the location of potential significant impacts cannot be made.
- ⁷Level of significance would depend upon volume of the spill, time of year, physical characteristics of stream, and sensitivity of organisms present.
- ⁸Sufficient information is not available at this time to completely evaluate all impacts. In particular, the distribution of threatened or endangered species in relation to the pipeline route needs to be described.
- ⁹Sufficient information is not available at this time to identify location of significant impacts.
- ¹⁰Mitigation measures may not be completely effective in avoiding significant impacts to cultural resources (see Section 4.11 in the DEIR/EIS).
- ¹¹Specific mitigation measures will be developed after determining the location of pump stations. Techniques would be similar to those described in measures 1 and 2.
- ¹²Oil spills could cause significant impacts to various resources depending on the size and location of the spill. Specific mitigation measures for oil spill impacts to sensitive resources are contained under those resources.

2.0 CONSULTATION AND COORDINATION



2.0 CONSULTATION AND COORDINATION

2.1 Draft EIR/EIS Review

Public Involvement

In the course of preparation of the Final EIR/EIS for the Celeron/ All American and Getty Pipeline Projects, the lead agencies (California State Lands Commission and BLM) have communicated with and received input from many Federal, state, and local agencies; elected representatives; environmental and citizens groups; industries; and individuals. Many of these people participated in the public scoping meetings which were held in San Bernardino, CA - November 29, 1983; Phoenix, AZ - November 30, 1983; Tucson, AZ - December 1, 1983; Las Cruces, NM - December 2, 1983; Bakersfield, CA - December 5, 1983; Santa Maria, CA - December 19, 1983; Santa Barbara, CA - December 19, 1983. Some of these people participated in the public hearings. Approximately 1,700 copies of the Draft EIR/EIS were distributed by mail to various individuals, organizations, and government agencies.

Applied Conservation Technology, Inc. (ACT) scheduled a series of meetings to discuss Native American concerns directly with members of potentially affected communities and constituencies in California. The purpose of this effort was to identify the specific cultural resources or sacred sites. No ethnographic sites were identified as a result of these inquiries.

During the 90-day public comment period August 1 to November 1, 1984, 8 formal public hearings were conducted to solicit comments on the DEIR/EIS. See Section 2.2 for further details. The public hearing transcripts have not been reprinted in the Final EIR/EIS as they are part of the public record. Copies of the hearing transcripts are available for review at the following offices:

State Land Commission
1807 - 13th Street
Sacramento, CA 95814
ATTN: Ms. Mary Griggs

Bureau of Land Management
1695 Spruce Street
Riverside, CA 92507
ATTN: Mr. William S. Haigh

The following is a partial list of agencies, groups, and individuals which have provided input and/or have received copies of the draft report. A complete list is available from BLM's Riverside, California office.

Federal Agencies

Advisory Council on Historic Preservation
Department of Agriculture
Forest Service
Soil Conservation Service

Department of Defense
Corps of Engineers
Edwards Air Force Base
Fort Bliss
Nebo Marine Corps Supply Base
Yuma Proving Ground

Department of Commerce
National Oceanic and Atmospheric Administration

Department of Energy
Department of Housing and Urban Development
Department of the Interior
Bureau of Indian Affairs
Bureau of Land Management
Bureau of Mines
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
National Park Service
Office of Environmental Project Review

Department of Transportation
Coast Guard
Federal Highway Administration
Federal Railroad Administration
Research and Special Programs Administrations
Secretary's Regional Representatives:
San Francisco
Fort Worth

Environmental Protection Agency
Federal Energy Regulatory Commission
International Boundary and Water Commission
Interstate Commerce Commission

State Agencies

Arizona:

Arizona Association of Counties, Phoenix
Bureau of Mines
Commission of Agriculture & Horticulture
Department of Health Services
Department of Transportation
District 4 Council of Governments, Yuma
Game & Fish Department
Governors Commission on Arizona Environment
Indian Affairs Commission
Office of the Governor
Office of Planning and Development, Phoenix
Public Lands Commission, Florence
Natural Resource Department
State Clearinghouse
State Historic Preservation Office
State Historical Society, Tucson

State Lands Department
State Museum
State Parks

California:

California Air Resources Board
California Coastal Commission
California Department of Transportation
California Energy Commission
Department of Boating & Waterways
Department of Conservation
Department of Fish & Game
Department of Forestry
Department of Health Services
Department of Parks and Recreation
Department of Water Resources
Governor's Office of Planning and Research
Native American Heritage Commission
Public Utilities Commission
Secretary of Environmental Affairs
State Historic Preservation Office
State Water Resources Control Board

New Mexico:

Corporation Commission
Department of Agriculture
Department of Finance and Administration
Department of Game and Fish
Department of Transportation
Energy and Minerals Department
Environmental Improvement Division
Governor's Budget and Planning Office
Highway Department
Natural Resources Department
Office of the Governor
State Historic Preservation Office
State Lands Office
State Land Department

Texas:

Department of Health
Department of Highways and Public Transportation
General Lands Office
Office of the Governor
Parks and Wildlife Department
Railroad Commission of Texas
State Historic Preservation Office

Tribal Governments

AkChin Indian Council, AZ
Brotherhood of Tomol, CA
Chemehuevi Indian Reservation, CA
Colorado River Indian Tribes, AZ
Fort Mojave Indian Reservation, CA
Fort Yuma River (Quechan Indian Nation), AZ
Gila River Indian Community, AZ
Kern Valley Indian Community, CA
Lone Pine Band of Paiute Shoshone, CA
Morongo Indian Reservation, CA
Papago Agency, AZ
San Carlos Apache Tribe, AZ
San Manuel Indian Reservation, CA
Santa Ynez Indian Reservation, CA
The Salt River Pima-Maricopa Indian Community, AZ
Tigua Indian Reservation, TX
United Chumash Council, CA

Local Agencies

Arizona:

Central Arizona Association of Governments
Coronado RC&D
County Board of Supervisors
County Board of Supervisors
Cochise County
Maricopa County
Pima County
Pinal County
District 4 Council of Governments
Graham County Courthouse
Graham County Engineer
La Paz County Board of Commissioners
La Paz County Planning & Zoning Director
Maricopa Assoc. of Governments
Maricopa County Department of Planning & Development
Mayor, City of Wilcox
Mayor, Town of Hayden
Mayor, Town of Winkelman
S.E. Arizona Governments Organization

California:

Air Pollution Districts:
Regional (San Luis Obispo) APCD
Kern County APCD
Santa Barbara County APCD
South Coast AQMD

Baker Community Service District

Board of Supervisors:

Kern County
Riverside County
San Bernardino County
San Luis Obispo
Santa Barbara

Office of the Mayor:

Barstow
Blythe
Lancaster
Needles
Victorville

Planning Department (for affected counties)

Regional Water Quality Control Board:

Central Coast Region 3
Central Valley Region 5
Colorado River Basin Region 7
Lahontan Region 6

Santa Barbara Co. Resource Management Department

New Mexico:

County Commissioners:

Dona Ana County
Grant County
Hidalgo County
Luna County

County Planning Department:

Dona Ana County
Grant County
Hidalgo County
Luna County

Hildago County Soil & Water Conservation District

Mayor, City of:

Deming
 Lordsburg

Southern Rio Grande Council of Governments

Southwest New Mexico Council of Governments

Southwest New Mexico RC&D

Southwest New Mexico Resource Conservation District

Texas:

City-County Building, El Paso

County Courthouse:

Blanco County
Brazoria County
Caldwell County
Colorado County
Crockett County
Culbertson County
Ector County
El Paso County

Gillespie County
Gonzales County
Hogs County
Hudspeth County
Kimble County
LaVaca County
Loving County
Matagorda County
Midland County
Pecos County
Reeves County
Sierra Blanca
Sutton County
Upton County
Ward County
Wharton County
Winkler County

El Paso County Commissioners
Permian Basin Regional Planning Commission
West Texas Council of Governments

U.S. Senators and Representatives, and State Legislators for:

Arizona

Senator DeConcini, Tucson
Congressman Stump, Phoenix
Congressman McNulty, Tucson
Office of Congressman Udall, Tucson
Honorable J.J. McCain, Mesa
Honorable E. Rudd, Scottsdale
Honorable J. McNulty, Tucson

California

Senator W. Stiern, Bakersfield
Senator Ollie Speraw, Long Beach
Senator R. Ayala, San Bernardino
Senator G. Hart, Santa Barbara
Representative J. Lewis, Redlands
Senator R. Presley, Riverside
Senator P. Wilson, San Diego
Representative A. McCandless, Riverside
Representative W. Thomas, Bakersfield
Representative R. Lagomarsino, Ventura
Representative G. Brown, Jr., Colton
Honorable J. O'Connell, Santa Barbara
Honorable P. Wyman, Bakersfield
Honorable T. Goggin, San Bernardino
Honorable D. Rogers, Bakersfield

New Mexico

Honorable J. Bingaman, Washington, D.C. and Albuquerque
Honorable P. Domenici, Washington, D.C. and Las Cruces
J. Skeen, Las Cruces

Other Government Officials

Texas

Judge D. C. Creager, Mentone
Judge Conaly, Van Horn
Judge C. Blue, Crane
Judge W. O. Pigman, Pecos
Judge F. Clark, Kermit

Public Interest Groups/Organizations

American Mining Congress
American Rivers Conservation Council
American Wilderness Alliance
Arizona Cattle Growers Association
Arizona Conservation Council
Arizona Desert Bighorn Sheep Society
Arizona Golden Eagles
Arizona Mining Association
Arizona Rough-riders
Arizona State Association of 4-Wheel Drive Club
Arizona Wildlife Federation
California Wilderness Coalition
Citizens for Mojave National Park
Citizens Planning Association
Defenders of Wildlife
Desert Bighorn Council
Desert Protective Council
Desert Tortoise Council
El Paso Archaeological Society
El Paso-Trans Pecos Audubon Society
Environmental Defense Fund
Friends of the Earth
Get Oil Out
Hollister Ranch Owners Association
Izaak Walton League
League of Arizona Cities
League of Women Voters
Messilla Valley Audubon Society
National Audubon Society
National Parks and Conservation Association
National Public Lands Task Force
Natural Resources Defense Council
New Mexico Natural History Institute
Office of Arid Lands Studies
Public Lands Council
Sierra Club
Southern Arizona Environmental Council
Southern Arizona Hiking Club
Southwestern Environmental Service
Southwestern New Mexico Natural History Institute
Southwestern New Mexico RC&D
The Nature Conservancy
Tucson Gem and Mineral Society

Tucson 4-Wheelers
Tucson Rod & Gun Club
Wilderness Society
Wildlife Management Institute
Wildlife Society

Industries and Individuals

(Detailed list available upon request from William Haigh, BLM, California Desert District, Riverside, CA)

Libraries:

Alvin Public Library - Brazoria, TX
Arizona State University Library - Tempe, AZ
Barstow Branch Library - Barstow, CA
California Polytechnic State University
California State Library - Sacramento, CA
Deming Public Library - Deming, NM
Denver Public Library - Denver, CO
Department of Library and Archives - Phoenix, AZ
Department of Library and Archives - Sacramento, CA
Edwards Branch Library - Edwards, CA
El Paso Public Library - El Paso, TX
Energy and Minerals Department Library - Sante Fe, NM
Gonzales Public Library - Gonzales, TX
Houston Public Library - Houston, TX
Indio Branch Library - Indio, CA
Johnson City Public Library - Johnson City, TX
Kern County Library - Bakersfield, CA
Long Beach Public Library - Long Beach, CA
Lordsburg-Hildalgo Library - Lordsburg, NM
Los Angeles Public Library - Los Angeles, CA
Mojave Branch Library - Mojave, CA
Needles Branch Library - Needles, CA
Nesbitt Memorial Library - Columbus, TX
New Mexico State Library - Santa Fe, NM
Oakland Public Library - Oakland, CA
Phoenix Public Library - Phoenix, AZ
Pioneer Memorial Library - Fredericksburg, TX
Pomona College Library - Claremont, CA
Reeves County Public Library - Pecos, TX
Ridgecrest Public Library - Ridgecrest, CA
Riverside Central Library - Riverside, CA
San Antonio College Library - San Antonio, TX
San Bernardino Central Library - San Bernardino, CA
San Bernardino County Library - San Bernardino, CA
San Diego Public Library - San Diego, CA
San Francisco Public Library - San Francisco, CA
Santa Barbara Public Library
Santa Maria Public Library - Santa Maria, CA
Santa Rosa Sonoma County Public Library - Santa Rosa, CA
Southern Methodist Fondren Library - Dallas, TX

Stanford University Library - Stanford, CA
Texas State Library, Public Services Department - Capital Station, TX
Thomas Branager Library - Las Cruces, NM
University of Arizona Library - Tucson, AZ
University of California Library:
 Berkeley
 Davis
 Irvine
 Los Angeles
 Riverside
 Santa Barbara
 Santa Cruz
University of Houston:
 School of Law Library - Houston, TX
 Victoria Campus Library - Victoria, TX
University of Texas:
 Carleton School of Law - Austin, TX
 Government Documents Department - San Antonio, TX
 Health and Science Center Library - Dallas, TX
Ventura County Library - Ventura, CA
Victorville Branch Library - Victorville, CA
Wharton County Public Library - Wharton, TX
Winkler County Public Library - Kermit, TX

PUBLIC HEARINGS COMMENTS

RESPONSE TO PUBLIC HEARINGS COMMENTS

2.2 Public Hearings Comments

2.2.1 September 18, 1984 - Las Cruces, New Mexico

Mr. James Walters, natural resource management specialist for the National Park Service representing Carlsbad Caverns and Guadalupe Mountains National Park for Superintendent William Dunmire

Mr. Walters expressed concern about the visual and scenic impacts that the project-related construction work might have near Guadalupe Mountains National Park in Hudsbeth County where the pipeline ROW crosses the southeastern corner of the park. He stated that new scars in proximity to the park would detract from the aesthetic qualities of the area and that areas that are unimpacted at this time are becoming relatively rare because of heavy activity from oil and gas development in the Permian basin. Federal agencies should consider those types of impacts as they relate to the national park to a very high degree.

Mr. Walters recommended and requested that an alternative route be considered beyond the visual range of visitors utilizing either Park Service land or the Highway 62-180 pass as it descends through the El Paso Pass area.

See also Letter 22 for comments and responses.

2.2.2 September 19, 1984 - Tucson, Arizona

No comments were received.

2.2.3 September 20, 1984 - Phoenix, Arizona

Mr. Russ Butcher, Southwest and California representative of the National Parks and Conservation Association

Mr. Butcher recommended that the pipeline ROW be moved to the south side of Highway 62-180 in west Texas where the route passes close to the southern end of the Guadalupe Mountains National Park. He stated that this realignment would mitigate environmental impacts within this scenically sensitive area, avoid disturbance to the fragile desert terrain, and that panoramas would be unimpaired.

Mr. Butcher noted that the Gypsum Dunes Preserve is incorrectly located in the Draft EIS/EIR (item T19, sheet 11).

2.2-1 The pipeline alignment has been changed to avoid the southeastern corner of Guadalupe Mountains National Park and the Guadalupe Pass area. The modified alignment begins near the Guadalupe Pump Station and follows an existing Shell pipeline ROW and road over the Delaware Mountains to the original alignment near Wild Horse Draw in Culberson County. It would not be visible from the park and avoids the Guadalupe Pass area. The modified alignment is 25.8 miles in length, compared with the Applicant's originally proposed route's 25.5 miles. It has been surveyed for cultural resources (Class I) and no known sites have been found. Land uses, vegetation and soils are very similar to those described for the corridor presented in the DEIR/EIS. There are no sensitive land uses along the modified alignment.

2.2-2 See response to Comment 2.2-1

2.2-3 We have noted the correct location of Gypsum Dunes Preserve; the pipeline ROW is on the south side of Highway 62/180 about 10 miles to the south.

2-10

2.2-1

2.2-2

2.2-3

PUBLIC HEARINGS COMMENTS
(CONTINUED)

RESPONSE TO PUBLIC HEARINGS COMMENTS
(CONTINUED)

2.2-4

Regarding the proposed route across the northern end of the Kofa National Wildlife Refuge in western Arizona, Mr. Butcher stated that this route could be detrimental to desert bighorn sheep within the refuge, and it makes better sense for the pipeline to follow the existing utility corridor through the refuge rather than disturbing a new area on BLM lands to the north of the refuge. Mr. Butcher stated that if this was the initial utility proposal across Kofa, he would in all likelihood oppose this route; however, should the Brenda Alternative ultimately be selected, he believes that less environmental harm would result by keeping the pipeline along the south side of Interstate 10.

Mr. Butcher expressed strong support for All American's proposed route across southeastern California and opposition to the Desert Plan Alternative.

Mr. Butcher also expressed support for the Santa Maria Canyon Alternative as the least harmful route through Los Padres National Forest in the long term. He urged that every effort be made to reduce or mitigate environmental harm to riparian habitat, mature live oaks, and other natural features of this scenic area.

Mr. Stephen Williams, private citizen

Mr. Williams stated that he was concerned with impacts to bighorn sheep along the route through the Kofa National Wildlife Refuge; desert mule deer and javelina habitat along the route in Pima County; and riparian habitat at the pipeline crossing of the San Pedro River.

Mr. Richard Countryman, Arizona Commission of Agriculture and Horticulture.

Mr. Countryman stated that locating the pipeline route adjacent to an existing ROW (El Paso) where disturbance has previously occurred presents less of a problem for those concerned with the salvaging of native plants than locating the pipeline in a new ROW.

Mr. Charles Lamb, Colorado River Indian Tribe

See Letter 68 for comments and responses.

2.2-4 Your comment regarding the Brenda Alternative is noted.

2-11

PUBLIC HEARINGS COMMENTS
(CONTINUED)

RESPONSE TO PUBLIC HEARINGS COMMENTS
(CONTINUED)

2.2.4 September 25, 1984 - Santa Barbara, California.

Jack Jones, concerned citizen

Mr. Jones had the following comments on the DEIR/EIS:

Where will the crude oil be stored prior to the entry into these systems? Where will it be heated? What are the air pollutants emitted by crude oil storage and by heating?

2.2-5 Crude oil will be stored and heated at the consolidated coastal facility to be approved by Santa Barbara County and at various other oil processors as permitted. About 30 energy projects are under review by the County. The air emissions and other impacts are considered in these complementary EIRs. See response to Comment 38-18 in Section 2.3.

Don't both the National Environmental Policy Act and the California Environmental Quality Act require that all effects of actions necessary for implementation of a project which affect the quality of a human environment be considered in the environmental analysis for the EIS? Such a discussion appears to be necessary, since storage and heating of the crude would be required if a pipeline is constructed.

If the crude oil from the parent company of All American comes ashore at Point Sal, California, are other pipelines to be considered in this environmental study?

2.2-6 All sources of oil are being treated by the Santa Barbara County EIR process. These two Applications start at the exit point of the suppliers. The Point Sal pipeline is part of an oil development project and will be studied as part of the EIS/EIR for that project.

Beginning on Page 2-38 and continuing throughout the document are discussions of the McCamey to Freeport Alternative. Is it really an alternative or is it part of the total project? Why discuss it as an alternative?

2.2-7 See response to Comment 18-1 in Section 2.3.

Why wasn't the proposed Southern California pipeline to be constructed by Chevron, Arco, Texaco, and Shell from Santa Barbara to Los Angeles area refineries considered as an alternative to these projects? How will the Alaskan crude oil get to the pipeline system?

2.2-8 No formal applications for the Southern California Pipeline System have been received by any regulatory agencies. This project would essentially parallel the Celeron and Getty pipelines to southern Kern County before turning south to Los Angeles. It would not provide a link to Texas and thus could not be considered as an alternative to the All American pipeline. The Getty and Celeron pipelines could service the Los Angeles area by tying into the existing pipeline system at Emidio. Thus, the southern California Pipeline System can be viewed as a competing project to the Getty and Celeron projects.

What will the off-loading air emissions be, and do they exceed the air quality standards? What discussions have been held with appropriate air quality organizations? What permit applications have been filed to date, and what conditions to these permits are anticipated?

The All American pipeline could receive Alaskan crude oil from the Four Corners Pipeline at the Cadiz tank farm.

Newspaper articles indicate that the pipe has been purchased, will be delivered soon, and will be installed at river crossings in November.

It is beyond the scope of the this document to analyze other projects with partial overlap which are only in the conceptual stage at the time of the EIR/EIS preparation.

If this is true, has the decision on this project been reached by the government before completion of these hearings or the final issuance of government documents and permits? When can construction really begin?

2.2-9 There would be no offloading of marine tankers associated with either the Celeron/All American or Getty pipelines; both projects are designed to ship DCS crude oil inland from the coast. Additionally, the proposed Getty Gaviota Marine Terminal (analyzed in a separated EIR) would be an export terminal to ship crude oil out by marine tanker. Neither the Celeron/All American or the Getty project would be dependent on marine tankers or an import terminal for a source of oil and viable operation.

2.2-10 The Applicant may have received permits from regional or local agencies for construction of limited areas on private lands. If so, the Applicant did this at risk. Construction on public land cannot begin until the State Lands Commission, BLM, and Forest Service have issued the necessary ROW grants.

PUBLIC HEARINGS COMMENTS
(CONTINUED)

RESPONSE TO PUBLIC HEARINGS COMMENTS
(CONTINUED)

Tom Campbell, Media Project.

Mr. Campbell stated support for the Santa Maria Canyon Alternative and a preference for the pipelines to be located along previously disturbed corridors. He stated as an exception that the Kofa National Wildlife Refuge should be avoided by utilizing the Brenda Alternative.

Mr. Campbell said it would be appropriate for hearings on matters of public interest to be scheduled on a weekend or at night so that working people would be able to attend.

Mr. James Johnson, California Coastal Commission

See Letter 28 for comments and responses.

Mr. Ron Cottle, Getty Trading and Transportation Company

Mr. Cottle reaffirmed Getty's commitment to the construction of a pipeline from Gaviota to the San Joaquin Valley.

Mr. Al Remmenga, Hollister Ranch

See Letter 38 for comments and responses.

Mr. Michael Cox, Sierra Club

Mr. Cox stated that the Sierra Club believes the Santa Maria Canyon Alternative would be an environmentally preferred route compared to Getty's proposed route through the Santa Ynez Mountains and Los Padres National Forest. He also pointed out that the purpose of the project is to transport oil from the coast to east Texas for refining and that the pipeline would not be used to transport goods from Texas to California.

Mr. Robert Klausner, Citizens Planning Association

See Letter 19 for comments and responses.

Ms. Ruth Saadi, League of Women Voters

See Letter 48 for comments and responses.

PUBLIC HEARINGS COMMENTS
(CONTINUED)

RESPONSE TO PUBLIC HEARINGS COMMENTS
(CONTINUED)

2.2.5 September 25, 1984 - Santa Maria, California

Mr. Ron Copple, Getty Trading and Transportation Company

Mr. Copple reaffirmed Getty's commitment to the construction of a pipeline from Gaviota to the San Joaquin Valley.

Mr. Roy Spuhler, concerned citizen

Mr. Spuhler spoke in favor of the proposed pipeline project and other oil industry developments related to drilling programs and refineries.

2.2.6 October 1, 1984 - Bakersfield, California

No formal comments were made.

2.2.7 October 2, 1984 - Riverside, California

Mr. Walter R. Mook, San Bernardino County Air Pollution Control District (APCD) and Mr. Carl Nerstent, San Bernardino APCD

Mr. Mook and Mr. Nerstent noted that All American has proposed a gas turbine system at the Cadiz pump station rather than the electric pumping system described in the DEIR/EIS, and that this should be addressed in the Final EIR/EIS.

See Letter 27 for further comments and responses.

2.3 Comments and Responses

The State Lands Commission received 79 letters addressing the Draft EIR/EIS during the public comment period. All letters and testimony were reviewed. Substantive comments (those that presented new data, questions or new issues bearing directly on the effects of the Applicants' Proposals and Alternatives) were responded to; where appropriate, DEIR/EIS sections were revised. Table 2-1 lists each comment letter and identifies the assigned reference number. Individual substantive comments within each letter were then identified and responded to. All comment letters have been reprinted except for the oversized map enclosed with Letter 25 which could not be reproduced. However, this map was considered in preparing the response to that comment. The responses, which accompany each letter, are identified by the reference numbers which appear on the comment letter.

All comments have been addressed in this Final EIR/EIS. Letters that did not address the environmental issues were acknowledged.

TABLE 2-1
COMMENT LETTERS

Reference Number	Source of Letter
1	U.S. Department of Transportation, United States Coast Guard, Long Beach, CA (Federal agency)
2	Santa Barbara County - Cities Area Planning Council, Santa Barbara, CA (county agency)
3	Riverside County Planning Department, Riverside, CA (county agency)
4	Kern County Public Works Department, CA (county agency)
5	Soil Conservation Service, Temple, TX (Federal agency)
6	Defenders of Wildlife Trust for the George Whittel Wildlife Preserve, Tuscon, AZ (organization)
7	Department of Water and Power, Los Angeles, CA (local agency)
8	Kern County Water Agency, Bakersfield, CA (county agency)
9	State of California Office of Planning and Research, Sacramento, CA (state agency)
10	Sierra Club Los Padres Chapter, Santa Barbara/Ventura Counties, CA (organization)
11	San Bernardino County Museum, Redlands, CA (organization)
12	Bill Friend, Ventura, CA (citizen)
13	SF Minerals Corporation, Albuquerque, NM (business)
14	South Coast Air Quality Management District, El Monte, CA (local agency)
15	Department of the Army, Corps of Engineers, Albuquerque, NM (Federal agency)
16	Southern Pacific Land Company, San Francisco, CA (business)
17	Kern County Air Pollution Control District, CA (county agency)
18	Sierra Club Lone Star Chapter, TX (organization)
19	Citizens Planning Association of Santa Barbara County, Inc. Santa Barbara, CA (business)

Reference
Number

Source of Letter

- 20 M.J. Morrison, M.A., Glendale, CA (citizen)
- 21 Department of the Army, U.S. Army Air Defense Artillery Center and Fort Bliss, Fort Bliss, TX (Federal agency)
- 22 Kern County Planning Department, Bakersfield, CA (county agency)
- 23 E. Linwood Smith & Associates, Tucson, AZ (business)
- 24 Arizona Office of Economic Planning and Development, Phoenix, AZ (state agency)
- 25 John T. Rickard, Santa Barbara, CA (citizen)
- 26 William J. Jenson, (no address), (citizen)
- 27 San Bernardino County Air Pollution Control District, CA (county agency)
- 28 California Coastal Commission, San Francisco, CA (state agency)
- 29 International Boundary and Water Commission, United States and Mexico, El Paso, TX (Federal agency)
- 30 Natural History Museum, Los Angeles, CA (county organization)
- 31 Geological Survey, Reston, VA (Federal agency)
- 32 Douglas C. Nelson, P.C. (representing Paloma Ranch), Phoenix, AZ (business)
- 33 Margit F. Chiriaco Baldivid, Chiriaco Summit, CA (citizen)
- 34 Cynthia Rose Star, Greeneville, CA (citizen)
- 35 MESA², Inc., La Crescenta, CA (business)
- 36 Texas Parks and Wildlife Department, Austin, TX (state agency)
- 37 Southern California Association of Governments, Los Angeles, CA (organization)
- 38 Hollister Ranch Owner's Association, Gaviota, CA (business)
- 39 U.S. Department of Transportation, Region Nine Federal Highway Administration, San Francisco, CA (Federal agency)
- 40 State of California Air Resources Board, CA (state agency)
- 41 State of California, The Resources Agency (state agency)
 - Department of Conservation
 - Department of Parks and Recreation
 - Department of Fish and Game
 - Department of Boating and Waterways
- 42 Mark A. Roeder, (no address), (citizen)
- 43 The Desert Tortoise Council, Long Beach, CA (organization)
- 44 State of California Department of Transportation, Division of Transportation Planning, CA (state agency)
- 45 City of Blythe, CA (local agency)
- 46 Arizona Wildlife Federation, Scottsdale, AZ (organization)
- 47 Getty Trading and Transportation Company, Denver, CO (applicant)
- 48 League of Women Voters of Santa Barbara, Inc., Santa Barbara, CA (organization)
- 49 Office of Historic Preservation, Sacramento, CA (state agency)
- 50 Bureau of Mines, Denver, CO (Federal agency)
- 51 Sierra Club Kern-Kaweah Chapter, Bakersfield, CA (organization)
- 52 Yuma Audubon Society, Yuma, AZ (organization)
- 53 All American Pipeline Company, Santa Barbara, CA (applicant)
- 54 Arizona Department of Health Services, Phoenix, AZ (state agency)
- 55 Department of the Air Force, Edwards Air Force Base, CA (Federal agency)
- 56 Sierra Club Grand Canyon Chapter, AZ (organization)

Reference
Number

Source of Letter

- 57 Richard Rigby, Glendale, AZ (citizen)
 - 58 Dan Jones (for Sierra Club Rio Grande Chapter), Socorro, NM (organization)
 - 59 Harrison E. Bull and Associates, Santa Barbara, CA (business)
 - 60 Land Management Department, San Bernardino, CA (county agency)
 - 61 The Wilderness Society, San Francisco, CA (organization)
 - 62 Palo Verde Irrigation District, Blythe, CA (local agency)
 - 63 California Wilderness Coalition, Davis, CA (organization)
 - 64 U.S. Environmental Protection Agency, Region IX, San Francisco, CA (Federal agency)
 - 65 Exxon Company, U.S.A., Thousand Oaks, CA (business)
 - 66 Four Corners Pipe Line Company, Long Beach, CA (business)
 - 67 State of California, California Energy Commission, Sacramento, CA (state agency)
 - 68 Colorado River Indian Tribes, Parker, AZ (organization)
 - 69 Minerals Management Service, Pacific OCS Region, Los Angeles, CA (Federal agency)
 - 70 Arizona Game & Fish Department, Phoenix, AZ (state agency)
 - 71 Southern California Edison Company, Long Beach, CA (business)
 - 72 National Park Service, San Francisco, CA (Federal agency)
 - 73 State of California, Office of Planning and Research, Sacramento, CA (state agency)
 - 74 Department of the Army, Corps of Engineers, Los Angeles, CA (Federal agency)
 - 75 Bureau of Land Management, Bakersfield, CA (Federal agency)
 - 76 Riverside County Parks Department, Riverside, CA (county agency)
 - 77 State of New Mexico, Department of Game and Fish, Santa Fe, MN (State agency)
 - 78 Bureau of Reclamation, Boulder City, NV (Federal agency)
 - 79 Fish and Wildlife Service, Washington, D.C. (Federal agency)
-

The following acronyms and abbreviations appear in the responses to comments.

BLM - Bureau of Land Management
BPD - barrels per day
CEQA - California Environmental Quality Act
cfs - cubic feet per second
CO - carbon monoxide
dB - decibels
dBA - decibels A-weighted
DEIR - Draft Environmental Impact Report
DOT - (U.S.) Department of Transportation
EIR - Environmental Impact Report
EIS - Environmental Impact Statement
EPA - Environmental Protection Agency
ESHA - Environmentally Sensitive Habitat Area
FPA - Further Planning Area
LCP - Local Coastal Plan
 $\mu\text{g}/\text{l}$ - micrograms per liter
 $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter
 mg/l - milligrams per liter
NEPA - National Environmental Policy Act
 NO_2 - nitrogen dioxide
 NO_x - oxides of nitrogen
 O_3 - ozone
OCS - Outer Continental Shelf
ORV - off road vehicle
PADD - Petroleum Administration for Defense District
PSD - Prevention of Significant Deterioration
ROW - right-of-way
RTU - remote terminal unit
SCAQMD - South Coast Air Quality Management District
SEDAB - Southeast Desert Air Basin
SCPS - Southern California Pipeline System
SCS - Soil Conservation Service
 SO_2 - sulfur dioxide
TSP - total suspended particles
WSA - Wilderness Study Area

COMMENT LETTER I

RESPONSE TO COMMENT LETTER I

U.S. Department
of Transportation

United States
Coast Guard



Commander
Eleventh Coast Guard District

Union Bank Bldg.
405 Oceangate
Long Beach, CA 90822
Staff Symbol:

mem

(213) 598-2381

16465
3 Aug 84

Ms. Mary Griggs
State Lands Commission
1897 13th St.
Sacramento, CA 95814

Re: Draft EIR/EIS for Celeron/
Getty Pipeline

Dear Ms. Griggs:

We have reviewed this EIR/S and submit the following as comments.

Paragraph 4.2.15.6 and pages 14-15: The section on federal response to oil spills which affect waters of the United States is not totally correct as it relates to this project. The proposed pipeline will be completely within the inland zone. Even though it is conceivable oil could impact the coastal zone, the location of the source of the spill determines who is responsible for federal response.

The Commander, Eleventh Coast Guard District has no authority regarding spills from this pipeline. However, in actual fact, local Coast Guard forces would probably respond to a spill near the coast and assist until the EPA OSC could arrive and take charge. The EPA OSC is located in San Francisco.

The Eleventh Coast Guard District Aids to Navigation Branch must be notified at least two weeks prior to any construction at the Colorado River crossing. This is to allow for appropriate notice to mariners to be issued.

We appreciate the opportunity to review this EIR/S.

Sincerely,

L. A. ONSTAD

Commander, U.S. Coast Guard
Chief, Environmental Protection/
Port Safety Branch
By direction of the District Commander

I-1

Based on your comment, text changes to pages 4-119 and H-15 in the DEIR/EIS are included in the Modifications and Corrections Section.



Santa Barbara County - Cities
Area Planning Council

922 Laguna Street
Santa Barbara, Ca. 93101
(805) 963-7194

August 6, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 17th Street
Sacramento, CA 95814

Dear Ms. Griggs

RE: DEIR/S proposed Celeron/All American and Getty Pipeline projects.

I offer the following comments on the subject DEIR/S.

1. P. 4-50/4-148 The socioeconomic impact analysis does not adequately account for worst case cumulative impacts on housing. The assumed distribution of local and out of area work force, 50/50, is dependent on the phasing of the projects in the cumulative planning projects scenario. To mitigate potentially significant adverse impacts on housing the applicant should be required to participate in the Santa Barbara County socioeconomic monitoring and mitigation program recommended as part of the Exxon project conditions.

2. General Comment. Obviously pipelines can carry oil both ways. What is the eventual likelihood of the proposed pipeline creating a long-term demand for a marine terminal at the beginning of the line. Does long-term oil and gas resource planning foresee any conditions under which oil and/or gas would be shipped to Asia?

Thank you for the opportunity to comment.

Sincerely,

Michael G. Powers

Michael G. Powers

MGP:c/f

cc: Robert Almy
Santa Barbara County
Department of Resource Management
Energy Division

2-20

2-1



City of Guadalupe

2-2

2-3



City of Lompoc



City of Santa Barbara



City of Santa Maria

2-1

The socioeconomic analysis used a 50:50 local to out-of-area workforce ratio based on the Applicants' assumptions that the specialized skills required to build the pipeline would not be readily available in the local community. Getty's project would involve approximately 49 construction workers and Celeron's project approximately 279. Construction progress would proceed at a rate of about 1 to 2 miles per day, and most of the construction would be completed in 2 to 3 months. Workers not from the area would use motels and camp sites for housing during the construction period. The primary potential for conflict during this short construction period would be competition with tourists for housing. Construction workers would require motel space and campsites at the same time tourists require similar space. Mitigation Measure 22 states that the pipeline's construction period will be scheduled so as not to coincide with peak tourist seasons. The tourist areas affected would include Santa Barbara County's coastal area during June through August.

2-2

Getty's 49 construction workers and Celeron's 279 construction workers would be only a very small portion of the overall 45,350 energy-related population increase projected to occur in the county in 1988. They would not be significant contributors to housing impacts because many of these workers would seek only temporary short-term housing in San Luis Obispo, Kern, and Santa Barbara Counties. The Applicants may be required to participate in the Santa Barbara County socioeconomic monitoring and mitigation program.

2-3

The two Applicants have proposed these projects to carry oil from Santa Barbara County to other areas of California and the Gulf Coast. The project applications do not include reversing that flow. If either Applicant wishes to reverse the flow in the future, a considerable number of engineering changes would have to be made to accommodate this reversal. The BLM ROW grant and the State of California certifications are for a west-to-east transport of oil, and the modification to an east-to-west transport would require additional environmental review and new permits by agencies.

RIVERSIDE COUNTY PLANNING DEPARTMENT

RSS:2543
August 8, 1984

Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

Thank you for the opportunity to comment on the Draft Environmental Impact Report/
Environmental Impact Statement for the proposed Celeron/All American and Getty
Pipeline Projects. In addition to our comments on the Notice of Preparation for
this project dated December 5, 1983 we would like to take this opportunity for
further input. Planning Department Staff is in agreement with the stated need for
the project primarily due to less severe air quality impacts on the South Coast
Air Basin (SCAB). There is little doubt that additional refining of high sulfur
crude oil, even with extensive refinery retrofits, would significantly impede
progress toward stated air quality goals within the SCAB region.

Overall the EIR/EIS presents a complete description of concerns and proposed
mitigation for that portion of the pipeline crossing Riverside County. We do
however feel that more specificity is necessary for certain portions of the
document.

Section 2.2.2.10 Cleanup and Restoration

The entire right of way disturbed during the construction process should be replanted
with the appropriate native vegetation at the rate of approximately five (5) to
ten (10) pounds of seed per acre as identified in Riverside County Planning Department
memo to Joe Richards from Tony Brown dated March 24, 1983 regarding: surface mining
reclamation: seeding of mined lands in desert areas of the County.

Chapter 4 Environmental Consequences

Section 4.2.7.3 BW010 to Blythe

The discussion of possibly disturbed plant and animal species along the proposed
route appears complete and accurate. However, merely identifying the probability of
animal or plant loss does not identify what mitigation could be applied during
construction to minimize that loss. The possible loss of 230 desert tortoises
(p. 4-53) is significant and proper pre-construction mitigation could reduce this
number.

3-1

Much of the ROW in Riverside County is under the management of the
BLM. Celeron/All American would prepare a Construction and Use Plan.
The plan will contain specific stipulations or specifications for the
ROW. The BLM is recommending mechanical erosion control techniques and
has not recommended reseeding or planting to control erosion because
of extremely low levels of precipitation (see Agency Stipulation,
Terrestrial Biology d). The amount of erosion in this narrow ROW
would be much less than on a large area such as a surface mine.
However, stipulations will be prepared to minimize clearing at
ironwood washes, riparian areas, and other sensitive areas. Water
bars (on steeper slopes), water diversions (on flats prone to
channeling), and various other mechanical measures would be used to
stabilize the soils and minimize water erosion.

Restoration of the ROW includes two separate steps; 1) contouring and
stabilizing the disturbed ROW to minimize erosion during construction,
and 2) revegetating or restoring the land to its original land use.
"Stabilization" measures such as water bars and sedimentation control
structures (ponds, straw bales) would be used during construction.
Measures such as mulching with straw or chipped vegetation from the
ROW can be done after final recontouring and grading. Revegetation
plans would consider seed availability, species selection, seed bed
preparation, soil amendments, mulching, and season of desired seeding.
Fertilizing (if appropriate) and reseeding would be done in the season
most likely to receive moisture (spring or fall). Site-specific
revegetation plans for Federal lands will be included in the
Construction and Use Plans submitted by the Applicants to the BLM.
Counties in California may require similar plans and will enforce
appropriate mitigation procedures in the construction and operation of
the proposed projects. Specific mitigation measures for enhancing
reclamation success include: Mitigation Measures 9, 9A, and 10; Agency
ROW Stipulations, Terrestrial Biology a and d, and Soils a, b, and d;
and Recommended Mitigation Measure 1.

3-2

Mitigation Measures M-9 through M-21 listed in Section 4.1.1.7 are
recommended for minimizing significant impacts to plant and animal
species. Measure M-16 is a preconstruction mitigation measure that
will significantly reduce impacts to desert tortoises.

Mary Griggs
Page -2
August 8, 1984

Section 4.2.9.2 EMIDIO to Blythe Land Use

3-3

The proposed pipeline route passes entirely within County jurisdiction as it heads easterly of the City of Blythe and as noted will require modification to the Riverside County Consolidated Plan Utility Corridor Map. However, no discussion in the EIR/EIS reflects the fact that the proposed route falls within the Blythe "Sphere of Influence" and as such should reflect that jurisdiction concerns.

3-3

The proposed ROW is within the Blythe "Sphere of Influence". As such, local concerns must be addressed. A modified alignment has been proposed by All American that would reduce agriculture impacts by following section lines, roads, and irrigation ditches and avoids crossing irrigated fields at a diagonal.

During the localized permitting process for right of way across lands under Riverside County jurisdiction attention will be focused on the proposed pipelines consistency with the goals, policies and standards of the Riverside County Comprehensive General Plan. The more detailed alignment information presented with the appropriate public use application will allow Planning Staff to comment more completely and with greater specificity on proper environmental mitigation for localized areas. Generally however, the proposed pipeline route appears consistent with the Comprehensive Plan.

Thank you again for the opportunity to comment on the Draft EIR/EIS. If this office can be of any further assistance, please feel free to again contact me.

Very truly yours,

RIVERSIDE COUNTY PLANNING DEPARTMENT


Roger S. Streeter, Planning Director

222

RSS/MJH/rk

COMMENT LETTER

COMMENT LETTER

Office Memorandum • KERN COUNTY

TO : State Lands Commission
ATTN: Mary Griggs

DATE: August 14, 1984

FROM : Public Works Department
Skip Tullock

Telephone No.

SUBJECT: SLC EIR 369, STATE CLEARINGHOUSE NUMBER 89110902

We have reviewed the subject project submitted to this office on August 7, 1984, and concur with your finding. We have no further comments.

Thank you for commenting.

ST:MC

2-23

SEARCHED
SERIALIZED
INDEXED
FILED

COMMUNICATED

COMMUNICATED



United States
Department of
Agriculture

Soil
Conservation
Service

101 South Main
Temple, Texas
76501-7682

August 20, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

We have reviewed the draft Joint Environmental Impact Report/Environmental Impact Statement for the Celeron/All American and Getty pipeline. We are providing the following comments to be considered:

The document provides a good generalized discussion of the probable impacts on the soil resource. It is noted that the soil horizons would be segregated in irrigated cropland areas to prevent possible adverse impacts on productivity. Most of the irrigated cropland along the McCamey to Freeport extension in Brazoria, Wharton, Fort Bend, Colorado and Lavaca Counties is classified as prime farmland soil. Also significant areas of soils which occur along the route in Gonzales, Guadalupe and Comal Counties would be classified as prime farmland.

5-1 There is strong concern for protection of prime farmland soil resource and we suggest segregation of horizons be considered in all prime farmland soils. Published soil information for identification of prime farmland soils along the McCamey-Freeport route would be available for Sutton, Kimble, Gillespie, Kendall, Comal, Guadalupe, Wharton and Brazoria Counties. Unpublished soils information for other counties would be available in our local field offices on portions of this extension.

5-2 It appears the possible McCamey-Freeport extension route could pass through several SCS assisted PL-566 project areas in Crockett, Sutton, Comal and Guadalupe Counties. It is not anticipated the installation of this extension would cause problems which could not be solved with good planning and the immediate restoration of any conservation measures which could become involved.

5-1 The Applicants have indicated that activities would be coordinated with land owners to protect farmland and preserve it for its continued use as farmland. These measures could include preserving irrigation ditch-systems, pipeline burial below plow depth, assistance in crop replanting where required, and the segregation of topsoils during ditching and backfilling operations. The Applicants have been made aware of the published and unpublished soils information you have cited.

5-2 Celeron/All American has stated they would coordinate with the landowners to restore the areas as nearly as possible to previous conditions, including protecting SCS-assisted PL566 projects.

Thank you for the opportunity to review this document.

Sincerely,

FOR
BILLY C. GRIFFITT
State Conservationist

cc: Larry D. Butler, Area Conservationist, SCS, Pecos, Texas
Charles O. Mickelson, Area Conservationist, SCS, San Angelo, Texas
Jackie W. Elrod, Area Conservationist, SCS, Fredericksburg, Texas
Alfred Vander Stucken, Area Conservationist, SCS, Victoria, Texas
Nathaniel R. Conner, Area Conservationist, SCS, Austin, Texas



The Soil Conservation Service
is an agency of the
Department of Agriculture

COMMENT LETTER 5 (CONTINUED)

RESPONSE TO COMMENT LETTER 5
(CONTINUED)

Ms. Griggs

2

August 20, 1984

cc: Robert E. Arhelger, Area Conservationist, SCS, Big Spring, Texas
Carrol M. Adams, Area Conservationist, SCS, Brownwood, Texas
Robert M. Williams, Area Conservationist, SCS, Rosenberg, Texas

DEFENDERS OF WILDLIFE TRUST FOR THE

GEORGE WHITTELL WILDLIFE PRESERVE at ARAVAIPA CANYON

30 N. Tucson Blvd. • Tucson, Arizona 85716

22 August 1984

Ralph T. Hicks
 All American Pipeline Company
 P.O. Box 31029
 Santa Barbara, California 93130

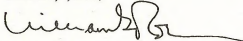
Dear Mr. Hicks:

Upon reviewing the EIS for All American Pipeline Company's pipeline routing through southern Arizona, I noticed that it crosses the Oracle Wildlife Refuge (north of Tucson-see attached map) using an easement granted El Paso Natural Gas Company. Unfortunately, Defenders of Wildlife had not been contacted either on the local level or through its national office that another pipeline would be placed on this easement.

Our main concern is that the necessary measures be taken to avoid any erosion along the easement route during and after the construction phase. The easement will have to be revegetated and it is essential that only native species be used. After consultation with the Arizona Game and Fish Department and the Bureau of Land Management, I am sending a list of species that would be suitable for this site and a list of seed sources.

What is the compensation to the landowner for the increased usage and disturbance? I look forward to hearing from you in this regard and if you have any questions please let me know.

Sincerely yours,



William C. Roe
 Managing Trustee

Encl.

cc: Mary Griggs
 State Lands Commission
 1807 - 13th St
 Sacramento, California 95814

6-1

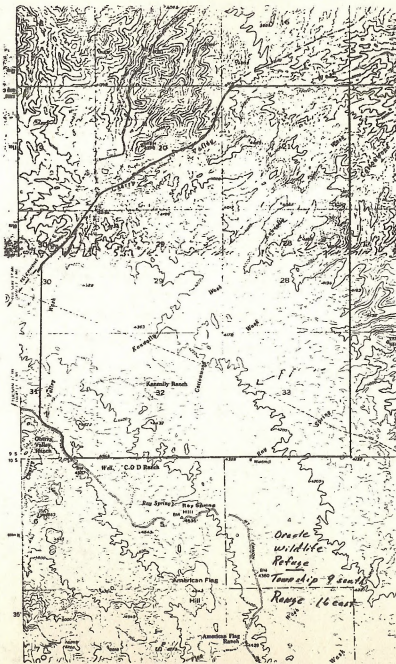
The Applicants will coordinate with land owners and land managers to restore the ROW. See response to Comment 3-1.

The proposed All American Pipeline route would cross the Oracle Wildlife Refuge. The Applicant has indicated it would coordinate with the Defenders of Wildlife Trust in preparing revegetation plans for the ROW in the Refuge.

2-26

1

2-27



Information for revegetation of pipeline route on the Oracle
Wildlife Refuge near Oracle, Arizona.

Suggested native species to use for revegetation:

-grasses-

Sideoats grama Bouteloua curtipendula

Threeawn Aristida divaricata

Blue grama Bouteloua gracilis

Green sprangletop Leptochloa dubia

-shrubs-

Fairy duster Calliandra eriophylla

Arizona suppliers of native grass and shrub seed:

Hubbs Bros. Seed Co.
1522 N. 35th St.
Phoenix, AZ 85008
Attn: Jim Hubbs
(602) 267-8132

Valley Seed Company
P.O. Box 1110
Phoenix, AZ 85001
(602) 257-1223

Western Seed
P.O. Box 1062
Casa Grande, AZ 85222
(602) 836-8246

A-Mex International
5910 Sunray Circle
Tucson, AZ 85743
Attn: Ray Hanas
(602) 293-9561

Suppliers of Conservation Plant Materials

1. Albright & Towne, Inc., 1320 Galaxy Way, Concord, CA 94520 (415) 671-2822
2. American Garden Prod., (Perry's & Cal-Turf-So. Calif.), 2186 Knoll Dr., Box 6550, Ventura, CA 93003 (805) 659-2400
3. Antelope Valley RCO Nursery, 10148 W. Ave. 1, Lancaster, CA 93534 (805) 942-7306
4. Arkansas Valley Seeds, Box 270, Rocky Ford, Colorado 81067 (303) 254-7469/7460
5. Calif. Div. of Forestry Nursery, 5800 Chiles Rd., Davis, CA 95616 (916) 753-2441
6. Carter Seeds, P.O. Box 4006, Sylmar, CA 91342 (213) 367-5811
7. Coates, Leonard Nurseries, Inc., 400 Casserly Rd., Watsonville, CA 95076 (408) 724-0651
8. Curtis & Curtis, Inc., Star Rt., Box 8A, Clovis, New Mexico 88101 (505) 762-4759
9. Dougless M. King Co., P.O. Box 20320, San Antonio, Texas 78286 (512) 661-4191
10. Eisenman Seed Co., Fairfield, Montana 59436 (406) 467-2521
11. Environmental Seed Producers, Inc., P.O. Box 5904, El Monte, CA 91734 (213) 442-3330
12. Ferry-Morse Seed Co., Box 100, Mountain View, CA 94042 (415) 967-6973
13. Forest Farm, 990 Tetherow Rd., Williams, Oregon 97544 (503) 846-6963
14. Forrest Keeling Nursery, Elsberry, Missouri, 63343 (314) 898-5571
15. Foster-Rambie Grass Seed, 326 N. 2nd St., Uvalde, Texas 78801 (512) 278-2711
16. Horizon Seed, Inc., Box 81823, Lincoln, Nebraska 68501 (402) 432-1232
17. Jacklin Seed Co., Rt 2, Box 402, Post Falls, Idaho 83854 (208) 773-7596
18. Kamprath Seed Co., P.O. Box 2162, Bakersfield, CA 93303 (805) 831-3456
19. Koda Farms, Inc., P.O. Box 88, South Oos Palos, CA 93665 (209) 392-2191
20. Lockhart Seeds Inc., 3 North Wilson Way, Stockton, CA 95201 (209) 466-4401
21. Mile-High Seed Co., Box 1988, Grand Junction, Colorado 81501 (303) 242-3122
22. Montana Seeds, Inc., Box 458, Conrad, Montana 59425 (406) 278-5547
23. Native Plants, Inc., 400 Makara Way, Salt Lake City, Utah 84108 (801) 466-5332
24. Nevada State Tree Nursery, 885 Eastlake Blvd., Carson City, Nev. 89701 (702) 849-0213
25. North Coast Seed Co., P.O. Box 12185, Portland, OR 97212 (503) 288-5281

COMMENT LETTER 6 (CONTINUED)

RESPONSE TO COMMENT LETTER 6
(CONTINUED)

26. Northrup King & Co., 2850 So. Golden State Blvd., Fresno, CA 93776 (2)
27. Northplan Seed Producers, Box 9107, Moscow, Idaho 83843 (208) 882-80
28. Nunes Turfgrass Nurseries, 2006 Loquat Ave., Patterson, CA 95363 (2)
29. Oki Nursery, Inc., Box 7118, Sacramento, CA 95826 (916) 383-5665
30. Payne, Theodore Foundation, 10459 Tuxford St., Sun Valley, CA 9135
31. Pecoff Bros., Nursery & Seed, Rt. 5 Box 215R, Escondido, CA 92025
32. Plumfield Nurseries, Inc., 2105 N. Mye Ave., Box 410, Fremont, N
33. Ramsey Seed, Inc., P.O. Box 352, 260 S. Main, Manteca, CA 95336
34. Rice Hill Products, 911 S. River Rd., Box 1105, West Sacramento
35. Robin, Clyde, P.O. Box 2091, Castro Valley, CA 94546 (415) 58
36. Saratoga Horticultural Foundation, P.O. Box 308, Saratoga, CA
37. Sasaki & Sasaki's Farm, Rt. 1, Box 173-B, Weiser, Idaho 8367
38. Sayer Farms, Rt. 1, Box 149, Brownsville, OR 97327 (503) 46
39. Security Seed Co., P.O. Box 65, San Joaquin, CA 93660 (209)
40. Sharp Bros., Seed Co., Healy, Kansas 67850 (316) 398-2231
41. Shop in the Sierra, Box 1, Midpines, CA 95345 (209) 966-3
42. Siskiyou Rare Plant Nursery, 2825 Cummings Rd., Medford,
43. Skylark Wholesale Nursery, 6735 Sonoma Hwy., Santa Rosa
44. Smith & Reynolds Erosion Control, Inc., 206 N. Smith St
45. S & S Seeds, 382 Arboleda Rd., Santa Barbara, CA 93111
46. Stover Seed Co., P.O. Box 21488, Los Angeles, CA 9002
47. Valley Seed Co., P.O. Box 1110, Phoenix, Arizona 850
48. Valley Wide Chemical Co., P.O. Box 926, Gridley, CA
49. Vans Pines Inc., West Olive, Michigan 49460 (616) :
50. Wapumne Native Plant Nursery, 8305 Cedar Crest Way
51. Winterfeld, Oelbert F., Box 97, Swan Valley, Idaho
52. Yerba Buena Nursery, 19500 Skyline Blvd., Woodst

SUPPLIERS REFERENCE LIST

1. Applemont Nursery & Seed Co., 15001 N. 32nd Ave., Suite 3, Box 04, Golden, CO (303) 204-1, (303) 779-5575.
2. Arkansas Valley Seeds, P.O. Box 370, Rocky Ford, CO 81067, (303) 294-7466. (S) (U)
3. Corber, Ross O., Cedar Pt. Ct., Dove Creek, CO 81324 (303) 647-2233. (S) (U)
4. Carlson, Robert Spers, CO 80169 (303) 822-5144. (S) (U)
5. Caronham, Jlec; R.E. 7 & S.W.; Ethers, CO 80105 (303) 640-3100. (S)
6. Clyde Rabbit Seed Co., Inc., P.O. Box 3052, Castro Valley, CA 94546 (415) 910-3467. (U)
7. Coleman, Harry S., Little Beaver Rd, Box 20, Hemet, CO 81641 (303) 974-4361. (S)
8. Corliss & Corliss, Inc., Star Route, Box 84, Clever, MO 63010 (303) 762-4326. (U) (C)
9. Couchman, Dave, W.M. of Hwy; Hwy, CO 80758 (303) 337-3359. (S)
10. Staheld, Charles, Route 3, Box 462, Lee Lane, MO 67021 (505) 865-2517. (S) (U)
11. Douglas W.Ring Co., Box 20200, San Antonio, TX 78288
12. Etzeman Seed Co., Fairfield, VT 05456 (406) 740-2521. (S)
13. ENAC Seed Co., Rt. 1, Box 856, Willcox, AZ 85643 (602) 364-2451. (S) (U)
14. Environmental Seed Producers, Inc., P.O. Box 5904, El Monte, CA 91734 (213) 445-3326. (S) (C)
15. Etheridge, Paul, Star Route 1, Box 235-0, Powell, WY 82435 (307) 354-2371. (S) (U)
16. Farmers Marketing Assn., 6474 Madison St., Denver, CO 80216 (303) 853-8866. (U)
17. Ferry-Horse Seed Co., Box 100 Mountain View, Calif. 90402 (U)
18. Frontier-Ramble Grass Seed, 305 W. 2nd St., Vevada, TN 38001 (615) 276-2711. (U)
19. Frosters, Forest, P.O. Box 131, Hayden, CO 81628 (303) 274-1303. (S)
20. Gilm Seed & Seed/Tule Falls, Idaho 83201 (208) 737-1373 (U) (C) (S)
21. Goble, Boyd E. & Sons Seed Co., P.O. Box 175, Bonanza, UT 84624 (801) 228-1224. (U)
22. Grasslands Resources, Inc., P.O. Box 1596, Santa Fe, NM 87501 (505) 583-3600. (U) (C) (U)
23. Hood, Ray, 1049-27 Rd., Grand Junction, CO 81501. (U)
24. Jacklite-Plant Food Center, Rt 2, Box 02; Post Falls, ID 83654 (208) 779-7306. (U)
25. Jacklite Seed Co., 8803 E. Sprague Ave., Spokane, WA 99206 (509) 310-6241. (U)

SUPPLIERS REFERENCE LIST CONT'D

26. McMill, William, Rt. 4, Box 204, Montrose, CO 81401 (303) 240-5630. (S)
27. Wile High Seed Co., Box 1508, Grand Junction, CO 81501 (303) 254-3122. (U)
28. Witter Seed Co., P.O. Box 8183, Lincoln, MO 65501 (402) 312-1232. (U) (C) (S)
29. Winona Seeds, Inc., Rt. 3, Concord, VT 05426 (405) 370-6540. (S)
30. Howe Lake Conservation District, Rt. 3, Box 415, Howe Lake, MO 65057 (507) 755-5223. (U)
31. New Mexico Native Plant Nursery, 396 W. College Av., Silver City, NM 88061 (505) 377-2162. (U)
32. Native Plants Inc., 600 Makara Highway, Lake City, UT 84001 (801) 466-5332 (S) (U)
33. Northpole Seed Producers, P.O. Box 5107, Moscow, ID (208) 882-6040. (C)
34. Northrup-Ring & Co., Box 590, Longmont, CO 80501 (303) 444-4159 (U)
35. Plummer, Mark, 190 W. 2nd N., Ephraim, UT 84627. (S)
36. Ramsey Seed Inc, Box 382; Hancock, Calif 95338 (U)
37. Schiltz, Paul, Star Route, Box 223, Powell, WY 82435 (307) 354-4426. (S)
38. Smith, Ray & John, Box 21, Green Divide St., Craig, CO 81625 (303) 824-6482. (S)
39. Shoemaker, Harold, 0443 Rd. 346 Office, CO 81650 (303) 876-2819. (U)
40. Sharp Grass Seed Co., Haly, Kansas 67850 (316) 398-2231. (U) (U) (C)
41. Soil and Water Conservation District of Mont. Inc; Rt. 1 Box 81; Bridger MT 59014 (406) 1662-1579
42. Stowers, Wm & Sons, Ephraim, UT 84627 (801) 221-4423. (C)
43. Swift, Don, Box 34, Jerome, CO 81398. (C) (U)
44. Tolman, Harold H., Route 2, Beretefino, MT 59606. (S)
45. Valley Seed Co., Box 1110, Phoenix, AZ 85001 (602) (U) (C)
46. Warner Seed Co., Inc. Box 1446, Huerfano TR 79045 (806) 363-1470 (C) (U)
47. Western Evergreen, Inc., 14201 W. 44th, Golden, CO 80401. (U) (U)

(S) Seed grower

(C) Seed collector Native Plants

(U) Commercialized and/or Nursery stock

(U) Wholesale and/or retail sales

COMMENT LETTER 6 (CONTINUED)

RESPONSE TO COMMENT LETTER 6
(CONTINUED)

Department of Water and Power  the City of Los Angeles

 TOM BRADLEY
 Mayor

Commissioners

 JACK W. IFFENY, President
 RICHARD S. GUTHERIEZ, Vice President
 JOHN J. GUARRETA
 SARA C. STEVEMAN
 CAROL WHEELER
 JUDITH K. DAVIDSON, Secretary

 PAUL H. LANE, General Manager and Chief Engineer
 NORMAN E. NICHOLS, Assistant General Manager - Power
 DIANE L. GEORGIADIS, Assistant General Manager - Water
 NORMAN J. POWERS, Chief Financial Officer

August 27, 1984

 Ms. Mary Griggs
 State Lands Commission
 1807-13th Street
 Sacramento, California 95814

Dear Ms. Griggs:

This is in response to your draft EIR/EIS on the proposed Celeron/All American and Getty Pipeline Projects.

The Los Angeles Department of Water and Power owns and operates a 338 mile long aqueduct system which extends from Mono Basin on the eastern slopes of the Sierra Nevada to the City of Los Angeles. This aqueduct system supplies 80 percent of the City's water needs and has a monetary value of \$332,000 per day. From Halwee Reservoir near Owens Dry Lake, the water is carried through two conduits (LAA1 and LAA2) down to Los Angeles. These conduits are located to the west of Mojave in the general vicinity where your proposed pipeline project crosses the Mojave Desert.

The maps provided in the EIR/EIS are inadequate in showing the exact proximity of the proposed pipeline. A more detailed map showing the actual location of the pipeline is needed before the actual pipeline - aqueduct(s) intersection can be determined.

Our primary concern is to avoid possible contamination of our water supply from oil spills. Designs of aqueduct crossings must incorporate features to avoid such possibilities.

If there are any questions, please contact George Martin at extension 6201.

Sincerely,



 L. LUND
 Engineer Los Angeles Aqueduct

cc: G. Martin

7-1

Detailed maps, aerial photo mosaics, and topographic maps documenting Celeron/All American's proposed ROWs can be found in the BLN's Riverside office. Celeron/All American has indicated that they will coordinate with the Department of Water and Power for the City of Los Angeles to determine the correct procedure for crossing the aqueduct(s) without interrupting service or endangering safe distribution of water.

7-2

Celeron/All American has indicated that they will coordinate construction procedures with the Department of Water and Power to ensure the integrity of aqueducts LAA1 and LAA2 and protect the water supplies. Celeron/All American has indicated the most likely procedure would be to bore and case the pipeline similar to highway crossings.

KERN COUNTY WATER AGENCY
3200 Rio Miranda Drive
Bakersfield, California 93302-0058



Directors:

Paul L. Smith	Division 1
J. Elliot Fox	Division 2
John L. Witt	Division 3
Michael Reason	Division 4
President	
Robert E. McCarthy	Division 5
Henry C. Gannett	Division 6
Gene A. Lundquist	Division 7

Telephone: (805) 393-6200

Stuart T. Pyle
Engineer-Manager
George E. Hulse
Assistant Engineer-Manager
Lois Rusterberger
Secretary
Address mail to:
P.O. Box 58

August 29, 1984

9.8

California State Lands Commission
Bureau of Land Management
Executive Office,
1807 13th Street
Sacramento, California 95814

RE: Flood Hazard Evaluation and Groundwater comments for
the Draft Joint Environmental Impact Report for the
Celeron/All American and Getty Pipeline (as it affects
crossing Kern County).
Request Received: August 3, 1984
Review Date: November 1, 1984

Gentlemen:

8-1 [We have reviewed the above-referenced Draft Environmental
Impact Report with respect to flood hazard and groundwater
conditions and concur with the mitigation measures stated therein.

Yours very truly,

Stuart T. Pyle
Stuart T. Pyle
Engineer-Manager

JLR/WC:w1

xc: Kern County Public Works Dept.
Attn: Terry Paston
Kern County Planning Dept.
Attn: Fred Simon

8-1

Please note that proposed groundwater Mitigation Measures 6 and 7 in
the DEIR/EIS have been modified. The use of impermeable backfill was
determined to be infeasible from an environmental and engineering
standpoint. The backfill would create a channel effect along the
trench, and water moving down the trench on steep slopes could
potentially wash the pipe out. The technique would also alter lateral
movement of water near the trench.

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR

GEORGE DEUKMEJIAN, Governor

OFFICE OF PLANNING AND RESEARCH

1403 NINTH STREET
SACRAMENTO, CA 95814

September 6, 1984

(916/445-0613)

State Lands Department
Ms. Mary Griggs
1807 13th Street
Sacramento, CA 95414

Subject: SCH# 83110902, All American/Celeron Pipeline Joint ER/EIS

Dear Ms. Griggs:

The enclosed comments on your draft environmental documents were received by the State Clearinghouse after the end of the state review period. We are forwarding these comments to you because they provide information or raise issues which may assist you in project review.

To ensure the adequacy of the final document you may wish to incorporate these additional comments into the preparation of your final environmental document.

Sincerely,

Handwritten signature of John B. Chanian in cursive.

John B. Chanian
Chief Deputy Director

enclosure

cc: Resources Agency

COMMENT LETTER 9 (CONTINUED)

RESPONSE TO COMMENT LETTER 9
(CONTINUED)

State of California

Business, Transportation and Housing Agency

Memorandum

To : State Clearinghouse
1400 10th Street
Sacramento, CA 95814

Attention Chris Goggin

Date : August 31, 1984

File No. : 2.6884.A5431

Subject : DETR/EIS PROPOSED
CELERON/ALL AMERICAN
AND GETTY PIPELINE
PROJECTS SCH#83110902

From : Department of California Highway Patrol
Assistant Commissioner, Field

The California Highway Patrol has reviewed the Draft Environmental Impact Report/Environmental Impact Survey on the Proposed Celeron/All American and Getty Pipeline Projects. These projects will cross highways within the jurisdiction of a number of Area Commands in four CHP Field Divisions.

We concur with the State Lands Commission/Bureau of Land Management's assessment that these pipeline crossings will have minimal impact on transportation. Nevertheless, we request that the Final Environmental Impact Report address the element of traffic safety during construction to include short term traffic control by law enforcement personnel, emergency vehicle ingress/egress and any additional circumstances which would affect the operational environment of law enforcement or the safety of motorists. Accordingly, we request that lead agencies consult with individual CHP Area Commanders and local law enforcement agencies whose highways are impacted by project construction.

H.R. Jones
H. R. JONES
Assistant Commissioner

cc: Long Range Planning Section
Coastal Division
Central Division
Inland Division
Border Division

9-1

Both Applicants have indicated that they will coordinate all crossings of public highways with state and local law enforcement agencies. All heavy equipment will be moved in accordance with state and local laws to minimize traffic congestion and promote safety for motorists. Emergency vehicle ingress/egress would be possible at all times because the road would not be completely closed.

2-33

9-1



Los Padres Chapter
SIERRA CLUB

Santa Barbara
 and Ventura Counties

RESOLUTION #9-9-84

WHEREAS, the All-American Pipeline Company proposes to lay an underground pipeline from Gaviota to Texas for the transport of oil and gas produced in the Santa Barbara Channel; and

WHEREAS, said pipeline transportation of crude oil is environmentally safer than tanker transport in that tankers can collide with one another and oil platforms increasing the risk of a major oil spill; and

WHEREAS, a major oil spill poses a grave threat to marine mammals, sea birds and Channel fisheries; and

WHEREAS, the route selected by All-American over the Sierra Madre Mountains through the Santa Maria Canyon is the environmentally preferred alternative since it avoids wilderness and Condor areas;

BE IT HEREBY RESOLVED that the LOS PADRES CHAPTER Ex. Com. endorses the All-American alternative for transporting oil from Santa Barbara to Texas by pipeline.

Dated September 9, 1984. By a vote of 4 to 0.

Sonia Thompson
 Sonia Thompson
 Chapter Chair

Thank you for commenting.

SAN BERNARDINO COUNTY MUSEUM

2024 Orange Tree Lane - Redlands, CA 92373 - (714) 792-1334 & 825-4825

COUNTY OF SAN BERNARDINO
GENERAL SERVICES AGENCYDOLORES C. CARTER
Interim Director

September 10, 1984

Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms Griggs,

I have reviewed the Draft EIR/EIS for the Celeron/All American Pipeline of August 1984 (State Clearing House No. 83110902, Contract R 8353).

1-1 Mitigation of impacts to non-renewable paleontologic resources is not addressed in the document. The omission disregards State and Federal regulations mandating the preservation of significant vertebrate and invertebrate fossils.

1-2 Pipeline excavation has a high probability of encountering significant paleontologic remains in several areas along the proposed routes in the California Desert Conservation Area. A list of these paleontologically sensitive areas is attached.

I urge you to insure that impacts to paleontologic resources are addressed in the final statement, and that adequate measures for mitigation of these impacts are instituted.

Sincerely,

Robert E. Reynolds
Curator, Earth Sciences

RER/jr
encl.cc: Bill Collins, Bureau of Land Management
Chuck Bell, San Bernardino County Environmental Public Works Agency
Tamara Campbell, San Bernardino County Environmental Public Works Agency

- 11-1 The BLM recognizes that it has a responsibility for paleontological resource management on public lands. Responsibility for issuing permits for this resource has just changed from the National Park Service to the BLM. Guidelines for implementing new policy will soon be issued, and these guidelines will be followed. These guidelines are expected to include requirements for identifying sensitive paleontological resources through literature search and records checks, on the ground inspection, mitigation, and monitoring of sensitive areas. The Applicants will comply with all Federal, state and local requirements (pages 4-19 and 4-22 of the DEIR/EIS).
- 11-2 The list of significant paleontological areas along the proposed pipeline provided by the commenter on May 25, 1984, has been included as Table 3-6 on page 3-15 in the DEIR/EIS.

SAN BERNARDINO COUNTY MUSEUM

2024 Orange Tree Lane • Redlands, CA 92373 • (714) 792-1334 & 825-4925

COUNTY OF SAN BERNARDINO
GENERAL SERVICES AGENCYDOLORES C. CARTER
Interim Director

Paleontologic resources within San Bernardino County might be encountered by All American Pipeline excavation in the following areas.

- T. 15S R. 19E. Playa sediments west of Freda Siding
- T. 1N-2N, R. 18E. Danby Lake Quaternary sediments
- T. 11N R. 15E. Archer Pleistocene lacustrine sediments
- T. 5N R. 12E. Bristol Lake Quaternary sediments
- T. 8N R. 5E. Pisgah, Tertiary lacustrine clays
- T. 8N R. 4E. Troy Lake Quaternary lacustrine sediments
- T. 9N R. 3E. Newberry Springs, Pleistocene lacustrine sediments west of the Calico Fault
- T. 9N R. 1E. Mojave River sediments west of Elephant Mountain have produced fossil mammoth
- T. 10N R. 2W. Hinkley Valley Quaternary lacustrine sediments
- T. 10N R. 4-5W. Pleistocene alluvium.

13 September 1984

3904

Mr. Robert Almy...
COUNTY OF SANTA BARBARA
 Avenida Divisadero...
 1226 Avenida Street... Suite 6
 SANTA BARBARA... CALIFORNIA... 93101

Dear Mr. Almy:

I am not per se associated with any of the "Oil Companies" involved... ~~LIST OF ALL~~... I am not associated with any of the environmental interest groups... period.

I refer to the enclosed clipping from "yesterday's" NEWS-PRESS and its mention of possible routing changes for the CENERGY/ALL AMERICAN PIPELINE PROJECT. I have received my own copy of the DRAFT... EIR-EIS document (AUGUST 1984).

2-39

12-1 [Can you please "fill me in" on any of these proposed "route" changes...? Frankly... I would really appreciate a more detailed n-o-d (North-South) map of this project... than the coastal Getty to Erving (n-o-t Erving, please) 113 miles away.

12-1 The newspaper article cited indicates that there is a route change. The change being discussed is the current Santa Maria Canyon Alternative for this EIR/EIS and has been described correctly.

12-2 [Also... can you please name the "contractor" from UC SB (P) who contacted the resources for research of the cultural resource phase (for the 113 mile Getty portion)...? I am quite concerned for this phase re who is responsible for the required research n-o-d the person... who did the actual field work (Tselat).

12-2 Detailed maps are available for review in Santa Barbara County's Energy Department office and the Forest Service office for Los Padres NF. The endpoint for this particular project is correctly named Ervido, and was named by the Applicants for a receiving station in the southern San Joaquin Valley.

12-3 [

12-3 The cultural resource evaluations for the Getty application were conducted by WESTEC Services, Ventura, CA. The cultural resource evaluations for the DEIR/EIS were done by Applied Conservation Technology (ACT), Westminster, CA.

Quite frankly... even with a magnifying glass... I can hardly "read" the text maps... Sheets 2 and 3 (Draft Document). The USGS (the Santa Lucia District Office) seems unable or even unwilling to supply a better document... even if I pay for one.

I have researched (on my own) the social history of this area... east from the "Old Spanish Ranch" across to the area near East Tolan. I began with the earliest records of land-ownership of the Refugio Rancho and its surrounding countryside (including ~~Los Ranchos~~). I'm nearly convinced for the authentic history of the CUYARRA VALLEY and its early settlers. Aside from the many versions of what happened (in the 1840s to 1879) regarding the development of the two CUYARRA RANCHES... one must also understand w-h-o the other settlers were... who came to the "COLLINA" as the year 1852 until 1890. "I bet" no one can tell me how many times the names were changed... between 1842 until 1872... in regard to w-h-o owned the RANCHO SURETTE. The old "SUNSET OIL DISTRICT" (in the area of Tancopam) played a particular part in the development of the Kern County and Cuyarra oil fields. A "harmful" BREW or PETROLEUM manufacturing company was duly franchised in the Cuyarra in 1866. CUYARRA ASPHALT and PETROLEUM MINING COMPANIES (1866, 1866).

Natural Reyes and his brother (Angel Maria) settled in the "Oceon" in VENTURA COUNTY (westside of Pine Mt., east of Hwy 82) in 1852. At one time... they arranged cattle clean-out to "Bucan Vista" east of Tancopam (Subset). H.H. Ervenson was at "The Whites" in the early 1870s (starting until 1896) and ROBE settled in the east-end of the "Cuyarra" in 1886... and HUDSON bought-out Ervenson in 1887. Each of these families effectively used this land and ranch co. mentioned (in old documents) about the local "Oceon" deposit.

12-3
cont.

I believe I have a "proper right" to ask who did the research for my cultural or historical sites. My "people" have lived in the "Oceon" since 1860... J.V. Reyes (son of Natural) was my grandfather when I was born in 1929. I was member of the Kern... Santa Barbara and Ventura Orange County Historical Societies.

Respectfully... Bill Friend
84 North Dunning Street
Ventura... CALIFORNIA... 93003

Santa Barbara, Calif., News-Press, Wednesday, September 12, 1984 B-3

Avoiding sensitive areas

Pipeline routes may change

One pipeline company has agreed to reroute its proposed California-to-Texas oil line in the North County to avoid sensitive biological areas. Another company with plans for a similar pipeline as far as Kern County has the new route under study.

"We worked with public agencies and citizens' groups that wanted the line moved," said Ron Hinn, project manager for the Celeron-All American pipeline proposal. "The new route gets it where you can't see it."

The revised route avoids Los Padres National Forest areas that are under study for protected status.

Getty Trading and Transportation Co. also plans a pipeline from the coast, through the North County and into Kern County.

"We're still negotiating on the route in the Santa Maria area," said Dick Feerman of Getty. "But the shorter

route (through La Brea Canyon) is still our preferred route."

The Los Padres chapter of the Sierra Club has endorsed the Santa Barbara Canyon route as the "environmentally preferred alternative since it avoids wilderness and condor areas."

A single environmental impact statement has been prepared for Getty's 113-mile line to Emidio in Kern County, and Celeron-All American's 1,200-mile line extending to Freeport on the Texas Gulf Coast.

A hearing on the report has been scheduled Sept. 25 at 10 a.m. and 1 p.m. at the county Administration Building in Santa Barbara, and at 7 p.m. at Santa Maria High School.

The Celeron-All American line would start at Las Flores Canyon and run along the coast to Geviota where it would go through the pass into the North County. The Getty line would

start at Geviota.

The lines would enable oil producers in the Santa Barbara Channel to move their oil to refineries in Texas, the San Joaquin Valley and the Los Angeles and San Francisco areas by pipeline instead of seagoing tankers, which the county hopes to phase out in a few years. The new pipelines would link up with lines running north and south from the San Joaquin Valley.

Originally, both lines were planned to go through La Brea Canyon between Santa Maria and Los Alamos north-easterly to the Coyama Valley. This route passes through Los Padres National Forest areas.

The Forest Service prefers a route that runs northwest from La Brea Canyon through the Santa Maria Canyon outside the national forest in that area.

SF Minerals Corporation

4775 Indian School Road N.E., Suite 100
P.O. Box 3588
Albuquerque, New Mexico 87190
909/282-2211

September 18, 1984

Ms. Mary Griggs
California State Land Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

SF Minerals Corporation submits the following comments to the Draft EIS for the All American/Celeron and Getty Crude Oil Pipeline.

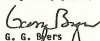
SF Minerals Corporation and Southern Pacific Land Company own or control substantial acreages of fee lands, reserved mineral estates, and mining claims and mineral leases in southern California, southern Arizona, and southern New Mexico along the pipeline route. SF Minerals has management authority over the mineral properties of the Southern Pacific Land Company and is concerned that construction and operation of this pipeline not hinder or restrict our access to or development from those fee or split estate mineral properties which we own or in which our companies have interests.

Any questions regarding these matters should be referred to the following persons:

Mr. Dale B. Trubey
SF Minerals Corporation
P. O. Box 3588
Albuquerque, NM 87190

Mr. Walt Sapling
Southern Pacific Land Company
Pacific Gateway Building
201 Mission Street
San Francisco, California 94105

Very truly yours,


G. G. Byers
Manager-Governmental Affairs

GGB:gem

cc: D. B. Trubey
Walt Sapling
John Owsen, All American Pipeline company
1321 Steine Road, Suite 8-1, Bakersfield, CA 93309
Ralph Hicks, All American Pipeline Company
4213 State Street, Santa Barbara California 93130

13-1

No actively mined lands would be crossed, but it is possible that some unknown mineral reserves would be crossed. Celeron/All American will coordinate with SF Minerals to ensure that mineral claims are not compromised.

2-42

13-1



South Coast
AIR QUALITY MANAGEMENT DISTRICT

9150 FLAIR DRIVE, EL MONTE, CA 91731 (818) 572-6200

September 23, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

DEIR/EIS on the Celeron/All American
and Getty Pipeline Projects

Thank you for the opportunity to review this environmental document. Although the District does not appear to have direct regulatory authority over the project, we feel that the EIR/EIS should address the following:

2-43

- 14-1 1. The Cadiz pump station emission inventory does not appear to include any pipeline activity operations that could take place via the Four Corners pipeline originating in Los Angeles and crossing the pipeline at this pump station. District information is that there would be a high potential for crude oil activity moved in this manner if the All American pipeline were constructed. This possibility should be discussed.
- 14-2 2. The document should include a breakdown of construction times and related construction emissions for the (a) Emidio pump station, (b) 12-gage pump station, and (c) Cadiz pump station.
- 14-3 3. The original emission inventory Appendix A, Table A-11, shows 256 lbs/day NO_x and 223 hydrocarbons. Information in this report is that all heaters are gas fired only. If oil standby is provided, the higher NO_x emissions should be indicated. Also, 223 lbs/day hydrocarbons from storage tanks would not include the potential Four Corners pipeline activity. The overall affect of maintaining the ambient air quality that exists in the SEDAB portion of Riverside (under District jurisdiction) and of San Bernardino needs further explanation.

If you have any questions, please contact me at (818) 572-6418.

Very truly yours,

Brian Farris
Brian Farris
Head, Environmental/
Energy/Economics Section
Planning Division

BF:cas

- 14-1 Analysis of the Cadiz tank farm was based on a throughput of 300,000 BPD as contained in Celeron/All American's Application to the BLM, State Lands Commission, and Santa Barbara County. Celeron/All American cannot increase its throughput above 300,000 BPD under their current application. Oil supplied by the Four Corners Pipeline to All American's pipeline would be part of the total throughput of 300,000 BPD; therefore, Four Corners Pipeline activity was included in the DEIR/EIS analysis.
- 14-2 Celeron/All American and Getty have not developed exact construction schedules for their pump stations, nor have they compiled the lists of construction equipment necessary to complete an emissions inventory. Significant air quality impacts from station construction are not anticipated based on pump station size (2.5 acres for Getty and 80 acres for the Cadiz tank farm), because station construction would be completed in 4 to 6 months, and because all air quality impacts from construction would be considered temporary and transient.
- 14-3 Celeron/All American assumed that all the heaters would be run by gas; no provisions have been made for oil standby. As stated in the response to Comment 14-1, the hydrocarbon emissions from storage tanks include the potential activity of the Four Corners Pipeline within the constraints of the 300,000 BPD throughput in Celeron/All American's current application. There would be no operational emissions in Riverside County or the portion of San Bernardino under SCAQMD jurisdiction. Construction resulting in air quality impacts, as discussed in Section 4.2.1 of the DEIR/EIS, would be temporary, transient, and localized. See Letter 64.
- 14-4 Four Corners activity is included within the maximum 300,000 BPD operational level.
- 14-5 The overall effect of the project on SEDAB air quality is described in Appendix 4.5. No violations of standards are projected during operations.



REGULARLY
BY
STANDARD MAIL

DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1590
ALBUQUERQUE, NEW MEXICO 87103 -1580
September 24, 1984

Construction-Operations Division
Regulatory Section

Ms. Mary Griggs
State Lands Commission
1807-13th Street
Sacramento, California 95814

Dear Ms. Griggs:

Reference is made to the Draft Environmental Impact Statement (DEIS) for the proposed Celeron/All American and Gatty Pipelines Projects dated August 1984.

This office has reviewed the DEIS and provides the following comments on the document:

a. The document does not sufficiently consider matters dealing with the national security of the United States. Tanker traffic is more susceptible to adverse international political situations than internal pipeline transportation. This point should be considered in the decision to build or not build the project.

b. Regulations pursuant to Section 404 of the Clean Water Act describe nationwide permits for discharges of dredged or fill material into waters of the United States that are (1) located above the highwater (33CFR330.4) and (2) placed as backfill or bedding for utility line crossings, provided there is no change in preconstruction bottom contours (33CFR330.5). Summaries of the provisions of these permits are attached for your information. The proposed pipeline project can be constructed under authority of the nationwide permits within the Albuquerque District provided all conditions are satisfied. No reports or statements of intent are required to use the nationwide permits. The only requirement is that the officer responsible for the project insures compliance with all the conditions of the permits.

15-1 The EIR/EIS evaluates environmental issues and concerns. National security issues are considered in the overall decision process by the Federal permitting/granting agency.

2-44

15-1

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SEP 27 1984

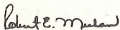
COMMENT LETTER 15 (CONTINUED)

RESPONSE TO COMMENT LETTER 15
(CONTINUED)

-2-

Should you have any questions regarding these comments,
please feel free to write or call Mr. James Wood or Mr. Andrew
Roseman at (505) 766-2766.

Sincerely,



Robert E. Meehan, P.E.
Chief, Construction-Operations Division

2 Attachments

1. Nationwide Permit -
Certain Waters
2. Nationwide Permit -
Utility Lines



US Army Corps
of Engineers
Albuquerque District

Nationwide Permit Summary

UTILITY LINES

Pursuant to Section 404 of the Clean Water Act (33 USC 1344) and federal regulations (33 CFR 330.5) a nationwide permit for the placement of dredged or fill material into waters of the United States for utility lines has been published. The permit authorizes the discharge of material for backfill or hedging for utility lines, including outfall and intake structures, provided there is no change in preconstruction bottom contours and all excess material is removed to an upland disposal area. A temporary cofferdam may be constructed adjacent to the trench, however, only those materials taken from the trench may be used since no additional fills are authorized except for backfill or hedging. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquifiable, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and radio and television communication. The utility line and outfall and intake structures will require a Section 10 permit if in navigable waters of the United States.

The following special conditions must be followed in order for the activity to be authorized under this nationwide permit:

"(1) That any discharge of dredged or fill material will not occur in the proximity of a public water supply intake;

"(2) That any discharge of dredged or fill material will not occur in areas of concentrated shellfish production

"(3) That the activity will not jeopardize a threatened or endangered species as identified under the Endangered Species Act, or destroy or adversely modify the critical habitat of such species. . . .

"(4) That the activity will not significantly disrupt the movement of those species of aquatic life indigenous to the waterbody (unless the primary purpose of the fill is to impound water);

"(5) That any discharge of dredged or fill material will consist of suitable material free from toxic pollutants (See Section 307 of Clean Water Act) in toxic amounts;

"(6) That any structure or fill authorized will be properly maintained;

"(7) That the activity will not occur in a component of the National Wild and Scenic River System; and

(cont'd)

"(8) That the activity will not cause an unacceptable interference with navigation.

"(9) That the best management practices listed below should be followed to the maximum extent practicable."

Best Management Practices:

"(1) Discharges of dredged or fill material into waters of the United States shall be avoided or minimized through the use of other practical alternatives.

"(2) Discharges in spawning areas during spawning seasons shall be avoided.

"(3) Discharges shall not restrict or impede the movement of aquatic species indigenous to the waters or the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

"(4) If the discharge creates an impoundment of water, adverse impacts on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow, shall be minimized.

"(5) Discharge in wetlands areas shall be avoided.

"(6) Heavy equipment working in wetlands shall be placed on mats.

"(7) Discharges into breeding areas for migratory waterfowl shall be avoided.

"(8) All temporary fills shall be removed in their entirety."

If the proposed discharge satisfies all of the above conditions it is automatically permitted and no further permit action from the Corps of Engineers is required. If any conditions of this nationwide permit will not be complied with, an individual permit should be requested using EHG Form 4345 (Application for a Department of the Army Permit). State or local approval of the work may also be required.

For additional information concerning the nationwide permits or for a written determination regarding a specific project, please contact the Chief, Regulatory-Resource Management Section, Albuquerque District, U.S. Army Corps of Engineers, P.O. Box 1580, Albuquerque, NM 87103, telephone (505) 766-2776.



US Army Corps
of Engineers
Albuquerque District

Nationwide Permit Summary

DISCHARGES OF DREDGED OR FILL MATERIAL INTO CERTAIN WATERS

Pursuant to Section 404 of the Clean Water Act (33 USC 1344) and federal regulations (33 CFR 330.5) a nationwide permit for discharges of dredged or fill material into the following waters of the United States has been issued. The permit authorizes the discharge of dredged or fill material into the following waters of the United States: Non-tidal rivers, streams and their lakes and impoundments, including adjacent wetlands, that are located above the headwaters; and other non-tidal waters of the United States that are not part of a surface tributary system to interstate waters or navigable waters of the United States and, therefore, are located in a closed basin. The term "headwaters" means that point on a perennial stream where the average annual flow is five cubic feet per second. On an intermittent stream the "headwaters" is that point where a flow of five cubic feet per second is equaled or exceeded 50 percent of the time. Maps of the headwaters have been published and copies may be obtained by contacting the Regulatory-Resource Management Section.

The following special conditions must be followed in order for the activity to be authorized under this nationwide permit:

- "(1) That the discharge will not be located in the proximity of a public water supply intake;
- "(2) That the discharge will not destroy a threatened or endangered species as identified under the Endangered Species Act, or destroy or adversely modify the critical habitat of such species. . . .
- "(3) That the discharge will consist of suitable material free from toxic pollutants in toxic amounts;
- "(4) That the fill created by the discharge will be properly maintained to prevent erosion and other non-point sources of pollution; and
- "(5) That the discharge will not occur in a component of the National Wild and Scenic River System.
- "(6) That the best management practices listed below should be followed to the maximum extent practicable."

(cont'd)

COMMENT LETTER 15 (CONTINUED)

RESPONSE TO COMMENT LETTER 15
(CONTINUED)

Best Management Practices:

"(1) Discharges of dredged or fill material into waters of the United States shall be avoided or minimized through the use of other practical alternatives.

"(2) Discharges in spawning areas during spawning seasons shall be avoided.

"(3) Discharges shall not restrict or impede the movement of aquatic species indigenous to the waters or the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

"(4) If the discharge creates an impoundment of water, adverse impacts on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow, shall be minimized.

"(5) Discharge in wetlands areas shall be avoided.

"(6) Heavy equipment working in wetlands shall be placed on mats.

"(7) Discharges into breeding areas for migratory waterfowl shall be avoided.

"(8) All temporary fills shall be removed in their entirety."

If the proposed discharge satisfies all of the above conditions it is automatically permitted and no further permit action from the Corps of Engineers is required. If any conditions of this nationwide permit will not be complied with, an individual permit should be requested using NMO Form 4345 (Application for a Department of the Army Permit). State or local approval of the work may also be required.

For additional information concerning the nationwide permits or for a written determination regarding a specific project, please contact the Chief, Regulatory-Resource Management Section, Albuquerque District, U.S. Army Corps of Engineers, P.O. Box 1580, Albuquerque, NM 87103, telephone (505) 766-2776.

Southern Pacific
Land CompanyPacific Gateway Building • 201 Mission Street • San Francisco, California 94105 • (415) 974-4316
NATURAL RESOURCESW. T. SAPLING
MANAGER-RESOURCE PROJECTS

September 24, 1984

Ms. Mary Griggs
California State Land Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

Please refer to Mr. G. G. Byers' letter of September 18, 1984, regarding SF Minerals Corporation's comments regarding the Draft EIS for the All American/Celeron and Getty Crude Oil Pipeline.

I would appreciate being sent a copy of the Draft EIS to evaluate the effects of the proposed pipeline on our holdings.

Thank you for your consideration of this request.

Sincerely,


W. T. SAPLINGcc: Mr. G. G. Byers
Manager-Governmental Affairs
SF Minerals Corporation
P. O. Box 3588
Albuquerque, New Mexico 87190

Thank you for commenting.

2-50

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

1021 "H" Street, Suite 100
 Hanford, California 93230-5100
 Telephone: (805) 981-3852



LEON H HERBERTSON, M.D.
 Director of Public Health
 Air Pollution Control Officer

September 24, 1984

Ms. Mary Griggs
 State Lands Commission
 1807 13th Street
 Sacramento, CA 95814

Dear Ms. Griggs:

Subject: Draft Environmental Impact Report/Environmental Impact
 Statement Celeron/All American and Getty Pipeline

Thank you for the opportunity to review and comment on the above
 environmental document. The following comments are limited only to
 the air quality impacts of the proposed project:

Project Description

The Celeron and All American Pipeline Companies propose to construct a
 1,200-mile pipeline that would transport Outer Continental Shelf and
 other locally produced crude oils from the Santa Barbara and Santa
 Maria Basins through Emidio station, CA, to McCamey, TX. The 122-mile
 Celeron segment would extend from Las Flores, CA to Emidio, CA and the
 1,084-mile All American segment would extend from Emidio, CA to
 McCamey, TX; both would transport heated crude oil. Getty Trading and
 Transportation Company (Getty) proposes to construct a 113-mile buried
 pipeline that would transport heated crude oil from Getty's existing
 marine terminal facility at Gaviota, CA, to Emidio station, CA.

General Comments

Kern County APCD Rule 210.1 (Standards for Authority to Construct) as
 amended April 5, 1983, provides the criteria for approving the
 permits. The objective of this rule is to insure that any new equip-
 ment or modification of equipment will not interfere with the attain-
 ment or maintenance of applicable ambient air quality standards. As
 a result, projects which receive approval under the above provisions
 are deemed to have no adverse air quality impacts.

The Rules and Regulations of the Kern County Air Pollution Control
 District (APCD) are so structured as to require the acquisition of
 permits from the District prior to the initiation of construction.
 These permits are required of equipment the operation of which will
 either emit, reduce, or control the discharge of air contaminants as
 described in Rule 201(a) of the Rules and Regulations of the Kern
 County APCD.

DRAFT ENVIRONMENTAL IMPACT REPORT
CELERON/ALL AMERICAN AND GETTY PIPELINE

PAGE 2

Specific Comments

1. Section 3.2-1.2 (Air Quality) on page 3-5 of the DEIR/DEIS states in part the following:

"The San Joaquin Valley portion of Kern County is NA for SO2 and TSP."

Kern County is attainment for SO2, NO2, and CO in the San Joaquin Valley portion of the Kern County Air Pollution Control District. The Environmental Protection Agency (EPA) has recently published in the Federal Register official redesignation to attainment for SO2. The air quality discussion should be corrected to reflect this fact.

17-1 See Modifications and Corrections Section page 3-5; information has been revised to reflect the proper attainment status of the San Joaquin Valley portion of Kern County.

2. Kern County is officially a nonattainment area for oxidant. Development and implementation of air quality strategies from Kern County's nonattainment area plan failed to achieve the oxidant standard by December 31, 1982. As a result, a second update to the nonattainment area plan has been prepared.

17-2 The air quality analyses for the proposed design modification for heaters in Kern County are included in Appendix 4.5. The applicants would be required to secure all appropriate licenses and permits prior to operation.

3. Apparently, the project described in the DEIR/DEIS has been altered to that described in applications for authorities to construct. We suggest the final EIR/EIS be amended to reflect this change and emissions information corrected as appropriate.

4. A representative of All American Pipeline Companies filed applications for the necessary authorities to construct on September 14, 1984. As a result, these applications were deemed complete pursuant to Rule 210.1 on September 18, 1984. Rule 210.1 requires the district take final action on the application no later than 180 days following acceptance of the application as complete.

Again, thank you for the opportunity to comment on this proposed project. Should you or your staff have any questions, please telephone our office at (805) 861-3682.

Sincerely,

LEON M. HERBERTSON, M.D.
AIR POLLUTION CONTROL OFFICER*Clifton Calderwood*Clifton Calderwood
Assistant Chief Air Sanitation Officer

CC/cn

2-52

17-1

17-2

SIERRA
CLUB

LONE STAR CHAPTER

September 24, 1984

Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs,

Enclosed are the comments of the Lone Star Chapter of the Sierra Club concerning the DEIS for the Proposed Celeron/All American and Getty Pipeline Projects. We request that our comments be placed in the official hearing record. The text of our comments will be numbered and will refer to the page of the document in question. How for our comments.

- 1.) We are very concerned that no hearing or meeting will be held in Texas concerning this project. This seems especially puzzling since all other states crossed by the pipeline will have hearings and since Texas has the largest potential area to be impacted by the pipeline. We request that either a hearing be held in Texas or a meeting of interested parties be arranged. Public participation and input is critical if environmental impacts are to be minimized especially in a question of this magnitude.
- 2.) On page 8-1 no reasonable alternatives should be eliminated. NEPA via the CEQ regulations mandate this. There is no reason to eliminate from consideration marine tanker and other alternatives. Your figure on tankers seem to indicate that they will be competitive cost-wise with the pipeline. In addition the so-called alternatives shown are really based on only one alternative - a pipeline from California to Texas. There are not different types of alternatives for delivering the oil to proper facilities. This needs redress.
- 3.) On page 1-2 it seems to us that any expansion of the Getty pipeline and marine terminal should get complete consideration when determining impacts of this project in this EIS. Since they are so closely related and impacts from one will effect the other a detailed discussion of this expansion should be included in this DEIS.
- 4.) On page 1-4 what is the likelihood of the Celeron/All American exception to an already existing pipeline corridor also becoming a new pipeline corridor. What does this mean environmentally and development-wise in the future?
- 5.) On page 1-12 again we object to the fact that scoping was not done in Texas. This is a bias against the people of Texas as well as being discriminatory in enlightening Texans from the NEPA process. We object.
- 6.) On pages 1-13 if the heavy crude oil does go to Houston refineries how will the air quality be effected (SO₂, O₃, heavy metals, VOC's, etc.)? This is never stated and the impacts addressed in this document. The document is faulty especially since the Houston area is nonattainment for O₃ (very heavily so).

7.) On page 1-15 what about using the alternative of building or adding to crude oil refineries in California? This is a viable alternative and needs to

When we try to pick out anything by itself, we find it hitched to everything else in the universe." John Muir

18-1

Hearings were held in or near all major cities along the proposed pipeline route. The nearest major city to the Texas segment of the pipeline (that is, the segment from the New Mexico border to McCamey) is El Paso. Within 100 miles of El Paso, the pipeline route passes near the Guadalupe Mountains National Park, Hueco Tanks State Park, the Gypsum Dunes, and crosses the Rio Grande. The pipeline route crosses Fort Bliss, the only Federal land along the pipeline route in Texas, just north of El Paso. For this reason a meeting was held in nearby Las Cruces.

Celeron of Texas's McCamey to Freeport crude oil pipeline project is being considered as an alternative to the existing pipeline grid for transporting crude oil from All American's McCamey terminus to the Gulf Coast. Selection of this alternative may require additional compliance with Federal, state and local regulations.

18-2

The DEIR/EIS focuses on the environmental impacts from the construction and operation of two proposed pipelines: one from Santa Barbara County to Bakersfield, and the other from Santa Barbara County to Texas. Information in the DEIR/EIS demonstrates that the projects could be in compliance with Federal, state, and local governments.

The Draft EIS Crude Oil Distribution System: Valdez, Alaska to Midland, Texas (BIM 1976), Santa Barbara County Oil Transportation Plan and DEIR (Santa Barbara County 1984), and Getty Gaviota Consolidated Coastal Facility DEIR (ERT 1984) adequately address the viability and environmental impacts of transporting oil by tanker. These discussions are incorporated by reference.

Santa Barbara County has developed policy regarding tanker transport. The policies have been formulated to maximize pipeline transport if available. The conditions under which an alternative mode of crude oil transportation could be permitted by the County are limited, as specified in the amendments to the County Local Coastal Program adopted by the Board of Supervisors in June 1984 and approved by the California Coastal Commission in August and September 1984. Santa Barbara County Coastal Zoning Ordinance Section 35-154.5(1) stated that transportation by mode other than pipeline may be permitted only when the County has determined that a pipeline is unavailable to the shippers refining center of choice, a refinery upset has occurred, the costs of pipeline transportation are unreasonable (taking into account alternative modes, economic costs, and environmental impacts), or that an emergency has precluded the use of a pipeline. Santa Barbara County Local Coastal Plan Policy 6-11A states that permits to expand or construct a new marine terminal may be issued only for the capacity necessary to serve emergency or nonpipeline refinery destinations. Santa Barbara County Local Coastal Plan Policy 6-8(d) states that rail is not preferred for large volume shipments of oil.

18-7
cont. be completely assessed. Does it make any sense to send emissions from one nonattainment area to another? This issue needs to be addressed.

18-8 8.) On page 1-19 there is a need to resolve the heated pipeline problem. If All American cannot get cooperation from Rancho Pipeline then what will be the complete environmental impacts? All impacts and costs must be assessed including those to the Houston area. Right now it appears as if the project is being piecemealed. We are concerned that the real intention is to put a pipeline to the Houston area. The DEIS minimizes the impacts and does not spell out all the environmental problems that such a plan has. The location is not specific which will have a great deal to do with how many and how severe the impacts are. This is not NEPA legal.

18-9 9.) On page 2-1 we again point out the need for other alternatives like tankers, and refinery expansion in California or both. It almost appears as if the Getty Gaviota Consolidated Coastal facility is being hidden and minimized. It needs to be detailed completely as far as any cumulative, direct, and indirect impacts are concerned.

18-10 10.) On page 2-3, Table 2-2 altogether there will be 745 miles of pipeline going through Texas which will require 9,029 acres of ROW. This is a large amount of land and the full site-specific impacts need to be revealed.

18-11 11.) On page 2-5 how many new access roads of 2,600 feet or shorter will be needed? How many acres will this cover and what will it impact?

2-54
18-12 12.) On page 2-14 we support the planting of native grasses, forbs, wildflowers and other native vegetation in the ROW. There is very little native prairie left and the planting of native grasses would boost wildlife habitat values in many of the areas crossed by the pipeline.

18-13 13.) We also support using the brush cut for nongame shelter areas. This was mentioned further back in the document but only for certain areas. This technique should be for all habitat areas.

18-14 14.) On page 2-20 we do not support burning of any debris created by pipeline construction. Under TACB rules and regulations this is forbidden except under special circumstances.

18-15 15.) On page 2-23 we would favor the use of double ditching methods in wet areas. This would be especially true at water-courses.

18-16 16.) On page 2-25 please define without undue delay. How soon will the restoration occur?

18-17 17.) On page 2-26 all stream crossings should have a submerged pipeline to reduce the damage and danger of a spill and for aesthetic purposes.

18-18 18.) On page 2-30 what procedures will be taken to ensure debris will not fall into the river?

18-19 19.) On page 2-33 you say the worst-case leak would be 3,160 barrels but on 2-31 you say that 8,370 barrels is the maximum expected to leak at a sensitive area. Please explain this apparent contradiction.

18-20 20.) On page 2-39 you mention the need to barge, tanker, or pipeline oil after it gets to Freeport but there is no mention throughout the document of spills from this, what the damage would be, etc. What will be the environmental impacts on localized areas if these spills occur on the Texas coast?

18-3 The Getty marine terminal facility is called the Getty Gaviota Consolidated Coastal Facility. These facilities would be located in Santa Barbara County and are studied in a separate DEIR prepared by Santa Barbara County. Getty's pipeline was considered in the same EIR/EIS as the Celeron/All American pipeline rather than in the DEIR prepared for the coastal facility since it paralleled the Celeron/All American pipeline and was being permitted in a similar time frame. Therefore, the environmental documents for these facilities could be reviewed during the same timeframe. The review process includes federal, state, and county review and review by the general public. These agencies will rule on the Getty and Celeron/All American projects in the January-March, 1985 period. A decision to grant or deny right-of-way permits cannot be made until at least 30 days have elapsed following publication of the final EIR/EIS.

18-4 The 16 utility corridors designated by the Desert Plan range from 2 to 5 miles in width, allowing a number of facilities to be constructed in each corridor. As stated in BLM Desert Plan (page 115) one of the purposes of designating the corridors was to "encourage joint use of corridors for transmission lines, canals, pipelines, and cables". The All American route meets a need unforeseen when the corridors were designated in 1973, i.e., transporting crude oil across the Desert from Tehachapi Pass to Blythe. No other projects have been or are being considered at this time for any comparable route. As a result BLM views the All American project as a one-time exception to the existing corridor system. BLM favors processing the All American application as an exception rather than as a new corridor due to the low level of impact likely to result from constructing a buried pipeline next to an existing road and railroad. If a new corridor were designated, BLM would encourage future utilities of all types to consider using the route, resulting in significantly greater long-term impacts.

18-5 See response to Comment 18-1.

18-6 The crude oil to be transported in the Celeron/All American pipeline would displace other heavy crudes in the Gulf Coast refineries (see DEIR/EIS Appendix G). Therefore, no new permits or expansion of the existing refinery system would be required. If, however, additional refinery capacity or new refineries are needed, the permitting process for the facilities would have to meet all appropriate state, federal, and local standards. Thus, no perturbation of the air quality in the Gulf Coast region is expected.

18-7 The goal of this EIR/EIS is to examine the environmental impacts from the proposals and alternative routes from Santa Barbara County to the existing oil transportation networks in PADD V and PADD III. The Getty pipeline system proposes tying into various California oil transportation networks for distribution to those refineries within the State that have the capability to refine DCS crude. The Celeron/All American pipeline has a primary goal of shipping surplus California oil to markets and refineries on the Gulf Coast. The DEIR/EIS considered the capacity of California and PADD III refineries to process heavy crude oils in Appendix G.

The second aspect of this comment regards the amount of emissions from one nonattainment area to another. Because the Applicants have no existing contracts and volumes of oil and the final destinations are only approximated at this time, it is not possible to determine the emissions each community or region would receive. However, as stated in the response to Comment 18-6, any increase in emissions would be regulated by state and/or Federal agencies.

COMMENT LETTER 18 (CONTINUED)

RESPONSE TO COMMENT LETTER 18 (CONTINUED)

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- 18-21 21.) On Table 2-10 and 2-55 the impacts for the proposed alternative and the Freoport alternative need to be combined. This is really the project proposal. Otherwise you are hiding the true impacts in two different sections.
- 18-22 22.) On page 3-16 we are concerned about a number of river crossings especially in the Marst Topography of the Edwards Plateau area. Since this area is very important for groundwater recharge and is biologically unique we request specific mitigation measures that will be taken to protect this area. These need to be revealed in this document.
- 18-23 23.) On page 3-45 your information on the Pecos Rive is too old (1968 and 1976). Newer data is needed.
- 18-24 24.) On page 3-95 you need to complete the archeological surveys of the route from McCaney to Freoport because of the paucity of data on the area.
- 18-25 25.) On page 3-95 we take exception that there is less concern for visual environments in Texas. Since the pipelines will cross closer to the Guadalupe and Franklin Mountains and near the Gypsum Dunes we do not feel the minimization of visual values is appropriate.
- 18-26 26.) On page 3-121 you never say how springs in the area will be protected from spills or contamination.
- 18-27 27.) On pages 3-122 in the greater Houston area there are many surface faults. Many faults are not mapped. What will be done to ensure that surface faults do not cause of problem with the pipeline?
- 18-28 28.) On page 3-122 why is the risk of pipeline damage by slope instability unquantifiable? If it really is then there should be a worst-case scenario constructed to reveal maximum impacts.
- 18-29 29.) On pages 3-123 it is the Llano River?
- 18-30 30.) On page 3-131, Table 3-40 over 280 miles of sensitive groundwater basins will be crossed. How will you mitigate for these?
- 18-31 31.) On page 3-132 we are very concerned about the effects that this project could potentially have on the San Marcos Caecubus, River Darter, Rio Grande Darter, Proserpina Shiner, Blue Sucker, Fountain Darter. Although you report there to be little or no impacts you have not demonstrated that crossings will in fact not have impacts. In fact much of the McCaney to Freoport route is not finally laid out. There needs to be studies done in the areas where crossings are going to be to demonstrate that no sensitive fish, animal, or plant populations will be effected. After all only when additional surveys were done were Snail Darters found in other areas. There need to be specific mitigation measures to ensure that impacts are minimized for these fish. In addition the San Marcos River is a very high quality aquatic habitat area. It needs to be protected maximally. How will this be done?
- 18-32 32.) On page 3-133 it is not clear how impacts on Golden-Cheek Warblers will be minimized.
- 18-33 33.) On page 3-141 since there are many cultural resources along the route these need to be investigated thoroughly before construction.
- 18-34 34.) On page 4-10 what will be done in case of an emergency air quality episode due to the pipeline.
- 18-8 If the engineering design for the Rancho pipeline is unsuitable, the construction of a new line will be necessary. See response to Comment 18-1.
- 18-9 See response to Comment 18-3.
- 18-10 See response to Comment 18-1.
- 18-11 Celeron/All American would require about 20 new access roads of less than 500-feet in length to reach pump stations, tank farm, and other above-ground facilities. No new roads would be required to gain access to the ROW; existing roads would be used for any emergency maintenance activities. The Getty pipeline would have one 2,600-foot road to the Sisquoc Station and a 100-foot road to the Cuyama Station.
- 18-12 Your comment concerning planting native plants, forbs, and wildflowers in the ROW is noted. See response to Comment 3-1.
- 18-13 The disposal of brush would be at the direction of the individual land owner or land management agency. Local regulations controlling burning will be followed. Mitigation Measure 11 will be required for "desert areas" where cover is critical to survival of small animals. This technique will be implemented where acceptable to the land owner or land manager.
- 18-14 Brush would not be burned unless permitted by the Federal, state, or local agency governing the burning of debris.
- 18-15 The installation of the pipe at water crossings is described under special construction on page 2-26 of the DEIR/EIS. The overall plan is to cross water courses during low flow. Many of the proposed crossings are in arid regions, therefore flows probably would be very low, with dry conditions occurring at some crossings. The Applicants will have to comply with Federal, state, and local laws and regulations concerning stream crossings. The authorizing officer would determine if double ditch construction is done.
- 18-16 Temporary access roads and staging areas would generally be stabilized within one month of abandonment. Also see response to Comment 3-1.
- 18-17 All stream crossings are underground; the only above-ground crossing is proposed by Getty at the man-made California Aqueduct near Emidio.
- 18-18 The Construction and Use Plan submitted to BLM will include methods for construction in streams including the prevention of debris falling into rivers. Similar procedures will be outlined in Santa Barbara and other California County stipulations and California Fish & Game stream crossing permits. ODE also attaches stipulations for crossing streams under their jurisdiction.
- 18-19 Refer to Table 4-26, page 4-121 of the DEIR/EIS, which lists sensitive locations and oil spill volumes. The Celeron pipeline and the Getty pipeline have different valve configurations, therefore spills at the same location may not be similar in quantity of spills. The Celeron pipeline could lose 8,370 barrels at the San Luis Obispo-Kern County line, and the Getty pipeline could lose 3,160 barrels at the same location. Similarly, at the south branch San Ynez Fault, the Getty pipeline could lose 4,934 barrels and the Celeron pipeline 6,157-barrels.

COMMENT LETTER 18 (CONTINUED)

RESPONSE TO COMMENT LETTER 18
(CONTINUED)

-4-

18-35 35.) On page 4-14, Tables 4-4 we again call your attention how all Texas impacts are not placed on the same tables but are dispersed. We feel that the McNamee to Freeport route is actually part of the proposed project and the way the tables are made up environmental damage is belied and made to look less imposing. In addition this piecemealing downgrades the cumulative effects of the entire project.

18-36 36.) On page 4-23 frequent surveillance if not a preventative measure. What preventative measures will be used to avoid sinkhole problems?

18-37 37.) On page 4-25 it is not only agricultural areas that are the most sensitive. There are important natural ecosystems along the way which are also sensitive (Edwards Aquifer region).

18-38 38.) On page 4-30 what mitigation measure will be used for flood-prone, irrigated, and saline/alkaline areas?

18-39 39.) On page 4-32 it seems as if impacts of oil spills are being minimized here. A small stream will suffer heavily especially if the oil coated the banks for several miles and the oil became incorporated into the sediments or bottom. In this instance it could continue to leak out for months or years or environmental damage could result if oiled sediments were removed by dredging. Please expand here. We reject your assertion that "... Any spill poses a short-term impact, but long-term impacts would not be significant."

18-40 40.) On page 4-41, Table 4-6 you mean Flathead not Fathhead Catfish.

18-41 41.) On page 4-45 the biological assessment should be in the DEIS so reviewers can comment on it and get comments answered in the FEIS.

18-42 42.) On page 4-68 we would like a further explanation of how the significant impact due to lack of housing between Pecos and El Paso will be resolved and the environmental impacts minimized.

18-43 43.) On page 4-110 another method to show pipeline spills is to show the total number of spills expected/year and over the life of the project.

18-44 44.) On page 4-119 you talk about a site operating authority in California but you say nothing about Texas.

18-45 45.) On page 4-122 you say nothing about whether recovered benthics were in the same ratio as before the spill.

18-46 46.) On page 4-122 you talk about 7,36 spills from the pipeline but you do not add to this the 14 from tank farms. Also you use a 30 year horizon for tank farms but a 40 year horizon for pipelines. This seems unequal at best.

18-47 47.) On page 4-135 there is a need to assess faulting on the coastal plain.

18-48 48.) On page 4-135 again you need to explain about mitigation on Karst terrain.

18-49 49.) On page 4-135 how will you reduce the risk of contamination of the Edwards Aquifer recharge areas?

18-50 50.) On page 4-136 there is a need for more data on all fish population of sensitive species to ensure that critical habitat or unknown populations will not be affected.

18-51 51.) On page 4-139 you should know what state and Federal species will be affected

18-19 Refer to Table 4-26, page 4-121 of the DEIR/EIS, which lists sensitive locations and oil spill volumes. The Celeron pipeline and the Getty pipeline have different valve configurations, therefore spills at the same location could be different. The Celeron pipeline could lose 8,370 barrels at the San Luis Obispo-Kern County line, and the Getty pipeline could lose 3,160 barrels at the same location. Similarly, at the south branch San Ynez Fault, the Getty pipeline could lose 4,934 barrels and the Celeron pipeline 6,157-barrels.

18-20 As was discussed in the response to Comment 18-1, specific details on the operation of a McNamee to Freeport alternative are not available. It is not known if the crude and/or finished product would be transported from Freeport by pipeline, barge, or tanker. If a transportation mode that could potentially affect marine resources were selected, the environmental analysis required for a McNamee to Freeport alternative would need to consider the specific impacts of an oil spill along the Texas and Gulf coasts based on the specific shipping routes utilized.

18-21 As discussed in the response to Comment 18-1, the project as proposed by Celeron/All American Pipeline Company and analyzed by the DEIR/EIS extends from Las Flores to McNamee. The alternative could utilize the Rancho pipeline to transport oil from McNamee to the Houston area and 2-55 of the DEIR/EIS only summarizes impacts for the alternative segment from McNamee to Freeport.

18-22 Celeron/All American could reduce potential impacts through use of Mitigation Measures 1 and 6.

18-23 Ernest Simmons (personal communication 1984), Texas Parks and Wildlife Department, states that fisheries data for the Pecos River area are scarce, and recent published data are limited. Fish distribution and abundance information was based on the most recent known study by Henderson (1968). The conclusions on page 3-45 of the DEIR/EIS should still be applicable.

18-24 See Mitigation Measure 30.

18-25 As a means of mitigating visual impacts to Guadalupe Mountain National Park, the corridor has been rerouted along an existing pipeline on the south side of Highway 62 for approximately 36 miles. The comment on the visual values of the region is noted. See Modifications and Corrections Section 3.3.

18-26 The primary means of protecting springs would be by routing the pipeline downstream from the spring. The Oil Spill Contingency Plan will include procedures for containment and cleanup should a spill occur at a spring, and Mitigation Measure 6 would also protect springs.

COMMENT LETTER 18 (CONTINUED)

RESPONSE TO COMMENT LETTER 18
(CONTINUED)

-5-

- 18-51 cont. now by the McCasney to Freeport route. The reviewer will not get concerns answered otherwise. This seems to us to be a major oversight. In addition you should list specific mitigation measures to show how each Federal and state sensitive species will be protected.
- 18-52 52.) On page 4-143 you need the information on cultural resources now. Later it is not good enough.
- 18-53 53.) On page 4-153 where will low permeability backfill be used. Please name sites.
- 18-54 54.) On page 4-154 as mentioned before measure 11 should be done for all sections of the pipeline.
- 18-55 55.) On page 4-156, measure 17 needs to be utilized for all major stream crossings. Spill equipment must be in place at sensitive sites and pump stations.
- 18-56 56.) On page 4-162 it is absurd to say no additional oil spill mitigation is needed. Surely a more specific oil spill contingency plan is needed.
- 18-57 57.) On page 4-174, Table 4-33 since it is not clear how you will prevent groundwater contamination we feel it is premature to say short or long-term impacts are not anticipated.
- 18-58 58.) On page 8-33 you list state species of concern but you still say nothing about how damage to each will be mitigated.
- 18-59 59.) On page G-1 you say nothing hear of the higher SO₂, VOC, metals, and O₃ levels that are expected in Houston as a result of this pipeline and loading and unloading barges and tankers. This is especially important because the entire area is nonattainment for O₃ and because ship loading and unloading emissions of VOC's are not now controlled by either TACB or EPA. In addition you need to explain how a heavy crude oil spill, like the one that happened about a month ago - the Alvernia, will react differently than lighter crude oil spills, how easy it will be to clean-up, its effects, etc.
- 18-60 60.) On page G-11 you again say most of the oil will be loaded on ships and barges to be taken to refineries from Corpus to Mississippi but you do not discuss air pollution and oil spill problems.
- 18-62 61.) On page H-34, Table 10-2 you fail to take into account the McCasney to Freeport route and its sensitive areas.
- In summary we find that this document does not give sufficient information on different types of alternative, does not explore all alternatives equally, piecemeal the project, does not look adequately at oil spill prevention and control measures, does not give adequate coverage to state and Federal species of concern and minimizing the impacts of the project on them, and does not treat the problems of air pollution at the end of the pipeline, and does not look closely at impacts on groundwater and sensitive areas and how to mitigate them. Finally the statement does not address the unequal and unfair Public participation program provided Texas as compared to all other states affected. We request that this document be redrafted and brought out again for Public comment.
- Sincerely, *Brandt Munchen*
Brandt Munchen, Wildlife Chairperson, Lone Star Chapter, Sierra Club,
1822 Richmond #2, Houston, Texas 77098, H713-522-1489, H713-645-5316
- 18-27 Should Celeron of Texas proceed with construction of a McCasney to Freeport pipeline, they would need to complete geological studies to determine the vulnerability of the pipeline to surface faults and provide an appropriate design that would meet all Federal, state and local requirements. See Mitigation Measures 1, 2, and 3.
- 18-28 Slope instability is not a common failure for large diameter pipelines and documentation in the literature is limited. Thus, there are no statistics per se to estimate the frequency of this failure. The risk of such a break would be similar to other portions of the pipeline which is 0.0003 spill/mile/year for a new pipeline.
- 18-29 Based on your comment, text changes to page 3-123 in the DEIR/EIS are included in the Modifications and Corrections Section.
- 18-30 Although the risk of spills or leaks occurring is low (Section 4.2.15 of DEIR/EIS), the potential impacts from such a spill are significant. Potential aquifer contamination from oil spills or pipeline leaks would be a non-mitigable impact. Mitigation Measures 5, 6, 7, and 7a would reduce the potential impacts in identified sensitive groundwater basins by reducing the likelihood of pipeline breaks, providing for early leak detection and prompt spill response. These measures cannot, however, completely eliminate the potential for aquifer contamination.
- Additional pipeline design criteria, construction procedures, and operational leak detection systems are described in Chapter 2 of the DEIR/EIS for the proposed pipelines. These are procedures used throughout the industry and are in accordance with D.O.T. regulations. They are included in the Applicants' proposals and are not listed as mitigation measures. These measures would be very effective in reducing the risk of groundwater contamination along the entire pipeline alignment. Among the procedures described in Chapter 2 are pipeline coating, hydrostatic testing, burial 4 feet below the 100-year, 24-hour storm stream scour depth, cathodic corrosion protection, welding and x-ray inspection of joints, leak detection by volumetric balance, pressure loss and flow measurements, and aerial reconnaissance during pipeline operation. All below-ground connections would be welded; there would be no flanged joints below ground.
- 18-31 Appropriate environmental documentation and agency approvals would be required and would consider sensitive fish, animal, and plant populations if the McCasney to Freeport Alternative is proposed by Celeron of Texas.
- 18-32 Golden-cheeked warblers are known to nest in the region where the pipeline could cross. Site-specific impacts and mitigation measures for this and other state-listed sensitive species would be evaluated as required.
- 18-33 See Mitigation Measure 30.

2-57

- 18-34 An emergency air quality episode could possibly result from a pipeline-related fire. If a fire occurs, alarms would be sounded, various agencies and employees of the pipeline company would be alerted, the flow of oil would be stopped, and the fire promptly extinguished. Please see Appendix I in the DEIR/EIS for the Fire Protection Plan.
- 18-35 See response to Comment 18-1.
- 18-36 See Mitigation Measure 1.
- 18-37 Soils and vegetation in areas other than agricultural lands would be sensitive to contamination by oil. The direct loss of vegetation and temporary reduction of soil productivity would reduce rapid restoration of vegetative communities, wildlife habitats, and natural ecosystems. However, in both agricultural lands and natural habitats the area of influence would be small (less than 16 acres). See oil spill impacts on soils, DEIR/EIS on page 4-25.
- 18-38 Site-specific erosion control and revegetation plans will be developed to allow successful reclamation of flood-prone, irrigated, and saline/alkaline areas. Techniques will include grading, seedbed preparation, soil amendments, proper seed mixtures, proper planting of seedlings, and correct seasonal planting and monitoring of reclamation progress where appropriate. See response to Comment 3-1.
- 18-39 The impacts would be dependent upon the volume of oil spilled, and specific sensitivity of the stream. Generally, streams are most sensitive at low flow periods when substrates could be contaminated by oil. Another general assumption can be made that a large spill would be more damaging than a small spill. If oil is spilled into a stream, the damage to the stream could persist two or more years (Chernisimoff and Morrer 1977; Robinson 1979).
- 18-40 Please see Modifications and Corrections for page 4-41 for correction of fathead to flathead catfish.
- 18-41 The Biological Opinion prepared by the U.S. Fish and Wildlife Service in response to the Biological Assessment submitted by BLM is included as Appendix 4.2 of the FEIR/EIS. Various conservation measures proposed in the Biological Assessment are also included in Appendix 4.2. The various proprietary sections of the Biological Assessment, including locations of T&E species along the corridor, have been removed from the FEIR/EIS to protect the resource.
- 18-42 Celeron/All American could mitigate the short-term impact of lack of housing between Pecos and El Paso through Mitigation Measures 23 and 24.
- 18-43 Refer to Table 4-24, page 4-115 of the DEIR/EIS. The probabilities expressed for each pipeline segment can be directly equated to spills per year for the different pipeline ages. For example, there is a 0.04 probability (0.04 spills/year over the entire length of the pipeline) of a "new" Celeron or Getty pipeline having a spill of 50 barrels or more.

COMMENT LETTER 18 (CONTINUED)

RESPONSE TO COMMENT LETTER 18 (CONTINUED)

- 18-44 The Oil Spill Contingency Plan in Appendix H of the DEIR/EIS is in a general, non-specific form at this time. However, Section 2.4 of the plan discusses the oil spill response-team participation by appropriate resource agencies. Representatives from appropriate management agencies within each state and region would be incorporated into the response team when the detailed plan is prepared.
- 18-45 Macroinvertebrate densities returned to the same or higher levels at most locations approximately 2 months after the oil spill in the North Platte River.
- 18-46 Pipeline spills for the project are determined from historical statistical spill rates, which are expressed as spills/mile/year by volume. For the 40-year life of the 1,084-mile All American segment, 4.87 spills greater than 9.5 barrels and 2.49 spills greater than 50 barrels were estimated, which could occur at any point along the pipeline. For a 30-year project, this results in 3.65 and 1.87 spills, respectively. The rates cannot be added together because they are each based on representative volumes spilled.
- Tank farm spills are based on historical tank farm spill data and spill rates expressed as spills/barrel/year of storage. These data are independent of any pipeline spill statistics or spill rates. Unlike the pipeline spills, which could occur anywhere along the route, tank farm spills could only occur at the tank farm. Any conceivable size spill at the tank farm would be totally contained within the bermed and diked area surrounding each tank. Therefore, a tank farm spill would not be a threat to the environment.
- 18-47 Celeron/All American could reduce the risk from faulting by employing Mitigation Measures 1, 2, and 3.
- 18-48 Celeron/All American could reduce the risk on the karst terrain through the use of Mitigation Measure 1.
- 18-49 See response to Comment 18-30. The mitigation measures could reduce the risk to sensitive groundwater basins, including the Edwards Plateau, if implemented by Celeron/All American.
- 18-50 Sufficient data were available for evaluation of impacts to sensitive fish species between Las Flores and McCamey.
- 18-51 A general evaluation of impacts on federally listed threatened or endangered species in Texas (including the McCamey to Freepost Alternative) was included in the Biological Assessment prepared by BLM and the Biological Opinion prepared by the Fish and Wildlife Service (see Appendix 4.2). State listed species are included in Appendix Table B-6.
- 18-52 See Mitigation Measure 30.
- 18-53 See response to Comment 8-1.

- 18-54 Mitigation Measure 11 would be appropriate for all sections of the pipeline where native vegetation is present. However, it would be up to the land owner or land management agency to designate the number and placement of such brushpiles.
- 18-55 Oil spill equipment and cleanup methods will be described in the final Oil Spill Contingency Plan for specific stream crossings. The Oil Spill Contingency Plans will be complete and approved before operation. The site-specific oil spill plans will include the location of containment and cleanup equipment, the modes of deployment for specific oil spill scenarios, and other important information relevant to site-specific issues.
- 18-56 BLM will require a specific Oil Spill Contingency Plan before operation.
- 18-57 These statements were made based on the history of large diameter pipelines and the lack of impacts to groundwater from leaks or ruptures. However, a scenario could be developed where groundwater could be contaminated in the short or long-term as noted in the footnote to Table 4-33 in the DEIR/EIS.
- 18-58 See Response to Comment 18-32.
- 18-59 See Response to Comments 18-6 and 7.
- 18-60 Because most of the oil being transported is a "heavy crude oil" type, it is important that recovery of spilled oil proceed as quickly as possible. Evaporation of volatiles from the oil after it has spilled would further increase its density. The mixing of water with oil by the currents or wave action could cause the oil to sink and be incorporated into bottom sediments.
- The characteristics of the oil when spilled, and how long it has weathered, may limit certain cleanup techniques. Vacuum trucks, skimmers, and portable pumps may have difficulty pumping the concentrated oil in freshwater systems. Sorbent recovery of small quantities of oil may be difficult to control on water surface collecting agents. Impacts from "heavy crude" on marine beaches may actually be less than those experienced with lighter type crudes, because the heavier crude would not seep as far into the beach gravel and sand.
- 18-61 See response to Comments 18-6 and 7.
- 18-62 Refer to the Modification and Corrections Section 3.3. Revised Table 10-2, "Sensitive Areas Along the McCamey to Freeport Pipeline Route Where Oil Spills Would Have Significant Impacts", has been developed.

COMMENT LETTER 19

RESPONSE TO COMMENT LETTER 19

916 Anacapa Street • Santa Barbara, California 93101 • 966-3979



CITIZENS PLANNING ASSOCIATION OF SANTA BARBARA COUNTY, INC.

September 25, 1984

TO: Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814

FROM: Robert Klausner, Vice-President
Citizens Planning Association

RE: Draft EIS/R for Celeron/All American and Getty
Pipeline Projects

The Citizens Planning Association has reviewed the Draft EIS/R for the Celeron/All American and Getty pipeline projects, and submits the following comments for the Joint Review Panel's consideration.

In general, the document is quite thorough and well prepared. There are a few points, however, which we believe need clarification or a second look.

- 2-61
- | | | | |
|------|--|-------|--|
| 19-1 | 1. TERRESTRIAL BIOLOGY (p. 3-51, 4-45, 4-153). The discussion indicates that there could be significant disturbance to some "Threatened, Endangered and Special Status" plant species or communities along the Gaviota to Emidio corridor. There is no indication of the actual extent of these plant communities along the proposed right of way. Are they concentrated in a few areas, or more broadly dispersed? Has there been any mapping done? | 519-1 | These rare plants and their likely habitats were surveyed from Gaviota to Emidio as part of the studies done by Getty for their ROW application. Greater detail on the location and distribution of these species along the ROW is included in the Getty application on file with Santa Barbara County. Similar studies have not been conducted for the Celeron route. See Mitigation Measure 15a. |
| 19-2 | The mitigation section does not suggest any specific measures to protect or restore the six sensitive species listed on page 3-51. If such measures are available, they should be incorporated. | 519-2 | See response to Comment 19-1. |
| 19-3 | The environmental consequences section lists this impact as potentially significant, but the impact is not specifically listed in the summary table. | 519-3 | See response to Comment 19-1. State-listed species are included in Table 2-9 and Mitigation Measure 15a. |
| 19-4 | 2. SOCIOECONOMICS (p. 3-60). We suggest that the assumption of a 7.5% unemployment rate in 1984 is too high. Current unemployment in the County is now approximately 5.4%. Changing this assumption will cause a shift in the estimation of growth-inducing impacts of construction activity. We request that this analysis be rerun with the lower unemployment figure. | 519-4 | The 7.5 percent unemployment rate was considered representative at the time of study. The unemployment rate is not important relative to the pipeline projects due to the short project construction period. See response to Comment 2-1. |

COMMENT LETTER 19 (CONTINUED)

RESPONSE TO COMMENT LETTER 19 (CONTINUED)

CITIZENS PLANNING ASSOCIATION OF SANTA BARBARA COUNTY, INC.

COMMENTS: Celeron/All American and Getty Pipelines page 2
Draft EIS/R

3. GROUNDWATER (p. 4-37, 4-152). The discussion states that "the greatest potential for groundwater problems is associated with small undetected leaks in the pipeline." The packaging of a mitigation program to address this impact is deferred to a later time, based upon the completion of a hydrogeologic investigation and the formulation of an Oil Spill Contingency and Response Plan.

19-5 [We believe that a more detailed discussion of the best available methods for prevention, detection and rapid clean-up of both small leaks and major spills should be a part of the final EIS/R. The document does not indicate who would conduct the aforementioned studies, nor when they would be completed. It is not possible to evaluate the seriousness of these impacts, nor the effectiveness of possible mitigation measures, without more information.

19-5 More analyses have been completed and are included in Appendix 4.3. The proposed methods for prevention, detection, and clean-up are included in the project description (Chapter 2) of the DEIR/EIS and discussed further in the System Safety and Oil Spill Risk sections of Chapter 4. Most of these methods are required by D.O.T. and EPA regulations and are, therefore, not included as Mitigation Measures in Chapter 4. A formal Oil Spill Contingency and Response Plan will be prepared by the Applicant as required. See response to Comment 18-30.

2-6
19-6 [4. SOCIOECONOMICS (p. 4-57) The stated threshold level for significant increases in urban infrastructure is assumed to be 2% over existing demand. We believe this threshold is arbitrary and too high, considering the current fiscal constraints at all levels of government that have responsibility for providing this infrastructure. The Joint Review Panel, in consultation with appropriate government agencies, should recommend a more realistic threshold for indicating significant new demand for infrastructure. The environmental analysis should be reviewed in this regard.

19-6 Due to the short duration of the construction period, the construction work force for the two projects would not impact the existing infrastructure.

5. CUMULATIVE IMPACTS (p. 4-148). The cumulative peak employment levels for interrelated projects on a regional basis are projected to exceed 77,000 workers in 1988. While there is obviously a large range of uncertainty in this figure, we believe it indicates a significant growth-inducing impact from oil and other major facilities construction which needs to be mitigated.

19-7 [The Final EIS/R should note the Santa Barbara and Ventura counties' intent to establish a socioeconomic monitoring and mitigation program to be applied to all of the pending major oil developments.

19-7 The Getty and Celeron/All American Pipeline Projects would not contribute significantly to the cumulative growth-inducing impacts associated with oil development. However, the Applicants may be asked to participate in the mitigation or monitoring program for socioeconomic trends in the Santa Barbara-Ventura County area on the basis of their overall level of involvement in local development and to each Applicant's proportional employment need.

19-8 [We also suggest that the local governments in resource and growth-constrained areas should adopt a mechanism to require the phasing of peak construction periods among major energy projects. Previous EISs (i.e. EXXON SYU) have noted that phasing to avoid coincidence of peak construction employment can reduce the upper employment demand levels by as much as 30 percent. This mitigation approach should be reviewed as to feasibility and recommended to the decision-makers.

19-8 Phasing for the projects would be of little value because the Getty pipeline project would require only 49 employees during construction, and Celeron/All American fewer than 300. These construction forces are relatively small compared to the peak energy-related population increase of of 45,350 in 1988.

M. J. Morrison, M.A.

P.O. Box 304
Gardnerville, California 91209

SEPTEMBER 26, 1984

MARY GRIGGS
STATE LANDS COMMISSION
1807 13TH STREET
SACRAMENTO, CALIFORNIA 95814

DEAR MS. GRIGGS,

I AM THE OWNER OF PROPERTY LOCATED IN FOXEN CANYON, SANTA BARBARA COUNTY, CALIFORNIA.

Thank you for commenting.

I WAS INFORMED BY A MR. BOB DONALDSON OF ALL AMERICAN PIPELINE THAT, IN HIS WORDS: "WE ARE GOING TO BE CROSSING PART OF YOUR RANCH". AT THAT CONVERSATION ON SEPTEMBER 4, 1984, I REQUESTED FROM HIM HIS PROPOSAL IN WRITING, A COPY OF HIS MAP, AND INFORMATION ABOUT WHAT OTHER LANDOWNERS ARE EFFECTED BY THIS PROPOSAL. TO DATE, HE HAS NOT SENT ME THE MATERIALS THAT HE SAID HE WOULD SEND.

WITHOUT HAVING INFORMATION ABOUT THIS PROPOSED PIPELINE, AN AGREEMENT ABOUT WHAT COMPENSATION WILL BE PROVIDED TO ME AS A LANDOWNER, AND A LEGAL CONTRACT, I FEEL THAT IT IS NECESSARY FOR ME TO OPPOSE THIS PIPELINE, UNTIL BUSINESS MATTERS BETWEEN ALL AMERICAN PIPELINE AND MYSELF AS LANDOWNER ARE WORKED OUT.

I WOULD LIKE THIS LETTER TO SERVE AS A FORMAL OBJECTION TO ANY FINALIZATION OF THIS PROJECT.

THANK YOU VERY MUCH FOR YOUR KIND ATTENTION.

SINCERELY,

M. J. Morrison
M. J. MORRISON

ENCLOSED: YOUR NOTICE, FOR REFERENCE

2-63

572-1111 (CONTINUED) 10/1/84 10/1/84 10/1/84

STATE OF CALIFORNIA
STATE LANDS COMMISSION

KENNETH CORY, Controller
LEO T. MCCARTHY, Lieutenant Governor
JESSE R. HUFF, Director of Finance

GEORGE DEUKEMEYER, Governor

EXECUTIVE OFFICE
1807 - 13th Street
Sacramento, California 95814

CLAIRE T. DEORICK
Executive Officer



NOTICE OF COMPLETION/PUBLIC HEARING
ON A DRAFT JOINT ENVIRONMENTAL IMPACT REPORT/
ENVIRONMENTAL IMPACT STATEMENT

Pursuant to Section 15085(d), Title 14, California Administrative Code, the National Environmental Policy Act and 40 CFR 1500, this is to advise that a Draft EIR/EIS has been prepared for the State Lands Commission, Bureau of Land Management, and Santa Barbara County Resource Management Department, for the proposed project described below:

Project Title: Celeron/All American and Getty Pipeline
Project Location: Santa Barbara County to Emdio, Kern County, and then continuing to Freeport, Texas.

Project Description: Celeron/All American Pipeline Companies propose to construct a 1200-mile, buried pipeline to transport heated crude oil from the Santa Barbara and Santa Maria Basins through Emdio Station, California, to McCamey, Texas, with a possible 460-mile extension to Freeport, Texas.

Getty Trading and Transportation Company proposes to construct a 113-mile, buried pipeline to transport heated crude oil from Gaviota, California, to Emdio Station, California.

20-64



DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY AIR DEFENSE ARTILLERY CENTER AND FORT BLISS
FORT BLISS, TEXAS 79916

26 SEP 1984

REPLY TO
ATTENTION OF

Directorate of
Engineering and Housing

Ms. Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

Fort Bliss has received (1) An Overview of Cultural Resources Along the Texas Section of the Proposed All American Pipeline, April 1984, and (2) Draft, Environmental Impact Report/Environmental Impact Statement for the Celeron/All American and Getty Pipeline Projects, August 1984. Portions of these publications concern that portion of the proposed Celeron/All American Pipeline that would cross Fort Bliss lands in the state of Texas. Personnel in the Environmental Protection Office of this Directorate have reviewed both publications with regard to Fort Bliss' environmental responsibilities and concerns. The following comments are the results of that review.

- a. Document (2) is an adequate summary of the environmental impacts expected from the project; and the proposed mitigation measures are acceptable.
- b. The overview of historic resources in document (1) is a concise and generally accurate summary of the state of knowledge of the Fort Bliss/El Paso region. The identification of sites on the proposed pipeline route on Fort Bliss is an accurate identification of the historic properties known at the time the document was written. The mitigation strategy for historic properties outlined on pages 52-55 is an accurate description of Fort Bliss' requirements based on Federal law and regulation as implemented by Fort Bliss' Historic Preservation Plan.

We appreciate the opportunity to review and comment on the two documents.

Sincerely,

Robert K. Frink
Colonel, Corps of Engineers
Director of Engineering and Housing

Copy Furnished:

Mr. G. E. Hillier, Applied Conservation
Tech Inc, Fullerton, California
Dr. L. Herrington, TX Hist Com, Austin, TX
Mr. Bill Haigh, BLM, Riverside, California

Thank you for commenting.

KERN COUNTY DEPARTMENT



RANDALL L. ABBOTT
PLANNING DIRECTOR

1105 GOLDEN STATE AVENUE
BAKERSFIELD, CALIFORNIA 93301-2499
TELEPHONE (805) 861-2615

September 26, 1984

FILE: CeLeron/All American
Pipeline SCH #83110902

State Lands Commission
Attention Mary Griggs
1807 13th Street
Sacramento, CA 95814

Re: Proposed CeLeron/All American and
Getty Pipeline Projects

Gentlemen:

The Kern County Planning staff has reviewed above referenced project as it pertains to this County and offers the following comments.

- | | | | |
|------|--|------|---|
| 22-1 | 1. The proposed pipeline is not inconsistent with the Kern County General Plan. | 22-1 | Based on your comment, text changes to page 4-79 in the DEIR/EIS are included in the Modifications and Corrections Section. |
| 22-2 | 2. The proposed pipeline will traverse four proposed Specific Plan areas (Hudson Ranch, Tejon Hills, Cummings Ranch, and Cameron Canyon) and one adopted specific plan (Camelot). An amendment to the Camelot Specific Plan is not deemed to be necessary. | 22-2 | Based on your comment, text changes to page 4-79 in the DEIR/EIS are included in the Modifications and Corrections Section. |
| 22-3 | 3. Discussion on the potential for hydrocompatible soils in the Maricopa area is needed (see "Land Subsidence Due to Groundwater Withdrawal, Arvin-Maricopa Area" Ben E. Lofgren, Geological Survey Professional Paper 437-D). | 22-3 | Mitigation Measure 1 addresses special geohazards. |
| 22-4 | 4. Draft Environmental Impact Reports/Environmental Impact Study (EIR/EIS) fails to indicate how much of the right-of-way will be revegetated and timing of the reseedling program to ensure a successful revegetation effort. An acceptable mitigation measure would require that prior to the next rainy season no exposed soil be left after construction except for that portion necessary for maintenance access by a light duty truck. | 22-4 | The entire 50-foot (Getty) and 100-foot (All American) ROW would be revegetated as specified by the landowner or land manager (see response to Comment 3-1). Revegetation would occur after the ROW is regraded and contoured and just before the next precipitation period, normally spring. |
| 22-5 | 5. No mitigation measure has been afforded for the Tehachapi slender salamander and red-legged frog as discussed on page 4-54. | 22-5 | See Recommended Mitigation Measure 1. |

COMMENT LETTER 22 (CONTINUED)

RESPONSE TO COMMENT LETTER 22
(CONTINUED)

- 2-67
- 22-6 6. Review of the proposed alignment, particularly between the City of Tehachapi and the Community of Mojave, indicates that far more than some individual Joshua Trees will be removed (page 4-53). Applicant should be required to replace Joshua Trees on a one to one basis along the pipeline easement where plants are destroyed. As you know, Kern County Ordinance 250 protects the Joshua Tree as well as other noted plants. We suggest the construction schedule be arranged to require excavation of relatively small increments to allow for movement of vegetation and replanting in the same, or approximately the same location once construction is complete. This will necessitate a comprehensive program for construction in order to provide for the least amount of disturbances to the protected vegetation.
 - 22-7 7. Draft EIR/EIS should discuss any safety issues related to placing a heated pipeline for oil transmission adjacent to or in close proximity to a natural gas pipeline.
 - 22-8 8. The document notes that no air quality impacts are expected nor any mitigation measures proposed. Construction impacts that can be expected includes primarily particulates from fugitive dust. Mitigation should include the continual sprinkling of the construction area or the use of soil binders. Immediate revegetation by hydromulching should also be listed.
 - 22-9 9. The proposal has the potential to disturb roosting and foraging habits of the California Condor, particularly in the Hudson Ranch and Tejon Ranch areas. We suggest that construction activity in critical areas be confined to those times of least Condor activity. Construction program should be reviewed and approved by National Audubon Society and the Condor Research Center.
 - 22-10 10. The developers need to include, in their construction program, a method to dispose of solid waste and excess soil after backfill.
 - 22-11 11. The impact section (see page 3-11) discusses "unique geologic features" but notes that there are none in the Kern County area. We wonder what constitutes a unique geologic feature, and why the San Andreas Fault and/or Garlock Fault are not included.
 - 22-12 12. Table 3-8 lists an unnamed soil type in southwestern Kern County, and notes most characteristics are "Not Applicable." Considering the scope and importance of this project, this soils type should be determined and characteristics discussed.
 - 22-13 13. We believe the discussion of potential flood hazard areas and creeks needing to be crossed has been understated. Though not of popular importance as other rivers and creeks, those several creeks flowing out of the San Emigdio and Tehachapi's need to be evaluated and potential construction impacts, such as erosion and sedimentation, need to be mitigated. Reference Bitter Creek, Santiago Creek, San Emigdio Creek, and Petitito Creek out of the San Emigdio Mountains; and Water Canyon, Antelope Canyon and Mendibura Canyon in the Tehachapi Valley area.
 - 22-14 14. Page 3-76 references the Correctional Institute west of Tehachapi as the "California Women's Penitentiary." This is now a men's prison and the reference needs to be corrected.
- 22-6 Celeron/All American is required to follow County Ordinances regarding vegetation impacts and replacement (see Mitigation Measure 9).
 - 22-7 D.O.T. requires 12 inches of separation between a gas and/or oil line. Applicants would be several feet from other pipelines except at intersections and there would not be any danger.
 - 22-8 Although water trucks sometimes excessively compact soils and hinder reclamations, construction dust may be suppressed by water sprinkling if determined appropriate by authorized officer for the permitting agency. Chemical soil binders also hinder reclamation. See response to Comment 3-1.
 - 22-9 In compliance with the Endangered Species Act, BLM has evaluated potential impacts to all Federal threatened or endangered species that may be affected by the proposed project, including the California condor. Both the Fish & Wildlife Service and the Condor Research Team were consulted regarding impacts to condors. The proposed mitigation measures to minimize impacts to condors as well as the Biological Opinion are included in Appendix 4.2 of this document. California condors utilize this area year round and a timing constraint on construction activity would not minimize potential disturbance.
 - 22-10 Disposal of solid wastes and excess backfill will be specified in the Construction and Use Plans submitted to and approved by land management agencies for public lands. The land owner will determine where debris would be disposed of on private lands. Excess debris and solid waste are generally removed to existing permitted public landfills.
 - 22-11 Unique geologic sites in this report are those areas of special scientific interest that are rare or uncommon. Seismic risk areas, such as the Garlock and San Andreas fault, are not considered unique but are considered geohazards and are discussed in the seismicity sections of the corresponding route segments. The San Andreas fault is discussed under the Las Flores to Emadio section and the Garlock fault in the Emadio to Blythe section.
 - 22-12 No published SCS soil survey exists for southwestern Kern County. Information recently acquired from Bakersfield SCS (Dave Durham, Soil Conservationist) indicates that two major soil types occur in the Emigdio Mountain area. The Kettleman Series is characterized by shallow, well-drained, loamy soils on 15-50 percent mountain upland slopes. The Huemulter-Linne Association soils are shallow, well-drained, clay loams which occupy the steep (30-50 percent) mountain uplands. Slope and depth to rock are the major potential limiting factors for erosion control and revegetation.

COMMENT LETTER 22 (CONTINUED)

RESPONSE TO COMMENT LETTER 22 (CONTINUED)

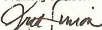
22-15

15. We are attaching a copy of a letter sent to Mr. John Dkeson of the All American Pipeline Company Bakersfield Office in which the procedures for cancellation of Williamson Act Land Use Contracts is discussed. The concerns of the Contract cancellation also need to be discussed in the EIR/EIS.

We hope these comments will be of value to you in preparation of the Final EIR/EIS. We look forward to reviewing your responses to these comments.

Very truly yours,

RANDALL L. ABBOTT
Planning Director



by Fred Simon
Principal Planner

pjw

2-68

22-13

A detailed engineering analysis of flood and scour potential will be submitted when the final engineering design is completed. Because the pipelines must conform with DOT regulations including burial of the pipeline 4 feet below the 100-year, 24-hour scour depth, the Applicants must document such engineering designs to meet DOT specifications. Mitigation Measure 5 provides a means of ensuring that modifications are made in the future if the scour depth increases. Celeron/All American and Getty have indicated that they would follow DOT standards and use Mitigation Measure 5 at all stream crossings.

22-14

Based on your comment, text changes to page 3-76 in the DEIR/EIS are included in the Modifications and Corrections Section.

22-15

Based on your comment, text changes to page 4-79 in the DEIR/EIS are included in the Modifications and Corrections Section.

COMMENT LETTER 22 (CONTINUED)

RESPONSE TO COMMENT LETTER 22 (CONTINUED)

KERN COUNTY PLANNING DEPARTMENT

RANDALL L. ABBOTT
PLANNING DIRECTOR

1105 GOLDEN STATE AVENUE
BAKERSFIELD, CALIFORNIA 93301-3499
TELEPHONE (805) 861-3613

July 25, 1984

FILE: Gen Corres

John Oveson, Area Manager
All American Pipeline Co.
1321 Stine Road, Suite 8-1
Bakersfield, CA 93309

Re: Proposed route for All American Pipeline

Dear Mr. Oveson:

The maps previously submitted to Mark Kielty, showing the proposed route of the All American Pipeline and the location of the three proposed pumping plants has been reviewed and the following determination made:

1. The proposed route is across lands of various zone designations, these range from R-4 P-D (Multiple-family Dwelling - Precise Development) through A (Exclusive Agricultural). The proposed pipeline is permitted on all of the various zone designations pursuant to Section 7259.10 and 7259.10(a) of the Kern County Zoning Ordinance.
2. A large portion of the route lying westerly of Range 17 West S88M is on lands currently restricted by Williamson Act Land Use Contracts. The buried pipeline is compatible with the Land Use Contracts, however, if any above ground structures are to be constructed, you will be required to cancel the contract for the site.
3. Each section line in Kern County has been designated as a potential major road location, therefore, in order to avoid any conflict with the possible future improvement and widening of Lokern Road you must locate the pipeline a minimum of 55 feet north of the section line for the east-west segment of the route.
4. All necessary permits must be obtained from the Kern County Public Works (Roads) Department, State Highway Department and Water Resources Department before crossings are made over or under any state highways, county roads or California Aqueduct. Also, all necessary rights-of-way or required permission must be obtained from all private owners, corporation and/or public agencies prior to construction.
5. The sites for the 3 proposed pumping plants (Emidio, Tejon and Tehachapi) are all zoned A (Exclusive Agricultural), these pumping plants are necessary and accessory to the pipeline and will not require approval of a conditional use permit. However, the sites for the Emidio and Tejon pump stations are both subject to Williamson Act Contracts and these contracts, on the construction sites, must be cancelled prior to issuance of any building permits for construction of the pump facilities.

June 15, 1984
Kern County Planning Department
Page Two

Your cooperation and consideration in this matter is greatly appreciated.
Should you need further information or have questions concerning same
please contact:

Mr. Louis A. Boll
Permit Coordinator
All American Pipeline Company
1321 Stine Road Suite B-1
Bakersfield, CA 93309
(805) 398-5651

Sincerely,

ALL AMERICAN PIPELINE COMPANY



John Oveson
Area Manager

JO/pss

2-70



E. LINWOOD SMITH & ASSOCIATES
ECOLOGICAL CONSULTANTS

Environmental Impact Studies
Ecologic Surveys and Research

Ms. Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, California 95814

28 September 1984

Dear Ms. Griggs:

I am writing to comment on the Draft EIR/EIS for the Celeron/All American and Getty Pipeline Projects.

Since 1977 I have been responsible for directing a major study of Desert Bighorn Sheep in the Dome Rock, Plomosa, New Water, and Kofa Mountains. The latter range was added to our study area in 1980. The study has centered on the movements, lambing success, home range size, and diets of radio-collared sheep. At one time in 1981 we had a total of 37 functioning radios on sheep distributed throughout the study area. Each animal was relocated from the air every five days and extensive quantities of data were obtained from on-ground observations of radio-collared sheep and their cohorts. We have logged over 10,000 relocations of collared sheep and completed over 2000 visual observation forms, each containing 63 separate bits of information and commentary. As a result of my involvement in this study, I feel reasonably well qualified to comment on the Draft EIR/EIS as it pertains to Desert Bighorn.

23-1

First, I do not believe construction and operation of the described project will have disastrously negative effects on Desert Bighorn. I am concerned about improving access (to humans) through Copper Bottom Pass in the Dome Rock Mountains. Copper Bottom Pass is used frequently by sheep residing on Sawtooth ridge to the north and by animals residing to the south. The Dome Rock population is small, does not appear to be expanding and is, therefore, more sensitive to human encroachment. A similar concern is felt for the Kofa portion of the proposed route also, although on the Kofa the route is cutting through movement areas between the Kofa and New Water Mountains as opposed to bisecting heavily used habitat.

23-2

Secondly, with reference to the Brenda Alternative, there is an error on page 3-119 in stating that the Brenda route would pass within one quarter mile of the Lazarus Yanks lambing grounds. It is true that it would pass within one quarter mile of areas frequented by lamb/ewe bands in the spring but the nearest "lambing grounds" are more than a mile away and most are more than two miles away.

23-1

Based on your comment, text changes to page 4-55 in the DEIR/EIS are included in the Modifications and Corrections Section. Mitigation to minimize the impact of human encroachment on bighorn sheep in the Dome Rock, Kofa, and New Water Mountains is contained in Mitigation Measures 18 and 19.

23-2

Based on your comment, text changes to page 3-119 in the DEIR/EIS are included in the Modifications and Corrections Section.

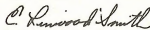
23-3

Finally, I want to encourage adoption of the Brenda Alternative. I assume that if the Brenda Alternative were used, construction of the pipeline would occur close to Interstate 10 (e.g. within a quarter mile of the highway). I think that I-10 represents a more logical "utility corridor" than one through Copper Bottom Pass and the Kofa National Wildlife Refuge. Moreover, Desert Bighorn north and south of the interstate, which appears to have effectively isolated the two groups, have evidently become accustomed to the continuous traffic and noise as witnessed by lamb/ewe bands foraging on hillsides within 100 meters of the blacktop. I do not think construction of a pipeline along the freeway would have any long-lasting effects on these animals and effective impacts to sheep would be nil owing to the presence of I-10. Construction in Copper Bottom Pass would, I believe, have more direct impact on sheep and may result in long term impacts by improving the access through the pass which currently requires a four wheel drive vehicle if one is to negotiate the entire road.

2-72

I thank you for the opportunity to comment on the document and would be happy to answer any questions you might have regarding Desert Bighorn in Yuma and La Paz Counties, Arizona.

Yours Truly,



E. Linwood Smith, Ph.D.
President

23-3

Your comment regarding the Brenda Route is noted.



OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

Beth S. Jarman, Ph.D., Executive Director • (602) 255-5371

MEMORANDUM

TO: Bureau of Land Management
 FROM: Arizona State Clearinghouse
 DATE: September 28, 1984
 RE: Celeron/All American & Getty Pipeline Draft
 EIR/EIA
 SAI NO: AZ 84-80-0028

This memorandum is in response to the above project submitted to the Arizona State Clearinghouse for review.

The project has been reviewed pursuant to the Executive Order 12372 by certain Arizona State officials and Regional Councils of Government.

The Standard Form 424 is attached along with any comments that were received for submission with the project.

Attachments

cc: Arizona State Clearinghouse
 Applicant

Thank you for commenting.

2-73

UNCLASSIFIED
 DATE 10/20/2011 BY 60322/UC/STP/STP

EXHIBIT A 67

OMB Approval No. 6345-0055

Major

FEDERAL ASSISTANCE		2. APPLICANT'S AGENCY CATION COUNTY PER	3. NUMBER	4. STATE AGENCY IDENT. PER	5. NUMBER
1. TYPE OF SUBMISSION <input type="checkbox"/> NOTICE OF INTENT (OPTIONAL) <input type="checkbox"/> PREAPPLICATION <input type="checkbox"/> APPLICATION		6. DATE Year month day	7. DATE Year month day	8. DATE Year month day	9. NUMBER
Lower Sheet		10	11	12	13
SEP 28 1984				AUG 15 1984	
4. LEGAL APPLICANT/RECIPIENT		b. EMPLOYER IDENTIFICATION NUMBER (EIN)			
a. Applicant Name		5. FICD GRADE			
b. Organization Unit		a. NUMBER			
c. Street/P.O. Box		11 5 19 8 4			
d. City		c. Country			
e. State		d. ZIP Code			
f. Contact Person (Name & Telephone No.)		9. TITLE			
Bureau of Land Management California State Lands Commission 1807 13th Street Sacramento California 95814 Mary Griggs		Multiple <input type="checkbox"/>			
10. TITLE		DOI/BLM			
Unknown		11. TYPE OF APPLICANT/RECIPIENT			
7. TITLE OF APPLICANT'S PROJECT (Use section 6 of this form to provide a summary description of the project.)		a. General Purpose Project			
AMERICAN AND CITY PIPELINE DEALT EIA/ EIA - Coleron/All American Pipeline Co's propose to construct a 1200-mile, buried pipeline to transport heated crude oil from the Santa Barbara & Santa Maria basins thru Emidio Station, CA, to McCreary, TX, with a possible 400 mi extension to Freeport, TX. Garry Trading & Transport propose to construct a 113 mi buried pipeline from Santa Barbara Co to Emidio, Kern Co., & Than to Freeport, TX, thru AZ.		b. National Purpose Project			
8. AREA OF PROJECT IMPACT (Name of county, precinct, parish, etc.)		c. State Purpose Project			
Santa Barbara Co to Emidio, Kern Co., & Than to Freeport, TX, thru AZ.		d. Local Purpose Project			
12. ESTIMATED NUMBER OF PERSONS BENEFITING		13. TYPE OF ASSISTANCE			
		a. General Assistance			
		b. Technical Assistance			
		c. Other			
		14. TYPE OF APPLICATION			
		a. Assistance			
		b. Information			
		c. Other			
		15. TYPE OF CHANGE (Use 16a or 16b as the basis for change)			
		a. Extension Grant			
		b. Extension Rejection			
		c. Extension Denial			
		d. Extension			
		16. ESTIMATED NUMBER OF PERSONS BENEFITING			
		a. General Assistance			
		b. Technical Assistance			
		c. Other			
		17. TYPE OF CHANGE (Use 16a or 16b as the basis for change)			
		a. Extension Grant			
		b. Extension Rejection			
		c. Extension Denial			
		d. Extension			
		18. DATE DUE TO FEDERAL AGENCY			
		19			
		20. EXISTING FEDERAL GRANT IDENTIFICATION NUMBER			
		21. REMARKS ADDED			
		22. YES <input type="checkbox"/> NO <input type="checkbox"/>			
		23. FEDERAL AGENCY IDENTIFICATION NUMBER			
		24. FEDERAL GRANT IDENTIFICATION			
		25. ACTION TAKEN			
		26. ACTION DATE			
		27. CONTACT FOR ADDITIONAL INFORMATION (Name and telephone number)			
		28. STARTING DATE			
		29. ENDING DATE			
		30. REMARKS ADDED			
		31. YES <input type="checkbox"/> NO <input type="checkbox"/>			

2-74

COMMENT LETTER 24 (CONTINUED)

RESPONSE TO COMMENT LETTER 24 (CONTINUED)

TO:

Director
Agriculture & Horticulture Dept
421 Capitol Avenue West
Phoenix, AZ 85007

FROM: Arizona State Clearinghouse
1700 West Washington Street, Room 505
Phoenix, Arizona 85007

State Assessment Identifier (SAIL)
AUG 15 1984 P A - 20 - 0026
State A.C. No.

Indian Affairs
Transportation
Mineral Res.
Game & Fish
Ag. & Hort.
Health
Water
Parks
Land
AORCC

REGION I, II, IV, V

This project is referred to you for review and comment. Please evaluate as to the following questions. After completion, return THIS FORM AND ONE XEROX COPY to the Clearinghouse no later than 17 WORKING DAYS from the date noted above. Please contact the Clearinghouse at 255-5004 if you need further information or additional time for review.

No comment on this project Proposal is supported as written Comments as indicated below

1. Is project consistent with your agency goals and objectives? Yes No Not Relative to this agency
2. Does project contribute to statewide and/or areawide goals and objectives of which you are familiar? Yes No
3. Is there overlap or duplication with other state agency or local responsibilities and/or goals and objectives? Yes No
4. Will project have an adverse effect on existing programs with your agency or within project impact area? Yes No
5. Does project violate any rules or regulations of your agency? Yes No
6. Does project adequately address the intended effects on target population? Yes No
7. Is project in accord with existing applicable laws, rules or regulations with which you are familiar? Yes No

Additional Comments (Use back of sheet, if necessary): *The Commission is already been working with all Congress Members in meeting all the requirements of the Arizona National Plant Law and have conducted notice plant surveys on some Roadways Cooperate.*

Reviewer Signature *Richardson*

Date 8-17-84

Title Director - Western Region

Telephone 255-4525

JUDGE - RETIRED

JOHN T. RICKARD
2323 SANTA BARBARA STREET
SANTA BARBARA, CALIFORNIA 93105
PHONE (805) 682-7983

October 1, 1984

Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, California 95814

Re: Draft EIR/EIS
Project Title: Celeron/All
American and Getty Pipeline.
Project Location: Santa Bar-
bara County to Emdio, Kern
County, and then to Freeport,
Texas.

Dear Sirs:

This letter is written in opposition to the proposed routes of the Celeron and Getty crude oil pipelines through my Spanish and Rinconada Ranches in the western Cuyama Valley. The Rinconada is at the extreme west end of the valley. It is traversed by the proposed Santa Maria Canyon Alternative. The Spanish Ranch is at the mouth of Taylor Canyon. It is traversed by the proposals of both Celeron and Getty.

Each route bisects a ranch in the heart of the Valley where the terrain is flat. The extremely wide easements sought would interfere with agricultural operations thereon. They would interfere with strategically positioned cattle corrals, water wells, water tanks, water lines, water troughs, windmills, and with underground telephone lines as well as ranch gate entrances.

The Getty proposal refers to a construction disturbance 70 feet wide by 6,625 feet long. The Celeron proposal refers to a construction disturbance 100 feet wide by 28,561.5 feet long. This would cut through the heart of each ranch. While it

COMMENT LETTER 25 (CONTINUED)

RESPONSE TO COMMENT LETTER 25
(CONTINUED)

appears that the proposed pipeline would parallel and hug the currently established State Route 166 Highway right of way, this highway route will eventually be widened and re-aligned. The State has yet to reconstruct Highway 166 between Gypsum Canyon (also known as Gifford Canyon) on the west and Cottonwood Canyon on the east. Within this corridor we are dealing with the originally established highway with its narrower right of way. Outside of this corridor, the State has already re-aligned and stabilized the route of Highway 166 with its wider take.

Any movement of the highway away from the pipeline easement will only serve to aggravate the damage to be caused by the bisection of the ranch properties. It is logical to suggest then that the pipelines remain within the confines of Federal lands on the south as they travel eastward in the Cuyama - at least until the route reaches Cottonwood Canyon. At that point, and indeed at any point eastward thereof, any pipeline may exit Federal land and reach Highway 166 with safety and without the need to cross the Cuyama River. This can be accomplished without any invasion of a Wilderness Area.

Three reasons are advanced why private lands located west of Cottonwood Canyon should not be burdened with these pipeline easements. They are:

- 25-1 [1. The pipeline easements will interfere with agricultural operations on these ranches.
- 25-2 [2. In the corridor between Gypsum and Cottonwood Canyons, State Highway 166 will eventually be widened and realigned. This will cause the further separation of the highway from the pipeline, and aggravate the damage due to the bisection of the heart of the ranch flats.
- 25-3 [3. Any underground pipeline crossing of the Cuyama River in the western Cuyama is hazardous and inadvisable. This is especially true of the two locations mentioned in the proposal.

25-1 The Applicants have indicated that easements would be obtained from the private land owners involved in the proposed RDAs. Easement agreements would include measures to minimize interference with current activities on those properties. In the case of agricultural operations, these measures include temporary fences to keep livestock out of the construction area; repair of fences following construction; alternate access routings when necessary; repair of roadways immediately following construction; restoration of the land to the land owners desired land use; and compensation to land owners for lost crops or other values associated with construction of the proposed pipelines. The operation of the pipeline would not interfere with grazing or cultivation because it would be buried.

25-2 According to the San Luis Obispo regional office of the California Department of Transportation (CALTRANS), widening and realignment of State Highway 166 is a project that they do not expect to implement for at least five years, or perhaps more. Future conflicts and some unavoidable impacts between the proposed pipeline and CALTRANS may occur when final alignment of the new road occurs.

25-3 The pipeline crossing at the Cuyama River would be a buried crossing, and would not be subjected to impacts associated with bridges. The pipeline would meet or exceed DOT specifications of burial 4 feet below the scour depth generated by the flow from the 24-hour, 100-year storm event. Bridges are subject to scouring around foundations. Debris lodging around bridge supports and acting as a dam caused most of the bridge failures in the lower Cuyama Valley (Hoe 1984).

The largest measured discharge on the Cuyama River was 17,800 cfs which occurred on February 25, 1969 (Station number 11136800 Cuyama River below Buckhorn Canyon, near Santa Maria, California). A rough calculation for the 100-year, 24-hour flow (34,000 cfs) at the above station was made using the SCS unit hydrograph techniques. Obviously, calculations done at the actual crossing will be very conservative in light of past observed discharges. Because the streambed is degrading, Mitigation Measure 5 would be applied. See response to Comment 22-13.

Actual calculations for design purposes would include the following steps:

- 1. Calculation of the 100-year, 24-hour flood;
- 2. Field survey to determine channel geometry at the crossing;
- 3. Stream bed coring to determine particle size distribution of the bed material; and
- 4. Modeling of scour depth using information collected in 1, 2, and 3.

I am not familiar with the Cuyama River east of Cottonwood Canyon, but I know its characteristics west thereof. I refer to the latter area as the western Cuyama Valley. East of Cottonwood Canyon, State Highway 166 is located south of the River. West of Cottonwood Canyon, the Highway is located north of the River. Thus, to reach the Highway from the Federal lands in the Western Cuyama on the south, it is necessary to cross the Cuyama River. This is not so at Cottonwood Canyon, or easterly thereof, because the highway is already located south of the River.

Any crossing of the Cuyama River in the western Cuyama presents a precarious and dangerous undertaking. In this area the channel of the river is not "aggrading"; it is "degrading". Here the river meanders constantly between sandy banks which seriously erode in flood conditions. Periodic floods then widen and deepen the channel.

In one location on the Spanish Ranch the river banks have eroded to such an extent as to cause the river to widen by 130 feet and deepen by 25 feet over the 21 year period between 1962 and 1983. In the storm of 3-4-78 alone the river channel widened by 50 feet and the north bluff deepened by 12 feet.

In the area where Celeron proposes to cross the Cuyama River at the west end of the Cuyama Valley in its Santa Maria Canyon Alternative proposal, a former State Highway Bridge which was 183 feet long and 22 feet wide totally disappeared in the flood of 3-4-78. No trace has ever been found of it. It was constructed of pile supports, wooden spans, reinforced concrete deck, wooden toe and guard rails and an asphaltic concrete surfacing. It provided for two way traffic and was capable of supporting the maximum load limits of the California Highway System (H-20 Sl6-44). It was a sturdy bridge, containing nine pile bents providing for ten spans between concrete abutments. Each pile bent consisted of four wooden

piles 12 inches to 14 inches butt size, which were topped with 12 inch by 12 inch pile caps. One pile had been replaced with a 10 inch by 10 inch wide flange steel pile. The stringers, which formed the spans between pile bents and abutments, consisted of 6 inch by 16 inch dense structural pressure treated redwood. The bridge deck consisted of 5 inch thick reinforced concrete slab, topped with a one and a half inch wearing surface of asphaltic concrete.

In the same area and in the same storm, there also disappeared a water well, a 10,000 gallon redwood water tank with its reinforced concrete slab base, and a 500 gallon steel water trough with its reinforced concrete slab base. All such structures were located more than 150 feet from the nearest bank of the river. A turn in the river enveloped them. They disappeared. No trace was ever found of them.

In these periodic storms, flood waters customarily flow at full channel height and from bank to bank at speeds in excess of 35 m.p.h.. The river on these occasions will carry along large amounts of debris, timber and portions of trees. These have a battering ram effect against any obstruction found in the channel, including bridges, rip-rap, underground conduits and highway installations. On two occasions underground telephone conduit of Pacific Telephone Company buried beneath the river bed parted and was destroyed by flood waters in the channel.

The stream bed and banks in the channel of the western Cuyama River have inevitably been widened and deepened.

In my opinion a ruptured crude oil line in the river bed of the western Cuyama River is to be anticipated should an underground pipeline river crossing be attempted. It is a clear danger to be avoided if at all possible and feasible. In addition to the damage that would accrue to livestock drinking water in the stream bed, it should be noted that

25-4 [the Cuyama River forms the source of water supply for Twitchell Reservoir, a U. S. Bureau of Reclamation Project, at the westerly terminus of the River. Water from this Reservoir is annually released to replenish the underground water supply of the City of Santa Maria.

25-5 [I respectfully express my opposition to the granting of any pipeline easement to Celeron or Getty across my land. My immediate neighbors in the western Cuyama on each side of me are also of the same mind. I can only suggest that an alternate route be developed within the confines of Federal land to transport this oil.

I remain,

Very truly yours,

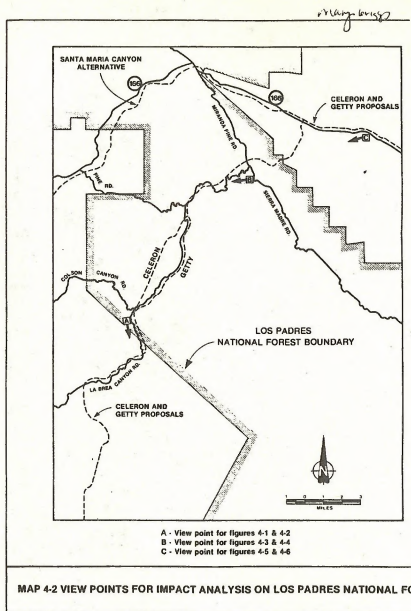
John T. Rickard
John T. Rickard

25-4 Containment of a potential oil spill in the Cuyama River could be accomplished at numerous locations before the oil reached Twitchell Reservoir. If the oil reached Twitchell Reservoir, containment could be accomplished with boats, surface booms, and cleaned up with vacuum trucks. Since most of the aromatics in the floating oil would have volatilized to the atmosphere, the remaining materials could be contained before contamination of the reservoir and prevent its reaching the groundwater supply for the City of Santa Maria.

It is possible that a small fraction of spilled oil may sink or dissolve in water. This fraction would most likely combine with the sediments in the reservoir basin, becoming demobilized by soil particles before moving a substantial distance through the aquifer.

25-5 The Tunnel Canyon Alternative would avoid the Spanish and Rinconada Ranches. The alternative was not considered viable because of the unique natural resources and wilderness values in the Further Planning Areas crossed within the Los Padres Forest. Please see the discussion on page 2-42 of the DEIR/EIS.

2-82



October 2, 1984

Mary Griggs
 State Lands Commission
 1807 - 13th Street
 Sacramento, California 95814

Dear Mary Griggs,

I have recently reviewed the Draft EIR/EIS concerning the proposed Celeron/All American and Getty Pipeline Projects (State Clearing House No. 83110902, Contract No. R-8353), dated August, 1984.

In reviewing the document, in particular, I have found that the statement did not assess the impacts or mitigation measures to non-renewable vertebrate and invertebrate fossils. This would be a direct violation of certain State and Federal laws governing the preservation of significant paleontologic resources.

Since the proposed pipeline will cover a large cross section of the California Desert, the possibility of unearthing a diverse assemblage of fossils highly exists. In essence, the pipeline project would essentially be considered highly significant in terms of paleontologic resources.

In the absence of paleontology as observed in the draft EIR/EIS, it is recommended that this issue be completely reconsidered and incorporated in the final version. The effects or impacts to paleontologic resources, as well as possible mitigation measures, should be carefully considered and evaluated.

Sincerely,

William A. Jensen
 William A. Jensen

cc: Bill Collins, Bureau of Land Management
 Chuck Bell, San Bernardino County Environmental
 Public Works Agency
 Tamara Campbell, San Bernardino County Environmental
 Public Works Agency
 Bob Reynolds, San Bernardino County Museum

26-1 See response to Comment 11-1.

California State Lands Commission
October 2, 1984

The San Bernardino County Air Pollution Control District has reviewed the August 1984 Environment Impact Report, which was submitted by Celeron/All American Pipeline Company and provides the following comments:

- | | | | |
|------|---|------|--|
| 27-1 | 1. Page 2-1, para. 2.2.1.1 Celeron/All American, after table 2-3 update data on proposed throughput of pipeline. | 27-1 | The throughput currently proposed by Celeron/All American for this project is 300,000 BPD, as stated on pages 2-1 and 2-4 in the OEIR/EIS. |
| 27-2 | 2. Figure 2-3 for the Cadiz tank farm should be revised to show actual number tanks planned. Discussion should also state at what temperature the crude oil will be stored in the tanks. | 27-2 | The description of the revised Cadiz tank farm and natural gas-fired pump and heater station is provided in Appendix 4.5. |
| 27-3 | 3. Table 2-5 Pipeline Stations and page 4-9, Operation, para. 1, should be revised due to the present plan to use gas fired turbine pumps at the Cadiz Station. | 27-3 | The current proposal calls for the installation of three pump/heater units. One of the units would have a standby role and would only be used while one of the other units was being repaired. |
| 27-4 | 4. On page 2-8 para. 3, where gas turbine - driven pump units are used, are two or three direct fired heaters to be installed. | 27-4 | Based on your comment, text changes to page 3-6 in the OEIR/EIS are included in the Modifications and Corrections Section. |
| 27-5 | 5. On page 3-6, para. Emdido to Blyth, the Cadiz tank farm is included in the San Bernardino Co. APCD area for nonattainment for ozone (O ₃). The San Bernardino County Air Quality Maintenance Area (AQMA) boundaries are the South Coast Air Basin boundary and the Riverside County line on the south, the Los Angeles and Kern County lines on the west, latitude 35°10'N on the north, and longitude 115°45'W on the east. | 27-5 | These comments are addressed in Appendix 4.5. |
| 27-6 | 6. Page 4-9, operation, para. 1, address use of gas fired gas turbines at the Cadiz facility. | 27-6 | Data for 1983 arrived too late to update the air quality data along the entire pipeline. |
| 27-7 | 7. Page 4-9, para. 4, the statement that San Bernardino County "New Source Rule" (NSR) does not apply is incorrect. The use of gas fired gas turbines will cause NO _x emissions greater than the 250 lbs. trigger under New Source Review, Regulation XIII. | 27-7 | The revised pipeline operation emissions values are included in Appendix 4.5. |
| 27-8 | 8. Page A-9, Table A-7, Summary of Relevant Air Quality Data in Southeast Desert Air Basin, should be expanded to include 1983 California Quality Data which recently became available. | | |
| 27-9 | 9. Page A-13, Table A-11, revise pipeline operation emissions values for the Emdido to Blythe portion of the pipeline. | | |

2-84

COMMENT LETTER 28

RESPONSE TO COMMENT LETTER 28

State of California, George Deukmejian, Governor

California Coastal Commission
631 Howard Street, 4th Floor
San Francisco, California 94105
(415) 543-8555

October 2, 1984

Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, California
92507

Dear Ms. Griggs:

The staff of the California Coastal Commission has reviewed the Draft Environmental Impact Report/Statement (EIR/EIS) for the proposed Celeron/All American and Getty pipeline projects. As you know, the Coastal Commission has had long standing concerns about transporting oil from the Santa Barbara Channel and the Santa Maria Basin using the most environmentally sound, efficient, and economic method possible. We believe that pipeline transportation of this crude will provide the most preferable method of transportation. We are pleased that the EIR/EIS arrives at similar conclusions. We are concerned however, that the document does not go into sufficient detail in some areas of concern to the Commission, in particular the national interest and economic impacts of the project and the marine transportation alternatives. We have the following comments on the document:

National Interest and Security Impacts. We agree with the federal agency conclusion (Bureau of Land Management, Department of Interior) that the construction of pipelines, as mitigated, is preferable to the no project alternative. The EIR/EIS documents the lack of adequate refinery capacity on the west coast and goes into some detail regarding the current oil glut along the west coast within Petroleum Administration and Defense District V (PADD V includes Washington, Oregon, Nevada, California, and Arizona). In addition the EIR/EIS provides cost statistics for the various alternatives clearly demonstrating the cost advantages for pipelining. However, no information is provided regarding the national security benefits of pipeline transportation. For example, if problems are encountered shipping oil through the Panama Canal, and the canal is closed due to the political instability of the region, the oil distribution problems within PADD V and the rest of the nation will continue. The document needs a thorough analysis of the national interest and security implications of shipping oil through pipelines which can be constructed and operated independent of international instabilities. This information is particularly important for Coastal Commission regulatory actions, because the Commission must make a legal findings during approvals for coastal dependent industrial facilities that "...to do otherwise would adversely affect the public welfare."

The Commission is also vitally concerned with comparing the impacts of marine and pipeline transportation of crude oil to Texas. We find the analysis in this draft most superficial on this issue. Specifically, we would like to see independent and original research confirming the reports conclusions that a pipeline is an environmentally superior method of transporting crude from California to Texas from the standpoint of safety, risks of spills, air quality, cost, as well as national interest and security. This will assist us in exercising our duties as a responsible agency on this project.

28-1 See response to Comment 15-1.

28-2 This EIR/EIS focuses on the construction and operation impacts created by the two proposed pipeline projects. One of the greatest potential impacts would be the possibility for oil spills. Sensitive resources that could be impacted by an oil spill are described in this document. See response to Comment 18-2.

2-05

28-1

28-2



The conclusions provided in this document indicate that the oil must be moved, that pipelines are less expensive, and that they are both technically and economically feasible to construct. However, the specific analysis used to reach these conclusions is lacking.

28-3 **Cost of Transportation.** The EIR/EIS provides cost figures for pipeline transportation which vary significantly. The document lacks a thorough analysis of this disparity. For instance, the Celeron/All American proposal estimates an oil transportation cost of \$2.89 to Houston if the Rancho pipeline can be converted to a heated line, or \$3.84 if the entire pipeline system must be constructed via the McCamey to Freeport route. In contrast, analysis performed by the A.O. Little firm in the Santa Barbara County Oil Transportation Plan predicts a transportation cost of \$7.00. The document simply lists the conclusions of these existing estimates without any analysis of this differential. In order to conclude that the proposed pipelines will be able to transport the oil out of the Santa Barbara Channel to PAOD III and PAOD V refiners at a competitive cost, greater detail is required in the methods used to reach this conclusion.

28-4 **Oil Distribution.** The proposed pipelines, if constructed, will have a major impact on oil distribution to refineries in Southern California and in the Gulf coast. What impact will these pipelines have on Alaskan oil bound for California or Gulf coast refinery centers? Will the Getty line cause the Alaskan crude to "backed out" of Southern California refinery centers for distribution exclusively to Gulf coast markets? Is the Pacific Texas proposal from Long Beach to Texas a potential alternative for pipelines out of Santa Barbara or for Alaskan crude to be shipped to the Gulf coast? The EIS needs further discussion on these points.

28-5 **Operating Energy Consumption.** The EIR/EIS provides figures for the relative energy efficiency of the proposed pipelines versus the tankering alternatives. We note that the proposed pipelines will use approximately 60 percent of the energy necessary to transport the same quantity of oil by tanker. We believe that this is a significant difference and should be highlighted in the Summary of the document and these figures should be reflected in a per barrel comparison of the various transportation alternatives.

28-6 **Appendices.** Appendix G provides an excellent overview of the need to transport oil out of west coast regions into refining areas within PAOD's III and V. Appendix H is incomplete. It has several blank spaces that have yet to be filled in. This must be corrected in the final document.

Specific Comments.

28-7 **Page 1-7 Key Authorizing Actions.** This chart should list the potential for the County permit to be appealed to the Coastal Commission. If the project is appealed the Coastal Commission would process the final permit.

28-8 **Page 3-71 Land Use Regulations and Plans.** The document does not list all the important Coastal Plan policies. Although two policies are listed on page 4-76 of the document, important policies such as policy 9-1 which requires special study and mitigation for projects located within 250 of environmentally sensitive habitat areas (ESHA) are not included. A summary table combined with a discussion of these policies should be added.

28-9 **Page 3-75 Recreational Facilities and Use.** The consultant should contact State Parks directly to obtain updated 1983 visitor use figures for Refugio and Gavitoa State Parks.

28-3

Table G-9 (Appendix G) contains capital and operating cost data used to develop the tariff estimates. The Las Flores Canyon to Midland, Texas portion of the pipelines are directly comparable to evaluate the differences in cost components developed by Arthur D. Little, Inc. (ADL) and Celeron/All American. The estimates for the portion between Midland and Houston are not comparable because of the different routes selected.

ADL's capital cost estimate for the Las Flores Canyon to Midland portion of the pipeline is \$1,500.4 million. The annual operating costs were estimated to be \$108.4 million by ADL. Celeron/All American estimates for the same portion of line are \$700 million for capital costs and \$66.6 million for operating costs.

The difference in the tariff estimates for the Las Flores to Midland leg is \$2.30 per barrel. The difference in the capital cost estimates accounts for \$1.90 of the total difference. Operating cost estimate difference accounts for the other \$.40 of the tariff difference.

Because of the differences between the assumptions and criteria used in these two estimates, other reference data were sought. It was determined that pipeline costs are at least competitive with tanker costs. The costs of transportation would vary due to volume of oil to be shipped, ownership of the oil, and owner's policies relative to individual transporters of oil. Generally speaking, higher volumes of oil would mean lower cost of transport. However, in some instances where new tankers or pipelines would be required, some of the savings of high volume could be diminished due to the high costs of new money. Getty Trading and Transportation Company has emphasized the flexibility required in the transportation of oil. Getty's plan proposes the use of both tankers and pipelines. The Celeron/All American proposal indicates a low cost pipeline project could transport relatively large quantities of crude oil from PAOD V to PAOD III.

28-4

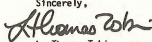
The Draft EIR/EIS discussed destinations of OCS oil from the Santa Barbara County area. Much of the oil could be distributed within PAOD V, while major portions could be shipped eastward to PAOD III and distributed there. See response to Comments 1B-6 and 1B-7. The relationships between each of the oil owners, refinery owners, and marketing groups is very complex. If oil producers in the Santa Barbara/Santa Maria area own oil refineries in California, it is possible they could send crude oil from the Santa Barbara County area to those refineries. If those refineries are not permitted to expand their capacities, but do have the basic capacity to refine heavy crude oils, they may displace oils currently coming from other portions of California, the U.S., and foreign countries. Because of the lack of major pipeline projects to link oil from west to east and to link OCS oil from the Santa Barbara area to the rest of PAOD V, the first pipeline permitted and constructed should have the greatest opportunity to fill the transportation need. This EIR/EIS cannot anticipate all the possible scenarios of who will be permitted first, who will construct first, who will sign contracts first, and where the various destination points will be. These answers lie within the management of the various corporations involved.

COMMENT LETTER 28 (CONTINUED)

RESPONSE TO COMMENT LETTER 28
(CONTINUED)

- 28-10 Page 4-36 and 4-45 Potential Impacts to Aquatic and Terrestrial Resources. The proposed route through Gaviota State Park and Gaviota Pass in the vicinity of Gaviota Creek and wetland needs to be mapped on larger scale maps such as USGS topographical maps (1:24,000). This level of mapping will accurately depict the relationship of the proposed pipeline route and the Environmentally Sensitive Habitat Areas (ESHA). Such sensitive areas should be avoided if feasible. If avoidance is not feasible than full mitigation measures must be incorporated into the document.
- 28-11 Page 4-77 Recreational Facilities and Use. Construction impacts on public access to the Gaviota State Park need to be better defined. How long will access be blocked? Are there appropriate mitigation measures for allowing alternative access while crossing the roadway? The document must address these issues.

Thank you for the opportunity to comment.

Sincerely,

 L. Thomas Tobin

- 28-5 A specific comparison of energy used in tanker shipment as compared to the proposed pipeline shipment is dependent upon a number of assumptions regarding tanker shipment scenarios. Previous analyses (e.g., Santa Barbara County 1984) examine these questions in greater detail, and were considered during the preparation of the document.
- 28-6 See response to Comment 18-44.
- 28-7 Table 1-2 in the DEIR/EIS was structured to identify the agencies that have primary permitting responsibility. Thank you for your clarification in the event of an appeal.
- 28-8 Space limitation in Chapter 3 did not allow for the listing of specific sections of all relevant regulations and plans. Chapter 4 listed only those LCP policies with which the projects may not comply. The crossing of Gaviota Creek as shown on the project maps has been surveyed by the Fish & Wildlife Service, California Department of Fish and Game, and ERT biologists and mitigation measures have been proposed. Both proposals appear to be in compliance with Policy 9-1. For these reasons and the fact that there appears to be no feasible alternative to crossing the Gaviota Creek ESHA, the projects may also comply with Policy 9-38. -See Mitigation Measure 9 and Letter 47-3a.
- 28-9 Visitor use for Refugio and Gaviota State Parks in 1983 was 188,262 and 181,933 use days, respectively.
- 28-10 Habitat typing and calculations of disturbed habitats were determined using 1 inch = 1,000 feet photo-mosaic alignment sheets of the proposed ROW. About 1.3 acres of willow habitat would be removed by construction of the Celeron pipeline across Gaviota Creek assuming a 50-foot ROW. Route alternatives that minimize loss of vegetation, and revegetation measures are being investigated by the Applicants. The California State Parks and Recreation Department will issue a ROW for this portion of the line and approve the final alignment and revegetation plans.
- 28-11 No public access would be blocked during the construction or operation of the Proposed Projects. All roads would be maintained through use of detours or closing of only one lane at a time. All public access and safety and emergency vehicle access would be maintained. No roads would be closed due to pipeline construction unless there is a feasible alternative access route or detour available.



OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
18 WC BUILDING
4110 RIO BRAVO
EL PASO, TEXAS 79902

Ms. Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

Thank you for your July 17, 1984 letter transmitting copies of the draft EIR/EIS of the proposed Celeron/All American and Getty Pipeline project providing us opportunity to review and comment.

Following our review of this document these comments are offered:

- 2-00
29-1
- 1) The potential exists for two international impacts should a pipeline failure occur at the Colorado River crossing at Blythe:
 - a) Pollution of Mexican water supply by introduction of petroleum products into the water which could not be removed prior to diversion at Morelos Dam.
 - b) Temporary but unacceptable reduction in water deliveries to Mexico caused by reduction in upstream releases to slow the downstream movement of any oil spill.

Due to the possible international impacts of an oil spill at the Colorado River crossing, deeper burial and/or heavier protection of the pipeline should be placed in the channel over the pipeline to prevent its washing out.

- 29-2
- 2) Impact Summary Table, page S-5, second column. Change "... and along the Gila and Rio Grande River Valleys" to "... and along the Gila River and Rio Grande Valleys."
 - 29-3
 - 3) Table 1-1, page 1-6. First column change, "International Water and Boundary Committee" to "International Boundary and Water Commission." Second column change, "Issue license to cross international water boundary" to "Issue license to cross leveed floodway." In third column and all other references (listed below) to the Rio Grande delete the word "River" as it is repetitious (Rio = River).

29-1

The burial depth proposed by the Applicant at the Colorado River crossing takes into account scouring that may occur during heavy flow conditions over the life of the project. Prior to construction of the river crossing, the Applicant will be required to submit a site-specific Oil Spill Contingency Plan to the International Boundary and Water Commission for approval. A draft Oil Spill Contingency Plan for the Colorado River Crossing is provided in Appendix 4.4 of the FEIR/EIS.

29-2

There is redundancy in the use of the term "Rio Grande River"; however, use of the term in the DEIR/EIS is not confusing or misleading to the reader. Since the entire text of the DEIR/EIS will not be reprinted, this change will not be made throughout the text, tables, or maps.

29-3

Based on the comment, text changes to page 1-6 (Table 1-1) in the DEIR/EIS are included in the Modifications and Corrections Section. Refer also to response to Comment 29-2.

COMMENT LETTER 29 (CONTINUED)

RESPONSE TO COMMENT LETTER 29 (CONTINUED)

Other references to Rio Grande include, but may not be limited to:

- Impact Summary Table, pages S-6 and S-7
- Table 3-10, page 3-26
- Table 3-12, page 3-29
- Page 3-31, line 2
- Table 3-13, page 3-32
- Table 3-17, pages 3-43 and 3-44, seventh column
- Page 3-45; fourth paragraph; first, second, and sixth lines
- Page 3-56, third complete paragraph, first line
- Table 3-26, page 3-80
- Page 3-83, fourth complete paragraph, ninth line
- Table 3-32, page 3-103
- Table 4-4, page 4-14
- Table 4-5, page 4-29
- Table 4-6, page 4-40
- Table 4-18, page 4-91
- Table 4-26, page 4-121
- Map 1-2, sheet 10; codes A6, G33, and S30
- Appendix Table B-5, Page B-17, second column. Change "(Rio Grande and Pecos Rivers)" to "(Rio Grande and Pecos River)"
- Appendix Table B-6, pages B-23 and B-24
- Appendix Table 10-1, page H-33
- Appendix Table 10-2, page H-34

2-89

- | | | | | |
|------|---|---|------|---|
| 29-4 | 4 | Page 2-4, first complete paragraph, eighth line. The statement "... cross the Rio Grande into Texas ..." is incorrect. The pipeline continues through Dona Ana County, New Mexico before entering Texas east of the Franklin Mountains. | 29-4 | Based on the comment, text changes to page 2-4 in the DEIR/EIS are included in the Modifications and Corrections Section. |
| 29-5 | 5 | Table 2-8, page 2-49, third column. A "0" is indicated for the number of streams with municipal water supply crossed by the All American pipeline. A "2" should be indicated here since the city of El Paso diverts from the Rio Grande for a part of its municipal water supply, and the cities of Yuma, Arizona; Calexico, California and other towns in Imperial Valley, California; and Mexicali, Baja California all receive their municipal water supply from the Colorado River. | 29-5 | Based on the comment, text changes to page 2-49 (Table 2-8) in the DEIR/EIS are included in the Modifications and Corrections Section. |
| 29-6 | 6 | Table 2-9, page 2-52. Same as above. | 29-6 | The table is referring to only the portion of the pipeline dealing with alternative routes. No rivers supplying domestic water are crossed in these alternatives. The table is correct as originally written. |
| 29-7 | 7 | Page 3-45, fourth paragraph. Change second sentence to read, "This segment of the Rio Grande is occasionally dry during the winter because of reduced releases from Elephant Butte Dam due to lack of demand for irrigation diversions ..." | 29-7 | As described in the comment, the Rio Grande is occasionally dry during the winter because of reduced releases from Elephant Butte Dam due to lack of demand for irrigation diversions. |
| 29-8 | 8 | Table 3-39, Page 3-129. Correct typographical error for "Navidad" River in first column. | 29-8 | Based on your comment, text changes to page 3-129 (Table 3-39) in the DEIR/EIS are included in the Modifications and Corrections Section. |

- 29-9 [9) Table 4-14, page 4-75. Several corrections should be made:
 a) Map code L16 should be location South of Cadiz.
 b) Reumber Map Code column accordingly.
 c) Correct typographical error for "Toma of Deming," New Mexico.
 d) Map Code L28 (new number) should be Bucco Tanks State Park in Sensitive Characteristics column.
 e) Map code L29 (new number) should be Guadalupe Mtn. National Park in Sensitive Characteristics column.
- 29-10 [10) Page 4-87, fifth paragraph, line three. Correct typographical error for "Bucco Tanks State Park."
- 29-11 [11) Page 5-2, second line. Change "International Boundaries Commission" to "International Boundary and Water Commission."

Finally, the U.S. Section understands that the oil spill contingency plan (Appendix R) is preliminary in nature. A license will be issued by the U.S. Section for crossing the leveed floodways on the Rio Grande in the vicinity of Merino Bridge following review of the oil spill contingency plan for the Rio Grande and fulfillment of certain licensing requirements.

Thank you for this opportunity to review and comment on the draft EIR/EIS.

Sincerely yours,

George R. Baumli

George R. Baumli
 Principal Engineer
 Investigations and Planning Division

- 29-9 Based on your comment, text changes to pages 4-74 and 4-75 (Table 4-14) in the DEIR/EIS are included in the Modifications and Corrections Section.
- 29-10 Based on your comment, text changes to page 4-87 in the DEIR/EIS are included in the Modifications and Corrections Section.
- 29-11 Based on your comment, text changes to page 5-2 in the DEIR/EIS are included in Section 2.1 of the FEIS.



October 3, 1984

Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

I have just had a chance to personally review the Draft EIR/EIS for the Celeron/All American Pipeline of August 1984 (State Clearing House No. 83110902, Contract R 8353).

Major pipeline excavations have a very high probability of encountering significant vertebrate fossils wherever terrestrial sedimentary deposits are encountered. Many such deposits fall along this pipeline route. The draft is conspicuously lacking a reasonable discussion of vertebrate paleontological non-renewable resources (draft p. 4-19) throughout much of the proposed route. Preservation of these materials is clearly mandated by State and Federal regulations.

Because my past and continuing research interests have focused on vertebrate fossil sites which will be directly impacted by this project (a partial publications list is enclosed), I suggest you insure that the preservation of paleontological resources be adequately addressed. The developer should be required to mitigate any adverse impact through monitoring the excavation, salvage of specimens, and eventual curation and storage in an appropriate public institution.

Sincerely,

G.T. JEFFERSON

George T. Jefferson
Assistant Curator
Rancho La Brea

cc: Chuck Bell
Tamara Campbell
Bill Collins

Craig C. Black, Director
Leon G. Arnold, Assistant Director

30-1 See response to Comment 11-1.

30-1
2-91

NATURAL HISTORY MUSEUM LOS ANGELES COUNTY

Los Angeles County Museum of Natural History • 900 Exposition Boulevard • Los Angeles, California 90007 • tel (213) 744-3414
George C. Page Museum • Hancock Park • 5901 Wilshire Boulevard • Los Angeles, California 90036 • tel (213) 857-6311

PUBLICATIONS

- 1965 - Geology and Paleontology of a Portion of the Manix Basin Deposits, San Bernardino County, California. Am. Assoc. Petroleum Geologists Bull., vol. 49, no. 10, p. 1762, abs.
- 1968 - The Camp Cady Local Fauna from Pleistocene Lake Manix, Mojave Desert, California. M.A., Dept. Geol. Sci., U.C. Riverside vii + 130.
- 1971 -C Radiocarbon Dates of Manix Lake, Central Mojave Desert, California. Co-author with A. Bassett; Geol. Soc. Am. Spec. Pap., Abs. of Paps. submitted for the Meetings in Riverside, California 3(2):79.
- 1971 -D New Pleistocene Vertebrate Sites on the Mojave Desert: A Reconnaissance Report. Geol. Soc. Am. Spec. Pap., Abs. of Paps. submitted for the Meetings in Riverside, California 3(2):140.
- 1973 -B A Re-examination of the Pinto Basin Site, Joshua Tree National Monument, California. Soc. for Am. Archaeology, Abs. submitted for Meetings in San Francisco, California.
- 1982 -A Manix Lake and the Manix Fault: Field Trip Guide. Joint author with J. Keaton and P. Hamilton; San Bernardino Co. Mus. Assoc. Quaterly, vol. 29, nos. 3-4, pp. 1-47.
- 1983 -B A Fragment of Human Skull from Schullion Cave, Mojave Desert, California. So. Calif. Acad. Sci., vol. 82, no. 2, pp.

2-92

COMMENT LETTER 30 (CONTINUED)

RESPONSE TO COMMENT LETTER 30
(CONTINUED)

1984 -B Review of the Late Pleistocene Manix Lake Avifauna.
So. Calif. Acad. Sci., Abs. submitted for Meetings in
Los Angeles, abs. 38:19.

In Press Late Pleistocene Megafauna: A Setting for Early
Hunters in the Southwest. Archaeological Survey
Assoc., Proc. Second Annual Gil Becker Symposium on
the Southwest, Univ. Redlands, Calif.

In Press Review of the Manix Lake Avifauna. Nat. Hist. Mus.
Los Angeles Co. Contrib. in Sci.

In Press The Camp Cady Local Fauna: Paleoenvironment of the
Manix Lake Basin. in "The Calico Early Man Site", R.
D. Simpson ed., San Bernardino Co. Mus.



United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VA. 22092

In Reply Refer To:
MGS-Mail Stop 423

OCT 3 1984

Ms. Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

We have reviewed the environmental impact report/statement for the Celeron/
All American and Getty Pipeline projects and have the following comments:

2-94

31-1

The document indicates that in sensitive ground-water areas the bottom and sides of trenches will be covered with low-permeability backfill materials before the pipeline is laid (p. 4-153). We suggest that in especially sensitive situations the low-permeability materials should surround the pipeline to hinder lateral movement of contaminants from leaks or breaks in the pipe. For example, such a measure would be useful near the margins of valleys or prior to descending steep slopes into valleys where permeable materials such as alluvium can be anticipated. Other examples could be found in approaching features of high permeability in karstic terrains or when approaching a slope above a municipal water supply.

31-1 See response to Comment 8-1.

31-2

If any of the cathodic protection devices to be used (p. 2-35, 4-117) will be of the deep well type discussed by Ritchie (Ritchie, E.A., 1976, Cathodic protection wells and ground-water pollution: Ground Water, vol. 14, no. 3, p. 146-149), the statement should indicate how the aquifer(s) involved will be protected against pollutants traveling down the well annulus.

31-2 The cathodic protection system would be designed to minimize impacts on groundwater. The design would include a) locating the anode bed away from shallow groundwater aquifers; b) case the bore, grout between the case and the bore, and seal the annulus where an anode proceeds into a shallow groundwater aquifer; or c) install a shallowbed anode system.

31-3

Heavy rainfall during or following an oilspill can increase greatly the infiltration rate and distance traveled by components of crude oil, particularly water-soluble components (Duffy, J.J., Mohtadi, M.F., and Peake, E., 1977, Subsurface persistence of crude oil spilled on land and its transport in groundwater: in Proceedings 1977 Oilspill Conference of American Petroleum Institute, Environmental Protection Agency, and U.S. Coast Guard, New Orleans, March 8-10, 1977, p. 475-478). This should be considered in evaluating the potential for impacts on ground water. Effects of petroleum

31-3 These conditions have been considered in the evaluation of potential oil spills and associated impacts to groundwater as described in the DEIR/EIS. The adverse effects of taste and odor have also been addressed (page 4-35) and the broad significance criterion (page 4-34) defines any contamination of groundwater by crude oil to be a significant impact, even though toxic concentration levels might not be exceeded.

31-3
cont.

Ms. Mary Griggs

2

on the taste and utility of ground water should be considered, even though taste and odor will indeed be objectionable before toxic levels are reached (p. 4-35, 4-36).

Sincerely yours,



James F. Devine
Assistant Director
for Engineering Geology

DOUGLAS C. NELSON, P. C.

*Attorney at Law*SUITE 516, LUTHER BUILDING
11 WEST JEFFERSON
PHOENIX, ARIZONA 85003

(602) 266-6401

October 8, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, California 95814Re: Celeron/All American and Getty Pipeline
SLC EIR 369, State Clearinghouse No. 83110902

Dear Ms. Griggs:

We are submitting these comments on behalf of Paloma Ranch in respect to the Draft Environmental Impact Report/Environmental Impact Statement for the proposed Celeron/All American and Getty Pipeline projects (the "EIR/EIS").

Paloma Ranch is a large farming operation which is located in southwestern Maricopa County, Arizona. Waters for Paloma Ranch are diverted at its Gillespie Dam, which is located in Section 28, Township 2 South, Range 5 West, and those waters are transported to croplands of Paloma Ranch in its concrete-lined Gila Bend Canal. Those structures are depicted on Sheet 7 of Map 1-2 of the EIR/EIS.

Based upon information contained in the EIR/EIS, the proposed pipeline will cross the Gila River on Paloma Ranch land just below Gillespie Dam. It will then intersect the Gila Bend Canal and the Gila Pump Station will be located within the watershed of Paloma Ranch.

In addition to the use of Gila River waters, Paloma Ranch owns and operates numerous irrigation wells. Those wells pump water from the Gila Bend Groundwater Basin over which the proposed pipeline will be constructed. Recent studies by the Arizona Department of Water Resources indicates that this Groundwater Basin is readily susceptible to recharge by surface flows.

Ms. Mary Griggs
October 8, 1984
Page 2

Because the proposed pipeline may have adverse impacts on Paloma Ranch and its water system, we submit the following comments:

1. Pipeline Construction

- 32-1 The proposed pipe is to be buried in the Gila riverbed at a depth of 4 feet below the probable scour depth of a 100-year flood (EIR/EIS p. 2-26). Determinations of 100-year floods and their probable scouring effects are speculative at best when considering the erratic flows and limited data on the Gila River, and in particular, at this location of the pipeline crossing. We would appreciate further information as to how those determinations will be made. 32-1 The flood flows would be calculated using a hydrometeorological technique. The technique uses basin characteristics and probability of a given rainfall event recurring. See response to Comment 25-3.
- 32-2 Drilling and blasting of solid rock subsurfaces are proposed (EIR/EIS p. 2-26). Recognizing that Gillespie Dam is located on bedrock and the Gila Bend Canal is lined with concrete, Paloma Ranch is concerned about the impact those charges may have on its structures. 32-2 Blasting of rock for the proposed pipelines would include small directional charges. Matting would be used to prevent the dispersal of rock from the ROW and minimize damage to buildings or injury to individuals. Celeron/All American has indicated that the blasting near Gillespie Dam would not affect the dam.
- 32-3 Construction activity across the Gila River below Gillespie Dam may impose limitations on Paloma Ranch's ability to operate the release gate on Gillespie Dam. Paloma Ranch wishes to point out that any construction activity must be subject to any of its obligations to release waters at Gillespie Dam. 32-3 Celeron/All American has indicated that the Gila River would be crossed during a low flow period and water uses would not be interrupted.
- 32-4 The proposed pipeline will cross the Gila Bend Canal. That Canal is a vital component of the water delivery system for Paloma Ranch throughout the year. Paloma Ranch has grave concerns about any discontinued use of that Canal. 32-4 Celeron/All American proposes to cross the Gila Bend canal by directional boring and casing the pipe similar to highway crossings. This procedure would not interrupt use of the canal.
- 32-5 In respect to the proposed pipeline construction under the Gila Bend Canal, the EIR/EIS does not address the construction technique and pipe protection standards which will be required for buried pipe under concrete-lined canals. Paloma Ranch desires assurances that the pipeline construction will not in any way adversely affect the present condition of that concrete-lined Canal or the ability of Paloma Ranch to improve, enlarge or deepen that concrete-lined Canal. 32-5 Major concrete-lined canals would be crossed by boring and casing under the canal. This procedure would not interrupt use of the canal. Any future excavation of the canal must account for the buried pipeline.
- 32-6 Oil spills present the most significant impact on water resources (EIR/EIS pp. 4-31 and 4-34). If the pipe is not laid to the proper depth and sufficiently protected, floodwaters of the Gila River could scour, expose and damage the pipe, and thus cause an oilspill. Those contaminated waters would then percolate to 32-6 Automated block valves would be placed at the Gila River on the upstream side to the flow of oil and a check valve on the downstream side. See response to Comment 32-4.

Ms. Mary Griggs
October 8, 1984
Page 3

32-6
cont.

the groundwater aquifer or would be impounded in Painted Rock Reservoir. Because of the gravity of this situation, Paloma Ranch requests that block valves, automatic shutdown systems and detection devices be installed on each side of the Gila River and the Gila Bend Canal.

32-7

Table 10-2 on page B-34 does not denote surface hydrology and groundwater hydrology as being of significant impacts if an oil spill occurred on the Gila River. Likewise, Table 3-14 on page 3-34 does not recognize the 11 miles of pipeline through the Gila Bend Groundwater Basin as a sensitive area. Though normal Gila River flows may result in reasonable mitigation of oil spills, large flood-flows (which have been experienced recently) could result in major dispersion of oil releases and rapid percolation to the groundwater aquifer, even though the depth to water table may not be as shallow as some other basins.

32-8

Unless adequate detection, shutdown and mitigation measures are in place, further study of the Gila Bend Watershed and Groundwater Basin should be undertaken to determine its hydrogeology, rate of percolation and the impacts of oil spills.

3. Abandonment

32-8

At the end of the 30-year expected life of the Project, the pipeline is to be abandoned in place under river crossings (EIR/EIS p. 2-351. Conditions may change dramatically on the Gila River during that time. Consequently, Paloma Ranch suggests that the pipe be removed if the depth to the pipe has decreased during that period.

32-7

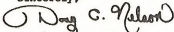
The Gila Bend Groundwater Basin was not considered to be a "sensitive groundwater basin" because the reported depth to groundwater exceeds 100 feet. The thickness of unsaturated sediment along with the high viscosity of the crude oil would be effective in reducing the risk of aquifer contamination from a spill or leak. Detron/All American has indicated that its construction and operation procedures discussed in the response to Comment 18-30 and in Chapter 2 of the DEIR/EIS would be implemented along the entire pipeline route, including Gila Bend.

32-8

Mitigation measures would protect the pipeline if the streambed degrades. If the pipeline were left in place after abandonment, the contents would be purged of oil and filled with some inert material.

In closing, we appreciate the opportunity to comment on this EIR/EIS. We hope these concerns and suggestions are given careful consideration and please feel free to contact us if further clarification is necessary.

Sincerely,



Douglas C. Nelson, P.C.

DCH/pg

COMMENT LETTER 32 (CONTINUED)

RESPONSE TO COMMENT LETTER 32
(CONTINUED)

.. Mary Griggs
October 8, 1984
Page 4

c: Mr. John B. Anderson
Mr. Mel Gould
Mr. Max I. Wood
Mr. Steve Todd
Stewart F. Kvalheim, Esq.
Kent Calfee, Esq.
Mr. Bob Steil

Certified Mail
No. P22 1371451

Margit F. Chiniaco Baldivid
Oct. 9, 1984

Mary Griggs
Calif State Lands Commission

Dear Ms. Griggs,
this is to serve as our
endorsement and full
acceptance of the proposed
Caleron- All American line.
there are several existing utility
lines and gas lines that have
operated many years in this
area with very very minimal
impact. we believe the new line
will be good for the economy
in terms of new jobs and
will create an even more self
sufficient country - RE: oil and gas
usage. Thank you.

Margit F. Chiniaco Baldivid
CHIRIACO SUMMIT CA 92201

1110 Laurel Avenue, Bloomington, California 92906 (714) 872-3777

Thank you for commenting.

To whom it may concern,

Please consider my appeal. I have read of the intentions to build All American Celeron and Neely Crude oil pipeline from near Santa Barbara to McCarney, Texas.

As an individual who consciously participates in matters of earth impact, I object to this proposal!

Impact to our universe is extremely dangerous. I feel we must be wise and economical with our resources of land and environment

I feel we must centralize our use of resources - rely more on environmentally safe, creative and resourceful energy.

Thank you for your concern,

Cynthia Rose Star

P. O. 981
 Buena Vista
 Ca 95446

Thank you for commenting.

Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814

Oct. 9, 1984

Dear Ms. Griggs,

The Draft Environmental Impact Report for the All American Pipeline does not offer any protection for fossils found in the proposed right-of-way.

In the Daggett area, for example, I know that important fossils have been recovered by paleontologic monitors during other construction projects.

I feel that measures to preserve or salvage fossils along the proposed pipeline should be included in the Environmental Impact Report.

Cordially,

Bruce Lander

Dr. E. Bruce Lander
Program Manager for Paleontology

cc: Bill Collins, Bureau of Land Management
Chuck Bell, San Bernardino County Environmental Public Works Agency
Tamara Campbell, San Bernardino County Environmental Public Works Agency

35-1 See response to Comment 11-1.

35-1

2-102



COMMENT LETTER 36

RESPONSE TO COMMENT LETTER 36



TEXAS
PARKS AND WILDLIFE DEPARTMENT
6220 South School Road Austin, Texas 78744

CHARLES D. TRAVIS
Executive Director

COMMISSIONERS
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Midland

DR. GAY E. SANTOS
Lockport

WILLIAM M. WHEELER, III
Houston

October 9, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, California 95814

Re: Draft Environmental Impact Report for the Celeron/All American
and Getty Pipeline Projects

Dear Ms. Griggs:

Concerning the above-referenced project the following comments are
provided.

36-1

Based on information shown on Map 1-2, sheet 10, item L-28 it appears
that the proposed route could cross Hueco Tanks State Park, a facility
that is operated by this Department. According to Section 26.001 of
the Parks and Wildlife Code, this agency may not approve a project
that requires the use or taking of any public land designated as a
park, recreational area, or historic site unless there is no feasible
and prudent alternative. Since other possible routes are available,
it appears that another right-of-way would be a viable alternative.

36-1

Pipeline construction would be within 0.5 mile, but would not cross
Hueco Tanks State Park.

36-2

On map 2-2 a proposed route is shown from McCamey to Freeport. In
order for this agency to determine the potential impacts of the project
upon endangered species, (such as, the Attwater's Greater Prairie
Chicken) a more detailed map and description is needed.

36-2

The EIR/EIS and the Biological Assessment only addressed a generalized
route from McCamey to Freeport. The Fish and Wildlife Service and
Texas Parks and Wildlife Department determined that the pipeline would
not likely be in current breeding areas for the Attwater's prairie
chicken. See response to Comment 18-1.

36-3

Since the right-of-way shown in the coastal area would conceivably
cross marsh areas, specific measures for restoring these marshes
following construction should be stated.

36-3

Celeron/All American has indicated that pipeline restoration would be
to the specifications of the land owner or land manager (See response
to Comment 3-1). The pipeline company would restore the ROW to its
original grade and previous use. All wetland areas would be allowed
to return to their former state; no maintenance (e.g., mowing) would
occur to reduce groundcover over the pipeline.

I appreciate the opportunity to review and comment on this project.

Sincerely,

Charles D. Travis
Charles D. Travis
Executive Director

CDT:RWS:fmd

Restoration to natural vegetation should be rapid in marshlands
because of the high soil moisture content. Temporary cover should be
established in one to two months; vegetative densities should be
similar to original densities in about two years.



600 South Commonwealth Avenue • Alhambra 1000 • Los Angeles • California • 90005 • 213/385-1000

October 9, 1984

Ms. Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

Thank you for the opportunity to comment on the DEIR/S for the Celeron/All American and Getty pipeline projects. Staff has reviewed this report and offers the following comments. SCAG's Executive Committee reviewed and authorized transmittal of these comments at their meeting of October 4, 1984. The comments are divided into two sections to discuss both the technical adequacy of the DEIR/S and the relationship of the projects to regional policies. As indicated below, the policy evaluation is partial because the report does not provide adequate data to assess the impacts of the Getty project on Southern California.

Technical Adequacy of DEIR/S

With a combined capacity of 700,000 barrels per day (bpd), the construction of these two pipelines, as advocated in the DEIR/S, does not seem warranted unless adequate facilities are available in Santa Barbara to process, store, and transfer comparable levels of OCS crude to the proposed pipelines. Although the pipelines appear to be sized to transport all of the estimated demand for OCS crude developed near Santa Barbara, the report does not state whether adequate on- and offshore facilities will be available to handle this volume of oil. Without these facilities, the rationale for recommending the construction of both pipelines is not apparent. The final EIR/S should document the current and potential availability of these facilities to handle this quantity of oil. Lacking this data, more consideration should be given to the single pipeline alternative as the preferred means to transport OCS crude out of Santa Barbara.

The DEIR/S discusses the impacts of constructing and operating the two

37-1

Santa Barbara County has received over 30 applications for development of energy projects, and has taken an active lead in many of the EIRs and in developing a system of exploration, development, and distribution compatible with environmental resources of the County. The County is currently working with several applicants in determining the locations for oil and gas processing facilities, storage facilities, and for transportation systems including tankering and pipelines. The estimates of volumes of OCS crude available vary greatly depending on the source. Projections of 500,000 to 600,000 BPD were estimated when the DEIR/EIS was prepared. Thus, 700,000 BPD would be greater than the estimated production. The availability of OCS crude in the market place will determine the size and the total number of pipelines built. Each Applicant submitted a variable capacity pipeline design to accommodate the quantities of crude oil available. Getty has proposed a 20 to 30-inch line; All American a 24 to 30-inch line.

2-104

37-1

COMMENT LETTER 37 (CONTINUED)

RESPONSE TO COMMENT LETTER 37
(CONTINUED)

State Lands Commission

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October 9, 1984

37-2

pipelines. It does not address the impacts of refining OCS crude in Los Angeles or at other destination points. This is a significant omission which limits understanding the direct effects of the project. As discussed throughout the report, the Getty project provides a direct connection to the existing pipeline system from Bakersfield to Los Angeles. The report acknowledges that up to 100,000 bpd would be transported to Los Angeles refineries. Accordingly, the report should discuss the potential long-range air quality, economic development, and hazardous waste production impacts of refining OCS crude in the South Coast Air Basin. These potential impacts and their relationship to regional policies are detailed in the attached comments on the Santa Barbara Oil Transportation Plan (OTP).

In approving the attached comments on the OTP EIR, SCAG's Executive Committee asked Santa Barbara County not to certify the report pending the inclusion of information which described and mitigated potential adverse impacts on the Southern California region. The omission of this data from the pipelines EIR/S is just as serious a concern. The Getty project will literally bring oil to the doorstep of LA area refineries. To ignore the impacts of refining OCS crude before decisions are made to transport the oil to Southern California creates a situation where the region is presented with a fait accompli without having been provided the information necessary to make informed decisions. To proceed with this project prior to considering these impacts is contrary to the intent of the California Environmental Quality Act (CEQA).

Also, the report rejects the need to consider alternatives which do not accommodate all of the estimated demand for OCS crude. This is one of the rationales given for not evaluating the impacts of the proposed Southern California pipeline project. Accordingly, the discussion of alternatives is limited to alternative right-of-way alignments for the proposed projects. Since the proposed Southern California Pipeline, in conjunction with either the Getty or Celeron/All American pipelines, would be more than adequate to accommodate the demand for OCS crude produced near Santa Barbara, the reluctance to consider it as an alternative seems inappropriate. Even though the environmental impacts of the Southern California Pipeline may be more adverse than those associated with the Getty project, the assessment of the Southern California Pipeline as an alternative would provide valuable information to local decision-makers by which to determine the desirability of bringing OCS crude to Los Angeles. The DEIR/S briefly notes the relationship of the Southern California Pipeline to the proposed projects. As an alternative, however, the report should compare the impacts of the proposed pipeline to the effects of the Getty and Celeron/All American projects.

37-2

See response to Comment 18-6 and 7.

It is not possible to designate the locations of the refineries or potential impacts on air quality in the vicinity of these refineries, because neither Applicant has confirmed contracts for the volumes of oil to be shipped and the destination points have not been determined. If new refineries are built or existing refineries expanded in California, new permits would be required under the authority of the local and regional air quality boards within the State of California, and thus be subject to their approval.

Although Los Angeles is listed as a potential final end point for oil transported in Getty pipeline, the future mix of oil supplied by Getty and other pipelines to the various refineries in the Los Angeles area is not known. The solutions to potential operating and retrofitting problems that might be associated with increasing or modifying refinery capacity in the Los Angeles basin would be decided by the individual companies. Further actions would be required to expand, upgrade, or build new refineries. The actions before the permitting agencies at this time are applications for ROW and water crossings.

37-3

The Southern California Pipeline project has been described in various press announcements but no applications have been filed with the permitting agencies. It is not known whether this project would be a competing project or a complementary project to the two currently proposed pipelines.



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37-4

In discussing the operational impacts of the pipelines, the OEIR/S could be improved by including a mitigation measure to improve or replace pipeline segments as they age and deteriorate. Mitigation should be accomplished by regular on-site visual and x-ray inspections. This would supplement the operation and maintenance plans discussed on page 2-30 et seq. and would provide additional protection from pipeline failures which occur as the facilities age. This level of protection seems warranted especially where the right-of-way traverses areas with unique environmental characteristics such as the Los Padres National Forest and lands which are part of the California Desert Conservation Area.

Relationship of Projects to Regional Policies

Given the route location and associated facilities for the proposed Celeron/All American project, this pipeline is generally favorable when assessed in terms of regional policies. Adverse impacts on areas with regionally significant environmental resources can be mitigated. By routing OCS crude directly to the Gulf Coast, the potential policy conflicts outlined in the attached comments on the Santa Barbara OTP can be avoided.

901-2

37-5

It is ironic that the OEIR/S states that one of the reasons that the Southern California Pipeline project is not evaluated as an alternative is that it would require "inordinate amounts of analysis to consider in detail" (p. 2-40). This statement is probably very true, but provides an extremely weak rationale for not evaluating this project as an alternative. From all indications, the transportation of OCS crude, even a quantity as small as 100,000 barrels per day through existing pipelines, could have significant adverse impacts on Southern California. No analysis has been completed to verify the nature of the impacts whether positive or negative. Without this information, the Getty project cannot be evaluated relative to regional policies. Also, without this analysis it appears that this report fails to meet the mandate of the CEQA to assess all impacts within the State of California. In reviewing these comments, SCAG's Executive Committee has concluded that this report should not be finalized or certified unless this data is included in the report.

In addressing the OEIR for the Santa Barbara OTP and the findings of SCAG's OCS Task Force, SCAG's Executive Committee adopted a series of policies which are directly relevant to this OEIR/S. The policies state that pipelining is the preferred long-term transportation mode for California offshore oil; that stringent environmental requirements, including offsets and Best Available Control Technology (BACT), and other measures to prevent or mitigate potential adverse impacts disclosed in compliance with CEQA,

37-4

The two proposed pipelines would have service lives of approximately 30 years. Current construction standards are superior to those reflected in the data base used for risk assessment. The various inspections before and after the pipe is installed in the trench, hydrostatic testing, cathodic protection systems, and monitoring systems collectively suggest that these modern pipelines would be much safer than their predecessors. Regular visual inspections and cathodic protection checks would be conducted during the life of the projects since it is not possible to X-ray the pipeline once it has been buried. Faulty protection equipment or segments of pipe would be replaced as necessary. See Appendix 4.3 for a summary of System Safety.

37-5

See response to Comments 18-2, 37-1, 37-2 and 37-3. We acknowledge the possibility of an oil shipper refining OCS crude oil in the Los Angeles area. CEQA requires that when impacts cannot be reasonably ascertained or when forecasting becomes a speculative exercise, that the document shall acknowledge this fact and terminate the analysis. For the reasons cited in comments 18-2, 37-1, 37-2, 37-3 and others, a detailed analyses of impacts in Los Angeles, Gulf Coast, Kern County, and San Francisco refining areas were not performed. If other projects or specific refinery modifications are proposed, we anticipate that those proposals will be fully analyzed in accordance with the requirements of NEPA and CEQA at the appropriate time.



COMMENT LETTER 37 (CONTINUED)

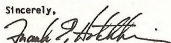
RESPONSE TO COMMENT LETTER 37 (CONTINUED)

State Lands Commission
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October 9, 1984

should be strictly enforced; and that no delay occur in achieving or maintaining ambient air quality standards due to processing OCS crude oil in the Los Angeles area. Based on the information presented in the DEIR/S, the Celeron/ All American pipeline seems consistent with these policies. The Getty project is consistent with the first policy. It cannot be further evaluated without revising the report to incorporate the information requested above.

Thank you again for the opportunity to comment. If you have any questions please contact Mark Alpers, Program Manager, Management Coordination Section at (213) 739-6788.

Sincerely,



Frank E. Hotchkiss
Director of Comprehensive Planning

Attachment

2-107



Attachment



600 South Commonwealth Avenue • Suite 1000 • Los Angeles • California • 90005 • 213/385-1000

March 7, 1984

Dr. Heidi West
Project Manager
Santa Barbara County
Resource Management Department
123 East Anapamu Street
Santa Barbara, CA 91301

Dear Dr. West:

Thank you for the opportunity to comment on the Oil Transportation Plan (OTP) and the OTP DEIR. Staff has reviewed these reports and offers the following comments based on previous actions of SCAG's Executive Committee in response to Outer Continental Shelf (OCS) activities. These comments also follow upon our letter of December 12, 1983 which identified issues to be addressed in the DEIR. In general, we found both reports extremely well written and organized. The development of financial and environmental indices in conjunction with all plan alternatives is a very effective way of presenting information to decision-makers. In reviewing the DEIR, most of the analysis is limited to a discussion of impacts in Santa Barbara County. Very little information is provided to understand the impacts on the SCAG region. This is especially true in the areas of air quality, economic development, hazardous wastes, rail and tanker transport.

The economic analysis in the OTP is very precise in explaining its assumptions and the uncertainties which affect the determination of financial feasibility. However, the costs of the transportation alternatives do not include estimates of the costs of acquiring air quality offsets and the costs of complying with proposed South Coast Air Quality Management District rules to reduce NO_x and SO₂ emissions which are adopted as part of the State Implementation Plan. In considering these costs, the OTP should indicate whether they would affect the overall financial feasibility of the plan, the extent which the costs of the alternatives would be increased, and how they compare to the cost of a crude upgrader.

The OTP estimate that up to 30,000 barrels per day will be processed in small refineries seems high. Small refineries typically do not have the necessary equipment to process crudes with high metals and/or sulfur content, nor the financial resources to install such equipment. To date, small refineries in Los Angeles have shown limited interest in crudes being

2-108

COMMENT LETTER 37 (CONTINUED)

RESPONSE TO COMMENT LETTER 37 (CONTINUED)

Dr. Heidi West
Page 2
March 7, 1984

developed offshore Santa Barbara. The OTP should provide additional justification for the 30,000 barrels per day estimate, since small refineries were specifically excluded from the refinery modeling analysis.

Detailed comments on the DEIR follow:

1. Economic Development

As indicated in our response to the Notice of Preparation, the economic impacts of acquiring offsets in the South Coast Air Basin should be discussed fully in the DEIR. The omission of this analysis is a major shortcoming in the report. The report should measure net employment effects (i.e., potential increases associated with transporting and refining crude oil should be quantified relative to the potential loss of employment if offsets were otherwise available to support other more labor-intensive economic growth). Multiplier effects should also be estimated. The DEIR may be correct in concluding that employment, income, public finance, housing, and population impacts will be limited to Santa Barbara County. However, this conclusion seems premature lacking an in-depth consideration of the employment impacts of acquiring offsets for refining--and thus, excluding other economic activities in the future.

From SCAG's perspective, any change in employment associated with the OTP may be significant. The SCAG-82 Growth Forecast Policy estimates an increase of two million jobs for the region between 1980 and the year 2000. Since the region lost jobs between 1980 and 1983, and since total employment has only recently increased above 1980 levels, employment growth will have to be sustained at a healthy rate if actual employment is to eventually match the forecast. The use of limited offsets to support economic development which does not result in significant employment growth would be detrimental to implementing the SCAG-82 Growth Forecast Policy.

2. Air Quality

The DEIR recognizes the need to acquire offsets to mitigate the air quality impacts of retrofitting refineries. However, the report does not estimate or mitigate emissions from transporting OCS crude outside of Santa Barbara County. As stated in our response to the Notice of Preparation, consistency with the AQMP would rest on a demonstration that the OTP would result in no net emission increases in the Air Basin. The DEIR compares emissions from refining OCS crude to emissions from current refinery operations. Similar analysis should be conducted for additional tanker traffic

Dr. Heidi West
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March 7, 1984

and vehicular delays at rail crossings.¹ The Final EIR should quantify emission estimates and the emission reduction potential of mitigation measures.

Comparing OCS refinery emissions to emissions from current refinery operations misses the point embodied in the long-range strategy in the AQMP which encourages the transition to alternative fuels leading to a phase out or relocation of refineries in the Air Basin. The OTP, which promotes or encourages the conversion of refineries for the continued production of petroleum products is, thus, inconsistent with the goals of the AQMP.

- 2-110
- a. SCAG takes issue with the statement in the retrofit analysis (p. J-1) that refining decisions are independent from policy decisions by Santa Barbara County on the OTP. By taking affirmative policy action to manage the transportation of OCS crude from Santa Barbara County elsewhere, the county is making decisions which set the stage for future decision-making about refining OCS crude in Los Angeles. To ignore the interrelationship between the OTP and subsequent decisions in this region does not appear consistent with the intent of the CEQA process.
 - b. Throughout the OTP and DEIR, the text refers to "minor modifications" of refineries that would be needed to refine limited amounts, up to 100,000 barrels per day, of OCS crude. The phrase "minor modifications" is not defined to the extent that it can be determined whether these modifications would fall under the SCAQMD's New Source Review Rule. The final EIR should provide a better definition of this phrase, clarify what type of technology would be employed, and discuss the relationship to NSR.
 - c. It is not clear that the DEIR presents a worst case air quality scenario, particularly since capacity refinery for OCS crude may exceed 300,000 barrels per day. The OTP should be more specific in explaining the screening process which led to the derivation of this measure of capacity.

3. Rail

The discussion of the impacts of using rail, on a temporary basis, outside of Santa Barbara County is limited. The EIR could be improved by including the following information:

¹ note: SCAG has a model which can be used to estimate air quality impacts of traffic delayed at railroad crossings.

COMMENT LETTER 37 (CONTINUED)

RESPONSE TO COMMENT LETTER 37 (CONTINUED)

Dr. Heidi Mest
Page 4
March 7, 1984

- o All affected at-grade railroad crossings should be identified. The report should estimate vehicular delays and congestion at each crossing (DEIR p. 5-77).
- o The report should explain what type of railbed limitations restrict tank car trains to eight 40-car trains per day (DEIR p. 3-17). Longer trains traveling at high speeds could reduce potential vehicular congestion and delays.
- o In posing potential mitigation measures, it should be noted that the PUC funds the construction of grade separated intersections at the rate of one or two per year for the entire State. Since there is no guarantee that at-grade intersections affected by the OTP will rank high on the PUC list, it cannot be assumed that grade separated intersections will be constructed within the designated time frame for the use of rail prior to the construction of a pipeline to transport the oil (DEIR p. 7-90).
- o Less expensive mitigation measures such as soft-ride grade crossings, which reduce the tendency of drivers to slow during gate-up periods should be identified as partial mitigation measures (DEIR p. 7-90).
- o The DEIR should note that the State and local agencies will have to share a significant fiscal burden to provide grade separations where local traffic patterns are disrupted by trains.

4. Tanker

In evaluating increased tanker traffic at the Ports of Los Angeles and Long Beach, the DEIR should be specific in quantifying:

- (1) traffic resulting from the potential need to import more light foreign crude to mix with OCS crude during processing;
- (2) additional refueling of tankers with Alaskan crude backed out of local refineries due to OCS production; and (3) the exportation of heavy end products (e.g., coke exported for foreign electricity generation if delayed coker retrofit technology is used instead of flexicoking). As written, the DEIR does not identify or mitigate the impacts associated with increased tanker traffic at the Los Angeles area ports. There is no discussion of whether the ports can accommodate increased tanker traffic. As with other impacts, the discussion is generally limited to Santa Barbara County.

5. Hazardous Wastes

The DEIR provides a generic impact assessment of hazardous wastes generated by refineries processing OCS crude. While a generic analysis is appropriate, it may understate the impacts of

COMMENT LETTER 37 (CONTINUED)

RESPONSE TO COMMENT LETTER 37
(CONTINUED)

Dr. Heidi West
Page 5
March 7, 1984

discussing "typical" toxic substances (DEIR pps. J-32, J-36) the DEIR is not clear whether the report considers the typical characteristics of Monterey-formation OCS crude. Also, there is only a limited discussion of the amount of wastes generated relative to wastes which are by-products of current refinery operations. The final EIR should be more specific in identifying the types and quantities of waste generated. Most importantly, the EIR should include more substantive mitigation measures by requiring on-site treatment, where feasible.

Thank you again for the opportunity to comment. We look forward to working with you as the county finalizes the EIR. If you have any questions, please contact Mark Alpers, Program Manager, Management Coordination Section at (213) 739-6788 or Helen Clement, OCS Project Manager at (213) 739-6663.

Sincerely,

original signed by

FRANK E. HOTCHKISS
Director of Comprehensive Planning

FEH:MA:wp4

2
112



HOLLISTER RANCH OWNERS' ASSOCIATION, Box 1000 -- Bulino Canyon, Gaviota, California 91117 (805) 966-1573
October 13, 1984

Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, California 95814

RE: Draft EIR/EIS, Celeron/All American and Getty
Pipeline Projects

Dear Ms. Griggs:

The Hollister Ranch Owners' Association, which is the governing body for the 14,600-acre Hollister Ranch immediately to the west of Gaviota State Park on the Pacific Coast, has reviewed the draft environmental impact report/environmental impact statement for the Celeron/All American and Getty Pipeline Projects, and has several comments to make.

The goals of the Hollister Ranch for years have been (1) the preservation of this unique coastal area in its historical role as a working cattle ranch, (2) preservation of the area as a wildlife and native-plant habitat, and (3) provision of some limited residential and recreational opportunities. Accordingly, we are greatly concerned about any project that may impact the unique scenic and environmental qualities of this area.

We have significant interest as well in the adjacent Gaviota area. It not only provides coastal recreational opportunities for both local and non-local residents, but it also is the site of Vista Del Mar School, which is an important community resource that serves an increasing number of children from the Hollister Ranch area.

Our preference is for transportation of crude oil by pipeline, because we believe that such a mode of transportation is safer, environmentally preferable, and more cost-effective than most other methods of transportation. At the same time, we believe it to be essential that pipeline installations be made with the highest construction and safety standards, and that the environmental consequences be minimized to the most reasonable extent.

From that position, our comments are as follows:

1. We find the draft report to be somewhat poorly organized to the point that it is difficult to track the impacts on a particular area. Granted that the major project is of considerable length and that an attempt has been made to deal with two similar projects in one report, discussing Gaviota Creek on one page and the Colorado River in the next breath is hardly enlightening. While a significant share of the required information may well be contained in the

38-1

The overall organization of this report is designed to allow the reader to evaluate the existing environment by discipline from Santa Barbara to Texas, and similarly, to follow that same resource into the impact assessment section from Santa Barbara to Texas.

report, to present it in a haphazard fashion that repeatedly mixes Texas and New Mexico with the Gaviota coastline makes for a confusing report.

- 38-2 2. The proposed pipeline routings are not sufficiently identified, either in the text or in the attached maps, to permit an adequate understanding of the potential impacts on a particular area. Neither are the reasons for separate routings sufficiently identified. For example, the Celeron and Getty routes through Gaviota State Beach Park appear to follow significantly separated paths. What is the reason for this and where is the justification for twice disturbing an environmentally sensitive area?
- 38-3 3. The cumulative impacts of these projects, together with all other proposed oil-development projects in the Gaviota area and their potential dependence on one another, are not adequately addressed.
- 38-4 4. The draft report in several places states that the pipeline companies intend "to comply with all codes, regulations, standards and generally accepted industry standards." This is hardly an adequate assurance to the public that will have to live with the pipeline or pipelines for the next 30 years, and it is hardly a worthy assumption to make in an environmental impact report.
- 38-5 5. While the earthquake danger to pipelines is cited, the suggested offset and design techniques to minimize the danger are not described.
- 38-6 6. Application of "mitigation measures and standard operating procedures" to deal with the estimated 28.7 oil spills over the 30-year life of the pipeline "is assumed," but such measures and procedures are not adequately described.
- 38-7 7. While it is stated that noise during construction cannot be abated, it can be controlled by hours of operation, selection of equipment and other means of mitigation. These potential measures are not described.
- 38-8 8. No mention is made of vibration impacts from pipelines or pumping facilities, no acceptable vibration limits are identified, and no mitigation measures are cited.
- 38-9 9. No consideration apparently is given to other alternate routes to avoid such environmentally and recreationally important areas such as Gaviota Creek and Gaviota State Beach Park.
- 38-10 10. While the report contains some discussion on how

- 38-2 Detailed maps of the proposed pipeline routes are available for review in the offices of the Santa Barbara County Energy Division. Route locations are those proposed by the Applicants. The Getty route follows an existing Getty RDM through Gaviota State Park property. Without an existing RDM, Celeron identified a route based on engineering and environmental considerations. The Department of Parks and Recreation is currently discussing the final alignments with the Applicants.
- 38-3 Section 4.9 in the DEIR/EIS identifies areas in which impacts would be compounded due to simultaneous development of the Celeron/All American and Getty pipelines along with all other proposed oil development projects. The cumulative impact discussion focuses primarily on socioeconomic areas of concern, including employment, housing needs, income earned, and increased tax benefits. Socioeconomic concerns represent the area of greatest cumulative impact since the two pipeline projects are not competing for coastal resources with other projects.
- 38-4 The transport of petroleum products is regulated by Federal, state, and local regulations and by a number of industry standards and guidelines. Pipeline technology has been evolving for many years and state-of-the-art design has been included in these regulations. The EIR/EIS process does not require that a completed detailed design be presented at the time of application, but detailed designs are required before a permit to construct is issued. Appendix 4.3 summarizes the potential events that could cause failure to the proposed systems, the potential risk of such an occurrence, the potential consequences, the Applicants' system design additional mitigation proposed, and the effectiveness of mitigation is found in Appendix 4.3.
- 38-5 The specific designs to minimize pipeline failure from earthquakes would be accomplished under Mitigation Measures 1, 2 and 3. These measures indicate that detailed geologic, seismic, and geotechnical studies will be completed prior to final design to identify any geologic hazards and to design proper foundations along the pipeline route, at pump and heater stations, tank farms, and delivery stations to ensure safe operation.
- 38-6 See response to Comment 18-44.
- 38-7 The construction noise impacts would be short-term phenomena and reasonably controlled by hours of operation and use of standard equipment-muffling techniques, as noted on page 2-16 in the DEIR/EIS, proposed. The primary construction activity would occur between 7 a.m. and 5 p.m. (DEIR/EIS, pages 4-100 and 4-101); no late night construction is construction activities and operating facilities, e.g., pump stations, to human receptors such as schools, parks, and residences. Operational noise would be limited to pump stations, none of which would be located near residences.

2-114

COMMENT LETTER 38 (CONTINUED)

RESPONSE TO COMMENT LETTER 38 (CONTINUED)

- 38-10 cont. construction crews are to conduct themselves and their traffic in the right-of-way area, there is no mention of how these supposed restrictions will be implemented or enforced.
- 38-11 11. The need for two pipelines between the Gaviota Coast and Emidio Station is not clear. In fact, if the figures in the draft report are correct and 280,000 barrels of Getty's projected 400,000 barrels per day are to go to the Gulf Coast, and if All American's capacity is 300,000 barrels per day, simple arithmetic suggests that Coloron's pipeline between Las Flores Canyon and Emidio Station will be carrying only 20,000 barrels per day. That makes no sense.
- 38-12 12. A construction and use plan are cited for "federal lands" that the pipelines cross. Why doesn't the construction and use plan apply to all sections of the pipeline route?
- 2-115 38-13 13. If two pipelines are to be built between the Gaviota Coast and Emidio Station, it is not clearly stated whether one or two construction operations will be used for that section. This presumably could have significant impacts on the local environment and the period of disturbance.
- 38-14 14. It is stated that a fire plan, landscape plan and maintenance plan will be developed for "Forest Service lands." Why are not these plans being developed for all portions of the pipeline routes?
- 38-15 15. For "agricultural lands," it is stated that the intent will be to restore the area to resemble the original grade. Why is not the same condition applied to all sections of the pipeline routes?
- 38-16 16. It is stated that pipe will be hauled directly from the storage area to the right-of-way location. The number and location of these storage yards are not identified, although they could have significant impacts on the local environment. Neither are the precise locations for the oil-storage facilities or heating and pumping stations or their relationship to other projects.
- 38-17 17. Proposed cleanup and restoration techniques are clearly inadequate. While it is stated in Appendix J that compaction of back-filled material will be required on all "refuge lands," compaction of back-filled material should be required as well on all coastal sections, together with revegetation with native plants and trees.
- 38-18 18. The impacts of pumping and heating stations on air quality are not adequately addressed, including the

- 38-8 Vibration impacts from pipeline pump station facilities have not been identified as a problem for previous pipeline projects. Pump mountings are vibration damped for protection of the pumps themselves and other pipeline-related equipment, as well as surrounding property.
- 38-9 Important routing considerations in the coastal area included the potential locations of the oil sources at Las Flores Canyon and Gaviota, the coastal zone and marine environment, state parks, corridor crossings and engineering constraints. The preferred routes from the oil terminals were those that paralleled the existing corridor created by Highway 101 but avoided the coastal zone and associated recreation areas and natural resources. Gaviota Pass was the best location to proceed inland from the coastal area. Other routes have been investigated by Santa Barbara County and the Applicants but were not considered feasible. The Department of Parks and Recreation is currently discussing routing alternatives in the Gaviota State Park area with the Applicants.
- 38-10 Santa Barbara County identified various stipulations based on county zoning ordinances for the two Applicants to comply with during construction and operation of the proposed projects, and will enforce appropriate mitigation procedures. See Recommended Mitigation Measure 1 and response to Comment 3-1.
- 38-11 Each Applicant has proposed a range of pipeline sizes. Getty has proposed a 20 to 30-inch pipeline, and All American has proposed a 24 to 30-inch pipeline. Each Applicant is anticipating variations in oil volumes available for transport based on marketplace, availability of OCS crude, and competition from other sources of transportation. Therefore, it should not be assumed that each project would operate at maximum capacity of 300,000 to 400,000 BPD.
- 38-12 Santa Barbara County will require its own specific Construction and Use Plans.
- 38-13 If two pipelines were built between the Gaviota coast and Emidio station, it is assumed that each Applicant would build its own line and have its own construction and operations schedule. Analysis of impacts was based on construction of two separate pipelines. See the Preface to the FEIS/EIR.
- 38-14 Santa Barbara County requires and enforces various fire, landscape, and maintenance plans. Please see response to Comment 3-1, Mitigation Measures 9, 9a and 10, and Recommended Mitigation Measure 1.
- 38-15 See response to Comment 3-1.
- 38-16 Storage areas would be located near each pipeline at existing supply, storage, or delivery areas such as railroads and shipping yards. All oil storage areas and heating/pumping stations have been identified on Table 2-5, page 2-10, and Map 1-2 in the DEIR/EIS. Additional oil storage areas in Santa Barbara County proposed by other applicants in association with other transportation processing projects are being permitted under other EIRs currently being prepared by the County.
- 38-17 See response to Comment 3-1.
- 38-18 The primary emissions from pipeline construction would be transient emissions from various pieces of equipment and fugitive dust. Within Santa Barbara County the pumping stations would be electrically powered. No heating of the oil would be required because the oil would already be heated to sufficient levels for transport at the

COMMENT LETTER 38 (CONTINUED)

RESPONSE TO COMMENT LETTER 38
(CONTINUED)

S-116

- 38-18 cont. cumulative impact on the Gaviota Coast area of these and other oil-development projects.
- 38-19 19. It is stated that the coastal groundwater supply is not extensively developed and potential impact of the project are largely dismissed. However, the coastal groundwater resources provide the only water supply in the Las Flores Canyon, Gaviota and Hollister Ranch areas, and potential impacts should be thoroughly examined.
- 38-20 20. The report states that 138 acres and 88 acres of oak woodlands will be replaced by grassland. This is a major environmental impact, at least in the coastal area, and possible mitigation measures are not adequately addressed.
- 38-21 21. Potential impacts on recreational areas along the Gaviota Coast and at Gaviota State Beach Park, both during the construction phase and during the operational period, are not adequately addressed. Neither are the potential impacts during construction and during pipeline operation on the ability of Vista Del Mar School to carry out its functions.
- 38-22 22. No mention is made of maintaining access to such areas as Gaviota Beach State Park or the Hollister Ranch during the construction period, even though only one access exists for residents, visitors and emergency vehicles.
- 38-23 23. Fire, safety and security systems are not adequately detailed for either the heating and pumping stations or for the pipeline routes. To state that the pipeline companies intend to do whatever is required by code or accepted industry practices is grossly insufficient.
- 38-24 24. The single pipeline alternative from Las Flores Canyon to Emidio Station is inadequately addressed, since it presumably would involve fewer environmental impacts, fewer construction impacts, fewer heating and pumping stations, a lower level of construction activity, and it presumably would mean a substantial reduction in the overall cost of the project.
- 38-25 25. While aquatic biology, terrestrial biology and cultural resources along the pipeline routes are described, the impacts on them of pipeline construction and operation are inadequately addressed and mitigation measures are not adequately considered.
- 38-26 26. The potential corrosive impacts of transporting through pipelines widely varying grades of crude oil, including oil produced by different companies from different fields, are not addressed.

- 38-19 The coastal groundwater basins do not fall into the classification of "sensitive groundwater basins" defined on page 3-31 of the DEIR/EIS. The potential for an oil spill or leak exists in areas outside sensitive basins, but the potential for significant aquifer contamination is much less because of greater depth to water, lower permeability aquifers, lower density and quantity of production wells or a combination of these factors. See response to Comment 18-30.
- 38-20 Mitigation Measure 9 requires avoidance of sensitive communities including oak woodlands. On public lands the land management agency will require that construction be accomplished in a 50-foot ROW to minimize clearing of oak trees or other sensitive resources. On private lands the ROW width and appropriate mitigation measures must be approved by the land owner, in accordance with Santa Barbara County conditions.
- 38-21 Gaviota State Park is the only coastal recreation resource that may incur significant adverse impacts. The Applicants are discussing impacts and mitigation for Gaviota State Park with the Department of Parks and Recreation. The Department generally prefers using existing ROWs. The primary impact of using the existing ROW for the Getty project would be the roadside rest area which could not be used for about two weeks. See Comment Letter 41.
- The DEIR/EIS notes that construction noise effects would be significant at the Vista del Mar School, but the construction would affect the school for less than 14 days. Pump station noise would be the only operations effect of the pipeline that could affect the school, but the noise would be barely noticeable relative to ambient noise levels. Mitigation Measure 34 would alleviate any project-related noise effect on school functions. See Getty Gaviota Consolidated Facility DEIR page 4-152.
- 38-22 See response to Comment 9-1.
- 38-23 See Appendix 4.3, System Safety.
- 38-24 The DEIR/EIS discusses each pipeline project individually and thus, the impacts associated with construction and operation of a single pipeline would be similar to the impacts associated with one of the proposed pipeline projects.
- 38-25 Please review the new mitigation measures, agency stipulations, and recommended mitigation measures.
- 38-26 High sulfur crude oils are not unique and the current oil transport technology is capable of proper design. The grade of pipe and operating procedures such as periodic cleaning and scraping should minimize the risk of internal corrosion.

COMMENT LETTER 38 (CONTINUED)

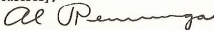
RESPONSE TO COMMENT LETTER 38
(CONTINUED)

38-27 [in summary, this environmental impact report frequently appears to have been written from the viewpoint of what is best or what are customary procedures for the pipeline companies. However, a major purpose of the environmental impact report should be to identify and address the public's interests and concerns, and how unavoidable impacts might be mitigated. That too often has been accomplished in this report by meaningless generalities.

38-28 [We suggest that these specific concerns be addressed and that the need for two pipelines in the Las Flores Canyon-to-Emidio Station segment--presumably with two sometimes-separated rights-of-way and with two separate construction periods--be more thoroughly reviewed.

Please call us at (805) 567-5020 in the event there are any questions.

Sincerely,



ALVIN J. REMMENGA
Ranch Manager

38-27 Please review the current mitigation measures, agency stipulations, and recommended mitigation measures.

38-28 Santa Barbara County will investigate the engineering and economic feasibility of simultaneous construction of two pipelines in the same ROW and stipulate these actions if appropriate. Environmental impacts to sensitive areas (oak woodlands, riparian areas, and other sensitive habitats) would be reduced proportional to the reduction in ROW width.



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION NINE

211 Main Street, Room 1100
San Francisco, California 94105

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WYOMING

October 15, 1984

RE REPLY REFER TO

HPP-09

Ms. Mary Griggs
California State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

We have reviewed the draft environmental impact statement (EIS) for the proposed Celeron/All American and Getty Pipeline Project in Arizona and California. Our comments are provided below. The Federal Highway Administration (FHWA) Region 6 Office in Fort Worth, Texas will provide FHWA comments, if any, for that portion of the proposed project in New Mexico and Texas.

1. The Federal Highway Administration should be included as a cooperating agency for the proposed project and EIS. The required highway encroachment permits are considered to give FHWA jurisdiction by law. Being a cooperating agency will also facilitate FHWA's use of the project EIS for NEPA clearance when approving the required highway encroachment permits.

2. The Arizona and California Departments of Transportation should be contacted for information regarding their policies on the accommodation of utilities within highway rights-of-way.

The FHWA will not permit a utility to be installed longitudinally within the control of access lines of a Federal-aid freeway. Also, any installation outside the control-of-access lines cannot be serviced by access from the through-traffic roadways or ramps.

3. In addition to impacts within the Federal-aid highway right-of-way, FHWA also considers possible impacts adjacent to the highway right-of-way as a result of the FHWA permit action if the specific point of highway encroachment can influence the degree of the impact. However, if Federal lands are adjacent to the highway right-of-way, FHWA considers it appropriate to defer the authority to approve actions outside the highway right-of-way to the Federal agency having jurisdiction over the property. On non-Federal lands adjacent to the highway right-of-way, impacts influenced by the location of the encroachment point must be addressed in accordance with FHWA requirements.

39-1 The U.S. Department of Transportation, Federal Highway Administration is now a cooperating agency.

39-2 The Federal interstate highways and freeway crossings are listed in Table 39-2 in Modifications and Corrections, Section 3.3. The first column of the table indicates the highway crossing and the second column identifies the primary areas for potential impacts. None of the impacts is likely to be significant after mitigation.

2-118

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39-2

COMMENT LETTER 39

RESPONSE TO COMMENT LETTER 39

COMMENT LETTER 39 (CONTINUED)

RESPONSE TO COMMENT LETTER 39
(CONTINUED)

We appreciate this opportunity to review the subject draft EIS and would like to receive three copies of the final statement when it becomes available. Please contact Mr. Dan Harrie at (415) 974-7002 or on FTS 454-7002 if you have any questions regarding these comments.

Sincerely yours,

Willie Kisselburg, Jr.
Willie Kisselburg, Jr.
Director, Office of Planning and
Program Development

2-119

State of California

Memorandum

To : John Doyle, Chief of Offshore Development
Office of the Secretary of
Environmental Affairs

Date : October 15, 1984

Subject: Proposed
Celeron/All
American and
Getty
Pipeline
Projects -
SCH #
83110902

From : James D. Boyd
Executive Officer
Air Resources Board

We have reviewed the air quality sections of the Draft Environmental Impact Report/Environmental Impact Study (DEIR/EIS) for the Proposed Celeron/All American and Getty Pipeline projects. Our comments below cover emissions assumptions and data, and air quality modeling for those aspects of the projects within California.

BACKGROUND

The DEIR/EIS addresses two pipeline proposals, one by Celeron and All American Pipeline companies, and one by Getty Trading and Transportation Company, for transporting heated crude oil from the Santa Barbara coast to refineries. The two pipelines are independent, either or both could be approved. Celeron and All American propose to construct a 1,200-mile pipeline for transporting up to 300,000 B/D of crude oil from Las Flores through Emidio station in Kern County to McCamey, Texas. Celeron is proposing the segment from Las Flores to Emidio; All American is proposing the segment from Emidio to Texas.

Getty's proposal is for a 113-mile pipeline capable of transporting up to 400,000 B/D of heated crude oil from Getty's existing marine terminal facility at Gaviota to Emidio station.

The projects include construction and operation of the proposed pipelines; pump, heating, and delivery stations; and a tank farm. Both pipeline routes go through Santa Barbara, San Luis Obispo and Kern Counties. In addition, the All American segment goes through San Bernardino and Riverside Counties. Sources of pollution associated with the projects include construction activities, heaters, possibly pumps, and a tank farm. The DEIR/EIS concludes that no significant air quality impacts will result from either of the proposed pipelines or from any of the four routing alternatives considered.

COMMENT LETTER 40 (CONTINUED)

RESPONSE TO COMMENT LETTER 40 (CONTINUED)

John Doyle

-2-

October 15, 1984

GENERAL COMMENTS

- 40-1 [The DEIR/EIS does not include sufficient discussion and assumptions for verification of emission estimates. The DEIR/EIS concludes that the projects would have insignificant air quality impacts. Modeling results indicate, however, that the projects would contribute concentrations up to 13 percent of some standards in areas where standards are currently violated.
- 40-2 [Modifications to the modeling analysis are suggested in our specific comments. Results of any ozone modeling, should have been included in the DEIR/EIS.

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See Appendix 4.5 for discussion of emission estimates, existing air quality, and project-generated air quality impacts.

SPECIFIC COMMENTS

The following are our specific comments on the air quality aspects of the DEIR/EIS.

Emission Estimates and Impacts

2-121

1. Statement: The DEIR/EIS states that electrical pumps would be used; however, at locations where adequate electrical power is not available or is uneconomical, the Celeron/All American pipeline would use three 3,500-hp gas turbine-driven pump units.
- 40-3 [Comment: Is it expected that gas turbine-driven pump units might be used at pump stations in California? If so, the expected air pollutant emission rates, controls applied, and impacts should be addressed.
2. Statement: DEIR/EIS page 2-8 states that a leased, above-ground relief tank would be provided at the Emidio station due to elevation differences.
- 40-4 [Comment: The emissions inventory in Appendix A does not indicate any emissions associated with such a tank. The DEIR/EIS should estimate these emissions or state why none are expected.
3. Statement: Page 3-5 and Appendix A describe existing air quality in areas through which the proposed pipelines pass.
- 40-5 [Comment: The existing air quality in San Luis Obispo County is not included. Since pipelines, including the Cuyama pump and heating station, would be located in San Luis Obispo County, information regarding this county should be included.
4. Statement: Table A-1 lists ambient air quality standards.
- 40-6 [Comment: The state TSP standard should not be included since it was replaced by the state PM₁₀ standard.

40-5

San Luis Obispo County air quality data were not included in the existing air quality description in the DEIR/EIS because there are no monitors near the proposed pipeline route in the southeastern part of the county. Nevertheless, air quality data for Nipomo, the southernmost monitoring site in San Luis Obispo County, have been summarized in Appendix 4.5

40-6

Table A-1 in Appendix 4.5 has been corrected.

John Doyle

-3-

October 15, 1984

5. **Statement:** Table A-11 in Appendix A lists the emissions inventory for construction and operation of the pipeline.

- 40-7 **Comment:** Insufficient information is provided to verify the emission rates listed. Assumptions and sample calculations should be included.
- 40-8 The hydrocarbon emission estimates from tanks at Cadiz appear to assume a larger annual throughput of oil than indicated in the DEIR/EIS.
- 40-9 The emission rates used to estimate the daily emissions from construction vehicles are not consistent for the two proposed pipelines. Sufficient information, references, and assumptions should be supplied to explain the discrepancies.
- 40-10 The emission rates from heaters at All American's electric pump and heater stations at Emidio, Twelve-Gauge Station and Cadiz vary considerably. The DEIR/EIS (page 2-8) states that two 30-million Btu/hour gas-fired heaters would be used in normal operation at each station. Based on emission rates in the Environmental Protection Agency's "Compilation of Air Pollutant Emission Factors" (AP-42), it appears that the Twelve-Gauge Station would be using two 30-million Btu/hour gas-fired heaters, and the other two All American stations would be using heaters with a heat input greater than two 30-million Btu/hour. The discrepancy should be explained or corrected. (This point is important since District permit exemptions are based on the source size, in Btu/hour.)
- 40-11 There are no emission rates listed for fugitive hydrocarbon emissions from sources such as valves and pump seals. Estimated fugitive hydrocarbon emissions, with assumptions and references, must be included in the emissions inventory and impact analysis.

2-122

6. **Statement:** DEIR/EIS Tables 4-1, 4-2, and 4-3 indicate that construction and operation of the pipelines will contribute to existing violations of some ambient air quality standards. Specifically, construction of the pipelines from Las Flores to Emidio will contribute to violations of CO and TSP standards. Construction from Emidio to Blythe will contribute to NO₂ and TSP standard violations. And operation of the pipelines would contribute to violations of standards for TSP, CO, and NO₂. (No estimates were given for ozone.)

Comment: These impacts are not insignificant. The proposed projects would contribute during construction as much as 13 percent of the state 1-hour NO₂ standard and 7 percent of the federal secondary TSP standard. During operation, the maximum NO₂ impact from the All American pipeline (excluding background) would be 12 percent of the state 1-hour standard.

40-7 Appendix 4.5 includes our assumptions.

40-8 See Appendix 4.5.

40-9 Final construction schedules and vehicle use estimates have not been completed. The two projects vary greatly in schedule and number of vehicles used at one time because the Getty project would be built by a small crew (49) versus a Celeron/All American crew of 229.

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through
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These comments are addressed in Appendix 4.5.

COMMENT LETTER 40 (CONTINUED)

RESPONSE TO COMMENT LETTER 40 (CONTINUED)

John Doyle

-4-

October 15, 1984

40-12

The DEIR/EIS should address possible measures to reduce these impacts. See comment #11 below regarding ozone impacts.

40-13

7. Statement: No fumigation analysis was performed to estimate 1-hour impacts from the operational phase for NO₂, SO₂ and CO emissions under inversion breakup conditions.

Comment: Such an analysis should be included in the DEIR/EIS.

8. Statement: For the construction phase ERT used ISC with worst case conditions of F stability and a wind speed of 2.45 m/sec.

40-14

Comment: No justification was provided for use of the 2.45 m/sec speed. For screening purposes, F stability and 1.0 m/sec are more representative of conditions when the maximum concentrations are most likely to occur.

9. Statement: For the operational phase in relatively smooth terrain ERT used the COMPLEX I model to calculate short-term pollutant concentrations.

40-15

Comment: Because COMPLEX I uses sector averaging within each 22.5° wind direction sector, the use of a Gaussian model incorporating lateral dispersion parameters is more appropriate, as the Gaussian distribution contained in the latter better represents the physical process of horizontal dispersion for short-term modeling.

10. Statement: VALLEY was used to calculate short-term concentrations in complex terrain and annual concentrations for the operational phase. ERT used F stability and a wind speed of 2.45 m/sec for the short-term calculations.

40-16

Comment: EPA specifically recommends using F stability with a wind speed of 2.5 m/sec for screening calculations with VALLEY. Although the difference in results would be small, for consistency we recommend the 2.5 m/sec value.

11. Statement: The DEIR/EIS does not include results from or discussion of any ozone modeling.

40-17

Comment: Since the state ambient air quality standard for ozone has been violated in several areas of California through which the proposed pipeline routes pass (see DEIR/EIS pages 3-5 and 3-6), the DEIR/EIS should address potential ozone impacts from the proposed projects. We understand through conversations with San Bernardino Air Pollution Control District staff that the ERT model PLMSTAR was used to evaluate the ozone impacts from the operational phase at the Cadiz pump and heating station and tank farm. The DEIR/EIS should include discussion and results of that analysis and any other ozone analysis performed for this project.

COMMENT LETTER 40 (CONTINUED)

RESPONSE TO COMMENT LETTER 40
(CONTINUED)

John Doyle

-5-

October 15, 1984

We appreciate the opportunity to comment on this document. If you have any questions, please call George Lew at (916) 324-4150.

State of California

THE RESOURCES AGENCY OF CALIFORNIA

Memorandum

To : Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814

Date : OCT 16 1988

Subject: Celeron/All American
and Getty Pipeline
Projects Draft EIR/EIS
SCH # 83110902

From : Department of Conservation—Office of the Director

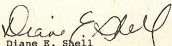
The Resources Agency has reviewed the Draft EIR/EIS for the proposed Celeron/All American and Getty Pipeline projects (SCH # 83110902). This review was coordinated with the Departments of Water Resources, Fish and Game, Conservation, Boating and Waterways, Forestry and Parks and Recreation.

The Department of Parks and Recreation commented that the project's adverse effects would be too serious to allow construction in a State Park. The Department cited the visual scar, vegetation loss and soil disturbance impacts attributable to the project, and suggested that the existing pipeline corridor adjacent to Highway 101 be used.

The Department of Conservation disagreed with the document's 1990 Santa Barbara Channel/Santa Maria Basin oil production figures, stating that a figure of 274,000 B/D would be more realistic than the document's stated 500,000 B/D. The Department also noted that trenching and excavation may uncover abandoned oil wells, as the alignment passes through oil field and exploratory areas. Conservation further stated that inadequate seismic information was included in the DEIR/EIS, and that detailed, site-specific studies should be included in the final document.

The Department of Fish and Game recommended that the two pipelines follow a single corridor through Santa Barbara County, rather than the proposed separate alignments. The Celeron/All-American route was recommended as the least damaging corridor. The Department has a number of other recommendations for site-specific studies, mitigation measures, contingency plans, more detailed explanations of impacts and areas needing further information.

Complete comments from each Department are attached. No other Departments commented on the project. If you have any questions on Resources Agency comments, please call Dennis O'Bryant at 322-5873.



Diane E. Shell
Resources Agency OCS Coordinator

Attachments

State of California

The Resources Agency of California

Memorandum

Date : October 9, 1984

To : Mr. Dennis O'Bryant
Environmental Coordinator
Department of Conservation

From : Department of Parks and Recreation

Subject: Draft Environmental Impact Report/Environmental Impact Statement
Proposed Celeron/All American and Getty Pipeline Projects
SCH #83110902 - Supplemental Information

The Celeron pipeline alignment which we have reviewed would traverse approximately 20,000 feet of undisturbed park land within Gaviota State Park. The construction area would be 100 feet wide, with a permanent cleared maintenance easement of 50 feet.

The adverse effects would be the introduction of the visual scar, extensive vegetation loss and soil disturbance.

As a mitigation measure, the line could be located within the existing pipeline corridor and adjacent to State Highway 101. This routing would reduce the effects, and would take advantage of existing access and prior soil disturbance.

Maurice H. Getty
Maurice H. Getty, Chief
Resource Protection Division

41-1

Celeron/All American is currently discussing alternative routes to the one proposed in the DEIR/EIS with the Department of State Parks and Recreation. The potential regulatory conflicts include the encroachment on the LCP Gaviota Creek Environmentally Sensitive Habitat Area and the creation of a new ROW by the proposed route (See response to Comment 38-2.) One of the new alternative routes being considered follows an existing gas pipeline corridor.

2-126

41-1

State of California

The Resources Agency of California

Memorandum

Date : OCT 4 - 1984

To : Mr. Dennis O'Bryant
Environmental Coordinator
Department of Conservation

From : Department of Parks and Recreation

Subject: Draft Environmental Impact Report/Environmental Impact Statement
Proposed Celeron/All American and Getty Pipeline Projects
SCH #83110902

The Department of Parks and Recreation has reviewed the Draft EIR/EIS (SCH #83110902) for the Proposed Celeron/All American and Getty Pipeline Projects. We have also reviewed the Celeron Pipeline Right-of-way application (received in a separate mailing), which pertains to our property at Gaviota State Park.

2-127

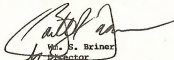
41-2

We find that the adverse effects of the proposed alignment of the Celeron pipeline are too great to permit its construction, as designed, within the State Park. We recommend further evaluation of other alignment alternatives that do not include such extensive pipeline construction within this or other units of the State Park System.

41-2

See response to Comments 38-2 and 41-1.

Our contact person for this project is James M. Doyle, Supervisor, Environmental Review Section. His telephone is (916) 324-6421, address P.O. Box 2390, Sacramento, CA 95811. Please keep us informed of the progress of this proposed project.


W. S. Briner
Director

State of California

THE RESOURCES AGENCY OF CALIFORNIA

Memorandum

To : Dr. Gordon F. Snow
Assistant Secretary for Resources

Date : SEP 24 1984

Subject: Draft EIR/EIS For
Proposed Celeron/All
American and Getty
Pipeline Projects.
SCH No. 83110902.

From : Department of Conservation—Office of the Director

The Department of Conservation has reviewed the Draft EIR/EIS for the proposed Celeron/All American and Getty Pipeline Projects. We have comments on oil production figures oil, field impacts and seismic considerations.

Oil Production Figures

On page 1-15, the report states that "Oil discoveries offshore Santa Barbara County will add up to 500,000 B/D to the West Coast supplies by 1986." On page 1-18, the report states that "By the peak year (1992), the Santa Barbara Channel and Santa Maria Basins are projected to produce about 500,000 B/D of crude oil that will require transport to refineries." In addition, Table 1-5 on page 1-16 indicates that West Coast crude oil supply from the OCS in 1990 is projected to range from 421,000 B/D (Purvin and Gertz study) to 594,000 (ADL study).

A comparison of the above two statements and the table does not provide consistency in the anticipated production nor the timing of the production. Also, the table apparently does not include anticipated production from the Santa Maria Basin OCS fields (see reference 3 on page 1-16).

Furthermore, a comparison of ADL estimates with the ADL estimates presented on page 6.0-6 of the July 9, 1984 Draft EIR for the Point Arguello and Gaviota Processing Facility Area Study indicates still different estimates. For 1990, the ADL estimate is 459,000 B/D and 60,000 B/D of that estimate includes an unexplained "other" estimate.

In spite of the apparent discrepancies, we feel these estimates are overstated. It is our opinion that by 1990, OCS and state oil production offshore Santa Barbara County will be about 274,000 B/D. Our opinion is based partly on the fact that delays have recently occurred, further delays are inevitable, and the fact that production from different fields and platforms will peak at different times. For example, the production from the Hondo A platform has dropped from 40,500 B/D in April 1983 to

41-3

Estimates of OCS oil available for shipment out of the Santa Barbara Channel and Santa Maria Basin areas vary greatly (See response to Comment 18-2). The statement on page 1-15 is part of the Applicant's statement of project need, and is the Applicant's opinion.

Footnote 3 to Table 1-5 should be changed to read: "Includes Carpinteria, Oos Cuadras, Santa Clara, Beta, Hueneine, Santa Ynez and Santa Maria Basin." (Emphasis added to indicate changes)

The EIR/EIS attempted to indicate that uncertainty existed (see page G-4) in the oil production forecasts. The uncertainty associated with future production was also indicated in the ranges provided for 1990 production in Table 1-5. The high production estimate of 594,000 BPD is almost 30 percent higher than the low estimate of 421,000 BPD.

41-4

The statements of the commenter confirm the uncertainty surrounding production forecasts indicated in response 41-3 and the DEIR/EIS. The 274,000 BPD estimate is not directly comparable to the EIR/EIS forecasts which included OCS production from the Los Angeles County area. The EIR/EIS estimated that an additional 30,000 BPD would be produced in areas offshore of Los Angeles County. A revised 1990 OCS production estimate would be about 305,000 BPD of crude oil, including the Department of Conservation estimate.

S 128

41-3

41-4

Dr. Gordon F. Snow
Page 2

31,600 B/D in April 1984. The ADL study indicates that Hondo A will be producing 65,000 B/D in 1988, even though production has already declined to a rate that is below the capacity of the OS & T vessel.

Oil Fields

- 41-5 As we stated in the Notice of Preparation, the alignment of the pipeline will probably pass through oil fields and areas where exploratory wells have been drilled. The possibility exists that trenching and excavation may uncover and damage some abandoned wells. The final alignment should be checked relative to the position of the wells by consulting the maps and records maintained by our Division of Oil and Gas (DOG). Also, in the event that a well is uncovered, the DOG must be informed so that arrangements can be made for replugging, if necessary.
- 41-6

As indicated in the report on pages 3-11 and 4-15, subsidence due to oil and gas production in the San Joaquin Valley is apparently not occurring at the present. Therefore, subsidence should not pose a threat to project facilities.

Seismic

The Draft EIR addresses relevant regional and local geologic considerations, and recommends mitigation in the form of detailed, site-specific geotechnical and engineering studies in areas of identified hazards and constraints.

The Draft EIR states that appropriate seismic design can minimize pipeline ruptures and resultant oil spills caused by surface fault rupture or ground shaking.

- 41-7 However, detailed evaluations or quantifications of seismic parameters, including earthquake magnitudes, resulting ground motion or surface displacement potential, were not presented in the EIR. Until the appropriate studies to characterize these parameters have been completed, it is not possible to comment on the completeness and acceptability of the detailed, site-specific seismic design parameters. The findings from such studies should be submitted with the Final EIR or a supplemental environmental document. If desired, we will assist the applicants and lead agencies in the review of these detailed seismic data when they are completed.

The Department of Conservation's lower estimate of production is based on assumptions that offshore oil development will be delayed. This means that the peak production of 400,000 to 500,000 B/D predicted for the early 1990s may actually occur around 1995. Recent events appear to confirm the Department of Conservation's position that delays may occur. The Exxon Santa Ynez Unit project has been delayed at least six months and may experience additional regulatory and litigation delays. The Getty Consolidated Marine Terminal has also been delayed six months. (Source: Robert Guernard, Division of Oil and Gas, California Department of Conservation, personal communication November 29, 1984).

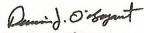
The lower estimate of crude oil production from Santa Barbara County does not negate the need for an improved west-to-east crude oil transportation system. The West Coast would still have an estimated 1990 crude oil surplus of 900,000 to 1,000,000 B/D. The marketplace will ultimately dictate how large and how many pipelines are built from Santa Barbara County to the San Joaquin Valley, Los Angeles, and on to PADO III.

- 41-5 Celeron/All American and Getty will coordinate with the Division of Oil and Gas (DOG) prior to construction to ensure that all abandoned wells are avoided. Minor centerline adjustments will be made as necessary.
- 41-6 If an abandoned oil or gas well is damaged during pipeline construction, Celeron/All American and Getty have indicated they will contact DOG to determine what course of action is required to reabandon the well safely.

- 41-7 Proven, safe pipeline engineering designs (construction and operation) will reduce seismic risks for various faults crossed by each of the Applicants' proposed lines. It is inappropriate to determine the final detailed design for geotechnical hazards at this time because of the various alternatives proposed and other environmental factors. Detailed geotechnical studies will be conducted as identified in Mitigation Measure 1, which will allow proper design and engineering for the various earth work foundations, pipeline route, pump and heater stations, tank farms, and delivery stations. The plans will be reviewed by the various permitting agencies. The primary permitting agency on Federal lands will be the BLM. County governments in California will also review the plans.

Dr. Gordon F. Snow
Page 3

If you have any questions on our comments, please contact me at
(916) 322-5873.



Dennis J. O'Bryant
Environmental Program Coordinator

cc: Ken Henderson, Division of Oil and Gas, Santa Maria
Ed Welge, Division of Oil and Gas, Bakersfield
Bob Reid, Division of Oil and Gas, Sacramento
Ray Seiple, Division of Mines and Geology
Robert Streitz, Division of Mines and Geology
Lynn Jones, Division of Mines and Geology

2-130

7072B-2

State of California

The Resources Agency

Memorandum

To : Diane E. Shell
Resources Agency OCS Coordinator

Date: October 11, 1984

From : Department of Fish and Game

Subject: Draft EIR/EIS: Celeron/All American and Getty Pipeline Projects -
SCH 83110902

The Department of Fish and Game has reviewed the combined document involving two separate oil pipeline projects for transport of crude oil from the Santa Barbara area coastline to the City of Bakersfield, and thence one pipeline to the State of Texas. The project sponsors have proposed separate routes for their pipelines from the Santa Barbara area to the Bakersfield area.

41-8 We find insufficient justification for the extent of damages expected to result from two separate routes through the sensitive coastal areas and through the Los Padres National Forest lands within Santa Barbara County, and therefore recommend that the lead agencies for these two projects require both applicants to select a single pipeline corridor to be used jointly. The Department considers the proposed Getty Pipeline route to be unacceptable because it would be more damaging to the environment than the Celeron/All American proposed route, and we recommend that it be rejected. We could support the Celeron/All American pipeline route as the joint route for both pipelines provided this route is modified to follow the U.S. Forest Service Preferred Alternative through Santa Maria Canyon and provided that the impacts in Suey Canyon are minimized by realignment. We further recommend that simultaneous construction of both pipelines be required in order to avoid the unnecessary duplicative damages which can be expected to result from separate construction schedules.

41-9

41-10 Because there was no proposal for a single joint pipeline route to be used by both projects, we regard the Celeron/All American pipeline route to be the "Single Route" alternative we prefer of the various routes proposed. The following comments and recommendations are for this route and assume that both pipelines would follow a single common route through Santa Barbara County.

41-8 The preferred alternative would be to locate both pipelines in one corridor. The agency preferred route through Los Padres National Forest is the Santa Maria Canyon Alternative B.

Impacts to oak woodlands in Suey Canyon could be minimized by minor realignments to avoid large trees and by selectively reducing the ROW width; however, this ROW is on private land and final construction plans must be approved by the land owner and Santa Barbara County. See Mitigation Measure 9 and 9a and Recommended Mitigation Measure 1.

41-9 See response to Comment 38-28.

41-10 See response to Comments 38-24, 38-28 and 41-8.

2-132

COMMENT LETTER 41 (CONTINUED)

RESPONSE TO COMMENT LETTER 41
(CONTINUED)

2-133

- | | | | | |
|-------|----|--|-------|---|
| 41-11 | 1. | The proposed All American crossing at Gaviota Creek impacts a large willow wetland area which may provide habitat for the endangered least Bell's vireo. Further investigation of this area as vireo habitat is essential to determine whether rerouting is necessary here. | 41-11 | Potential habitat for the least Bell's vireo is present at Gaviota Creek but no observations have been made there. Mitigation Measure 9 would reduce the ROW to 50 feet and minimize clearing of willows. Celeron/All American is currently investigating alternative routes and methods for crossing Gaviota Creek. The Getty pipeline would cross the creek further upstream and would not affect potential least Bell's vireo habitat. Final route alignment, ROW width, and revegetation measures will be approved by the Department of Parks and Recreation for the Applicant's ROW and by the California Department of Fish and Game through the 1603 stream crossing permit process. |
| 41-12 | 2. | The project should undertake to avoid sensitive types of habitat such as oak woodlands, wetlands, and riparian woodlands. Adverse impacts to important habitat types in Suey Canyon could be at least partially avoided by rerouting the pipeline to the hillside areas. | | |
| 41-13 | 3. | Much of the proposed route utilizes ridgelines. Avoidance of tall trees and/or installation of artificial raptor roost poles will be necessary in areas where these resources are heavily used by birds, i.e. Hollister Ranch, Sierra Madre Ridge, and some areas in the Santa Cruz Valley. | 41-12 | Mitigation Measures 9, 9a, 10 and 15a and Recommended Mitigation Measure 1 are specified to reduce impacts in sensitive habitats. The land management agency can require that the ROW be reduced to 50 feet on public lands. In California each County will specify the ROW width and required mitigation measures. See response to Comment 41-8. |
| 41-14 | 4. | Proper disposal of unneeded soil, and cleared organic material, the latter by chipping to provide a mulch, should be incorporated into the project. All cut and fill areas should be recontoured to original contours and effectively revegetated to avoid erosion. This is especially important at stream crossings and along hillsides. | 41-13 | See revised Mitigation Measure 14. |
| 41-15 | 5. | A detailed vegetative restoration plan should be developed. Native species of grasses, forbs, brush, and trees should be utilized along the pipeline route. Oak woodland and riparian resources destroyed should be replaced on a 3:1 basis to ensure regrowth. All areas should be overplanted to compensate for mortality. | 41-14 | See response to Comment 3-1 and Recommended Mitigation Measure 1. General cleanup and restoration plans are described on page 2-25 of the DEIR/EIS. Disturbed areas would be returned to natural contours; excess spoils are usually disposed of in public landfills unless specified otherwise by the land owner. |
| 41-16 | 6. | Right-of-way widths at stream crossings should be minimized to no more than 50 feet if riparian habitat is well developed. This is one of the most sensitive habitat types to be impacted by the project. | 41-15 | See response to Comment 3-1. |
| 41-17 | 7. | An effective Oil Spill Prevention, Contingency and Response Plan for rivers and streams must be developed. Automatic shutoff valves and other effective measures capable of preventing spills in or near river, streams, and washes must be incorporated. | 41-16 | Mitigation Measure 9 requires a 50-foot ROW at riparian crossings. |
| 41-18 | 8. | In addition to the proposed raptor nest survey, San Joaquin kit fox and blunt-nosed leopard lizard habitats must be surveyed for active use prior to project construction. Any areas occupied by these species should be avoided. Construction should be timed to avoid the kit fox pupping season. The San Joaquin kit fox has been declared a rare species by the Fish and Game Commission, and has been declared an endangered species by the U.S. Fish and Game Wildlife Service. Both agencies have listed the blunt-nosed leopard lizard as an endangered species. | 41-17 | Appendix H in the DEIR/EIS provides a preliminary oil spill contingency plan by the Applicants. Final plans will be completed by the Applicants and approved by EPA prior to operation. All sensitive streams would have remote controlled block valves and automatic check valves; see Table 4-6 in the DEIR/EIS. |
| | | | 41-18 | Mitigation Measure 15 applies to all blunt-nosed leopard lizard and San Joaquin kit fox habitat. The BLM has completed a Biological Assessment evaluating impacts on threatened and endangered species, including proposed mitigation measures; see Appendix 4-2. A timing constraint to avoid pupping was not deemed necessary since all dens will be avoided. |

-3-

- 41-19 9. Post construction ORV use should be limited in particularly sensitive habitat areas by the construction of suitable barriers at access points.
- 41-20 10. State-listed rare or endangered plant or animal species, or Federal-listed Endangered, Threatened, or Candidate species that may occur in or near the proposed project route should be identified through site-specific field investigations. If any are found, specific measures to avoid impacts to them during construction and/or operation of the pipeline must be provided.
- 41-21 11. Ironwood Wash Habitats: The mitigative actions proposed in Measure 9, page 4-153, are inadequate as there will still be losses of wildlife habitat. To fully mitigate these losses, more positive measures should be provided. Consideration should be given to such actions as: 1) construction of check dams in selected areas to impede down-wash flows and thereby increase water retention and subsequent vegetative growth; and 2) installation of water catchments to improve water distribution for wildlife.
- 41-22 12. Colorado River Crossing: On page 4-54 the potential effects of an oil spill to downstream wildlife are discussed. Although waterfowl and the Yuma clapper rail are addressed, there is no mention of numerous other species which could be affected. The following information should be incorporated into that discussion.

The California black rail (*Laterallus jamaicensis coturniculus*) is found near Three Finger Lake and Ferguson Lake. This sub-species is listed as "rare" by the State of California.

Great blue herons, great egrets, and snowy egrets are found in backwaters along the Colorado River. These birds might be seriously affected because much of their prey base such as crayfish, frogs, and small fish could be significantly reduced or eliminated by oil entering downstream backwaters. If an oil spill occurred during the nesting season, the herons and egrets could suffer serious population declines. There are three heron and egret rookeries on the California side of the river south of Blythe. They are located near Walter's Camp, Taylor Lake, and Ferguson Lake.

- 41-19 See Mitigation Measures 12 and 25, and Recommended Mitigation Measure 1. The Applicants may post signs to discourage ORV use of the ROW. The land owner or land management agency will specify where fences or other barriers are needed to discourage or limit unauthorized use of the ROW.
- 41-20 Site-specific field investigations have been conducted to identify potential impacts and mitigation measures for federally listed threatened and endangered species. Specific mitigation measures are included in Appendix 4.2, as is Fish and Wildlife Service's Biological Opinion.
- See Mitigation Measure 15a. Site-specific field inventories will be conducted for California state-listed species, prior to construction. This requirement will be consistent with the intent and general provision of Assembly Bill No. 3309, the California Endangered Species Act that will become effective January 1, 1985. See response to Comments 18-41 and 19-1.
- 41-21 Site-specific reclamation and/or revegetation plans for desert washes will be included in the Construction and Use Plans prepared by the Applicants (see Recommended Mitigation Measure 1). See response to Comment 3-1. The pipeline is not expected to impact current water resources for wildlife.
- 41-22 The additional information provided by California Fish and Game regarding resources downstream of the proposed Colorado River crossing is noted. Local California Fish and Game biologists were contacted in May 1984 regarding resources at risk from an oil spill. Both sources of information will be provided to the Applicants for inclusion in the Oil Spill Contingency Plan. Mammals using downstream backwater areas would be most affected by an oil spill if they became covered with oil and subsequently die of drowning or exposure (see page 4-47 of the OER/EIS). Mammals, especially terrestrial species, would not likely eat oiled prey or drink oiled water.
- The California Fish and Game Department has expressed concern that the Applicants compensate for any wildlife resources affected by an oil spill. The Applicants would be liable for all lost resources resulting from an oil spill, including effects on agriculture, recreation, and wildlife.
- The Department also expressed interest in the use of directional drilling techniques for crossing the Colorado River. This technique is being considered by the Applicant. It would not, however change the risk of an oil spill.

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-4-

Also not addressed in the document are the numerous mammals which inhabit the marshes and riparian woodlands between Glyche and Imperial Dam. Mammals directly associated with the river or its backwaters include beaver, muskrat, and raccoon. These species would be expected to suffer losses from an oil spill by the ingestion of oil, and the loss of primary food items.

The riparian woodlands are inhabited by cottontail rabbits, skunk, gray fox, coyote, bobcat, mule deer, and mountain lion. Wildlife numbers are especially high during the hot-dry season when water is extremely limited in the outlying desert. In the event of a major oil spill, all of these mammals would be adversely affected through the ingestion of oil. The effects would be especially serious if a spill occurred during the hot-dry period when wildlife densities and water requirements are very high.

13. On page 4-156, mitigative measure 17 suggests that in the event of an oil spill, booms would be located near the "man-made" wetlands downstream so as to minimize the possibility of oil entering these areas or reaching sensitive habitats 20 miles downstream. Considering the relatively fast-flowing, turbulent nature of the river, we are concerned about the effectiveness of booms in the event of an oil spill. We therefore recommend that the document provide a more complete discussion of the potential effects of an oil spill and the methods to be used for minimizing such effects. For example, estimates should be given for the distance hypothetical oil spills would be carried by minimum and maximum flow conditions. They should also thoroughly describe "a worst-case" situation of a maximum sized spill occurring at a time when the aquatic ecosystem would be most sensitive to major upset resulting from such a spill. The document should also discuss the effects of oil spills on dissolved oxygen concentration and fish populations.

14. The fishery resources of the Colorado River at and downstream from the river crossing are of major significance to California and Arizona anglers. Oil spills could, under the scenario described in the previous comment, cause direct loss of large numbers of game and non-game fishes, both macro- and micro-invertebrates, and various other forms of important wildlife. In addition, fish not killed outright due to toxic effects of spills could develop detectable, obnoxious taste and, perhaps, odor, thus destroying fishing opportunity for as long as the condition exists. This could occur as a result of even seemingly small spills. In addition, all wildlife are considered significant in California, and any

- 41-23 Mitigation Measure 17 was specified to prevent oil from entering the backwater areas immediately downstream of the crossing, to slow the progress of oil downstream, and to aid in the removal of spilled oil. An Oil Spill Contingency Plan for the Colorado River is found in Appendix 4.4.

Impacts from a worst-case spill are described on page 4-54 in the DEIR/EIS. The greatest potential loss for aquatic invertebrates and fisheries would occur at low flow conditions when the oil could become incorporated into the sediments and damage habitat. However, this is the condition for the least distribution of oil downstream. High flow conditions have the potential of contaminating riparian vegetation and waterbirds many miles downstream.

- 41-24 California Fish and Game will be a cooperating agency in the design and approval of the Oil Spill Contingency Plan. See response to Comment 18-44.

S-155

41-23

41-24

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41-24
cont.

losses or degradation perceived by the public as unnecessary or avoidable through appropriate planning would generate significant concern. For these reasons we believe it necessary for the California Department of Fish and Game to remain actively involved in the design and approval of the Project's oil spill recovery or contingency plans for the California waters potentially affected by this project, and we ask that this opportunity be provided to us.

15. The project sponsors have been advised that diversion of the natural flow or changes in the channel, bed, or banks of any river, stream, or lake requires notification to the Department of Fish and Game as called for in the Fish and Game Code. Some project information has been provided by the applicant. Notification should be made to the Department of Fish and Game after the project has been approved by the lead agency. Subsequent agreements required by that code prior to initiating any such changes will be utilized to assure that unnecessary degradation or loss of aquatic and terrestrial life dependent on any river, or stream affected by the construction of these projects will be minimized through incorporation of negotiated measures appropriate to achieve that end.

Thank you for the opportunity to review and comment on the combined environmental document for the two oil pipeline projects. If you have any questions, contact Fred A. Worthley Jr., Regional Manager of Region 5, at 245 W. Broadway, Suite 350, Long Beach, CA 90802 or by telephone at (213) 590-5113.

Pete Buntade
for Jack C. Parnell
Director

2-136

State of California

The Resources Agency of California

Memorandum

To : Diane E. Shell
Resources Agency OCS Coordinator
Department of Conservation
Office of the Director

Date : October 5, 1984

Subject: Celeron/All American
and Getty Pipeline
Projects

CC

From : Department of Boating and Waterways

The Department of Boating and Waterways has no comment on the Celeron/All American and Getty Pipeline Projects.

William H. Ivers

WILLIAM H. IVERS
Director

Mary Griggs
 State Lands Commission
 1807-13th Street
 Sacramento, CA 95814

17 October 1984

Reference: Draft EIR/EIS-Celeron/All-American Pipeline

Dear Ms. Griggs

I have reviewed the Draft EIR/EIS for the Celeron/All-American Pipeline of August 1984 (State Clearinghouse No. 83110902, Contract R 8555). Unfortunately, there is no mention of paleontological (fossil) resources which may be impacted by proposed excavation and construction activities associated with this project. In many areas of the Mojave Desert, fossil remains such as bones and teeth of Late Pleistocene (Ice-Age) horse, camel, and other large extinct mammals lie on the surface. Also excavation activities could expose additional Late Pleistocene and/or older fossil remains. These paleontological resources are non-renewable and should be addressed in the final environmental statement.

The Public Resources Code Section 30244 states, "where development would adversely impact archaeological or paleontological resources as identified by the State Historical Preservation Officer, reasonable mitigation measures shall be required". Guidelines for the Implement of the California Environment Quality Act as amended May 10, 1980 (14 Cal. Adm. Code 15000et. seq.) states, "definitions of significant effects to include prehistoric or historic archaeological sites or a property of historic or cultural significance to a community or ethnic or social group or a paleontological site" (Sec. 15023, App. G. (j).) Also Public Resources Code, Section 5097.5 (Stats. 1965. c. 1136, p.2792) defines "any unauthorized disturbance or removal an archeological, historical, or paleontological materials or sites located on public lands as a misdemeanor".

Well enough of the laws. I urge you to have a paleontological survey, records and literature search conducted on the proposed pipeline route. This report should be prepared by a qualified paleontologist familiar with the paleontological resources of the study area. This report should detail adequate mitigation measures for the salvage and recovery of fossil resources which may be present within the pipeline right-of-way.

I urge you to consider the important paleontological which may be impacted by the proposed project. If you have any questions please feel free to contact me. Thank you for your attention in this matter

Sincerely yours,

Mark A. Roeder
 Mark A. Roeder

MAR/mar

cc: Bill Collins, Bureau of Land Management
 Chuck Bell, San Bernardino County Environmental Public Works Agency
 Tamara Campbell, San Bernardino County Environmental Public Works Agency

42-1 Please refer to the response to Comment 11-1.

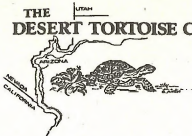
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2-139

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1984-10-20 10:00 AM TELETYPE

THE
DESERT TORTOISE COUNCIL



7319 Clayhills Ave.
Lodi, Calif., CA 90805
20 October, 1984

Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

The following are our comments on the Celeron/All American and Getty Pipeline Draft Joint Environmental Impact Report/Environmental Impact Statement, SLC EIR 369, State Clearinghouse Number 83110902.

The Desert Tortoise Council appreciates the opportunity to comment on this environmental document. We have prepared the following comments on specific parts of the Draft EIR/EIS. We have attempted, as much as possible to comment on parts of the Draft in the order they appear.

Summary

The summary should quantify acres or miles of affected wildlife habitat that is discussed elsewhere in this document. Without quantification of impacts, an assessment of the impacts cannot be well used in decisionmaking. This is particularly true in discussion of the desert tortoise and desert bighorn.

Affected Environment

Page 3-55. The definition of special status species is not understandable. In some instances State-listed species are discussed and in others they are not. For instance, in Arizona, great egrets, snowy egrets, and black-crowned night-herons use the Gila River near the proposed pipeline crossing. They are state-listed and could be affected by this proposal, but are not discussed. We question whether other deletions may have occurred. The Arizona Game and Fish Department has records of State-listed wildlife for Arizona. Such information should have been used in analyzing the "affected environment" of special status species, which should include State-listed species.

Map 2-1 is mentioned in discussion of tortoise densities, however, in our copy, Map 2-1 did not seem to refer to this discussion.

43-1 The purpose of the summary tables is to provide a brief comparison and contrast of the significant impacts and mitigation measures proposed for the various alternatives. Where possible, impacts were quantified and used to compare alternatives in Table 2-9 (see the Modifications and Corrections Section).

43-2 A definition of sensitive species is included on page 3-47 of the DEIR/EIS. State-listed species are included in this definition. The Arizona Game and Fish Department was contacted regarding state-listed species; the information they provided is included in Appendix B in the DEIR/EIS. The Valdez, Alaska to Midland, Texas DEIS (BLM 1976) was also used as a data source. The species listed by the commenter could occur near of the Gila River crossing and could be subject to potential oil spills.

43-3 The text should refer to Map 1-2, not Map 2-1, on page 3-47 of the DEIR/EIS. This map shows locations of occurrence, but not densities.

2-140

43-1

43-2

43-3

COMMENT LETTER 43 (CONTINUED)

RESPONSE TO COMMENT LETTER 43
(CONTINUED)

2-141

- 43-4 Page 3-59. Amounts of affected habitat are not discussed for special status species and only the discussion of the Kofa National Wildlife Refuge comes close to quantification.
- 43-5 Page 3-119. The desert tortoise definitely does occur along the Brenda route, not possibly, as stated. Our specific comments on location will follow in discussion of the map section. Records of the desert tortoise in this region are available from the Arizona Game and Fish Department, BLM, Southern California Edison, and E. Linwood Smith, Associates.
- 43-6 Environmental Consequences
Page 4-45. We take issue with the statement that significant impacts to vegetation would only occur in the Mojave Desert. Many vegetation zones in the Sonoran Desert would take at least as long or perhaps longer to recover plant cover after major disturbance. Since other sites also take very long to recover, we believe that impacts to vegetation were incorrectly assessed. We must state again that qualification and quantification of the vegetation impacts should be presented for each type and alternative so that the alternatives can be weighed for a responsible decision to be made.
- 43-7 Page 4-49. Table 4-8 does not mention the desert tortoise in the Eagletail Mountains and the Buckeye Hills, although it is mentioned on page 3-60. As with several other parts of this document, there is no citation of the source of this information.
- 43-8 Page 4-53. Paragraph 5 is well-done and quantified. It is the best section in this Draft EIR/EIS. Impacts to the desert tortoise on other routes should be covered this well and quantified.
- 43-9 Page 4-128. Sensitive biological resources mentioned in 3-116 (eg. desert tortoise) were not mentioned here in impacts. Again, there is lack of quantification, though the impact appears greater than the proposed action.
- 43-10 Page 4-131. Section 4.5.7. These mountains are called the Pinosas Mountains and the pass is called Pinosas Pass. There is much information on the desert bighorn sheep of the Pinosas-New Meteor-Kofa area. In fact there was a major study funded by Southern California Edison to study impacts of a powerline on the sheep. Much of the information would be very useful to document impacts and to provide some very good mitigating measures for the proposed route and the Brenda route. We feel that all available information should have been used to make the best presentation possible on the
- 43-4 The loss of broad habitat types was calculated from aerial photography and sensitive areas were identified (e.g., riparian). Density data on all special status species are not available; therefore, impact evaluations focused on potential habitat degradation or loss.
- 43-5 See Modifications and Corrections to page 3-119.
- 43-6 Vegetation zones in the Sonoran Desert would also be sensitive to long-term losses of habitat as a result of clearing. See Modifications and Corrections to page 4-45.
- 43-7 Table 4-8 in the DEIR/EIS identifies desert tortoise habitat where high densities of desert tortoise are known to occur. Information on densities was provided by BLM district biologists (see Radow 1984, Fredlake 1984, and Burge 1980). See Modifications and Corrections to pages 3-60 and R-5. Other wildlife data were obtained from the Arizona Fish and Game, Nongame Division; see Appendix Table B-1 and references.
- 43-8 Density information for tortoise along other portions of the route were not available. Similar mitigation as proposed in Mitigation Measure 16 for the Celeron/All American proposed route and Brenda Alternative can be added to specific Notices to Proceed for public lands (BLM) wherever tortoise mortality is expected to be significant.
- 43-9 See response to Comment 43-8. Impacts to desert tortoise are discussed in the DEIR/EIS on page 4-128.
- 43-10 Mr. Linwood Smith was contacted regarding specific data on bighorn use of the area. Also see responses to Mr. Smith's Comments 23-1 through 23-3. See Modifications and Corrections to page 4-131 for correction of Pinosas.

COMMENT LETTER 43 (CONTINUED)

RESPONSE TO COMMENT LETTER 43
(CONTINUED)

various alternatives of this project. Again, we regret the lack of quantification of habitat of desert bighorn sheep and desert tortoise impacted under this and other alternative routes.

43-11

Page 4-154. Measure 12. We strongly support limiting vehicle use to the right-of-way be incorporated for the entire project, and emphasized in desert tortoise habitats, bighorn habitats, riparian, and other sensitive habitats. Scarification and revegetation of as such surface as possible with native plants should be accomplished as part of this measure.

43-11

The Applicants have indicated they would post signs to discourage ORV use. See also response to Comment 3-1, Mitigation Measures 18 and 19, and Recommended Mitigation Measure 1.

43-12

Page 4-155. Measure 14. The raptor nesting seasons listed here for avoidance of construction are misleading. In the Sonoran Desert and probably the warmer parts of the Mojave Desert raptor nesting begins such, such sooner than listed in this document. Studies in the Sonoran Desert showed that several raptor species nest as early as February. Also, the Harris' hawk may nest at nearly any time of the year, and is likely to be encountered in the central Arizona part of the route. We believe that the listed avoidance dates in Measure 14 may be correct for somewhere, but not over the length of the pipeline route. Also, the most crucial time for avoidance of raptor nesting sites is early on in the nest selection and early nesting stages. After hatching, for example, disturbances are much less likely to bother most raptors, and most raptors along the desert parts of the pipeline alignment will be through nesting well before July. This mitigating measure is extremely important, but should be redone with the input of a reputable raptor biologist.

43-12

Mitigation Measure 14 provides general timing for most nesting activity across the 1,200 miles of pipeline. The intent of the measure is to identify timing constraints to avoid impacts to nesting raptors. As part of specific ROW grants, timing may be altered to reflect specific conditions. See revised Mitigation Measures 14.

43-13

Page 4-155. Measure 16. This measure should include the pipeline segments in the vicinity of the Eagletail Mountains and Buckeye Hills which were mentioned on Page 3-60. Construction avoidance dates may be different for Sonoran Desert tortoises which seem to exhibit a more bimodal activity (eg. spring and fall). The Arizona Game and Fish herpetologist should be consulted on this matter. Also, the qualified desert tortoise expert should be used to attempt quantifying the tortoise populations in areas where Calern/All American could not obtain quantifiable baseline data. Information should go to State Wildlife and land management agencies.

43-13

See response to Comment 43-8.

43-14

Page 4-156. Measure 18. This measure should be stated to apply to the Brenda alternative where significant desert bighorn populations also occur. Better bighorn mitigation might be available with use of information from the SCE desert bighorn study mentioned earlier.

43-14

Mitigation Measure 18 has been modified based on information provided by Mr. Linwood Smith. See responses to Comment Letter 23.

COMMENT LETTER 43 (CONTINUED)

RESPONSE TO COMMENT LETTER 43
(CONTINUED)

2-143

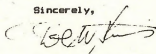
43-15 Page 4-16Z. Unavoidable Impacts. Loss of 230 tortoises is probably an understatement considering the relative lack of quantification of impacts. This loss is a significant impact and should be mitigated with replacement habitat. The Desert Tortoise Council strongly recommends that Celeron/All American purchase replacement habitat in the form of private inholdings within the Desert Tortoise Natural Area of California to replace these losses. Further information on the Desert Tortoise Natural Area can be obtained from the Desert Tortoise Preserve Committee, Inc. or BLM.

43-16 Map 1-2 Sheet 6 should show T-14 where desert tortoise occur in the Piomosa Pass area (where L-21 and T-17 are also shown).

43-17 Map 1-2 Sheet 8. Desert tortoise records may occur for areas between the Coolidge-San Manuel-Cascabel part of the route. The Arizona Game and Fish Department's nongame branch should be consulted about this possibility.

Again, we appreciate the opportunity to comment on this Draft EIR/EIS. We feel consideration of our comments and incorporation of our recommendations will help make this a better document from which sound resource decisions can be made.

Sincerely,



David W. Stevens
Ecosystems Advisory Committee

cc: Mr. Ralph Hicks, All American Pipeline
Desert Tortoise Preserve Committee, Inc.

43-15 Mitigation Measure 16 will be part of the ROW grant issued to the Applicant. Specific detail for meeting this mitigation measure will be incorporated into the Applicants' Construction and Use Plans. BLM will monitor construction and can stop work if conditions of the ROW grant are not met. Pipeline construction would not permanently remove habitat for the tortoise, and purchasing land in other areas would not mitigate losses of individual tortoises. Since individual tortoises take several years to reach maturity and have very low reproductive rates, loss of individual tortoises, not temporary loss of their habitat, would be the significant impact. Mitigation Measure 16 addresses this impact.

43-16 See response to Comment 43-8.

43-17 See response to Comment 43-16.

State of California

Business, Transportation and Housing Agency

Memorandum

To: State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Date: October 22, 1984

File No:

Attention Mary Griggs

Subject: Draft EIS/EIR for
All American/Celeron
and Getty Pipeline
Proposal
SCB#83110902

From: DEPARTMENT OF TRANSPORTATION
Division of Transportation Planning

Caltrans has reviewed the All American/Celeron Pipeline project draft EIR/EIS. The proposal is for construction of a 130-mile pipeline from Los Flores Canyon to Emidio (Celeron Pipeline Company) and a 1100-mile pipeline from a point near Bakersfield to West Texas (All American Pipeline Company). The pipelines would traverse State transportation facilities at numerous points.

This draft EIR/EIS generally covers concerns listed in our comments for the Notice of Preparation. We feel it worthwhile, however, to reiterate specific comments as a reminder of the project areas we consider important to address in the final EIS/EIR. Caltrans will be a responsible agency and will require certain mitigation be provided as a condition of permit issuance.

Regarding work within State highway right-of-way, the following should be considered in the document:

- Pipelines parallel to the highway should be placed, where possible, outside the State highway right-of-way. Longitudinal encroachments within the freeway right-of-way are permitted only under special circumstances, primarily where no feasible alternative exists.
- Transverse lines should preferably cross the highway at right angles.
- Lines within highway right-of-way may be required to be encased for ease of maintenance.
- Lines crossing freeway right-of-way are normally required to be encased between right-of-way limits.
- Encroachment permits will be needed wherever the pipeline, marine terminal, and related facilities cross the State

44-1

The stipulations were provided to the Applicants so they can be aware of Department of Transportation (DOT) considerations in the construction of the pipelines. The stipulations have also been incorporated into Appendix 4.1 of this document.

2-144

44-1

COMMENT LETTER 44 (CONTINUED)

RESPONSE TO COMMENT LETTER 44 (CONTINUED)

State Lands Commission
Page 2
October 22, 1984

highway right-of-way. At these locations the project applicant may have to present satisfactory evidence of surveys for archaeologically and botanically sensitive areas.

- The inside diameter of casings for pipeline crossings should exceed the outside diameter of the pipeline by four inches.
- This project falls in the category of a "high risk" facility (over six inches in diameter and over 60 psig operating pressures) and will be governed by Caltrans' "Policy on High and Low Risk Underground Facilities". Our Right-of-Way Utility Department must be notified of all high risk installations.
- Detailed plans depicting the exact locations of crossings, with permit applications for the anticipated pipeline should be submitted a minimum of four months ahead of construction. This would allow for field review and approval of site and crossing elevations.

2-145

44-2

- Traffic disruption and other construction impacts associated with the pipelines' encroachment on highways and roads should be addressed in the EIS/EIR. Any potential for permanent impacts to the right-of-way resulting from the pipeline construction, such as changes in grade, should be discussed along with proposed mitigation measures.

44-2 See response to Comment 9-1.

44-3

- The developer should be aware that some of the State routes to be crossed are proposed for widening or relocation and should coordinate the preparation of pipeline route plans with each respective Caltrans district office to accommodate for these changes. In District 8 State Route 58 is planned for widening near Route 395 and the Valley View Road. Relocation of Route 58 is being studied between Valley View Road and Route 15 at Barstow.

44-3 The Applicants are aware of the potential widening and modifications to various state highways. The Applicants have indicated in their highway crossing permits for CALTRANS that they will work out specific arrangements to accommodate future road relocations or widening.

Please be advised that, prior to obtaining an encroachment permit, you are required to have design plans approved by Caltrans and an environmental document approved by the lead agency or agencies.

44-4

- The document should address the potential for oil spills or accidents in the pipeline that might involve the State or county road system. Any impacts to the roadway from routine maintenance activities should also be addressed.

44-4,
44-5

Because most roadbeds are elevated, the likelihood of an oil spill reaching a state or county primary road would be low. It is possible that a spill could reach some of the secondary roads that have smaller ditches and are less elevated. The contingency plan to be prepared for the operation of the pipelines will address the various containment and cleanup procedures, including those for road systems. Also, the pipeline would be marked according to DDT standards to minimize accidental damage of the pipeline during road work or work by other utilities adjacent to the highway system. The Applicants indicated they will cooperate with CALTRANS to minimize disruption of traffic and potential damage to the road systems.

44-5

- As listed in tables in the project description, the pipeline would cross or parallel State highways at numerous locations along the proposed route. Each of these locations should be

State Lands Commission
Page 3
October 22, 1984

44-5 cont. evaluated in the final EIS/EIR for site specific problems and potential impacts.

We also urge early and continuous liaison with Caltrans on proposed pipeline plans as they affect State highways.

Thank you for the opportunity to review the draft EIS/EIR. We look forward to reviewing the final EIS/EIR. Please send copies to:

Dave Clark
DOTF, Caltrans
P.O. Box 1499, Room 4340
Sacramento, CA 95807

Jerry Lauser
Caltrans, District 5
50 Higuera Street
San Luis Obispo, CA 93401

Mert Parlier
Caltrans District 6
P.O. Box 12616
Fresno, CA 93778

Robert Pote
Caltrans, District 9
247 West Third Street
San Bernardino, CA 92403

Tom Dayak
Caltrans District 9
500 South main Street
Bishop, CA 94514

Jim Cheshire
Caltrans, District 11
2829 Juan Street
San Diego, CA 92138

If you have any questions regarding these comments, please contact Art Funamura at (916) 445-5570 or the respective district office.

D. L. WIEMAN, Chief
Division of Transportation Planning

2-146



CITY OF BLYTHE

220 NORTH SPRING STREET BLYTHE, CALIFORNIA 92225 • (619) 922-6161

October 24, 1984

Mary Griggs
State Land Commission
1807 - 13th Street
Sacramento, CA 95814

In Re: Celeron/All American and Getty Pipeline
Draft Environmental Impact Report
Document No. SLCEIR369
Clearing HS No. 83110902

Dear Ms. Griggs:

Attached is a copy of City of Blythe Resolution No. 84-36
which opposes the above project as proposed and urges re-
location of the proposed routing.

Sincerely,


Joanne M. Manly, City Clerk

JM:vr
Enclosures

cc: L. Warning, O.P.W.

2-147

RESOLUTION NO. 84-36

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BLYTHE, CALIFORNIA, OBJECTING TO THE GETTY/ALL-AMERICAN OIL PIPELINE AS PROPOSED AND URGING THE RELOCATION OF THE PROPOSED ROUTING OF THE PIPELINE.

WHEREAS, the proposed pipeline would be placed through existing agricultural operations without consideration to the existing property line and rights-of-way;

WHEREAS, the pipeline would be buried four feet in the ground;

WHEREAS, current agricultural practices call for deep tilling or "ripping" of the soil up to ten feet in depth; and

WHEREAS, the proposed pipeline depth and location will interrupt and disrupt the agricultural operations along the proposed route through the Palo Verde Valley;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BLYTHE, CALIFORNIA, DOES RESOLVE AND DECLARE AS FOLLOWS:

SECTION 1. The City of Blythe objects to and protests the pipeline route as currently proposed through the Palo Verde Valley.


SECTION 2. The City of Blythe urges that if the pipeline route is to be acceptable to the residents of Palo Verde Valley that the proposed pipeline route be located within existing dedicated rights of way.

PASSED, APPROVED AND ADOPTED on this 23th day of October, 1984, by the following called vote, to wit:


AYES: Councilmembers Morgan, Port, Rodriguez, Weeks

NOES: None

ABSENT: Councilmember Johnson


Mayor Ernest E. Weeks

ATTEST:


Josephine H. Hanly, City Clerk
(S E A L)

2-148

45-1

45-1 See response to Comment 3-3.

RECEIVED
RESPONSE TO COMMENT LETTER 45

STATE OF CALIFORNIA)
) ss.
COUNTY OF RIVERSIDE)

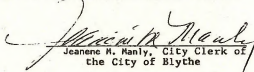
I, Jeanene M. Manly, City Clerk of the City of Blythe, do hereby certify that the foregoing resolution was duly passed and adopted by the City Council of the City of Blythe at a regular meeting held on October 23, 1984, by the following called vote, to wit:

AYES: Councilmembers Morgan, Port, Rodriguez, Weeks

NOES: None

ABSENT: Councilmember Johnson

IN WITNESS WHEREOF, I have affixed the official seal of the City of Blythe on the 24th day of October, 1984.


Jeanene M. Manly, City Clerk of
the City of Blythe

(S E A L)



ARIZONA WILDLIFE FEDERATION
 4330 N. 82nd St. #102 • Scottsdale, AZ 85251 • (602) 946-8180

ACE PETERSON
 President



October 24, 1984

Mary Griggs
 State Land Commission
 1807-13th Street
 Sacramento, CA 95814

Dear Ms. Griggs:

The Arizona Wildlife Federation concurs basically with the proposed draft Environmental Impact Statement for the Celeron/All American and Getty Pipeline Projects. Any comments pertinent to this report now or in the future will be directed mainly towards project efforts within Arizona.

There are certain mitigation measures we would like to emphasize even though some are addressed pages 4-149 to 4-161.

1. Construction and installations be effected within existing right of ways. All land disturbance be contained with these right of ways unless at the express written permission of the appropriate land owner.

2. In regards to the KOFA Wildlife Refuge, we still prefer the projects to be contained within existing right of ways. We stress that no construction be done during critical lambing and/or migration seasons.

3. In regards to the Muleshoe Ranch Reserve, the appropriate mitigation measures be implemented including those additional proposed by the Nature Conservancy.

4. We urge complete rehabilitation to land disturbances including riparian habitats. All measures necessary to insure the regeneration of the habitats must be implemented. Where possible, we request the use of native plant and grass species be used in the rehabilitation process. Where riparian values are concerned the planting of cottonwood and willows, etc., be used to recover the areas as well as slope and bank protection measures.

5. In the case where rupture or spills occur, these must be completely cleaned and the area rehabilitated at the earliest possible time. Preferably within days of the incident.

46-1 The route through the Kofa is no longer the agency preferred alternative. If the final decision is to construct through the Kofa, the BLM will require Celeron/All American to use the existing ROW, particularly the El Paso Natural Gas ROW, to the maximum extent feasible. The current proposed plan would place the pipeline within 35 feet of the existing El Paso pipeline; see Mitigation Measure 21. Using this placement, both pipelines could be constructed parallel without potential damage occurring to either pipeline. Firing constraints to minimize impacts to desert bighorn sheep are specified in Mitigation Measures 18 and 19. Also see Agency Stipulations (Fish and Wildlife Service) for Terrestrial Biology and Soils.

46-2 Mitigation Measures 20 and 21 will be implemented at Muleshoe Ranch. These were formulated based on Nature Conservancy Recommendations.

46-3 See response to Comment 3-1 and Recommended Mitigation Measure 1.

46-4 Containment and cleanup of spills will be in accordance with finalized oil spill contingency plans prepared for operation. This plan will include specific mitigation measures for various habitat types, route locations, and physical and natural features on the respective ROWs. See Appendix H of the DEIR/EIS, Section 4.3.

2-150

46-1

46-2

46-3

46-4

COMMENT LETTER 46 (CONTINUED)

RESPONSE TO COMMENT LETTER 46 (CONTINUED)

Ms. Mary Griggs
October 24, 1984
Page 2

46-5 [6. We strongly urge the installation of oil spill containment devices be constructed around appropriate equipment such as gates, valves, pumps, etc.

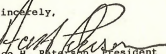
46-6 [7. Construction cleanup must be closely monitored to ensure the removal of excess or damaged materials, equipment refuse, or other forms of construction or personal litter.

46-7 [8. Where, in fact, certain plant species occur which are threatened or endangered, those directly threatened by construction shall be removed and replanted in the appropriate viable locations.

46-8 [9. We urge the strictest compliance with all laws and regulations by both the companies and employees whether local, state, or national. Any violations shall be reported to the appropriate agency immediately. This includes any inappropriate disturbance to threatened plants, poaching, disturbance of raptor nests, or land vandalism.

The Arizona Wildlife Federation reserves the right to provide additional input on other measures as deemed necessary throughout the project life. We would request upon abandonment or completion of the project we are allowed appropriate response. If at any time significant problems are encountered affecting wildlife or habitat during the project, we request and reserve the opportunities to comment on/or take action upon these on a site by site basis.

At this time the Arizona Wildlife Federation feels comfortable with the plan as outlined. We request that we be contacted where necessary during the project by either the agencies or companies where further communication may be needed. We would appreciate a copy of the final document when completed along with any appropriate schedules affecting the project.

Sincerely,

Ace H. Peterson, President
Arizona Wildlife Federation

AHP/ss

cc: Jay Hair, NWF Executive Vice President
Dale Gaskill, NWF Regional Executive
Ralph Hicks, All American Pipeline Co.
P.O. Box 31029 Santa Barbara, CA 93130

46-5 Permanent containment structures would be installed at tank farms to prevent loss of oil should a tank rupture. Other facilities along the pipeline have a lower likelihood of failure, and thus would not justify permanent diking.

46-6 The BLM will provide inspectors, as appropriate, to monitor and ensure that excess or damaged materials, equipment, refuse, and other forms of construction or personal litter are removed from the ROW and disposed of properly.

46-7 No federally listed threatened or endangered plant species occur along the proposed ROW. One species proposed for listing, *Mammillaria thornberi* may occur near the ROW south of Casa Grande, Arizona; see Appendix 4.2.

46-8 See Recommended Mitigation Measures 2 and 3. Regulations and laws protecting wildlife, plants, and fisheries could be posted in prominent locations at various construction sites. Celeron/All American and Getty have indicated they would hold contractors responsible for operating in a lawful and prudent manner. Violations of state or Federal fish and game laws or stipulations prescribed by agencies would be grounds for employee dismissal.

2-11-11



Getty Trading and Transportation Company | P.O. Box 5568 T.A., Denver, CO 80217 • (303) 861-4475

October 25, 1984

Ms. Mary Griggs
State Lands Commission
1807-13th Street
Sacramento, CA 95814

Dear Mary:

Getty Trading and Transportation Company has reviewed the Draft Environmental Impact Report/Environmental Impact Statement prepared on its proposed pipeline project. This document is believed to adequately address the environmental impacts of the project except as noted in the attached comments.

Additionally, Getty feels that its proposed route through La Brea Canyon was first selected, and then evaluated, on the basis of far more extensive analysis than exists for the Santa Maria Alternative. If comparable information has been developed to support the Santa Maria route then it should be identified and presented in the final document.

In the Draft EIR/EIS the Los Padres National Forest has indicated a preference for the Santa Maria alternative for crossing the Forest, it must be noted that this route may result, in the aggregate, in greater impacts to Santa Barbara County.

Potential impacts of any of the proposed routes through the Los Padres Natural Forest can be mitigated to an acceptable level and therefore could be permitted.

It is in the best interests of the Nation, the County of Santa Barbara and industry that this pipeline be constructed as soon as possible. Both environmental and economic concerns suggest the shortest, environmentally acceptable route as the best means of achieving this goal.

Getty looks forward to working closely with all responsible agencies in the coming months to accomplish our common objective.

Sincerely,

W. N. Harris

W. N. Harris
Engineering Project Manager

WHH/vll

cc: Bill Haigh (BLM)
Robert Almy (SBC)
Ruth Winstrom (LPNF)

P L I C

COMMENTARY ON THE
DRAFT EIR/EIS
FOR THE
PROPOSED CELERON/ALL AMERICAN
AND GETTY PIPELINE PROJECTS
AUGUST 1984

2-153

Prepared By:

Getty Trading and Transportation Company
101 East Victoria Street
Santa Barbara, California 93101

October 26, 1984

GENERAL COMMENTS

47-1 The following review addresses the Draft EIR/EIS with respect to the Getty and Celeron proposed projects and the Santa Maria Alternative. It should be noted that throughout the DEIR/DEIS text Getty's proposed pipeline route is summarized as extending from Las Flores to Emidio. This is incorrect. Getty's proposed pipeline extends from Gaviota to Emidio. Getty does not intend to build a line between Las Flores and Gaviota. This segment of pipeline is being proposed by Chevron/Texaco in the Point Arguello Field EIR/EIS and is not a "missing link" from our project. Getty intends to link up with the Chevron/Texaco pipeline from Los Flores at Gaviota.

Each applicant has proposed a preferred route and alternatives. All alternatives are considered available to each applicant. Route-related concerns are just that, routing concerns, and should not cause the reviewer to favor one or the other applicant.

2-154
47-2 The DEIR/DEIS has also determined that the impacts of an oil spill would be the single largest impact possible from the project. This is supported throughout the impact summary table. Nearly 50% of the impacts considered still significant after mitigation are considered so because of the potential of an oil spill. There has been no mention of ways to mitigate this potential. Keeping the line length to a minimum is the most obvious and effective method of accomplishing this goal. The benefits of a shorter line should be addressed fully in the document as it relates to all impact areas. For an agency to determine that a longer route is preferred, it would have to ignore the conclusions of the DEIR/DEIS.

47-3 Page S-23 to S-46 An impact summary table for the alternative routes would be more meaningful if presented in comparison with those portions of the pipelines that they replace as is presented in Table 2-9 (page 2-52 to 2-54).

47-4 Page 1-15 The following statement should be added to Section 1.5.2, paragraph 1: Getty believes that for some of its marine terminal customers a movement by tanker to the Gulf Coast will always be required. Movement for others by pipeline will particularly be a

47-1 The Las Flores to Emidio segment heading used in the DEIR/EIS was selected as a general geographic description of the first major section of pipeline. This segment contains both the Celeron/All American pipeline route (that extends from Las Flores to Emidio) and the Getty pipeline route (that extends from Gaviota to Emidio). Getty's proposal is described on pages 2-13 and 2-14 and Map 1-2, Sheets 2 and 3 in the DEIS. All impact analyses were conducted on the 113-mile long pipeline extending from Gaviota to Emidio.

47-2 Two major sources of impact are associated with pipelines; those due to construction and those from accidental spills. Construction impacts depend on length, right-of-way width and specific location. Oil spill impacts depend on quantity and the specific location of the spill, while probability of oil spill occurrence is directly related to length of the pipeline. Differences in pipeline length and sensitivity of resources affected are reflected in the impact analysis.

The impact assessment included an evaluation of potential resources at risk and the probability of impact occurring. The impacts from a spill included both the numerical probability and the resources potentially affected if a spill occurred. Table 2-9 summarizes spill probabilities for the Celeron/All American and Getty proposals and the Santa Maria Canyon Alternative (see Modifications and Corrections, Section 3.3). As reported, spill rates are based on spills per pipeline length per year (0.0081 for Celeron/All American and Getty, and 0.0114 for the Santa Maria Canyon Alternative. There is a 0.0039 greater probability of a spill per year for the Santa Maria Canyon Alternative. However, the difference can be considered insignificant, since a spill along either route would still be unlikely.

47-3 The impact summary tables were designed to summarize the significant impacts and mitigation measures for each complete proposal and alternative. Table 2-9 in the DEIR/EIS was designed to compare the significant impacts (with mitigation in place) between the alternatives and pipeline segment replaced. Based on route modifications by both Applicants, Table 2-9 has been revised and is included in the Modifications and Corrections Section. Additionally, Table 47-32 (a part of response to Comment 47-39 and located in Section 3.3, Modifications and Corrections) details land cover types crossed by the Celeron/All American and Getty routes in La Brea Canyon and the respective alternatives in Santa Maria Canyon.

47-4 Based on the comment, text changes to page 1-15 in the DEIR/EIS are included in the Modifications and Corrections Section.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

function of refinery retrofits in California and competitive transport economies to the Gulf Coast via pipeline versus tanker.

47-5
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2-155

Page 1-16 Section 1.6.1: 600,000 million BPD should read 600,000 BPD.

Page 1-19 Economic information presented in the Temple, Barker and Sloane paper (Review and Comments on Oil Transportation Plan and Draft Environmental Impact Report. Appendix A: Economic Analysis. Prepared for Getty Trading and Transportation Company, March 1984) should be included in Section 1.6.3 Crude Oil Transportation.

Page 1-20 Footnote 4 is inappropriate and meaningless.

Page 2-41 The correct and only reason for not analyzing the marine transportation mode alternative in this DEIR/DEIS was because it was treated separately in the Getty Gaviota Consolidated Coastal Facility DEIR (ERT, June 1984). It is inappropriate and biased to state that the marine transportation alternative "was not analyzed in depth because it is inconsistent with All-American's goal and objectives." Furthermore, to state that the marine transportation alternative "is also against current Santa Barbara County policy" is not accurate and again is not a valid reason for not analyzing this alternative in the pipeline DEIR/DEIS.

It is incorrect to say that the proposed Southern California pipeline would have to expand their pipeline capacity from 200,000 to 300,000 BPD to 500,000 to 600,000 BPD in order to support the Pacific Texas Pipeline Company.

47-5 Based on the comment, text changes to page 1-15 in the OEIR/EIS are included in the Modifications and Corrections Section.

47-6 Based on the comment, text changes to page 1-16 in the DEIR/EIS are included in the Modifications and Corrections Section.

47-7 We recognize controversy exists concerning supply and demand analyses. See response to comment 18-2.

47-8 Text changes for page 1-20 (Table 1-8, footnote 4) in the DEIR/EIS are included in the Modifications and Corrections Section.

47-9 Based on your comment, text changes to page 2-41 in the DEIR/EIS are included in the Modifications and Corrections Section. See response to Comment 18-2.

47-10 Section 2.9.3 in the DEIR/EIS addresses the potential of transporting crude oil to Texas via connection through Los Angeles. Routing a pipeline through Los Angeles before going on to Texas would be cost prohibitive. The Celeron/All American and Getty Pipeline Projects appear to provide the desired flexibility in shipping oil to California and Eastern markets.

The comment relative to the proposed southern California Pipeline System (SCPS) was based on a current throughput projection of 200,000 to 300,000 BPD. If this system were to supply the quantity required to satisfy SCPS project needs in the Los Angeles area, plus those of shippers of oil to Texas, an expansion of the capacity to 500,000 or 600,000 BPD would be required.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47
(CONTINUED)

47-11 { Page 2-42
What is the difference in the number of landowners which would be affected in the Tepusquet Alternative vs. the Santa Maria Alternative?

47-12 { Maps
All DEIR/DEIS maps are labelled "Celeron/All American and Getty Proposals and Alternative Pipeline Routes." This is misleading since Getty's project extends east only to Emidio and not to Texas.

47-11 About twenty-five fewer land owners would be affected by the Santa Maria Canyon Alternative than, the Tepusquet Canyon Alternative.

47-12 This labelling was done as a cartographic convention.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47
(CONTINUED)

AIR QUALITY

47-13

Page 4-4,
Table 4-1

The maximum background concentrations used in determining the impacts from construction (total ambient concentrations) are inappropriate and do not represent the area from Gaviota to Emidio. For all pollutants, maximum background concentrations used in Table 4-1 were taken from either a downtown Bakersfield monitoring station or from a Taft station. Bakersfield is 20 miles north of Emidio while Taft is further away in southwest Kern County. Neither represents ambient air quality conditions for the coastal or mountainous area of Santa Barbara County or the open valley areas of Kern County. Therefore, the summary of air quality impact from the construction of this pipeline has been grossly overestimated. More appropriate maximum background concentrations would be $163 \mu\text{g}/\text{m}^3$ for NO_2 and $52 \mu\text{g}/\text{m}^3$ for SO_2 which ERT is using in the Final EIR for the Proposed Getty Gaviota Consolidated Coastal Facility at Gaviota, California.

2-157

47-14

Page 4-6,
Table 4-2

The above comment concerning Table 4-1 also applies for Table 4-2.

47-13

It is agreed that the Bakersfield-Chester monitor is not likely to represent the open valley areas of Kern County. However, the Taft monitor, for which only TSP data are available, is actually much nearer the pipeline (about 10 miles) than the Bakersfield monitor, not farther away as indicated in the comment. Therefore, the Taft monitor should provide a better estimate of the particulate air quality. The TSP data from Maricopa were actually used for the background that was added to the impacts from Getty's proposed Cuyana heater station.

The underlying problem is that air quality, especially gaseous, is not adequately characterized along the pipeline route. Therefore, there are many cases in other states as well as California, where the nearest monitor is 20 or more miles away and/or in a more urbanized area. Because of the lack of more representative values, it is often necessary to utilize what are probably inappropriate data to establish baseline air quality. In such cases, this was pointed out in the text of the DEIR/EIS.

The background values for NO_2 and TSP used in the Final EIR for the proposed Getty Gaviota Consolidated Coastal Facility represent the coastal area of Santa Barbara County, but not the inland areas of Santa Barbara County or the open valley areas of Kern County.

47-14

See response to Comment 47-13.

GEOLOGY, SOILS, SURFACE WATER, GROUNDWATER

- 2-158
- 47-15 Page 3-4, 5-15, S-23, 4-11, 4-123 The EIR/EIS concludes that similar geological problems and hazards (impacts) exist along Getty's and Celeron's proposed pipeline routes and the Santa Maria Alternative. There are no geology-related reasons that indicate the SMA is preferable to proposed pipeline routes. In fact, the addition of 12 more miles of pipeline and its additional impacts suggests that the SMA is much more environmentally sensitive than the proposed routes.
- 47-16 Page 3-5, 5-15 S-24, 4-24, 2-26 The impact analysis states that the significant soil contamination impact condition exists in southwest Kern County and the Cuyama Valley. In addition, however, it is noted that an additional area of soils sensitive to oil contamination impacts is found along the longer SMA in agricultural areas in the Sisquoc Valley. Thus, selection of the SMA would seemingly increase the unavoidable adverse soils impact relative to either the Celeron or Getty preferred projects.
- 47-17 Page 4-110 to 4-114 In addition to the above, the increased pipeline length required by the SMA will further increase the potential for an oil spill (concluded by the EIR/EIS authors) as being directly related to the number of miles of pipeline.
- 47-18 Page 3-24, 4-123 The discussion of the SMA does not specifically address the probable requirement that the channel geometry of Sisquoc Creek, Tepusquet Creek and/or Santa Maria Creek would be altered for construction of the pipeline along this route. Resulting changes in the flow regime could be a significant impact.
- 47-19 Page 3-6, 3-16, S-24, 2-52 The impact of concern (i.e., the only significant, unmitigatable environmental effect) in this category is the degradation of groundwater quality in "sensitive groundwater basins" due to a major oil spill or leak. Table 2-9 states that there are 2 miles of sensitive
- 47-15 Please see Table 2-9 in the Modifications and Corrections Section 3.2. There is no significant difference between the potential geohazards of the proposed pipeline routes of Celeron/All American and Getty and the Santa Maria Canyon Alternative. See Agency Preferred Alternative, Section 1.4 of this document.
- 47-16 The longer distances crossed in agricultural lands by the Santa Maria Canyon Alternative would increase potential risks for oil contamination in cultivated lands, but the risk of a spill would be very low.
- 47-17 See response to Comment 47-2.
- 47-18 The discussion of possible channel geometry changes resulting from the Santa Maria Canyon Alternative is addressed in a comparable manner to the discussion of impacts that would result from the Applicants' proposals. Possible impacts to the flow regimes of streams affected by construction of the Santa Maria Canyon Alternative were judged to be insignificant.
- 47-19 A 0.5-mile length of pipeline through a sensitive groundwater basin would incrementally increase the probability of an oil spill in the basin by 0.03 over 30 years. This small probability was considered insignificant in evaluating the Santa Maria Canyon Alternative; however, the effectiveness of mitigation would be the same as for the Applicants' proposed route.
- Based on your comment, the Summary Table for Santa Maria Canyon Alternative was changed to "yes, impact is still significant."

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

47-19
cont.

47-20

2-159

47-21

47-22

groundwater basin crossed on the SMA and only 1.5 miles crossed by the applicant's preferred project. How is it possible that the impacts due to an oil spill along the SMA are insignificant after mitigation, while the impacts along the preferred route can not be mitigated to insignificance (refer to the summary table).

Page 2-52, 4-37, 4-124

With respect to the portion of the Celeron/Getty preferred routes to be replaced by the SMA, there are differences in impacts between the proposed alignments and alternative (Table 2-9). Both projects cross 1.5 miles of sensitive groundwater basin (the Sissuoc River basin). The SMA, on the other hand, crosses 2 miles of this sensitive basin. Thus, for the link these three alignments have in common, both Celeron and Getty proposals are clearly superior to the SMA in terms of presenting a lower (by 25%) potential for unmitigatable groundwater impacts. As now written, this fact is not evident in the EIR/EIS. In particular, the groundwater portion of the Impact Summary Tables and the Summary Section text should be revised to reflect this.

Page 5-16, 4-153

The proposed mitigation measure involving the utilization of low permeability backfill for the pipeline trench would result in the following significant and greater environmental impacts which were not assessed in this EIR/EIS: truck traffic for hauling backfill material, location of the borrow pit, and over-excavation including a wider ditch. In addition, there would be a significant increase in pipeline costs.

Page 5-16

With respect to the value calculated to represent potential degradation of groundwater quality resulting from an oil spill (2.1 spills over a 30-year project life), this value assumes a probability of 1.0 for groundwater contamination from an oil spill. It is not true that given an oil spill, the groundwater will be contaminated.

47-20 See response to Comment 47-19

47-21 See response to Comment 8-1.

47-22 Spills may be effectively cleaned up at the surface or immobilized by soil particles as described on pages 4-35 and 4-36 of the DEIR/EIS. This spill statistic was presented to provide the worst-case probability for contamination to groundwater.

47-23

Page 3-24

Groundwater contamination as a result of an oil spill along the Santa Maria Alternative could potentially contaminate the Cuyama River which flows into the Twitchell Reservoir and severely impact the water supply.

47-24

Page 3-30

With regard to the confluence of the Sisquoc River and La Brea Creek, Getty's proposed alignment was changed to avoid this area prior to the application being deemed complete by Santa Barbara County on November 30, 1983. The relocation of the pipeline route is several miles to the east (see Map 1-2, Sheet 2). The line will enter La Brea Canyon at the Goodchild Ranch. Although the proposed alignment is illustrated correctly on Map 1-2, the analysis in the text pertains to the old route.

47-23

See response to Comment 25-4.

47-24

The discussion on page 3-30 in the DEIR/EIS is relative to La Brea Creek characteristics for both pipeline projects. No reference is made to the exact corridor location for either route in this section. Page 4-33 presents the correct impact assessment for La Brea Creek. Numerous crossings of La Brea Creek for either the proposed Celeron/All American or Getty pipeline would create sufficient changes in channel geometry to activate the channel. Also, sediment loading would remain elevated until the channel reached new average gradient. Both the change in channel geometry and elevated long-term sediment load would be significant impacts.

AQUATIC BIOLOGY

- 47-25 Page 5-7, 9-17, 4-174, 4-176 The summary tables indicate significant aquatic biological impacts exist during operation in spite of mitigation for both Celeron and Getty. However, on Table 4-33 and 4-34, no long-term impacts (irretrievable and irreversible) for aquatic biology are listed for both projects. These tables are inconsistent with each other and the text.
- 47-25 Potential significant impacts to aquatic biology due to oil spills are identified in Tables 4-33 and 4-34 in the DEIR/EIS under the "spills resource". This is consistent with information in the summary tables and text of the DEIR/EIS.
- 47-26 Page 5-25, 9-19 According to the impact summary table, there are no significant impacts with respect to aquatic biology for the Santa Maria Alternative. However, this conclusion is contradicted by the data in Table 2-9 (Pg 2-52 to 2-54). These data indicate one perennial stream with important fish species would be crossed by the pipeline and an oil spill probability of 0.01 increasing to 0.03 in 40 years (greater than for Getty/Celeron) for the Santa Maria Alternative. In contrast, significant impacts to aquatic biology during operation were assessed for both Celeron and Getty proposals which do not differ significantly from the Santa Maria Alternative with respect to perennial stream crossings and oil spill probability. In addition, it should be noted that the mitigation measure for aquatic biology (measure 8, pg 4-153) was applied to Celeron/All American, Getty and all alternatives. The impact assessment summary for the Santa Maria Alternative is therefore inconsistent.
- 47-26 There are no significant aquatic ecology impacts identified for the La Brea Canyon route on the Santa Maria Canyon Alternative. The number of streams crossed would be the same for each alternative. Table 2-9 has been revised and is included in the Modifications and Corrections Section.
- 47-27 Page 4-38 In Section 4.2.6.1, ERT concluded that "no significant impacts would occur in streams as a result of increased sedimentation and minor habitat alteration" during pipeline construction. This conclusion supports Getty's position that construction of the pipeline within La Brea Canyon is possible without causing significant degradation of the watershed. Information on construction in La Brea Canyon on pg 4-33 is inconsistent with the above-mentioned conclusion.
- 47-27 Significant impacts to surface water would not necessarily result in significant impacts to aquatic communities. Based on the significance criteria for surface water, significant impacts would occur in La Brea Creek. However, since no important permanent fish populations occur in La Brea Creek, no significant impacts to aquatic communities are expected.
- 47-28 Page 4-39 It is misleading to present the probability of occurrence of an oil spill as a range of 0.04 to 0.2 spills/year when in fact it is clearly stated in
- 47-28 The presentation of spills per year was a conservative presentation listing both the new pipeline and 30-year old pipeline risks. Because of the modern design of the proposed Celeron/All American and Getty pipelines, oil spill risks should remain at a low level over the life of the project.

47-28
cont.

the section on System Safety and Reliability, pg 4-112, that when the pipeline is a new line (as in the case for both Celeron and Getty), the incidents of spills exceeding 50 barrels would be 0.04 spills per year, only increasing to the nationwide average of 0.2 spills/year in 30 years.

Page 4-124

47-29

Based on the information presented in Section 3.3.6, it appears that Tepasquet Creek fish fauna has not been studied. Therefore, it is presumptuous to say that "since no important fish species occur in Tepasquet Creek, impacts would not be significant."

47-29

Field habitat evaluations were completed at Tepasquet Creek. Based on this evaluation, it was concluded that the stream would not support important fish species downstream of the crossings, thus, impacts would not be significant.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

TERRESTRIAL BIOLOGY

47-30	Page 9-17	ERT offers no mitigation and therefore assumes a totally negative approach. In La Brea Canyon impacts could be mitigated to a level of insignificance with careful timing of construction and routing of the centerline.	47-30	Mitigation Measure 9a will further minimize potential impacts to the riparian habitat in the North Fork of La Brea Creek.
47-31	Page 9-18	In regard to rare plants, WESTEC demonstrated that the significance of the impact to <i>Catalina mariposa</i> is low due to its fairly widespread distribution. The <i>mariposa</i> is only marginally listed by California Native Plant Society (not rare). Secondly, the nightshade responds well to disturbance and was found growing favorably in an existing gas line cut. Finally, <i>Refugio manzanita</i> may or may not be present on the precise trench and until located its significance can not be determined. Therefore, mitigation measures are possible and the impacts (with mitigation) remaining should be listed as insignificant in the table.	47-31	Mitigation of impacts for state-listed species has been included in Recommended Mitigation Measures; see response to Comment 19-1.
47-32	Page 2-53	With reference to the data in Table 2-9, Getty has adjusted their pipeline centerline so that it avoids most, if not all oak woodland areas.	47-32	Calculations of acres disturbed by construction were calculated on 1 inch = 1,000 feet photo-mosaic alignment sheets provided by Getty with their application. Calculations assumed a 50-foot ROW for Getty. The area of loss was based on a line intercept along the proposed centerlines for each Applicant.
47-33	Page 2-53	The number of riparian acres disturbed by Celeron/All American, given a 100-foot wide corridor, should be 48 acres for the proposed route and 20 acres for the Santa Maria Alternative.	47-33	The area of disturbance was recalculated from a point 1 mile north of Foxen Canyon Road where the routes diverge to a point in the Cuyama Valley where the routes join again. Table 47-32 in Section 3.3 of Modifications and Corrections summarizes the acres that would be affected by each of the routes.
47-34	Page 3-47 to 3-51	With regard to Section 3.2.7.1, the figures in the first paragraph are inaccurate as a result of route changes made prior to Getty having their application deemed complete by Santa Barbara County on November 30, 1983. WESTEC conducted a survey on an 800-foot wide corridor rather than a specific route. As a result of the corridor study, a specific centerline was identified to avoid sensitive areas; this makes the statements and Table 3-18 misleading.	47-33	Table 2-9 (Section 3.2 of Modifications and Corrections) in the DEIR/EIS presents impacts after mitigation measures have been implemented. Celeron/All American would be required by Mitigation Measure 9 to reduce the ROW to 50 feet through sensitive habitats. Therefore, the areas reported would be correct.
			47-34	See response to Comment 47-32. Cover types along the 800 foot wide corridor were inventoried using a line intercept technique of cover mapping for both Applicants, therefore, the numbers are comparable. Minor centerline adjustments on both routes could minimize impacts on large trees and other sensitive habitat components.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

2-164

47-35 Page 3-51 Contrary to what is stated in the first paragraph, WESTEC reported in Getty's Development Plan and Environmental Report that the California data base identified locations for Parish's sidalcea and Lompoc yerba santa in the nearby region but none were found during WESTEC's survey within the ROW.

Prairie Falcon is not a state-listed species.

47-36 Page 3-109 The terrestrial biology data for the Santa Maria Alternative are inadequate to evaluate this alternative. A biological survey of this alternative should have been conducted as part of this EIR/EIS process.

47-37 Page 4-47 With regard to the last paragraph on operation (Section 4.2.7.1), Getty has stated on numerous occasions that they would utilize a fixed-winged aircraft to monitor the pipeline systems and that no roads would exist along the pipeline route for monitoring purposes.

47-38 Page 4-48 It is misleading to state that 94 and 62 acres of Riparian Woodland as well as 88 and 138 acres of Oak Woodland will be removed by the Getty and Celeron proposals, respectively. In La Brea Canyon the oaks and sycamores within the ROW are indeed very old. However, there is no undergrowth of younger vegetation. This canyon is scoured periodically by water which has severely restricted the development of new or ancillary undergrowth vegetation. Thus, from a wildlife perspective, it is relatively low in structural diversity and availability of niches (i.e., low habitat quality for a riparian situation). Likewise, the trees are scattered sufficiently that, with careful routing and caution during construction, few of the mature trees need be affected. Obviously, the 50-foot Getty ROW would be less deleterious than a 100-foot Celeron ROW and the Getty ROW need not be 50 feet wide in select areas to avoid impacting sensitive vegetation.

47-35 Please review the text on page 3-51 in the DEIR/EIS. It states Parish's sidalcea and the Lompoc yerba santa were found near the proposed route. Prairie falcons and raptors in general are considered sensitive species and, therefore, are treated as special status species along with state-listed species.

47-36 Existing biological data, aerial photo interpretation, interviews with agency biologists, and field habitat evaluations were used to describe vegetation and wildlife populations and habitats for the proposed Celeron/All American La Brea Route and the Santa Maria Canyon Alternative. These data were sufficient to complete the impact assessment.

47-37 None of the impacts discussed in this paragraph is associated with a road along the pipeline route. Potential impacts would result from the increased access that the cleared ROW would provide.

47-38 See Mitigation Measure 9a and response to Comment 47-30. By selectively avoiding trees greater than 6-inch diameter at breast height (dbh) in riparian and oak woodland habitats, maximizing the use of the existing La Brea Canyon Road, and selectively narrowing the ROW to about 20 feet in sensitive locations in La Brea Canyon, impacts to wildlife habitat and particular vegetation species would be minimized.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

47-39

In addition, Getty changed their alignment in the area of La Brea Creek prior to having their application deemed complete by Santa Barbara County on November 30, 1983. As a result of this relocation (which was not considered in the analysis of this text), 5 miles of La Brea Creek are no longer influenced by the proposed alignment. Therefore, the number of Riparian Woodland acres which are traversed by the Getty alignment should be reduced accordingly.

47-39

The correct routes were used in calculating acres disturbed for the DEIR/EIS. ERT has recalculated riparian acres affected by the four different routes over the Los Padres National Forest based on both Applicants' most recent alignment. See Table 47-32 (Section 3.3) for a discussion of proposed and alternative routes.

LAND USE/RECREATION

Page 3-19, 4-76 Policy 6-14 of the Santa Barbara County Local Coastal Plan refers to revegetation and restoration of habitats crossed by pipelines and does not specifically pertain to ESH areas. The policy reads as follows:

"Except for pipelines exempted from coastal development permits under Section 30610(c) and (e) of the Coastal Act as defined by the State Coastal Commission's Interpretive Guidelines, a survey shall be conducted along the route of any pipeline in the coastal zone to determine what, if any, coastal resources may be impacted by construction and operation of a pipeline. The costs of this survey shall be borne by the applicant. (This survey may be conducted as a part of environmental review if an E.L.R. is required for a particular project.)

The survey shall be conducted by a consultant selected jointly by the applicant, the County, and the Department of Fish and Game. If it is determined that the area to be disturbed will not revegetate naturally or sufficiently quickly to avoid other damage, as from erosion, the applicant shall submit a revegetation plan. The plan shall also include provisions for restoration of any habitats which will be disturbed by construction or operation procedures.

For projects where a revegetation plan and/or habitat restoration plan has been deemed necessary, one year after completion of construction, the area crossed by the pipeline shall be resurveyed to assess the effectiveness of the revegetation and restoration plan. This survey shall continue on an annual basis to monitor progress in returning the site to pre-construction conditions or until the County feels no additional progress is possible.

The County may require the posting of a performance bond by the applicant to ensure compliance with these provisions."

The Celeron/Getty proposals are consistent with Policy 6-14. Furthermore, the LCP states that pipelines are a permitted use in recreation and habitat areas as long as all standards set forth in land use policies are met (Table 3-1, LCP). Getty's proposal meets all said standards.

47-40 Both the Getty and Celeron/All American proposals would be consistent with Policy 6-14 since field surveys have been completed and revegetation plans will be developed.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47
(CONTINUED)

2-167

47-41

Both Policy 6-17 and 6-19 apply to routing of the pipeline through Gaviota State Park. Getty has aligned its preferred route through Parks and Recreation land and paralleling an existing pipeline, corridor to minimize impact. Getty's project does not involve Gaviota State Park. Revegetation of the ROW to reduce visual impact would be performed. In addition, it should be noted that Getty has proposed a construction ROW of 50 feet, whereas Celeron's construction ROW will be 100 feet.

47-42

In the area of La Brea Canyon, surveys conducted by WESTEC biologists noted that the large oak and sycamore trees were widely spaced and removal could be avoided by careful construction techniques. Getty has stated that such care will be taken. Therefore, no impact to the canyon's recreational appeal and long-term use is anticipated.

47-43

Getty's proposed route no longer passes through any further planning area (FPA, RARE ID) in Los Padres National Forest. These areas have recently been designated non-wilderness. Therefore, there are no significant impacts to FPAs.

47-44

In Table 3-22, the comparison of the two proposed projects with respect to land use is incorrect. The amount of shrubland and woodland affected by Getty's proposed route has changed because of relocation of the route in the La Brea Creek area. This relocation occurred prior to when the application was deemed complete by Santa Barbara County (November 30, 1983).

47-45

With reference to paragraph one, Getty's proposed route does not cross over or go through Gaviota State Park.

47-46

With reference to paragraph two, due to alignment changes made prior to their application being deemed complete by Santa Barbara County on November 30, 1983, Getty's proposed route does not pass

47-41

The Getty preferred route is within an existing privately owned ROW in Gaviota State Park before and after it crosses Highway 101; the Celeron/All American route also is within the boundaries of the park. The roadside rest area would be temporarily affected by the Getty project. For these reasons both projects may not be consistent with Policy 6-17. A final determination of consistency will be made by Santa Barbara County, Gaviota State Park, and the California Coastal Commission. One facet of this determination will include an evaluation of the feasibility of alternative locations.

47-42

Based on visual intrusion due to clearing of vegetation, the impact to recreation would be considered significant.

47-43

The California Wilderness Act, signed into law September 28, 1984, allocated the Miranda Pine and Spoor Canyon FPAs to non-wilderness uses. It did not affect the Horseshoe Springs or La Brea FPAs. The Getty La Brea Canyon route, therefore, would not directly impact any FPAs.

47-44

The correct alignment was used. See Table 47-32 in Section 3.3 and response to Comments 47-30, 32, and 39.

47-45

See response to Comment 47-41.

47-46

Alignment changes have, indeed, relocated the route away from irrigated cropland and vineyards at the Sisquoc River and La Brea Canyon. See Modifications and Corrections to page 3-70. The text has been revised to show land use at these locations and at milepost 8.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

47-46
cont. ↑
[

through irrigated cropland or vineyards at the Sisquoc River or La Brea Canyon.

47-47 [

With reference to Table 3-28, Getty's proposed route does not involve Gaviota State Park (milepost 2) and there is 1 residence and no commercial area at milepost 8. In addition, at milepost 22, both projects are essentially at the same location but the residential and commercial area was omitted from the Celeron/All American land use summary.

47-48 [Page 4-77

With reference to the last paragraph, Getty's proposed route will avoid the three campgrounds and Getty has gone on record stating that no oaks or sycamores will be cleared. Little, if any, long-term impacts will result to the area.

2-168
47-49 [Page 3-109, 4-125

A detailed description of the land uses for the Santa Maria Alternative as is provided for the Celeron and Getty proposals (Table 3-23) is needed to adequately assess impacts. At this time, the conclusion that there are no impacts with respect to land use is unsubstantiated.

47-50 [Page 4-165

Getty recognizes that the quality of recreational activities would decrease during construction in Gaviota Pass Rest Area and La Brea Canyon. The rest area is under the control of Caltrans and is not part of the park. However, these impacts are short-term and temporary. In addition, construction activities could be scheduled to avoid peak recreational use in these areas. The impacts are overstated.

47-51 [Page 4-176

Table 4-34 — Impacts for land use and recreation should be corrected to reflect the change of FPA to non-wilderness areas.

Appendix D [

Comments with respect to FPAs and Getty no longer apply and should be deleted.

47-47 See response to Comment 47-41. Regarding land use at milepost 8, see Modifications and Correction Section page 3-70.

47-48 See Table 47-32 in Section 3.3 and response to Comments 47-30, 32, 39 and 42.

47-49 Based on information in Table 47-32 in Section 3.3, no sensitive lands would be crossed by the Santa Maria Alternative.

47-50 The DEIR/EIS does reflect the fact that significant impacts to recreation in La Brea Canyon would be short-term and associated with construction. The text has been modified to show a reduction in long-term visual/aesthetic impacts for the Getty route in La Brea Canyon due to Getty's plans to reduce in the number of oak and sycamore trees removed. See Mitigation Measure 9a in Section 4.1.

47-51 See response to Comment 47-43 and Modifications and Corrections for page 4-176.

CULTURAL RESOURCES

General
CommentRight-of-Way (ROW) versus Alignment

Even though the ROW proposed by Getty goes through La Brea Canyon and comes close to major, significant archaeological sites, the alignment itself has been adjusted to avoid virtually all of these sites. By contrast, no such fine tuning has yet been performed on other pipeline corridors. The implications of this difference are that the La Brea Canyon route may in fact not impact archaeological resources even though it appears to have the most potential to be near the most resources and that other alignments may well impact more total sites even though fewer sites are recorded in, or near the ROW.

Sensitivity Ranking

No actual justification is provided for ranking virtually the entire affected area between Las Flores and Emidio as "sensitive". While it may be true that all of the proposed pipeline alignments are within sensitive areas, it seems unlikely that such uniformity exists. There are lengthy stretches of corridors that have been surveyed with negative results. Certainly those areas devoid of resources are less sensitive than those for which sites were recorded and cumulatively some alignments must have more apparently significant resources than others. For example, if one corridor alignment at El Cemeterio Creek follows an existing pipeline it may be more likely to avoid disturbing archaeological and cultural resources.

It is incorrect to state that remaining impacts would be significant after mitigation. Mitigation measures for all listed cultural resources would reduce or eliminate all significant impacts to a level of insignificance.

47-52 The sensitivity ranking is a qualitative system of designating areas where cultural resources are more or less likely to occur.

47-53 The cultural resource sites identified during the 100 percent ground survey would be either avoided by center line modifications (up to 100 to 200 feet) or salvaged. Thus, cultural resource losses would be minimized. However, as stated on page 4-165 of the DEIR/EIS, some unavoidable loss of cultural resource information could occur during salvage. Native American concerns may also be difficult to avoid or mitigate.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

47-54

Page 2-50

In Table 2-6, it is not correct to say that Getty's project will impact 16 sites. Getty's proposed project avoids all known sites within the proposed pipeline ROW.

Page 3-88

In Section 3.2.11.1, paragraph 3, Getty's route was realigned to avoid these 16 sites.

47-54

The field survey conducted by Getty indicates that all cultural resources within the ROW could be avoided by correct centerline placement. There are 16 known sites that must be avoided. See Mitigation Measure 30.

2-170

VISUAL RESOURCES

2-171

- 47-55 [Page 2-51 The number of acres of significant visual change in LPNF should be approximately double for the Celeron alignment compared to the Getty alignment. These figures should be recalculated.
- 47-56 [Page 2-54, 4-88, 4-92 Getty proposes to install the pipeline within La Brea Canyon removing few, if any, large live oaks or sycamores. Significantly lower visual impact is anticipated for this area than stated in the DEIR.
- 47-57 [Page 3-95, 3-100 The DEIR/DEIS fails to acknowledge that the proposed Getty route through LPNF follows existing roads and fire breaks. The document has given credit for this type of mitigation along other parts of the proposed routes. It is inconsistent to ignore the reduced visual impacts created by these mitigation measures proposed by Getty in LPNF and then apply the same measures on other segments of the route. Table 3- 30 states that the La Brea Canyon route would be highly visible from La Brea Canyon Road, when in fact, the pipeline is under the road for a large part of its length.
- 47-58 [Page 4-89 The pump station at Getty/Gaviota would located inside Getty's existing marine terminal area and would not be visible to the public.

The Cuyama pump station site would be visible to travellers along portions of Highway 166 approximately 2.5 miles to the south. Exposure to the station would therefore be transitory in nature. In addition, no sensitive viewshed receptors are located in the vicinity of the proposed station. The facility will be landscaped and night lighting will be shielded as appropriate. Therefore, no significant impact will result.

The conclusions on Table 4-16 with respect to pump stations are misleading. These impacts are mitigatable to non-significance

- 47-55 The values presented on Tables 2-8 and 2-9, pages 2-51 and 2-54 in the DEIR/EIS, were calculated with mitigation measures in place. Mitigation Measure 32 requires Celeron/All American to construct on a 50-foot wide ROW within Los Padres National Forest. Therefore, the Celeron/All American project would not disturb twice the area of the Getty project.
- 47-56 The implementation of Mitigation Measure 9a would reduce the loss of vegetation and limit the disturbances in La Brea Canyon. However, the existing landscape character in La Brea Canyon compared to future landscape character would be sufficiently altered in landform by grading and removal of rocks and brush to significantly change the canyon's existing visual character. The canyon would not meet retention or partial retention standards.
- 47-57 See response to Comment 47-56.
- 47-58 Based on your comment, text changes to Table 4-16 on page 4-89 of the DEIR/EIS have been included in the Modifications and Corrections Section. These changes indicate that no significant visual impacts would result from Getty's pump stations.

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

47-58
cont.

through landscaping and screening (see page 4-160). Extensive landscaping and berming is proposed by Getty in its application.

47-59

Appendix B

Getty does not consider the future visual condition ratings correct for the Getty Gaviota and Cuyama pump stations and La Brea Canyon area. The anticipated visual impacts will be significantly lower and as such will result in a significantly higher visual quality index.

47-59

The Future Visual Conditions (FVC) ratings for Getty's Gaviota and Cuyama Pump Stations have been corrected in the preceding response. The pump stations are not included in the LPWF visual quality index, and thus, they do not affect the index for the LPWF. Response to Comment 47-56 discusses anticipated visual impacts in La Brea Canyon.

47-60

Page 4-99

The majority of Getty's pipeline ROW will be 50 feet wide (half the proposed 100-foot width of the Celeron pipeline) not 100 feet as stated, and as such would significantly reduce the number of trees to be cleared. In La Brea Canyon, because of the wide spacing among the trees, few or no large oaks or sycamores will be removed.

47-60

See response to Comment 47-56.

47-61

Page 4-125

Since the exact route of the Santa Maria Alternative has yet to be determined, it is unclear how visual impacts were assessed with such precision. It should be noted that the SMA ROW is in virgin territory of Los Padres National Forest in contrast to Getty's proposed route which involves disturbed areas such as fire breaks. Visual impacts from the SMA would be highly significant for this reason.

47-61

The Santa Maria Canyon Alternative was analyzed in detail from field evaluations and aerial photographs in the DEIR/EIS. The proposed route is noted as EVCII, untouched landscapes, in the analysis. In areas seen from high sensitivity roads, the impact would be significant and that was noted in the DEIS/EIR. The most recent analyses of the Santa Maria Canyon Alternative can be found in Appendix 4.6.

2-172

COMMENT LETTER 47 (CONTINUED)

RESPONSE TO COMMENT LETTER 47 (CONTINUED)

NOISE

47-62

Page S-20, 2-54, 4-100, 4-165 Construction related noise impacts upon sensitive receptors would be short-term and temporary in nature and restricted to daylight hours. High noise levels will be concentrated at the construction site. In addition, only 11 sensitive receptors were identified along the entire 113 mile route. For these reasons, construction-related noise impacts should be considered insignificant.

47-63

The summary of significant noise impacts implies incorrectly that operation noise would exceed 60 dBA at the Vista Del Mar School, when in fact, project-related noise is insignificant. Ambient noise level does exceed 60 dBA.

47-62

Construction-related noise levels would exceed the 60 dBA significance threshold at more than 100 sensitive receptors, mostly residences, along the route. By definition, exceeding the threshold is considered significant. The DEIR/EIS text is explicit, however, in noting that the impacts would be short-term and limited to daylight hours. The text (page 4-162) also states that mitigation measures are not warranted for the construction noise impacts.

47-63

Analysis of project-related noise levels on Vista del Mar School used worst-case assumptions and resulted in a conclusion of significant impacts. However, regardless of project design and location, ambient conditions alone will exceed the significance threshold and would result in a finding of significance for noise at Vista del Mar. See Getty Gaviota Consolidated Coastal Facility DEIR for additional analyses.

2-173

OIL SPILL POTENTIAL

47-64

Page 5-21, 4-122 In Section 4.2.15.8 it is concluded that "assuming a 40 year project life, it is unlikely that any spills would occur for the 113-mile Getty and 123-mile Celeron pipeline segments." Yet in the summary table ERT appears to have arbitrarily selected data referring to spills, 50 barrels or greater and for 20-year-old pipeline, and concluded the remaining impacts are still significant. The summary table appears inconsistent with the overall conclusion of the text.

47-65

Page 2-51 The spill probability reported in Table 2-8 is inconsistent with the DEIR/DEIS methodology. Since the probabilities are based on pipeline length, Celeron's spill potential is by definition greater than Getty's.

2-174

47-64

The summary table was compiled using the groundwater Significance Criteria that any spill would be significant. As stated, 2.1 spills would be likely to occur over the life of project in potentially sensitive groundwater areas. However, a spill does not necessarily mean groundwater contamination would result, only a "potential" for contamination. For mitigation see System Safety Appendix 4.3. Based on your comment some changes were made. See amended text, footnote 7, for page 5-22 in the Modifications and Corrections Section.

47-65

For the Getty and Celeron/All American segments, spill rates per mile were only expressed to 4 decimal places for each "mile length" and 2 decimal places for overall length. The numbers were derived as follows: Masandrea (1982) calculated 0.04 spills per year (Getty's new line, 24 or 30-inch diameter pipe) for a 120-mile length. This equates to 0.000333 spills/mile of pipeline. Applying this rate to the revised Getty pipeline length (113 miles) and Celeron/All American pipeline length (122 miles) yields 0.0376 and 0.0406 spills/pipeline length/year respectively. Both values were rounded to 0.04.



LEAGUE OF WOMEN VOTERS OF SANTA BARBARA
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October 25, 1994

Mary Griggs, Joint Review Panel
California State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

re: Adequacy of Draft Environmental Impact Report/Statement
for the
PROPOSED OCELECON/ALL AMERICAN and GETTY PIPELINE PROJECTS

The League of Women Voters of Santa Barbara submits that the above referenced DEIR/S is inadequate; it does not provide the kind of specific data needed by Santa Barbara decision makers to determine the viability of the proposed pipeline system as a feasible alternative to continued tankering of OCS crude.

Admittedly the League analyzed the DEIR/S from a parochial point of view. The League wanted to determine what the proposed pipelines do for and to Santa Barbara County. More specifically the League sought to determine the extent to which the pipelines implement the County's oil transportation policy.

Details are spelled out in the attached critique which concentrates on two pertinent sections of the DEIR/S:

Section 1.5 - Purpose of / Need for Proposed Pipelines

Section 4.9 - Cumulative Impacts

The critique is organized according to "Findings" and "Conclusions." Findings represent the sum total of such DEIR/S references as could be spotted to supplement sketchy, limited data available in Sections 1.5 and 4.9. Conclusions are based on the findings.

Findings and conclusions suggest areas for further detailed exploration by the final EIR/S. Until Sections 1.5 and 4.9 are adequately supplemented it is impossible to proceed to evaluate in any meaningful way the environmental and socioeconomic consequences for Santa Barbara County of the proposed pipeline projects.

Respectfully submitted,
Martha Blum
Martha Blum, President

cc: Joint Review Panel
U.S. Department of the Interior, Bureau of Land Management
Santa Barbara County, Resource Management Department
California Secretary of Environmental Affairs

2-175



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October 25, 1984

C R I T I Q U E
of
Draft Environmental Impact Report/Statement
for the
PROPOSED CREBORN/ALL AMERICAN and GETTY PIPELINE PROJECTS

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2-176

SCOPE and PURPOSE

This critique zeroes in on two areas identified in the subject DEIR/S as Purpose of / Need For Proposed Pipelines and Cumulative Impacts (Sections 1.5 and 4.9).

The League of Women Voters of Santa Barbara contends that until these two basic sections are more adequately supplemented and documented it is impossible to evaluate in any meaningful way the environmental and socioeconomic consequences of the proposed pipelines.

The League's single-minded purpose in analyzing the DEIR/S for adequacy was to determine what the proposed pipelines do for Santa Barbara and to Santa Barbara County. More specifically the League sought to determine the extent to which these pipelines implement the County's recently adopted oil transportation policy (i.e. Pipelines, Yes. Tankers, No, except on an interim basis).

Findings represent the sum total of such DEIR/S references as could be spotted to supplement sketchy, limited data available in Sections 1.5 and 4.9 on three areas of concern: the purpose of the proposed pipelines, what the pipelines are really needed for, and what the cumulative impacts will be. Conclusions are based on the findings.

LWVB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

2

FINDINGSPurpose of Proposed Pipelines: To Transport West Coast Crude Surplus

"The Celeron/All American and Getty Pipeline projects...would transport Outer Continental Shelf (OCS) and other locally produced crudes oil from the Santa Barbara and Santa Maria Basins to other crude oil transportation networks in the San Joaquin Valley, San Francisco, Los Angeles, and Gulf Coast areas." (5-1)

"The applicants have proposed their respective pipeline projects to transport heavy crude oil from Santa Barbara County to refineries that have the capability and capacity to refine this oil." (1-13)

"Another expressed purpose of the projects is to reduce both local and regional surplus of crude oil on the West Coast." (1-13; emphasis added)

"...Celeron/All American believes that a new crude oil pipeline from western Santa Barbara County to the existing pipeline system in west Texas for subsequent transportation to refineries in eastern Texas, the Gulf Coast, and the eastern U.S. is the most practical and economical way to reduce the growing surplus of crude oil available to West Coast refineries." (1-15; emphasis added)

Table 1-5, "West Coast Crude Oil Supply and Demand," equates surplus with the difference between supply (amount produced) and demand (amount that can be refined in West Coast facilities). Demand, then, is the function of refining, with surplus the difference between total amount of crude oil produced on the West Coast and the amount that can be refined on the West Coast. (1-16)

The West Coast is synonymous with Petroleum Administration Defense District V (PAED V) which includes Hawaii, Alaska, Washington, Oregon, California, Nevada and Arizona. Texas and Gulf Coast refineries are in PAED III. (1-16)

Need for Proposed Pipelines: To Reduce West Coast Crude Surplus

"The Federal agencies concur with the applicants' stated need for the project (see page 1-13). The West Coast crude oil glut will only increase as productivity in the Santa Barbara Channel rises over the next decade." (5-3)

Section 1.5.1 estimates that the surplus of heavy, high sulfur crude oil on the West Coast will reach 1.2 million BPD by 1990 (1-13). Section 1.6.2 indicates that West Coast surplus is expected to increase from 745,000 BPD in 1983 to 1.1-1.3 million BPD in 1990, and to decrease to about 500,000 BPD by the year 2000. (1-17) These estimates are based on what the DEIR/S later concedes to be too low an estimate for California OCS crude. (See below, OCS Crude)

From DEIR/S data it is possible to identify three sources of the West Coast crude oil glut: OCS, Alaskan North Slope, and San Joaquin Valley.

LWVSB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

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.. OCS Crude

Table 1-5, "West Coast Crude Oil Supply and Demand," identifies three sources of supply of West Coast crude: California, Alaska and imports. In turn the California source is broken down into two categories: OCS and Other. In a footnote, OCS crude is defined as that produced in the Santa Barbara area only. Thus defined, estimates for peak production of OCS crude range from 400,000-500,000 BPD. (1-16)

A later reference changes the above statistics: "Since Celeron/All American's original applications were submitted in September of 1983, estimates of heavy OCS volumes to be shipped from the West Coast have risen from the 400,000-500,000 BPD range to 600,000-800,000 BPD range." (2-38; emphasis added)

No DEIR/S data were spotted that addressed OCS crude produced outside the Santa Barbara area except perhaps as it was done implicitly in the above reference.

.. Alaskan North Slope Crude

"Refining capacity on the West Coast is not sufficient to absorb both incoming Alaskan crude and crude produced on the outer continental shelf." (S-3)

"After North Slope crude oil came on stream in 1977, total production from Alaska increased to its current level of 1.7 million BPD." (1-13)

Table 1-5, West Coast Crude Oil Supply and Demand," shows Alaskan crude to be 6% of West Coast supply (1985) and still as much as 45-50% after OCS production reaches its peak 1990-95. (1-16)

Alaskan North Slope crude is explicitly brought within the proposed pipelines' parameters when the DEIR/S states that it will be able to enter the system at Cadiz, California, where the Four Corners Pipeline Company's Line 90 crosses the planned alignment of the All American segment. (1-19)

More specific references to Alaskan crude are made in Section 2.9, "Alternatives Considered but Eliminated from Detailed Analysis." One such alternative calls for a pipeline from Cavitoa coast to west Texas via the Los Angeles/Long Beach refining area. Included is a marine terminal to allow Alaskan North Slope crude to be off-loaded from tankers into the pipeline which is planned to transport 500,000-600,000 BPD. It is not indicated if all of this capacity would be used to transport just Alaskan crude; there is the implication that some San Joaquin Valley crude might also be carried in the pipeline. (2-41)

.. San Joaquin Valley Crude

The first hint that San Joaquin Valley crude is also part of the market to be served by the proposed pipelines is on p. 1-13: "In recent years crude oil has also come from the Elk Hills Naval Petroleum Reserve."

COMMENT LETTER 48 (CONTINUED)

RESPONSE TO COMMENT LETTER 48
(CONTINUED)

LWVB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

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A broader hint appears on p. 1-19: "From All American's planned termination point in McCassey, the Alaskan North Slope and light California crudes can be easily transferred to most refining centers in PADD 1-IV. However, the heavy San Joaquin Valley crude and new CCS crudes are expected to require heated pipelines."

No further mention of San Joaquin Valley crude is made in Section 1.5, but that it is a factor to be contended with is apparent in Section 2.9, "Alternatives Considered but Eliminated from Detailed Analysis." In discussing one of the non-alternatives, the ARCO-Chevron pipeline from Santa Barbara to respective Los Angeles refineries, the DEIR/S states:

"This alternative was not subjected to detailed analysis because it would only partially resolve the West Coast crude oil surplus. ... This alternative does not provide for the possibility of transporting heavy San Joaquin Valley crude oil to west Texas. The CCS and Alaskan North Slope crudes are not the only crudes that are in surplus on the West Coast. Crude oil production has increased significantly in the San Joaquin Valley due to Enhanced Oil Recovery projects. Some producers are using trucks and trains to move the crude oil to market. The Celeron/All American pipeline provides the flexibility of transporting the San Joaquin Valley crudes to West Texas." (2-40,41; emphasis added)

No mention is made of Getty's possible vested interest in San Joaquin Valley crude. Getty is now shipping crude by tanker from its Gaviota marine terminal; that crude is being brought in by truck from Kern as well as from San Luis Obispo and Santa Barbara County sources. (DEIR, Proposed Getty Gaviota Consolidated Coastal Facility, June 1984, 3-1)

Need for Proposed Pipelines: To Reach Refineries with Surplus Capacity

"The primary refineries within the PADD V region are in the Puget Sound, San Francisco Bay, and Los Angeles areas. California CCS crude oil is low in gravity and high in sulfur, metals, and viscosity. These characteristics make the oil more difficult and costly to refine. Most of the refineries in PADD V are designed to refine lighter oils and are incapable of refining CCS crude without costly retrofitting." (1-17; emphasis added; also see 1-15)

"West Coast refineries can accommodate limited quantities of CCS crude before refinery retrofits are required. With no retrofits about 80,000 to 115,000 BPD would be refined and with retrofits 250,000 to 280,000 BPD would be refined." The costs to retrofit would be extensive. (1-17)

"Getty wishes to ship 100,000 to 400,000 BPD of heated CCS crude from the Santa Barbara and Santa Maria Basins through their proposed pipeline to the San Joaquin Valley transportation and refinery network. Up to 20,000 BPD could be shipped to San Francisco area refineries, up to 100,000 BPD to Los Angeles area refineries, and up to 280,000 BPD to Gulf Coast refineries." (1-1)

"Numerous studies have indicated that the maximum expected quantity of CCS crude that could be accommodated in San Francisco area refineries would be 35,000 to 50,000 BPD." An alternative pipeline to San Francisco refining areas would require new refineries to be built. (2-40)

C-17-D

LNVSB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

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"Refining capacity on the West Coast is not sufficient to absorb both in-coasting Alaskan crude and crude produced on the outer continental shelf." (S-3)

"The maximum estimated quantity of additional OCS crude oil that could be refined in the Los Angeles area refineries is estimated to be 200,000 to 230,000 BPD. Any OCS crude that is sent in the Los Angeles refineries would displace Alaskan North Slope crude oil currently being refined and therefore would not eliminate the West Coast surplus. The alternative would simply redistribute the oil from the Caviota Coast area to Los Angeles." (2-40)

"The refining centers in West Texas have limited ability to refine the heavy high metal content crude expected from the California OCS and San Joaquin Valley." (1-19)

Need for Proposed Pipelines To Plug into Crude Oil Transportation Network

"The current transportation system within PADD V is reasonably complete; however, there is no direct high volume connection to PADD III other than shipping by tankers." (1-18)

"Celeron/All American believes that the best way to resolve the problem of a large surplus of crude oil on the West Coast which cannot be processed locally is to transport the oil to markets that need and can utilize it. Analysis conducted by Celeron/All American indicates that existing marine terminals are inadequate to handle this volume of oil and that the existing American tanker fleet (U.S. flag ships are required) is too small and antiquated to handle additional shipments. Celeron/All American believes that a new crude oil pipeline from western Santa Barbara County to the existing pipeline system in west Texas for subsequent transportation to refineries in eastern Texas, the Gulf Coast, and the eastern U.S. is the most practical and economical way to reduce the growing surplus of crude oil available to West Coast refineries." (1-15)

The Getty Caviota to San Joaquin Valley pipeline is an integral part of Getty's proposed Consolidated Coastal Facility...According to Getty "the pipeline design provides for maximum flexibility'. The system must be designed to quickly respond to changing supply and demand conditions. The uncertainty of world events requires optimizing logistical capabilities. Use of the pipeline would add to the flexibility of the expanded marine terminal by providing access to inland markets for 100,000 to 400,000 BPD of offshore crude. Construction and operation of the pipeline would be dependent on crude oil production and market conditions." (1-15; emphasis added)

"The All American pipeline would transport crude oil from the termination of the Getty and Celeron pipelines in the Bakersfield area to West Texas. In addition Alaskan North Slope crude oil will be able to enter the system at Cadis, California...From all American's planned termination point in McCamey, the Alaskan North Slope and light California crudes can be easily transferred to most refining centers in PADDs I-IV. However, the heavy San Joaquin Valley crudes and new OCS crudes are expected to require heated pipelines...." (1-15; emphasis added)

"An alternative to pipeline transport of oil to PADD V and PADD III refiners is marine tankers. In evaluating the economics of the two transportation modes, numerous assumptions must be made including cost of capital, project financing structure, availability of U.S. flag tankers, cost estimates for new ships and

LWVSB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

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pipelines, operating costs, future escalation factors in operating costs, and numerous political and business responses relative to the perceived market place and perceived supply and demand." (1-19; emphasis added)

Meeting Needs: Existing/Proposed Pipelines

"Two pipelines currently go to San Francisco; one is Union Oil's line from the Santa Maria area and the second is Getty's line from Bakersfield." (2-40)

Celeron's proposed pipeline from Las Flores Canyon to Emdio will transport 300,000 BPD; Getty's parallel pipeline to Emdio will transport 100,000,000 BPD, making a total of 700,000 BPD that could be piped from the Santa Barbara area to Emdio (southwest of Bakersfield). (1-13)

The DEIR/S indicates that some of the oil transported to Emdio could be re-shipped by existing pipelines to Bakersfield, San Francisco Bay and Los Angeles refineries. "The available capacity of the existing pipelines to the California refining centers is estimated to be about 80,000-90,000 BPD." (1-19) These figures do not tally with figures given on Getty's expectations, i.e. to transport 20,000 BPD to San Francisco area refineries and up to 100,000 BPD to Los Angeles area refineries. (1-1)

The All American pipeline from Emdio to McManey, west Texas, will handle 300,000 BPD, as will the proposed extension to Freeport, Texas, on the Gulf. (1-13; 2-38) All American's capacity, therefore, is the controlling factor in determining the total amount of Santa Barbara surplus crude that can be pipelined directly to Texas refineries.

The Four Corners Pipeline feeding into All American at Cadis has a present capacity of 60,000 BPD; this capacity may be increased with the construction of an expanded line from Los Angeles to Texas. (1-15) All American's capacity to carry OCS and other crude from Emdio to Texas will be reduced accordingly.

"ARCO's pipeline subsidiary, Four Corners Pipeline Company, and Chevron are in the process of preparing permit application documentation for a 300,000 to 300,000 BPD pipeline from the Gavito coast to Los Angeles. These two companies have their own refineries in the Los Angeles area...This alternative was not subjected to detailed analysis because it would only partially resolve the West Coast crude oil surplus, and is one of the possible destinations for crude oil under the Getty proposal. Additionally, the alternative...would provide much less flexibility for the transportation of crude oil within and out of California..."** (2-40; emphasis added)

** On October 5, 1984 the Southern California Pipeline System announced the selection of an inland route to connect oil producers in Santa Barbara County and the San Joaquin Valley to refiners in the Los Angeles Basin. The system could transport 200,000 BPD from the Santa Barbara Coast, and would allow for an additional 130,000 BPD to enter the line in San Joaquin Valley. Four Corners Pipe Line Company, a subsidiary of ARCO, Chevron Pipe Line Company, Texaco USA and Shell Oil Company are participants in the project. (SCPS Press Release, 10/5/84)

DNVSB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

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The Pacific Texas Pipeline (PACTEX) is proposed to run from the Long Beach/Los Angeles Harbor to west Texas; it will accommodate 500,000-900,000 BPD of Alaskan North Slope and San Joaquin Valley crude. Alaskan North Slope crude would come by tanker; how San Joaquin Valley crude gets to the Los Angeles area for transshipment to Texas by PACTEX is not indicated. (2-41)

PACTEX is another alternative eliminated from detailed analysis in the DEIR/S because it "does not provide the flexibility for shipping crude from the San Joaquin Valley to west Texas that Celeron/All American's current proposal provides...To dispose of a projected 500,000 to 600,000 BPD of crude with this alternative, the proposed ABEQ-Navarro pipeline from the Cavliota Coast to Los Angeles would have to be expanded from a currently planned capacity of 200,000 to 300,000 BPD to 500,000 to 600,000 BPD." (2-41)

"The heavy San Joaquin Valley crudes and the new OCS crudes are expected to require heated pipelines...No heated pipelines exist in West Texas... Historically it has been difficult to obtain approval of all owners of a pipeline to agree to pipeline modifications. Therefore it cannot be assured that ...pipelines will be available to transport the heavy crude." (1-19; emphasis added)

"In addition, major investments in the range of several billion dollars have been and are being made in west Texas to bring O₂ to the area for the purpose of injection into the oil fields to stimulate additional recovery. The initial projects have proven successful to the extent that the large excess pipeline capacity presently available will likely be reduced over the next few years. Thus, there may not be sufficient excess pipeline capacity out of west Texas to handle the total volume that would be shipped through the All American system." (2-38; emphasis added)

"As an alternative means of shipping crude oil to the Gulf Coast Celeron/All American has proposed to construct a heated, crude oil pipeline system, 460 miles in length, to transport crude oil from Texas to the Gulf Coast...The pipeline would be designed to transport 300,000 BPD of high sulfur, heavy crude oil to an existing terminal at Freeport, Texas, where it would be shipped by existing pipeline to local area refineries and by barge tanker to other destinations along the Gulf Coast." (2-38,39)

Cumulative Impacts

Section 4.9 (4-148,149): Chapter 4 is entitled "Environmental Consequences," Section 4.9 is subtitled "Cumulative Impacts," which are covered in a page and a half, equally divided between socioeconomic impacts and environmental impacts, as indicated in the following findings.

"The interrelated projects presented in Chapter 2, along with the Celeron/All American and Getty pipeline projects, were analyzed for cumulative impacts.... The only measurable cumulative impact that would result from those projects would be in the area of socioeconomic. The employment requirements, housing needs, transportation needs, income earned by construction workers, and increased tax benefits would be interrelated." (4-148)

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The same paragraph provides some figures on employment, tax base and personal income, first for the Getty project, then for the Celeron/All American project, but not for "related" projects. For them it is necessary to turn to Chapter 2, Sections 2.10 and 2.11, which evaluate projects potentially interrelated with the Celeron/All American and Getty proposals to determine if their impacts would interact in a cumulative manner. Projects included those that would use or compete for the same resources. Results are tabulated in a four-page table, - Table 7, 2-44,45,46,47. A summary of this table is given on the following page.

The housing sub-area is given a short paragraph of its own in Section 4.9, reading en toto as follows: "Cumulative housing impacts during construction for the Getty and/or Celeron/All American projects alone, and these impacts would be increased by the interrelated projects which would have such larger impacts on housing. The variations in actual construction schedules may moderate but not eliminate the shortage in worker housing." (4-148; emphasis added)

The analysis in Section 4.9 of cumulative environmental, as against socioeconomic impacts is limited to the cum impact of three separate oil-related projects on wildlife and land use where these three cross the Kofa National Wildlife Reserve in Arizona.

- 48-1 [No mention is made in Section 4.9 of possible cumulative socioeconomic or environmental impacts on Santa Barbara County of two parallel pipelines traversing the same area on their separate ways to approximately the same reshipping point in Kern County. Section 4.7, "Single Pipelines Alternative," obliquely addresses the issue of cumulative impact of parallel pipelines, as follows:

"Compared to implementing both proposals most construction-related impacts would be the same or smaller in magnitude. Impacts resulting from oil spills would potentially be much smaller.

"Assuming a single 400,000 BPD pipeline were constructed, the total socioeconomic impacts identified for the Celeron/All American and Getty proposals would be cut approximately in half... However, impacts in these areas for the Las Flores to Badilo segment were not predicted to be significant for the Celeron/All American and Getty proposals.

"The potential for oil spills and resulting volumes of oil released would be similar for either a single pipeline or two parallel pipelines from Las Flores to Badilo, except under certain conditions and circumstances. With two parallel pipelines, the potential for both pipelines rupturing or leaking at the same time and location is highly unlikely except at stream crossings... or at the South Branch Santa Ynez, and San Andre Fault crossings....

"The Single Pipeline Alternative would require the same size construction ROW (100 ft maximum) as the Celeron or Getty proposals. Although the construction period would be reduced, impacts to surface resources would be essentially the same. Potential impacts from oil spills would have similar probabilities.... Significant impacts to soils, surface water, aquatic biology, and terrestrial biology would still occur (depending on location), but the areal extent of the spill and duration of significant impacts would be less." (4-144,146)

- 48-1 The two pipeline projects are treated in a cumulative fashion as the overall theme of this DEIR/EIS. Table 2-9 addresses the two projects separately and combined. The table has been modified since the DEIR/EIS because Santa Barbara County and the Forest Service will require (as a stipulation) that both pipelines be built in the same 50-foot corridor in sensitive areas, primarily oak woodlands and riparian habitats. See Table 2-9 in Section 3.2.

- 48-2 See response to Comment 38-3.

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LWVB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

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PROJECTS POTENTIALLY INTERRELATED TO CBIERON/ALL AMERICAN and GETTY PIPELINES¹

Project	Interrelationship
<u>Major Oil Development Projects</u>	
Exxon Santa Ynez Unit	Starting point for C/AA pipeline Would supply crude oil to this and possibly other pipelines Potential interrelationships in areas of employment, housing, transportation, income to workers, and tax benefits to government
Chevron-Texaco	Potential interrelationships: see Exxon
Union OCS P-0441 Development . .	Potential interrelationships: see Exxon
ARCO Coal Oil Point	Possible supplier of some crude oil to pipelines Potential interrelationships: see Exxon
Las Flores Terminal Group	Would serve as a terminal for loading tankers with oil for transport Potentially competing
<u>Oil Transportation Projects</u>	
Four Corners Pipeline (ARCO to Gaviota/LP marine terminal) . . .	Potential interrelationships: see Exxon
Southern California Pipeline Systems - ARCO/Chevron	Would compete for some of crude oil Potential interrelationships: see Exxon
<u>Non Oil Related Projects</u>	
Cross-town Freeway	Potential interrelationships: see Exxon
Ryatt Resort and Hotel	" " " "
Raytheon Industrial Project	" " " "
University Village	" " " "
Los Caneros Community	" " " "
Santa Barbara Business Park	" " " "
Hollister Business Park	" " " "
Santa Barbara Airport Expansion . .	" " " "
<u>Projects in Areas of Influence but Eliminated From Cumulative Analysis</u>	
Gaviota State Park and Refugio State Beach Renovations	NA
Vandenberg Air Force Base Space Shuttle Expansion	NA
Bixby Ranch Cluster Development . .	NA

1 Source: Table 7, DEIR/S, 2-44, 45, 46, 47

COMMENT LETTER 48 (CONTINUED)

RESPONSE TO COMMENT LETTER 48 (CONTINUED)

LWVSB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

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CONCLUSIONS

Collectively the findings reveal a fuzzy, uncoordinated, very uncertain alternative to tankering. Singly they provide more questions than answers.

Findings document the DEIR/S' inadequacies in three areas that need to be amplified before environmental and socioeconomic consequences of the proposed pipeline can be analyzed in any meaningful way. These three areas are: purpose of the proposed pipelines, need for the pipelines, and cumulative impacts of the proposed project and related projects.

The fact that this is the first pipeline project to be processed by the County places a special burden on the applicants to address Santa Barbara's particular problem which is simply this: how much OCS crude will have to be tankered, and for how long an interim?

The up-front expressed purpose of the two proposed pipelines is stated to be to transport heavy crude oil from Santa Barbara County to refineries that have the capability and capacity to refine the oil. So far so good for Santa Barbara County. That focused purpose, however, is soon eclipsed by "another expressed purpose" which is to transport surplus crude from the entire West Coast to Gulf coast refineries.

That's another ballgame altogether; County decision makers as well as an already confused public are confronted with new rules, new challenges.

The amount of Santa Barbara crude that will have to be tankered depends on two variables: available refineries and available pipeline capacity. Due to limited capacity, and capability, of West Coast refineries and due to the absence of available pipelines to these refineries, the planned destination for Santa Barbara crude is the Gulf Coast. All American's capacity of 300,000 BPD is the controlling factor in determining how much Santa Barbara crude can be pipelined to the Gulf, and how much will have to be tankered.

48-3 The DEIR/S concurs with other estimates that the minimum amount of Santa Barbara crude that will have to be pipelined to the Gulf will be 300,000 BPD (500,000 BPD peak production minus some 200,000 BPD to be pipelined/tankered to Los Angeles refineries). With guaranteed access to All American's capacity Santa Barbara's problem could be solved, provided a pipeline to Los Angeles is constructed.

The pipelines' professed objective of trying to be all things to all sources of West Coast crude surplus puts Santa Barbara's need for the pipelines on the back burner.

Alaskan North Slope crude appears as a competitor for All American's capacity; it is a relative unknown. The DEIR/S is specific when it states that a minimum of 60,000 BPD could enter the All American pipelines at Cadiz, California, having been tankered to Los Angeles and off-loaded there into a connecting pipeline. The DEIR/S also suggests that that minimum could increase to All American's total capacity if the connecting pipeline were to be expanded.

48-4 The DEIR/S, however, is silent on the not inconceivable possibility of Alaskan crude entering the proposed system at Gavlots. Alaskan tankers could off-load

48-3 A number of comments were received concerning the volumes of oil to be shipped, the mode of oil transport (tanker or pipeline), the company/project that would transport the oil (Getty, Celeron/All American, Exxon, ARCO, Pactex or others), the specific oil to be shipped (OCS, San Joaquin, Alaskan), and priority of oil shipped (Santa Barbara versus other). See response to Comments 18-2, 28-4, 37-1, 41-2, 41-3, and 47-10.

In summary, the precise volume of potential reserves, the timing of development, and volume of production of California OCS oil is not known. Estimates range from a low of about 305,000 BPD (California Department of Conservation) to a high of 500,000 to 800,000 BPD (Celeron/All American pipeline). Santa Barbara County has a formal policy favoring pipelines over tankers assuming oil can be shipped to the desired location by pipeline (Coastal Zone Ordinance, adopted July 1984, Section 35-156, Marine Terminals). The pipelines would be operated as "common carriers" and thus, must accept any shipper's oil on a "first come, first serve" basis. The first shippers contracted could use the entire pipeline capacity. The pipeline company (Getty or Celeron/All American) could seek to expand their permitted capacity to a larger volume and upon agency approvals expand the rate of pumping. The expansion of the throughput is limited, however, by what is feasible from an engineering, cost, and regulatory perspective. Tankers, other pipelines, or other transportation modes may be required if the existing pipelines are at capacity.

COMMENT LETTER 48 (CONTINUED)

RESPONSE TO COMMENT LETTER 48
(CONTINUED)

LMVSB, Critique, DEIR/S, Celeron/All American and Getty Pipelines

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48-4 cont. Into one or both proposed pipelines, flow through to Baidio for transshipment to the Gulf through the All American pipeline. Another possibility, not explored, is for Alaskan North Slope crude to off-load at Caviota for transfer to the proposed ARCO/Chevron pipeline to Los Angeles refineries or for re-transfer in Los Angeles to the PACTEX pipeline to Texas. Why should Alaskan tankers go all the way to Los Angeles to off-load when a marine terminal and connecting pipelines are in place at Caviota?

San Joaquin Valley crude is a real unknown. The DEIR/S leaves no doubt but that it is a significant variable to be contended with. But data are scarce and sporadic on supply, on amount of surplus to be shipped to the Gulf and on how it might be shipped through proposed pipelines. Presumably it could go, in part, through the All American pipeline from Baidio to Texas. Conceivably it could also enter the system at Baidio, flow down to the Caviota coast in one of two proposed pipelines, be loaded onto tankers and thus transported to Los Angeles either for transfer to refineries there or for transfer to pipelines to the Gulf.

48-5 In short Santa Barbara crude will have to compete for All American pipeline capacity with Alaskan North Slope crude and with San Joaquin Valley crude. Also it is strongly hinted in the DEIR/S that it will have to compete with revived Texas crude production.

Competing will not come easily. Flexibility in the market place is a given insofar as the pipeline companies are concerned. They must be allowed to respond quickly to changing supply and demand conditions. "The uncertainties of world events requires outstanding logistical capabilities." Santa Barbara will have no priority; it will have to compete in a world market for pipeline capacity. The overriding consideration will be the national interest.

The need for the proposed pipelines to balance supply (West Coast surplus) with demand (presently the unused capacity of Gulf refineries) is a tenuous variable that needs fuller exploration. Should demand be lessened by increased supply from Texas oilfields, Santa Barbara County could be faced with a crude glut that may require indefinite storage calling for additional tank farms.

48-6 Refinery capacity is a variable that needs further exploration. Since refineries on the West Coast are reputed to have neither the capacity nor the capability of handling surplus West Coast crude, OCS surplus has to be shipped to Gulf Coast refineries, or so the DEIR/S argues. At the same time the DEIR/S indicates that capacity, and capability, of Texas refineries to absorb surplus West Coast crude may be open to question as a result of a revitalized Texas production of crude.

48-7 The availability of sufficient heated pipeline capacity between McCaney, Texas, the present terminal of the All American pipeline, and Gulf refineries capable of processing West Coast crude, is still an open question. As a result, Celeron/All American is considering an extension of its pipeline from McCaney to Freeport, on the Gulf. This extension is analyzed in the DEIR/S as an alternative; it should be an integral part of the DEIR/S; the efficacy of the now proposed system depends on such an extension.

48-8 The need for the two proposed pipelines to complement, to shore up an existing but inadequate oil network that is dependent on bunkering is another disturbing factor requiring further exploration. To bring this dilemma into focus the ARCO/Chevron proposal and the PACTEX proposal both need to be subjected to detailed analysis in the final DEIR/S, not eliminated for whatever

48-4 Santa Barbara County issues permits for all new and expanded marine terminals. This conditions the use of the terminals that could service the Getty and Celeron/All American pipelines with Alaskan crude oil. The Applicants have proposed to carry only OSC crude oil from the Santa Barbara County terminals.

48-5 The pipelines would operate as "common carriers" and would prepare contracts with any company on a "first come, first serve" basis.

48-6 See response to Comments 18-6 and 7.

48-7 See response to Comment 18-1.

48-8 Insufficient project detail is available to evaluate other potential pipeline projects with overlapping oil sources or destinations. The Celeron/All American and Getty pipelines are the only current applications filed that were deemed complete by local, state, and Federal agencies. If and when these additional applicants you have cited are found complete, they will be analyzed in detail.

2-1-86

COMMENT LETTER 48 (CONTINUED)

RESPONSE TO COMMENT LETTER 48 (CONTINUED)

LWVB, Critique, DEIR/S, Celeron/All American and Getty Pipeline

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48-8 ↑
cont. reason. They are integral parts of a complex interdependent network in which pipelines may continue to play a subordinate role but it is a role in which Santa Barbara County has a big stake.

The DEIR/S addresses cumulative impacts in only a nominal way; its token treatment is little more than pro forma compliance with CEQA/NEPA requirements. Since this is the first pipeline project to come before the County since the adoption of an oil transportation policy it behooves the applicants to take this EIR/S mandate much more seriously.

48-9 [The validity of the so-called cumulative impacts section (4.9) depends largely on Sections 2.10 and 2.11 in which the DEIR/S purports to evaluate projects potentially interrelated with the two proposed pipelines. These sections, however, contribute little to what County decision-makers need to know about cumulative impact of proposed development throughout the County. These sections merely note potential interrelationships in certain socioeconomic areas; none of them is spelled out. At least the evaluation does concede that interrelationships exist.

The DEIR/S' analysis of cumulative impacts in environmental areas is woefully inadequate from Santa Barbara County's point of view. The analysis is limited to identification of environmental impacts on the Kofa Wildlife Preserve in Arizona. No reference is made at all to Santa Barbara County. Yet the County is faced with the possibility of two, even three parallel pipelines scarring the landscape on their way through the coastal zone and the Los Padres National Forest to Kern County and/or to Los Angeles County. No environmental interrelationships with other developments are noted either in Section 4.9 or in Sections 2.10/11.

48-10 [THEREFORE: DEIR/S data suggest that due to All American's limited capacity of 300,000 BPD, and due to the two pipelines' broad-based purpose of moving out not only Santa Barbara's OCS crude but crude from the Alaskan North Slope and the San Joaquin Valley, the proposed pipelines may not be the alternative to tankering the County is seeking. Instead, they may in fact be laying the groundwork for increased tankering to and from an expanded marine terminal complex on the Gaviota Coast.

These may be groundless fears; only a more adequately organized and documented EIR/S can dispel them. And only then can environmental and socioeconomic consequences be analyzed and evaluated, looking to rational overriding considerations to offset unmitigable adverse impacts.

48-9 The interrelated projects are those projects that could potentially result in significant impacts when combined with the impacts from the Celeron/All American or Getty Pipeline projects. If projects were poorly defined and could not be adequately addressed, they were not included.

48-10 See response to Comment 48-4.

League of Women Voters of Santa Barbara
Contact: Ruth Saadi, Chair, Oil Action Committee (905) 569-1231

October 25, 1994

STATE OF CALIFORNIA—THE RESOURCES AGENCY

GEORGE DEUKMEJIAN, Governor

OFFICE OF HISTORIC PRESERVATION

DEPARTMENT OF PARKS AND RECREATION

1001 OFFICE BLDG 8399

SACRAMENTO, CALIFORNIA 95811

(916) 445-8006

OCT 25 1984



REPLY TO: ELB840406B

Mr. Gerald E. Hillier
 District Manager
 California Desert District
 Bureau of Land Management
 4695 Spruce Street
 Riverside, CA 92507

Dear Mr. Hillier:

RE: Proposed Celeron/All American Pipeline Project DEIS/DEIR

In accordance with Section 106 of the National Historic Preservation Act and implementing regulations, we have reviewed the document referenced above together with the ACE report entitled, "Cultural Resources Literature Search, Records Check and Sample Field Survey for the California Portion of the Celeron/All American Pipeline Project." We reviewed the cultural resource information contained in these documents with respect to the following standard: How useful is this information in meeting the basic needs of the compliance process - identification of all National Register and eligible properties potentially subject to project effects and development of a resource management plan that would help to determine what treatment strategies could be practically applied to the range of affected resources, given the needs of the undertaking.

We have concluded that the information provided so far does not come close to meeting this standard. Neither does it help to make the DEIS/DEIR a particularly useful document for purposes of NEPA and CEQA compliance.

The cultural resources information, and what was done with it, is plagued by a host of technical problems that, if listed and discussed here, would transform this letter into a small article. We are prepared to discuss these technical deficiencies at another time if there is any interest in doing so.

The information is in our opinion a minimal, basically uncritical presentation of some existing data supplemented by an inadequate and, for predictive purposes, unusable field sample. Much more needs to be accomplished before the standard we have defined can be met.

We therefore suggest that, as one alternative, immediate steps be taken to critically appraise the adequacy of previous surveys, integrate information from pertinent overviews into the effort, develop a set of relevant, meaningful research questions and, finally, prepare a predictive model for sensitivity determinations that can be properly tested by a rational sampling strategy.

If time or other considerations do not permit pursuit of this alternative, we recommend nonetheless that all pertinent previous work be evaluated in connection with the final route and that areas not surveyed to acceptable standards be

49-1

The Class I cultural resources survey conducted for this DEIR/EIS is the level of detail typically required by Federal and state authorities at the DEIR/EIS stage of a project. Mitigation Measure 30 presents additional detail on the procedures that will be required before cultural resources clearance of the Celeron/All American and Getty pipelines is given.

2-188

49-1

COMMENT LETTER 49 (CONTINUED)

RESPONSE TO COMMENT LETTER 49
(CONTINUED)

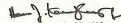
Mr. Gerald Hillier
Page Two
October 29, 1985

49-1
CONT.

rechecked. Secondly, we suggest that all previously unsurveyed portions of the final route be fully surveyed to current standards. Please note that in making this recommendation we are not drawing a distinction between federal and non-federal lands. All lands affected by the final route should be fully surveyed in a consistent manner and all National Register and eligible properties within the area to be affected should be identified.

Thank you for this opportunity to comment. We look forward to assisting all concerned parties in proceeding through the remainder of the compliance process. If you have any questions, please call Hans Kreutzberg at (916) 322-9621.

Sincerely,



Marion Mitchell-Wilson
Deputy State Historic Preservation Officer
Acting Chief, Office of Historic Preservation

cc: EHastey
HRiggs
Marrington
TMe-lin
DSchroeder



United States Department of the Interior

BUREAU OF MINES

P. O. BOX 2506
 BUILDING 20, DENVER FEDERAL CENTER
 DENVER, COLORADO 80225
 Intermountain Field Operations Center

October 26, 1984

Your Reference:
SLC EIR 369

Ms. Mary Griggs
 State Lands Commission
 1907 13th Street
 Sacramento, CA 95814

Dear Ms. Griggs:

Personnel of the Bureau of Mines, U.S. Department of the Interior, have reviewed the joint draft Environmental Impact Report and Environmental Impact Statement for the Celeron-All American Pipeline Project. The purpose of our review is to determine whether mineral resources are adequately addressed.

Pipeline projects rarely cause significant deleterious impacts on the minerals industry; rather, pipelines aid the industry by increasing access and reducing transportation cost. Any potential negative impacts likely could be minimized through careful planning during early stages of the project and by using appropriate construction practices when transecting mineral producing areas. The draft statement adequately addresses possible conflicts with the minerals industry and explains procedures to mitigate expected impacts. Accordingly, we have no objections to either the draft or the proposed project. Thank you for the opportunity to review and comment.

Sincerely yours,

Donald P. Blasko, Chief
 Intermountain Field Operations

Thank you for commenting.

SIERRA CLUB



KERN-KAWEAH CHAPTER

5805 Daggett Ave.
Bakersfield, CA 93309

October 28, 1984

Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814

RE: DIER for Proposed Celeron/A1 American and Getty Pipeline Projects

In regards to the published DEIR on this project, the Kern-Kaweah Chapter of the Sierra Club would like to submit the following proposals to be addressed in the FEIR.

2-191

51-1

1) Under Mitigation Measures (4.10), measure 15, the issue of blunt-nosed leopard lizards and SanJoaquin kit foxes in the San Joaquin portion of the project is not addressed. It should be included in the final report. The measure also states that when kit fox dens are cited on the proposed ROW, the pipeline ROW will be altered. Eventhough this is an admirable proposal, we do not believe it will be enforceable by the on-site biologist due to the unknown cost of such an alteration.

51-1

See response to Comment 41-18.

51-2

On Federal lands the BLM, and on state lands, California land management agencies, will be responsible for ensuring the measures are enforced. These measures will also be included in the ROW grant given to the Applicants and will be included in the contractors' specification for construction. Minor route alterations are not considered cost prohibitive. See response to Comment 18-41.

51-3

2) There needs to be mitigation measures written to address the loss of vegetation in the San Joaquin portion of the project. Presently they do not exist. We propose measures which require land acquisition of comparable land for protection of wildlife habitat to offset loss of wildlife habitat in the ROW region.

51-3

See Recommended Mitigation Measures 1. Pipeline construction would not permanently remove habitat for wildlife species including threatened and endangered species. Much of the ROW in the San Joaquin Valley follows existing roads through agricultural lands. In natural habitats, the ROW can be revegetated with native species of value to wildlife.

51-4

3) In the desert portion of the project, due to the inability to enforce most of the mitigation measures in relation to the Desert tortoise, we propose that a new measure which requires the purchase of additional parcels to increase the area of the Desert Tortoise Protective Area be incorporate in the FEIR.

51-4

See response to Comment 43-15.

In general we do not support mitigation measures which require an alteration of the ROW inasmuch as when construction does occur, it will be very difficult for any one to effectively enforce decisions based on environmental concerns. The possible economic costs of such alterations will greatly over-weigh wildlife and vegetative issues. Therefore we request that mitigation measures which require the purchase of similar areas for protection be incorporated.

Respectfully submitted,

Harry Love
Conservation Chairman

YUMA AUDUBON SOCIETY

P.O. Box 6399
YUMA, ARIZONA 85364

October 28, 1984

Mary Griggs
California State Lands Commission
1887 Thirteenth Street
Sacramento, CA 95814

Dear Ms. Griggs:

This letter contains the comments of the Yuma Audubon Society on the Proposed Celeron/All American and Getty Pipeline Projects Draft EIR/EIS.

Alternatives

The Yuma Audubon Society favors the Brenda alternative through western Arizona. Perhaps the clearest example of the greater advantage of the Brenda alternative is shown on pp. 2-52 through 2-54 of the EIR/EIS. We note that in comparison with the proposed route through the Kofa National Wildlife Refuge, the Brenda alternative would not cross any crucial desert tortoise or bighorn sheep habitat, while the Kofa route would. The Brenda route would avoid construction in Copper Bottom Pass in the Dome Rock Mountains. This area is critical to bighorn sheep lambing and watering and adverse impacts could be mitigated only by prohibiting construction from January to October (excepting April) (p. 4-15a). By following I-10 along the Brenda route, these impacts would be avoided.

Indeed, the Brenda route would follow I-10 for most of its length. We feel that an interstate highway is just as much a corridor as a pipeline-electric line right of way (ROW), and the constant traffic along I-10 makes it highly disruptive to wildlife and thus a good location for other disruptions such as pipelines and electric lines.

There are also many fewer cultural resources sites along the Brenda route. While the Brenda route would be 4 miles longer than the Kofa route, it would cross about the same number of miles of sensitive groundwater basins and it would cross 13 fewer miles of sensitive soils. The Brenda route would also result in an estimated 9% greater increase in the La Paz County tax base.

As we explain in our comments on wilderness below, the Brenda route would also adjoin fewer miles of proposed wilderness, and the proposed wilderness in the Kofa Refuge has already been recommended by the Fish & Wildlife Service, while the ELM WSAs adjacent to the pipeline will receive their favorable or

2-10
NO

unfavorable recommendations only when the Lower Gila South Resource Management Plan is published.

For all these reasons, we believe the Brenda route clearly would result in fewer impacts to the environment and provide greater benefits, such as increased tax base, than the proposed route through the Kofa Refuge.

We prefer the Celeron/All American EIR/EIS proposed route to the Desert Plan Utility Corridor alternative. The latter is much longer and would cross the Coxcomb WSA. We support proposed mitigation to route the All American ROW around, rather than through, the Palen-McCoy WSA.

Through the Los Padres National Forest, Yuma Audubon favors the Santa Maria Canyon alternative due to its reduced impacts to wilderness values. If, however, the Celeron/Getty alternative is selected, we recommend rigorous mitigation efforts to restore Forest Service planning areas, especially Horseshoe Springs FPA and Spoor Canyon Roadless Area. Impacts should be reduced significantly by placing the Getty and Celeron pipelines in the same ROW.

Whichever alternative through the Los Padres National Forest is selected, we suggest a program to regenerate impacted oak and riparian woodlands (see our comments on terrestrial resources).

Geology (also System Safety and Reliability)

Considering the devastating impacts which could result from a ruptured pipeline in the vicinity of the Colorado River, the Seismicity and Faulting section (pp. 4-15 to 4-18) needs to be expanded. We need better information on the magnitudes of seismic activity necessary to trigger liquefaction, lurching, and subsequent rupture of the pipeline. What is the likelihood of such an event? And how strong an earthquake could the pipeline at the Colorado River crossing survive?

An expanded discussion may also be appropriate for other rivers, especially in California.

Surface Water/Oil Spill Contingency Plan and Emergency Response Plans

We feel Section 4.2.4.1 does not adequately discuss the social, economic, and environmental impacts which could result from a large spill into a major river system or aqueduct. According to the text, the probability of such a spill is highly unlikely, but the effects of such a spill could be catastrophic. For instance, on p. 4-54 the EIR/EIS states that oil from a large spill on the Colorado River could reach the Imperial National Wildlife Refuge (NWR). Would river water this far downstream be rendered unsuitable for agricultural use, or for human

52-1

Mitigation Measures 1, 2 and 3 will ensure that proper engineering for geologic hazards is performed. The seismic analyses completed as part of this DEIR/EIS indicate that there is only a 10 percent chance that a seismic event would exceed 1g in acceleration at the Colorado River crossing during the life of the project.

52-2

See response to Comments 41-22 and 41-23. An oil spill into the Colorado River could adversely affect a large number of water users and natural resources. A Preliminary Oil Spill Contingency Plan for the Colorado River is included as Appendix 4.4. The plan includes shielding water intakes, but may also require temporary shut down of public and agricultural water supplies for up to one week. The risk of a spill would be very low.

2-193

52-1

52-2

consumption? The text must discuss this.

In case of such a spill, what would the effects be on local water users downstream? The community of Martinez Lake is adjacent to the Imperial NWR. Below the refuge lies Yuma, a large (50,000 population) community which depends on Colorado River water. The All-American and Wellton-Mohawk Canals divert water from the Colorado at Imperial Dam. These canals supply domestic and agricultural water to the Imperial and Coachella Valleys in California and the Wellton-Mohawk area in the Gila River Valley east of Yuma. Contamination of these waterways would obviously be disastrous. Similar scenarios could be imagined for a number of other rivers and waterways crossed by the pipeline. The full impacts of a large spill into a river or aqueduct, no matter how unlikely, need to be discussed in the EIR/EIS. Just one such spill would be one too many.

Groundwater

Much of the above discussion applies to groundwater as well. On p. 4-37 of the text it is stated "Major spills, ruptures, and detectable leaks could probably be cleaned up before significant groundwater contamination results." This is not reassuring. We feel the best procedures and technology available should be employed in the prevention, detection, and abatement of oil spills.

Terrestrial Biology and Resources

To partially mitigate the loss of desert scrub vegetation, and to hasten its regeneration, we recommend that wherever possible the ROW not be cleared, but instead construction vehicles simply crush plants as they go, or vegetation could be clipped. On flat terrain this should be feasible and may actually save on construction costs. Many of the crushed plants could resprout and the reduced soil disturbance would quicken the recovery of the vegetation. We thus endorse mitigation measures 10 and 11 on p. 4-134.

Relatively large desert trees, such as palo verde, mesquite, and ironwood, should be left standing and the pipeline routed around them. We understand that pipes can be bent in the field by an onsite pipe bender which should facilitate sparing large trees from destruction. We are especially concerned about trees in the highest quarter of their species' growth range.

We are highly concerned about construction-related losses of riparian and oak woodlands. These community types are rapidly disappearing, and where they remain these woodlands are often impacted by grazing or other activities. Not only should an effort be made to avoid these sensitive communities, but revegetation should be implemented to assure their regrowth.

52-3 Please see response to Comment 18-30 regarding techniques for prevention, detection, and abatement of groundwater contamination resulting from potential oil spills.

52-4 See response to Comment 3-1 and Mitigation Measure 9. Sparing large trees can be most easily and cost effectively implemented by minor centerline adjustment. Construction and Use Plans will include measures to minimize impacts to large trees on Federal lands. These plans will be reviewed and approved by BLM as part of the ROW grant.

52-5 See response to Comments 41-23, 41-24, and 52-4.

COMMENT LETTER 52 (CONTINUED)

RESPONSE TO COMMENT LETTER 52
(CONTINUED)

2-195

52-5 In areas where grazing is common, oak seedlings could be protected with wire baskets or Vexar tubing, a material used to deter animal damage.

cont. At the Colorado River crossing, we recommend planting cleared riparian zones with cottonwoods and willows. Disturbed areas along the Colorado generally revegetate naturally, but the resulting vegetation is typically salt cedar, a scrubby exotic with little value to wildlife.

52-6 We also recommend an attempt to transplant sensitive plants such as the Comanche layia, Barstow woolly sunflower, and Refugio manzanita which are located in the ROW.

52-7 The text states that the ROW can be reduced to a width of 50 feet in sensitive areas indicating that construction impacts can be limited or directed within the ROW. Individual sensitive plants could be flagged and perhaps avoided through careful use of vehicles and equipment.

52-8 The EIR/EIS indicates that a considerable number of Desert Tortoises could die as a result of this project. We endorse the mitigation measures concerning Desert Tortoises—nos. 11 and 12. We also recommend that All American investigate buying private sections of land within the Desert Tortoise Research Natural Area, should the owners be willing to sell, as a means of offsite mitigation for tortoises that cannot be saved.

We also endorse other mitigation measures directed at the terrestrial wildlife, namely nos. 12-15 and 21, and, should the Kofa route be chosen, nos. 19 and 20.

52-9 Our recommendation is that if vegetation is to be removed around block valves, that it not be done through the use of herbicides but rather cleared mechanically or manually. If herbicides are being proposed for use, which one(s) will be used? This should be explained in the EIR/EIS.

52-10 We also would like to know the basis of the statement that while revegetation of parts of the Mojave Desert "could take up to 70 years," and this is considered a significant impact (p. 4-47); by omission, one is left to assume that the Sonoran desert of Arizona would regenerate in a shorter time and thus does not face a significant impact. How long would it take the Sonoran desert vegetation to regrow? We are not disputing that it could take 70 years for revegetation in the Mojave Desert, but lacking information for the Sonoran Desert, we feel that impacts there may have been underestimated, especially in the more arid western part of the Sonoran Desert.

Socioeconomics

52-11 The economic analysis of crude oil production and refining capacity in Part I and Appendix G appear to treat supply and

52-6 See response to Comment 41-20 and Recommended Mitigation Measure 15.

52-8 See response to Comment 43-15.

52-9 Any use of herbicides on public land must be approved by the land management agency. Clearing of vegetation would most likely be accomplished by mechanical means. No vegetation maintenance such as mowing or spraying of the ROWs is proposed.

52-9 Any use of herbicides on public land must be approved by the land management agency. Clearing of vegetation would most likely be accomplished by mechanical means. No vegetation maintenance such as mowing or spraying of the ROWs is proposed.

52-10 See response to Comment 43-6.

52-11 See response to Comment 18-2 and Appendix G of the DEIR/EIS.

52-11 cont. demand almost entirely within the context of petroleum production within the United States. "Demand" seems to be projected demand by refineries for crude oil, but nowhere is ultimate consumer demand discussed. Is there a market for the refined petroleum products beyond the refinery? The EIS does not address this issue and we cannot assume that just because a product exists there is a market for all of it.

52-12 It also appears that the crude oil from California proposed to be transported to the Gulf of Mexico refineries by the All American Pipeline will displace crude of a similar nature from Mexico and Venezuela (page 6-9). If this be so, the EIS should examine the international political, social, and economic effects of such an action. Mexico, for example, apparently plans to rely heavily on petroleum exports for economic growth. If smaller U.S. imports of crude oil from Mexico lead to less economic growth there, this could maintain or increase illegal immigration to the United States by Mexican citizens. This in turn would have socioeconomic effects on the four states the pipeline will cross. Such effects should be analyzed in the socioeconomic section of the EIS.

52-13 It should also be explained why the Gulf of Mexico refineries and not those in California built plants capable of processing poorer quality crude oil.

Land Use and Recreation

We endorse Measure 25 on p. 4-158 which would prohibit access to vehicles to areas newly opened by pipeline roads, for without this mitigation there would be serious impacts to the environment.

52-14 On p. 4-68, we recommend that if any land is permanently altered in a state or national park or wildlife refuge (national, state, private, or otherwise), this be considered a significant impact. The 5% figure is such too high for areas such as parks and refuges that receive special protection under the appropriate law, for these areas are considered the best and highest examples of scenic or wildlife habitat and should be allowed to exist in as pristine a condition as possible. Farmland is considered significantly affected if only 1% is permanently altered by the project, but at least there is some flexibility as to where land can be farmed. On the other hand you can't move a national or state park somewhere else if what is now in it is the reason for its existence, such as a mountain range or canyon.

Wilderness

52-15 We feel that analysis of effects of the pipeline on potential wilderness is seriously weakened by neglect of the proposed wilderness areas in the Kofa National Wildlife Refuge. This is all the more significant because the Kofa Refuge areas are

52-12 See response to Comment 18-2.

52-13 The Gulf of Mexico refineries have been designed to process heavy crude oil from Venezuela and Mexico. California refineries cannot refine sufficient volumes of heavy crude oil. See response to Comments 18-6 and 18-7.

52-14 It is agreed that the significance criteria should be changed from 5 percent to 1 percent; however, even at the 1 percent level, the proposed route through the Kofa National Wildlife Refuge does not exceed this significance criteria.

52-15 The potential impacts to the proposed Kofa Wilderness are discussed in Section 3.3, pages 3-20 and 3-21.

52-15

cont.

administratively endorsed, while the BLM WSAs in western Arizona are still being evaluated for wilderness recommendation, which will be made when the Lower Gila South Resource Management Plan is released by the Phoenix District Office of BLM.

On pp. 3-63 and 3-65, for example, no mention is made of the fact that there are proposed wilderness areas in the Kofa National Wildlife Refuge. In Appendix D, the four BLM WSAs in Arizona which would be affected by the pipeline are described in some detail, but the Kofa Refuge areas are mentioned only in passing. They should have received equal treatment.

We believe that an equal analysis of the proposed wilderness areas in the Kofa Refuge would greatly strengthen the case for taking the Brenda alternative, since potential impacts on wilderness areas would be greater by taking the Kofa Refuge route. If the Kofa Refuge proposed wilderness areas had been shown on Map D-3 of the EIS, it would look like the enclosed revision (my boundaries are approximate since this map covers a large area; also enclosed is the "Kofa Wilderness Study Summary" published by the U.S. Fish and Wildlife Service). Note that the pipeline would be in close proximity to proposed wilderness for most of its length through the refuge. Moreover, by routing the pipeline along the Brenda route, BLM WSA 2-127 and the northwest part of WSA 2-128 would no longer be adjacent to the pipeline. It is true that BLM WSA 2-125 would be adjacent to the pipeline if the Brenda route were taken, but the distance is less than that of 2-127 and part of 2-128 using the Kofa route, and using the Brenda route would avoid proximity to the long stretch of proposed wilderness in the Kofa Refuge. Thus, impacts on adjacent wilderness areas would be reduced by taking the Brenda route.

We also understand that the reason for routing the pipeline across I-10 twice in the Brenda area is to avoid BLM WSA 2-125. We suggest that the pipeline be located between the access road and freeway on the south side of I-10 where it is now proposed to go north, if this would not cross WSA 2-125. It seems inconceivable to us that a freeway access road could be a part of a WSA, since wilderness is defined as a roadless area.

Transportation

52-16

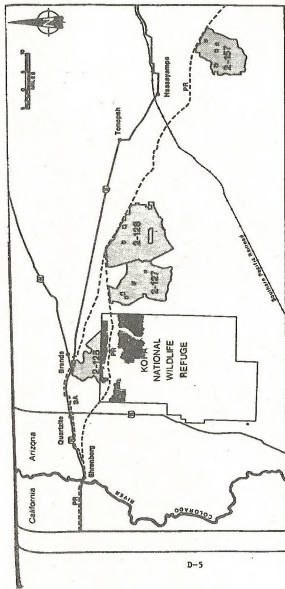
We recommend that All American run buses between residence and work sites in eastern California and western Arizona because of the long commuting distance involved (see p. 4-84). This would reduce traffic congestion and accident potential. Long, hard hours of work would produce up to 335 tired drivers, all eager to get back to town and unwind. This appears to be the intent of mitigation measure 23 (p. 4-138) and if that be the case, we endorse it.

52-16

Mitigation Measures 23 and 24 are intended to reduce these potential traffic and housing impacts.


Cultural Resources

867-2



PR - CELERON/ALL AMERICAN PROPOSAL

BA - BRENDIA ALTERNATIVE

 K-378 NW-8 R (part) - LITTLE ROCKS (part)

BLM WILDERNESS STUDY AREAS

- 2-125 New Water Mountains
- 2-126 Eaglestaff Mountains
- 2-127 Little Horn Mountains

MAP D-3 BUREAU OF LAND MANAGEMENT WILDERNESS STUDY AREAS CROSSED BY, OR ADJACENT TO, PROPOSED PIPELINE ALTERNATIVE ROUTES

COMMENT LETTER 52 (CONTINUED)

RESPONSE TO COMMENT LETTER 52
(CONTINUED)

8

52-17

We request that special care be taken in regard to archaeological sites bordering the Colorado and Gila Rivers. The Colorado River Valley was and is the homeland of peoples speaking Yuman languages and whose culture is worthy of respect not only in its own right, but as a long-standing, successful adaptation to life in a desert oasis. Nevertheless, because sites were often in the river valley and many have been washed away or covered up by changes in the Colorado River, relatively little is known of the native peoples of the Colorado River Valley, in comparison to the Anasazi, for example. Thus, all Colorado River sites are of extreme value in learning of the culture history of the Colorado River's first human inhabitants. This also largely applies to the Gila River Valley regarding the Hohokam.

In regard to mitigation measure 30 (p. 4-159), we request that if a cultural site is to be destroyed (which we hope will be avoided), all artifacts be recovered and curated so that they will be available for further analysis and verification. We also request that there be no destruction of any sites with stratigraphy.

Since site surveys remain to be done on such of the pipeline route, we request to be informed of the results of these surveys in eastern California (from milepost 250) to the Gila River crossing, especially as regards determinations of eligibility for inclusion on the National Register of Historic Places.

System Safety and Reliability

We believe that several areas of system safety and reliability need to be expanded upon before we can make an informed judgment concerning them.

52-18

The EIS states (p. 2-5) that at river crossings, the pipes will be coated with coal tar overlaid with a concrete jacket. Coal tar is a carcinogen. How much coal tar will be used and could it get into the Colorado River and thus the water supply, either at the time of construction or subsequently?

52-19

Are the oil spill volumes shown in Table 4-26 on p. 4-21 the maximum spill volumes referred to on p. 4-20, or are they mean expected volumes, or what?

52-20

How long would it take to close the two types of block valves referred to on p. 2-5 of the EIS?

52-21

How long would it take to react to a spill (p. 2-5)?

52-22

The oil spill contingency plan in Appendix H does not assure us that a large spill on a major river could be contained. Reduced, yes—but the effectiveness of the plan is not discussed. In addition, the contingency plan is only a rough draft, lacking

52-17

Mitigation Measure 30 will ensure compliance with all state and federal procedures.

52-18

See DEIR/EIS Section 2.2.2.6. Coal tar is a viscous, non-water soluble black liquid obtained by the destructive distillation of coal. It is used as a raw material for many dyes, drugs, organic chemicals, and for water proofing, paints, roofing, and insulation materials. In this instance, the coal tar provides a waterproof, anticorrosive coating to the outside of the pipe. The coating is applied to the pipe, allowed to dry, and then overlaid with a concrete jacket prior to pipeline placement within the stream bed or river bottom. There would be no opportunity for the coal tar to create a water quality or public health hazard because it is applied on land, dried, and covered with concrete.

52-19

The spill volumes shown in Table 4-26 of the DEIR/EIS are maximum spill size volumes (refer to the DEIR/EIS, page 4-121).

52-20

Block valves can be closed in less than one minute.

52-21

The response time for the deployment of oil spill containment and cleanup equipment would vary considerably depending on storage location, staging area, and location of the spill. Response times from the various storage locations to the primary sensitive areas will be incorporated into the Applicant's Oil Spill Contingency Plan when final design is completed.

The following mitigation recommendation regarding response was presented on page H-37 of the DEIR/EIS: "Local governments should help identify strategic points for storage of oil spill emergency equipment. Equipment should be within two hours of any point on the line". Response times to mobilize equipment to a spill would vary from a few minutes to half a day. The longer period would be to respond to spills in remote locations.

52-22

See response to Comment 18-44 and 18-55.

2199

many essential elements necessary to evaluate it.

52-23 The contingency plan must be completed and ready to implement when the pipeline is complete, not six months later when it may already be too late. It also needs to be expanded to include a disaster relief plan in case of contamination of domestic or agricultural waters.

52-24 How close could the pipeline be built to existing natural gas and electric lines (500 kV) (p. 2-16)? Do the other utilities agree to this distance? Our concern here is especially for parts of the route that are adjacent to wilderness areas, but sharing right of way would reduce environmental impacts throughout the length of the route.

52-25 We recommend that all welds by all welders be checked every day (p. 22).

52-26 Table 2-8 shows no streams with municipal water supply crossed by the All American Pipeline. However, the Colorado River serves as a water supply for a broad geographic area including Yuma, the Imperial Valley, the lower Gila River Valley, San Luis Rio Colorado (in Sonora, Mexico), the Mexicali Valley, and across northern Baja California to Tijuana. This is a population of well over a million people. Table 2-8 and the text of the EIR/EIS should be revised to reflect this.

52-27 Will the uninterruptible power supply (UPS) system mentioned on p. 4-20 be designed to keep the supervisory control system running as long as necessary, or just to bring the system down as normally as possible? We need more information on what will happen to the pipeline system if there is a loss of power, especially to the supervisory control system.

Abandonment

52-28 In 30 years much of the environment will presumably have recovered from the initial construction impacts. Salvaging the pipe would negate that 30 years of recovery and probably cause significant environmental impacts. The impacts of salvaging the pipeline are not adequately discussed in this document, and in all fairness it is not possible to do so since we do not know precisely how the recovered biotic communities will look or what changes in our perceptions of sensitive resources will occur in 30 years. Nevertheless, under present laws another environmental compliance document would be needed before implementation of a salvage project.

In analyzing the feasibility of salvaging the pipeline, the esthetic, recreational, and intrinsic values of the environmental resources in the ROW need to be weighed against economic benefits to Caltrans/All American and Getty. In this sort of cost/benefit analysis we feel that salvaging the

52-23 An example of an Oil Spill Contingency Plan for the Colorado River is found in Appendix 4.4 of the FEIR/EIS. The entire contingency plan will be completed and approved prior to operation.

52-24 Every effort has been made by the Applicants to locate their respective pipeline routes within existing corridors (i.e., roads, railroads, pipelines, transmission lines). DOT regulations (Part 195.25) only require a minimum of a 12-inch separation between pipelines. Considering the logistics of paralleling an existing pipeline, a new pipeline could be constructed within about 35 feet of any existing utility. Exact distances would have to be agreed upon by the existing user and any Federal, state, or local agencies having jurisdiction (i.e., BLM, Forest Service, State Lands Commission). Since most existing corridors are generally 60 to 100 feet or more in width, there would not be a problem accommodating the new pipeline. See Mitigation Measure 21 in Section 4.1.

52-25 DOT 195.234 requires the inspection of 10 percent of the welds by each welder in each welder day and 100 percent of the welds at key locations including river crossings, highways, railroads, incorporated subdivisions, and tie-in points. The Applicants will comply with DOT regulations.

52-26 Based on your comment, revisions for pages 2-49 and 2-51 (Table 2-8 and footnote) are included in the Modifications and Corrections Section.

52-27 In the event of power failure at a pump station or the tank farm, the Uninterruptible Power Supply (UPS) system would provide power for the Remote Terminal Units (RTU) and prevent system shutdown from a power loss. The other pump stations would maintain flow until normal power to the down station was returned. In the event of loss of communications to and from a pump station because of telephone line or microwave system failure, the station would continue to run as long as preset operating limits were not exceeded. Maintenance personnel would be dispatched to correct the problem. The station controls would be designed for unattended fail-safe operation.

52-28 Abandonment was evaluated in the DEIR/EIS for those resources that would be potentially affected; discussions include soils (page 4-25), surface water (page 4-32), groundwater (page 4-36), and terrestrial ecology (page 4-47).

COMMENT LETTER 52 (CONTINUED)

RESPONSE TO COMMENT LETTER 52 (CONTINUED)

pipeline would not be profitable.

Visual Resources

We take exception to the description of the area from Emidio to McCamey as "flat, featureless." This area includes the Dose Rock Mountains, the Kofa National Wildlife Refuge, which is one of the scenic high points (literally and figuratively) of western Arizona, and the New Water, Little Horn, and Eagletail Mountains. The view from the sloping bajadas and valley floors to these mountains is anything but monotonous. One has a feeling of vast space and distance bounded by distinct, pleasing forms of chocolate brown ranges. We suggest that John Van Dyke's THE DESERT be consulted for the scenic delights of eastern California and western Arizona, especially the subtleties of light and color that are all too often missed in a brief visit.

52-28
cont.

The Scoping Process and Adequacy of the EIS/EIR

The scoping process, as described on pp. 1-12/13 was inadequate and unrepresentative of the concerned public. Apparently only those who participated in the public scoping sessions were considered and written comments submitted outside the public scoping sessions were ignored.

52-29

52-29

The BLM considered written comments received during the scoping process that were submitted outside the formal hearings.

Scoping is used to define the significant issues to be addressed in an EIS. However, these issues were defined by use of a form that was made available only to those who attended the public scoping sessions. The responses to these forms were tabulated and levels of concern for issues established by BLM. This shut out those who could not attend the public scoping meetings from any meaningful input into selection of significant issues. All persons and groups showing an interest in this proposed action should have been sent the forms which served to define significant issues, not just those who could attend scoping sessions which could be as much as 170 miles away and in the middle of the week.

2-201

We also feel that Arizona, which has the largest number of miles and acres affected by this proposal, and which will have the largest number of pumping stations (see Table 2-2), was often given only cursory analysis, especially in comparison with California. Most of the time, Arizona was included in a section covering the extensive distance from Blythe, California to McCamey, Texas while California was analyzed in two sections whose division was at Emidio. As we have shown above, this resulted in serious neglect of proposed wilderness areas in the Kofa National Wildlife Refuge.

On the other hand, we feel that communication about our concerns was enhanced by All American's employment of an Environmental Resource Consultant. While our initial contacts with All American were minimally informative, once an environmental consultant was hired, our experience was that All American

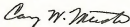
genuinely sought out those concerned about the potential effects of the project and attempted to respond to, or at least acknowledge the validity of, these concerns. We feel that other companies would benefit and avoid themselves much controversy and potential expense by following a similar policy.

In closing, we thank you and the others involved, and those legislators responsible for the passage of NEPA and CEQA, for the opportunity to comment on this complex proposal which will affect a large part of the southwestern United States.

Sincerely,



Jim Rorabaugh, Chair
Conservation Committee



Cary W. Melster
President

Encl. (2)

**ALL AMERICAN
PIPELINE COMPANY**

R. L. Hira
Vice President - Project Manager

October 29, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

Pursuant to the July 17, 1984, Notice of Completion of a Draft Joint Environmental Impact Report for the Celeron/All American and Getty Pipeline projects, Celeron Pipeline Company of California and the All American Pipeline Company hereby respectfully submit the following comments on the draft report.

Celeron and All American commend the State Lands Commission, the Bureau of Land Management and the Santa Barbara County Resource Management Department for the expeditious and comprehensive manner in which this environmental study has been conducted. The environmental impacts associated with this project have been thoroughly examined, together with those of suggested alternatives, within the time schedules established during the scoping process.

Celeron and All American support the findings and conclusions underlying the draft report. These findings and conclusions are fully supported by the facts developed during the environmental review process and satisfy applicable requirements. The purpose of these comments is to note areas in which the analysis might be better documented and focused to provide clarifying information and to comment on specific mitigation measures.

- (1) To place the operation of the Celeron/All American system in perspective, it would be useful to describe proposed storage facilities and other existing oil transportation systems which will support and complement the system under

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A CELERON COMPANY

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53 (CONTINUED)

Ms. Mary Griggs
October 29, 1984
Page Two

- 53-1
cont. review. Specifically, we recommend a description of facilities such as the consolidated processing and storage proposals in Santa Barbara County. We believe that in large part this can be done by incorporating by reference the recent EIR/EIS prepared by Santa Barbara County for siting an onshore oil processing and storage facility. Also, comparable data may be found in the studies which underlie the Santa Barbara County Oil Transportation Plan.
- 53-2 Similarly, we recommend that the project description include a discussion as to how the Celeron/All American project will interface with the Four Corners Pipeline at Cadiz and the system capability of receiving inputs of Alaskan North Slope crude oil at that location.
- 53-3 (2) We think it would be desirable to discuss the marine transportation alternative in more detail and the basis for the conclusion that pipeline transportation is economically and environmentally preferable. Again, much of this information and data is documented and may be found in the numerous studies recently published by state and county agencies in California.
- 2-204 (3) The draft EIR/EIS accurately notes the disparity in pipeline and marine transportation costs at Pages 1-19 to 1-21. We recommend the inclusion of additional information explaining why the pipeline transportation is more economical. These reasons are set forth in detail in our August 29, 1983 submission, Volume I at pages 2-1 to 2-45.
- 53-4 (4) It would be desirable to specify those portions of the proposed pipeline routes which will be rerouted by implementation of the routing alternatives described in the draft EIR/EIS. We recommend that routing alternatives be incorporated in the graphic information and maps so that affected areas will be identified in detail.
- 53-5 (5) Apart from these clarifying comments we wish to submit the enclosed information for your consideration. Attachment A is a discussion of specific mitigation measures contained in the draft EIR/EIS and the modifications which we believe are necessary and appropriate.

- 53-1 Santa Barbara County is systematically working with over 30 applicants in the development of energy resource projects. The county has a goal of consolidating oil storage, oil and gas processing, marine terminal, and pipeline facilities at select locations within the county. The consolidated coastal storage facility(s) would supply the Celeron/All American and Getty pipelines. The oil would be processed at temperatures of about 150° F and would require a transport system such as a pipeline or tankers to reach the marketplace. Santa Barbara County is evaluating potential impacts of the individual and cumulative projects. Santa Barbara County uses existing policies and ordinances to certify and permit the various energy projects. Consolidated processing and storage proposals are listed in the DEIR/EIS in Table 2-7, page 2-44.
- 53-2 The tank farm at Cadiz would be at the intersection of the Four Corners Line 90 and Celeron/All American pipelines. The purpose of this facility would be to provide for the transfer of oil from the Four Corners line to the Celeron/All American line for shipment to Texas. The 80-acre Cadiz facility would include five 300,000-barrel storage tanks and a gas-fired turbine pump and heater. A description of the facilities can be found in Section 3.3 of the FEIR/EIS.
- 53-3 See the DEIR/EIS Appendix G and response to Comments 18-2, 28-3, and 47-7.
- 53-4 See OEIR/EIS Appendix G and response to Comment 28-3.
- 53-5 See the Agency Preferred Alternative in Section 1.4 of the FEIR/EIS. See Map 3.3.1 for the Santa Maria Canyon Alternatives.

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53
(CONTINUED)

Ms. Mary Griggs
October 29, 1984
Page Three

We are hopeful that these comments will be taken into consideration
in preparing the final EIR/EIS.

Sincerely,



R.L. Hinn

RLH:jb

**ALL AMERICAN
PIPELINE COMPANY**

October 29, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
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2-206

ATTACHMENT A

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A GELSTON Company

MITIGATION MEASURE 3

Page 4-151

Special geologic/seismologic studies will be conducted to characterize potential surface offset at the South Branch Santa Ynez, San Andreas, and Garlock faults, and appropriate crossings will be designed. Similar studies will be conducted for any other faults that show evidence of Holocene offset (within approximately the last 11,000 years) at the pipeline crossing.

CONCERN: Under "Effectiveness" section, we disagree with certain design techniques indicated:

- 1. Pipe on ground with loose soil cover presents too many problems with vandalism, leakage, and pipe movement from thermal expansion.
- 2. Pipe within larger diameter pipe. This presents thermal expansion problems with a heated line.
- 3. Seismically triggered block valves. Accidental valve closure will be detrimental to line control.

53-6 Mitigation Measures 1, 2, and 3 have been modified in Section 4.1.

SOLUTION: (In same order as above points)

- 1. Delete
- 2. Delete
- 3. Delete words "seismically triggered" and add "in conjunction with seismic detection" at end of sentence.

2-207

53-6

MITIGATION MEASURE 6

Page 4-152

Detailed hydrogeologic investigations will be conducted for each sensitive area along the alignment as indicated in Table 3-14. These investigations will include definition of groundwater depth, recharge sources, properties of overlying soils, hydraulic gradient, background water quality, and existing water uses. Existing wells will be inventoried in an area extending hydrogeologically down gradient from the pipeline for a minimum distance of 2 miles. This information will be used to formulate an Oil Spill Contingency and Response Plan that will include plans for monitoring and early detection of groundwater contamination, notification of affected groundwater users and appropriate governmental agencies, site-specific cleanup and response, and identification of emergency alternate water supplies. Hydrogeologic investigations will also be used to define specific areas that will require mitigation measures in the design and construction of the pipeline.

2-208

53-7

CONCERN: Inventory of wells a minimum of 2 miles from the pipeline is an arbitrary and unreasonable distance.

SOLUTION: Modify lines 6 - 8 to read "Existing wells will be inventoried in the immediate area extending hydrogeologically down gradient from the pipeline."

53-7 As an alternative to the 2-mile distance, Mitigation Measure 6 has been revised to allow a determination of the downgradient distance for investigation to be based upon specific aquifer hydraulic characteristics.

MITIGATION MEASURE 7

Page 4-153

Low permeability backfill will be used in the bottom sides of pipeline trenches where the alignment crosses sensitive aquifers which are at risk from oil spills and leaks. This measure will be implemented in selected sensitive areas where shallow depth to water, high vertical permeabilities, and a high degree of groundwater use are indicated by hydrogeologic investigations performed in Measure 1 above.

53-8

CONCERN: We agree with the goal of this measure, but disagree with the method since it presents serious engineering constraints.

SOLUTION: We recommend that sentence 1 should read:

"Where the alignment crosses sensitive aquifers which are at risk from oil spills and leaks, design methods shall be incorporated to decrease permeability below the pipeline in order to limit possible downward seepage"

53-8

Mitigation Measure 7 has been changed to reflect the engineering constraints. See response to Comment 8-1.

2-209

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53
(CONTINUED)

MITIGATION MEASURE 8

Page 4-153

Fueling and lubrication of construction equipment will not occur within 0.25 miles of streams. No more than 2 barrels of fuel (about 84 gallons) should be kept at construction sites within 0.5 miles of sensitive streams (Table 4-6). Equipment will be periodically checked for leakage to avoid spills. If a spill does occur, it should be reported to the Authorized Officer immediately.

53-9 [CONCERN: The pipeline contractor will need to move heavy equipment once it is stationed at major rivers in order to refuel. This is highly impractical.

53-9 The Authorizing Officer will designate the location, size, and allowable uses of service and refueling areas.

SOLUTION: Allow refueling of critical equipment not easily mobile near streams, such as barges and large cranes.

2-210

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53 (CONTINUED)

MITIGATION MEASURE 9

Page 4-153

Development will avoid disturbance to sensitive and valuable plant communities including riparian areas, oak woodlands, Coulter Pine, live oaks, Joshua tree woodlands, desert dunes, and ironwood washes. Locations to be avoided will be determined by the landowner, land manager or applicable regulatory agency. The construction ROW will be reduced to 50 feet wide at riparian and desert wash crossings. Staging areas will not be located in sensitive communities. The landowner, land manager or regulatory agency may reduce the construction ROW in specific locations to minimize impacts to other sensitive plant or wildlife communities.

53-10

CONCERN: Wording of first sentence: "Development will avoid disturbance to...". This is mandatory language which would preclude all construction.

2-211

SOLUTION: Reword first sentence to read: "Development will avoid, to the maximum extent practicable, disturbance to..."

53-10 Mitigation Measure 9 has been revised in Section 4.1.

MITIGATION MEASURE 15

Page 4-155

Blunt-Nosed Leopard Lizard and San Joaquin Kit Fox habitat in the Cuyama Valley will be evaluated. Where suitable habitat occurs, attempts to relocate the pipeline (primarily to agricultural lands) will be considered. In habitat that must be affected, the construction disturbance on the ROW will be limited to 50 feet or less. If Kit Fox dens are found in the ROW, the pipeline ROW will be altered to miss dens; no construction will be allowed during the pupping season. Revegetation plans will include measures to encourage re-establishment of suitable habitat.

53-11 CONCERN: Line 7: "... no construction allowed during (Kit Fox) pupping season." No indication is provided as to when this is or extent of habitat to which this restriction applies.

SOLUTION: We request that the timeframes and geographical boundaries in the above concern be specified.

53-11

Mitigation Measure 15 as well as mitigation measures in the Biological Assessment and Fish and Wildlife Service's Biological Opinion, will apply to alkali scrubland and grassland habitats along the Celeron/All American and Getty ROWs near Maricopa, California.

Specific milepost segments will be determined in the ROW grant. Based on Celeron/All American's recent route alternative along Highway 166 (October 1984 photo-alignment sheets), surveys will be required in the following areas.

Celeron/All American Route

- Potential blunt-nosed leopard lizard habitat in alkali scrubland in T11N, R24W, Sections 18, 7, 8, and 9 (about 3.2 miles) will require construction in a 50-foot ROW. This ROW will be revegetated with native species such as Atriplex polycarpa.
- Potential San Joaquin kit fox habitat in grassland and alkali scrubland in the Cuyama Valley from the first Cuyama River crossing to "The Wash" and in Sections 9, 4, 3, and 34, and T10N, R24W, T11N R24W, Sections 27, 26, 23, 24, 13, 18, 7, 8, and 9 (about 50 miles) will require surveys immediately prior to construction to locate San Joaquin kit fox dens. If dens are found the ROW must be moved 100 feet to avoid impacts. In native habitats the ROW will be revegetated with native species.

Getty Route

- Potential blunt-nosed leopard lizard habitat in alkali scrubland from milepost 100 to 103 (May 1983 photo-alignment sheets) will require revegetation with native species. The ROW will also be 50 feet as specified in Getty's project description.
- Potential San Joaquin kit fox habitat in grassland and alkali scrubland from milepost 60 to milepost 103 (May 1983 photo-alignment sheets) will require surveys immediately prior to construction to locate dens. If dens are found, the ROW must be moved 100 feet to avoid impacts. In native habitats the ROW will be revegetated with native species.

A timing constraint during pupping is not deemed necessary as long as den sites are avoided. Please note text revision for mitigation measures and Fish and Wildlife Service's Biological Opinion (Appendix 4.2).

2-212

MITIGATION MEASURE 16

Page 4-155

Pipeline construction across desert tortoise habitat will occur between October and March when tortoises are hibernating. A desert tortoise expert will be present during construction. Any active desert tortoises will be removed from the construction ROW ahead of construction equipment and moved to habitat within 100 yards of the capture site. Burrows within the ROW will be carefully opened using hand tools and hibernating tortoises removed. Tortoises unearthed by the trencher will be removed to an artificial burrow within 100 yards of the capture site. Injured tortoises will be turned over to the Department of Fish and Game. Adequate funds for costs involved in rehabilitating injured tortoises and returning them to their home sites (within 100 yards of capture site) will be paid by the applicant.

53-12

CONCERN: Extent of desert tortoise habitat is not specified in the document.

53-12

Mitigation Measure 16 will apply along the ROW whenever deemed necessary by the land management agency to reduce desert tortoise mortality. In California, the area where tortoise may occur includes the ROW from Mojave to Blythe, California; in Arizona this area would occur from the La Paz pump station to the Gila pump station.

SOLUTION: Please define desert tortoise habitat in relation to the pipeline corridor in order that this mitigation measure can be implemented.

2-213

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53
(CONTINUED)

MITIGATION MEASURE 17

Page 4-156

Oil spill booms will be located as near as possible to the man-made wetlands downstream of the Colorado River crossing. In the event of a spill these booms would be used to prevent oil from entering backwater wetlands from the river, or reaching Yuma clapper rail habitat 20 miles downstream.

53-13

CONCERN: The goal of the mitigation is intended for the Colorado River, yet McCamey-Freeport alternative mentioned in "Application" section.

53-13

Mitigation Measure 17 has been revised in Section 4.1.

2-214

SOLUTION: Please delete words "and the McCamey to Freeport Alternative" in the Application section.

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53 (CONTINUED)

MITIGATION MEASURE 18

Page 4-156

No construction will be allowed in the Copper Bottom Pass area during January to March (Lambing) and May to October (water stress) periods. No construction will be allowed in the Plumosa Pass area during the January to March lambing period. Any effects on bighorn sheep water resources will be mitigated through avoidance or construction of new wells, or collectors.

53-14

CONCERN: We disagree over the necessity of a May to October construction ban due to water stress on Bighorn Sheep, since the last sentence of the measure already mitigates any impact construction may have during these months.

SOLUTION: Please delete the words "and May to October (water stress) periods" from first sentence.

53-14

Although this measure requires replacement or repair of water supplies used by bighorn sheep through construction of new wells or collectors, the timing constraint is also necessary to limit impacts from water stress and human presence to bighorns during pipeline construction. New water sources would have to be developed several years prior to construction so sheep could locate and use them regularly when their normal water supplies are not available during the construction period. Bighorn tend to congregate near watering holes during the May to October heat and water stress period. If bighorns are forced to leave water sources during this period, they may not find other water sources and suffer increased mortality. Bighorn sheep would also be most susceptible to harassment and poaching in this period.

2-215

MITIGATION MEASURE 19

Page 4-156

No pipeline construction in the Kofa NWR will be allowed during Bighorn use of the migratory corridors. Avoidance periods and formal restrictions will be determined by FWS.

53-15

CONCERN: Wording of the measure is too broad and does not allow a reasonable up-front expectation of when construction will be restricted.

SOLUTION: Please revise wording of measure to state that pipeline construction may be limited in Kofa. Measure must state where the migratory corridors are and when the limiting restrictions would be.

53-15

The migratory corridors occur between mileposts 322 and 327 on the Celeron/All American route (May 1984 photo-alignment sheets). Bighorn sheep use these corridors in both spring and fall, generally late February to late April, and late September to early November. The Fish and Wildlife Service has indicated that stipulations included in Appendix 4.1 would also apply. Specific timing constraints will be determined in the ROW grant.

2-216

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53 (CONTINUED)

MITIGATION MEASURE 20

Page 4-156

At the Muleshoe Ranch Preserve, Construction will occur between August 30 and April 1. Revegetation will be in accordance with plans determined by the Nature Conservancy, BLM, and Forest Service. The ROW will utilize the existing El Paso ROW to the extent possible. Large sycamores in Bass Canyon will not be removed.

53-16

CONCERN: The mandatory language in the last sentence may preclude construction. There is no indication in the document of where these sycamores are in relation to the pipeline right of way.

SOLUTION: Please revise last sentence to read: "To the maximum extent practicable, large sycamores in Bass Canyon will not be removed."

53-16

Two or three large sycamore trees occur in the Muleshoe Ranch Preserve at the proposed Bass Creek crossing near milepost 570. These trees are used as roost trees for raptors and nesting and foraging by songbirds, and they are important natural features in the Preserve. These trees would be avoided by minor centerline adjustments of 10 to 20 feet, and by using the existing El Paso ROW. See Mitigation Measure 20.

2-217

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53
(CONTINUED)

MITIGATION MEASURE 21

Page 4-156

Where the pipeline ROW follows the existing El Paso Natural Gas ROW or other existing ROWs, the old ROW will be used as part of the construction ROW and the new disturbance will be limited to the area needed for trenching and stockpiling backfill.

53-17

CONCERN: Required methods in Measure 21 do not reflect possible agreement with El Paso Natural Gas or future company agreements concerning other rights of way.

53-17

The Federal government controls the easements across their lands, and thus, can require El Paso to cooperate.

SOLUTION: Please revise wording to read:

"Where the pipeline ROW parallels the existing El Paso Natural Gas ROW or other existing ROWs, and where approved by those companies, the old ROW may be used for trenching and stockpiling backfill and new disturbance will be limited to the area needed as the construction ROW."

2-218

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53 (CONTINUED)

MITIGATION MEASURE 22

Page 4-157

The pipeline construction period will be scheduled so as not to coincide with peak tourist seasons. The areas affected by tourism include: Santa Barbara County Coastal Area - June thru August; LPNF - August thru November; Blythe, California - April thru September; Quartzsite, Arizona - November thru April.

CONCERN: We agree with the goal of offsetting the construction schedule from peak tourist seasons, but disagree with the areas designated.

1. Except for El Refugio, El Capitan, and Gaviota State Parks, construction along the Santa Barbara County Coastal area will not impact Santa Barbara's tourist season since construction will be 20-30 miles from downtown Santa Barbara.
2. By using the Santa Maria Canyon Alternative through LPNF, no recreational areas are impacted, therefore there is no need for a tourist construction ban in LPNF.
3. The Blythe construction ban should be for the Colorado River crossing only, not for the entire Blythe area.

53-18 See response to Comment 2-1. Based on your comment Mitigation Measure 22 has been revised.

SOLUTION: Please reword the second sentence if the measure to read:
"The areas affected by tourism include: El Refugio State Park, and Gaviota State Park - June thru August; Colorado River crossing - April through September; Quartzsite, Arizona - November thru April."

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53
(CONTINUED)

MITIGATION MEASURE 26

Page 4-158

Celeron/All American will formally request modification of the designated utility corridors from Riverside County.

53-19

CONCERN: This measure is unnecessary.

SOLUTION: Please delete entire measure.

53-19

Since this mitigation measure has been undertaken by Celeron/All American subsequent to publication of the DEIR/EIS, the measure has been deleted from the text.

2-220

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53 (CONTINUED)

MITIGATION MEASURE 28

Page 4-158

Within the section from Las Flores to Emidio, the Celeron and Getty Pipelines will be constructed within the same ROW as designated by the Authorized Officer. This could be accomplished by phasing of construction, and laying one pipe as close as practicable from the ROW edge and then later placing the next pipeline as close as practicable from the other side of the ROW, resulting in a minimum distance between pipe centers.

53-20

CONCERN: This measure is impossible to comply with, since the right of way grants signed by landowners specifically state it is for one pipeline.

53-20 See response to Comments 38-28 and 41-8.

SOLUTION: Please delete entire measure.

2-221

MITIGATION MEASURE 30

Page 4-159

Cultural resources mitigation will result from the implementation of a detailed compliance plan that will be developed by the land management agencies, in consultation with the SHPO, prior to the start of pipeline construction. A typical compliance plan would include the following items:

53-21 [CONCERN: BLM has stated that there is no such term as a "Compliance Plan".

53-21 Mitigation Measure 30 has been modified in Section 4.1.

SOLUTION: Change wording of measure to comply with official federal terminology in order to eliminate any potential confusion.

2-222

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53
(CONTINUED)

MITIGATION MEASURE 32

Page 4-161

For the pipeline segments on the LPNF, in La Brea Canyon, and on Miranda Pine Mountain, Celeron will utilize a 50-ft wide construction corridor, protect existing large diameter trees, feather the edges of the cleared ROW, and reseed cleared areas with native species, as determined by the Authorized Officer.

53-22

CONCERN: This measure is unclear and implies that Celeron is using La Brea Canyon and Getty is not.

53-22 Based on your comment, Mitigation Measure 32 has been revised. See also Mitigation Measure 9-A.

SOLUTION: Reword measure to read:

"For pipeline segments in the LPNF, construction spreads will utilize, to the maximum extent practicable, a 50-ft wide construction corridor, protect existing large diameter trees, feather the edges...."

(remainder the same)

2-223

UNAVOIDABLE ADVERSE IMPACT (Terrestrial Biology)

Page 4-164

Loss of San Joaquin kit fox, blunt-nosed leopard lizard, San Joaquin antelope squirrel, and giant kangaroo rat habitat in the Cuyama Valley during construction (Celeron and Getty routes, Las Flores to Emidio segment).

53-23

CONCERN: It has been unclear in previous studies whether such habitat is specifically in the Cuyama Valley.

53-23

Based on your comment, text changes to page 4-164 in the DEIR/EIS are included in the Modifications and Corrections Section.

SOLUTION: Rerword to:

"....and giant kangaroo rat habitat during construction along Celeron and Getty routes, Las Flores to Emidio segment."

2-224

COMMENT LETTER 53 (CONTINUED)

RESPONSE TO COMMENT LETTER 53
(CONTINUED)

UNAVOIDABLE ADVERSE IMPACT

Page 4-164

Up to 230 desert tortoises (a federal candidate threatened animal) would be killed and their habitat affected by pipeline construction across the Mojave Desert (All American route, Esidio to Blythe to segment).

53-24 [CONCERN: 230 Fatalities is a pre-mitigation number which has been avoided through Mitigation Measure 16 (page 4-155).

SOLUTION: Either delete this "unavoidable adverse impact" or state that post-mitigation fatalities will be zero.

53-24 This is an error, loss of individual tortoise would be minimized by Mitigation Measure 16. Note text changes to page 4-164 in the DEIR/EIS included in the Modifications and Corrections Section.

2-225



ARIZONA DEPARTMENT OF HEALTH SERVICES

BRUCE BARRETT, Governor
LLOYD F. NOVICK, M.D., M.P.H., Director

October 29, 1984

Mr. Bill Penn
All American Pipeline Company
7835 E. Redfield, Suite 200
Scottsdale, Arizona 85260

Dear Mr. Penn:

This letter is in response to your letter to Chuck Anders (dated September 17, 1984), and State Health Department comments on the draft EIS entitled, "Proposed Celeron/All American and Getty Pipeline Projects," August, 1984.

State Environmental Health Permits. As you are aware, no NPDES permit or State groundwater quality permit would be required. This determination is based upon the proposed intent not to add any constituents or chemical changes to waters used for hydrostatic testing, or the discharge of any of this material into "waters of the State." If the proposed intent of the project changes, continue to coordinate with Wayne Palmsa (255-1162) for NPDES requirements, or Rick Kramer (255-1162) for groundwater quality permit requirements.

The turbine-operated pumps and heaters will probably require installation permits from the State, as well as from those counties which have local air pollution control districts (i.e., Maricopa County). Mr. Anthony Leverock, from the State Office of Air Quality Management, indicated that your office was in the process of sending him specific information on the emissions and specifications of these engines. Once he receives and reviews this information, he can provide you with additional guidance. In the event the proposed capacity or size of the engines are increased, you may need to obtain PSD permits from the State. Mr. Leverock can be reached at 255-1144.

Comments on the Draft EIS. Comments on the EIS were solicited, and are as follows:

- 54-1 a. Proposed mitigation procedures defined in Section 4.10 seem, at best, cursory. Some of the issues, such as contamination of wetlands by spilled crude oil, deserve considerably more attention than they received in this section.

- 54-1 The detailed Oil Spill Contingency Plan prepared before operation begins will have site-specific plans for sensitive resources. See the plan for the Colorado River, Appendix 4.4

831-004

The Department of Health Services is An Equal Opportunity Affirmative Action Employer.

COMMENT LETTER 54 (CONTINUED)

RESPONSE TO COMMENT LETTER 54
(CONTINUED)

Letter to Mr. William J. Penn

Page 2

- 54-2 [b. The proposed method of running the pipeline across rivers and streams assumes that there is no movement of alluvial materials four feet beneath the 100-year scour zone. In times of heavy flooding in the streams of the Southwest, it is not uncommon for deep alluvial materials to experience buoyancy and become unstable (i.e., the I-17 bridge across the Agua Fria at Black Canyon City). The movement of these alluvial materials may well be enough to break the pipeline. The impacts of a subsurface crude oil leak in river alluvium can easily be imagined.
- 54-3 [c. Spill reporting and response activities specifically for spills in Arizona or border areas potentially affecting Arizona should be more adequately addressed. These efforts, in Arizona, should be coordinated with Vic Vickers of the Arizona Department of Emergency Services.

54-2 The lower limit of the scouring zone is defined as the depth at which movement of bed material ceases to occur. Assuming appropriate modeling of the scour depth, it is extremely unlikely that the pipeline would be disturbed by this process. See response to Comment 25-1 for steps in a scour depth modeling procedure.

54-3 See response to Comments 18-44 and 18-55. Mr. Vic Vickers of the Arizona Department of Emergency Services has been included in the agencies and persons who should be contacted in the event of a spill.

If you have any further questions concerning this information, please do not hesitate to contact me at 255-1170.

Sincerely,



Norm Weiss
Environmental Health Services

NW:cec

- cc: Wayne Palma
- Anthony Leverock, OAKM
- Rick Kramer, OAKM
- Ted Blackburn, OAKM
- California Bureau of Land Management

2-227



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE FLIGHT TEST CENTER (AFSC)
EDWARDS AIR FORCE BASE, CALIFORNIA 93523

20 OCT 1984

REPLY TO
AFSC OF DE

SUBJECT: Draft Environmental Impact Statement (DEIS), Proposed Celeron/All American and
Getty Pipeline Projects, State Clearing House No. 83110902

TO: Ms Mary Oreggs
State Lands Commission
1807 13th Street
Sacramento CA 95814

1. Headquarters Air Force Flight Test Center (AFFTC), Edwards AFB CA appreciates the opportunity to review and comment on the DEIS of Aug 84. Edwards AFB joins you in a conscious concern about land use in the areas on and surrounding the Base. Our concerns center on:

- a. The visibility and air quality degradation resulting from the proposed pipeline project.
- b. Groundwater recharge areas may be impacted by this project.
- c. The project's potential impact on our airspace and the local communities' transportation network (highways, airports, railways).
- d. Potential adverse impacts to rare, threatened, endangered, candidate and other protected species.
- e. Potential adverse impacts on cultural resources.
- f. Documentation of the project's impact and mitigation measures on Edwards Air Force Base lands.

2. In the overall scheme of the project, we are vitally interested in ensuring compatibility of new uses with existing uses. We have an ongoing, costly effort to protect our air quality. It is reassuring to note in the DEIS that the air quality effects of the proposed project will be considered when revising the DEIS. The air quality effects of the proposed land use, which could adversely impact military photo optical instrumentation effectiveness must be considered. The EIS needs to recognize the high quality of visibility requirements necessary to permit military testing. California Energy Commission reported in their Summary and Hearing Order, Dec 80, regarding Southern Cal Edison's Notice of Intent to file an application for certification of the California coal project that DOD flight test facilities in the Western Mojave Region had visibility requirements far exceeding existing standards.

55-1

A Level I visibility screening analysis for the operation-phase emissions is included in Appendix 4.5. Impacts in the Edwards Air Force Base area would occur for a period of only about one month during the construction phase; therefore, no visibility analysis was performed.

55-1

2-228

COMMENT LETTER 55 (CONTINUED)

RESPONSE TO COMMENT LETTER 55 (CONTINUED)

55-2 3. The pipeline traverses an area which is a recharge zone for underground aquifers at Edwards AFB. The pipeline is less than one mile from Edwards-APB wells. Should a pipeline leak occur which contaminates the groundwater in this area, Edwards AFB could be deprived of 20% of its ground water supply. Leak detection and prevention methods should be described.

55-3 4. Transportation infrastructure impacts should be recognized and identified in your EIS and your plan. This concern is brought to your attention because of numerous aircraft flights which could cause potential impacts to our individual operations. One such area is R-2508 restricted area complex utilized by AFPTC and other Department of Defense (DOD) Organizations (see Atch 1). This military complex is used by the DOD for training and advancement of weapon system technology. The primary using agencies of this airspace are AFPTC, Edwards AFB; The Naval Weapons Center, China Lake; Army National Training Center, Fort Irwin; and 831st Air Division, George AFB. These activities result in approximately 400 military flights in R-2508 each day. Any flights in support of your project will need to be coordinated in accordance with the Letter of Agreement between the Air Force Flight Test Center, Edwards AFB, CA and All American Pipeline Company (Atch 2).

55-4 5. We want to draw your attention to the potential presence of candidate endangered plant species in the project area. *Cymopterus deserticola* and *Chorizanthe spinosa* both are recorded in areas adjacent to the proposed pipeline right-of-way. Please refer to (Atch 3), which is excerpted from the 1980 CDCA. Up to date information on recorded sightings can be obtained from the California Department of Fish and Game's Natural Diversity Data Base. Field surveys conducted by a qualified botanist should be conducted in the spring of the year in order to determine the presence or absence of these species.

55-5 6. Populations of Joshua Trees are scattered in the area of the right-of-way. Final routing should attempt to avoid major occurrences. For these individual trees which can not be avoided, transplanting in the winter and spring to an adjacent area outside of the right-of-way, should be implemented as a means of mitigation.

7. The project's mitigation measures for possible impacts to desert tortoises appear to be adequate.

8. The following comments are offered in regards to the cultural resources element:

55-6 a. We agree that a 100% intensive cultural resource survey is necessary for the pipeline right of way and access roads.

b. For any cultural resources found on, or immediately adjacent to Edwards AFB lands, we request a copy of the site record forms including a plot of the resources location on a 7 1/2" USGS Quad Map. We prefer the use of the California Department of Parks and Recreation forms for recording sites on Edwards AFB (Form DPR 422).

55-2 Although the aquifers near Edwards Air Force Base were not considered to be "sensitive groundwater basins", the procedures that would be used to prevent and detect potential oil leaks are discussed in response to Comment 18-30.

55-3 The flight clearance requirements for Edwards Air Force Base, were forwarded to Celeron/All American. They will coordinate with the Air Force.

55-4 Appendix Table B-6 in the DEIR/EIS lists candidate plants that may occur on or near the proposed ROW. Several information sources, including the California Desert Conservation Area Plan and the California Natural Diversity Data Base, were used to assemble this table. See response to Comment 52-7 and Mitigation Measure 15a.

55-5 See response to Comments 3-1 and 22-5. Mitigation Measure 9 specifies that the ROW be routed to avoid Joshua tree woodlands to the maximum extent possible. The BLM or other land management agencies may require that construction be done within a 50-foot ROW to minimize loss of sensitive resources on public land.

Specific Construction and Use Plans will be submitted and approved by the public land management agency. These plans will include a variety of reclamation and revegetation techniques depending on site conditions. The agencies may impose specific requirements for transplanting Joshua trees.

55-6 The BLM is working with the Air Force on the ROW grant stipulations regarding cultural resources.

55-6
cont.

c. We request that the principle investigator and survey team leader coordinate with the Base Historic Preservation Office (BHPO) and the Base Archeologist prior to surveying the right of way along the northern Edwards AFB boundaries and northeastern corner of the base.

d. We request that any diagnostic isolated artifacts (i.e., ceramics, obsidian, projectile points) found on Edwards AFB lands be collected, institutionally recorded, analyzed, described in the report and ultimately turned over to the BHPO for curation.

e. In the event significant cultural resources are found within the Edwards AFB portion of the right of way, and impacts to such resources cannot be avoided, the coordination of the BHPO must be obtained prior to the commencement of a data recovery impact mitigation process.

f. When available, we request that two copies of the cultural resources technical report be sent to our office. In the event data recovery is necessary, we request two copies of any subsequent impact mitigation report be sent to our office.

55-7

9. In order to comply with Air Force environmental regulations, we request that you formally document the proposed actions and impacts that will occur on Edwards Air Force Base lands on an AF Form E13 and E14 (Atrchs 4 and 5). This report should include all field survey information conducted in support of the pipeline project. Detailed final route location maps should be included in this report.

10. These issues should be considered in the project EIS. We would like to receive the final EIS and plan when it becomes available.

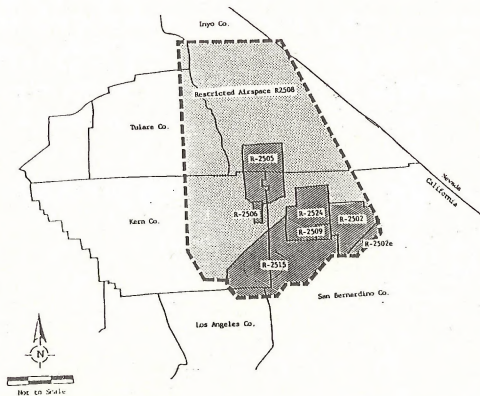
55-7

These forms will be completed and submitted to Edwards Air Force Base along with detailed maps of the pipeline location by early January 1985.

2-20

LOLAN F. HUBER
Deputy Director of Civil Engineering

TABLE I



2-231

RESTRICTED AIRSPACE R-2508

LETTER OF AGREEMENT

between

THE AIR FORCE FLIGHT TEST CENTER, EDWARDS AFB, CALIFORNIA

and

ALL AMERICAN PIPELINE COMPANY, 6415 Katella Avenue

Cypress, California 90630-5207

SUBJECT: Operation of air traffic transiting Restricted Area R-2515 by aircraft operating under the auspices of All American Pipeline Company for the purpose of patrolling their pipeline right-of-way.

PURPOSE: To establish conditions of operations and procedures for aircraft transiting Restricted Area R-2515 while patrolling pipeline rights-of-way. The provisions of this agreement apply only when Restricted Area R-2515 is not released to FAA for joint use.

TERMS OF AGREEMENT: Aircraft transiting R-2515 will be limited to Visual Flight Rules (VFR) operations in accordance with Federal Air Regulations and the provisions of this authorization.

a. Aircraft transiting R-2515 will do so under the provision of this agreement on authorization granted to All American Pipeline Company. Frequency of operations is as required by All American Pipeline Company to include charter aircraft and other civil aircraft while performing the specified purpose above.

b. This agreement is not a blanket clearance to All American Pipeline Company, their authorized air service contractor, or other associated agencies for random transit of R-2515. Clearance is defined as nonexclusive, permissive right to enter for the specified purpose and must not be construed to mean that the described entry and exit routes will be void of other aircraft.

AUTHORIZED ENTRY/EXIT ROUTES:

a. Intersection of California Highway 58 and the R-2515 boundary to the East (approximately six nautical miles west of Barstow, CA.)

b. Intersection of California Highway 58 and the R-2515 boundary to the West (approximately five nautical miles east of Mojave, CA.)

PROCEDURES:

a. Two-way radio communication is MANDATORY.

b. All aircraft will transit R-2515 at or below 1,000 feet above ground level, or as directed by Edwards RAPCON.

COMMENT LETTER 55 (CONTINUED)

RESPONSE TO COMMENT LETTER 55 (CONTINUED)

LOA b7c AFPTC & ALL AMERICAN PIPELINE COMPANY

Page 2

c. All aircraft will contact Edwards RAPCON prior to entry into R-2515.

d. Flights will remain within 1/4 mile north of California Highway 58 or the minimum distance from Highway 58 needed to accomplish the patrol mission.

GENERAL:

a. On the day prior to anticipated flight through R-2515, telephone AFPTC Scheduling (805) 277-4110, giving aircraft call sign, R-2515 entry point, time of entry and estimated duration of flight within R-2515.

b. For any flights not called-in on previous day, on the day of the flight call AFPTC Current Operations (805) 277-3940 or the R-2508 Central Coordinating Facility (805) 277-2508, with the above information.

c. It is the responsibility of All American Pipeline Company to assure compliance with the procedures contained in this agreement.


d. The Commander, Air Force Flight Test Center, reserves the right to temporarily withhold or withdraw this authorization upon notification to All American Pipeline Company for the duration of hazardous testing, or in the interest of protecting life or property of all concerned.

EFFECTIVE DATE: Upon receipt.

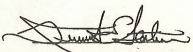
TERMINATION DATE: Void 31 December 1986 unless renewed in writing.

APPROVED:

APPROVED:

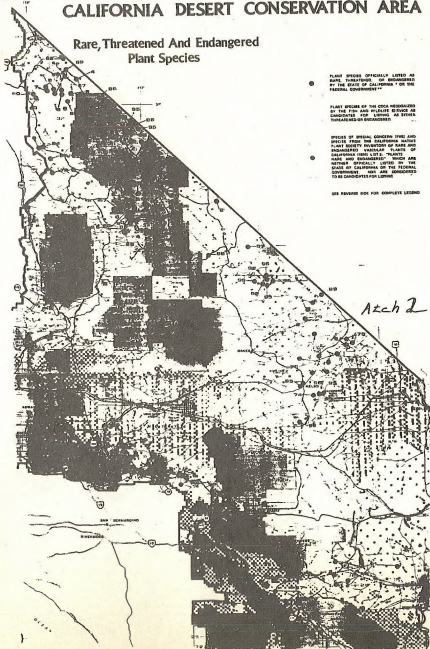

J. P. BRADY, Chief
Plans and Programs Office
6 June 1984




KENNETH E. STATEN, Colonel, USAF
Commander, 6510 Test Wing

CALIFORNIA DESERT CONSERVATION AREA

Rare, Threatened And Endangered
Plant Species



● PLANT SPECIES OFFICIALLY LISTED AS RARE, THREATENED OR ENDANGERED BY THE STATE OF CALIFORNIA OR THE FEDERAL GOVERNMENT

▲ PLANT SPECIES OF THE CONCERN CATEGORY OF THE IUCN AND WHICH REQUIRE AN EXERCISE OF SPECIAL CONCERN AS DEFINED BY THE IUCN

○ AREAS OF SPECIAL CONCERN (THIS AND AREAS WITHIN THE CONSERVATION AREA) ARE AREAS WHICH REQUIRE AN EXERCISE OF SPECIAL CONCERN AS DEFINED BY THE IUCN. THESE AREAS ARE AREAS WHICH REQUIRE AN EXERCISE OF SPECIAL CONCERN AS DEFINED BY THE IUCN. THESE AREAS ARE AREAS WHICH REQUIRE AN EXERCISE OF SPECIAL CONCERN AS DEFINED BY THE IUCN.

SEE BOOKS FOR COMPLETE LISTING

Arch 2

2-235

COMMENT LETTER 55 (CONTINUED)

RESPONSE TO COMMENT LETTER 55
(CONTINUED)

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS		FOR ENVIRONMENTAL PLANNING USE ONLY	
I REQUEST			
1. TO: (Environmental Planning Function)		2. FROM: (Organization and Office Symbol)	
3. REQUESTOR (Name, Office Symbol and Phone No.)		4. ESTIMATED COMP DATE	
6. TYPE OF ANALYSIS NEEDED			
CASEX DETERMINATION	PRELIMINARY ENVIRONMENTAL SURVEY	ENVIRONMENTAL ASSESSMENT	ENVIRONMENTAL IMPACT STATEMENT
7. TITLE OF PROPOSED ACTION			
II PROPOSED ACTION AND ALTERNATIVES			
8. PURPOSE OF AND NEED FOR ACTION (Continued on _____ Sheets)			
9. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DDP/AA) (Continued on _____ Sheets)			
10. ORGANIZATIONAL APPROVAL (Name and Grade of Commander)		SIGNATURE	DATE
III ENVIRONMENTAL PLANNING RESPONSE			
11. RESPONSES ATTACHED			
Preliminary Environmental survey (AF Form 814) attached			
Proposed action qualified for Casex (Appropriate Documentation attached)			
Proposed action does not qualify for Casex, assessment required			
12. REMARKS			
13. ENVIRONMENTAL PLANNER CERTIFICATION (Name and Grade)		SIGNATURE	DATE
14. ENVIRONMENTAL PROTECTION COMMITTEE APPROVAL (Name and Grade)		SIGNATURE	DATE

2-237

COMMENT LETTER 55 (CONTINUED)

RESPONSE TO COMMENT LETTER 55 (CONTINUED)

PRELIMINARY ENVIRONMENTAL SURVEY																																																																																																																																																																																																																																																																																																																																																																																																																											
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SIERRA CLUB

Grand Canyon Chapter - Arizona

10/29/84

Mary Griggs
State Lands Commission
1807- 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

The Grand Canyon Chapter of the Sierra Club opposes any further development of pipelines in the Kofa National Wildlife Refuge. This use is inconsistent with management of the area as wildlife habitat.

We also would like to see greater engineering safety features where the pipeline crosses rivers (perennial or not). We are specifically concerned about the Colorado and San Pedro rivers. We would like to see block stations on both sides of the river and greater depth of burial under the rivers; four feet from the 100 year scour zone is inadequate; especially in arid southwest rivers that experience radical channel morphology changes and that have a history of significant depth erosion due to channelization.

It is a fact that rivers like the San Pedro do not conform to National flood estimation standards (see article in American Water Resources Association- Arizona section, Proceedings of the 1984 meetings in Tucson, Arizona, vol. 14 (1984) Office of Arid Lands Studies, University of Arizona.). We feel that pipeline burial under rivers that experience seasonal flooding should be two to three times deeper than recommended and the burial should be set back well beyond the banks of the current channel. One

56-1

Please see response to Comments 25-3 and 54-2. Horizontal channel migration would not be connected with the scour depth for a given storm. The set back from the current channel would be important because these channels can be expected to migrate. Pipe of the diameter that would be used on the project cannot be bent abruptly to follow the cross section of an incised channel. Practical engineering design would indicate generous setbacks to reduce the probability that a change in channel morphology could disturb the pipeline.

Calculations of scour depth and subsequent engineering designs would have to consider environmental characteristics representative of watersheds in the southwestern U.S. Mitigation Measure 5 will require continual monitoring of the stream channel and design changes as necessary.

2-239

56-1

COMMENT LETTER 56 (CONTINUED)

RESPONSE TO COMMENT LETTER 56
(CONTINUED)

2-240

- | | | | |
|---------------|---|---|------|
| 56-1
cont. | ↑ | flood on the Rillito river last year in Tucson widened the channel in one place over a quarter mile. These flood contingencies were not adequately accounted for we believe. | |
| 56-2 | | We also would prefer that the pipeline follow interstate 10 from the point at which it crosses the highway north of Picacho Peak to where it again crosses I-10 at Olga just east of Bowie, Az. near the New Mexico line. The existing proposed route from Picacho to Olga would impact rural, scenic, cultural/historic and recreational areas. | 56-2 |
| 56-3 | | We particularly object to the alignment through the outskirts of the town of Oracle, along the east slopes of the Santa Catalina mountains (an area with a high density of prehistoric indian ruins, as yet uninventoried), across the San Pedro river near Redfield Canyon (a very scenic area with high wildlife values), across the Nature Conservancy property and through the south end of the Winchester mountains. Additional development, even though it is along an existing pipeline route, is entirely inappropriate in these areas. | 56-3 |
| 56-4 | | Finally, we support 100% of the wildlife and related environmental mitigations proposed by the Nature Conservancy. | 56-4 |
| 56-5 | | | 56-5 |
| 56-6 | | | 56-6 |

Thank-you for this opportunity to comment on the Draft E.I.S.

Sincerely,

Paul W. Hirt

Paul Hirt, Conservation Chair
Grand Canyon Chapter, Sierra Club
1038 N. Perry Ave.
Tucson, Az. 85705

4441 W. Alameda
 Glendale, Ariz 8530
 Oct 29, 1984

Attn: Mary Briggs
 State Lands Commission
 1807 13th St
 Sacramento, Ca 95814

Dear Mr. Gigg,

I would like to comment on the "Pajarito
 Celeron / alluvium & Betty pipeline project,"
 especially that portion proposed to go through
 the Kofa N.W.R. I have first hand knowledge
 of the refuge area which the project affects
 as well as the Brenda alternative route. After reviewing

Table 2-7, the comparison of significant
 impacts, it is readily apparent that the
 Brenda alternative route is far superior
 from the environmental standpoint than
 the proposed route through the Kofa N.W.R.

Bighorn sheep migration patterns are
 already thoroughly disrupted, even blocked
 by I-10 & populations to the north are
 now isolated from the main herds in the
 Kofa. Why should we continue to add
 additional barriers to migration routes
 by allowing more pipelines & power lines

57-1

Mr. Linwood Smith has been consulted concerning "an additional barrier" to migration movement of bighorn sheep in the Kofa National Wildlife Refuge. While new construction in or adjacent to the existing ROW would temporarily remove some additional habitat, the existing road is already open to the public and no new obstacles would be erected. By following an existing ROW, the pipeline would not fragment or disturb other more critical habitats for bighorn sheep and other wildlife. Maintenance inspection for the ROW could be combined with current monitoring of the El Paso ROW and access could be more easily controlled. There is no evidence to suggest that bighorn sheep have abandoned their migration route as a result of existing disturbance, although some animals may be reluctant to move across the existing road if there is heavy traffic. No additional roads would be constructed for the project. See Comment Letter 23.

2-241

57-1

57-1
cont.

through the Kofa? Any assumption that another pipeline through the Kofa will not be detrimental to the Biflora is absurd.

On a practical basis, please consider what the space requirements for utilities will be in the future. More powerlines & pipelines will be needed & the narrow space through the Kofa will prove inadequate. The Brandt Alternative will have adequate space & realistically should be the preferred route for future utilities. The BLM has made a poor recommendation in picking the Kofa route.

I strongly recommend the Brandt Alternative for the pipeline project.

Sincerely yours
Richard W. Riefly

30 Oct 1989

Mary Griggs
 State Land Commission
 1807 - 13th St.
 Sacramento, CA 95814

To all whom it may concern:

I write this letter to comment upon the Draft EIR&EIS for the proposed Calaveras/All American and Getty Pipelines on behalf of the Rio Grande Chapter of the Sierra Club.

Our first concern is that a four foot clearance between the buried pipelines and the 100 year scum zone at stream and river crossings is dangerously small for southwestern water courses. Climatological and surface hydrology characteristics in this region allow for very rapid and deep scourings when "100 year floods" do occur. We recommend deeper burial at all medium to large water course crossings.

The proposed route for the pipeline right-of-way, in New Mexico follows existing ROW's and does not traverse any present or proposed private natural lands. We do not oppose this portion of the project provided that measures to mitigate impacts discussed in the EIS are indeed implemented and carried out.

We do express our support for the mitigation proposed by the Arizona Native Conservancy for the proposed route through the Multisite Nature Preserve in Arizona.

Finally we wish to express our total opposition to the proposed routing of the pipeline through the Koehn National Wildlife Refuge and BLM wilderness study area 2-125 in Arizona. We strongly recommend implementation of the Brenda Alternative.

I thank you for this opportunity to express the views of the Rio Grande Chapter of the Sierra Club.

Sincerely,
 Don Jones, Cooperator Chairman
 1201 E. In del Valle
 Socorro, NM 87801

58-1 Please see response to Comments 25-3, 54-2, and 56-1.

58-1

2-243

HARRISON E. BULL AND ASSOCIATES
ATTORNEYS AT LAW

Telephone (Area Code 905) 569-2223

Write or Mail
4842 Jelling, Mission Road, Box V
Santa Barbara, California 93101

October 30, 1984

Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Re: Draft Environmental Impact Report
Proposed Cleron/All American and Ghetty Pipeline Project

Dear Ms. Griggs:

I have a number of criticisms of the draft environmental impact statement which center around the present ground water crisis in Southern Santa Barbara County and in several of the sensitive ground water basins which are to be traversed by the proposed pipeline route.

2-244

59-1

Nowhere in the environmental impact statement is joint utilization of the pipeline rights of way addressed for importation of water from the State Water Project and the California Aqueduct. After consultation with the County Water Resources Agency it seems quite likely that the proposed oil pipeline route will be using routes which have been considered for water pipelines between Santa Maria and Bakersfield, passing through the Cuyama Valley.

59-1

No specific water pipeline projects proposed for the same ROW as these pipelines have been identified. However, in the future it is possible that other projects may wish to use the ROW selected for use by these two Applicants.

59-2

In the event of a spill by the operators of the oil pipeline, no satisfactory measures for mitigating contamination of sensitive ground water basins exists. The proposal to categorize and inventory alternative sources of water in the event of a spill to provide service to domestic and agricultural use is unrealistic given the present status of

59-2

The purpose of Mitigation Measure 6 is to allow prompt notification, clean-up response, and provisions for emergency water supplies if an oil spill were to contaminate groundwater. This is not related to permanent water importation.

HARRISON E. BULL AND ASSOCIATES
ATTORNEYS AT LAW

Mary Griggs
October 30, 1984
Page 2

59-2
cont.

several of the grounds water basins in North Santa Barbara County. The reservation within the right of way for future development of a water importation pipeline would be a real mitigating factor in the event ground water basins are contaminated by the proposed pipeline. This portion of the report needs to be revised in light of the condition of the Cuyama Basin.

59-3

Nowhere in the report is the water situation on the southcoast of Santa Barbara County at Gaviota addressed. This office represents several property owners in the area and is quite concerned that outer continental shelf oil exploration will substantially overdraft the South Coast water basin and result in significant adverse environmental impact. The oil companies to date have not disclosed how they propose to either develop surface water in the area or if they plan to resort to desalination at an onshore facility to compensate for the lack of available ground water in the area.

59-4

The provisions of the environmental impact report which relate to abandonment of the pipelines should also consider that after the oil fields in the channel have played out this pipeline might serve as a conduit to bring water from the State Water Project into the South Coast of Santa Barbara which is presently in a severe water crisis.

59-5

If the state and federal governments are going to be asked to dedicate the rights of way over public land for a common carrier pipeline, I think it is critical in the planning process to address the fact that a wide enough easement needs to be dedicated for not only the proposed oil pipeline but for follow up on gas pipelines and water pipelines as well.

The present political perception of the oil company's development in this area by the local Santa Barbara residents is that of a plundering mongol horde which will leave nothing behind but environmental disaster and a despoiled countryside. Should the oil companies, with a little foresight, be able to make some lasting contribution to the infrastructure of Santa Barbara County, it might be possible that outercontinental shelf development would be viewed by some of the citizens as responsible for engineering accomplishments on the scale of the Roman Empire which not only brought good roads and good government to Western Europe but also constructed water aqueducts which are still in use to this day.

Your consideration of a joint use right of way in the planning

59-3

The water requirements of proposed oil development projects have been treated in other project-specific EIRs for Santa Barbara County. The Getty Gaviota Consolidated Coastal Facility EIR addresses the overall Getty project water needs. The two pipeline projects discussed in the DEIR/EIS have no direct water needs from Santa Barbara County aquifers.

59-4

Using the pipelines after abandonment for water transfer is not currently proposed as part of these two Applications. It may be possible in the future for an outside party to buy the line and use it for water transfer by purging it of oil, reversing or removing the check valves, and installing new pump stations. This modification would be subject to appropriate review and permitting requirements.

59-5

Santa Barbara County and the Forest Service are considering the potential of the various routing alternatives to accommodate future projects. The Federal ROW grants for these pipeline projects will include only the width needed for the current proposal. Future proposals will be permitted separately, and the proponent would be issued a new ROW grant.

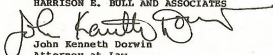
HARRISON E. BULL AND ASSOCIATES
ATTORNEYS AT LAW

Mary Griggs
October 30, 1984
Page 3

process would be most sincerely appreciated. Should you have any questions or comments concerning the views expressed herein or of my clients, I would be happy to confer with you. Further, this office would request notice of any further proceedings with respect to the applicants proposal.

Sincerely yours,

HARRISON E. BULL AND ASSOCIATES



John Kenneth Dorwin
Attorney at Law

2-246

JKD:sw
lu/r

LAND MANAGEMENT DEPARTMENT

385 North Arrowhead Avenue - San Bernardino, CA 92415-0180 - (714) 383-



COUNTY OF SAN BERNARDINO
ENVIRONMENTAL
PUBLIC WORKS AGENCY

KENNETH C. TOPPING
Deputy Administrator
Community Development
J. JOHNS JADLESS
Land Management Director

OFFICE OF BUILDING AND SAFETY
- Plans, Standards, P.E.
- Design/Building Office
- (714) 383-3026

OFFICE OF PLANNING
Community Planning Officer
- (714) 383-3148

OFFICE OF SUPERVISOR
Supervisor P. Bill U.S., P.E.
County Engineer
- (714) 383-1026

October 30, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA. 95814

RE: DRAFT EIR/EIS-PROPOSED CELERON/ALL AMERICAN AND
GETTY PIPELINE PROJECT

Dear Ms. Griggs:

This letter is a follow-up to our telephone conversation this day regarding the above described project and specific issues that need to be further addressed.

A review of the EIR by this office indicated that further consideration should be given in addressing the following areas of concern:

- A. The significant impact summary does not mention potential impacts or mitigation measures to the Mojave River crossing. This area should be well mitigated due to the area sensitivity to groundwater impacts. (i.e., flex lines, 1/2" pipeline thickness, and 15' or more below river bottom below the scour line).
- B. The impact of the 50' wide clearing proposed for the pipeline swath across the flat desert terrain can be further mitigated by only clearing for the pipeline ditch construction and just driving over the remainder. Perennial plants will recover much better than if scraped off below the root levels.
- C. The EIR indicates that the significance of any oil spill will depend upon the size of the leak, amount of the leak, and the location. Additional mitigation might reduce this potential by having a closer spacing of the proposed block check valves. Such mitigation should be specifically applied in areas near the Mojave and Colorado Rivers and known fault systems.
- D. In compliance with the County's Joint Utilities Management Plan, a Disaster or Contingency Plan is required to be submitted to the County Emergency Preparedness Officer for review and approval. The plan must be complete and include measures for dealing with both primary and secondary impacts of any potential disaster. (i.e., fires and leaks.)

- 60-1 See Mitigation Measure 6 and response to Comment 25-3. Although the response addresses the Cuyama River, its conclusions, would be applicable to the Mojave crossing.
- 60-2 Celeron/All American proposes to construct within a 100-foot ROW. The BLM may require the ROW width be reduced to 50 feet in sensitive habitats (Mitigation Measure 9). Mitigation Measure 10 requires that clearing be limited to crushing or trimming desert scrubland as well as using existing ROWs and roads.
- 60-3 Refer to Map 1-2, Sheets 1 through 12 in the DEIR/EIS for proposed locations of most block and check valves. Block and check valves would be located on each side of the river/stream bank at sensitive river/stream crossings (including the Mojave and Colorado Rivers).

2-247

60-1

60-2

60-3

COMMENT LETTER 60 (CONTINUED)

RESPONSE TO COMMENT LETTER 60 (CONTINUED)

LETTER TO: MS. MARY GRIGGS
October 30, 1984
Page 2

- 60-4 E. The EIR should address impacts and mitigation of 500+ construction workers at the Cadiz pump station site.
- 60-5 F. The EIR addresses construction related emissions but does not include a quantitative assessment of emissions from the stationary sources (pipeline heating facilities).
- 60-6 G. The EIR has no discussion of mitigation of impacts to non-renewable paleontologic resources as identified by correspondence from the San Bernardino County Museum (per letter forwarded to you under separate cover).
- 60-7 H. The EIR does not provide mitigation for loss of desert tortoise habitat near the Cadiz tank farm.
- 60-8 I. The EIR does not address any mitigation for potential fire hazards at the Cadiz tank farm.

Further consideration of the issues identified would be appreciated. Should you have any questions, or if I can be of any assistance, please give me a call at (714) 383-3944.

Thank You.

ENVIRONMENTAL PUBLIC WORKS AGENCY
OFFICE OF PLANNING

Ronald Fry

for CHUCK BELL, Senior Analyst
Environmental Analysis Division

CB:RR:sb

- 60-4 Approximately 95 tank farm and pump station construction workers would commute daily from Needles or Blythe to Cadiz, or camp at nearby campgrounds for a period from 6 to 8 months. The remaining 403 pipeline, pump station, and valve workers would be scattered along this spread of the pipeline. Impacts are not anticipated to be significant because Blythe and Needles are located within commuting distance of the Cadiz tank farm and pump station. Please refer to Mitigation Measures 22 and 23 in Section 4.1.
- 60-5 A quantitative assessment of the operational air quality emissions is presented in Appendix 4.5. Also see responses to Comment Letter 27.
- 60-6 See response to Comment 11-1.
- 60-7 Mitigation Measure 16 is required to minimize impacts occurring in potential desert tortoise habitat at all new facilities. The Cadiz tank farm, Twelve-Gauge Lake pump station, and La Paz pump station would remove 91 acres of habitat for the life of the project.
- 60-8 Refer to the system safety and reliability agency stipulations in Section 4.1.2 of Appendix 4.1 and Appendix 4.3, System Safety.

2-248



THE WILDERNESS SOCIETY

FOUNDED IN 1935

October 30, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement for the proposed Celeron/All American and Getty Pipeline Projects.

The Wilderness Society is dedicated to the protection and wise management of all public lands. We are very concerned about the significant adverse impacts of the proposed undertaking. Specifically, we object to the sections of the proposed route that cross or run adjacent to further planning areas in the Los Padres National Forest and wilderness study areas in the California Desert Conservation Area.

The report states that "pipeline construction would result in adverse effects on wilderness characteristics of the Horseshoe Springs and Spoor Canyon FPA's because of reductions in their integrity, natural appearance, and opportunities for solitude." Clearing for the pipeline would remove part of an isolated conifer stand on top of Miranda Pine Mountain, a popular recreational attraction in the Miranda Pine FPA. The pipeline will even impact La Brea Roadless Area, through noise, visual degradation and increased access.

Crossing the Palen-McCoy WSA will conflict with the Interim Management Policy, and thus cannot be permitted. We encourage the State Lands Commission and the BLM to find an alternate route. Merely moving the ROW to the other side of the gravel road boundary would not be sufficient due to the visual and noise impacts.

Should the pipeline be built, The Wilderness Society urges that no further planning areas or wilderness study areas be crossed, or even be adjacent to a ROW. We also urge that all environmental impacts and degradation be kept to an absolute minimum. Any degradation in such a fragile environment as the desert is permanent.

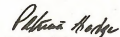
Thank you again for your consideration of our comments.

Mitigation Measure 27 ensures compliance with BLM Interim Management policies. If the route were moved to the east side of the dirt road, it would not significantly affect the integrity of Wilderness Study Area 325; noise and visual impacts would be of short duration (approximately 7 days).

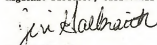
Ms. Mary Griggs

October 30, 1984
Page Two

Sincerely,



Patricia Hedge
Regional Director, California-Nevada



Jeff Galbraith
Administrative Assistant, California-Nevada

120,500 ACRES LOCATED ALONG COLORADO RIVER

PALO VERDE IRRIGATION DISTRICT

Office Address
180 West 14th Avenue
Blythe, California



Mailing Address
P.O. Box 1189
Blythe, California 92226

Telephone 619 922-3144

Mary Griggs
State Land Commission
1807 - 13th Street
Sacramento CA 95814

RE: Comments on Draft Environmental Impact Report ... Proposed Celeron
All American and Getty Pipeline Project, Document #SLC-EIR369,
State Clearing House #83110902

Dear Mary Griggs:

Palo Verde Irrigation District maintains a system of canals and drains in the Palo Verde Valley along the Colorado River around Blythe, California. The Draft EIR indicated above does not indicate how this pipeline will cross our facilities, or what steps would be taken should a spill occur into our facilities.

Palo Verde Irrigation District opposes the proposed route which bisects the valley at about a 45 degree angle for the 8 pipeline miles northwest of the Colorado River, approximately MP#286 to MP#294. This proposed route cuts across farm land that is utilized year round for growing major market crops. The acreage affected during construction would be more than indicated in the Draft EIR. This is because that portion of the field cut off from receiving irrigation water would be lost to production for that cropping period. With Valley growing methods, a field could be affected during the construction period for two crop periods.

Local farmers deep plow to a depth of 6 feet or more using up to four DB Caterpillar dozers hooked in tandem on about a 5 year schedule. A pipeline diagonally across their field would cause problems for them and the pipeline company. To avoid this problem, the pipeline would have to be buried deeper than proposed by the EIR. This puts the pipeline in the groundwater. If a leak occurred at this depth, it would cause irreparable damage to the soil and groundwater and be expensive to mitigate.

Palo Verde Irrigation District believes a better route could be established to follow section lines, field roads, and canal/drain banks to reach the Colorado River with a minimum of farming interruption. This would extend the pipeline length a couple of miles, but could provide existing casings under I-10 Freeway.

62-1 See response to Comment 3-3.

62-2 See response to Comment 62-1.

2-211

62-1

62-2

Mary Griggs
State Land Commission
October 30, 1984
p - 2

62-3

The Draft EIR references the Valley's water table as being perched [ie: page 3-23, Table 3-9; page 4-28, Table 4-5; and Sheet 6 of May 1-2]. This is in error. The groundwater for the Palo Verde Valley is in an unconfined aquifer hydraulically continuous and hydraulically connected to the Colorado River. The groundwater is located 7 to 10 feet below the ground surface. This groundwater is utilized by the cities of Blythe and East Blythe as sole source of domestic water. Valley residents use shallow wells to utilize this groundwater.

On page 3-33, Item 3.2.5.2 the groundwater comments are misleading and understate the importance of and degree of useage of the groundwater in the Palo Verde Valley.

On page 4-37, Item 4.2.5.3 the significance of the shallow depth to groundwater in the Blythe area was not mentioned and thus understated. Our area would suffer as much as the mentioned Mojave River basin.

On page 4-163, Item 4.11 - Groundwater - again, Blythe area was not mentioned regarding significance of groundwater to Blythe area. Blythe area should have been included with the others.

62-4

On page 3-79, Table 3-26, the Colorado River Aqueduct is not at MP 289. It is closer to MP255. At MP289 is one of the major canals of the Palo Verde Irrigation District which this pipeline must go under (?) but was not included in this report.

Sincerely,
PALO VERDE IRRIGATION DISTRICT



Gerald N. Davison
Manager

GMD/elc

62-3

The DEIR/EIS reference to a perched water table on pages 3-23 and 4-28 is correct (see Elam 1984). This condition is described under the Soils discipline as a condition that is pertinent to pipeline construction. Appropriate changes are made to Groundwater Sections of the DEIR/EIS to correct the oversight regarding the importance of the Palo Verde Basin as a groundwater supply. The Palo Verde Basin is now included as a sensitive groundwater basin because of its shallow water table and high degree of use for municipal, domestic, and agricultural uses. See Modifications and Corrections Section for pages 3-34, 4-37, and 4-163.

62-4

Celeron/All American has indicated they will consult with the Irrigation District to minimize damage or interruptions to the Palo Verde canals. The concrete-lined canals would be bored and cased similar to highway crossings. See Modifications and Corrections Section for Table 3-26 on page 3-79.



California Wilderness Coalition

205 Postage Bay Avenue, Suite 3 • Davis, California 95618 • (916) 798-0910

October 30, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

The California Wilderness Coalition appreciates this opportunity to comment on the proposal of the Celeron Pipeline Company and the All American Pipeline Company to construct a 1,200-mile pipeline from Santa Barbara to Texas. Our concerns are with the impacts on potential wilderness areas in the State of California.

On page 1 of Appendix D there are four items listed that are said to be characteristics of wilderness as defined by the Wilderness Act of 1964. While the first three items are accurate, the fourth paragraph is not. There is nothing in the Act that states that wilderness "provides the opportunity for (and often requires) self-reliance and meeting challenges."

Also on that page it is said that the second Roadless Area Review and Evaluation program (RARE II) "proposed areas for wilderness and identified areas of further planning (FPAs) and areas that did not meet the minimum requirements for wilderness." Actually, lands recommended by the U.S. Forest Service as "non-wilderness" met the requirements for wilderness, but in the judgement of the Forest Service should not be so designated. In the recently passed California Wilderness Act of 1984 Congress overruled the Forest Service by designating as wilderness many areas that had been recommended as "non-wilderness."

Although the California Wilderness Act has been signed into law, there are numerous further planning areas remaining in the Los Padres National Forest, including areas in the pipeline project area. While it is true that a detailed environmental impact statement could be completed for these further planning areas, it is much more likely that development envisioned for any of these roadless areas will have to await completion of the Los Padres National Forest Plan.

The comments regarding management of the Wilderness Study Areas identified by the Bureau of Land Management are correct; it will take an act of Congress to allow development to take place in any of these areas. In addition, the California Wilderness Coalition will oppose any attempt to legislate a pipeline corridor in a Wilderness Study Area without consideration of the wilderness recommendations of the entire California Desert Conservation Area.

The descriptions of the various roadless areas are useful, but it should be remembered that some of the information provided is not required by Congress or the Wilderness Act. The Recreational Opportunity Spectrum (ROS) and the availability and need sections, for example, often are used by the Forest Service to justify its recommendations, but Congress routinely ignores them.

63-1 See Modifications and Corrections Section, page D-1.

63-2 See Modifications and Corrections Section, page D-1.

2-503

2

The California Wilderness Coalition will be actively involved in the Forest Plan for the Los Padres and legislation affecting the Wilderness Study Areas in the California Desert. Any pipeline proposal for these roadless areas will have to await these actions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Eaton", with a stylized flourish at the end.

Jim Eaton
Executive Director



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

 1001 Washington Street
 San Francisco, Ca. 94105

 Ms. Mary Griggs
 State Lands Commission
 1807 13th Street
 Sacramento, CA 95814

October 31, 1984

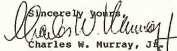
Dear Ms. Griggs:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement/Report (DEIS/R) titled PROPOSED CELEKON/ALL AMERICAN AND GETTY PIPELINE PROJECTS. We have the enclosed comments regarding this DEIS/R.

We have classified this DEIS/R as Category EC-2, Environmental Concerns - Insufficient Information (see the attached "Summary of Rating Definitions and Follow-Up Action"). We have rated this DEIS/R as Category EC-2 because of the need for additional information in the areas of construction-related water quality impacts, potential ground water impacts, and air quality impacts.

The classification and date of EPA's comments will be published in the Federal Register in accordance with our public disclosure responsibilities under Section 309 of the Clean Air Act. You will receive a telephone call to discuss our concerns regarding this project.

We appreciate the opportunity to review this DEIS/R. Please send five copies of the Final Environmental Impact Statement/Report (FEIS/R) to this office at the same time it is officially filed with our Washington, D.C. office. If you have any questions, please contact Mr. Rick Hoffmann, Federal Activities Branch, at (415) 974-8191 or FTS 454-8191.

Sincerely yours,

 Charles W. Murray, Jr.
 Assistant Regional Administrator
 for Policy and Management

Enclosure (5 pages)

 cc: Mr. Bill Haigh
 Bureau of Land Management
 1695 Spruce Street
 Riverside, CA 92507

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GENERAL COMMENTS

1. Mitigation Measures. One of the most important features of the DEIS/R was the series of mitigation measures described in section 4.10. We compliment the companies and the members of the various agencies on the fact that these measures have already been committed to and will be required as part of the Right of Way grants or permitting process.

2. EIS Organization. The DEIS/R for the most part provided an excellent understanding of the projects' components and did a good job of assessing the potential environmental impact of the projects. The overall organization, editing, and graphics were well done.

3. Project Alternative. The document identified the alternative of a single pipeline for the Las Flores to Escondido leg and noted that a number of the environmental impacts would be less. The preferred alternative, however, recommends that both pipelines be built. The FEIS/R should include a discussion of why this alternative was favored and not the single pipeline alternative with less damaging environmental impacts.

64-1 See the Summary to this document and response to Comment 38-24.

WATER QUALITY COMMENTS

1. Instream Pipeline Construction. EPA recommends that the FEIS/R provide documentation to support its generalized assertion that no significant water quality impacts are expected as a result of pipeline construction in perennial rivers and streams.

64-2 Most of the streams to be crossed are in arid regions and display prolonged periods of low-to-zero flow. Very high flows occur during isolated storm events. The pipeline crossings at these streams would be constructed at low flow. These stipulations will be further refined in the Construction and Use Plans prepared for the authorizing agencies, including the BLM ROW grant and the COE Nationwide and 404 permits. A review of the available data, aerial photos, and field reconnaissance indicates many stream crossings are highly disturbed and would have zero flow during the construction period. Reclamation procedures would further protect the streams from future sediment impacts. See response to Comment 3-1.

The FEIS/R should include a more detailed and quantitative assessment of the potentially adverse water quality impacts resulting from in-stream pipeline construction. While some turbidity increase would be expected due to streambed operations, the FEIS/R should document the significance of the increased sediment loading on surface water quality and beneficial uses of the streams. The FEIS/R should present, to the extent possible, natural turbidity data to characterize the affected perennial streams and rivers.

64-2

The FEIS/R should provide estimates of expected increases in construction-related sediment and compare these to applicable Federal and state water quality standards. The FEIS/R should attempt to characterize the duration and area of downstream reaches affected by in-stream construction. This should include more detailed hydrologic data.

USGS and EPA commonly maintain records on turbidity for major streams and rivers, but not sediment loading. The primary contributor to downstream sediment transport is storm events, and sediment data for these events is rarely available. Therefore, it is not possible to compare the increased sediment loading from pipeline construction versus the existing loading in the streams or rivers crossed. Non-point discharge standards for sediment loading are not available. Holding times in sediment ponds would be required to reduce sediment levels to state and Federal standards. However, these ponds are likely to be rare in the construction of projects in such arid regions. The permits include stipulations to protect water quality. The Applicants would be required to comply with COE Nationwide and Section 404 Permits.

2. Since river crossings were one of the high priority issues identified in the scoping process, the FEIS/R should provide additional information about the mitigation measures that will

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-2-

be used to reduce the construction-related impacts. The DEIS/R notes that Best Management Practices (BMPs) will be used on the Forest Service lands and that a detailed Construction and Use (CU) plan would be required for other federal lands. The PEIS/R should include additional information to summarize the kinds of mitigation measures that would likely be included in these plans. In particular the kinds of mitigation measures that will be used for the stream crossings and the temporary diversions of streams should be detailed more thoroughly.

3. The DEIS/R does not adequately discuss the provisions and facilities for the treatment and discharge of hydrostatic test water and does not compare it to water quality standards.

The PEIS/R should discuss the type and level of treatment that might be required for the hydrostatic test water and also evaluate the treatment for effectiveness in meeting water quality discharge standards. The final document should describe the expected composition of the hydrostatic test water, the likelihood and significance of any spills or leaks during construction, and the ability of the treatment system to remove contaminants in the used water. Given the need for construction in remote areas, the PEIS/R should discuss how the test water will be transported to the two proposed treatment centers in Bakersfield, California and McCamey, Texas.

4. Ground water comments. EPA strongly supports mitigation measure number 6 which requires detailed hydrogeologic investigations; this measure would be applied to the 15 major ground water basins that the pipeline will cross.

EPA feels it is imperative that this requirement be fully implemented to resolve several remaining site-specific ground water concerns. These concerns include:

1. Identification of appropriate measures to reduce the risk of ground water impacts during construction-related activities (e.g. hydrostatic testing leaks or spills, other spills, etc.).
2. Need for frequent and effective monitoring of the pipelines during operations, especially for the less obvious smaller leaks or subsurface seepages.
3. Further investigation of potential leakage problems associated with pipeline crossing under streams.

AIR QUALITY COMMENTS

1. The DEIS/R tabulates in Table A-11 the emissions inventory for the construction and operation of the proposed pipelines. It also lists, in Tables 4-1, 4-2 and 4-3, the air quality

64-3 Stream crossing procedures used to minimize sedimentation, particularly for downstream public water supplies, would include minor stream diversions within existing stream beds, straw ball sediment traps below spoil piles, and other instream sediment controls.

64-4 The Gatty application proposes to dispose of hydrostatic test water in the Bakersfield area. The water may be sold to an irrigation company or treated and/or discharged depending on the quality of the water. Celeron/All American would dispose of its hydrostatic test water at its pipeline terminus in Texas. Both Applicants would require a "one time" NPDES discharge permit if the water were discharged into a waterway. The quality of the water would vary depending on the potential additives used for reducing corrosion, but the Applicants must comply with the conditions of the NPDES permit and all regulatory standards.

64-5 Mitigation Measure 6 will be implemented. The data base for the Oil Spill Contingency Plan will include the groundwater information derived from Mitigation Measure 6. Mitigation Measure 6 has been modified to clarify the 2-mile distance. See response to Comment 8-1.

64-6 These items are part of the project description, and as such, are not reiterated as mitigation measures. See Chapter 2 of the DEIR/EIS, Appendix 4.3, and response to Comment 12-30 for discussion of hydrostatic testing, construction practices, and operational leak detection systems.

Stream crossings would be designed to minimize potential problems by burial of pipelines 4 feet below the maximum scour depth, use of thicker pipe, concrete ballast to eliminate buoyancy and increase strength, and use of block and check valves at selected crossings.

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-3-

impacts from such construction and operation, as predicted by modeling.

The DEIS/R recognizes that the project would be located in several Nonattainment Areas, where violations of state or Federal air quality standards for CO, TSP, NO₂ and/or SO₂ are already occurring. Since the project would result in emissions of those same pollutants, it could be viewed as potentially responsible for additional violations of the standards.

However, the DEIS/R also states that the predicted violations would have "no significant impacts" or "no significant long-term or permanent impacts" for the following six reasons:

1. background concentrations already in violation of standards;
2. the magnitude of the project-caused concentrations relative to background concentrations;
3. the remoteness of project-caused emissions from monitoring sites where violations have been recorded;
4. the infrequency of recorded violations;
5. the different conditions required to produce maximum background concentrations from those required to produce maximum modeled concentrations; and/or
6. the "temporary and transient" nature of construction emissions.

We would agree with the conclusions of the DEIS/R regarding the significance of the air quality impacts if there were a better correlation between the monitoring data in Tables A-5 through A-10 and the "maximum background concentration" data in Tables 4-1, 4-2 and 4-3. Such a connection, however, is not always possible.

In order that the public may better understand the air quality impacts of the project, and that reviewing agencies may confirm the data and conclusions presented, we suggest that the FEIS/R be revised as follows:

1. Tables A-5 through A-10 should clearly present all data employed in determining "maximum background concentration". For example, those tables include no SO₂ data based on a 3-hour averaging period, and some of the "background concentrations" appear to have no equivalent monitoring data.
2. Data in both sets of tables should be converted to the same units (ppm, mg/m³ or ug/m³). It is difficult for the interested public to easily make the conversion.

64-7

The data in Tables A-5 through A-10 in the DEIR/EIS were compiled to summarize air quality along the entire pipeline route. Preference was given to monitoring sites near operational emissions sources that had reasonably complete data for more than one pollutant during the 1980-1982 period. SO₂ data for the 3-hour averaging period were not listed for California because the California Air Quality Data Annual Summaries, from which the California data were extracted, do not present SO₂ for the 3-hour averaging period, and because the 3-hour Federal SO₂ standard is a secondary standard. However, in determining the background concentration values for use in the air quality modeling presented in Section 4.2.1 of the DEIR/EIS, 3-hour average data were used when provided in available summaries.

2-258

64-7

COMMENT LETTER 64 (CONTINUED)

RESPONSE TO COMMENT LETTER 64 (CONTINUED)

-4-

- 64-7
cont. {
- 64-8 {
3. The monitoring station used for "background concentration" should be clearly identified in each case.
 4. The location(s) of the "maximum project concentration" should be clearly identified in each case.
 5. The text in section 4.2.1 should clearly define what is meant by "temporary and transient" emissions.
2. Minor Editorial Changes. The following errors in the DEIS/R should be corrected in the FEIS/R:
- 64-9 {
1. On p. 4-5, Diggs and Harper are listed as EPA contacts. They are identified incorrectly in the References. On p. R-4, "Diggs, T. ... Region VIII, San Francisco, California" should be revised to read, "Diggs, T. ... Region VI, Dallas, Texas. On p. R-6, "Harper, M. ... Region X, Dallas, Texas" should be revised to read, "Harper, M. ... Region IX, San Francisco, California."
 2. In Table A-6, p. A-8, the 1982 annual average NO₂ concentration for Bakersfield should be 0.030.
 3. In Table A-8, p. A-10, the units for NO₂ and CO should be corrected.
- 64-10 {
- 2-259

To clarify which of the monitoring stations' data were used as the background value in the modeling, Tables 4-1, 4-2, and 4-3 (in Appendix 4.5) of the FEIR/EIS have been expanded to include an identification of the monitoring station and year. It should be noted that when compared to the Federal short-term standards, the second highest measured concentrations were used as the background. To facilitate comparison between Tables 4-1 through 4-3 and Table A-5 through A-10, the latter set of tables have been revised so that the SO₂, NO_x, and TSP data are presented in units of mg/m³ and CO is presented in units of mg/m³.

- 64-8 "Temporary and transient" emissions are those that are not permanent in time nor fixed in space, and were used to describe pipeline construction emissions. Although the construction phase of the Celeron/All American pipeline would last for approximately 2 years and the Getty pipeline for about 1 year, construction would progress at a rate of 1 1/2 to 2 miles per day per "spread" (i.e., construction unit), and, therefore, would not be in any single area (i.e., near a specific monitor) for more than a few weeks.
- 64-9 Based on your comment, text changes to pages R-4 and R-6 in the DEIR/EIS are included in the Modifications and Corrections Section.
- 64-10 These corrections have been incorporated into the revised Tables A-6 and A-8 in Appendix 4.5.

SUMMARY OF RATING DEFINITIONS
AND FOLLOW-UP ACTIONEnvironmental Impact of the ActionIO—Lack of Objections

EPA has no objections to the proposed action as described in the draft impact statement or suggests only minor changes in the proposed action.

EC—Environmental Concerns

EPA has identified environmental impacts associated with the proposed action that should be corrected in order to fully protect the environment.

IO—Environmental Objections

EPA has identified significant environmental impacts associated with the proposed action that should be avoided in order to adequately protect the environment. EPA intends to work with the proposing agency to reduce these impacts.

EU—Environmentally Unsatisfactory

EPA believes that the proposed action is environmentally unsatisfactory because of its potentially harmful effect on the environment. If the potential for unsatisfactory impacts is not corrected at the final EIS stage, the project will be recommended for referral to the CED. EPA intends to work with the proposing agency to reduce these impacts.

Adequacy of the Impact StatementCategory 1—Adequate

The draft impact statement adequately sets forth the environmental impact of the preferred alternative or action and adequately sets forth alternatives that are reasonably available to the project or action.

Category 2—Insufficient Information

The draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new, reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS which could reduce such environmental impacts of the action. The inadequate information, data, analyses, or discussion should be included in the final EIS.

Category 3—Inadequate

The draft EIS does not adequately assess the potentially significant environmental impacts of the action, or the reviewer has identified new, reasonably available, alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS which should be analyzed in order to reduce the potentially significant environmental impacts. The inadequate information, data, analyses, or discussions are of such a magnitude that they require full public review at a draft stage. This rating constitutes a finding that the draft EIS does not meet the purpose of NEPA and/or the Section 309 review, and thus must be formally revised and made available for public comment in a supplemental or revised draft EIS.

EXXON COMPANY, U.S.A.

P. O. BOX 9025 • THOUSAND OAKS, CALIFORNIA 91320-9025 • (805) 496-2335

PRODUCTION DEPARTMENT
WESTERN DIVISION
DONALD C. KOPPELT
ENVIRONMENTAL CONSERVATION MANAGER

October 31, 1984

Comments on the Draft Environmental Impact
Report/Environmental Impact Statement for the
Celeron/All American and Getty Pipeline
ProjectsMary Griggs
California State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

Exxon's comments regarding the Draft Environmental Impact Report/ Statement for the Celeron/All American and Getty Pipeline Projects are enclosed. We believe the environmental analysis should include consideration of the following:

- 2-261
- 65-1 [o The document states that the inlet temperature of the crude for both the Celeron and Getty pipelines is 160°F. But the document does not consider the environmental impact associated with heating inlet crude from the 110°F required for tanker loading to the 160°F indicated for pipeline operation. Even though the problem of initially heating crude for the pipeline will apparently be left to the pipeline users, the environmental analysis is incomplete without consideration of the impacts associated with this initial heating requirement.
- 65-2 [o The document in Table 2-4 indicates that several electric lines up to a maximum of 37 miles long and natural gas lines of up to 7 miles long will be needed to supply utilities to the pipeline pumping and heating stations. However, the environmental impact associated with installing and maintaining these utility lines is not addressed.

In addition, we have noted important conclusions drawn without adequate analysis; i.e., that pipelines are environmentally superior to tankers and that pipelines are more economic than tankers for OCS crude movement.

- 65-3 [The EIR/EIS does not provide adequate evidence demonstrating the superiority of pipelines for oil movement. Exxon's view is that oil can be transported in an environmentally sound manner by tankers to a degree at least comparable to pipelines. As to economics, we believe as concluded in the OIP, that the comparative economics of pipelines versus tankers are indeterminate at this time. We recognize there are assumptions under which a pipeline could be competitive, but it is not clear that a pipeline will be competitive. Furthermore, we are somewhat surprised at the extent of economic discussion in this environmental document. We question whether it is appropriate.
- 65-4 [

- 65-1 Although a temperature of 160°F would be optimal, the pipeline could operate with oil in the 110° to 160°F range for transport. Oil processing will require heating the oil so delivery to either storage facilities or pipeline would be within this range. On this basis, the Applicants have stated that no additional heating would be needed prior to delivery to the pipeline. Impacts of heaters necessary to keep oil in storage facilities at the proper temperatures are assessed as part of projects proposing tank farms (e.g., Exxon SYU EIS/EIR, Getty Gaviota Consolidate Coastal Facility DEIR, ARCO Coal Oil Point DEIR).
- 65-2 The environmental impacts of the utility corridors would be primarily associated with construction impacts, lost terrestrial habitats, and modified land uses. These were evaluated; for examples see pages 4-48, 4-52, 4-76, and 4-79 in the DEIR/EIS.

- 65-3 See response to Comments 18-2 and 47-9. The DEIR/EIS demonstrated that under certain conditions pipelines are competitive.
- 65-4 The California State Lands Commission included the Economic Supply and Demand study in this DEIR to demonstrate general project viability and need.

COMMENT LETTER 65 (CONTINUED)

RESPONSE TO COMMENT LETTER 65 (CONTINUED)

Attachment

Following are Exxon comments resulting from review of the draft Celeron/All American and Getty Pipeline Environmental Impact Report/Statement.

1. Crude Oil Characteristics - On page 2-1 it is stated that oil would be delivered to the Celeron/All American Pipeline (AAPL) inlet at 160°F. On page 2-13 it is stated that oil "at the inlet of the (Getty) pipeline would be heated to approximately 160°F."

Comments:

- o The environmental impacts of heater operation at the Celeron/AAPL and Getty pipeline inlets have not been included in the EIR/EIS.
- o Exxon's SYU DPP provided for 110°F oil at the outlet of treating facilities. Facility impacts associated with heating shippers' oil up to 160°F need to be evaluated.

2. No Project Alternative - On page 4-146, statements are made about expected OCS production levels, capacities of other proposed transportation systems and a potential surplus of up to 150,000 BPD.

Comment:

The Getty and Las Flores Terminal proposals provided for expansion to 300,000 and 350,000 BPD respectively. This capacity would be adequate to handle the levels of Gulf Coast movements projected in the Oil Transportation Plan (OTP).

3. Cost Effectiveness of Pipelines - On page 1-15, the following statement is made, "Pipelines have historically been more cost effective than ships in moving commodities between areas which pipelines can physically serve."

Comment:

Exxon agrees that pipelines which have been installed were perceived to be more cost effective when compared to other alternatives. However, we would also note that the economics of pipelines are highly sensitive to throughput. And there are many additional locations now served by tankers which could be physically served by pipelines, but are not because of insufficient volumes.

4. Industry Tanker Capacity - AAPL asserts that industry tanker capacity is inadequate to handle potential OCS requirements (page 1-15)

Comment:

Exxon agrees with the results of a multi-client study (Dames and Moore, Temple, Barker & Sizane, Review & Comment: SBC OTP/DEIR, March 22, 1984) which concluded that the capacity of existing industry ships would be adequate to handle projected heavy OCS crude movements.

65-5

The statement in the DEIR/EIS is qualified by the statement (page 4-146) "that only one of these marine terminals is constructed". Current Santa Barbara County policy is that only one consolidated coastal facility will be constructed.

65-6

The key factor for economic viability would be volumes of oil to be shipped.

65-7

This could be true under certain conditions of volume, market place, oil company policy, and government policy.

65-5

2-26

65-6

65-7

COMMENT LETTER 65 (CONTINUED)

RESPONSE TO COMMENT LETTER 65 (CONTINUED)

2-263

- 65-8 5. Crude Production Assessment - A range of heavy OCS crude volume from 600-800 BBD is mentioned as a more recent assessment (page 2-38) of crude production.
Comment:
The EIS/EIR does not provide a reference to support this statement. Exxon is unaware of any documented, publicly available analysis indicating peak heavy OCS volumes at 600,000 BPO or higher.
- 65-9 6. Tanker Oil Spill Risk - EIR/EIS states that tankers represent a greater oil spill risk than pipeline (page 2-40).
Comment:
This statement is made without adequate supporting data.
- 65-10 7. Pipeline Competitiveness/Transportation Cost Comparisons - In several places, the EIR/EIS concludes that pipelines are competitive with or less expensive than tankers for transporting crude to the Gulf Coast (pages 5-2, 5-3, 1-21 and 2-42).
Comment:
The Oil Transportation Plan (OTP) indicates that the comparative economics of crude transportation depend on many factors such as the peak level and duration of heavy OCS crude production, the amount of heavy OCS crude refined on the West Coast, the availability of spare existing tankers, and the timing and cost of new pipeline construction. The OTP further stated that since many of the above factors will be indeterminate for several more years, logistics flexibility is important. Exxon agrees with this aspect of the OTP, i.e., while we recognize that there are assumptions under which a pipeline could be competitive, it is premature to conclude that a pipeline will be competitive.
- 65-11 8. San Joaquin Valley (SJV) Volumes in AAPL - It is stated on page G-10 that SJV crude can enter AAPL at Cadiz from Four Corner's existing line 90 (Long Beach to Four Corners area).
Comment:
SJV crude being carried in Four Corner's line already has an outlet to the Gulf Coast via the Texas-New Mexico line. The EIR/EIS does not mention that an expansion of the existing Four Corners system would be necessary to bring additional oil to Cadiz.
- 65-12 9. Oil Production Projection - Oil discoveries offshore Santa Barbara will add up to 500,000 BPO of crude by 1986 (statement by AAPL, page 1-15).
Comment:
The projection of 500,000 BPO of offshore crude production by 1986 is without support. The County's own study, the OTP, projected that such levels would not be reached until 1991.

- 65-8 This estimate was supplied by Celeron/All American and was acknowledged as such.
- 65-9 Based on your comment text changes to page 2-40 in the OEIR/EIS have been made in the Modifications and Corrections Section.
- 65-10 This OEIR/EIS focuses on the environmental impacts of the proposed projects. The pipeline companies will determine whether the projects are economically viable.
- 65-11 The statement on page G-10 in the OEIR/EIS has been modified as follows: "San Joaquin Valley crude oil would be able to enter the system at Enid, Alaskan crude oil could enter the system at Cadiz via the existing Four Corners Pipeline Company's Line 90 which runs to the Four Corners area of Utah from Long Beach." See Modifications and Corrections for page G-10.
Light crude oil from the existing Four Corners Line 90 can move to PADO III via the Texas-New Mexico line. The Four Corners Line 90 and Texas-New Mexico Line have a capacity of 60,000 BPO. Through selective looping and additional boosting the Four Corners Line 90 could be increased by 70,000 to 90,000 BPO and result in a total capacity of 130,000 to 150,000 BPO. Assuming Four Corners continues to use its existing Line 90 at about 40,000 BPO, the net delivery to Celeron/All American pipeline could be as high as 90,000 to 110,000 BPO. If a new line 90 were constructed, the capacities could be greater; new construction would require additional permits.
- 65-12 If sufficient volumes were not available, the Applicants might reduce throughput, delay or cancel these projects. See response to Comment 41-4.

COMMENT LETTER 65 (CONTINUED)

RESPONSE TO COMMENT LETTER 65
(CONTINUED)

Comments on the above plus additional Exxon comments are provided in the attachment.

If you have questions regarding these comments, please call.

Sincerely,

D.R. Olsen
for DEC

LDR/cad

Attachments

c: Bill Haigh, Bureau of Land Management

COMMENT LETTER 66

RESPONSE TO COMMENT LETTER 66

Four Corners Pipe Line Company

5900 Cherry Avenue
Long Beach, California 90805
Telephone 213 428-3319

G.R. Craig
President

October 31, 1984

Ms. Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95814

Subject: Draft EIR/S for Proposed Celeron/All American and Getty
Pipeline Projects

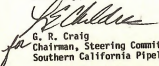
Dear Ms. Griggs:

The Southern California Pipeline System, a consortium comprised of Four Corners Pipe Line Company, Chevron Pipe Line Company, Shell Oil Company and Texaco U.S.A., is pleased to submit the following comments on the subject Draft EIR/S:

In your report it is stated that the Celeron/All American pipeline would transport up to 300,000 BPD and the Getty pipeline would transport up to 400,000 BPD. Because of the way pipelines are designed and constructed, we believe that either pipeline, if built, would be capable of handling in excess of the 300,000 - 400,000 BPD throughput mentioned in the EIR/S. Since the EIR/S analyzes the environmental impacts of the pipeline facilities proposed, and we believe these facilities are capable of throughputs in excess of 300,000 - 400,000 BPD without affecting the environmental impacts identified in the EIR/S, our feeling is that no throughput limitation should be placed on any pipeline system approved from the Santa Barbara coast. Any capacity constraints placed on the pipeline could inhibit its ability to move the desired offshore volumes and therefore increase the likelihood of tankering in the Santa Barbara Channel.

Please feel free to call either myself or Lee Childres if you have any questions.

Sincerely,


G. R. Craig
Chairman, Steering Committee
Southern California Pipeline System

LEC/ld

cc: H. J. Ronco - Chevron Pipe Line Company
C. E. Dunagan - Shell Oil Company
L. L. Liddell - Texaco U.S.A.



66-1

The Applicants have applied for a maximum throughput of 300,000 BPD (Celeron/ All American) and 400,000 BPD (Getty). If the Applicants desire to increase throughput, new air quality permits would be required to permit the operation of expanded gas-fired pumping and heating equipment.

2-265

66-1

State of California

The Resources Agency of California

Memorandum

To : Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814

Date : October 31, 1984

Telephone: ATSS ()
()

From : California Energy Commission
1916 Ninth Street
Sacramento 95814

Subject: CELERON/ALL AMERICAN AND GETTY PIPELINES

The Energy Commission appreciates the opportunity to make comments on the DEIR/EIS for the Celeron/All American and Getty pipeline projects. The Commission believes that the manner in which offshore oil is developed and transported is an important energy and environmental issue for California. The scope of the Commission's analysis is a broad one, encompassing the energy interests of the entire state. Concern for the provision of adequate and economical energy supplies includes consideration of all interrelated functions of the petroleum industry. Therefore, the Commission believes that the analysis of these pipeline projects must include an evaluation of the impacts of the project on crude oil production, refinery capability and operation, and the supply, demand and price of crude oil and petroleum products in California. These impacts should include both individual and cumulative impacts caused directly or indirectly by the project and by closely related projects.

67-1 See the response to Comments 18-2 and 28-4.

The justifications for the pipeline project are to provide an environmentally preferred mode of transportation, to carry offshore crude oil to California refineries, and to move surplus West Coast crude oil to refinery areas outside California. The DEIR does not, however, discuss the impacts of the pipeline project on California refineries and crude oil production. It needs to discuss more completely the impacts of not constructing the pipelines and to analyze the interrelationships between all the proposed similar and related transportation projects being considered in Southern California.

67-2 See the response to Comments 18-2 and 28-2.

First, regarding the impacts of the Celeron/All American and Getty projects on refining and production in California, the document should explore the relationship between the pipeline projects and California onshore crude oil production if the proposed All American interstate oil transportation system were available. If new markets in Texas are opened for San Joaquin Valley crude oil through the construction of the pipeline, the transportation savings afforded by the pipeline could increase the net prices that California producers will be able to obtain for their crude oil. These price increases could increase California crude oil production. Similarly, the transportation of offshore crude oil to the San Joaquin Valley will make it potentially available to refineries in all three California refinery centers, rather than to coastal refineries only. The DEIR should assess the impacts this potential availability might cause, including refinery retrofits, impacts on independent refiners and the extent to which offshore crude oil could displace California onshore crude oil in California refineries. The reference in the DEIR to the Oil Transportation Plan as a source of information on refinery impacts is not sufficient because that document only assessed the feasibility of refining heavy offshore crude oil in

67-3 The DEIR/EIS focuses on the environmental impacts of construction and operation of the two proposed pipelines. The specific potential economic impacts identified by the commenter were not evaluated in depth because the final destinations of OCS oil are dependent on many variables that cannot be precisely forecasted at this time. However, it can be generally stated that the impacts identified by the commenter are correct. The construction of either pipeline would provide new markets for California crude oil and would, therefore, probably increase the marketability.

2-266

67-1

67-2

67-3

COMMENT LETTER 67 (CONTINUED)

RESPONSE TO COMMENT LETTER 67
(CONTINUED)

Mary Griggs

-2-

67-3 cont. specific large refineries but did not consider the impacts of the specific pipeline proposals under consideration in these projects.

Second, the DEIR does not fully discuss the consequences of the No Project Alternative in relationship to refining and production. Although the OEIR acknowledges the impacts resulting from increased tanker traffic if the pipelines were not constructed, it does not consider the effect on refinery destination and the effect on rate of production of crude oil. If the offshore crude oil is to be transported principally by tanker instead of pipeline, how would this affect the amount of offshore crude oil being refined in California? Would it result in an increase or decrease in the use of offshore oil by refineries in either the San Francisco Bay area, the San Joaquin Valley, the Los Angeles basin, or even other PAOO refinery centers? Without a pipeline from the coast to the Bakersfield area, California's central valley refiners would not have access to the offshore crude oil. The effect this lack of access would have on independent refiners in Central California should be carefully evaluated.

67-4 See response to Comment 67-3.

67-5 The No Project Alternative could also have effects on oil production rates both onshore and offshore. San Joaquin Valley crude oil production could be affected by a lack of adequate pipeline capacity to Texas refineries. Also, offshore production rates could be affected if onshore transportation were a limiting factor. A case in point is the proposed Exxon project for expanding the Santa Ynez field operations. Exxon's original proposal, which included an onshore processing facility and use of pipelines, would have had a peak production rate of 140,000 b/d. The alternative which Exxon is currently pursuing would use an expanded O&T and tankers, exclusively, with no pipeline. This would limit the peak production to 80,000 b/d.

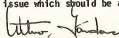
67-5 An important variable to a supply and demand analysis is the actions various producers, refiners, and distributors take relative to their corporate goals. The commenter's example is a good one demonstrating a corporate policy change relative to regulatory pressures. It is beyond the scope of this DEIR/EIS to anticipate and predict all possible supply and demand scenarios.

67-6 Third, the interrelationship among the several pipeline projects needs to be more thoroughly explored. The OEIR declares that the Celeron/All American and Getty pipeline projects are independent of each other but, Can we not assume that the construction of one would greatly affect the construction and operation of the other? In addition, both pipelines would be affected by the proposed Southern California Pipeline System (SCPS) which plans to follow essentially the same route, yet is not evaluated. Similarly, the OEIR omits any evaluation of the proposed Pacific Texas pipeline, which has a similar purpose of transporting surplus West Coast crude oil to Texas, and yet this pipeline would depend on SCPS for its access to offshore crude oil at its terminal in Long Beach.

67-6 The Southern California Pipeline System and Pacific Texas Pipeline have potential destination overlaps with the two applications treated in this OEIR/EIS. However, insufficient project detail is available to compare these projects. See response to Comments 37-3 and 48-8.

67-7 Finally, the interrelationship between the Getty pipeline and marine terminal needs to be more thoroughly examined. The capacity of Getty's marine terminal at Gavota will be affected by the size of the Getty pipeline; the more crude oil is transported by pipeline the less will be transported by tanker. These consequences should be clearly stated and the resulting impacts analyzed. The extent to which construction of any pipeline projects or an expanded marine terminal would commit producers and/or refiners to use of either mode of transportation is an important planning issue which should be addressed in the DEIR.

67-7 See the Getty Gavota Consolidated Coastal Facility EIR, Santa Barbara County, Energy Division, (ERT 1984).


ARTURO GANDARA
Presiding Member
Fuels Planning Committee

cc: Gordon Duffy

2-267



COLORADO RIVER INDIAN TRIBES

Colorado River Indian Reservation

ROUTE 1 BOX 23-B
TELEPHONE (602) 663-9211
PARKER, ARIZONA 85344

In reply
refer to _____

October 31, 1984

Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, California 95814

RE: SLIC EIR 369; Proposed Celeron/
All American and Getty Pipelines

Dear Ms. Griggs:

The following are comments by the Colorado River Indian Tribes on the Draft Environmental Impact Statement for the proposed Celeron/All American and Getty Pipeline Projects.

The Colorado River Indian Tribes are concerned with the pipeline projects at three levels. First, as a government, with all the health, economic, and environmental concerns for the welfare of its residents; second, as a unique cultural entity, with concerns for the physical cultural resources left by its members' ancestors on their traditional lands; and, third, with spiritual concerns for those areas within its members' traditional lands given them by the Creator, and which are basic to their religious beliefs.

As is expressed in the California Desert Plan, the Colorado River Indian Tribes feel that they must participate in the field with whatever projects may be proposed that impact upon traditional lands. For this reason we request that a Native American Consultant be involved with the portion of the pipeline project starting at Tehachapi pass and extending eastward to Phoenix. This consultant would work as a crewmember on the archaeological crew doing the cultural resource assessment and mitigation. He will be expected to consult with and express for the various tribes involved their viewpoints on cultural and spiritual sites encountered, and to direct mitigation work. Further, the Colorado River Indian Tribes Museum would like to be the repository for any cultural material collected during the mitigation phase of the projects.

We have specific concerns with that portion of the proposed pipeline route called the "Brenda Alternative." (See Map 1-2, Sheet 6.) We prefer

68-1 The Indian tribes will be involved. See Mitigation Measure 30 in Section 4.1.

68-1

2-268

COMMENT LETTER 68 (CONTINUED)

RESPONSE TO COMMENT LETTER 68
(CONTINUED)

Mary Griggs
October 31, 1984
Page 2

68-1
cont.

that existing rights-of-way corridors be used for the proposed pipeline in order to minimize cultural resources impacts. There are some little known and perhaps unrecorded cultural resource sites of significance which would require extensive mitigation on the Brenda Alternative. The more southerly proposed route, which follows an existing pipeline, is more acceptable to us because cultural resource impacts along this southern route will be less. The main impact on the southern route would be to wildlife, which will only be affected during the construction phase, whereas the impact to cultural resources along the Brenda Alternative would be permanent.

Sincerely yours,

COLORADO RIVER INDIAN TRIBES

Harry Laffoon

Harry Laffoon
Vice Chairman, Tribal Council



United States Department of the Interior

MINERALS MANAGEMENT SERVICE

PACIFIC OCS REGION

1340 WEST SIXTH STREET
LOS ANGELES, CALIFORNIA 90017In Reply Refer To:
MMS-Mail Stop 300

October 31, 1984

Mary Griggs
State Lands Commission
1807 - 13th Street
Sacramento, CA 95184

Dear Ms. Griggs:

Enclosed are comments on the Draft EIR/EIS Proposed Celeron/All American and Getty Pipeline Projects. Thank you for giving us an opportunity to provide these comments.

Sincerely,

William E. Grant
Regional Director

Attachment

COMMENT LETTER 69 (CONTINUED)

RESPONSE TO COMMENT LETTER 69 (CONTINUED)

COMMENTS ON CELERON/ALL AMERICAN AND GETTY PIPELINES

- 69-1 1. Page 1-6, para. 3 - Typo: 600,000 million BPD should be 600,000 BPO.
- 69-2 2. Page 2-1, section 2.2.1. Although the route from Las Flores Canyon to the Emidio pump station is similar for the Celeron and Getty pipelines, each ROW needs to be discussed and analyzed separately where the two pipelines diverge Map 1-2.
- 69-3 3. Explanation is needed of why the proposed All American pipeline would be designed to transport 300,000 BPO of oil from Emidio, California to McCamey, Texas when the following information indicates that design flow-rate should be greater. The Celeron and All American Pipeline Companies propose to construct a pipeline to transport 300,000 BPO of crude oil from Las Flores Canyon, California to McCamey, Texas (page 2-1, para. 2.1). They also propose to have the pipeline receive San Joaquin Valley crude oil at Emidio and Alaskan Crude via the Four Corner Pipeline at Cadiz (page 1-1, para. 2, line 11). In addition, Getty proposes to construct a pipeline to transport 100,000 to 400,000 BPO from Gavivota to Emidio with up to 20,000 BPO for San Francisco area refineries, up to 100,000 BPO for Los Angeles area refineries, and up to 280,000 BPO to Gulf Coast refineries (page 1-1, para. 3). Finally, "Oil and Gas Journal" reported that the Southern California Pipeline System plans to not only transport about 200,000 BPO of offshore oil from the Santa Barbara Coast but also to add another 130,000 BPO from the San Joaquin Valley in Kern County ("Oil and Gas Journal", October 15, 1984, page 72).
- 69-4 4. Page 2-36, section 2.3. If the Santa Maria Canyon Alternative is a reasonable alternative for the Getty Pipeline route then it should also be considered as an alternative for the Celeron/All American Pipeline.
- 69-5 5. Identification is needed of the refineries and their capacities to refine crude oil from the California OCS and the San Joaquin Valley. The Draft EIR/EIS stated the following: 1. "The refining centers in West Texas have limited ability to refine the heavy high metal content crude expected from the California OCS and San Joaquin Valley." (page 1-19, para. 3, line 12); and 2. "The pipeline would be designed to transport 300,000 BPO of high sulfur, heavy crude oil to an existing terminal at Freeport Texas, where it would be shipped by existing pipeline to local area refineries and by barge or tanker to other destinations along the Gulf Coast. This system would allow the oil to reach additional refineries not served by the Wink, Crane, and McCamey Connections." (page 2-36, section 2.6, para. 2, line 6).
- 69-6 6. Page 2-39, para. 2.7 Single Pipeline Alternative: A single pipeline capacity should be 700,000 BPO instead of 400,000 BPO. The Celeron pipeline could transport up to 300,000 BPO; and the Getty pipeline could transport up to 400,000 BPO. A single pipeline to replace above Celeron and Getty pipelines should be capable of transporting 700,000 BPO.
- 69-7 7. Page 2-39, para. 2.7 A single pipeline alternative with a capacity of 400,000 BPO would not be considered a worst case. A worst case analysis (40 CFR 1502.22) is required when there is incomplete or unavailable information. As stated above, a single pipeline alternative would have

- 69-1 The correct page for reference is 1-16 end text changes to page 1-16 in the DEIR/EIS are included in the Modifications and Corrections Section.
- 69-2 The individual resource analyses (habitats cleared, land use types, streams crossed, oil spills) are reflective of the two specific routes. The resource specialists used 1 inch to 1,000 feet photo-mosaics and USGS (7.5 and 15-minute) topographic maps for an accurate analyses.
- 69-3 Celeron/All American has proposed up to 300,000 BPD throughput and Getty up to 400,000 BPD, although both could operate at lesser volumes. The estimates of oil production range from 274,000 BPD (California Energy Commission for Santa Barbara and Santa Marie Basin, Letter 41) to 800,000 BPD (Celeron/All American Pipeline Co. Application to California State Lands Commission). Thus, estimates of the surplus are variable and actual throughput will be determined in the future. If the Applicants have underestimated throughput volumes, other transportation plans will be required, or the Applicants could seek to transport greater volumes of throughput. These transportation modes may include tankers or additional pipelines. See the response to Comments 18-2 end 41-4.
- 69-4 The Federal preferred alternative is found in Section 1.4 of the FEIR/EIS.
- 69-5 Appendix G-11 contains information about the ability of Gulf Coast refiners to refine the OCS oil end heavy San Joaquin Valley crude oil. See pages G-8 through G-11 for specific detail. See response to Comments 18-6, 18-7, and 28-4.
- 69-6 The single pipeline alternative assumed that only one pipeline would be built and that the largest throughput volume would be 400,000 BPD. See the Summary end response to Comment 69-3.
- 69-7 The term "worst-case" was used incorrectly and has been deleted. See page 2-39 in the Modifications and Corrections Section.

COMMENT LETTER 69 (CONTINUED)

RESPONSE TO COMMENT LETTER 69 (CONTINUED)

2-272

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| 69-7
cont. | to have a throughput of at least 700,000 BPD. Even analyzed with the increased capacity it would not be considered a worst case. | 69-8 | See Summary and response to Comment 69-3. |
| 69-8 | 8. Page 2-39. The "single pipeline alternative" should be discussed in much greater detail, in light of the Santa Barbara County policy of consolidation of facilities. Would a single line affect possible production because of reduced throughput capacity? | 69-9 | Santa Barbara County no longer recommends rail transport as a primary or high volume mode of oil transport. |
| 69-9 | 9. Page 2-41 Rail alternative - Should be examined in much greater detail in light of the fact that the PTC of Santa Barbara County considers rail a very viable means of transporting crude. | 69-10 | See response to Comment 18-2. |
| 69-10 | 10. Page 2-41 Marine transportation alternatives should be examined in much greater detail since they are the key means of transport if these pipelines are not approved. Of course, marine life is more vulnerable to spills from tankers than from terrestrial pipelines! But then, terrestrial ecosystems, rivers, etc. are now at risk. | 69-11 | See response to Comments 48-B and 48-9. |
| 69-11 | 11. Page 2-43, section 2.10 A more detailed discussion on the projects which interrelate with the proposal needs to be provided. Information which will assist the reader in analyzing the cumulative impacts should also be provided. | 69-12 | At this time the Applicants have not provided specific information on existing or planned contractual agreements. Producers may be unwilling to negotiate agreements until a pipeline operator has received governmental approval. See response to Comments 18-2 and 65-12. |
| 69-12 | 12. The dependence of these pipeline projects (viability, economics, etc.) on sources of crude to use these pipelines is very critical and should be discussed and analyzed at length. For example: The Exxon Santa Ynez Project was supposed to contribute almost half (140,000 BPD) of the All-American and Celeron throughput of 300,000 BPD of crude going to the Gulf/Texas refineries with the continued tankering and expansion of the Hondo O&ST. Will the Celeron/All-American pipeline have a guaranteed supply of oil without Santa Ynez crude to justify the project? Can the throughput capacities listed be maintained? | 69-13 | The Trans-Panama Pipeline System, which reduced the cost and delivery time for moving Alaskan crude oil to the Gulf Coast and selected Caribbean refineries, was completed in late 1982. The pipeline is running very near its 800,000 BPD capacity. The Panama Canal can also move at least 800,000 BPD of oil. |
| 69-13 | 13. Page 2-61, Panama Canal discussion should be expanded, especially under the "no project alternative" because this is how most of the oil would be moved. Included in this should be availability of canal and canal pipeline throughput, future potential expansion, possible conflict of canal throughput before Alaskan/CA crude, etc. | 69-14 | It should be noted that when all of the Alaskan crude oil was transported through the canal, significant delays were encountered along with associated demurrage costs. |
| 69-14 | 14. Page 4-148, section 4.9 Since the Celeron/All American and Getty Pipelines add to the impacts associated with the PACTEX Pipeline and the Southern California Edison Transmission line, a more detailed discussion on those impacts needs to be provided. | 69-15 | The analysis included in Appendix G contains information concerning existing and planned refinery retrofits/modifications. No additional refinery retrofits/modifications have been announced since preparation of the DEIR/EIS. See also responses to Comments 18-2 and 28-4. |
| 69-15 | 15. Much of the justification for these big pipeline projects is said to be the "West Coast Glut of Oil" and the inability of west coast refineries to process the high sulfur, low gravity crude expected from the CA OCS. A much more detailed discussion/analysis of refinery capacity and refinery crude quality that can be handled on the west coast should be included. This discussion should include a complete review of the refinery retrofits/modifications being done on the west coast and future proposed projects. | | |

COMMENT LETTER 69 (CONTINUED)

RESPONSE TO COMMENT LETTER 69 (CONTINUED)

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|-------|-----|---|-------|---|
| 69-16 | 16. | A detailed discussion/analysis of west coast supply/demand of crude oil needs to be included. This analysis should include a more specific review of current CA OCS, state tidelands, and onshore crude production, and production anticipated in the future (at least until the year 2000). A detailed discussion of gulf coast and east coast refinery capacity and crude quality requirements should be included. How do we know that the gulf and east coast refineries can handle the west coast glut? This discussion should include current and future production levels and subsequent changes in refinery capacity. | 69-16 | Appendix G contains a significant amount of information concerning the West Coast crude oil surplus and future production through the year 2000. See California Coastal Commission Comment 28-6 concerning Appendix G. |
| 69-17 | 17. | A review should also include refinery restrictions in terms of sulfur content/gravity, etc. For these refineries, and current and future modifications to these refineries and their capacities. A review of demand/supply of the gulf/west coast markets should be part of this analysis. Is there a market for all this oil from PADD V in PADD III and I (and II)? If there is no strong market for this crude, will it be produced, and will these pipelines be built? What is the balance in need to transport west coast oil elsewhere, between the high S content and lack of demand? How do these two things weigh into the need to transport the crude to other regions? | | The DEIR/EIS anticipates that the Gulf and East Coast refineries can refine the heavy California OCS and San Joaquin Valley crude oils because 1) over \$5 billion has been invested in Gulf Coast refineries to accommodate heavy foreign crude oils, and another \$1 billion modification has been announced in the press; and 2) the DEIR/EIS anticipates that by 1991 750,000 BPD of heavy, high metals and high sulfur Venezuelan and Mexican crude oil could be refined on the Gulf Coast. It is anticipated that the California oil will simply displace the foreign oil since the California oil cannot be sold to foreign countries and the oil is owned by domestic companies that typically prefer to process their own crude oil in their own refineries. |
| 69-18 | 18. | What crude oil sources would have priority for use of these pipelines, i.e., AMS, CA OCS, CA onshore, etc. and what would the mix be? Assuming full production levels (of estimates) what happens to the "displaced" Alaskan crude and is there a means/route to get that to market/refineries? | 69-17 | See response to Comments 69-15 and 69-16. |
| 69-19 | 19. | Although marine pipelines may be environmentally preferred over marine tankers for miscellaneous reasons (i.e., air quality emissions) and by local governments (Santa Barbara County), the Minerals Management Service oil spill accidents rates indicates it is more likely to have a pipeline spill than a tanker spill (spills > 1,000 bbls, pipelines 1.6 spills/BBO, tankers 1.3 spills/BBO, Lanfear and Amstutz, 1983). [pgs. 1-15 and 2-40 and throughout document] | | The price of crude oil is set by world events. Forecasts of crude oil prices are all characterized by a single thread of consistency; they have all been wrong (Source: Oil Daily, November 16, 1984, page 1). |
| 69-20 | 20. | The significance/interdependence of his project on other proposed similar projects should be evaluated in more detail (i.e. PAC/TEX pipeline from Long Beach, expansion of the Four Corners line from Long Beach), also in terms of flexibility in crude going with one line or another depending on market/demand, the effect this project and these related projects will have on reducing the west coast glut, what bite of all the new anticipated production will be handled with this project, etc. | 69-18 | This document assumes the oil companies will accept responsibility for the financial success or failure of their projects. This document analyzes the environmental impacts of the proposed projects in the context of Federal, state, and local laws and regulations. |
| 69-21 | 21. | An analysis should be included on how the oil (from the various development projects) will be brought ashore to the onshore pipelines - whether marine pipeline or tanker, and the effects of this leg of the crude's trip. More detail should be included in the "no project alternative" to include a full discussion of the use/development of marine terminals which may be necessary if this project is canceled, and additional /continued tanker trips to the GOM or east coast. | 69-19 | Federal, state and local governments do not regulate the distribution of oil. See response to Comment 48-5. |
| | | | 69-20 | Your comment is noted and your concerns will be considered in the decision process. |
| | | | 69-21 | See response to Comments 18-2, 65-12, 69-11, and 69-16. |
| | | | | Impacts due to the transportation of crude oil from platform to transportation storage facilities are addressed in detail in the appropriate production EIS/EIRs. See response to Comment 18-2 and 53-1. |

BRUCE SAGBIT, Governor

Commissioners:

FRANCIS W. WERNER, Tucson, Chairman
GAYLE A. JOHNSON, Scottsdale
W. LARA BORTON-CASEY, Flagstaff
FRIS S. MARTEL, Tempe
LARRY D. ADAMS, Bismarck City

Deputy:

DAVID BOSTON

Assistant Director, Services
ROBERT A. GRIFFITHS
Assistant Director, Operations
DANIEL L. DITTOLE

ARIZONA GAME & FISH DEPARTMENT

2222 West Johnny Road Phoenix, Arizona 85023 942-3000

October 31, 1984

Ms. Mary Griggs
California State Lands Commission
1807 - 13th Street
Sacramento, California 95814RE: Draft Environmental Impact Report/
Environmental Impact Statement
Proposed Celeron/All American &
Getty Pipeline Projects

Dear Ms. Griggs:

The Arizona Game and Fish Department has reviewed the referenced document and we respectfully submit the following comments.

Overall, the Department finds the draft environmental impact report/environmental impact statement (EIR/EIS) adequately and accurately describes the environmental scene for the proposed project within Arizona and the anticipated environmental consequences of the various alternatives, including the Brenda Alternative. We do have, however, a number of clarifications/questions regarding the document content which we will provide by specific document page.

Page 1-7, Table 1-2:

70-1

We believe the Arizona Game and Fish Department should be listed in the Table as a cooperating agency for state threatened species biological opinions. We would and do have particular concerns about access roads, alignment, and river crossings, with regard to state threatened species.

70-1

Table 1-2 in the DEIR/EIS lists only formal permits required by state agencies. BLM will continue to cooperate with Arizona Fish and Game regarding state threatened and endangered species.

Page 2-5, Paragraph 4:

70-2

Why is the San Pedro not considered a major river crossing? Map 1-2, Sheet 8, shows the San Pedro as a major river crossing; therefore, for consistency, the San Pedro should be listed along with the others in this paragraph.

70-2

The San Pedro River is intermittent at the proposed crossing location and was not considered a major river crossing. Information provided by Robert Weaver (Arizona Game & Fish Department) indicated that aquatic habitat is not adequate to support stable fish populations.

COMMENT LETTER 70 (CONTINUED)

RESPONSE TO COMMENT LETTER 70
(CONTINUED)

Ms. Mary Griggs
October 31, 1984
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- 70-3 Further, when referring to the Map 1-2, Sheet 7, it is noted that only a block valve will be provided at the upstream side of Centennial Wash. The magnitude and force of summer thunderstorms and resulting flood flows, as in October 1983, need to be recognized. A check valve downstream of Centennial Wash may be warranted. 70-3 A check valve will be added to the pipeline on the downstream side of Centennial Wash as a ROW stipulation [See Section 4.1.2, Aquatic Biology (d)]. The check valve would minimize the effects of an oil spill resulting from possible flood damage to the pipeline.
- 70-4 Page 2-25, Paragraph 4:
In Arizona, it is recommended that stream bank stabilization incorporate the use of native seeds and possibly the use of pole plantings of willow and/or cottonwood trees. 70-4 See response to Comment 3-1 and Recommended Mitigation Measure 1.
- 70-5 Page 2-26, Water Crossings:
There is no discussion of how wide the under stream crossings (including concrete coating) will be. The San Pedro River, for example, could meander significantly in a 50-100 year flood event, possibly jeopardizing the pipeline if the width of the protected crossing is not sufficient. 70-5 Each river will be analyzed independently for design criteria. See response to Comment 25-3.
- 70-6 Page 3-29, Table 3-12:
Again, we believe that the Centennial Wash should be considered in discussions of stream crossings. Centennial Wash has a large watershed and the potential to carry a large peak runoff during torrential summer storms. 70-6 See response to Comment 70-3.
- Page 3-31, 1st Paragraph:
While the Gila River watershed is partially regulated by dams, there are the Hansayampa and Centennial Wash inflows and the middle reach of the Gila, itself, that are unregulated, which greatly increase the flood potential at Gillespie Dam. These lower drainages have sizeable watersheds and their inflows must be respected.
- 70-7 Page 3-43, Table 3-17:
The Department questions whether the Eastern silvery minnow, Hybognathus regius, occurs in the lower Colorado River. 70-7 The eastern silvery minnow is not listed as occurring in the lower Colorado River.
- Page 3-55, Last Paragraph:
The vegetative community around Oracle, Arizona is an oak-juniper association of the Madrean Evergreen Oak Woodland. There are ponderosa pine and possibly Apache pine in the riparian drainages, such as Peppersauce Canyon.

COMMENT LETTER 70 (CONTINUED)

RESPONSE TO COMMENT LETTER 70
(CONTINUED)

Ms. Mary Griggs
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Page -3-

- 70-8 Page 3-60, 1st Paragraph; Page 4-50, Table 4-8; also Map 1-2, Sheet 7:
Another sensitive area for desert bighorn sheep occurs between the Haley Hills and the Palo Verde Mts. in Pinal County. This area is a documented movement corridor for bighorn, which would be transected by the pipeline.
- 70-9 Page 4-38, 4.2.6.1:
In this section the following statement appears, "The removal of riparian vegetation would not significantly affect permanent fish populations, since it is not the dominant cover type along any stream." It needs to be recognized that some cover types are much more productive than others. Along streams with bankline vegetation dominated by salt cedar, even small stands of more desirable mesquite or cottonwood-willow may be very important to the fishery, by providing cover for juvenile and adult fish and a food source (from insects dropping into the water).
- 2-276
70-10 Page 4-42, 4.2.6.3, 1st Paragraph:
While there have been increased (above average) flows in the Colorado River for the last couple of years, the normal flows are considerably less in volume. Consequently, the adequacy of the normal volume of water to dilute oil spills to tolerable levels may be questionable.
- 70-11 Page 4-55, 4.2.7.4, Paragraph 3:
The rainwater catchment built and maintained by the Department in Copper Bottom Pass receives significant use by deer, also. Any physical disturbance to this unit should be mitigated.
- 70-12 Page 4-56, 1st Paragraph:
Although the San Pedro River is an "intermittent" stream, sensitive or unusual raptor species occur along its course upstream and downstream from the proposed pipeline crossing. Species of particular concern are Gray Hawk, Zone-tailed Hawk, and Mississippi Kite. A major oil spill at the San Pedro crossing could have a significant adverse impact on the named raptor species as well as numerous species of nongame birds.
- 70-8 See Modifications and Corrections Section, pages 3-60 and 4-50 (Table 4-8).
- 70-9 Habitat surveys and aerial photo-analyses at the proposed crossing locations indicated that riparian vegetation was not the dominant stream bank cover type for fish during low flow conditions. It is recognized that riparian vegetation would provide limited quantities of cover and food for fish. However, a 50-foot section would not represent critical resources for the stability of fish populations.
- 70-10 Considering average flows of 7,586 cfs in the Colorado River for the period 1969 to 1980 (Table 3-13, page 3-32 in the DEIR/EIS), potential oil concentrations would be low in most sections of the river because of normally large water volumes.
- 70-11 See Mitigation Measure 18 in Section 4.1.
- 70-12 Raptors that feed on fish or other organisms occurring along this waterway would lose potential feeding habitat from an oil spill. However, the loss would not be long term or significant for the species listed. Site-specific oil spill contingency plans will be prepared for each river crossing. See Appendix H of the DEIR/EIS and response to Comments 18-44 and 18-55.

COMMENT LETTER 70 (CONTINUED)

RESPONSE TO COMMENT LETTER 70
(CONTINUED)

Ms. Mary Griggs
October 31, 1984
Page -4-

70-12	<p>cont.</p> <p>Page 4-120 and 4-121, Table 4-26 and related text:</p> <p>The San Pedro River is not included as a sensitive or potentially hazardous area along the pipeline route. The risk of a pipe breakage and oil spill is greatest during flood events. An oil spill, when water is flowing, could result in significant impact to downstream riparian communities, including one of the largest remaining mesquite bosques near Mammoth, Arizona. The San Pedro should be a target area for intensive clean-up efforts in the event of a spill.</p>		
70-13	<p>Page 4-131, 4-5.7:</p> <p>Our Department concurs with the significance of blasting during the lambing season in the Flomosa Mountains, and we believe that every effort to mitigate this impact should be made, if the Brenda Alternative is selected.</p>	70-13	See Mitigation Measures 18 and 19.
70-14	<p>Page 4-154, Measure 13:</p> <p>Deer and coyotes are not likely to be "accustomed to human presence" along much of the pipeline route in Arizona. Also, while the use of "skip sections" may help, the Department does not believe this will solve the problem. We suggest the mitigation measure include a provision that the trench, when left open, provide at least one grade (slope) gentle enough to permit animals to escape. This could be the backfilled end of the trench, with machinery removed to allow unimpeded exiting by animals.</p>	70-14	Your recommendation has been incorporated into Mitigation Measure 13; it was intended that slopes on the skip section be gentle enough to allow escape.
70-15	<p>Page 4-156, Measure 17:</p> <p>To better insure the protection of backwaters, downstream of the Colorado River crossing, from possible oil contamination, the Department recommends the use of plugs or caps to block off inlet structures, in addition to the use of oil spill booms. This additional safeguard should be included in the oil spill contingency plan.</p>	70-15	See Appendix 4.4 for an Oil Spill Contingency Plan for the Colorado River. The pipeline at the Colorado River would have an automatic block valve on the upstream (to oil flow) side and a check valve on the downstream side to reduce the flow of oil entering the river if the pipeline ruptured.
70-16	<p>Page 4-156, Measure 18:</p> <p>The Department concurs with the seasonal restrictions on construction in Copper Bottom Pass and Flomosa Pass. The Department-constructed rainwater catchment in Copper Bottom Pass receives significant use by desert mule deer, particularly during the hotter, drier months. Pipeline construction that would negate the value of this water source should be mitigated.</p>	70-16	Please see Mitigation Measure 18 in Section 4.1.

2-277

COMMENT LETTER 70 (CONTINUED)

RESPONSE TO COMMENT LETTER 70
(CONTINUED)

Ms. Mary Griggs
October 31, 1984
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Page 4-157, Measure 20:

70-17

Reseeding with native vegetation should be a mitigation criterion along the entire length of the pipeline. The portion through the Winchester Mountains and across the Sulphur Springs Valley should include a seed mix of forbs and shrubs palatable to pronghorn antelope.

70-17

See Mitigation Measure 20, Section 4.1. Final revegetation techniques will be approved by the Preserve. Also see Recommended Mitigation Measure 1, Section 4.1.3.

70-18

Appendix, Page B-7, Table B-3:

Bursage on flats in western Arizona is the white bursage, Ambrosia dumosa. A. ambrosioides is more riparian in nature, occurring in lush desert washes.

70-18

See Modifications and Corrections Section, page B-7 (Table B-13).

70-19

Appendix, Page B-22, Table B-6; also Page 4-50, Table 4-8:

The Desert Tortoise and the Gila Monster can be encountered at various points on the pipeline alignment through Arizona, wherever suitable habitat occurs.

70-19

The potential occurrence of the desert tortoise and gila monster in Arizona are noted. See Mitigation Measure 16.

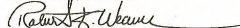
2-278

In summary, the Department anticipates that the proposed All American Pipeline through Arizona, utilizing the existing utility corridor and proposed/required mitigation measures, will result in minimal, new environmental damage that would be significantly adverse in the long-term.

We appreciate the opportunity to review the draft document and to offer our comments.

Sincerely,

Bud Bristow, Director



Robert K. Weaver
Habitat Evaluation Coordinator
Planning & Evaluation Branch

RKW:lea

cc: State Clearinghouse, AZ 84-80-0028

Southern California Edison Company

SCE

P.O. BOX 410
100 LONG BEACH BOULEVARD
LONG BEACH, CALIFORNIA 90801

R. J. JULIFF
MANAGER
OF
REAL PROPERTIES DEPARTMENT

Ms. Mary Giggs
State Lands Commission
1807 - 13th Street
Sacramento, Ca 95814

November 1, 1984

Dear Ms. Giggs:

SUBJECT: Draft - Environmental Impact Report/
Environmental Impact Statement
Proposed Coleron/All American and Getty
Pipeline Projects

We have reviewed the subject EIR/EIS and have the following comments and concerns regarding the proposed pipeline project.

It is apparent that the proposed pipeline will cross Edison's rights of way and/or access roads at various locations. It is therefore imperative that the project proponent submit development plans together with a request for our granting of the necessary land rights in order to accommodate the utilization of our rights of way. This should be accomplished as soon as possible in order that we may review the plans to insure that construction of the pipeline will not adversely affect the operation and maintenance of our existing facilities or impair our ability to utilize the rights of way for future facilities.

In areas where the pipeline parallels existing Edison transmission lines, cathodic protection should be utilized on the pipeline due to the electromagnetic fields that often exist within approximately 500 feet of our lines. It should also be noted at this point that it is the policy of this Company not to permit parallel encroachments within our transmission line rights of way as it is essential to maintain our rights of way in such a manner to accommodate future electric facilities.

It should also be noted that Edison plans to construct a second 500KV transmission line, parallel to our existing line extending from Palo Verde Nuclear Generating Station (Arizona) to Devers Substation (Palm Springs, CA). We anticipate siting the future 500KV line parallel to and approximately 130 feet southerly of the existing transmission line from the Palo Verde Plant to the eastern edge of Cooper Bottom Pass. Through the pass, the line will be located on existing double circuit towers. From the

Ms. Mary Giggs

-2-

November 1, 1984

western edge of Copper Bottom Pass to Devers Substation the future line will be located parallel to and approximately 130 feet northerly of the existing line.

71-1

The Draft EIS/EIR indicates that the pipeline could be in close proximity to our Devers-Palo Verde lines between Wendon Pump Station and Copper Bottom Pass, but does not adequately address whether the pipeline will be located on the north or south of the existing El Paso Natural Gas Company pipelines. It is imperative that the final design and construction of the new pipeline be coordinated with Edison in order to mitigate any adverse impacts on the construction, operation or maintenance of either the existing or future electric transmission lines in this area. If the new pipeline were to be installed in such a position that the second electric transmission line could not be constructed as previously planned, it would necessitate the utilization of another new corridor with all the attendant roads, creating additional visual, sociological and wildlife impacts in a new area.

71-1

The final Celeron/All American alignment along the Devers-Palo Verde transmission line and the El Paso Natural Gas Pipeline will be determined in a cooperative manner under the direction of the BLM. The Celeron/All American alignment at its intersection with the transmission line is on the north side of the El Paso ROW.

71-2

Care must also be taken when the pipeline abuts or crosses Edison access roads. To avoid damage to the pipeline, access roads crossing the pipeline must have adequate fill to support multi-axle construction equipment weighing up to 120,000 lbs.

71-2

Celeron/All American and the BLM are aware of your needs and will ensure your future access at points of transmission line intersection.

The Twelve Gauge Lake Heating Station will require relatively large electric service (200 kva). As noted in the EIS, this facility can be served from an existing 33kV pole line, via a 1500 foot line extension. It should be noted that an application for an easement, including detailed plans, must be submitted to Edison prior to the construction of this extension.

We also assume that during construction of the project, conflicts will develop between the pipeline trench and Edison facilities, either overhead or underground. Operation and maintenance of our facilities must not be impaired by the construction of the pipeline at any time. Open trenches adjacent to Edison facilities must not compromise the structural integrity of the facilities. Such conflicts must be brought to our attention early and arrangements made to reimburse Edison for any relocation activity that may be required.

We also have the following concerns relative to the biology sections of the subject document:

71-3

The Draft EIR/EIS evaluation of important biological parameters such as sensitive, threatened and endangered species lacks sufficient detail to support certain findings. For example, Table 2-9 indicates differences in potentially significant impact to the desert tortoise and desert bighorn sheep. These differences are not defined, nor are data presented to support the reported differences. It is indicated that the proposed corridor would

71-3

The text discussion of the data used in Table 2-9 regarding impacts to desert bighorn sheep and desert tortoise is included on pages 4-55 and 4-131 of the DEIR/EIS. The Brenda Alternative would have fewer impacts on bighorn sheep since it follows Interstate 10 and does not come within a mile of sensitive bighorn habitat. The proposed route crosses the Copper Bottom Pass watering hole, near lambing areas, and across migration corridors in the Kofa Mountains. Impacts to desert tortoise would be similar for both routes and would require similar mitigation measures. Mr. Linwood Seith was consulted regarding his recent studies (see page R-12) and has also provided comments to the DEIR/EIS. Please see response to Comment 23 and Modifications and Corrections Section for page 4-55.

COMMENT LETTER 71 (CONTINUED)

RESPONSE TO COMMENT LETTER 71
(CONTINUED)

Ms. Mary Giggs

-3-

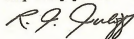
November 1, 1984

71-3
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significantly affect both the desert tortoise and the desert bighorn. It also does not indicate why the Brenda Route will not affect these species. Studies conducted by E. L. Smith indicate important bighorn sheep habitat along the Brenda Route, but this is not cited or referenced.

We thank you for the opportunity to review and address our concerns relative to the EIR/EIS covering the proposed Calson/All American and Getty Pipeline Projects. If we can be of further assistance or should you require additional information, please contact Mr. J. R. Wilson at this office at (213) 491-2992.

Very truly yours,



JRWilson/1236fp/nae

cc: Dean Bibles, BLM Arizona
Bill Haigh, BLM California
Dr. C. Holden Brink, California State Office, BLM
M. Haderlie, U.S. Fish and Wildlife Service - KOFA National
Wildlife Refuge
M. J. Spear, U.S. Fish and Wildlife Service - Southwest
Region Office
Ronald Hinn, Project Manger, All American Pipeline Co.

2-281



United States Department of the Interior

NATIONAL PARK SERVICE

WESTERN REGION

450 GOLDEN GATE AVENUE, BOX 16063
SAN FRANCISCO, CALIFORNIA 94102IN REPLY REFER TO:
L7617 (WR-RPE)
DES 84/42Ms. Mary Griggs
State Lands Commission
1807-13th Street
Sacramento, California 95814

Dear Ms. Griggs:

The National Park Service has reviewed the Draft Environmental Impact Statement for the proposed Celeron/All American and Getty Pipeline Projects. Enclosed are copies of comments from this office regarding cultural resources and other comments from our Southwest Regional Office.

The Western Regional Office has primary responsibility for areas administered by the National Park Service in California and most of Arizona. None of our areas in these states should be effected by these projects. The National Park Service also has responsibilities related to the Pacific Crest Trail, Wild and Scenic Rivers and Land and Water Conservation Funds. We do not anticipate any adverse impacts on any of these areas of responsibilities in California and Arizona.

Thank you for giving us an opportunity to comment on this document.

Sincerely,

Edward H. Chapman
Regional Director, Western Region

Enclosures

cc:
Regional Director, Southwest Regional Office
Chief, Interagency Archeological Services
WASO (762)

COMMENT LETTER 72 (CONTINUED)

RESPONSE TO COMMENT LETTER 72 (CONTINUED)



United States Department of the Interior

NATIONAL PARK SERVICE

SOUTHWEST REGION

P.O. Box 728

Santa Fe, New Mexico 87501

IN REPLY REFER TO:

L7619(SMR-PE)

OCT 19 1984

Memorandum

To: Regional Director, Western Region
Attention: Regional Environmental Coordinator

From: ^{Richard} Regional Director, Southwest Region

Subject: Review of Bureau of Land Management Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Celeron/All American and Getty Pipeline Projects, California, Arizona, New Mexico and Texas (DES 84/42)

We have reviewed the subject document and have the following comments:

The proposed All American pipeline would cross the Continental Divide National Scenic Trail approximately midway between Lordsburg and Deming, New Mexico. This trail is administered by the Department of Agriculture through the U.S. Forest Service. Construction and mitigation plans should be closely coordinated with the U.S. Forest Service.

The proposed McCamey to Freeport alternative would cross the Guadalupe River north of San Antonio, Texas. The 81-mile segment of the Guadalupe River, from the headwaters of Canyon Lake upstream to the river's headwaters near Kerrville, has been included on the Nationwide Rivers Inventory, prepared by the National Park Service. It is recognized as having significant scenic, recreation, geologic and biologic values. Because of the significance of the resource, we recommend re-routing the alignment to avoid crossing the river. If this is shown to be not feasible, the planned paralleling of an existing pipeline should help to minimize the intrusion on the river corridor by utilizing a previously disturbed area.

The proposed All American pipeline would be adjacent to Hueco Tanks State Park, Texas, and near Franklin Mountain Wilderness Park, Texas. These two parks have received funding from the Land and Water Conservation Fund (LWCF). The LWCF Act of 1965, as amended, established a grant program which provides states with funds to acquire and develop public outdoor recreation lands and waters. The LWCF is administered in each state by the State Liaison Officer (SLO), appointed by the Governor. In Texas, the SLO is Mr. Charles D. Nash, Jr., Post Office Box 1007, San Marcos, Texas 78666. The SLO should be contacted for information concerning possible impacts on recreation resources on a statewide basis. In addition, local parks department officials should be contacted concerning impacts to specific parks.

72-1

No application has been received; thus detailed analyses for the Guadalupe River crossing are incomplete. See response to Comment 18-1.

2-203

72-1

It should be noted that the LAMCF Act, Section 6(f), states that no property acquired or developed with assistance from the LAMCF shall be converted to other than public outdoor recreation uses without the approval of the Secretary of the Interior. If such conversion is anticipated, the SIO should be contacted to initiate the process for obtaining the Secretary's approval.

Although it does not appear that any land will be taken from Hueco Tanks State Park, we recommend that the pipeline be re-routed in this area so that it is not adjacent to the park. The park is significant for recreation and historic purposes, as evidenced by its inclusion on the National Register of Historic Places. Special care should be taken during construction, operation and maintenance to minimize impacts to the park.

72-2

The National Park Service feels strongly that the portion of the proposed pipeline adjacent to the southeastern corner of Guadalupe Mountains National Park, Texas, threatens to degrade the scenic and historical values along the proposed right-of-way; and, by doing so, would degrade the aesthetic qualities of the park and the historic Guadalupe Pass area. Specifically, we are concerned about the pipeline section starting near the SE1/4 of Section 16, PSL Block 120, and extending eastward to the east side of Section 18, PSL Block 121 (Block 65, TSP 2), as illustrated in the map, Sheet 11, included in the back of the statement.

72-2

Hueco Tanks State Park is 0.5 mile from the proposed ROW and would not be directly impacted by the pipeline. Procedures outlined in Section 4.2.11 of the DEIR/EIS would minimize impacts to cultural resource features adjacent to the park.

2-204

72-3

The National Park Service owns a right-of-way across Section 30, between U.S. Highway 62/180 and the southeast corner of the park, and still retains ownership of Section 18 which adjoins the park's eastern boundary. (Reference U.S. Geologic Survey 7.5 minute Topographic Map Series entitled "Guadalupe Pass, Texas.") Furthermore, based upon an Environmental Assessment for the Master Plan Supplement for Guadalupe Mountains National Park that underwent public review in 1981, the National Park Service intends to seek legislative authority to obtain scenic easements on all of the lands situated between the park boundary and Highway 62/180 in the historic Guadalupe Pass area.

72-3

See response to Comment 2.2-1 (Public Hearings) and Section 3.3. The pipeline alignment has been modified to avoid the southeastern corner of Guadalupe Mountains National Park and the Guadalupe Pass area. This modified route begins near the Salt Flats Pump Station and follows an existing Shell pipeline ROW and road over the Delaware Mountains to the original alignment near Wild Horse Draw in Culberson County. It would not be visible from the park and avoids the Guadalupe Pass area. The new alignment is 25.8 miles in length, compared with the old route's 25.5 miles. It has been surveyed for cultural resources (Class I) and no sites have been found. Land uses, vegetation, and soils are similar to those described for the corridor presented in the DEIR/EIS. There are no sensitive land uses along the modified alignment.

The crux of our concern is that the proposed construction activity will create a highly visible scar of approximately 4 miles in length which will be obvious to persons traveling Highway 62/180 through Guadalupe Pass. Portions of this scar will also be highly visible to persons using the roadside park in Guadalupe Pass, a Texas Highway Department-maintained facility, established specifically to allow travelers the opportunity to enjoy the outstanding scenic qualities of this locale.

It is our understanding that the proposed oil pipeline route will parallel the existing El Paso Natural Gas Company pipeline route, but will require the complete removal of vegetation and the sparse soil cover along the 100-foot construction right-of-way needed for the new pipeline. As is evidenced by existing land scars in the region, the aridity and lack of soil nutrients make the natural vegetative rehabilitation of man-made scars an extremely slow process. Without a massive irrigation system to support reseeded efforts, the scar resulting from the proposed construction will be visible for decades, and possibly as long as a century. Adding emphasis to the durability of man-made scars in the region is the fact that the proposed pipeline route threatens to destroy portions of the still-existing ruts made by the Butterfield Overland Mail Stage Line as it operated in the Guadalupe Pass area in the late 1850's.

COMMENT LETTER 72 (CONTINUED)

RESPONSE TO COMMENT LETTER 72
(CONTINUED)

3

72-4

As an alternative to the proposed right-of-way, we recommend that the section in question be rerouted south and east of Highway 62/180, and that it not follow the existing El Paso Gas Company route in the vicinity of the national park. It appears that moving this section of the pipeline southward would also have the added benefit of shortening the distance to McCamey, Texas, and may subsequently lessen material and construction costs.

72-4

The recommended route has been adopted, see Section 3.3.

As an additional point, the National Park Service wishes to acknowledge the attitude of cooperation and environmental sensitivity which has been demonstrated by the field representative of the All American Pipeline Company during contacts with the staff of Carlsbad Caverns and Guadalupe Mountains National Parks. We feel this cooperation has done much to ease the potential for conflicts arising from this type of development as it relates to an issue as sensitive as the preservation of one of the nation's national parks. We hope this cooperation can be extended to a final decision to reroute the pipeline section in proximity to Guadalupe Mountains National Park.

Donald C. Dayton



United States Department of the Interior

NATIONAL PARK SERVICE

WESTERN REGION

450 GOLDEN GATE AVENUE, BOX 16663
SAN FRANCISCO, CALIFORNIA 94102

IN REPLY REFER TO:

H24(NR-RRA)

October 17 1984

Memorandum

To: Ronald Replogle, Environmental Specialist

From: Chief, Interagency Archeological Services.

Subject: Cultural Resources Review of "Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Celeron/All American and Gatty Pipeline Projects" (84/42)

The comments of the National Park Service regarding cultural resources are based upon a review of the Draft Environmental Impact Statement (DEIS), and supporting documents: Weil, Weisbord, and Blakley 1984 "Cultural Resources Literature Search, Records Check And Sample Field Survey For The California Portion Of The Celeron/All American Pipeline Project", Erffland And Green 1984 "Cultural Resources Overview For The Arizona Portion Of The All-American Pipeline And Brenda Alternative", Reed 1984 "A Cultural Resource Overview For The New Mexico Portion Of The Proposed All American Pipeline", and Banforth 1984 "An Overview Of Cultural Resources Along The Texas Section Of The Proposed All American Pipeline".

The proposed project transects both the Western and Rocky Mountain Regions of the National Park Service; therefore, the comments of both regions regarding cultural resources have been coordinated and unified below.

- 72-5 [1. Please define referenced survey types, e.g. "Class I" and "Class III" surveys (DEIS:4-143).
- 72-6 [2. If sections of the ROW are to be discussed in terms of cultural resource sensitivity, then the criteria of sensitivity should be clearly defined. Terms used to describe cultural resource sensitivity (e.g. "low", "moderate", and "high") should be consistent in meaning throughout the document. Clear definition of terms and consistency of usage are a problem of the DEIS.

72-5 A Class I survey consists of a literature search, records check, and a review and compilation of known cultural resource data. A Class II survey is a sampler-oriented field inventory, and a Class III survey is a complete surface field inventory.

72-6 Resource sensitivity varies from region to region. For this reason, consistency is not possible.

COMMENT LETTER 72 (CONTINUED)

RESPONSE TO COMMENT LETTER 72
(CONTINUED)

72-7

3. Except for areas in which no cultural resources can be expected (e.g. as a result of topography or disturbance) all portions of the Right-of-Way (ROW) and related access corridors which have not been subjected to cultural resources survey should be surveyed. Survey coverage should be consistent, complete (100%), and include private as well as public property. This should be made a condition of federal approval, and be included in the formal "Compliance Plan" (DEIS:4-86.4-159). Prior cultural resource surveys covering portions of potentially affected areas should be utilized only if they are reasonably consistent in method, coverage, and documentation to planned cultural resource surveys. In particular, many past survey reports may be deficient in dealing with historic archeology and standing structures.

72-7

Based on your comment, text changes for pages 4-86 and 4-159 in the DEIR/EIS are included in the Modifications and Corrections Section and Mitigation Measures, Section 4.1.

72-8

4. Within the DEIS, discussions of potential resource eligibility to the National Register of Historic Places reference the opinions of the recording archeologists but do not indicate whether the opinions have been formally documented. Cultural resources identified in the course of future work (see Comment 3 above), and cultural resources already identified within the project area, should be formally evaluated by project and/or agency archeologists for possible eligibility to the National Register. The evaluation process should be consistent throughout. The informal opinions of archeologists who recorded the cultural resources now identified within the project area should not form the basis of determining possible eligibility. Only formal, documented, opinions of qualified personnel regarding recorded cultural resources should be utilized in preliminary determinations of National Register eligibility. After consultation with the State Historic Preservation Officer, final determinations must be made by the Keeper of the National Register in accordance with 36 CFR 60.

72-8

Based on your comment, text changes to page 4-87 in the DEIR/EIS are included in the Modifications and Corrections Section.

72-9

5. Regarding the "Compliance Plan" (DEIS:4-86.4-159):

72-9

The term "compliance plan" is no longer being used. The DEIR/EIS has been revised to reflect the inventory, treatment plan, and Section 106 consultation that will ensure that the effects of pipeline construction and operation on cultural resources are fully considered as required by law.

a. The involved land management agencies, in concert, should develop a formal "compliance plan" as stated in the DEIS (4-86 and 4-159). This single plan should be operative for the entire project and should provide for project compliance with the National Historic Preservation Act of 1966 (as amended), 36 CFR 800, and any counterpart regulations of the agencies involved.

b. The "compliance plan" should provide for the complete survey of the project area (see Comment 3), on both private

Mitigation Measure 30 has been revised in Section 4.1 to reflect current BLM policy for the development of mitigation plans for cultural resources.

and public lands.

c. The plan should detail the formal data requirements necessary for evaluating National Register eligibility (see Comment 4).

d. The plan should define the specific potential impact areas to be surveyed, with reference to topographic maps, project maps, and UTM coordinates. In the example compliance plan given (DEIS:4-158), a 200' survey corridor centered on pipeline and access corridor ROW's is described, but the actual relationship of the survey corridor to the project area is not. Survey areas should vary with the area specifications of any given segment or feature of the planned project.

72-9

cont.

When paralleling existing lines, new lines may be placed only so close to existing lines for engineering, construction and safety reasons. Therefore, a 200' wide survey corridor centering on the existing line may not be adequate. The pipeline engineers should be able to provide information on this distance. Moreover, the side of the existing line that the new line would be placed along will probably be known well before any construction.

If for engineering reasons, the new line must cross the existing line, provisions must be made in the cultural resource plan for the area and degree of land disturbance involved. Likewise, stream crossings often result in disturbance of an area far wider than the 100' ROW, and much deeper than a six foot deep trench, in order for the contractor to get the line down to the necessary depth for the pipe. Provisions for these large and deep disturbances should be included in the scope of work for the cultural resource work. Note that equipment and pipe storage areas are often highly disturbed due to the frequency of use by heavy equipment. In addition, provisions should be included for changes in the ROW, equipment storage areas, new roads, etc., that may not have been foreseen in the original construction plans; such construction modifications will occur.

e. It is stated that:

"Data recovery programs will be designed to reflect the individual research potential of a resource and contemporary scientific expectations" (DEIS 4-160).

The individual research potential of any given site should necessarily entail the site's relationship to other sites of the same contemporaneous, regional culture. In developing data recovery programs the subject site or sites should not be regarded as isolated cultural units, but as part of broader cultural patterns. All data recovery programs should attempt to explicate and explain the relationship, if any, of the subject site or sites to other sites of the same regional culture.

f. The compliance plan should be developed in consultation with the appropriate State Historic Preservation Officers, and the Advisory Council on Historic Preservation, as well as with the lead management agencies involved in the project.

g. We would like to review the compliance plan as it is developed. Please send draft and final versions of the plan to the National Park Service at the addresses given at the end of these comments.

6. We concur that data recovery should precede project groundbreaking (DEIS 4-160).

7. We concur that any ROWs transecting Ft. Bliss, TX should be subject to the existing Programmatic Memorandum of Agreement in effect for Ft. Bliss (DEIS 4-86).

8. Buried sites found during construction will provide no time for the development of a mitigation plan for such situations; the plan must be developed prior to any field work to avoid project delays including excessive costs for construction downtime. Note that once a treacher finds a buried site, the damage is done. Therefore, the mitigation plan for such treacher-discovered sites should focus on what can be retrieved from the treacher walls, i.e., the treacher should not be stopped. During the initial blading of the ROW in sensitive areas with bulldozers, the archeologists may have a chance to conduct some mitigation on sites so discovered before the treacher arrives. Such provisions should be considered in the scope of work and mitigation plan.

9. We recommend that Mr. Peter Cook, Deputy Federal Inspector, Office of the Federal Inspector, ANGS, Room 2413, 1200 Pennsylvania Avenue NW, Washington D.C. 20044 (FIS 275-1100) be contacted for copies of the "Office of the Federal Inspector's Cultural Resource Compliance Program" by William Butler and Stephen Chomko. This is a "lessons

72-9

cont.

2-289

72-9

cont.

learned" document that is intended to provide guidance on cultural resource investigations on large scale linear projects.

10. We concur that Native American Indian groups should be contacted, at the earliest opportunity, to determine their specific cultural resource concerns, and the extent to which they might participate in any testing and mitigation work.

The National Park Service requests copies of all future cultural resources reports and documents prepared for this project. Please send copies to:

Garland J. Gordon, Chief
Interagency Archeological Services
Western Region, NPS, Box 36063
450 Golden Gate Avenue
San Francisco, CA 94102

and,

Jack R. Rudy, Chief
Interagency Archeological Services
Rocky Mountain Region, NPS
655 Parfet Street
P.O. Box 25287
Denver, CO 80225

Should any questions arise regarding these comments, do not hesitate to contact Mark Rudo, Interagency Archeological Services, Western Region, NPS, at FTS 556-5190.

Garland J. Gordon

COMMENT LETTER 73 (CONTINUED)

RESPONSE TO COMMENT LETTER 73 (CONTINUED)

DATE OF COMMENT

DATE OF COMMENT

Memorandum

To : Terry Roberts
STATE CLEARINGHOUSE
1400 Tenth Street, Room 121

Date : September 27, 1984

Subject: Celeron/All American
Pipeline Proposal -
SCH #83110902

From : ENVIRONMENTAL HEALTH DIVISION
714 P Street, Room 430
322-2308

The Department has reviewed the subject environmental document and offers the following comments.

The noise propagation model used to develop Table F-1 (page F-1) should be described to the extent necessary to permit the reader to estimate if the numbers are correct. That the figures provided therein are questionable is suggested by the following.

- 2-291
- 73-1 1. For cases 2, 3 and 4, how can the 60 dBA contour be determined if the location of the 70 is "not available"?
 - 73-2 2. It is unclear how two gas-turbine pumps (case 2) can be quieter than three electrically-driven pumps (case 1), particularly when the gas-turbines have inlet silencers only (see footnote, Table F-1). British data indicate that gas-turbine pumps within a brick structure and with intake and exhaust silencers produce about 92 dB (SPL) at 150 feet from the intake. Much of this noise is low frequency: maximum level at 31.5 octave band.
 - 73-3 3. What spectra are produced by these devices? If the spectra are very different from that of the ambient, particularly if low frequency noise predominates, low frequency noise may be a source of complaints. Such complaints may occur if the pump and heater stations are near residential areas and if they produce significant levels of low frequency noise.
 - 73-4 3. The footnote to Table F-1 suggests that the contour distances were calculated without assuming excess attenuation due to atmospheric absorption, barriers, or equipment directivity. What assumptions were made? In particular, what rate of noise attenuation for a doubling of distance was assumed, and what is the rationale for this assumption? The numbers in Table F-1 indicate that it is greater than 6 dB, but the reason is not specified.

- 73-1 The reference data used for cases 2, 3, and 4 was below 70 dBA. The 70 dBA contour location was not estimated because no sensitive receptors were located within the 60 dBA contour.
- 73-2 The scoping process for the DEIR/EIS identified noise as a relatively low level concern for the pipeline proposal. Existing data sources were used because equipment specifications were not yet available for the pump stations when the noise analysis was conducted. This results in different noise control assumptions being used for the analysis of electric motor-driven pumps than for the gas turbine-driven pumps. The data used to represent the gas turbine-driven pump stations came from a similar existing station with slightly higher horsepower, that was enclosed in a fiberglass batt-insulated steel plate structure. The combination of structural enclosure, inlet silencers, and heat recovery systems results in noise levels for the gas turbine-driven pumps (case 2) below those for the unenclosed electric motor-driven pumps.
- 73-3 The U.S. has no quantitative criteria for assessing low frequency noise with regard to the frequency spectra produced by the pump stations. However, the NEMA (National Electric Manufacturers Association)-D specification characterizes a frequency spectrum that was used in this analysis.

	Frequency (Hz)								
	31.5	63	125	250	500	1K	2K	4K	8K
dBA 400'	80	71	60	53	48	45	41	38	35

British pipeline analyses have addressed low frequency noise as a problem only in the absence of other noise and vibration. This would not be applicable to the proposed pipeline projects because sensitive receptors would occur only at the Gaviota pump station site. Existing traffic noise levels at Gaviota are quite high and would effectively mask low frequency noise from the pump station.

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR

GEORGE DEUKMEJIAN, Governor

OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO, CA 95814

November 2, 1984

Ms. Mary Griggs
State Lands Commission/Bureau of
Land Management
1807 13th Street
Sacramento, CA 95814

Subject: SCH# 83110902, Celeron/All American and Getty Pipeline Projects

Dear Ms. Griggs:

The State Clearinghouse submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is closed and the comments of the individual agency(ies) is(are) attached. If you would like to discuss their concerns and recommendations, please contact the staff from the appropriate agency(ies).

When preparing the final EIR, you must include all comments and responses (CEQA Guidelines, Section 15132). The certified EIR must be considered in the decision-making process for the project. In addition, we urge you to respond directly to the commenting agency(ies) by writing to them, including the State Clearinghouse number on all correspondence.

In the event that the project is approved without adequate mitigation of significant effects, the lead agency must make written findings for each significant effect and it must support its actions with a written statement of overriding considerations for each unmitigated significant effect (CEQA Guidelines Section 15091 and 15093).

If the project requires discretionary approval from any state agency, the Notice of Determination must be filed with the Secretary for Resources, as well as with the County Clerk. Please contact Mark Boelme at (916) 445-0613 if you have any questions about the environmental review process.

Sincerely,


John B. O'Hanian
Chief Deputy Director
cc: Resources Agency
attachment

73-4

Please note that Table F-1 in Appendix F of the DEIR/EIS assumed attenuation due to atmospheric absorption based on a "standard day", which was defined in the footnote. The combination of attenuation resulting from "standard day" atmospheric conditions and attenuation resulting from divergence does, in fact, exceed 6 dBA as noted by the commenter.

COMMENT LETTER 73 (CONTINUED)

RESPONSE TO COMMENT LETTER 73
(CONTINUED)

Terry Roberts

-2-

September 27, 1984

If you have any questions or need further information concerning these comments, please contact Dr. Jerome Lukas of the Noise Control Program, Office of Local Environmental Health Programs, at 2151 Berkeley Way, Room No. 613, Berkeley, CA 94704, 415/540-2665.


Stuart E. Richardson, Jr., R.S., Chief
Office of Local Environmental Health Programs

RECEIVED
OCT 10 1984
OFFICE OF PLANNING
& RESEARCH

Memorandum

Date : Oct 4 - 1984

To : Mr. Dennis O'Bryant
Environmental Coordinator
Department of Conservation

From : Department of Parks and Recreation

Subject: Draft Environmental Impact Report/Environmental Impact Statement
Proposed Celeron/All American and Getty Pipeline Projects
SCH #83110902

The Department of Parks and Recreation has reviewed the Draft EIR/EIS (SCH #83110902) for the Proposed Celeron/All American and Getty Pipeline Projects. We have also reviewed the Celeron Pipeline Right-of-way application (received in a separate mailing), which pertains to our property at Gaviota State Park.

We find that the adverse effects of the proposed alignment of the Celeron pipeline are too great to permit its construction, as designed, within the State Park. We recommend further evaluation of other alignment alternatives that do not include such extensive pipeline construction within this or other units of the State Park System.

Our contact person for this project is James M. Doyle, Supervisor, Environmental Review Section. His telephone is (916) 324-6421, address P.O. Box 2390, Sacramento, CA 95811. Please keep us informed of the progress of this proposed project.

Original signed by:
Gerth E. Tanner
Wm. S. Briner
Director

2-294

RECEIVED
OCT - 9 1984
OFFICE OF PLANNING
& RESEARCH

COMMENT LETTER 74

RESPONSE TO COMMENT LETTER 74

C



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2711
LOS ANGELES, CALIFORNIA 90028-2711
October 29, 1984

MEMO TO
ATTENTION OF

SPLPD-RP

Ms. Mary Griggs
State Lands Commission
1807-13th Street
Sacramento, California 95814

Dear Ms. Griggs:

This is in response to a letter from your office which requested review and comments on the Draft Environmental Impact Report/Environmental Impact Statement for the Proposed Celeron/All American and Getty Pipeline Projects.

Corps of Engineers permits are required for structures or work in or affecting "navigable waters of the United States" pursuant to Section 10 of the Rivers and Harbors Act and for the discharge of dredged or fill material into "waters of the United States" pursuant to Section 404 of the Clean Water Act. The Pacific Ocean and the Colorado River are considered both "navigable waters" and "waters of the United States", and the Draft EIR/EIS indicates that the proposed project would involve work and structures and the discharge of dredged or fill material into these waters. In addition, the proposed project may involve the discharge of fill material into other waters of the United States; however, the information provided in the EIR/EIS is of insufficient detail to make this determination. We suggest that you contact Mr. Phillip Rieger of our Regulatory Branch at (213) 688-5606, in order to determine the requirements for filing permit applications. We also suggest that you contact the Albuquerque District of the Corps of Engineers in order to determine if permits are required for the reaches of the project in New Mexico and Western Texas.

Thank you for the opportunity to review and comment on this document.

Sincerely,

Carl F. Enson
Carl F. Enson
Chief, Planning Division

Thank you for commenting.

NS
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OT



U.S. DEPT. OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

1797

(C-016.3)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

520 Butte Street

Bakersfield, California 93305

Phone: (805) 861-4236

Office Hours: 7:30 a.m. to 4:00 p.m. weekdays

NOV 0 7 1984

Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

After a thorough review of the Draft EIR/EIS and the Biological Assessment for the subject projects, the Caliente Resource Area has come to these conclusions:

Environmental Research and Technologies, Inc. (ERT) is to be commended for their extensive efforts and resultant reports submitted for our review. The Biological Assessment, in particular, deserves recognition for the highly professional product compiled under a compressed schedule.

Our wildlife biologist participated in the field surveys and concurs with your findings concerning California condor, San Joaquin kit fox, and Blunt-nosed leopard lizard. The latter two species were identified as being "most significantly affected in the Coyama Valley and Maricopa area" by the proposals. With this in mind, we submit the following brief recommendations and reaffirm certain measures proposed to minimize impacts to these two species.

- | | | | | |
|------|----|--|------|---|
| 75-1 | 1. | Additional, more intensive surveys for San Joaquin kit fox (SJKF) and Blunt-nosed leopard lizard (BNLL) should be conducted prior to construction. The BNLL survey should be conducted during warm weather when the lizard may be more easily observed. | 75-1 | See Appendix 4.2 and Mitigation Measure 15 in Section 4.1. |
| 75-2 | 2. | Revegetate disturbed areas with <u>Atriplex polycarpa</u> and other native species. | 75-2 | See response to Comment 3-1 and Recommended Mitigation Measure 1. |
| | 3. | Through the Coast/Valley land use plan the Bureau of Land Management (BLM) has proposed an ACEC (Area of Critical Environmental Concern) in the Elkhorn Plain approximately 15 miles north of the proposed pipeline route near Coyama. The specific intent is to recognize the value of that habitat and emphasize its value as threatened and endangered species habitat. This habitat area has the highest sighting frequencies for both SJKF and BNLL in the BLM records. | | |

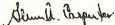
We recommend that this area be considered for further enhancement by revegetation and/or protection via enclosures if off-site compensation is discussed to offset habitat loss along the pipeline corridor.

COMMENT LETTER 75 (CONTINUED)

RESPONSE TO COMMENT LETTER 75
(CONTINUED)

- | | | | | |
|------|----|---|------|---------------------------------------|
| 75-3 | 4. | Extraneous activities such as indiscriminate shooting or plinking should be controlled along portions of the proposed pipeline route as noise disturbance can cause nest abandonments. Recreational/indiscriminant shooting of wildlife has been a problem in the past and is cited as an example of the problem. | 75-3 | See Recommended Mitigation Measure 2. |
| 75-4 | 5. | An Information and Education program about endangered species (wildlife) should be presented to work crews and supervisors prior to work commencement. | 75-4 | See Recommended Mitigation Measure 3. |
| | 6. | It may be important to note that the desert tortoise has since been proposed to USDI as an endangered species. | | |

Sincerely,



GLENN A. CARPENTER
Caliente Resource Area Manager

cc: C-016.14
C-014

EIR GEN

RICHARD E. SIMONS
Director

4600 Crestmore Road, P.O. Box 3507, Riverside, CA 92519, (714) 787-2551

November 13, 1984

Ms. Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, CA 95814

Dear Ms. Griggs:

Proposed Celeron/All American and Getty Pipeline
SLC EIR 369
State Clearing House Number 83110902

The following are this department's concerns regarding the
above referenced project:

PARKS

The proposed pipeline crosses the Colorado River in the vicinity of Blythe, California. The Riverside County Parks Department operates seven recreation areas along the Colorado River.

The pipeline passes within 0.5 miles of our Blythe Marina Recreation facility. We are concerned about the impacts to wildlife and recreation during the construction and operation phases of the project. As stated on page 4-81, water related activities are less through the winter months, however, "snowbird" camping is at its peak at this time and effects of construction could affect the Blythe Marina Operations. The EIR should address measures to mitigate these effects on operations (i.e., potential loss of revenues).

RECREATION TRAILS

This document makes no reference to the Riverside County General Plan of Recreation Trails, which indicates a primary trail following the Colorado River and a secondary trail intersecting U.S. Highway 10 near the city of Nicholls, California.

76-1

See Section 4.2.7 in the DEIR/EIS for a discussion of wildlife impacts and Section 4.2.6 for a discussion of fisheries impacts. Potential impacts to both terrestrial wildlife and the river's fishery are not expected to be significant during construction and operation. There would be some displacement, but this would be short term in duration (about six weeks). These wildlife impacts would not be expected to result in a substantial reduction in recreation use of the Blythe Marina or nearby county parks.

Potential recreation impacts to the Blythe Marina from actual construction of the pipeline would be spread over six weeks. Detours and minor delays may occur, but boaters would still be able to travel upstream or downstream to unaffected areas. Construction-related noise effects on the marina are projected to be significant. A mitigation measure is proposed that would limit construction to daytime hours between 7:00 and 5:00 pm.

2-208

76-1

COMMENT LETTER 76 (CONTINUED)

RESPONSE TO COMMENT LETTER 76
(CONTINUED)

Ms. Mary Griggs

November 13, 1984

Page 2

76-2

The enclosed maps show the County Parks and planned trail alignments in the Colorado River and project vicinity. The EIR should propose measures to mitigate impact to these planned recreation trails. Should you require further information on any of the aforementioned, please do not hesitate to contact Mr. George Balteria of this department.

Sincerely,



Sam Ford
Associate Park Planner

SF/GB:mg

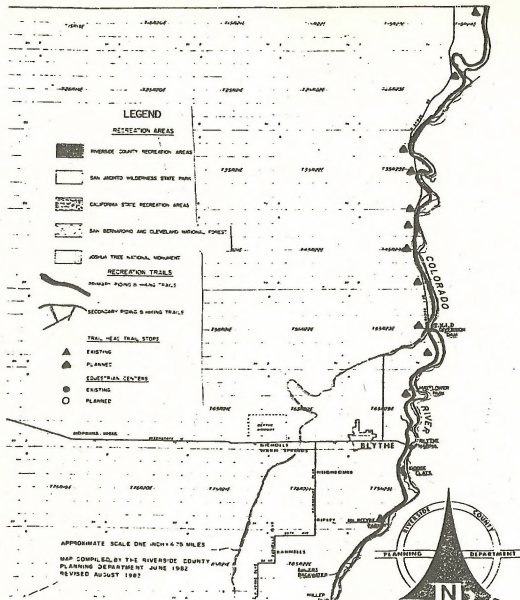
cc: Paul Romero
George Balteria

Enclosure: Riverside County Regional Parks Brochure
Map of Colorado River

76-2

The two described county recreation trails are only in the planning stages. If either trail were complete when construction would begin, access on the trail would be maintained by detours. Some minor delays may result during the one or two days of construction. Resurfacing of the trail, if necessary, and revegetation would occur after the pipeline is complete. Potential impacts to the trails, therefore, would be minor.

2-300



COMMENT LETTER 77

RESPONSE TO COMMENT LETTER 77

GOVERNOR
TOMMY AMAYA
DIRECTOR AND SECRETARY
TO THE COMMISSION
HAROLD F. OLSON

State of New Mexico



DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87002

STATE GAME COMMISSION
JAMES H. KOCK, CHAIRMAN
SANTA FE
A. H. GUTIERREZ, JR., M. O.
CARLEBAD
CHRISTINE GONZALEZ
GALLUP
THOMAS P. JAVAS, C. O.
ALBUQUERQUE
JAKE ALCON
ALBUQUERQUE

November 14, 1984

Ms. Mary Griggs
State Land Commission
1807-13th Street
Sacramento, California 95814

Dear Ms. Griggs:

I have reviewed the draft Environmental Impact Report and Statement on the proposed Celeron/All American and Getty Pipeline Projects. The Gila Monster (*Heloderma suspectum*) is the only state endangered species along the proposed route that is of special concern. However, the proposed construction is not expected to impact this species, but you should be aware of its existence along portions of the route. Desert bighorn sheep occur south of the proposed route and thus are not expected to be impacted by its construction.

Thank you for the opportunity to comment.

Sincerely,

Harold F. Olson
Harold F. Olson
Director

cc: S. R. Gonzales

Thank you for commenting.



United States Department of the Interior

BUREAU OF RECLAMATION
LOWER COLORADO REGIONAL OFFICE
P.O. BOX 427
BOULDER CITY, NEVADA 89005

IN REPLY
REFER TO: LC-154
560.2

NOV 15 1984

Ms. Mary Griggs
State Lands Commission
1807 13th Street
Sacramento, California 95814

Dear Ms. Griggs:

We have reviewed the proposed Celeron/All-American and Getty Pipeline Projects Draft Environmental Impact Statement and would like to make the following comments.

78-1 The Bureau of Reclamation's (Reclamation) source of water for the Santa Maria Project (San Luis Obispo and Santa Barbara Counties) could be impacted by an oil spill from the proposed pipeline into the Cuyama and Sisquoc Rivers. This water is stored in Twitchell Reservoir and released to recharge the project area's ground-water basins. The impact summary (pages 4-33 and 34) should include a discussion of the effect an oil spill in Cuyama and/or Sisquoc Rivers would have on the water quality of Twitchell Reservoir and downstream ground-water basins.

78-2 The subject proposal would cross the Salt-Gila Aqueduct, a feature of the Central Arizona Project. The design of the subject pipeline should be such that a break in the pipeline would not contaminate CAP water being conveyed in an open canal. When the Celeron/All-American and Getty Pipeline Project reaches the design stage, plans for the crossing should be submitted to Reclamation for our review and appropriate right-of-way crossing document.

78-3 Reference page 1-5, the pipeline proposal will cross 12 waterways of the Rio Grande Project in the Mesilla Valley of New Mexico. These crossing locations were evaluated by Reclamation from an environmental standpoint and NEPA compliance is being completed through use of the "categorical exclusion" process. We will process license agreements to authorize these crossings. We request that the All-American Pipeline Company provide an Oil Spill Contingency and Emergency Response Plan for review and approval

78-1 Please see response to Comment 25-4. As explained on page 4-35 of the DEIR/EIS, oil spills in surface water would not be expected to result in groundwater contamination to downstream aquifers if oil spill containment efforts were promptly implemented.

78-2 Celeron/All American would cross all canals by boring and casing. A retaining dike would be constructed to keep spilled oil from entering the canal, if the elevations indicate such a design is necessary.

78-3 Celeron/All American will comply with your Oil Spill Contingency Plan needs.

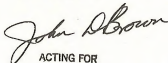
2-302

78-3
cont.

by Reclamation's Southwest Regional office and the Elephant Butte Irrigation District for incorporation into the license agreement to authorize the crossings.

2

Sincerely yours,



ACTING FOR
N. W. Plummer
Regional Director



ADDRESS ONLY THE DIRECTOR,
FISH AND WILDLIFE SERVICE

United States Department of the
FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

NOV 23 1984

Memorandum

To: Director, Bureau of Land Management
From: Acting Director, Fish and Wildlife Service
Subject: Draft Environmental Impact Report/Draft Environmental Impact
Statement for the Proposed Celeron/All American and Getty
Pipelines (EC 84/53)

The Fish and Wildlife Service (FWS) has reviewed the subject draft environmental impact statement (DEIS) and offers the following comments for your consideration. The areas that we would like to discuss and that we believe require further consideration in the final environmental impact statement (FEIS) include: a) feasibility of constructing two pipelines in California on a single right-of-way (ROW) during a similar timeframe, b) differences in ROW-widths between the Getty and Celeron/All American proposals, c) implementation of additional mitigation measures, d) threatened and endangered species, and e) pipeline crossing of Kofa National Wildlife Refuge (NWR). These items are discussed below under separate headings. Our specific comments on the DEIS are found as Attachment 1 to this memorandum.

General Comments

In general, we found the document to be complete in its description of the proposed projects and accurate in its analysis of anticipated environmental impacts associated with the construction and operation of the proposed pipelines.

The FWS is pleased that the Bureau of Land Management (BLM) considered as an alternative the construction of a single pipeline in California. We recognize that the Celeron and Getty pipeline proposals are individual projects and that it may not be feasible for the two companies to consider construction of a single pipeline. However, construction of a single pipeline would greatly reduce impacts to fish and wildlife resources and their habitats. As such, we must support a single pipeline as our preferred alternative in California because of the impact reduction opportunities it affords.

a) Feasibility of Constructing Two Pipelines in California on a Single ROW During a Similar Timeframe.

The proposed pipelines, although adjacent to each other for much of the route, separate at several critical points, including Gaviota Creek and La Brea Canyon.

- 79-1 For example, it currently appears that Celeron/All American plans to use the Santa Maria Pipeline Alternative, while the Getty pipeline would follow La Brea Canyon. Clearing of two ROW's would result in losses of valuable riparian and oak woodland habitat that could be avoided if a single ROW is used. Therefore, we support construction of the two pipelines in a single ROW, if the single pipeline alternative is not feasible.
- 79-2 The final ROW in California must be able to physically accommodate the two pipelines. During a September 12, 1984, overflight of the pipeline, it was observed that the two pipelines often would follow the mountain tops in very steep terrain that in some cases appeared to be less than 30 feet wide. Details on how the two pipelines would be constructed in these areas, particularly if unstable and erodable soils are present, should be discussed in the FEIS.
- 79-3 The DEIS states that Getty and Celeron/All American representatives determined that it is likely that construction activities would be separated by time and/or space. Separation of projects in time, particularly when a common ROW corridor is utilized, has the potential to cause additional impacts to fish and wildlife habitats. For example, if one pipeline was constructed in the immediate future and an additional pipeline was built several years later in the ROW, vegetation that has become reestablished may be destroyed. Therefore, we recommend that the construction of two pipelines in the same ROW be done as simultaneously as possible and that disturbance be kept to a minimum. The FEIS should discuss the temporal separation planned for the two pipelines and methods for minimizing disturbances to the ROW if they are not constructed in a similar timeframe.
- 2-305
- b) Differences in ROW-widths Between Getty and Celeron/All American Proposals.
- 79-4 Getty proposes to employ a 50-foot wide ROW while Celeron/All American would utilize a 100-foot wide ROW; pipeline sizes would be relatively the same. Since use of a 50-foot wide rather than a 100-foot wide ROW would reduce habitat losses by half, the FEIS should explain why the Celeron/All American pipeline requires a wider ROW.
- 79-5 In addition to minimizing the ROW width, we also recommend that in sensitive habitat locations, such as riparian and oak woodlands, desert dunes, Joshua tree woodlands, vegetated desert washes, desert scrub, stream crossings, bottomland hardwoods, and wetlands, the centerline of the ROW be moved to avoid areas of high quality habitat and clearing in the ROW be kept to a minimum. The FWS would be pleased to assist BLM, Celeron/All American, and Getty in developing ways to reduce impacts to sensitive areas.
- c) Implementation of Additional Mitigation Measures.
- 79-6 The DEIS recognizes that acreages of certain habitat types would be irretrievably lost to pipeline development. However, no mitigation is planned for these unavoidable impacts. The FWS believes it is in the
- 79-1 See the Summary and response to Comments 48-8 and 48-9.
- 79-2 Santa Barbara County is studying the engineering feasibility of two pipelines in the same ROW and simultaneous construction in sensitive areas. See response to Comments 41-8 and 41-9.
- 79-3 See response to Comment 41-8 and 41-9.
- 79-4 Celeron/All American would use a 50-foot ROW in sensitive areas. See Mitigation Measures 9 and 9a in Section 4.1.
- 79-5 See Mitigation Measure 9 and 9a and Recommended Mitigation Measure 1.
- 79-6 BLM will consider your comment in preparation of the ROW grant.

- 79-6 cont. public interest to mitigate for these impacts and that the FEIS should propose measures to mitigate for unavoidable habitat losses.
- 79-7 Unavoidable losses to biologically valuable habitats, including riparian and oak woodlands, desert dunes, Joshua tree woodlands, desert scrub, and vegetated desert washes, should be mitigated. Due to the relatively high value of these habitats to fish and wildlife populations, we have classified them as Resource Category 2 pursuant to our Mitigation Policy (46 FR 7645). The mitigation goal for this category is "no net loss of in-kind habitat value."
- 79-7 Streams and rivers are another sensitive habitat that will be crossed by the proposed pipelines. Of particular concern are Santa Barbara coastal streams that are utilized by steelhead trout. Past sightings of steelhead have occurred in Refugio, Tajiguas, Arroyo Hondo, Arroyo Quemado, San Onofre, and Gavfota Creeks. Steelhead trout also are known to have spawned in the Santa Ynez River and probably in some of its larger tributaries.
- 79-8 Because of the number of proposed stream crossings, we are concerned about sediment being released into creeks during construction of the pipeline. In addition to sedimentation resulting from stream crossings, there is a high potential for landsliding, soil slumping, and water-induced erosion along the proposed pipeline routes. In view of the potential for erosion and sedimentation to result from this project, we recommend that an erosion and sedimentation plan be prepared. This plan is particularly important where clearing, grading, and ditching would be performed in or adjacent to creeks and rivers. The plan should include measures to prevent soil slumping and potential sedimentation of water courses located in or adjacent to the pipeline ROW(s).
- 79-8 The FWS would be pleased to work with BLM in the development of additional mitigation measures, including an erosion and sedimentation plan; stipulations for Grants of ROW or Temporary Use Permits; and oil spill contingency and emergency response plans.
- d) Threatened and Endangered Species.
- 79-9 The FWS will, under separate cover, render a Biological Opinion concerning the proposed projects' potential impacts on threatened and endangered species. BLM's Biological Assessment and FWS' Biological Opinion should be appended to the FEIS.
- 79-9 We have special concern regarding the avoidance of any adverse impacts to the California condor and the Hudson Ranch, currently in the process of being acquired for the proposed Bitter Creek NWR. As currently planned, routes of the two pipelines will cross the northwest corner of the proposed refuge. We recommend that any pipeline-related action in this area be coordinated with our Portland Regional Office's Office of Acquisition (FIS 429-7209 or (503) 231-6209) and the Condor Research Center.
- 79-7 As stated in the DEIR, steelhead trout have been observed recently in Refugio and Gavfota Creeks, but no recent sightings are known for the Santa Ynez River near Buellton. Ken Sasaki of the California Fish and Game Department was not aware of any recent sightings of steelhead trout in Tajiguas, Arroyo Hondo, Arroyo Quemado, or San Onofre Creeks. The DEIR recognizes the potential importance of steelhead trout habitat in Refugio and Gavfota Creeks. Agency stipulations and oil spill contingency plans would minimize potential impacts on aquatic communities including steelhead trout.
- 79-8 See response to Comments 3-1, 64-2, and 64-3.
- 79-9 Potential effects on California condors and the Hudson Ranch are addressed in the Biological Assessment. The Fish and Wildlife Service's Opinion and recommended mitigation measures are included in Appendix 4.2. The Applicants have indicated they will coordinate construction and operating practices, where necessary, with the Condor Research Team and the Fish and Wildlife Service regarding the ROW.

COMMENT LETTER 79 (CONTINUED)

RESPONSE TO COMMENT LETTER 79 (CONTINUED)

4

e) Pipeline Crossing of Kofa NWR.

The FWS recommends use of the Brenda Alternative in the vicinity of the Kofa NWR. We recommend this alternative because:

- the miles/acres of sensitive soils impacted are significantly reduced;
- the adverse impacts on sensitive wildlife (bighorn sheep and desert tortoise) are eliminated;
- the number of cultural resource sites within the ROW is greatly reduced;
- the existing visual intrusions are of less concern;
- no national wildlife refuge is crossed;
- a new corridor would be established thereby preventing future cumulative impacts to Kofa wildlife from additional pipelines and powerlines as discussed in Section 4.9.

- 79-10 The DEIS states that there are desert bighorn migration corridors along the Brenda Alternative. There are no bighorn sheep migration corridors impacted by the route as Interstate 10 serves as a barrier to sheep movement. However, there are several active bighorn migration corridors that cross the preferred alternative. 79-10 As discussed on page 4-131 of the DEIR/EIS, the Brenda Alternative would not cross bighorn migration corridors. See Modifications and Corrections Section, page 3-119.
- 79-11 The DEIS also states that the Brenda Alternative would come within one-quarter mile of the Lazarus tank lambing grounds. The Lazarus tank lambing area is two miles from I-10. Bands of ewes and lambs do use the area near I-10 but it is not a lambing area. Bighorn ewes lamb within one-half mile of the preferred alternative, use areas adjacent to, and move back and forth across the route. 79-11 See response to Letter 23 and Modifications and Corrections Section, page 3-119 plus review page 4-132 of the DEIR/EIS.
- 79-12 The association of the preferred alternative and proposed wilderness area within the Kofa NWR is not emphasized, while considerable emphasis is given to BLN Wilderness Study Areas (WSA) and the various alternatives. This minimizes the importance of the Kofa NWR wilderness characteristics and the impacts the pipeline would have on them. The FEIS should more fully consider the wilderness values of the Kofa NWR. 79-12 Greater detail on the Kofa WSAs has been provided in Section 3.3.
- The Brenda Alternative is a reasonable and environmentally desirable alternative to constructing the pipeline through the Kofa NWR. Before a ROW can be granted across Kofa NWR, the Regional Director, FWS, must make a determination that the activity is compatible with the purpose for which the refuge was established. The Regional Director has not yet made his determination, but it appears that the ROW may not be compatible and therefore if such is the case the ROW permit may not be granted.

Summary Comments

As indicated above, we continue to have concerns regarding the proposed pipelines and their impacts to fish and wildlife resources, their habitats, and lands administered by the FWS. We believe our concerns can best be addressed through our continued involvement with the project. We offer our assistance in working with you and the project developers to protect fish and wildlife resources. If you need further assistance in determining points of contact for site specific considerations, please contact Lynn Lewis of our Division of Environmental Coordination at 343-5685.

We appreciate the opportunity to comment on this DEIS.

Walter O. Stieglitz

Attachment

cc: Directorate Reading File
DD Chron
PEP (Stone)
AIR
ES
RD-1
RD-2
EC Files (2)

FWS/DEC:LLEWIS/eob:343-5685:11/13/84
REVISED:LLEWIS/amt:343-5685:11/19/84

COMMENT LETTER 79 (CONTINUED)

RESPONSE TO COMMENT LETTER 79 (CONTINUED)

Attachment

1

Specific Comments

Section 2.0 - Celeron/All American and Getty Proposals and Alternatives, 2.2 - Celeron/All American and Getty Proposals, 2.2.2 - Clearing and Grading the ROW, 2.2.2.2, - Page 2-19

79-13

We believe that only those areas that need to be graded or trenched should be cleared. In all other areas the vegetation should be crushed and left in place. Much of this vegetation will resprout from the roots. In those areas where the ROW crosses rivers, streams, or major desert washes, no water diversion or vegetation clearing should be done until the work is coordinated with the appropriate State fish and wildlife agency and the FWS.

79-13

See Mitigation Measures 9, 9a, and 10. No construction would be allowed until all Federal, state, and local permits are approved. The applicants have indicated they are currently working with State Fish and Game and Fish and Wildlife Service agencies regarding permit applications for stream crossings.

Section 2.0 - Celeron/All American and Getty Proposals and Alternatives, 2.2 - Celeron/All American and Getty Proposals, 2.2.2 - Cleanup and Restoration, 2.2.2.10, - Page 2-24

79-14

Surface disturbance of extremely fragile desert environments would be substantial, long term, and perhaps permanent. Restoration of those lands may not be successful. Accordingly, we suggest that "whenever practicable, vegetation should be crushed and left in place" should be added into this section.

79-14

Mitigation Measure 10 addresses this impact.

Section 2.0 - Celeron/All American and Getty Proposals and Alternatives, 2.2 - Celeron/All American and Getty Proposals, 2.2.2 - Pipeline Construction, 2.2.2.11 - Special Construction, - Page 2-26

79-15

This section of the document discusses boring a hole horizontally from one side of the highway to the other in order that the pipeline can be placed underneath the highway. In discussions with representatives from Celeron/All American on September 12, 1984, it was learned that a boring would be conducted under Highway 101 at Gavilota Creek. We requested at this meeting if the length of the boring could be extended to include not only the highway, but the riparian vegetation and creek channel. This alternative would result in protection of valuable riparian vegetation and a creek that is utilized by steelhead trout and the tidewater go by. This concept should be addressed in the FEIS.

79-15

Celeron/All American has indicated they will study the feasibility of boring under Gavilota Creek to minimize loss of riparian habitat. Celeron/All American is also working with California State Parks and Recreation Department on use of another alignment; the crossing referenced in the comment may be relocated upstream.

Section 3.0 - Affected Environment, 3.2 - Celeron/All American and Getty Proposals, 3.2.7 - Terrestrial Biology - Page 3-47

79-16

It should be noted in this Section that the U.S. Army Corps of Engineers and the FWS define wetland differently. Riparian vegetation is defined as wetlands in the FWS' publication entitled "Classification of Wetlands and Deepwater Habitat of the United States." Riparian woodlands are considered forested palustrine wetlands under our classification system.

79-16

Your comment is noted, see Modifications and Corrections Section, page 3-47.

Section 4.0 - Environmental Consequences, General

79-17

We are concerned with the proposed location of the 20-acre tank storage facilities at Cadiz. During the September 13, 1984, overflight of the pipeline route it appeared that a portion of the storage facilities would be constructed in a large, dry desert wash that would be subject to "sheet flows" during desert rainstorms. We recommend that the facility be totally constructed outside the floodplain area of the wash. Disruption of natural flows in the wash through construction could potentially affect survival of downstream vegetation dependent upon that source of water.

79-17

Celeron/All American has indicated that the tank farm (now proposed to be 80 acres in size) would be located north of the wash and would be protected from desert rainstorm runoff with a berm. Runoff would be diverted around the facility and back into the main channel of the wash.

Section 4.0 - Environmental Consequences, 4.2 - Celeron/All American and Getty Proposals, 4.2.6 - Aquatic Biology, 4.2.6.1 - Potential Impacts to Aquatic Resources, - Page 4-38

79-18

It is stated that "the removal of riparian vegetation would not significantly affect permanent fish populations, since it is not the dominant cover type along any stream." Riparian vegetation is the dominant cover type of the Santa-Barbara coastal streams. Its removal could affect local fish populations. Roots of woody vegetation along streams often provide cover for fish such as trout. In addition, leaf litter from riparian vegetation provides a substantial proportion of food for aquatic invertebrates, particularly in small streams, which, in turn, constitute a significant proportion of any fish species' diets. Terrestrial invertebrates of the riparian zone are often found in streams and become important in the diet of fishes.

79-18

There is no evidence to indicate that the removal of riparian vegetation in a 50-foot ROW would significantly affect permanent fish populations. Habitat surveys conducted at proposed crossing locations indicated that riparian vegetation was not the dominant cover type for fish during low flow conditions. It is recognized that riparian vegetation would provide limited quantities of cover and food for fish. See response to Comment 70-9.

2-310

Section 4.0 - Environmental Consequences, 4.2 - Celeron/All American and Getty Proposals, 4.2.7 - Terrestrial Biology, 4.2.7.1 - Potential Impact to Terrestrial Resources, - Page 4-47

79-19

It is stated that operation of the pipeline would increase off-road-vehicle (ORV) access, thereby increasing the risk of wildlife harassment, illegal hunting, and removal of cactus species in remote areas. Adverse environmental impacts of ORV's, particularly in desert areas, are well documented. We recommend that the FEIS discuss in more detail the measures to be taken by the project proponents to insure that access to ORV's will be controlled over the life of the project.

79-19

See response to Comment 41-19 and Mitigation Measure 18.

Section 4.0 - Environmental Consequences, 4.2 - Celeron/All American and Getty, 4.2.7 - Terrestrial Biology, 4.2.7.1 - Potential Impacts to Terrestrial Resources - Page 4-51

It is noted that 2,580 acres of desert scrubland communities would be lost as a result of the construction of the Celeron/All American pipeline. It is generally recognized that natural revegetation in the desert may take up to 70 years. Because natural revegetation occurs so slowly and no mitigative revegetation is planned, we believe that it is important to reduce the amount of desert vegetation lost during pipeline construction.

- 79-20 [It is recommended that grading and clearing be minimized where the pipeline ROW crosses flat portions of the desert. These operations would totally destroy the plants in the ROW. If ditching alone occurred, only those plants in that narrower path would be totally lost; some of the crushed plants along the outskirts of the ROW may be able to recover by crown sprouting from undamaged roots. Additionally, all construction work and vehicles should be restricted to the specific ROW and designated access roads and not be permitted to move across desert habitat.
- 79-21 [It is stated that "the pipeline route passes near the desert bighorn sheep habitat near Cadiz, but construction is not expected to affect sheep since the route follows the desert valley floor below elevations used by bighorn sheep." Impacts to bighorn sheep could occur if water holes or areas used for lambing are located on the desert valley floor or in adjacent mountain areas. Migration routes to these areas could be temporarily lost as a result of the open trench needed to bury the pipeline and through construction activity and noise. The FEIS should identify if there are any migratory routes to lambing areas or watering holes that could be adversely affected by construction of the pipeline.
- 79-22 [In addition, the FEIS should identify burro deer (mule deer sub-species) migratory routes to watering holes that could be impacted during construction of the pipelines.
- Mitigation measures relating to bighorn sheep and burro deer should be developed if potential impacts are identified.
- 79-23 [The statement in the first paragraph that "construction in these wildlife habitats would temporarily displace large, more mobile species" is not always true in the desert areas of Arizona. In most cases, all available niches in adjoining suitable habitats are filled.
- 79-24 [These tables should be checked to insure that they provide accurate, consistent information on the occurrence of threatened and endangered species in the McCamey to Freeport project area. For example, Table B-7 indicates that the bald eagle is confirmed as occurring in Kerr County. Table B-9 indicates only probable occurrence of the bald eagle in Kerr County.
- 79-20 See Mitigation Measures 10 and 12 in Section 4.1.
- 79-21 The proposed route through the Mojave Desert would not affect bighorn sheep lambing areas, watering holes, or migration routes. The Cadiz area is historical range for bighorn sheep but is now unoccupied.
- 79-22 This is historical burro deer range and is not presently occupied. Burro deer are more numerous south of Blythe. In the region crossed by the pipeline most movement is between the Colorado River and the Riverside and Big Maria Mountains. The pipeline would not block movement to water sources. If burro deer were unable to escape the earthen trench during construction, the BLM Authorized Officer would require skip sections ever 0.5 mile along the trench.
- 79-23 Large mobile species (deer, bighorn, coyotes) and most birds would move away or be temporarily "displaced" from the ROW during construction. Temporary disturbance of a 50 to 100-foot strip of habitat is not likely to influence the carrying capacity of any of the habitats crossed by the pipeline with the possible exception of Copper Bottom Pass (see Mitigation Measures 18 and 19).
- 79-24 The bald eagle should be "confirmed" and not "probable" for Kerr County.

Appendix -D Areas Under Consideration for Wilderness Classification Page D-1,
Introduction

79-25 [The last sentence states that BLM WSA north of the Kofa NWR would be crossed by the Brenda Alternative, yet map D-3 shows that the route avoids the WSA.

79-25 The text indicating that the Brenda Alternative would cross WSA 2-125 has been deleted. See Modifications and Corrections Section, page D-1.

3.0 MODIFICATIONS AND CORRECTIONS



3.0 MODIFICATIONS AND CORRECTIONS

Section 3.0 presents modifications and corrections to the draft EIR/EIS and is divided into three subsections. Section 3.1 presents page by page corrections to the DEIR/EIS in tabular form. Column 1 indicates the page in the DEIR/EIS on which the correction occurs; Column 2 indicates the paragraph in which the correction occurs (P indicates a partial paragraph at the top of a page); Column 3 indicates the line within the paragraph; and Columns 4 and 5 present the text as it occurs in the DEIR/EIS ("Is") and how it should be corrected or modified ("Should Be").

Section 3.2 presents sections of text and complete tables in which modifications or corrections were extensive enough that it was not practical to present them in the tabular form used in Section 3.1. In these cases, the entire section of text or the complete table was revised and is presented in this section.

Section 3.3 presents material that was generated in response to the agency and public comments presented in Section 2.0. Also included in Section 3.3 are project description modifications that have been developed by Celeron/All American and Getty over the three-month public review period (August 1, 1984 to November 1, 1984). These modifications were made in response to the comments.

3.1 TEXT AND TABLE REVISIONS TO THE DEIR/EIS

Page	Paragraph	Line	Is:	Should Be:
1-6	Table 1-1 (Column 1)	9	International Water and Boundary Committee	International Boundary and Water Commission
1-6	Table 1-1 (Column 2)	18-19	Issue license to cross international boundary	Issue license to cross leveed floodway
1-12	P	2	Class III survey would be required on all Federal lands. Results ...	Class III survey would be required on all Federal lands and on non-Federal lands where required. Results ...
1-15	4	12	BPD of offshore crude.	BPD of offshore crude. Getty believes that for some of its marine terminal customers a movement by tanker to the Gulf Coast will always be required. Movement for others by pipeline will particularly be a function of refinery retrofits in California and competitive transport economics to the Gulf Coast via pipeline versus tanker.
1-15	5	2	Since the range and timing of OCS production is uncertain, it is difficult to predict the optimum timing and size of the Getty pipeline.	Since the volume and timing of oil production is uncertain, it is difficult to predict optimum size of any pipeline from Gaviota to San Joaquin Valley to San Francisco and/or Los Angeles or points east of California.
1-16	3	8	600,000 million BPD	600,000 BPD
1-20	Table 1-8 (Column 1)	8	Getty	Getty ⁴
1-20	(Footnote ⁴)		delete	Insert: The Applicants did not present tanker transportation costs for the economic analysis.
2-4	1	9	Rio Grande into Texas between Los Cruces and El Paso.	Rio Grande between Las Cruces and El Paso.
2-18	4	2	The Getty pipeline would be a private carrier	Although the Getty pipeline would be operated as a common carrier, it will be a privately owned pipeline.
2-39	3	5	of worst-case analysis, ...	of the analysis, ...
2-40	5	9-10	Tankers represent greater oil spill risks than pipelines.	delete
2-41	6	all	delete first sentence	Insert: A marine transportation mode alternative was not analyzed in detail because a detailed discussion of tankering is included in the Getty Gaviota Consolidated Coastal Facility EIR. This EIR is intended by Santa Barbara County to analyze all aspects of the Getty Gaviota project with the exception of the pipeline component which is analyzed in this document.
2-42	P	2-4	oil by tanker. The risk to marine resources from potential oil spills is greater than the County wishes to accept... Resources at risk such as ...	oil by tanker. The County is concerned that the risk to marine resources from potential oil spills is greater than they wish to accept ... Resources such as ...
2-42	P	6	terrestrial pipelines. The ability ... contain oil on land ...	terrestrial pipelines. The County maintains that the ability ... contain oil spilled on land ...

3.1 (CONTINUED)

Page	Paragraph	Line	Is:	Should Be:
2-49+	Table 2-8		See Section 3.2	
2-52+	Table 2-9		See Section 3.2	
3-5	3	11-13	portion of Kern County is NA for SO ₂ , and TSP. Only the Bakersfield area, which is 20 miles north of the Emidio pump station, is NA for CO. No portion	portion of Kern County is official NA for O ₃ and TSP. No portion ...
3-6	1	6	include the Kern County APCD, the San Bernardino Desert APCD, and the...	include the Kern County APCD for the San Joaquin Valley segment, the San Bernardino County APCD, and the ...
3-6	1	8	Riverside County. Along this segment of the pipeline, the ...	Riverside County. Along this segment of the pipeline that is outside of San Joaquin Valley, the ...
3-6	1	11	and the Cadiz tank farm.	and the Cadiz tank farm, both within the San Bernardino County Air Quality Maintenance Area.
3-21	Table 3-8 (Column 2-7)	16	Unnamed/Mountain uplands (Emigdio Mountains)/NA/NA/Slope	Kettleman/Mountain Uplands/Emigdio Mountains/15-50/shallow/loam/well/slope depth to rock Nacimfento-Linne/Mountain uplands (Emigdio Mountains)/30-50/shallow/clay loam/well/slope depth to rock
3-31	1	3	these, 15 basins ...	these 16 basins ...
3-34	Table 3-14 (Column 3)	12	8	8*
3-34	Table 3-14 (Column 5)	12	low	high
3-36	1	8	use, 10 basins ...	use 11 basins ...
3-47	2	9-10	Imperial NWR: Wetlands (as defined by the Army Corps of Engineers or the FWS) do not...	Imperial NWR: Wetlands (as defined by the Army Corps of Engineers) do not ...
3-55	2	7	Map 2-1).	Map 1-2).
3-59	2	10	man-made wetlands habitat (Map 2-1) ...	man-made wetlands habitat (Map 1-2) ...
3-60	P	3	Desert bighorn also occur in the Eagletail Mountains and Buckeye Hills.	Desert bighorn also occur in the Eagletail Mountains, Buckeye Hills, Palo Verde Mountains, and Haley Hills.
3-60	P	4	Desert tortoise occur in this area in the saguaro-palo verde habitat.	Desert tortoise occur in this area in the saguaro-paloverde habitat (Fredlake 1984, personal communication).
3-68	5	5-6	wilderness areas. Appendix D contains detailed data on BLM and Forest Service areas that are under consideration for wilderness.	wilderness areas. Appendix D contains detailed data on BLM, Forest Service, and Fish and Wildlife areas that are under consideration for wilderness.
3-70	1	5-6	proposed route. The Celeron and Getty routes cross at separate locations into Gaviota State Park ...	proposed route. The Celeron and Getty routes are within Gaviota State Park property ...

3.1 (CONTINUED)

Page	Paragraph	Line	Is:	Should Be:
3-70	2	4-8	cross irrigated cropland. The Getty route passes through areas of irrigated fields, vineyards, and pastureland before rejoining the Celeron/All American route. At the Sisquoc River more irrigated cropland and vineyards would be crossed before the routes enter La Brea Canyon and the LPNF.	cross irrigated cropland. The routes lie adjacent to areas of irrigated fields, vineyards, and pastureland, but avoid cropland along the Sisquoc River.
3-70	Table 3-23 (Column 3)	13	Residential/Commercial Area	Residential
3-71	P	5-6	both routes then cross the Miranda Pine FPA, the Sierra Madre Road and the Spoor Canyon, FPA.	both routes then cross the Sierra Madre Road.
3-75	3	6	summer months. Visitor use in 1982 totaled 262,998 and 202,310 days at	summer months. Visitor use in 1983 totaled 188,262 and 181,933 days at ...
3-75	5	4-5	Creek, a recreation use corridor, and cross two Forest Service FPAs and are adjacent to two other FPAs. See ...	Creek, a recreation use corridor. The Getty route is adjacent to, but does not cross, two FPAs, while the Celeron route crosses the Horseshoe Springs FPA. See ...
3-76	1	9	Women's Penitentiary ...	Men's Penitentiary ...
3-76	3	8-9	the I-10 bridge; the route crosses agricultural fields and is adjacent to a residential development.	the I-10 bridge; the route is adjacent to agricultural fields in the Palo Verde Valley and to a residential development in Blythe.
3-79	(Table 3-26) (Column 3)		Colorado River Aqueduct	Palo Verde Irrigation District Canal
3-83	6	2	Hueco Tank State Park is adjacent to the route ...	Hueco Tanks State Park is adjacent but outside of the route ...
3-84	P	1	corridor passes within 1 mile of ...	corridor passes within 2.5 miles of ...
3-119	5	4	alternative route include desert bighorn migration corridors.	alternative route include desert bighorn.
3-119	5	7-9	one-quarter mile of the Lazarus tank lambing grounds. Other species possibly occurring along the route include American peregrine falcon, Yuman mountain lion, desert tortoise and gila monster.	2 miles of the Lazarus tank lambing grounds. Desert tortoise occur along the Brenda Route. Other species along the route include American peregrine falcon, Yuman mountain lion, and gila monster.
3-123	3	3	The Llana River ...	The Llano River ...
3-129	Table 3-39 (Column 1)	9	Nivadad	Navidad
4-2	3	12	except in California where no standards can be exceeded	except for California and New Mexico state standards, which can never be exceeded.
4-27	Table 4-5 (Column 3-5)	17	Steep slopes/water erosion/NA ²	Steep slopes, depth to rock/water erosion, revegetation/Kettleman, Nacimiento-Linne
4-37	4	2	degradation could occur in the event of pipeline leaks or spills in ten ...	degradation could occur in the event of pipeline leaks or spills in eleven ...
4-37	4	4	in this segment. The crossing of Rio Grande Valley is probably the most ...	in this segment. The crossings of Palo Verde and Rio Grande Valleys are probably the most ...

3.1 (CONTINUED)

Page	Paragraph	Line	Is:	Should Be:
4-39	3	3	probability of occurrence (0.04-0.2 spills/year) ...	probability of occurrence (0.04 spills/year) ...
4-41	Table 4-6 Column 2	5	Fathead catfish	Flathead catfish
4-45	6	15	in the Mojave Desert where ...	in the Mojave Desert and parts of the Sonoran Desert where ...
4-50	Table 4-8 (Column 2)	11-12	Dome Rock Mtns., Kofa National Wildlife Refuge, AZ	Dome Rock Mtns., Kofa National Wildlife Refuge, Eagletail Mtns., Buckeye Hills, Palo Verde Mtns., and Haley Hills.
4-55	4	6	numbers.	numbers. Copper Bottom Pass is used frequently by bighorn sheep, this population is small and does not appear to be expanding. It is thus considered to be sensitive to human encroachment (Smith, L. 1984, personal communication). Construction of a ROW through Copper Bottom Pass could increase access for unauthorized vehicles potentially disturbing bighorn sheep at critical times of the year. Improved access could also increase illegal hunting in this area.
4-68	4 (Bullet 5)	2	wildlife refuges have 5 percent ...	wildlife refuges have 1 percent ...
4-74	Table 4-14	7		add: L16/South of Cadiz/Palen McCoy WSA/ Wilderness Impacts (Note that this insert results in the renumbering of L16-L30 to L-17 to L-31.)
4-75	Table 4-14 (Column 2)	3	Town of Reming	Town of Deming
	(Column 3)	5	Guadalupe Mtn. National Park	Hueco Tanks State Park
		6	Hueco Tanks State Park	Guadalupe Mtn. National Park
4-76	6	1-2	Santa Barbara County, Local Coastal Plan-the proposed project is not consistent with the following Coastal Plan policies	Santa Barbara County, Local Coastal Plan-the proposed project may not be consistent with the following Coastal Plan policy
4-76	7	1-2	Policy 6-14-the Celeron and Getty routes would cross Gaviota Creek, an environmentally sensitive habitat area.	Delete
4-76	8	7	Area and for this reason it may not ...	Area. For these reasons both projects may not ...
4-77	3	1-9	Los Padres National Forest: The Getty route up La Brea Creek would pass through two Forest Service FPAs. Celeron's ROW would cross the same two FPAs and one additional study area. Pipeline construction would result in significant adverse effects on wilderness characteristics of the Horseshoe Springs and Spoor Canyon FPAs because of reductions in their integrity, natural appearance, and opportunities for solitude. The other FPAs would not be significantly affected because the proposed pipeline ROW has already been disturbed and noise impacts would be of short duration.	Los Padres National Forest: Celeron's ROW would cross the Horseshoe Springs FPA. Pipeline construction would result in significant adverse effects to this FPA because of reductions in its integrity, natural appearance, and opportunities for solitude. The La Brea FPA would not be significantly affected because noise impacts would be of short duration.

3.1 (CONTINUED)

Page	Paragraph	Line	Is:	Should Be:
4-77	5	4-5	significantly affect recreation use, as long as the beach access road remains passible during ...	significantly affect recreation use, because beach access would be maintained at all times during...
4-77	7	3-5	directly affected by construction. Even after these campgrounds are restored, the clearing of large oak and sycamore trees would result in a drastic visual change in the area. This would significantly reduce ...	indirectly affected by construction. Even after construction is complete, the clearing of some small size oak and sycamore trees would result in a moderate visual change in the area. This would somewhat reduce ...
4-78	1	11		Add: In the Palo Verde Valley near Blythe current agricultural practices require deep "ripping" of soil (up to 10 feet). The pipeline will follow section lines and avoid cultivated fields in this region.
4-79	6	4-9	SDP has legal status similar to a county master plan. Several residential subdivisions crossed by the pipeline have filed SDPs in the Cummings Valley, Kern County. An amendment to the SDP may need to be filed by the pipeline proponent, depending on an interpretation of the SDP by the county planning office (Kielty 1984, personal communication). Such an interpretation has not been made by Kern County at this time.	SDP has legal status similar to a county master plan. Four proposed and one adopted SPD are crossed in the Cummings Valley, Kern County. An amendment to the adopted SPD has been deemed to be not necessary by the county planning office (Abbott 1984). Land proposed for the Emido and Tejon pump stations is subject to agricultural land preservation stipulation of Williamson Act contracts. Cancellation of these contracts must include an application to the county and payment of a tax penalty.
4-80	1	8		Add: The route also falls within the Blythe "Sphere of Influence", a designation which requires that city concerns be addressed. Alignment of the pipeline to avoid agricultural fields and minimize residential impacts has been proposed.
4-85			See Section 3.2	
4-86			See Section 3.2	
4-87	5	2	(Huero Tanks State Park)	(Hueco Tanks State Park)
4-87	6	5	be conducted prior to construction ...	be conducted on Federal land and on non-Federal land where required prior to construction ...
4-89	Table 4-16	2 10	II VI NA Yes III IV NA Yes	II II NA No III III NA No
4-119	2	1-4	The ..., U.S. Coast Guard, is responsible ... of coastal waters the Great Lakes, and for ports and harbors. As such, the U.S. Coast Guard ... this protection.	The Environmental Protection Agency (EPA), is responsible ... of inland areas. As such, the EPA ... this protection.
	2	4-9	The southern ... based in San Francisco. Within 2 hours ... Team.	Delete
	3	1-6	The governing ... California. Zone One ... onsite.	Delete

3.1 (CONTINUED)

Page	Paragraph	Line	Is:	Should Be:
4-124	3	3	fish species occur in Tepasquet Creek, impacts would ...	fish species likely occur in Tepasquet Creek, impacts probably would ...
4-131	7	11-12	would come within one-quarter mile of the Lazarus tank lambing ground north of Interstate 10.	would come within one-quarter mile of areas frequented by lamb/ewe bands in the spring north of I-10 (Smith. L. 1984, personal communication).
4-131	7	12	Plumosa	Plumosa
4-143	1	6-8	McCamey to Freeport Alternative route, Class I and Class III surveys would be undertaken and the procedures outlined in the compliance plan discussed earlier would be implemented.	McCamey to Freeport Alternative route, legal responsibilities would be considered and where required, the procedures outlined in Mitigation Measure 30 would be implemented.
4-163	4	6	segment): and La Posa ...	segment); and Palo Verde, La Posa, ...
4-164	5	2-3	Joaquin antelope squirrel, and giant kangaroo rat habitat in the Cuyuma Valley during construction (Celeron and Getty routes, Las Flores to Emidio segment)	Joaquin antelope squirrel, and giant kangaroo rat habitat during construction along the Celeron and Getty routes, Las Flores to Emidio segment.
4-164	6	1-2	Up to 230 desert tortoise (a federal candidate threatened animal) would be killed and their habitat affected ...	Desert tortoise habitat would be affected ...
4-165	Bullet 3	1-2	Three (Celeron) or two (Getty) FPAs (RARE II) would be affected in the LPNF (Celeron and Getty routes, Las ...	One FPA (RARE II area) would be affected in the LPNF (Celeron route, Las ...
4-165	6	1	Implementation of the cultural resources compliance plan would ...	Implementation of the cultural resource inventory and treatment plan and Section 106 consultation would ...
4-176	Table 4-34 (Column 4)	3-5	irretrievable. Long-term degradation of wilderness values would occur in the FPAs crossed by the pipeline. This degradation would be irreversible.	irretrievable.
5-2	-	2	International Boundaries Committee	International Boundary and Water Commission
R-4	(Column 2)	16-17	Diggs, T. Environmental Protection Agency, Region VIII, San Francisco, California ...	Diggs, T. Environmental Protection Agency, Region VI, Dallas, Texas ...
R-5	(Column 2)			Add: Fredlake, M. Biologist, BLM, Phoenix Office. May 1984. Personal communication with Germaine Reyes-French, ERT.
R-6	(Column 1)	28	Haper, M. Environmental Protection Agency, Region X, Dallas, Texas.	Haber, M. Environmental Protection Agency, Region IX, San Francisco, California.
B-22	Table B-6 (Column 3)	19		Add: ; in suitable habitat throughout Arizona
B-22	Table B-6 (Column 3)	22		Add: ; in suitable habitat throughout Arizona
B-7	Table B-3 (Column 2)	14	<u>Ambrosia ambrosioides</u>	<u>Ambrosia ambrosioides</u> and <u>Ambrosia dumosa</u>

3.1 (CDTINUED)

Page	Paragraph	Line	Is:	Should Be:
D-1	1	1	There are nine areas in California ...	There are seven areas in California ...
D-1	1	12	proposed route east of the Kofa ...	proposed route and one within the Kofa ...
D-1	1	13-14	on Map D-3. In addition...	on Map D-3. Delete sentence.
D-1	3 (Bullet 4)		It provides ... self-reliance and meeting challenges.	Delete entire bulleted item
D-1	4	3	(FPAs) and areas that did not meet minimum requirements for wilderness.	(FPAs) and areas that were not recommended for designation as wilderness.
D-2	Table D-1	3	Miranda Pine Roadless Area 114	Delete
D-2	Table D-1	6	Spoor Canyon Roadless Area 118	Delete
D-2	Table D-1	14		Add: Kofa Wilderness Study Area 191
D-3	Map D-1		114 Miranda Pine 118 Spoor Canyon	Delete
D-6	1	1-6	In 1981 ... (EIS). This interim ...	This interim ...
D-7 to D-9	3+			Delete section on Miranda Pine Roadless Area 114
D-14 to D-16 D-23	3+		See Section 3.3	Delete section on Spoor Canyon Roadless Area 118
D-27	8		Pipeline construction would have significant short and long-term impact on opportunity for solitude in the WSA's northern plains and foothills. Equipment noise would be very noticeable during the approximately 5 days of construction in the WSA (assumes a 2-mile per day construction rate plus ROW preparation time). Noise levels of 55 dBA would be audible up to 0.7 mile from the ROW.	Pipeline construction would not have significant impact on opportunities for solitude in the WSA's northern plains and foothills. Equipment noise would not be noticeable.
D-28	4	1-4	There currently are numerous roads in this area. Following construction, DRV use of the pipeline ROW is expected to occur. Such activity could further deteriorate wilderness characteristics of the area and is inconsistent with current BLM policy.	DRV use of the pipeline ROW can be expected to occur but this should not impact the WSA.
F-1	Table F-1 Modeling Assumptions: 8		assumed.	assumed; units enclosed in steel plate structures insulated with fiberglass batting.
G-10	3	5	pipeline projects. San Joaquin Valley crude would be able to enter the ...	pipeline projects. San Joaquin Valley crude oil would be able to enter the system at Emidio. Alaskan crude oil could enter the ...

3.1 (CONTINUED)

Page	Paragraph	Line	Is:	Should Be:
H-15	1	1-3	The ..., U.S. Coast Guard, is responsible ... of coastal waters, the Great Lakes, and for ports and harbors. As such, the U.S. Coast Guard ... protection.	The Environmental Protection Agency (EPA), is responsible for the protection of inland areas. As such, the EPA has established ... protection.
	1	4-9	The Southern California coastal area is the jurisdiction of the Pacific Strike Team, based in San Francisco. Within 2 hours of notification, the Pacific Strike Team can provide at least four trained personnel to the spill site at the request of the On-scene Coordinator, the Coast Guard, or the commanding officer of the Strike Team.	Delete
	2	1-6	The governing ... California. Zone One ... Coordinator (OCS) for all spills and is the key Federal official onsite.	Delete
H-15	3	8-9	all OCS directives concerning spills in the vicinity of the marine terminal of facility.	all OCS directives concerning spills.
H-34	Table 10-2		See Section 3.2	

3.2 Additional Revisions to the DEIR/EIS

CULTURAL RESOURCES

Modifications and Corrections to Pages 4-85 and 4-86

The first ten paragraphs of Section 4.2.11 in the DEIR/EIS should be deleted and replaced with the following:

4.2.11 Cultural Resources

Federal agencies cannot authorize impacts to cultural resources without prior compliance with Section 106 of the National Historic Preservation Act. This involves consultation with the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation to determine the significance of cultural resources and to develop procedures to mitigate adverse effects where required. The compliance process for the project is not yet complete. Inventory, treatment plans, and Section 106 consultation are in progress and will ensure that the effects of the pipeline construction on cultural resources are fully considered as required by law. Fort Bliss (Texas) has a programmatic agreement with the Texas SHPO involving a formal historic preservation plan. All survey and mitigation plans pertaining to the pipeline on Fort Bliss will be performed in accordance with the programmatic agreement. The information provided in this section is intended only for use in considering the various project alternatives.

Cultural resources impacted by the pipeline proposals include prehistoric and historic sites that are located in areas which would be directly or indirectly affected by project construction and facilities operation.

Direct impacts would result from actual surface disturbance of a site's spatial configuration or stratigraphy during a facility's construction or use. In this case construction and maintenance activities described in Section 2.2 would disturb or destroy cultural resources.

Indirect impacts refer to the increased potential for site disturbance due to a general intensification of land use activities in the area surrounding cultural sites. The construction or improvement of roads for project implementation purposes would make sites in the surrounding project area more accessible. Accessibility and visibility often leads to vandalism and unauthorized excavation by treasure seekers.

The process of formally evaluating cultural resources using regulatory criteria is often a complex and time-consuming process, involving several phased procedures. It should be noted that all cultural resources can make contributions to archaeological and historical research. Various levels of data collection ranging from professional site recordation to complex data recovery programs are possible depending upon the extent and significance of a cultural resource. Disturbance to cultural resources can often be limited if

sites can be avoided during detailed project design and final ROW selection. However, site avoidance must always be weighed against increased site accessibility when this alternative is being considered.

No ethnographic sites along the pipeline ROWs have been identified to date as a result of records checks and inquiries among Native American groups; however, impacts to as yet unidentified sites could still occur, and potential impacts will be evaluated as sites are identified. Potentially significant historic and prehistoric sites which have been identified for each segment of the pipeline routes are described in the following paragraphs.

REVISED TABLE 2-8 OF THE DEIR/EIS
 SUMMARY OF SIGNIFICANT IMPACTS¹ AND HAZARDS FOR THE
 CELERON/ALL AMERICAN AND GETTY PIPELINES

Code ²	Getty	Celeron	All American
<u>General</u>			
C Linear miles (acres) of land	113(770)	121.5(1,473)	1,084(13,139)
<u>Geology</u>			
H Number of Quaternary faults crossed	8	9	8
H Number of unstable slope areas crossed	15	15	13
<u>Soils</u>			
C Miles (acres) of sensitive soils crossed ³	72(873)	78(946)	253(3,067)
<u>Surface Water</u>			
C Number of perennial stream crossings	4	7	7
H Number of streams with degrading channels crossed	4	4	3
H Number of streams with flood hazard crossed	4	4	3
C Number of streams crossed with municipal water supplies located downstream	1 ⁴	1	1 ⁴
<u>Groundwater</u>			
Miles of sensitive groundwater basins crossed	32.5	28.5	407
<u>Aquatic Biology</u>			
S Number of perennial streams with important permanent fish populations crossed	1	2	5
<u>Terrestrial Biology</u>			
S Miles (acres) of riparian vegetation disturbed	10.1(61)	5.3(32)	3.5(21)

REVISED TABLE 2-8 (CONTINUED)

Code ²	Getty	Celeron	All American
<u>Terrestrial Biology (Continued)</u>			
S Miles (acres) of oak woodland disturbed	14.0(85)	11.8(72)	10.4(126)
C Miles (acres) of dunes disturbed	0	0	2(24)
S Number of federally protected species affected	3	3	1
S Number of state-protected species affected	4	4	5
S Desert tortoise crucial habitat crossed	No	No	Yes
S Desert bighorn critical habitat crossed	No	No	Yes
<u>Socioeconomics</u>			
C Maximum Percent increase in county tax base (county)	(Santa Barbara) 0.53	(Santa Barbara) 0.53	(Hudseph) 13.5
<u>Land Use And Recreation</u>			
S Miles (acres) of FPA or WSA crossed	0	5.0(61)	0
C Miles (acres) of irrigated cropland crossed	21.2(257)	20.7(251)	81.8(993)
C Miles (acres) of National Wildlife Refuge crossed	0	0	25(303)
S Number of National Forest campgrounds affected	3	2	0
<u>Cultural Resources</u>			
C Number of known sites within the ROW ⁵	16	19	54
S Number of sites within the ROW considered eligible for the National Register ⁶	4	4	4

REVISED TABLE 2-8 (CONTINUED)

Code ²	Getty	Celeron	All American
<u>Visual Resources</u>			
S Acres of significant visual change in LPNF	27.91	36.39	0
S Significant visual change at pump stations	0	0	2
<u>Noise</u>			
S High noise levels (60 dBA) near residences	Yes	Yes	Yes
<u>Oil Spill Potential</u>			
C Probability spill greater than 50 barrels for new pipeline (spills/yr for overall length)	0.034	0.036	0.325
C Probability spill greater than 50 barrels for 20-year old pipeline (spills/yr for overall length)	0.10	0.11	0.98
S ROW crosses areas sensitive to an oil spill	Yes	Yes	Yes

¹Impact values include the implementation of the committed mitigation measures presented in Chapter 4.

²C = area of concern (as identified during scoping) with no significant impact

H = potential geologic or hydrologic hazard to the pipeline

S = significant impact from pipeline construction or operation (details can be found in Chapter 4)

³Mileage calculations are estimates based on soils maps of variable scales.

⁴Overhead crossing of the California Aqueduct (Getty), and below streambed for the Colorado River (All American).

⁵Differences in the number of known sites also reflect differences in the number and intensity of surveys that have been conducted and in the site recordation methods that were used. The Class III inventory is expected to identify additional sites.

⁶Insufficient information exists to assess the National Register eligibility of all known sites with the ROW. The cultural resources compliance plan will minimize significant impacts to sites determined to be eligible for the National Register.

REVISED TABLE 2-9 OF THE DEIR/EIS
 COMPARISON OF SIGNIFICANT IMPACTS¹ AND HAZARDS FOR THE CELERON/ALL AMERICAN
 AND GETTY PROPOSALS AND ALTERNATIVES

Code ²	Celeron/ All American and Getty Proposals ³	Santa Maria Canyon Alternative ^{1a}	Celeron/ All American Proposal ³	Desert Plan Alternative	Celeron/ All American Proposal ³	Brenda Alternative	
General							
C	Linear miles (acres) of land disturbed						
	Celeron/All American	27.1(263)	38.4(402)	114(1,382)	191(2,315)	59(715)	63(764)
	Getty	27.4(166)	38.0(230)	NA ⁴	NA	NA	NA
	Both pipelines ⁵	8	8	NA	NA	NA	NA
Geology							
H	Number of Quaternary faults crossed						
	Both pipelines	2	2	0	0	0	0
	Both pipelines	2	2	NA	NA	NA	NA
H	Number of unstable slope areas crossed						
	Both pipelines	5	7	0	1	0	0
	Both pipelines	5	7	NA	NA	NA	NA
Soils							
C	Miles (acres) of sensitive soils crossed						
	Celeron/All American	19(230)	24(291)	114(1,382)	191(2,315)	16(194)	3(36)
	Getty	19(115)	24(145)	NA	NA	NA	NA
	Both pipelines	38(345)	48(436)	NA	NA	NA	NA
Surface Water							
C	Number of perennial stream crossings						
	Celeron/All American	2	3	0	0	0	0
	Getty	2	3	NA	NA	NA	NA
	Both pipelines	4	6	NA	NA	NA	NA
H	Number of streams with degraded channels crossed						
	Both pipelines	2	1	0	0	0	0
	Both pipelines	2	1	NA	NA	NA	NA
H	Number of streams with flood hazard crossed						
	Both pipelines	2	2	0	0	0	0
	Both pipelines	2	2	NA	NA	NA	NA
C	Number of streams crossed with municipal water supplies located downstream						
	Both pipelines	0	0	0	0	0	0
	Both pipelines	0	0	NA	NA	NA	NA
Groundwater							
C	Miles of sensitive groundwater basins crossed						
	Both pipelines	1.5	2	0	0	10	12
	Both pipelines	3.0	4	NA	NA	NA	NA
Aquatic Biology							
C	Number of perennial streams with important permanent fish populations crossed						
	Both pipelines	0	0	0	0	0	0
	Both pipelines	0	0	NA	NA	NA	NA

REVISED TABLE 2-9 (CONTINUED)

Code ²	Celeron/ All American and Getty Proposals ³	Santa Maria Canyon Alternative ¹⁰	Celeron/ All American Proposal ³	Desert Plan Alternative	Celeron/ All American Proposal ³	Brenda Alternative
Cultural Resources						
C Number of known sites within the ROW ⁶	4	6	1	3	29	3
Both pipelines	4	6	NA	NA	NA	NA
S Number of sites within the ROW considered eligible for the National Register ⁷	2	0	0	3	0	0
Both pipelines	2	0	NA	NA	NA	NA
Visual Resources						
S Acres of significant visual change in LPNF						
Celeron/All American	36.39	12.95 ¹⁰	NA	NA	NA	NA
Getty	27.91	2.95 ¹⁰	NA	NA	NA	NA
Both pipelines	a	a	NA	NA	NA	NA
S Significant visual change at pump stations	0	0	0	0	0	0
Both pipelines	0	0	NA	NA	NA	NA
Noise						
S High noise levels (60 dBA) near residences	Yes	Yes	No	No	No	No
Oil Spill Potential						
C Spill probability for new pipeline (spills/alternative/yr)	0.0081	0.0114	0.0342	0.0573	0.0177	0.0189
Both pipelines	0.0162	0.0228	NA	NA	NA	NA
C Spill probability for 20-year old pipeline (spills/alternative/yr)	0.0243	0.0342	0.1026	0.1719	0.0531	0.0567
Both pipelines	0.0486	0.0684	NA	NA	NA	NA
S ROW crosses areas sensitive to an oil spill	Yes	Yes	No	No	No	No

¹Impact values include the implementation of the committed mitigation measures presented in Chapter 4.

²C = area of concern (as identified during scoping) with no significant impact

H = potential geologic or hydrologic hazard to the pipeline

S = significant impact from pipeline construction or operation (details can be found in Chapter 4)

³Impact values for the Celeron/All American and Getty proposals are for the segments of pipeline that would be replaced by the respective alternative and not the complete pipeline route.

⁴Not Applicable.

⁵Acres figures reflect the worst-case assumption that both pipelines would be constructed on separate ROWs.

⁶Differences in the number of known sites also reflect differences in the number and intensity of surveys that have been conducted and in the site recordation methods that were used. The Class III inventory is expected to identify additional sites.

⁷Insufficient information exists to assess the National Register eligibility of all known sites with the ROW. The cultural resources compliance plan will minimize significant impacts to sites determined to be eligible for the National Register.

⁸For the route across the LPNF "both pipelines" would be constructed in a 50-foot ROW and would utilize existing roads, this would further reduce the acres disturbed by as much as 50 percent.

⁹Impacts to state-listed species will be mitigated on both lines; insufficient data are available to evaluate number of species.

¹⁰Celeron/All American represents Santa Maria Canyon Alternative A and Getty represents Santa Maria B.

REVISED TABLE 10-2 OF THE DEIR/EIS
 SENSITIVE AREAS ALONG THE PIPELINE ROUTES WHERE OIL SPILLS
 WOULD HAVE SIGNIFICANT IMPACTS

Location	DEIR/EIS Cross Reference	Soils (Sec. 4.2.3)	Surface Hydrology (Sec. 4.2.4)	Groundwater Hydrology (Sec. 4.2.5)	Aquatic Resources (Sec. 4.2.6)	Terrestrial Biology (Sec. 4.2.7)
<u>Getty and Celeron Proposals and Santa Maria Canyon Alternative</u>						
Refugio Creek (Celeron only)						
Gaviota Creek						
South Branch Santa Ynez Fault						
Santa Ynez River			X		X	
Sisquoc River			X			
La Brea Creek			X			
Cuyama River			X			
Cuyama Valley		X				
San Luis Obispo/ Kern County Line		X				X
San Andreas Fault						
<u>All American Proposal and Desert Plan and Brenda Alternatives</u>						
Garlock Fault						
Barstow		X				
Blyth		X				
Mojave River					X	
Rainbow Valley		X				
Colorado River						X
Demming		X				
Gila River		X				X
Wild Cat Canyon Creek						X
Bass Canyon Creek						X
Rio Grande River		X			X	
Pecos River						X

REVISED TABLE 10-2 OF THE DEIR/EIS (CONTINUED)

Location	DEIR/EIS Cross Reference	Soils (Sec. 4.6.3)	Surface Hydrology (Sec. 3.6.4 and 4.6.4)	Groundwater Hydrology (Sec. 4.6.5)	Aquatic Resources (Sec. 4.6.6)	Terrestrial Biology (Sec. 4.6.7)
<u>McCamey to Freeport Alternative</u>						
Brazoria County		X				
Wharton County		X				
Colorado County		X				
Lavaca County		X				
Ft. Bend County		X				
Brazos River			X		X	X
San Bernard River			X		X	X
Navidad River			X		X	X
Colorado River			X		X	X
New Braunfels Edwards Aquifer				X		

Sources: Getty and Celeron/All American

3.3 New Material and Modifications

KOFA WILDERNESS MODIFICATION

Modifications and Corrections to page D-23. The following discussion is concerned with the potential impacts to the proposed Kofa Wilderness and is intended to augment Appendix D in the DEIR/EIS:

Kofa Wilderness Study Area 919

Description. The Kofa Wilderness Study area is located within the Kofa National Wildlife Refuge northeast of Yuma, Arizona. This isolated desert area is made up of broad alluvial-floored valleys bounded by rugged mountains, canyons and eroded hills. The mountains, canyons and hills make up approximately two-thirds of the area. Though not high, many of the ranges and peaks rise abruptly from the valleys as exemplified by precipitous Summit Peak in the Kofa Mountains and 3,788-foot high Castle Dome Peak in the Castle Dome Mountains. The mountains and foothills consist of sedimentary and volcanic formations. The flat-appearing alluvial areas comprise approximately one-third of the Refuge. These relatively low desert valleys vary from 800 to 2,400 feet above mean sea level.

The area receives about 5 inches of precipitation per year. Summer rainfall is usually associated with scattered thunderstorms which often cause local flash floods. The midwinter storms are usually associated with large storms of Pacific origin. Periods of prolonged droughts are common. There are no permanent streams or lakes within the study areas. The only natural surface water impoundments are the small, widely distributed rock tanks or potholes that have been formed by geologic erosion. These tanks may contain water throughout the year.

The Kofa's diversity of topography and plant life provide the variety of desert habitat necessary to support not only the indigenous wildlife, but migratory birds of the arid Southwest as well. The desert bighorn sheep herd has thrived here, doubling since the establishment of the refuge. Among the rare visitors are the mountain lion and collared peccary. In all, 30 species of mammals, 46 herpetiles, and 161 species of birds use the Kofa Refuge.

Vegetative uniqueness and diversity is exhibited by the 188 species of vegetation occurring in the Refuge. The saguaro, largest U.S. cactus, is a striking species here. Mature saguaros can grow 50 feet in height and weigh 12 tons. This giant is the state flower and an indicator of the Sonoran Desert. Its fruit is sought by white-winged doves and rodents as a preferred food. A Kofa plant oddity is the California palm. This self-pruning variety of native palm is found in Arizona in only a few canyons of the Kofa Mountains.

The area is well supplied with evidence of early man. Artifacts include numerous petroglyphs, metates, campsites, "mescal" pits, and pottery. The 30-odd surface sites discovered to date are scattered over the entire Range, indicating an extended occupation by ancient man.

The Kofa Wilderness study area has two segments in the northern part of the refuge; the Plomosa Mountains Unit, an area to the north of the existing El Paso gas pipeline/road and a 500 kV electrical transmission line; and the Livingston Hills Unit, a tract to the southwest. The proposed All American ROW follows along the south side of the El Paso ROW and does not cross either study unit.

Integrity and Natural Appearance. The unique natural appearance of the two wilderness study units has been generally well preserved. From jagged peaks and extremely rugged intermediate mountains to the more gently sloping foothills, the integrity of the refuge landscape remains. Only where vistas overlook the few refuge access roads or the existing pipeline/transmission line corridor is the natural appearance interrupted. The natural appearance of the proposed corridor has already been significantly altered by the actions of man. The El Paso pipeline/road and the 500 kV transmission line already impose visual changes on the area. The road is a principal access route for travelers through the Refuge. For these reasons, enlargement of the El Paso ROW to accommodate the proposed pipeline is not expected to significantly alter the visual character of the area during either the construction or operation phases. No proposed wilderness study units would be crossed.

Solitude. Outstanding opportunities for solitude are present throughout much of the Plomosa Mountains and Livingston Hills units. The mountainous terrain presents a complex topography in which the sites and sounds of man are not present. There are few opportunities for solitude, however, along the proposed pipeline ROW because it lies in relatively flat terrain adjacent to the El Paso pipeline road, which is a major access route for Refuge visitors. The proposal, therefore, would have little or no effect on solitude.

Primitive Recreation. A wide variety of primitive recreation opportunities exist throughout the refuge wilderness study areas. Most use occurs in the winter months when temperatures are moderate. Hiking, backpacking, nature study, wildlife observation, mountain climbing, and sightseeing commonly occur during these months. Opportunities for primitive recreation along the Celeron/All American ROW, however, are limited due to the presence of roads. Mitigation Measure 21 will require the use of existing ROWs by the Celeron/All American pipeline. The minor addition to the existing corridor would not detract from hiking, or other recreation along the existing El Paso pipeline corridor because disturbance would occur during a short time period and be adjacent to existing visual intrusions.

Special Natural Features. No special or unique natural features are crossed by the corridor.

Availability and Need. A total of 542,600 acres was proposed for wilderness in the 663,700-acre refuge. Areas managed by the BLM on the refuge's north and east boundaries are also being considered for wilderness. The overwhelming majority of land being considered for wilderness will not be in any way affected by the proposed pipeline.

This New Table was Prepared in Response to Comment 39-2 from the Federal Highway Administration (FHWA) and Identifies Sensitive Land Uses at Crossing Points that Would Require Highway Encroachment Permits from FHWA.

TABLE 39-2

SENSITIVE LAND USES ADJACENT TO LIMITED ACCESS HIGHWAY CROSSINGS
ALONG THE PROPOSED PIPELINE ROUTES AND ALTERNATIVES

Highway Crossing	Sensitive Land Uses
<u>Celeron/All American</u>	
U.S. 101 near Gaviota Pass	Gaviota State Park
U.S. 101 near Los Alamos, CA	None
I5 south of Bakersfield, CA	Habitat for San Joaquin antelope squirrel
U.S. 14 south of Mohave, CA	None
I15 east of Barstow, CA	Residential land uses, irrigated cropland
I40 near Newbury, CA	None
I40 near Argos, CA	Habitat for crucifiction thorn
I10 near Blythe, CA	Irrigated cropland, residential areas, marina
I10 south of Casa Grande, AZ	None
I10 north of Willcox, AZ	None
I10 west of Lordsburg, NM	None
I10 east of Lordsburg, NM	None
I10 east of Demming, NM	None
I10 south of Las Cruces, NM	Irrigated cropland
I20 south of Monahans, TX	Residential land uses
<u>Getty</u>	
U.S. 101 near Gaviota Pass	Roadside rest area, Gaviota State Park
U.S. 101 near Los Alamos, CA	None
<u>Santa Maria Canyon Alternative</u>	
No major highway crossings	None
<u>Desert Plan Alternative</u>	
I10 west of Desert Center, CA	None
I10 east of Desert Center, CA	None
<u>Brenda Alternative</u>	
I10 east of Quartzsite, AZ	Habitat for desert bighorn sheep
I10 south of Brenda, AZ	None
<u>McCamey to Freeport Alternative</u>	
A specific pipeline route has not been determined	

Source: ERT

SANTA MARIA CANYON ALTERNATIVE MODIFICATION

Modifications to the Santa Maria Canyon Alternative presented in the DEIR/EIS were developed by Getty, Celeron/All American, and the Forest Service. A modification to the original pipeline route has been designated as Santa Maria B and is shown on Map 3.3-1. This modification avoids certain topographic problems found along Santa Maria A, crosses primarily Forest Service land, and is 0.5 mile shorter than route A.

Natural resources are similar along both routes since they are only 1 to 2 miles apart. Route B crosses more Forest Service land. Both routes would affect oak woodlands (see Table 47-32) and have revegetation concerns. Route B is farther from the golden eagle and prairie falcon nests near State Highway 166 and uses existing fuel breaks and roads to a greater extent. Analysis of impacts to visual resources is found in Appendix 4.6. Cultural resource surveys were conducted along the ROW for both routes A and B; no cultural resources were found along either route although 6 sites were found along other portions of this alternative. Route A is nearer to access points for heavy equipment. Both routes would be acceptable with appropriate mitigation measures.

In addition, Celeron/All American would relocate their proposed Sisquoc pump station approximately 9 miles west of the proposed location to better accommodate pumping hydraulics for the Santa Maria Canyon Alternative route (see Map 3.3-1).



- G** — Getty Proposed Route
- C** — Celeron Proposed Route
- Z** Check Valve
- X** Block Valve



MAP 3.3-1

**SANTA MARIA CANYON
ALTERNATIVE
[CALIFORNIA]**

TABLE 47-32

VEGETATION COVER TYPES AFFECTED BY THE PROPOSED PIPELINE ROUTES AND SANTA MARIA CANYON ALTERNATIVE
 FOXEN CANYON ROAD TO CUYAMA TIE POINT (In Miles)

Applicant	Chaparral	Coastal Sage	Irrigated Agriculture	Oryland Agriculture	Desert Scrubland ¹	Grassland	Riparian	Woodland ²	Disturbed	Total (miles)
Celeron-La Brea	11.0	0.3	0.5	0	0	4.6	4.2	6.4	0.1	27.1
Getty-La Brea	6.3	0.7	0	0.6	0.1	3.7	8.4	7.6	0	27.4
Celeron-Santa Maria A	7.9	3.1	0.8	0	0.6	15.0	<0.1	10.5	0	38.4
Getty-Santa Maria B	9.2	1.9	0.8	0	0.6	15.5	<0.1	10.0	0	38.0

Source: ERT

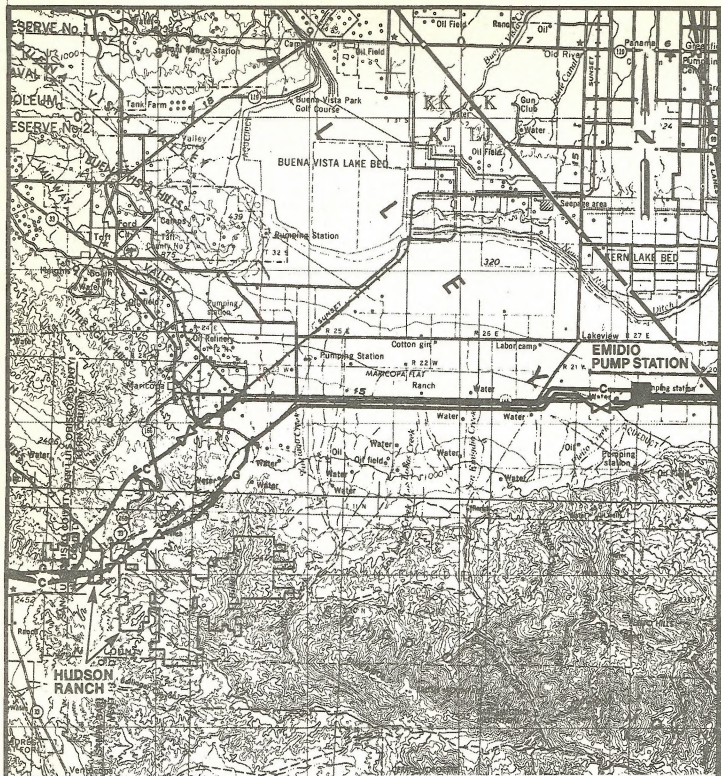
¹Includes alkaline scrubland.




²Primarily oak woodland.

HUDSON RANCH MODIFICATION

Based on U.S. Fish and Wildlife Service recommendations, the route would parallel State Highway 166 more closely to minimize impacts on the Condor Research Team's future plans for the Hudson Ranch which is being proposed as the Bitter Creek National Wildlife Refuge. The modified route is shown on Map 3.3-2.

Natural resource conditions along the modified route are not significantly different from those described for the proposed route with one exception, the ROW was chosen to avoid interference with the Hudson Ranch. The Fish and Wildlife Service is currently in the process of acquiring the ranch for the proposed Bitter Creek National Wildlife Refuge. There is still potential for the kit fox and blunt-nosed leopard lizard occurrence along the new alignment, but both routes are analyzed in the Biological Assessment. The modified route would be adjacent to a small county park containing several picnic tables and shade trees along Highway 166 west of Maricopa. No adverse recreation impacts would be expected for the short period when construction is visible to park users. Soils encountered would be similar to the original proposed route. The terrain crossed is less steep and avoids the canyons encountered in the proposed route. Cultural resource potential would be similar to the proposed route.



-  G — Getty Proposed Route
-  C — Celeron Proposed Route
-  Block Valve



CADIZ TANK FARM MODIFICATION

All American has proposed to construct five 300,000-barrel oil storage tanks at Cadiz as opposed to the three 500,000-barrel tanks described in the DEIR/EIS. As a result, the Cadiz tank farm would occupy approximately 80 acres instead of 20 acres.

Additionally, All American is currently proposing to power the pumps at the station with gas-fired turbines; however, electrically powered pumps are still an alternative.

The affected environment at the expanded tank farm site would be the same as described in the DEIR/EIS. Impacts to natural resources include an additional loss of 60 acres of desert scrubland (creosote-bursage) and desert tortoise habitat. Air quality impacts resulting from the modified tank farm and pump station design are discussed in detail in Appendix 4.5.

BLYTHE AREA MODIFICATION

All American has modified its route near Blythe at the request of the Palo Verde Irrigation District and the City of Blythe to minimize potential impacts to cropland and irrigation practices. The alignment is shown on Map 3.3-3 (revised from the DEIR/EIS). The affected environment along the modified route is essentially the same as that along the original proposal.

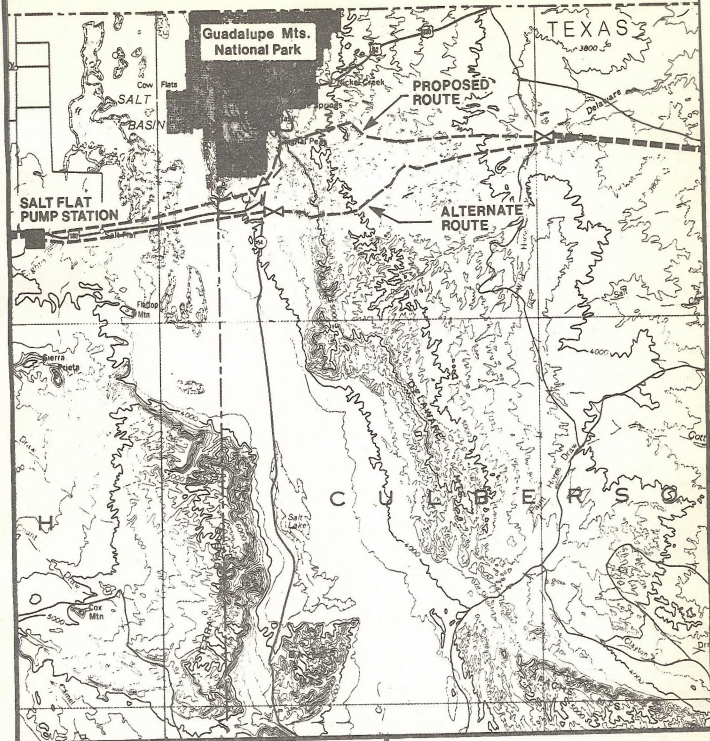
Current farming practices in the Blythe area require deep tilling and ripping of soils. The modified route in the Blythe area was sited to minimize disruption of agriculture by paralleling existing roads and canals and greatly reducing diagonal crossing of fields. The long-term impact of the pipeline would be reduced, compared to the original route. Other land uses along the route are similar to those described previously. There would be two more crossings of the Midland Road than in the original route, but transportation impacts are not expected to be significant. Geology, soils, and hydrology concerns would be similar to those detailed for the original route. Since the area is primarily agricultural cropland, wildlife and cultural resources impacts would be minimal.

GUADALUPE MOUNTAINS NATIONAL PARK MODIFICATION

In response to concerns expressed by the National Park Service, the pipeline alignment has been modified to avoid the southeastern corner of Guadalupe Mountains National Park and the Guadalupe Pass area. The new route (as shown on Map 3.3-4) begins near the Salt Flats Pump Station and follows an existing Shell pipeline ROW and road over the Delaware Mountains to the original alignment near Wild Horse Draw in Culberson County. The modified alignment is 25.8 miles in length, compared with the old route's 25.5 miles.

The route has been surveyed for cultural resources (Class I) and no sites have been found. Land uses, vegetation, and soils would be very similar to those described for the route presented in the DEIR/EIS. There are no sensitive land uses along the modified alignment.

The modified alignment would not be visible from the park and avoids the Guadalupe Pass area. Impacts to other resources would be similar to those discussed for the original route in the DEIR/EIS.



⊗ BLOCK VALVE

--- PIPELINE PARALLELS EXISTING PIPELINE



MAP 3.3-4

GUADALUPE MTS. NATIONAL
PARK MODIFICATION
(TEXAS)



4.0 APPENDICES



APPENDIX 4.1

MITIGATION MEASURES, AGENCY STIPULATIONS, AND RECOMMENDED MITIGATION MEASURES

4.1.1 Mitigation Measures

The following mitigation measures have been developed to mitigate the significant impacts that were identified in Chapter 4 of the Draft EIR/EIS. Since the draft, mitigation measures have modified based on agency and public comments; however, the numbering system used in the draft has been retained. Where impacts were deemed to be not significant, no mitigation measures were developed. The measures contained in this section have been committed to by the California State Lands Commission, BLM, Forest Service, and Santa Barbara County, and these agencies will be responsible for their enforcement. Thus, the mitigation measures will not be just suggestions but will be specific requirements of both Getty and Celeron/All American as part of their ROW grants or permits. As noted in several of the following measures, the federal authorized officer will direct the detailed implementation of certain measures.

In addition to the mitigation measures contained in this EIS, the BLM will attach standard and special ROW stipulations to its ROW grant (see Section 4.1.2). These stipulations will contain generic measures that are applied to all ROWs as well as site-specific measures whose need may be identified at the time the pipeline centerline is surveyed. The required surveys for cultural resources and protected animals, for example, will likely identify the need for site-specific stipulations.

Federal agencies (BLM, Forest Service, FWS, and Department of Defense) can consider impacts on Federal and private land. Reasonable mitigation measures can be enforced on Federal land, but authority is limited on private land. The California State Lands Commission in its role as CEQA lead agency has identified Recommended Mitigation Measures in Section 4.1.3 of this document which reduce significant impacts. At the time that the Commission certifies the document it will determine the appropriate public agency responsible for implementation of such measures pursuant to the California Environmental Quality Act, Section 15091. The California State Lands Commission has no direct enforcement authority other than on state-owned lands; however, it can require certain measures as a condition of the permit it will issue and rely on other state agencies, such as the Department of Fish and Game, to enforce these conditions. Mitigation measures and stipulations contained in the conditional use permit issued by Santa Barbara and other Counties will be required and enforceable on private land as well as public land.

4.1.1.1 Air Quality (none required)

4.1.1.2 Geology

Measure 1: Appropriately detailed geologic, seismologic, and geotechnical studies will be conducted to identify and characterize geologic hazards and to provide information for design of earthwork and foundations along the pipeline route and at pump and heater stations, tank farms, and delivery stations.

For much of the pipeline alignment, a reconnaissance-level geologic study will be sufficient to identify those areas, if any, requiring more detailed investigation. The scope of the reconnaissance-level study will vary with the degree of potential geologic hazards identified in Sections 4.2.2, 4.3.2, 4.4.2, 4.5.2, and 4.6.2 of the DEIR/EIS. For those portions of the proposed alignment adjacent to an existing pipeline, a review of maintenance problems or structural failures related to ground conditions may be sufficient. If necessary, this review should be supplemented by examination of aerial photographs or aerial reconnaissance. For new portions of the routes, the reconnaissance studies should include literature review and interpretation of stereo aerial photos, if available. Aerial reconnaissance could be substituted where photos are unavailable.

Specific geologic hazard areas identified during the reconnaissance studies may require further investigation. This may involve aerial reconnaissance, ground reconnaissance/mapping, and/or some subsurface exploration (drilling, text pits). At pump and heater stations, tank farms, and delivery stations, a program of standard geotechnical exploration and design will be performed.

Effectiveness: Such studies are standard for major civil structures and will identify with an acceptable degree of completeness existing significant geologic and seismologic hazards such as landslides, subsidence scarps and fissures, karstic sinkholes, Holocene faults, and areas susceptible to liquefaction. Special attention to further evaluating potential for damaging movement on the Quaternary faults listed on Tables 3-3 and 3-5 in the DEIS/EIR, particularly the South Cuyama and White Wolf Faults, will result in appropriate treatment of these crossings, if required (see Measure 3). Areas with moderate to high potential for future development of geologic hazards will be identified.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

Measure 1-A: Geologic hazards identified and characterized as a result of Measure 1 will be dealt with by specific mitigation which may involve avoidance by re-routing, remedial earthwork, or special structural or foundation design. In some cases, a program of surveillance and/or monitoring will be established to verify adequate performance (e.g., at a crossing of an inactive landslide), or warn of developing hazards (e.g., in proximity to an active karst feature or a slope judged susceptible to failure during an extremely wet year).

Recommendations and design criteria for earthwork and foundations will be developed by pump and heater stations, tank farms, delivery stations, and selected pipeline segments (e.g., fault crossings, major river crossings, etc.).

Effectiveness: These mitigation measures are standard and are very effective, being based on adequate investigations as specified in Measure 1. The particular measure selected to accommodate a geologic hazard or geotechnical condition will be site and problem specific, further enhancing the effectiveness of the measure.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

Measure 2: Appropriate ground motion parameters will be developed for use in seismic design of critical structures and equipment, including pumps, valves, piping, communications systems, and instrumentation. Use of the dual contingency level/operating level earthquake concept, or equivalent, is recommended.

The development of seismic design parameters will involve the following elements:

- selection and characterization of significant potential seismic sources (active faults, unassociated earthquakes, etc.), including evaluation of the magnitude of contingency and operating level earthquakes.
- estimation of attenuated ground motions at sites from each potential source.
- assessment of the likelihood of experiencing the design earthquakes and resulting site ground motions (at least in terms of defining the contingency and operating level earthquakes).

The estimated site ground motions will then be used in structural design of critical elements (see Section 4.2.14 in the DEIR/EIS).

Effectiveness: Appropriate seismic design, especially for the Las Flores to Blythe portion of the route, will minimize the potential for serious damage leading to oil spillage as a result of strong ground shaking. Earthquake-resistant design is sufficiently advanced so that this measure should prove very effective.

Application: This measure will be applied to the Celeron/All American and Getty facilities and all alternatives within California. Studies to determine the need for such measures along the remainder of the route will be conducted as part of Measure 1.

Measure 3: Special geologic/seismologic studies will be conducted to characterize potential surface offset at the South Branch Santa Ynez, San Andreas, and Garlock faults, and appropriate crossings will be designed. Similar studies will be conducted for any other faults that show evidence of Holocene offset (within approximately the last 11,000 years) at the pipeline crossing.

Effectiveness: Adequate historical and geologic data exist to characterize an appropriate design fault offset event for the San Andreas Fault. Some field study may be necessary to delineate the limits of the zone across which movement could occur. Historical data are less abundant for the South Branch Santa Ynez and Garlock faults, but geologic data and comparison to other similar known active faults provide a basis for developing design events. Again, some field study may be required. Having selected an appropriate offset, design techniques are available to minimize the potential for pipe rupture and/or to minimize the amount of oil spillage if a rupture occurs. These include:

- Pipe burial in V-shaped ditch with loose backfill.
- Use of extra-strength steel pipe.
- Placement of block valves on either side of fault in conjunction with seismic detection.
- Construction of earth dike to contain spillage; use of earthen or synthetic liner in holding basin.

Application: This measure will be applied to the Celeron/All American and Getty proposals and alternatives at crossings of Holocene faults.

4.1.1.3 Soils (none required)

4.1.1.4 Surface Water

Measure 4: During pipeline construction at stream crossings, construction contractors will minimize time of disturbance and area disturbed, stabilize disturbed areas promptly, and divert runoff waters into settlement areas prior to discharge into a watercourse. Where construction activities are necessary in the channel, particularly La Brea Creek, the channel will be disturbed as little as possible and for as short a time as possible.

Effectiveness: An increase in sediment loadings during construction of stream crossings is unavoidable. Application of this measure will minimize the impact of construction at stream crossings.

Application: The measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

Measure 5: Pipeline operators will check the pipeline burial depth yearly at major crossings identified in this report. At crossings where channel degradation has reduced the depth of fill to less than the 100-year scour depth, reburial of the pipeline to the proper depth will be required.

Effectiveness: The burial depth of 4 ft below the scour of the 100-year, 24-hour storm runoff event is required by DOT regulations. This requirement minimizes the chances of possible pipeline breaks during large runoff events. Some of the major streams crossed by the pipeline have been disturbed and the channels are degrading in the vicinity of the pipeline crossing. Maintaining deep enough pipeline burial is important to minimizing the risk of an oil spill.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

4.1.1.5 Groundwater

Measure 6: Detailed hydrogeologic investigations will be conducted for each sensitive area along the alignment as indicated in Table 3-14. These investigations will include definition of groundwater depth, recharge sources, properties of overlying soils, hydraulic gradient, background water quality, and existing water uses. Existing wells will be inventoried in an area extending hydrogeologically down gradient from the pipeline for 2 miles or for a distance downgradient in the aquifer equal to the distance groundwater would move in one-year at a velocity (V) calculated from the maximum hydraulic conductivity (K) of the specific aquifer, hydraulic gradient (i), and porosity (ϕ). The formula for this calculation is $V = \frac{Ki}{\phi}$. For example, if K = 1000 ft/day, i = 25 ft/mile, and ϕ = 25 percent, then V = 19 ft/day or 1.3 miles per year. This information will be used to formulate an Oil Spill Contingency Plan that will include plans for monitoring and early detection of groundwater contamination, notification of affected groundwater users and appropriate governmental agencies, site-specific cleanup and response, and identification of emergency alternate water supplies.

Effectiveness: These hydrogeologic investigations and contingency plans will make appropriate information available in sensitive areas to allow for early detection and response to spills or leaks rather than attempting to get this information after a spill has occurred. This is particularly important in populated areas where groundwater is extensively used for municipal or domestic supplies.

Application: This measure will be applied to sensitive groundwater basins along the Celeron/All American and Getty proposals and all alternatives.

Measure 7: Low permeability backfill will be used in the bottom and sides of 20-ft sections of pipeline trench where the ROW approaches sensitive aquifers that are at risk from oil spills and leaks. This measure will be implemented at each side of selected sensitive areas

where the ROW follows topographic slopes toward basins with shallow depth to water, high vertical permeabilities, and a high degree of groundwater use as indicated by hydrogeologic investigations performed in Measure 6 above.

Effectiveness: This method of trench backfill will force leaking oil to the surface rather than permitting lateral or downward seepage along the trench downslope toward alluvial aquifers. This will facilitate early leak detection and simplify cleanup procedures.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

4.1.1.6 Aquatic Biology

Measure 8: Fueling and lubrication of construction equipment will not occur within 0.25 miles of streams. No more than 2 barrels of fuel (about 84 gallons) should be kept at construction sites within 0.5 mile of sensitive streams (Table 4-6). Equipment will be periodically checked for leakage to avoid spills. If a spill does occur, it should be reported to the Authorized Officer immediately.

Effectiveness: Refueling away from streams and periodic maintenance should reduce the risk of construction-related spills.

Application: The measure would be applied to the Celeron/All American and Getty proposals and all alternatives.

4.1.1.7 Terrestrial Biology

Measure 9: Development will avoid, to the maximum extent possible, disturbance to sensitive and valuable plant communities including riparian areas, oak woodlands, Coulter pine, live oaks, Joshua tree woodlands, desert dunes, and ironwood washes. Locations to be avoided will be determined by the land owner, land manager, or applicable regulatory agency. The construction ROW will be reduced to 50-ft wide in these sensitive communities. The land owner, land manager, or regulatory agency may reduce the construction ROW in specific locations to minimize impacts to other sensitive plant or wildlife communities. Staging areas will not be located in sensitive communities.

Effectiveness: Avoiding and minimizing disturbance to sensitive areas and unique plant communities will minimize loss of vegetation and wildlife habitat by 50 percent.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

Mitigation Measure 9-A: Clearing of vegetation and wildlife habitat in riparian and oak woodland communities (in the Las Padres National Forest) will be minimized by:

- Using the existing La Brea Canyon Road to the greatest extent practical to minimize clearing,
- Limiting the maximum construction ROW to 50 feet for both pipelines,
- Not cutting trees greater than 6 inches dbh (diameter at breast height) without prior authorization by the Forest Service.
- Including native riparian zone species for revegetation to encourage regeneration and restoration of wildlife habitat.

Effectiveness: Avoidance of large trees and construction of both pipelines in one 50-foot ROW will minimize loss of vegetation and wildlife habitat by at least 50 percent. Some clearing of riparian habitat will still occur and disturbance during construction will discourage use of the area by wildlife.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives across the Los Padres National Forest.

Measure 10: During construction in creosote scrub and alkali scrub areas of the desert, ROW clearing will be limited to trimming or crushing whenever possible. The new ROW will be located immediately adjacent to existing disturbance, especially roads.

Effectiveness: This measure will limit the amount of shrub vegetation disturbed and reduce erosion. By not disturbing the root system, many crushed or clipped shrubs will resprout and revegetate the ROW more quickly. This will reduce soil erosion and speed re-establishment of wildlife habitat.

Application: This measure will be applied to the desert portions of the Celeron/All American proposal, the Desert Plan, and Brenda Alternatives.

Measure 11: During construction in desert areas, some of the cleared or clipped vegetation will be piled in small thickets off the ROW (where acceptable to the landowner or land manager) to provide cover for displaced animals.

Effectiveness: Providing cover for displaced small mammals and reptiles, especially small desert tortoise, will decrease heat stress and minimize exposure to predators.

Application: This measure will be applied to the desert portions of the Celeron/All American proposal, the Desert Plan, and Brenda Alternatives.

Measure 12: Vehicle operation off the ROW by construction workers will be prohibited except where specified by the landowner or land management agency.

Effectiveness: Limiting vehicle use off the ROW will minimize the risk of impacting livestock, wildlife habitat, small mammals, reptiles, and important or sensitive vegetation in surrounding habitats. This will be especially important in desert dune areas and in desert bighorn sheep range.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

Measure 13: During construction the open pipeline trench will be limited to 0.5 mile in desert bighorn sheep areas or areas where the pipeline could limit wildlife access to water, such as in La Brea Canyon in California, and Hot Springs Creek in Arizona. Skip sections or temporary bridges across the pipeline trench will also be used if more than 0.5 mile of trench must remain open for an extended period. Backfilling of the trench, especially at skip sections, will be a gentle grade to allow escape of animals from the trench.

Effectiveness: This will minimize impacts caused by water stress and disruption of movement patterns. Not all animals are accustomed to crossing skip sections, however it will provide an opportunity for wildlife (like deer and coyotes) accustomed to human presence to cross the pipeline trench.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

Measure 14: A competent wildlife biologist will survey all potential raptor nesting habitat within 0.5 mile of the pipeline prior to construction. Active and inactive nests will be identified. No construction will occur within 0.5 mile of active eyries during the nesting season (generally between March 15 to July 15, site-specific timing constraints may vary based on biologist recommendations). Construction will be permitted near inactive nests; however, no nest sites will be disturbed. Potential perch sites cleaned by ridge-top construction will also be identified by the Applicants. Where deemed necessary by local California Fish and Game biologists, raptor perch or roost trees will be avoided and/or artificial roosts will be constructed on ridgelines to mitigate losses of such trees resulting from clearing the ROW on ridgetops.

Effectiveness: This measure will prevent nest abandonment resulting from pipeline construction and minimize loss of perch sites. It will also help provide flexibility for construction scheduling.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

Measure 15: Blunt-nosed leopard lizard and San Joaquin kit fox habitat in the Cuyama and San Joaquin Valleys will be evaluated. Where suitable habitat occurs, attempts to relocate the pipeline (primarily to agricultural lands) will be considered. In habitat that must be affected, the construction disturbance on the ROW will be limited to 50 ft or less. If kit fox dens are found in the ROW, the pipeline ROW will be altered 100 feet to miss dens. Revegetation plans will include measures to encourage re-establishment of suitable habitat. In addition, all measures included in Appendix 4.2 will apply to the Celeron route in T11N, R24W, Sections 18, 7, 8 and 9 (about 3.2 miles for blunt-nosed leopard lizard habitat); T10N, R24W, Sections 9, 4, 3, and 34, and T11N, R24W, Sections 27, 26, 23, 24, 13, 18, 7, 8, and 9 (about 10 miles for San Joaquin kit fox habitat).

Along the Getty route, the measures will apply from Milepost 94 to 103 for San Joaquin kit fox habitat, and from milepost 100 to 103 for blunt-nosed leopard lizard habitat.

Effectiveness: Avoiding leopard lizard and kit fox habitat will be the most effective measure of ensuring that these animals are not affected. Where construction must occur in their habitat, some lizards will still be impacted by vehicles and trenching equipment; however, the population may be able to survive the loss of a few individuals if the habitat is restored and land use practices on the ROW do not change. Avoiding kit fox dens will minimize significant impacts to kit fox; however, kit fox will still be displaced to other areas as a result of construction and operation activities. Minimizing the construction ROW width will minimize loss of blunt-nosed leopard lizard habitat by 50 percent. Moving the pipeline to agricultural areas will impact croplands, resulting in a trade-off of impacts. Impacts to croplands can be minimized by seasonal restrictions and double trenching techniques.

Application: This measure would apply to the Celeron/All American and Getty proposals.

Mitigation Measure 15A:

For California state-listed species, site-specific field inventories should be conducted prior to construction. This requirement will be consistent with the intent and general provisions of Assembly Bill No. 3309, the California Endangered Species Act which will become effective January 1, 1985.

A qualified biologist will survey the Applicants' 50- and 100-foot ROWs in areas suspected of having threatened and endangered state-listed species. Potential areas where these species may occur were identified in Appendix B of the DEIR/EIS. The California Fish and Game Department will be consulted concerning appropriate methods for survey as well as appropriate mitigation measures if these species are found on the ROW.

Effectiveness: This measure will eliminate significant impacts to state-listed species.

Application: This measure will apply to the Getty and Celeron/All American proposals, the Santa Maria Canyon, and the Desert Plan Alternatives.

Measure 16: All construction across desert tortoise habitat will occur between October and March when tortoises are hibernating. A desert tortoise expert will be present during construction. Any active desert tortoises will be removed from the construction ROW ahead of construction equipment and moved to habitat within 100 yds of the capture site. Burrows within the ROW will be carefully opened using hand tools and hibernating tortoises removed. Injured tortoises will be turned over to the Department of Fish and Game. Adequate funds for costs involved in rehabilitating injured tortoises and returning them to their home sites (within 100 yds of capture site) will be paid by the applicant.

Effectiveness: Injuries and deaths of tortoises will be minimized if construction occurs when tortoises are inactive (i.e., only tortoises hibernating right on the ROW would be impacted). Removal of active tortoises from the construction area will ensure survival of these individuals. Burrows can be successfully constructed with hand tools and plywood (Berry 1984, personal communication).

Application: This measure would apply to the Celeron/All American proposal, the Desert Plan, and Brenda Alternative.

Measure 17: Oil spill booms will be located as near as possible to the man-made wetlands downstream of the Colorado River crossing. In the event of a spill these booms would be used to prevent oil from entering backwater wetlands from the river, or reaching Yuma clapper rail habitat 20 miles downstream.

Effectiveness: Booms have been used effectively for many years in containing oil and directing it to areas for cleanup. Locating booms near the crossing will minimize response time and minimize the possibility of oil reaching sensitive habitats (such as Cibola and Imperial NWR and Yuma clapper rail habitat) downstream.

Application: This measure will be applied to the Celeron/All American proposal.

Measure 18: No construction will be allowed in the Copper Bottom Pass area during January to March (lambing) and May to October (water stress) periods. Barriers to block unauthorized access along the ROW will be erected by the applicant in consultation with BLM. Any effects on bighorn sheep water resources will be mitigated through avoidance or construction of new wells, or collectors.

Effectiveness: This measure will reduce impacts on bighorn sheep in the Dome Rock Mountains, but will not be completely effective because pipeline maintenance and access into this remote area would eventually disturb bighorns.

Application: This measure will be applied to the Celeron/All American proposal.

Measure 19: No pipeline construction in the Kofa NWR will be allowed during bighorn use of the migratory corridors. Avoidance periods and formal restrictions will be determined by FWS.

Effectiveness: This measure will not limit existing disturbance because the route through the NWR follows an existing pipeline, transmission line, and access road. It will eliminate impacts related directly to disturbance of bighorn sheep due to pipeline construction activity.

Application: This measure will be applied to the Celeron/All American proposal.

Measure 20: At the Muleshoe Ranch Preserve, construction will occur between August 30 and April 1. Revegetation will be in accordance with plans determined by the Nature Conservancy, BLM, and Forest Service. The ROW will utilize the existing El Paso ROW to the extent possible. Large sycamores in Bass Canyon will not be removed.

Effectiveness: Seasonal construction restrictions (i.e., no activity during the April to August nesting season) will prevent nest abandonment by nesting raptors resulting from construction activity. Reseeding with native vegetation and minimizing impacts to riparian communities will decrease impacts on wildlife and wildlife habitat.

Application: This measure will be applied to the Celeron/All American proposal.

Measure 21: Where the pipeline ROW follows the existing El Paso Natural Gas ROW or other existing ROWs, the old ROW will be used as part of the construction ROW and new disturbance will be limited to the area needed for trenching and stockpiling backfill.

Effectiveness: Using the existing ROW for construction will minimize the total area cleared, wildlife habitat lost, and area to be revegetated. Using the existing ROW would significantly minimize the total acres disturbed.

Application: This measure will be applied to the Celeron/All American proposal.

4.1.1.8 Socioeconomics

Measure 22: The pipeline construction period will be scheduled so as not to coincide with peak tourist seasons. The areas affected by tourism include: Santa Barbara County Coastal Area - June thru August; recreation areas in the LPNF - August thru November; Colorado River Crossing area, California - April thru September; Quartzsite, Arizona - November thru April.

Effectiveness: This action will minimize competition for temporary housing and camping sites between tourists and construction workers.

Application: This measure will be applied to the Celeron/All American and Getty proposals and the Brenda Alternative.

Measure 23: Between Barstow and Blythe, and Blythe and Phoenix, workers will be accommodated in areas where housing is available, and transportation to and from the job site will be provided.

Effectiveness: This measure will centralize the impact on housing demand in areas that have sufficient resources to accommodate the construction work force.

Application: This measure will be applied to the Celeron/All American proposal, the Desert Plan, and Brenda Alternative.

Measure 24: Temporary accommodations for construction workers, such as mobile home units equipped with bunkbed and trailers providing kitchen facilities and leisure activities such as television, will be provided at locations where housing is limited (eastern California, and western Arizona).

Effectiveness: This action will reduce conflicting demands for limited temporary housing between construction workers, tourists, and other travelers. It will also reduce commuting distances in areas where little or no temporary housing is available near the pipeline corridor.

Application: This measure will be applied to the Celeron/All American proposal, the Desert Plan, and Brenda Alternatives.

4.1.1.9 Land Use and Recreation

Measure 25: After construction has been completed motorized vehicle access to public lands crossed by the ROW will be restricted on federal lands (as requested by the agency) by gates or other barriers.

Effectiveness: This measure will enhance revegetation efforts and limit the proliferation of spur roads in sensitive resource areas. Agency regulations limit development of new roads in these areas.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

Measure 27: The All American Pipeline ROW will be moved from the west side to the east side of the dirt road that forms the Palen to McCoy WSA boundary from milepost 260 to milepost 270.

Effectiveness: This measure would remove the ROW from within the boundary of the WSA and ensure compliance with WSA Interim Management Policy.

Application: This measure will be applied to the Celeron/All American proposal.

Measure 28: Within the section from Las Flores to Emidio, the Celeron and Getty Pipelines will be constructed within the same ROW as designated by the Authorized Officer. This could be accomplished by phasing of construction, and laying one pipe as close as practicable from the ROW edge and then later placing the next pipeline as close as practicable from the other side of the ROW, resulting in a minimum distance between pipe centers.

Effectiveness: This measure would reduce by one half the amount of disturbance and land use impacts associated with construction of two pipelines.

Application: This measure would apply to whatever ROW is found to be preferred.

Measure 29: Important historic areas and structures will be avoided at Patton's Camp ACEC.

Effectiveness: Impacts to protected areas will be avoided.

Application: This measure will apply to the Desert Plan Alternative.

4.1.1.10 Transportation (none required)

4.1.1.11 Cultural Resources

Measure 30: Mitigation of adverse impacts to cultural resources will occur in the following manner:

Prior to construction an intensive (100%) cultural resource survey will be conducted on all affected Federal land surfaces that have not previously been surveyed. Survey on non-Federal lands will be conducted as specified by the Authorized Officer after consultation with the State Historic Preservation Officer (SHPO) in all states. During the survey, information will be gathered on all newly discovered and previously recorded archaeological sites to determine their potential eligibility to the National Register of Historic Places. Limited testing of some sites may be necessary in order to determine their eligibility. Sites located on non-Federal lands in California will be evaluated using criteria defined in CEQA Appendix K. Following the survey, an inventory report will be prepared and submitted to the Authorized Officer for review and comment. The report will contain the results of the inventory, and all sites will be evaluated for potential eligibility to the National Register. Justifications will be given for the rationale. The report will include a proposed mitigation plan for all sites that are considered to be potentially eligible for inclusion on the National Register. The mitigation plan may include avoidance of sites, data collection, site-specific control of access and construction, monitoring recommendations, and salvage excavation.

Based on the above mitigation plan, the Authorized Officer will submit a treatment plan to the SHPO in each state and to the Advisory Council on Historic Preservation. Following the consultation period, the treatment plan will be implemented. All field work must be completed before construction can begin in a given area. Monitoring will be implemented during construction where required by the treatment plan.

Any sites located during construction or as the result of monitoring will be evaluated and a treatment plan will be developed as needed.

Contact will be maintained with appropriate Native American groups to determine the nature and extent of concerns regarding specific cultural resources. Native Americans will participate in data recovery consistent with federal agency requirements and where appropriate, with tribal policies.

Effectiveness: Cultural resources will be protected wherever prudent and feasible. These actions and Section 106 Consultation will ensure that the effects of the pipeline construction and operation on cultural resources are fully considered as required by law.

Application: This measure will be applied to the Celeron/All American and Getty proposals and all alternatives.

4.1.1.12 Visual Resources

Measure 31: The Gaviota pump station, Sisquoc pump station, Essex pump station and tank farm, and Tom Mix pump station will be screened with native shrubs and trees and/or naturalized masses of evergreen shrubs and trees as is appropriate for location and climatic conditions.

Effectiveness: The placement of trees and shrubs between the facility and existing sensitive receptors will eliminate the intrusive character of the facility. The FVC for all locations where such screening is proposed is indicated below.

Celeron Segment:

- Gaviota pump station - to screen from US 101 and the Gaviota Store and Restaurant (FVC II).
- Sisquoc pump station at La Brea Canyon - to screen from Foxen Canyon Road and La Brea Canyon Road (FVC II).

All American Segment:

- Twelve-Gauge Lake pump station - to screen from Highway 58 (FVC IV).
- Tom Mix pump station - to screen from US 89 (FVC III).

Desert Plan Alternative:

- Essex pump station and tank farm - to screen from US 66 (FVC IV).

Application: This measure will be applied to the Celeron/All American proposal and Desert Plan Alternative.

Measure 32: In the pipeline segments on the LPNF, the Applicants will utilize a 50-ft wide construction corridor, protect existing large diameter trees, feather the edges of the cleared ROW, and reseed cleared areas as determined by the Authorized Officer.

Effectiveness: The smaller construction corridor will provide selective protection for large trees in forested areas. Feathering the edges of the clearing will soften and partially disguise the visual impact resulting from cutting a path through the trees and brush. The effectiveness of this measure will depend on the pre-project visual condition of the specific site: areas previously characterized as "untouched landscape" (EVC I) or "unnoticed alterations" (EVC II) will be deteriorated to the category of "minor visual disturbance" (FVC III). Areas of existing visual disturbance ranging from minor to drastic can all be restored to "major visual disturbance" (FVC V) by scalloping edges of vegetative clearings.

Application: This measure will be applied to the Celeron/All American and Getty proposals and the Santa Maria Canyon Alternative.

Measure 33: The La Paz heating/pumping station will be moved 1,500 ft to the east behind topographic screening.

Effectiveness: Relocation of the proposed facility will allow for natural topographic screening thereby improving the future visual condition from the "visual disturbance" (FVC IV) to "unnoticed alterations" (FVC II).

Application: This measure will be applied to the Celeron/All American proposal.

4.1.1.13 Noise

Because of the short duration of constructed impacts in any one area (2 weeks or less), limiting construction to daytime hours (as described in the Project Description), and the low probability of accomplishing effective mitigation of high noise levels associated with construction activities, mitigation beyond the standard requirements for use of equipment mufflers and similar OSHA requirements is not considered to be warranted.

Measure 34: The Gaviota pump station(s) will be shielded from Vista del Mar Union School by a noise barrier, such as a berm or structural enclosure.

Effectiveness: The barrier will be designed and built to reduce project operation related noise below the 60 dBA significance threshold of the school.

Application: This measure will apply to any pump station built by Celeron/All American or Getty within 1,500 ft of the Vista del Mar Union School.

4.1.1.14 Oil Spills (none required)

4.1.2 Additional Agency Right-of-Way Stipulations

In addition to the mitigation measures presented in Section 4.1.1, various agencies will require stipulations as part of their right-of-way (ROW) grants. While these stipulations are not designed to mitigate specific significant impacts, they will function to reduce the overall impacts of the project. Listed below are the stipulations that have been identified by the affected agencies at the time the Final EIR/EIS was published. Additional stipulations will be developed as the environmental review process progresses, and these will be incorporated into the final ROW grants.

General

- a) Compaction of back-filled material will be required on all refuge lands. (FWS).
- b) Pipe depth will be a minimum of 4 ft below the surface on the Kofa National Wildlife Refuge (NWR) and constructed so that future use of the area by heavy equipment will not require further modification of the landscape. (FWS).

Aquatic Biology

- a) Staging areas for stream crossing equipment will be located outside of the stream's riparian zone to minimize the amount of sediment entering streams and to reduce disturbance to riparian vegetation. A maximum construction ROW of 50 ft will be used in riparian areas to reduce disturbance. (Forest Service, BLM, and FWS).
- b) Stream bank and bottom protection measures including rip-rapping, upland storage of excavated riverbed materials, importing clean backfill, natural backfilling, and revegetation will be evaluated by the Authorized Officer and implemented on a case-by-case basis. These techniques will reduce the construction related sediment load to the stream and minimize alterations of important aquatic habitats. (Forest Service, BLM, and FWS).
- c) Construction activities will be timed to avoid spawning periods of important fish species (Appendix B, Table B-2). Construction of stream crossings during low flow will minimize habitat degradation by reducing the amount of suspended solids and turbidity. Avoidance of critical fish spawning periods will eliminate potential impacts to eggs and juveniles, which are considered the most sensitive life stages. (Forest Service, BLM, and FWS).
- d) As requested by Arizona Game and Fish and enforced by BLM, a check valve will be added to the pipeline on the downstream side of Centennial Wash, Arizona. The check valve would minimize the effects of a possible oil spill resulting from a flood event.

Terrestrial Biology

- a) If possible, no sensitive plants will be removed or affected by the ROW on the Kofa NWR. (FWS).
Such plants will be fully protected and avoided during construction; sensitive plants will be transplanted only if it is impossible to avoid them. (FWS).
- b) No desert tortoise mortalities will be accepted due to pipeline construction or operation on the Kofa NWR. (FWS).
- c) Surface disturbance will be kept to an absolute minimum on the Kofa NWR. All terrain will be restored to original grade after construction. Unnecessary blading of desert pavement will not be performed. (FWS).
- d) Harrowing or discing will be used along the disturbed areas of the Mojave Desert. Revegetation will not be attempted because of extremely low levels of precipitation. (BLM).
- d) Federal, state, and county laws and regulations pertaining to sensitive vegetation and wildlife (i.e., T&E species, game species) will be posted in conspicuous places at the job site and included in pipeline contractor's contract. (BLM).

Soils

- a) Construction activities will avoid or minimize disturbances to sensitive soil units as determined by the authorized officer. Sensitive soils are characterized by major potential problems associated with erosion control and revegetation (i.e., steep slopes, slump-prone areas, shallow soils, highly saline-alkaline soils, sand dunes). (BLM and Forest Service).
- b) Construction activities will not occur on fragile soils during periods of high or saturated soils moisture conditions. (BLM and Forest Service).
- c) Vehicle travel routes on the Kofa NWR will be watered down during construction to prevent movement of soil by vehicles, wind, etc. All disturbed areas will be restored to original grade with rocks replaced in a natural-appearing way. Improvements will be made to minimize soil erosion. (FWS).
- d) Construction activities will not occur from March through May in the Mojave Desert in order to minimize wind erosion. (BLM).

Land Use and Recreation

- a) The disturbed area of the Pacific Crest National Scenic Trail will be reconstructed following construction and rehabilitation of the pipeline ROW. (BLM).

Transportation

The following stipulations will be required within the State of California and will be enforced by Caltrans.

- a) Pipelines parallel to a highway should be placed, where possible, outside the State highway ROW. Longitudinal encroachments within a freeway ROW are permitted only under special circumstances, primarily where no feasible alternative exists.
- b) Transverse lines should preferably cross a highway at right angles.
- c) Encroachment permits will be needed wherever the pipelines cross the State highway ROW. At these locations the project Applicants may have to present satisfactory evidence of surveys for archaeologically and botanically sensitive resources.
- d) The inside diameter of casings for pipeline crossings should exceed the outside diameter of the pipeline by 4 inches.
- e) This project falls in the category of a "high risk" facility (over 6 inches in diameter and over 60 psig operating pressures) and will be governed by Caltrans' "Policy on High and Low Risk Underground Facilities". The Caltrans ROW Utility Department must be notified of all high risk installations.
- f) Detailed plans depicting the exact locations of crossings, with permit applications for the anticipated pipeline, should be submitted a minimum of four months ahead of construction. This would allow for field review and approval of site and crossing elevations.

System Safety and Reliability

- a) At the Cadiz tank farm, an automated, foam solution, fire extinguisher system for the seal area of each tank will be installed. The system should provide sufficient foam (about 310 gallons) and water (about 10,000 gallons) to extinguish a seal fire on one tank. (California SLC).
- b) At the Cadiz tank farm, a redundant sensor and control system to prevent overfilling of the oil tanks will be installed. Overfilling is a primary contributor to tank fires. (California SLC).
- c) At the Cadiz tank farm, a tank roof sensor will be installed on all tanks to detect a jammed roof. (California SLC).

- d) At stations with gas-fired turbines and Waste Heat Recovery Units (WHRU), there will be extended purging of both units with interlocks to prevent starting before purging is complete. At stations without turbines, gas-fired heaters will also have extended purging before starting (i.e. all pump stations with natural gas supply). (California SLC).
- e) Explosions are caused by leaks coupled with an ignition source. Pumps are equipped with seal leak detectors that will stop a unit if a leak is detected. Other leaks will be reduced by checking valve stem packing during regular visits to the site. (California SLC).
- f) Extra pipeline burial depth will be provided in areas where deep plowing or ripping could result in damage to the pipeline. Depth will be at least 1 ft below maximum plow depth in these areas. (California SLC).
- g) In agricultural areas, pipeline location markers will be placed above ground and buried cable or fluorescent plastic, below ground just above the pipeline to mark the pipelines location. (California SLC).
- h) Irrigated agricultural land owners will be periodically contacted and provided information to increase and maintain awareness of the pipeline to reduce the probability of pipeline rupture through plowing, ripping, or excavation. (California, SLC).
- i) In the event of an oil spill onto irrigated agricultural lands, contaminated soil will be replaced and monetary compensation will be made for any lost production. (California SLC).

4.1.3 Recommended Mitigation Measures

The following mitigation measures have been suggested to further minimize impacts to rare species and sensitive plant and animal communities.

Recommended Mitigation Measure 1:

The Applicants should prepare site-specific Construction and Use Plans that describe by construction spread:

- specific centerline location;
- specific construction techniques including proposed erosion control measures such as use of water bars, sedimentation ponds, and straw bales;
- disposal plans for excess backfill;
- revegetation techniques including mulching, fertilizing, and seed mixtures.

In sensitive habitats such as riparian areas, oak woodlands, desert washes, and rare species habitat, the Applicants will work with local state Fish and Game and U.S. Fish and Wildlife Service personnel in determining use of measures to minimize impacts on wildlife.

These measures may include but are not limited to:

- development of water sources,
- location of trench skip sections,
- avoidance of raptor nest and perch trees,
- location of ORV signs and barriers
- minimize loss of mature trees,
- prepare seed mixtures that provide food and/or cover for wildlife.

Effectiveness: Site-specific planning with local agencies interested in protecting wildlife resources (primarily sensitive habitat) will minimize impacts on the resource and help the Applicants and authorizing officers understand the terms of the ROW grant.

Application: This measure will apply to the Getty and Celeron/All American proposal and all alternatives.

Recommended Mitigation Measure 2:

No guns or dogs should be allowed on the ROW.

Effectiveness: Eliminating guns and dogs from the ROW will discourage indiscriminate shooting and harassment of game and nongame wildlife.

Application: This measure will apply to the Getty and Celeron/All American proposals and all alternatives.

Recommended Mitigation Measure 3:

The Applicants should provide basic educational materials concerning wildlife laws and regulations as well as the required mitigation measures designed to minimize impacts.

Effectiveness: Posting laws and regulations and educating field crews on the intent of mitigation measures will at least eliminate the violators's excuse for ignorance of the law or ROW grant provisions.

Application: This measure will apply to the Getty and Celeron/All American proposals and all alternatives.

Recommended Mitigation Measure 4:

The Applicants should work with BLM and Arizona Game and Fish biologists in evaluating potential opportunities to minimize impacts to bighorn sheep, such as developing water sources in other parts of their habitat to encourage movement away from disturbed areas, and ORV access points.

Effectiveness: Although Mitigation Measure 18 requires replacement of affected water resources, developing new water resources away from development may reduce future man/bighorn conflicts especially in areas where ORV use is difficult to control.

Application: This measure should apply to the All American proposal and the Brenda Alternative.

APPENDIX 4.2

U.S. Fish and Wildlife Service and National Marine Fisheries Service
Biological Opinion Regarding Federally Protected
Threatened and Endangered Species

and

Recommended Actions and Measures
to Minimize Impacts
(Excerpts from the Biological Assessment)

Biological Opinion



United States
Department of the Interior

Fish and Wildlife Service
Lloyd 500 Building, Suite 1692
500 N.E. Multnomah Street
Portland, Oregon 97232

In Reply Refer To:
AFA-SE

Your Reference:
1-RO-84-F-62

November 23, 1984

Memorandum

TO: State Director, Bureau of Land Management,
2800 Cottage Way, Sacramento, California 95825

FROM: Acting Regional Director, Fish and Wildlife Service, Portland, OR
(AFA-SE)
William J. Shale

SUBJECT: Formal Endangered Species Act Consultation on the Getty and
Celeron/All American Pipelines (1-RO-84-F-62)

This responds to your August 23, 1984, request which was clarified by your November 21, 1984 letter for formal consultation pursuant to Section 7(a) of the Endangered Species Act of 1973, as amended, on the proposed Celeron/All American and Getty oil pipeline projects. The Celeron/All American pipeline would transport oil from Gaviota, California to McCamey, Texas. The Getty pipeline would transport oil from Gaviota to Emidio, California. The two pipeline projects are independent of each other, and either one or both could be approved. Therefore, we will render one Opinion for both projects.

The Bureau of Land Management (BLM) is the lead Federal agency for issuing a right-of-way grant across all Federal lands. Hence, the Bureau will be the lead agency in the Section 7 formal consultation process pursuant to Interagency Cooperation Regulations for Section 7 consultation.

Your consultation request was accompanied by The Threatened and Endangered Species Biological Assessment for the Celeron/All American and Getty Pipeline Projects prepared for BLM by Environmental Research and Technology, Inc. This document identifies the following listed species that may be affected by the two pipelines: the endangered blunt-nosed leopard lizard (Gambelia silus), the endangered Yuma clapper rail (Rallus longirostris yumanensis), the endangered American peregrine falcon (Falco peregrinus anatum), the endangered bald eagle (Haliaeetus leucocephalus), the endangered California condor (Gymnogyps californianus), and the endangered San Joaquin kit fox (Vulpes macrotis muctica).

The Biological Assessment also discusses impacts to the proposed threatened Thornber's fishhook cactus (Mammillaria thornberi).

Based on review of the Biological Assessment and draft EIS, we have determined that the bald eagle will not be affected by the proposed projects. Therefore, the bald eagle will not be discussed further in this Opinion.

The two pipelines are not independent from the expansion of the Getty marine terminal at Gaviota. However, the impacts of the marine terminal expansion and associated increase in oil tanker traffic will not be addressed in this Biological Opinion as stipulated in your November 21, 1984 letter. Since BLM does not have authority for regulating this part of the project. The affect of terminal expansion and increased tanker traffic should be addressed in future consultation with the Corps of Engineers (COE) which is responsible for permitting development in navigable waters. Thus the following species will not be addressed in the Opinion: Salt marsh bird's beak (Cordylanthus maritimus), California least tern (Sterna antillarum (=albifrons) browni), California brown pelican (Pelecanus occidentalis californicus), light footed clapper rail (Rallus longirostris levipes), or southern sea otter (Enhydra lutris nereis).

The Biological Assessment, the August 1984 draft Environmental Impact Statement on the subject projects, communications with your staff and consultant, and information in our files provide the basis for this consultation.

Summary of Biological Opinion

Based on our review of the following information, the project's Biological Assessment and draft EIS, and information in our files, it is our Biological Opinion that the proposed Getty and Celeron/All American pipelines are not likely to jeopardize the continued existence of the blunt-nosed leopard lizard, Yuma clapper rail, American peregrine falcon, California condor, or San Joaquin kit fox or result in the destruction or adverse modification of critical habitat. Terms and conditions required to reduce the incidental take of listed species and recommendations to promote the conservation of listed species are given.

Section 7 of the ESA does not require formal consultation on the possible effects of a Federal action on a species that is proposed for listing as endangered or threatened since proposed species are not protected by the ESA of 1973, as amended. For proposed species, you must confer when you determine your actions may jeopardize the continued existence of the species. We stress consideration of proposed species because they may become listed during later planning or construction phases of a project. As such, the determination of jeopardy or non-jeopardy to such species will not be addressed in this biological opinion.

Project Descriptions

Both the Getty and Celeron/All American pipelines would transport crude oil produced in the Outer Continental Shelf and other locally produced oil from the Santa Barbara and Santa Maria basins. The projects would link into existing oil pipeline transportation systems. The purpose of both projects is to transport oil to refineries that have the necessary capability and capacity to refine heavy crude oil. A complete description of these projects is given in Appendix B of the Biological Assessment and in the draft EIS.

Getty Project. Getty Trading and Transportation Company proposes to transport up to 400,000 barrels per day of oil in a buried pipeline from Getty's existing pump station at Emidio, California. The 20 to 30-inch pipeline would cover a distance of about 113 miles and include 17 block and check valves, 2 to 3 pump stations, and a delivery station at Emidio. No new roads would be required. However, several utility taps would be needed.

The Getty pipeline is part of Getty's proposed Gaviota Consolidated Coastal Facility. The two projects have no independent utility. The project would include the pipeline, and crude oil storage facilities. The purpose is to receive, store and distribute crude oil produced in the Santa Barbara Channel and Santa Maria Basin. Oil stored at the facility could be transported to refineries either by tankers through the marine terminal or by the Getty pipeline.

Currently, Getty has an existing marine terminal at Gaviota. The proposal is to modify the existing facility with a new consolidated facility. The project has the following features that are germane to this consultation (taken from the Biological Assessment):

- A phased development of crude oil storage facilities with ultimate tank capacities of approximately 2.74 million bbl to support the existing marine terminal and the crude oil pipeline to the San Joaquin Valley.
- A pipeline connection from Gaviota to the San Joaquin Valley refinery/transportation network with a crude oil throughput in the range of 100,000 to 400,000 BPD.

Celeron/All American Pipeline. Celeron/All American proposes to transport up to 300,000 barrels per day of oil from the Santa Barbara coast near Gaviota to McCamey, Texas. An additional alternative may continue the pipeline to Freeport, Texas. The 24- to 30-inch buried pipeline would be about 1,200 miles long and include 78 block and check valves, 5 pumping stations, 10 pumping and heating stations, 1 heating station, 3 delivery stations and a 20-acre tank farm at Cadiz, California. No new roads would be required, however, utility taps would be required.

Pipeline Construction. Construction methods will be similar for both pipelines. Construction of the Getty pipeline would require about six months, while the Celeron/All American pipeline would require about two years. A construction right-of-way (ROW) would be 100 feet wide for either line, except where a smaller ROW is feasible. Permanent ROW's would be 20 feet for Getty and 50 feet for Celeron/All American. Laying of the pipeline would progress at an average of 1.5 to 2 miles per day per "spread", slowing to about 0.5 miles per day in rough terrain. A "spread" is each construction crew cleaning, digging, placing, and covering the pipeline. Getty plans to use 3 spreads, and Celeron/All American plans to use 6 spreads.

Ditching would be accomplished by mechanical excavation. In some areas, blasting will be used. The ROW will be cleaned up after pipeline burial. The most common methods of surface restoration are: removal of debris, surface contouring, water control structures, surface cultivation, mulching, application of soil amendments, and replanting.

Operation and Maintenance of Pipelines. Operation of the pipeline is primarily automated. Maintenance of the pipelines and ROW's would include observation for construction activities in the ROW's; inspection and maintenance of cathodic protection systems; inspection of block valves; inspection of pipeline mile-post and road-crossing markers; and inspection of crossings at highways, utilities and other pipelines. An aerial reconnaissance of the pipeline ROW's would be made at least every two weeks of the Celeron/All American pipeline, and twice weekly of the Getty pipeline.

Species Accounts

The Biological Assessment for Threatened and Endangered Species for the Proposed Celeron/All American and Getty Pipeline projects thoroughly covers the biology and ecology of the species discussed in this Opinion. Only minor discrepancies were noted by our staff, and these will be discussed where needed in the section describing effects of the action.

Associated Effects of Future Federal Actions. As previously recognized, there will be direct and indirect impacts to threatened and endangered species in the coastal ecosystems should the marine terminal be expanded. The actual degree of effect is unknown because of the lack of information on the oil spill risks associated with anticipated increase in tanker traffic along the coast. Any future Section 7 consultation request by the responsible agency permitting an expansion of the terminal will have to provide a risk analysis of increased tanker traffic so that we can adequately assess the impacts.

Blunt-nosed leopard lizard (BNLL). The Biological Assessment presents a reasonable analysis of project effects on leopard lizards. The pipeline skirts what we consider to be the southern edge of BNLL range. The question of hybrid lizards arises in the Cuyama Valley, but has never received sufficient scientific study to resolve specific ranges of pure BNLL and hybrids (or overlaps thereof).

Trenching and other construction activities result in the loss of individual BNLL (including eggs and young) and the rodent burrows in which they seek shelter. Traffic is likely to cause road kill, but it is difficult, if not impossible, to reduce this factor through any reasonable means. These impacts are most likely in the Cuyama Valley and from the foothills to the Highway 166 junction near Pentland, California, for an estimated disturbance of 63 - 84 acres of BNLL Habitat (Biological Assessment).

The alignment along Highway 166 is probably the least damaging route alignment for BNLL although it is not uncommon to see leopard lizards at the road edge.

Disturbances from pipeline trenching and backfilling are not the most significant threats to BNLL in the south San Joaquin Valley. Pipeline projects offer very minimal long term adverse impacts to BNLL. Minimizing the ROW width to 50 feet through BNLL habitats through the Cuyama Valley and near Pentland at elevations below about 2000 feet, as suggested in the Biological Assessment, is a reasonable recommendation that we believe will reduce impacts to BNLL.

Yuma clapper rail (YCR). Habitat for the Yuma clapper rail occurs in the marshes of the Colorado River and some habitat would be lost due to construction of the river crossing for the pipeline. These effects would not be significant since there is very little habitat present in that area and the disturbance would not be permanent.

Of far greater potential adverse impact is the possibility of an oil spill into the Colorado River. The Biological Assessment provides several proposed actions to minimize these impacts, notably contingency plans, storage of booms and other containment devices and changing water

flow rates. The Fish and Wildlife Service (FWS) concurs with these measures to protect the marsh habitat of the rails. Oil that gets into the river could easily destroy many acres of essential rail nesting areas and may necessitate removal of the vegetation to adequately remove the oil, thus destroying rail habitat for a longer period of time.

American peregrine falcon (APF). Peregrine falcons could be impacted by the proposed projects by the loss of foraging habitat or by disturbance to nesting falcons. Peregrine falcons feed almost exclusively on birds that they catch in flight. Prey species range in size from swifts and hummingbirds to gulls. Generally they feed on shorebirds, jays, woodpeckers, mourning doves and pigeons. The territories of hunting peregrine falcons may cover large expanses of landscape. The hunting territory of a male peregrine tracked during a breeding season in Alaska was determined to be 120 square miles (White 1974). A female peregrine, which was followed by radio-telemetry during the period when she was feeding small young, frequently ranged within 3.12 miles of her nest, but occasionally traveled as far as 11.5 miles (Enderson et al. 1977). Since peregrines forage over such a large area, and are capable of obtaining a wide variety of prey, the loss of habitat due to pipeline construction should be minor and primarily temporary.

Although peregrine falcons tend to be fairly tolerant of human activities, prolonged disturbances near nest sites during the critical nesting period from about February 1 through August 1 may lead to a loss of productivity and/or site abandonment. Photographers, rock climbers, construction, and timber harvest, are examples of disturbances that, if in close proximity to a nest site, can lead to interference with incubation or parental care. Short-term disturbances such as explosions also may lead to a loss of productivity. Cade (1960) observed several instances where incubating peregrines were startled and bolted off the nest, kicking eggs out of the scrape in the process.

Currently, peregrines are not nesting at Gaviota Pass. If, however, they do begin breeding prior to the construction of the pipelines, then disturbances from construction could impact nesting success.

California condor (CC). Condors could be impacted by the proposed projects due to the temporary loss of foraging habitat, the disturbance of foraging activities during construction, and the disturbance of aircraft flights for ROW surveillance after construction. Much of the pipeline routes from Gaviota to near Tehachapi are within the condor range. Hence, condors may fly over the construction sites anywhere within their range. Flying condors show little fear of humans and will often fly close to investigate a person who may be on top of a ridge or

mountain, or in an open area. In some places, the pipeline routes are close to flight corridors, especially where these routes cross ridges or foothill grasslands. Condors fly sometimes at low altitude along the Sierra Madre Mountains where the pipelines may cross. Another area where condors may fly low over the route is where it crosses the Tejon Ranch critical habitat near Cummings Mountain. In such situations, condors can be vulnerable to shooting.

The condor requires fairly open grassland habitat for feeding. This ensures easy takeoff and approach, and makes food finding easier for this species that apparently depends on sight rather than smell for locating its food. The condor eats only dead animals. Historically, these probably included deer, elk, pronghorn, whales, sea lions, and smaller mammals. Because of availability, dead cattle are now the primary food source, but other animals are eaten when present.

The foothills of southwestern Kern County and eastern San Luis Obispo County have been the most important condor foraging area in recent years. Virtually the entire population concentrates in the area during the late summer and fall months, particularly on Hudson and Snedden ranches in the Bitter Creek drainage. A portion of the population feeds there all year, including 2 or 3 nesting pairs.

Construction of the pipeline from where it leaves the Cuyama Valley floor to where it drops to the San Joaquin Valley floor near Maricopa could render portions of this important condor foraging habitat unusable during the period of construction. The proposed alignment of the Celeron/All American pipeline follows Highway 166 more closely than the Getty route. Since the highway is a permanent disturbance, the Celeron/All American should merely introduce more activity in an area where condors are already accustomed to activity.

Since the Getty route crosses foraging habitat that is less frequently disturbed by ongoing activity, its construction could have a greater impact to condors. In either case, the disturbance due to construction will be relatively short term.

Some information is available on condor response to aircraft. Wilbur (1978) reported that two condors flushed from a roost tree when a fixed-wing airplane passed within 1,000 feet of them. Sibley (1969) observed a pair of courting condors on a tree whose activities were temporarily interrupted whenever aircraft flew over. He felt that condors may equate the sound of the aircraft to that of an approaching vehicle. Condors in flight appear to react to aircraft in a manner

similar to their behavior towards large soaring birds. Sibley (1969) reports that condors ignore gliders below or to their side, but react violently to one approaching from above. He also reports that pilots claim condors sometimes will fly towards an approaching helicopter. The effects on fixed-wing aircraft activity related to pipeline inspection should be minimal since these flights will only occur in areas where condors are flying or feeding. Implementation of the recommendations in the Biological Assessment should insure that project impacts are minimal.

San Joaquin kit fox (SJKF). As for BNLL, the pipeline routes traverse the very southern edge of currently recognized SJKF range. Trenching is the most serious threat to the species due to loss of dens. No information is presented in the Biological Assessment as to likely losses of dens. Some dens were located along the ROW during field reviews (Biological Assessment) although no quantitative estimate of impacts to the species is presented, or even possible at this stage.

In general, impacts from pipeline construction will not be significant over the long term, provided that den losses are few. In this regard we endorse the recommendation in the Biological Assessment that the ROW be surveyed after it is staked and prior to construction. If SJKF dens, or even suspected dens, are located, the ROW should be relocated at least 100 feet from the den to avoid destruction. This action is the most workable recommendation possible and if followed, can eliminate significant project impacts to kit fox.

Cumulative Effects

Cumulative effects are those impacts of future State and private actions which are reasonably certain to occur prior to completion of the subject Federal action. A non-Federal action is "reasonably certain" to occur if the action requires the approval of a State or local resource or land use control agency, and such agencies have approved the action, and the project is ready to proceed.

Cumulative effects for this opinion are limited to species found along the pipelines. Coastal ecosystem listed species will be considered in a future Biological Opinion. We know of no such State or private actions that should be considered in the evaluation to listed species found along the pipelines.

Biological Opinion

This Biological Opinion is limited to only the pipeline. Based on our review of the above information, the project's Biological Assessment and draft EIS, and information in our files, it is our Biological Opinion that the proposed Getty project and Celeron/All American pipelines are not likely to jeopardize the continued existence of the BNLL, YCR, APF, CC, or SJKF, or result in the destruction or adverse modification of critical habitat.

Incidental Take

Section 9 of the ESA prohibits any taking (harm, harassment, mortality, etc.) of listed species without specific exemption. Under the terms of Section 7(b)(4)iii and 7(0)(2), taking that is incidental to and not intended as part of the agency action (in this case, providing rights-of-way for the Getty and Celeron/All American pipelines) is not considered taking within the bounds of the Act provided that such taking is in compliance with the terms and conditions of this Biological Opinion.

Along the ROW, trenching and other construction activities may result in the loss of all BNLL when the ROW crosses BNLL habitat (63-84 acres). Construction traffic is likely to cause road kills of BNLL but it is impossible to assess the numbers. The SJKF probably can avoid the construction area and some individual foxes have tolerated construction noise and disturbances at natal den sites until forced to move. Thus, SJKF may be harassed but none should be killed due to construction. However, SJKF den sites may be lost. The chances of oil spill from the pipeline along the Colorado River would be approximately 1 in 2,000 years. A spill of as much as 3,506 bbl of oil could enter the river and reach the Cibola or Imperial NWR. Some oil would enter rail habitat. If the spill occurred during nesting season when there are eggs or flightless young from 2 to 14 YCR could be impacted. However, it is anticipated that the oil can be contained before it reaches these nesting areas in the Cibola or Imperial NWR. No YCR are known to nest between the pipeline crossing and Cibola NWR but rails may wander through the area. APF and CC currently only forage in the area and because of high mobility none should be taken incidentally from construction activities.

As such we have determined that the impacts of incidental take on the species in question are: BNLL-all individuals within the 100 foot ROW, none outside the ROW; YCR-one; CC-zero; SJKF-zero; and APF-zero.

To minimize such incidental take we specify the following reasonable and prudent measures:

1. To control a spill from a pipeline break in the Colorado River, the applicant shall develop an oil spill contingency plan in consultation with the BLM and the Service.
2. Insure that, prior to construction, a competent zoological survey shall be undertaken of the ROW and adjacent areas of disturbance for the presence of APF and SJKF. If APFs are determined to be nesting within $\frac{1}{2}$ mile of the ROW, then "spread" construction within this $\frac{1}{2}$ mile radius shall not occur between February 1 and July 1. If SJKF dens are located within the ROW, subject dens shall be avoided by at least 100 feet.

We hereby establish such terms and conditions on incidental take:

1. If more than the specified level of incidental take identified above for BNLL, YCR, CC, SJKF, and APF (all of those inhabiting the ROW - none outside, 1, 0, 0, or 0 respectively) occurs, BLM shall require that the causative action of such take cease immediately, and shall initiate consultation to reevaluate the incidental take impacts.
2. All dead or injured individuals of any endangered or threatened species shall be retrieved for scientific purposes and turned over to the California Department of Fish and Game.
3. The Project Officer, BLM, shall immediately telephone the Sacramento Endangered Species Office if incidental take occurs as a result of the project and prepare a written report to include date, location, and circumstances surrounding the taking and the disposition of the individual(s) taken. Written and telephone reports should be directed to Project Leader, USFWS, Sacramento Endangered Species Office, 2800 Cottage Way, Room E-1823, Sacramento, CA 95825 (916- 484-4935).

These terms and conditions constitute reasonable and prudent measures that are considered to be necessary or appropriate to minimize the impacts of incidental take discussed in this opinion.

Conservation Recommendations

To assist you in exercising your responsibilities under Sections 2(c) and 7(a)(1) which directs Federal agencies to utilize their authorities in furtherance of the conservation of endangered and threatened species, we recommend that BLM:

- 1) Require the applicants to use the Santa Maria Canyon route alternative. This alternative route does not cross the Sierra Madre Ridge. Therefore, there is less chance of disturbance to low flying condors using the ridge as a flyway.
- 2) Require that the Getty pipeline route follow the Celeron/All American route near Hudson Ranch. The Celeron route follows Highway 166 more closely and will likely cause less disturbance to foraging condors during construction.
- 3) Reduce the size of the construction right-of-way in sensitive habitats to the extent possible, particularly in the Cuyama Valley, Santa Barbara County, and Kern County, California.
- 4) Adopt all recommendations to minimize impacts listed in the Biological Assessment (See Sections 3.5.6, 3.7.6, 3.8.6, 3.9.6, and 3.10.6). We believe these measures are reasonable and implementable.
- 5) Insure that, prior to construction, a competent botanical survey of the ROW be conducted to determine the presence of and impacts to Thornber's fishhook cactus. If the species is found to be impacted, the project should be modified in these areas to minimize the impacts.
- 6) Prior to construction, the BLM should provide the FWS the opportunity to review and provide comments on any ROW grants or temporary use permits issued for the proposed projects. Specifically, this Service should be involved in formulating stipulations for the protection of threatened and endangered species during construction, operation, maintenance and abandonment of the pipeline.

This concludes formal consultation on this project. If the proposal is significantly modified in a manner not discussed above, or if new information becomes available on listed species, or impacts to listed species changes, or should new species be listed which are not addressed in this opinion, reinitiation of the consultation should be considered.

For additional information regarding these issues, please call Mr. Gail Kobetich, Project Leader of our Sacramento Endangered Species Office, at 916-484-4935 or FTS 468-4935. We thank the BLM and ERT staff for their assistance in this consultation process.

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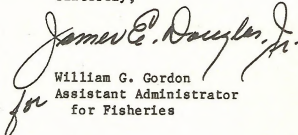
seal is subsequently listed or proposed for listing, if critical habitat is designated in the area covered by your program, or if new information reveals impacts of identified activities that may affect listed species.

The enclosed Biological Opinion in no way permits the taking of endangered whales. Such taking, unless properly permitted, is prohibited under Section 9 of the ESA and under Section 102 of the Marine Mammal Protection Act (MMPA). Section 17 of the ESA states that unless otherwise provided, no provision of the ESA shall take precedence over any more restrictive provision of the MMPA. Under Section 101(a)(3)(B) of the MMPA, the taking of depleted species of marine mammals can be permitted only for scientific purposes. Therefore, the appended statement concerning incidental taking of endangered species pursuant to Section 7(b)(4) of the ESA does not include whales.

No sea turtle mortality has been reported incidental to offshore oil and gas development or associated land based activities off California, and we do not anticipate any. Therefore, we have not provided an estimate, pursuant to Section 7(b)(4), of an acceptable level of mortality. Our appended statement concerning incidental taking contains the following conditions: any mortality of sea turtles due to activities associated with this project must be reported to the Southwest Regional Office as soon as practical, and that your State Office staff cooperate with the Southwest Region staff in reviewing the circumstances to determine if measures need to be developed to prevent or mitigate additional mortality.

I look forward to continued cooperation during future consultations.

Sincerely,


for William G. Gordon
Assistant Administrator
for Fisheries

Enclosure

Endangered Species Act
Section 7 Consultation - Biological Opinion

AGENCY: Bureau of Land Management

ACTIVITY: Proposed Celleron/All American and Getty Pipeline Projects

CONSULTATION CONDUCTED BY: National Marine Fisheries Service

DATE OF ISSUANCE: _____

BACKGROUND: On September 20, 1984, the Bureau of Land Management (BLM) requested initiation of formal consultation on a proposed plan for construction of the Celleron/All American and Getty Pipelines and an associated marine terminal at Gaviota, California. The purpose of this consultation is to consider potential impacts of the proposed activities on endangered whales and threatened and endangered sea turtles. In addition, we have incorporated into an Appendix, information concerning two candidates for listing, the Guadalupe fur seal and northern fur seal.

Complete, updated reviews of listed species' biology and potential impacts due to the construction and operation of a marine terminal and associated pipelines at Gaviota and Los Flores Canyon were included in the Biological Opinions issued for oil and gas development and production activities in the Point Arguello field (May 31, 1984) and Santa Ynez Unit (March 7, 1984) respectively. The conclusions reached in those opinions remain valid and are incorporated into this opinion by reference (NMFS, 1984a,b).

This opinion is based on information acquired through consultation with BLM, information in the Biological Assessment prepared for the project, and a review of published and unpublished information.

PROPOSED ACTIVITY: Celleron/All American and Getty Oil each have proposed pipeline projects to transport oil from offshore Gaviota, California through a marine terminal, into a consolidated coastal facility, and overland pipelines to processing areas. The Celleron/All American pipeline would transport up to 300,000 barrels per day (BPD). The 1,200 mile, 24 to 30 inch pipeline would travel from the area west of Santa Barbara, California, across the Sierra Madre Mountains to the Bakersfield area, then to Blythe, and across Arizona and New Mexico to the Midland, Texas area. One alternative of this route would extend this pipeline to Freeport, on the Gulf coast of Texas. The Getty pipeline would transport up to 400,000 BPD in a 20 to 30 inch pipeline from the area west of Santa Barbara to the Bakersfield area (about 113 miles).

Getty Trading and Transportation Company (Getty) has submitted an application to Santa Barbara County for construction and operation of a consolidated coastal facility at Gaviota, California. The Gaviota site is on

the coastline of the Santa Barbara Channel, 31 miles west of downtown Santa Barbara. Getty's consolidated coastal facility is proposed to serve all of the offshore oil and gas producers in the western Santa Barbara Channel and the Santa Maria Basin, accepting oil from nearby proposed oil treatment plants, marine tankers, and tank trucks.

Under the Proposed Project, Getty would replace the existing Gaviota marine terminal with a new consolidated coastal facility with the following characteristics:

- A phased marine terminal expansion at the present location with an initial throughput capacity of 200,000 barrels per day (BPD) and the ability to handle one marine tanker between 30,000 and 300,000 dead weight tons (DWT).
- A supply and crew base designed to support peak offshore exploration, development, and production needs with a supply and crew boat pier, onshore storage, warehouses, offices, parking, and logistical and communications support.
- A phased development of crude oil storage facilities with ultimate tank capacities of approximately 2.74 million bbl to support the marine terminal and the crude oil pipeline to the San Joaquin Valley.
- A pipeline connection from Gaviota to the San Joaquin Valley refinery/transportation network with a crude oil throughput in the range of 100,000 to 400,000 BPD.
- A maximum buildout capacity, should market conditions support it, of marine terminal throughput capacity of 400,000 BPD. Two mooring systems would allow two tankers to load simultaneously.

Status of Species Considered in this Opinion

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Gray whale	<u>Echrichtius robustus</u>	Endangered
Right whale	<u>Eubalaena glacialis</u>	Endangered
Blue whale	<u>Balaenoptera musculus</u>	Endangered
Fin whale	<u>B. physalus</u>	Endangered
Sei whale	<u>B. borealis</u>	Endangered
Humpback whale	<u>Megaptera novaeangliae</u>	Endangered
Sperm whale	<u>Physeter catodon</u>	Endangered
Green sea turtle	<u>Chelonia mydas</u>	Endangered
Leatherback sea turtle	<u>Dermochelys coriacea</u>	Endangered
Pacific Ridley sea turtle	<u>Lepidochelys olivacea</u>	Endangered
Loggerhead sea turtle	<u>Caretta caretta</u>	Threatened

BIOLOGICAL INFORMATION: Basic information pertaining to the population levels and trends, migration patterns, and behavior of the seven cetacean and four sea turtle species listed as endangered or threatened is contained in the Biological Opinions issued for the development and production activities of

the Santa Ynez Unit on March 7, 1984, (NMFS, 1984a) and the Pt. Arguello field on May 31, 1984 (NMFS, 1984b). That information is incorporated herein by reference.

ASSESSMENT OF IMPACTS: Impacts to listed species could originate from two aspects of the proposed project: (1) events associated with the placement and operation of the marine terminal and consolidated onshore facility or (2) from oil spilled from the rupture of an onshore pipeline with subsequent marine contamination.

The NMFS assessed the potential for impacts to listed species from construction and operation of a marine terminal and associated pipelines proposed to be located at Gaviota in the Biological Opinion issued for the Point Arguello field (NMFS, 1984b). The discussion and conclusions reached in that opinion remain valid and are incorporated herein by reference.

Listed marine species could be affected by oil spilled from a major pipeline rupture at a coastal stream crossing, provided the spill could not be contained onshore. The Biological Assessment (BA) for the proposed project, prepared under contract for BLM, states that "the probability of an oil spill is very low; 0.0013 yr/mi or less than one chance in 2,000 years." (BLM, 1984) The BA states

"it is not probable that a spill will occur at a stream crossing in the life of the project. It is also unlikely a spill would occur when whales were in the project area or reach distant offshore areas" (BLM 1984).

In general, the conclusions of research completed to date indicate that whales are likely to suffer only minor impacts if they contact oil spills and that they are likely to recover from those effects. In some cases, conclusions have been based on calculations and theories that are presently unverified and we believe that they should be interpreted conservatively. However, the fact that no marine mammal mortalities were reported during the Ixtoc spill (Hooper, 1981) or the 1969 Santa Barbara spill (Brownell, 1971) tends to support these conclusions.

CONCLUSIONS:

Cetaceans other than gray whales.

Based on our assessments of impacts for this and previous projects in the vicinity (NMFS, 1984a,b), the wide distributions and broad migration corridors of the North Pacific populations of right, blue, fin, sei, humpback, and sperm whales, and the fact that only a small portion of any population is likely to be in the project area, the NMFS concludes that the activities associated with the proposed Celleron/All American pipeline project are not likely to jeopardize the continued existence of these species.

Gray whales.

The gray whale population may experience impacts from the construction and operation of the marine terminal (NMFS, 1984a,b) or from oil spilled into the marine environment due to an onshore pipeline rupture. However, due to the extremely low probability of such an event, the distance offshore and seasonality of the gray whale migration, and the persistent increase in the gray whale population, despite ongoing oil and gas activities we conclude that the potential impacts of activities associated with the proposed Celleron/All American pipeline project are not likely to jeopardize the continued existence of the gray whale.

Cumulative effects: In view of the relatively restricted migration patterns of gray whales, and the extensive Outer Continental Shelf (OCS) development that is scheduled to take place within the range of the gray whale in the next five years (NMFS, 1984a,b), we are concerned that the cumulative effects of these activities may have adverse impacts on the gray whale population. Since information on the cumulative effects on the gray whale from OCS activities throughout its range is sparse, we are unable to identify a threshold of OCS activities that would result in significant impacts to the gray whale population. We believe that sufficient information is available to conclude that current levels of offshore and associated onshore OCS activities, are below these critical thresholds. We expect that impacts associated with the proposed pipelines and associated activities also will be below these thresholds, but this does not release involved agencies from their responsibility to continue to investigate cumulative effects from all OCS activities, including those of other agencies, or of Canada and Mexico, to ensure that they are not likely to jeopardize, collectively, the continued existence of the gray whale population.

Sea turtles.

The NMFS also concludes that these activities are not likely to jeopardize the continued existence of any listed sea turtle population because most individuals generally are distributed in warm tropical or subtropical waters far to the south of the project area (NMFS, 1984a,b). Only a few individuals have been encountered in the colder temperate waters off California; these are probably vagrants at the extreme northern limits of their ranges.

RECOMMENDATIONS: The recommendations made in the Biological Opinion for the Santa Ynez Unit (NMFS, 1984a) relating to listed species remain valid and are incorporated herein by reference. One of these recommendations that warrants particular attention is repeated below.

We recommend that the BLM instruct Getty that any blasting for offshore pipeline placement or marine terminal construction should be limited to periods when gray whales are not observed in the vicinity of the project. Most of the eastern north Pacific population of gray whales migrate through the project area twice annually. In this area, the southern migration occurs from mid-December through mid-February and the return migration occurs from

early February through April. Limiting blasting to periods when gray whales are not present will reduce the potential for adverse effects associated with startle responses or direct physical injury that could occur due to the detonation of an explosive charge.

REINITIATION OF CONSULTATION: Consultation must be reinitiated if (1) new information reveals additional impacts of the identified activity not considered in this Opinion that may affect listed species or their habitat, (2) the proposed activities are modified in a manner not considered herein, or (3) a new species (other than the Guadalupe or northern fur seal) is listed or critical habitat is designated that may be affected by the proposed activity. The NMFS suggests that the agencies involved in this consultation continue to discuss the information concerning future OCS activities so that, if needed, consultation can be reinitiated in a timely manner. This in no way would preclude any involved agency from making an independent determination of the need for reinitiating consultation.

STATEMENT REGARDING INCIDENTAL TAKING PURSUANT TO
SECTION 7(b)(4) OF THE
ENDANGERED SPECIES ACT OF 1973, AS AMENDED

Section 7(b)(4) of the ESA requires that when an agency action is found to be consistent with Section 7(a)(2) the NMFS will issue a statement specifying the impact of incidental taking of endangered species, providing reasonable and prudent measures that are necessary to minimize impacts, and setting forth the terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

No sea turtle mortality has been reported incidental to OCS activities off California, and we do not anticipate any mortalities incidental to the proposed activity. As a condition of this statement, if a sea turtle is killed as a result of an interaction with activities associated with construction and operation of the marine terminal or the onshore pipeline, the incident must be reported to the Director, Southwest Region, NMFS as soon after the taking as possible, and the Southwest Region will cooperate with the California State Office, BLM in the review of the incident to determine the need for developing mitigation measures and assess the need for reinitiating consultation.

Any marine mammal population listed pursuant to the ESA is considered depleted under the Marine Mammal Protection Act of 1972 (MMPA). According to Section 17 of the ESA, no provision of the ESA is to take precedence over a more restrictive, conflicting provision of the MMPA. The MMPA is more restrictive than the ESA because the MMPA prohibits taking from depleted stocks except for scientific research. Therefore, Section 7(b)(4) of the ESA is not applicable to endangered whale populations and no statement specifying impact is provided.

Appendix
Potential Impacts on the Northern and Guadalupe Fur Seals

BACKGROUND: The National Marine Fisheries Service (NMFS) has accepted petitions to list the northern fur seal (Callorhinus ursinus) as a threatened species and to list the Guadalupe fur seal (Arctocephalus townsendi) as an endangered species pursuant to the Endangered Species Act (ESA). The NMFS is currently undertaking status reviews of these species to determine whether or not they should be listed under the ESA, and anticipates making decisions on these proposed actions in early 1985 and late 1984, respectively. Section 7(a)(4) of the ESA requires Federal agencies to confer with NMFS on agency actions likely to jeopardize the continued existence of any species proposed for listing. While neither of these candidate species has been proposed for listing, the NMFS and Bureau of Land Management (BLM) agreed to consider them in the conference process for the proposed Celleron/All American and Getty pipeline projects (telephone conversation between D. Seagers, NMFS and Bill Haigh, BLM, October 4, 1984). Early consideration of these species through conferences could provide for protection from potential impacts of proposed projects and potentially eliminate the need to reinstitute consultation should either of these species be listed. Any recommended protective measures offered in this Appendix are contingent upon listing. We have incorporated information made available during our October 4, 1984, conference concerning these species.

Status of Species Considered by this Appendix

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Northern fur seal	<u>Callorhinus ursinus</u>	Candidate
Guadalupe fur seal	<u>Arctocephalus townsendi</u>	Candidate

BIOLOGICAL INFORMATION: Basic information pertaining to the population levels and trends, migration patterns, behavior, and sensitivity to oil spills is contained in an Appendix to the Biological Opinion issued for the development and production activities of the Point Arguello field on May 31, 1984 (NMFS, 1984b). That information is incorporated herein by reference.

POTENTIAL IMPACTS: Potential impacts to northern and Guadalupe fur seals could occur as a result of contact with oil spilled from the offshore marine terminal, the onshore consolidated facility, or an uncontained onshore pipeline rupture.

Impact from oil spills. The potential impacts to northern fur seals from contact with spilled oil were described by Kooyman, Gentry, and McAllister (1976). Although this study examined only the northern fur seal, the results are applicable to both species as the thick pelage of fur seals constitutes the principal element of their thermoregulatory mechanism, a system that carefully regulates heat loss to the cold, surrounding environment. The authors found that a light oiling of about 30 percent of the pelt surface resulted in a 1.5 fold increase in the metabolic rate of seals in water.

While the study could not verify that death would inevitably follow such contact, it did predict that the health of oiled individuals was in serious jeopardy because the stress of greatly increased metabolic rates generally leads to death by disease or starvation.

Overwintering northern fur seals are widely dispersed far offshore and well west and south of the project area. During the summer breeding season, northern fur seals concentrate on the breeding grounds in the western North Pacific, the Pribilofs, and at San Miguel Island. In the event that an oil spill contacts San Miguel Island during this breeding period, approximately 4,000 northern fur seals could be adversely impacted. However, there is only a very remote probability that a spill from this project would contact the island.

Little specific information is available concerning at-sea distribution of Guadalupe fur seals. We believe that the few individuals present in the Southern California Bight are most likely to occur far to the south of the project area, such as around haulouts on the far western Channel Islands and over the more southern offshore ridges and continental slope. There is only a remote probability that a spill associated with this project would reach the island regions.

CONCLUSIONS: We conclude that the proposed activities are not likely to jeopardize the continued existence of the northern fur seal because: there is only a remote probability of an oil spill; the majority of the population is located well to the south of the project area; fur seals are widely dispersed and far offshore when pelagically overwintering; and that portion of the population present on San Miguel Island during the spring and summer breeding season constitutes less than 0.2 percent of the total world population. We further conclude that the proposed activities are not likely to jeopardize the continued existence of the Guadalupe fur seal because the majority of the population is located on or near Guadalupe Island. Only a few non-breeding individuals occur in the Southern California Bight and the chance that they would be contacted or otherwise disturbed by an oil spill is low.

REFERENCES

- BLM, 1984. Biological assessment, threatened and endangered species. Proposed Celleron/All American and Getty pipeline projects. Prepared by Environmental Research and Technology, Inc.
- Brownell, R.L. Jr., 1971. Whales, dolphins, and oil pollution. In: Biological and oceanographical survey of the Santa Barbara Channel oil spill, 1964-1970. (D. Stranghan, ed.). Vol. I. Biology and bacteriology, p. 255-276. Allan Hancock Found., Univ. So. Calif., Los Angeles, CA.
- Hooper, C.H. 1981. The Ixtoc Oil Spill: the federal scientific response. NOAA Special Report. 201 pp.
- Kooyman, G.L., R.L. Gentry, W.B. McAllister. 1976. The physiological impact of oil on pinnipeds. Processed Rept. 23. Northwest and Alaska Fisheries Center, NMFS, NOAA, Seattle, WA.
- NMFS. 1984a. Biological opinion for development and production of the Santa Ynez Unit, offshore California. 34 pp.
- NMFS. 1984b. Biological opinion for development and production of oil and gas offshore California between Point Arguello and Point Conception. 22 pp.

Excerpts from Biological Assessment

The following actions and measures to minimize impacts to federally-listed Threatened or Endangered species that could be affected by the proposed pipeline projects are proposed by the BLM and recommended by FWS. These measures were taken from the Biological Assessment (Sections 3.5.6, 3.7.6, 3.8.6, 3.9.6, 3.10.6) submitted by BLM to the FWS in August 1984.

American Peregrine Falcon

The proposed project should have no immediate significant impact on peregrine falcons in the Gaviota area. Peregrines occur at Gaviota Pass and the mouth of Gaviota Creek from March through July. Construction impacts would be insignificant if construction between the Gaviota tank farm and an area 2 mi west of Gaviota Pass occurred between late July and late February. This would reduce potential impacts to falcons foraging at the mouth of Gaviota Creek and birds attempting to establish nesting territories at Gaviota Pass. Cooperation between oil companies in the future concerning scheduling of construction, joint use of similar facilities, and restricting shore facilities to smaller geographic locations would greatly reduce any cumulative impacts.

California Condor

- The ROW will be routed to avoid crossing the Hudson Ranch to the degree possible in order to minimize future conflicts with any special management plans.
- The ROW will parallel Highway 166 and other existing roads to the degree possible in order to minimize disturbance in condor foraging areas.
- No guns will be allowed on the construction spread in condor essential habitat. This measure can be added to pipeline contractor contracts by the Applicants (Celeron/All American and Getty).
- Blasting in the Cummings Mountain area will use small charges and debris blankets to muffle and minimize noise levels.
- Aerial flight reconnaissances will approach on line with the ROW and remain on the ROW over condor essential habitat.
- The pilot responsible for the aerial reconnaissance of the ROW will consult with the National Audubon Society's condor research pilot concerning avoidance measures and flying techniques to avoid condor collisions.
- Oil spill contingency plans will include notifying FWS in the event of a spill in essential habitat.
- The applicants will review site specific revegetation plans for the Hudson Ranch area with FWS.

- If construction of either pipeline is delayed, the applicants will consult with FWS concerning timing of construction to avoid potential conflicts with the condor captive-release program.

San Joaquin Kit Fox

In order to minimize the effects of construction and operation of the proposed pipelines on the San Joaquin Kit fox and its habitat the following recommendations are made:

- The ROW will be surveyed between the upper Cuyama Valley and Pentland (about 50 miles) immediately prior to construction. Any kit fox den sites on the ROW will be flagged and the ROW moved at least 100 ft to avoid the den site.
- The ROW will be revegetated with native species to encourage reestablishment of habitat.
- No ORV use will be allowed off the ROW during construction.
- Where the ROW crosses existing roads, locked gates will be erected to discourage ORV use after construction.
- Pipeline company personnel driving the ROW for inspection will not be allowed off the ROW except as specified by the land owner or land manager.

Blunt-nosed Leopard Lizard

In order to minimize the effects of construction and operation of the proposed pipelines on the Blunt-nosed leopard lizard and its habitat, the following recommendations are made:

- The construction ROW will be limited to 50 ft (where feasible) in BNLL habitat near Maricopa; this will reduce habitat loss by about 20 ac to about 40 ac.
- No ORV use will be allowed off the ROW during construction. This will minimize road kills and destruction of habitat.
- No dumping of trash or waste oils will occur in sandy washes or in other suitable habitats.
- The ROW will be revegetated with native species to encourage reestablishment of habitat and to discourage weed invasion.
- Where the ROW crosses existing roads, locked gates will be erected to discourage ORV use after construction.
- Pipeline personnel driving the ROW for inspection will not be allowed off the ROW except as specified by the land owner or land manager.

Yuma Clapper Rail

No proposed alternative actions are recommended for protection of the YCR. However, several conservation measures are recommended to reduce the potential for impact due to oil spills and construction. Spill contingency plans should be established for the Colorado River crossing to reduce impacts to rail habitat if a spill occurs. Boom devices and cleanup equipment should be stored at important rail habitats (e.g., Cibola National Wildlife Refuge-Colorado River backwater area). If a rupture occurs, crews could quickly move these booms into place. A system should be devised to alert upstream dam operators to reduce flows immediately if a pipeline rupture occurs.

APPENDIX 4.3 SYSTEM SAFETY

The following table provides a summary of the major oil spill and system safety issues and concerns related to the Getty and Celeron/All American Pipeline Projects. Column 1 of the table describes a series of events that are viewed as having some type of impact on the environment if the event were to occur. Also included below each event listed are the possible causes of such an event.

Column 2 presents the probability that the event would occur, based on historical accident rate data throughout the industry.

Column 3 describes the environmental consequences that may result if the event took place. A "worst-case" approach was taken when describing these environmental consequences.

Column 4 provides a summary of various design specifications that the Applicants have incorporated into their projects that would reduce the probability of an event occurring and/or would reduce the environmental consequences if an event had in fact occurred. More detailed information is cross referenced to Appendices H and I and Chapter 2 of the DEIR/EIS.

Sub-columns 5 and 6, Mitigation Measures, summarize mitigation measures and stipulations presented in the Final EIR that would further reduce the probability or consequences resulting from an event. Cross references are provided for locating detailed descriptions of the mitigation measures within the FEIR document.

Finally, the last column in the table evaluates the effectiveness of design specifications and mitigation measures.

SUMMARY TABLE FOR SYSTEM SAFETY

Event	Probability	Consequences	Design Specifications (Chapter 2 and Appendices H and I)	Mitigation Measures		Effectiveness	
				Reduce Probability	Reduce Consequences		
Oil spill onto irrigated agricultural lands (see Tables 3-22, 3-25, and 4-5) caused by: seam failure corrosion excavation equipment natural causes flow control error.	<u>Gaviota to Emidio</u> ¹ 21 miles irrigated 6.3×10^{-3} spills/yr (> 50 bbl) 0.19 spills during life of project (30 yrs)	Contamination of soils, reduced productivity, maximum of 16 acres affected per spill.	Minimum cover 42 inches, cathodic protection, block and check valves, 3 ft minimum cover, x-ray and hydrostatic testing, leak detection system, aerial surveys, spill contingency plan. Continuous manned monitoring and control of all data.	Design and construct pipeline to accommodate geologic hazards (M-1, 2, and 3).		Earthquake-resistant design is sufficiently advanced so that these measures should prove very effective.	
	<u>Las Flores to Blythe</u> ¹ 50 miles irrigated 1.5×10^{-2} spills/yr (> 50 bbl) 0.45 spills during life of project (30 yrs)			Pipeline location markers above ground. Buried cable or fluorescent plastic below ground just above pipeline.			Increase awareness of pipeline location thereby reducing potential of mechanical damage occurring.
	<u>Blythe to McCamey</u> ¹ 52.8 miles irrigated 1.6×10^{-2} spills/yr (> 50 bbl) 0.48 spills during life of project (30 yrs)			Continuous manned monitoring and control of all data.	Periodic information contact with land owner.		Same as above.
4-53 Oil spill into a stream ² (see Tables 3-11 and 3-12) caused by: seam failure weld failure corrosion excavation equipment natural causes flow control error.	<u>Gaviota to Emidio</u> 11 miles 3.3×10^{-3} spills/yr (> 50 bbl) 0.09 spill during life of project (30 yrs)	Contamination of surface water lasting up to several weeks. Loss of aquatic life up to 2 years.	Concrete casing, cathodic protection, block and check valves, 4 ft below 100-year scour, x-ray and hydrostatic testing, leak detection system, aerial surveys, spill contingency plan (see Appendix H). Continuous manned monitoring and control of all operational data.	Provide extra pipeline depth in areas where deep plowing or ripping could result in damage to pipeline. Depth should be at least 1 ft below maximum plow depth.		Will reduce risk of mechanical damage.	
	<u>Las Flores to Blythe</u> 25 miles 7.5×10^{-3} spills/yr (> 50 bbl) 0.23 spill during life of project (30 yrs)				Replace contaminated soil. Monetary compensation for lost product.		Decrease loss of productivity. Eliminate financial loss to landowner/tenant.
						Early indication of abnormal bottom scouring. Earthquake-resistant design is sufficiently advanced so that these measures should prove very effective.	

SUMMARY TABLE FOR SYSTEM SAFETY

Event	Probability	Consequences	Design Specifications (Chapter 2 and Appendices H and I)	Mitigation Measures		Effectiveness
				Reduce Probability	Reduce Consequences	
	<u>Blythe to McCamey</u> 17 miles 5.1×10^3 spills/yr (>50 bbl) 0.15 spill for life of project (30 yrs)					
Oil spill into a sensitive ground- water basin (see Table 3-14) caused by: seam failure weld failure corrosion excavation equipment natural causes flow control error.	<u>Gaviota to Emidio</u> 30 miles 9.0×10^{-3} spill/yr (> 50 bbl) 0.27 spill during life of project (30 yrs) <u>Las Flores to Blythe</u> 42 miles 1.3×10^{-2} spill/year (> 50 bbl) 0.39 spill during life of project (30 yrs)	Contamination of groundwater by a small leak (less than 3 BPH).	Cathodic protection, block and check valves, 3 ft mini- mum cover, x-ray and hydrostatic testing, leak detection system, aerial surveys, spill contingency plan.	Design and con- struct pipeline to accommodate geologic hazards (M-1, 2, and 3).	Identify areas to monitor in case of spill (M-6); use low permea- bility backfill in sensitive areas (M-7).	It is possible to design the pipeline to survive most geohazards through the latest seismic design and engineering practices.
4- 1-54	<u>Blythe to McCamey</u> 395 miles 1.2×10^1 spill/yr (> 50 bbl) 3.60 spills during life of project (30 yrs)					
Oil spill into a sensitive stream ² (see Table 4-6) caused by: seam failure weld failure corrosion excavation equipment natural causes flow control error	<u>Gaviota to Emidio</u> 1 mile 3.0×10^{-4} spills/yr (> 50 bbl) 0.01 spill during life of project (30 yrs) <u>Las Flores to Blythe</u> 3 miles 9.0×10^{-4} spills/yr (> 50 bbl) 0.03 spill during life of project (30 yrs)	Game and T&E fishes could be affected for several months to 2 years (see Appendix B).	Concrete casing, catho- dic protection, block and check valves, 4 ft below 100-year scour, x-ray and hydrostatic tesing, leak detection system, aerial surveys, spill contingency plan.	Design and construct pipeline to accomodate geologic hazards (M-1, 2, and 3). Monitor pipeline burial depths at crossings including periodic diving inspections of deep water crossings (M-5).		It is possible to design the pipeline to survive most geohazards through the latest seismic design and engineering practices. Early indication of abnormal bottom scouring.
	<u>Blythe to McCamey</u> 4 miles 1.2×10^{-3} spills/yr (> 50 bbl) 0.04 spill during life of project (30 yrs)					

SUMMARY TABLE FOR SYSTEM SAFETY

Event	Probability	Consequences	Design Specifications (Chapter 2 and Appendices H and I)	Mitigation Measures		Effectiveness
				Reduce Probability	Reduce Consequences	
Oil spill into sensitive terrestrial habitats (see Table 4-8) caused by: seam failure weld failure corrosion excavation equipment natural causes flow control error.	<u>Gaviota to Emdio</u> 50 miles sensitive habitat. 1.5×10^{-2} spills/yr 0.45 spill during life of project (30 yrs)	Destruction of T&E species and/or their habitats (see Appendix B).	Cathodic protection, block and check valves, 3 ft minimum cover, x-ray and hydrostatic testing, leak detection system, aerial surveys, spill contingency plan.	Design and construct pipeline to accommodate geological hazards (M-1, 2, and 3).	Relocate pipeline out of sensitive habitats in the Cuyama Valley (M-15).	Eliminates potential exposure for sensitive wildlife and terrestrial habitats.
	<u>Las Flores to Blythe</u> 314 miles sensitive habitat. 9.5×10^{-2} spills/yr (> 50 bbl) 2.85 spills during life of project (30 yrs)					
	<u>Blythe to McCamey</u> 15 miles sensitive habitat. 4.5×10^{-3} spills/yr (> 50 bbl) 0.14 spill during life of project (30 yrs)					
Oil spill into the Colorado River or Hot Springs Creek ² caused by: seam failure weld failure corrosion excavation equipment natural causes flow control error.	<u>Celeron/All American</u> 6.0×10^{-4} spills/yr (> 50 bbl) 0.02 spill during life of project (30 yrs)	Destruction of riparian habitat and possible effects on T&E species (see Appendix B); disruption of water recreational activities.	Concrete casing, cathodic protection, block and check valves, 4 ft below 100-year scour, x-ray and hydrostatic testing, leak detection system, aerial surveys, spill contingency plan.	Monitor pipe burial depths at crossings (M-5).	Oil spill booms to redirect oil to skimmers and to block entry into backwaters of the Colorado River (M-17).	For the Colorado River this will protect nearby backwaters from contamination and aid in the clean-up downstream. For Hot Springs Creek the impacts will be minimized. The methods will not be 100% effective.
	<u>Celeron/All American</u> 2.4×10^{-3} spills/yr (> 50 bbl) 0.07 spill during life of project (30 yrs)					
Oil spill into a coastal stream ³ (see Table 3-11) caused by: seam failure weld failure corrosion excavation equipment natural causes flow control error.	<u>Getty</u> 3.0×10^{-4} spills/yr (> 50 bbl) 0.01 spill during life of project (30 yrs)	Oil spills could reach recreational beaches along the Gaviota coast.	Concrete casing, cathodic protection, block and check valves, 4 ft below 100-year scour, x-ray and hydrostatic testing, leak detection system, aerial surveys, spill contingency plan.	Monitor pipe burial depths at crossings (M-5).	Design and construct pipeline to accommodate geological hazards (M-1, 2, and 3).	If all designs and plans are implemented properly, oil will not reach the coastal waters and impacts to the streams will be minimized.

SUMMARY TABLE FOR SYSTEM SAFETY

Event	Probability	Consequences	Design Specifications (Chapter 2 and Appendices H and I)	Mitigation Measures		Effectiveness
				Reduce Probability	Reduce Consequences	
Oil spill at the Cadiz tank farm (Celeron/All American) caused by: faulty valves overfilling tanks natural causes.	<p style="text-align: center;"><u>Spills per Year</u></p> <p>> 10 bbl 3.8×10^{-1} >> 100 bbl 8.6×10^{-2} >>> 1,000 bbl 7.5×10^{-3}</p>	Oil would be contained by the dike system surrounding each storage tank.	Leak detection system, automatic overflow alarm system, containment dikes for 125 percent of tank capacity, spill contingency plan.	Redundant sensor and control system to prevent tank overfilling (p J-2).		No spilled oil would be released beyond the diked containment area, reducing environmental consequences. Sensors would reduce the probability of overflowing tanks.
<u>Spills During Life of Project</u>						
	<p>> 10 bbl 11.4 >> 100 bbl 2.6 >>> 1,000 bbl 0.2</p>					
Fire/explosion at a pump station with natural gas supply caused by: leak with an ignition source.	3.8×10^{-3} fire/explosion per year ⁴ 0.11 fire/explosion during life of project	Possible damage to structures and injury to people Possible source of wildfire.	Block and bypass valves on both sides of station, fuel gas shutdown system, onsite fire fighting equipment, 2-way radios in vehicles, station monitoring system including smoke detectors and fire sensors, remote data integration and station control system, automatic station shutdown system, local-reset lockout system, emergency helicopter access to stations, fire protection plan, fire fighting training and fire drills, cleared and fenced land around pump station.	At stations with gas-fired turbines and Waste Heat Recovery Units (WHRU), there will be extended purging of both units with interlocks to prevent starting before purging is complete. At stations without turbines, gas-fired heaters will also have extended purging before starting.		Will effectively reduce the probability of explosion/fire. None of the proposed stations are close enough to dwellings or common areas for non-pipeline employees to be damaged.

SUMMARY TABLE FOR SYSTEM SAFETY

Event	Probability	Consequences	Design Specifications (Chapter 2 and Appendices H and I)	Mitigation Measures		Effectiveness
				Reduce Probability	Reduce Consequences	
Fire/explosion at a pump station without gas supply caused by: leak with an ignition source.	3.8×10^{-3} fire/explosion per year ⁴ 0.11 fire/explosion during life of project	Possible damage to structures and injury to people. Possible wild-fire source	Block and bypass valves on both sides of station, onsite fire fighting equipment, 2-way radios in vehicles, station monitoring system including smoke detectors and fire sensors, remote data integration and station control system, automatic station shut-down system, local-reset lockout system, emergency helicopter access to stations, fire protection plan, fire fighting training and fire drills, cleared and fenced land around pump station.	Explosions are caused by leaks coupled with an ignition source. Pumps are equipped with seal leak detectors that will stop unit if leak detected. Other leaks will be reduced by checking valve stem packing during regular visits to the site.		Will effectively reduce the probability of explosion/fire. No human receptors or dwellings near proposed pump stations (except employees).

SUMMARY TABLE FOR SYSTEM SAFETY

Event	Probability	Consequences	Design Specifications (Chapter 2 and Appendices H and I)	Mitigation Measures		Effectiveness
				Reduce Probability	Reduce Consequences	
Loss of power at a pump station with natural gas supply.	Cannot be predicted, no statistical data base.	No direct environmental consequences.	UPS (Uninterruptable Power Supply) System at pump stations for monitoring equipment (RTUs).			Will prevent system shutdown due to loss of power. The other pump stations will maintain flow until the down station is repaired.
Loss of power at a pump station without natural gas supply. Transmission line down or power plant down.	Cannot be predicted, no statistical data base.	No direct environmental consequences.	UPS System at pump stations for monitoring equipment (RTUs).			Will prevent system shutdown due to loss of power. The other pump stations will maintain flow until the down pumps are repaired.
Loss of power at the Cadiz tank farm. Transmission line down or power plant down.	Cannot be predicted, no statistical data base.	No direct environmental consequences.	UPS System at pump stations for monitoring equipment (RTUs).			Will prevent system shutdown due to loss of power. Oil will bypass tank farm.
Loss of communications to/from a pump station with natural gas supply. Telephone lines or microwave system failure because of human error, sabotage, storm, system breakdown.	Cannot be predicted, no statistical data base.	Station would continue to run as long as preset limits are not exceeded. Maintenance personnel would be dispatched to correct problem.	Station controls designed for unattended fail-safe operation.			Will prevent system shutdown due to loss of communications.
Loss of communications to/from a pump station without natural gas supply. Telephone lines or microwave system failure because of human error, sabotage, storm, system breakdown.	Cannot be predicted, no statistical data base.	Station would continue to run as long as preset limits are not exceeded. Maintenance personnel would be dispatched to correct problem.	Station controls designed for unattended fail-safe operation.			Will prevent system shutdown due to loss of communications.

SUMMARY TABLE FOR SYSTEM SAFETY

Event	Probability	Consequences	Design Specifications (Chapter 2 and Appendices H and I)	Mitigation Measures		Effectiveness
				Reduce Probability	Reduce Consequences	
Loss of communication to/from Cadiz tank farm. Telephone lines or microwave system failure because of human error, sabotage, storm, system breakdown.	Cannot be predicted, no statistical data base.	Station would continue to run as long as preset limits are not exceeded. Maintenance personnel would be dispatched to correct problem.	Station controls designed for unattended fail-safe operation.			Will prevent system shutdown due to loss of communications.

Note 1: Gaviota to Emidlo = Getty pipeline; Las Flores to Blythe = Celeron/All American pipeline in California; Blythe to McCamey = Celeron/All American pipeline in Arizona, New Mexico, and Texas.

Note 2: Assumes spill would occur within one-half mile of a stream.

Note 3: Assumes a spill occurring anywhere within the 10-mile coastal segment would reach a coastal stream.

Note 4: Source: OIW, September 1979.

Note 5:

Fire/Explosion Damage Magnitude

> \$ 1,000	1.6×10^{-2} per year	(0.48 fires in 30 years)
\$ 1,000 - \$ 10,000	6.9×10^{-3} per year	(0.21 fires in 30 years)
\$ 10,000 - \$ 100,000	3.4×10^{-3} per year	(0.10 fires in 30 years)
\$ 100,000 - \$ 500,000	4.4×10^{-3} per year	(0.13 fires in 30 years)
Over - \$ 500,000	9.4×10^{-4} per year	(0.03 fires in 30 years)

Source: OIW, September 1979

Note 6: Oil fire emissions (lb/bbl)

SO ₂ (assumes 5% sulfur)	30.6
CO	16.5
Hydrocarbons	16.5
Particulates	3.3
NO _x	1.1

APPENDIX 4.4

COLORADO RIVER OIL SPILL CONTINGENCY PLAN

Introduction

The following Draft Oil Spill Contingency Plan for the Colorado River is presented here as a guide for the preparation of a finalized site-specific oil spill contingency plan. Additional information that should be incorporated into a final plan includes:

- Individual names and phone numbers of persons within federal, state, and local governments that are to be contacted.
- Names, phone numbers, and job description of the operator's personnel who would be responsible for coordinating cleanup efforts.
- Lists of local contractors who may be called upon to assist in containment or cleanup.
- Agencies and persons upstream of the spill site who may be called upon to reduce water deliveries from impounded/controlled areas (e.g., Parker Reservoir).

Selection of equipment location, staging areas, booming locations, diversion areas, etc. was based on examination of topographic maps, sensitive resources identified in the EIR, and logistical analysis. The following aerial photos were also used to develop the draft contingency plan, and provide the rationale for some of the "logistical" site selections.

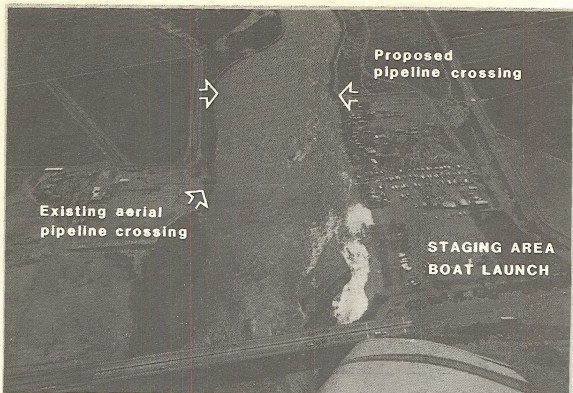


PHOTO 1

STAGING AREA AND BOAT LAUNCH JUST NORTH OF THE PROPOSED PIPELINE CROSSING.



PHOTO 2

SPILL CONTROL SITE NUMBER 1, APPROXIMATELY 1 MILE BELOW THE PROPOSED PIPELINE CROSSING



PHOTO 3

SPILL CONTROL SITE NUMBER 2 SHOWING LOCATION OF DIVERSION BOOM: APPROXIMATELY 2.5 MILES BELOW THE PROPOSED PIPELINE CROSSING. AS CAN BE SEEN IN THIS PHOTO, THE WETLANDS ON EITHER SIDE OF THE RIVER WOULD BE PROTECTED FROM SPILLED OIL BY THE LEVEES.

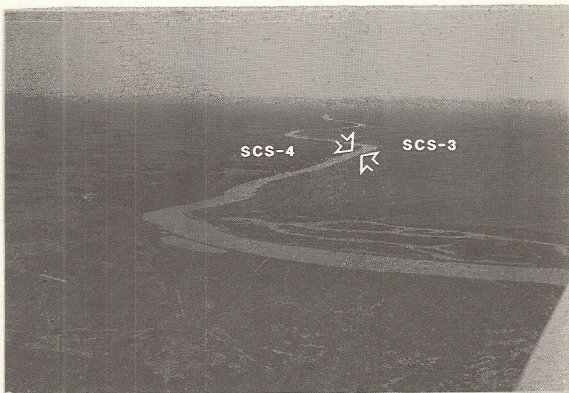


PHOTO 4

SPILL CONTROL SITES 3 AND 4, APPROXIMATELY 5 MILES BELOW THE PROPOSED PIPELINE CROSSING.

DRAFT

Colorado Oil Spill Contingency Plan

The operator shall have its Immediate Response Team on location of a spill (leak) within 1-2 hours of notification. Immediately upon receiving notification of a potential spill, the Pipeline Dispatcher will alert the International Boundary and Water Commission, Vic Vickers of the Arizona Department of Emergency Services, and _____. The operator proposes to locate sufficient spill containment equipment at its LaPaz Pump Station, approximately 9 miles east of the Colorado River crossing.

A full line rupture at the center of the Colorado River crossing would release approximately 3,506 (maximum) barrels of oil. The river, depending upon the amount of water being released from upstream dams and local precipitation, travels at rates between 2 and 6 feet per second. It will take a spill between 1 and 14 hours to reach the location of these actions. Based upon an on-site assessment, the operator's District Superintendent will either contain the spill with booms at locations SCS-1, SCS-2, and SCS-4 or initiate additional actions at SCS-5, SCS-6, and SCS-7.

AREA Colorado River COUNTY Riverside Co., CA MAP REF. A-1,A-2, B
Yuma Co., AZ

MAXIMUM SPILL SIZE 3506 bb1

NEAREST EQUIPMENT SITE La Paz pump station (approximately 9 miles from the location of the river crossing)

SPILL CONTROL RECOMMENDATIONS

<u>LOCATION</u>	<u>RESPONSE</u>		<u>REMARKS</u>
	<u>HIGH FLOW</u>	<u>LOW FLOW</u>	
SCS-1	B,C	B,D	300ft booms high flow, 100ft booms low flow
SCS-2	A	A	
SCS-3	B,C	B,D	
SCS-4	B,C	B,D	
SCS-5	B,C	B,D	
SCS-6	B,C	B,D	
SCS-7	B,C	B,D	

SPECIAL FEATURES/SPILL CONTROL PROCEDURES

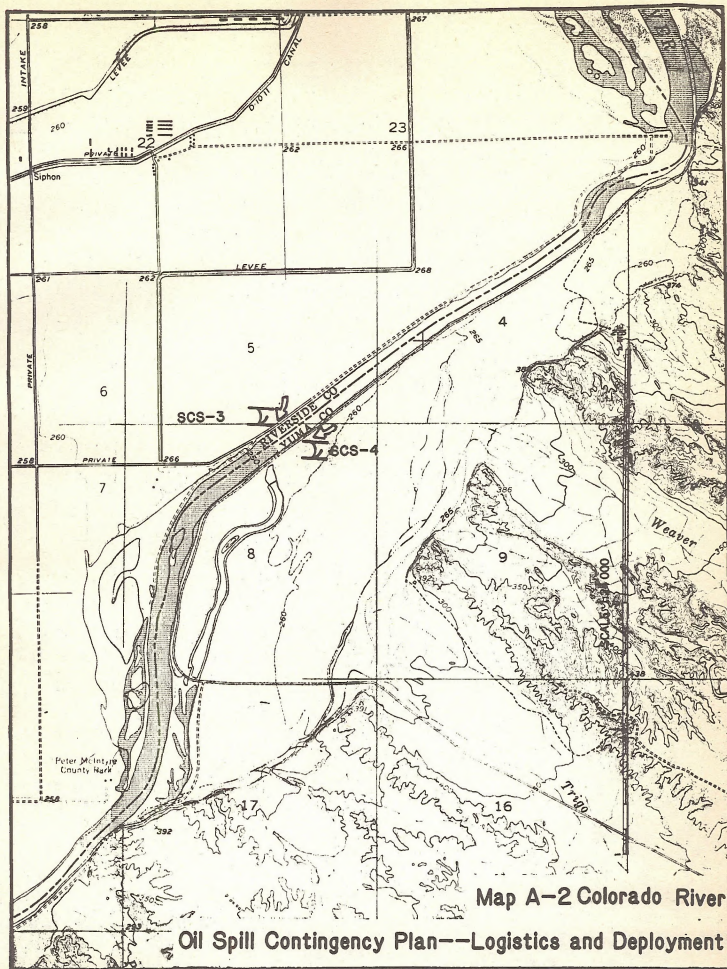
- o Boom deployment may be aided by use of existing bridge structures (SCS-5,6)
- o River velocity during moderate to peak flow may preclude effective booming. During lower flow periods bury boom skirt on banks and bars.

ENVIRONMENTAL INVENTORY REFERENCE

Cleanup Techniques 1,2,3,4






WATER CROSSING/HYDROLOGIC CHARACTERISTICS

<u>Max. Discharge</u>	<u>Min. Discharge</u>	<u>Ave. Discharge</u>
39,900 cfs (August 17, 1983)	1060 cfs (November 25, 1972)	7,586 cfs






RESPONSE MAP KEY




FACILITIES

-  Pipeline Location
(terrestrial showing mileposts)
-  Block Valve
-  Check Valve
-  Pump Station
-  Equipment Location

ENVIRONMENTAL FACTORS

-  Overland Oil Flow Direction
-  Access (vehicular, unimproved,
boat launch)
-  Helicopter Landing Site

RESPONSE ACTIONS

-  Special Feature or
Spill Control Procedure
- SCS-1** Spill Control/Containment
Site Number
-  Suggested Boom Locations
-  Possible Staging Area

OIL SPILL CONTAINMENT

A. River Diversion Booming

Use. Booms are deployed on rivers at an angle to divert oil away from environmentally sensitive areas when currents are too great for containment.

Limitations. Accessibility, implementation time, currents over 2 knots, and water depths less than 1 foot below bottom of boom skirt.

General Instructions. Anchor one end of the boom to the shoreline just upstream of the area to be protected. Tow free end by boat to a point which angles the boom downstream and towards the opposite shore. Optimum deployment angle is dependent on the current speed and the length and type of boom used. The angle must be smaller in strong currents speed and the length and type of boom used. The angle must be smaller in strong currents than in weak currents. The same relation is true with regard to boom length. If the spill is large or continuing, the boom should be anchored in place at the optimum angle. Figure A-1 illustrates this technique.

Equipment Required. Boat, anchors, and hand tools.

Maintenance. Periodically check boom for leakage and adjust angle if necessary. Also check boom for broken, deflated, or submerged sections and anchor points for security.

Cleanup. Contaminated shorelines can be cleaned by techniques discussed in 3. Sorbent Recovery.

Variations. If the area to be protected is large, additional diversion booms may be deployed downstream in the same manner.

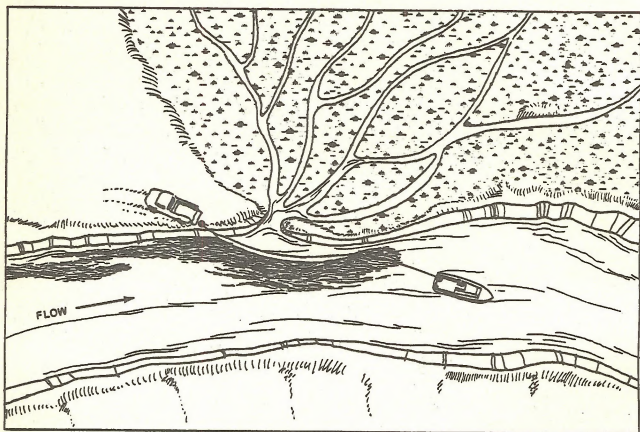


Figure A.1 RIVER DIVERSION BOOMING

B. River Containment Booming

Use. Booms are deployed at an angle across a waterway to contain oil floating downstream for subsequent recovery.

Limitations. Accessibility, implementation time, currents in excess of 2 knots, and water depths less than 1 foot below bottom of boom skirt.

General Instructions. Anchor one boom end to the shoreline and use a boat or winch to pull the free end across the river and anchor it slightly upstream. The optimum deployment angle depends on current velocity, boom length, and boom stability. As currents and boom length increase the deployment angle decreases. The boom may be anchored in several places to improve stability. Figure B.1 shows cross sections of three stable booms and their optimum deployment angles under different current speeds.

Recover oil from downstream end of boom by skimming, pumping, or with vacuum trucks. A containment pit dug into the shoreline aids containment and recovery (see Figure B.2).

Equipment Required. Boat or winch, anchors, backhoe (to dig containment pit), and hand tools.

Maintenance. Periodically check boom for leakage and adjust angle if necessary. Also check boom for twisted, damaged, or submerged sections and anchors for security.

Cleanup. Remaining sheens are recovered with sorbents. Shorelines are cleaned using techniques described in 3. Sorbent Recovery, and booms are removed.

Variations. For wide rivers, deploy booms from each side with one slightly downstream of the other. Anchor the free ends to overlap somewhat past mid-stream. If sufficient boom is unavailable, deploy a single boom from the side of the river with the heaviest concentration of oil or from the outside shore of a bend in the river where oil concentrates naturally. Both variations are shown in Figure B.3.

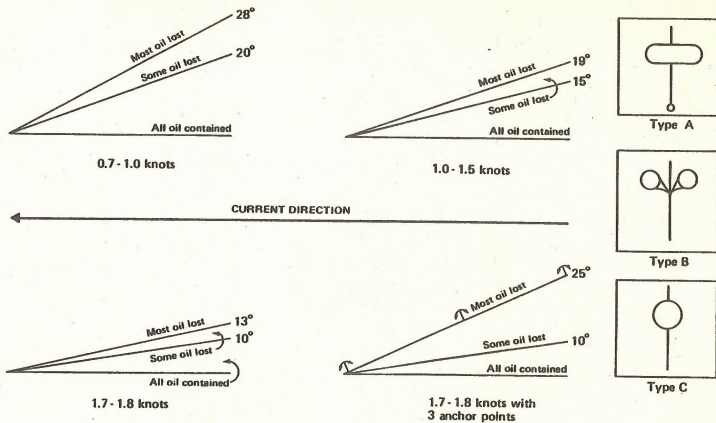


Figure B.1 CROSS SECTIONS OF 3 HIGH-STABILITY BOOM TYPES AND OPTIMUM DEPLOYMENT ANGLES UNDER VARIOUS CURRENTS

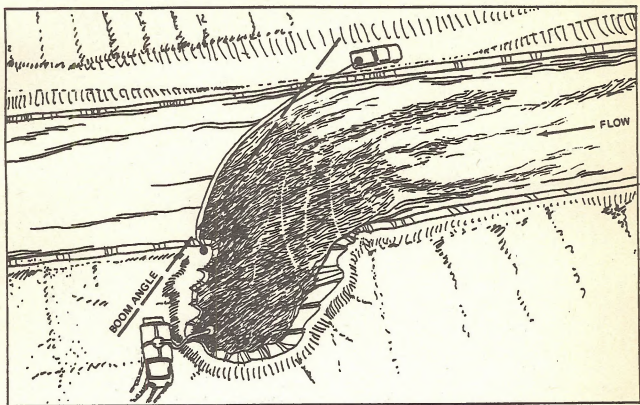


Figure B.2 RIVER CONTAINMENT BOOMING

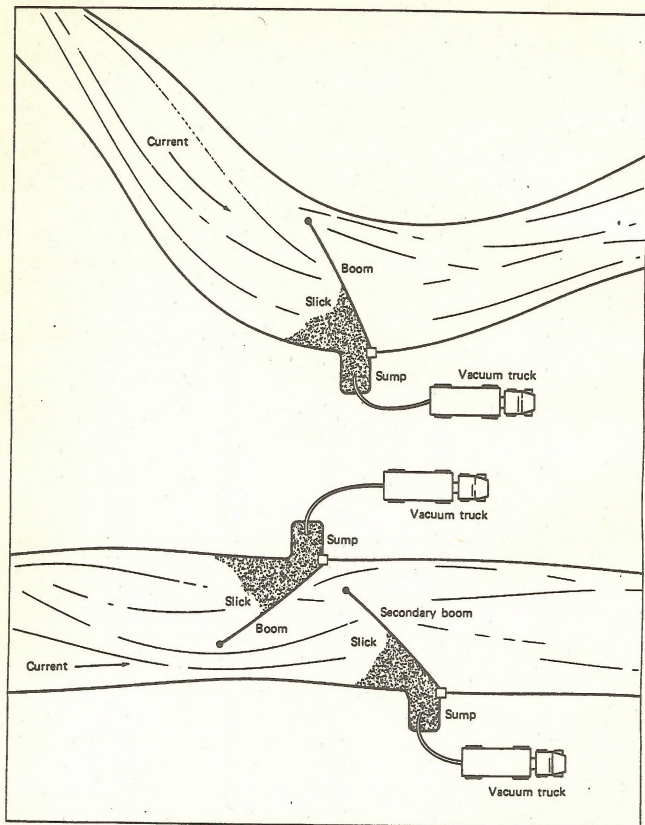


Figure B.3 WIDE RIVER CONTAINMENT BOOMING

C. Cascading Booming

Use. A series of booms deployed in a cascading formation are used to direct oil to the shore for recovery on rivers where currents are too strong for standard containment booming.

Limitations. Accessibility, implementation time, currents over 2.5 knots, and soft stream bottoms.

General Instructions. Tow lead boom to opposite shore or some point mid-stream and anchor at an angle to the current. Deploy a second boom such that the leading end is anchored 25 to 30 feet downstream and somewhat overlapping the trailing end of the lead boom and angled toward the shoreline. Successive booms are deployed in the same manner until the shoreline is reached. Oil diverted to this point is recovered by skimming, pumping, or with vacuum trucks. A containment pit can be dug into the river bank to assist recovery. This technique is illustrated in Figure C.1. Optimum boom deployment angle decreases as currents and boom length increases unless several anchor points are utilized along the boom.

Equipment Required. Deployment boat, anchors, backhoe (to dig containment pit), and hand tools.

Maintenance. Periodically check boom for leakage and adjust deployment angle if necessary. Also check boom for damaged, twisted, or submerged sections and anchors for security.

Cleanup. Remaining sheens are recovered with sorbents, shorelines are cleaned using techniques described in 3. Sorbent Recovery, and boom are removed.

Variations. If booms are unavailable or water is too shallow, berms may be constructed with streambed or nearsite materials in the same cascading configuration (see Figure C.2). Typically, cascading can utilize existing stream bed bars.

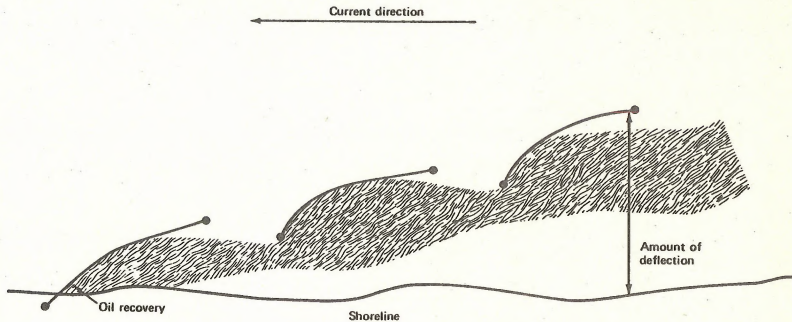


Figure C.1 PLACEMENT CONFIGURATION OF 3 LENGTHS OF BOOM
(cascading deflection booms)

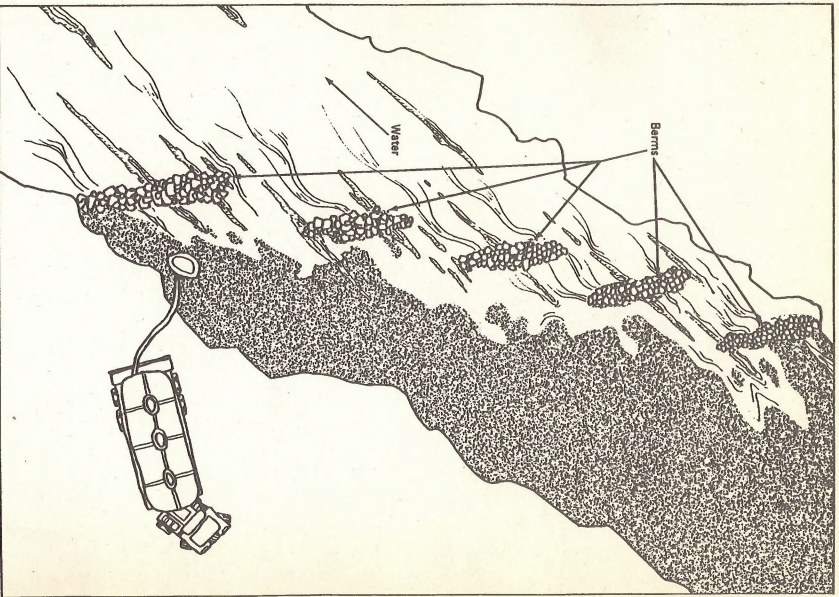


Figure C.2 CASCADING BERMING

D. Blocking Dam

Use. Dams are constructed across streambeds, ditches, or other dry drainage courses to block and contain any flowing oil.

Limitations. Accessibility, implementation time, adequate storage behind dam, flowing water, and availability of construction materials.

General Instructions. Dam location should have high banks on upstream side with dam well keyed into banks.

Construct dam with on/near site earthen materials, sandbags, plywood sheets, or any material that blocks flow (Figure D.1). Excavate earthen materials from upstream side to increase storage capacity. Oil is recovered from behind the dam by pumping or vacuum trucks.

Equipment Required. Bulldozer, front-end loader, backhoe, or hand tools.

Maintenance. Periodically check dam for leaks, structural integrity, and excessive oil buildup.

Cleanup. Recover remaining oil concentrations or sheens with sorbents, remove or treat contaminated sediments, and dismantle dam or replace earthen materials to excavation site.

Variations. Containment area behind dam can be water flooded to limit oil penetration into sediments.

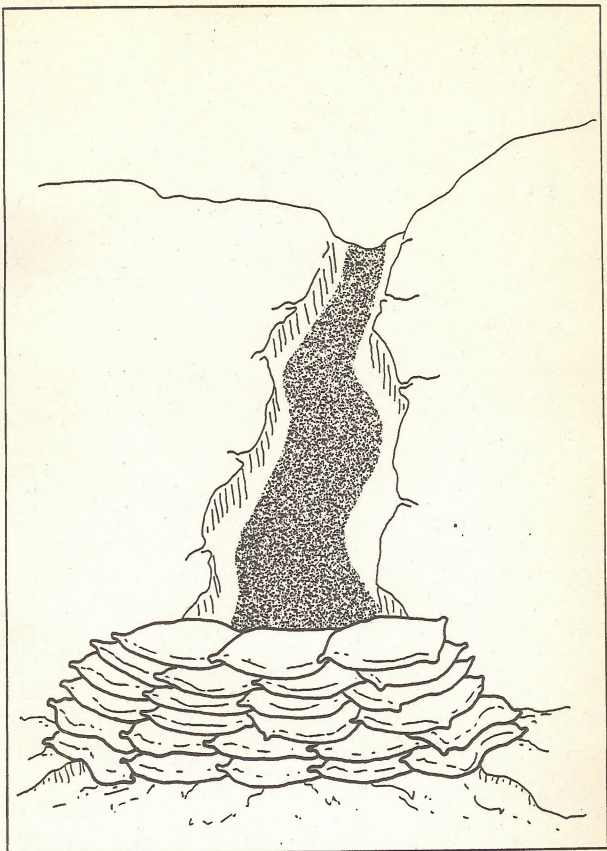


Figure D.1 SANDBAG BLOCKING DAM

OIL SPILL CLEANUP TECHNIQUES

1. Vacuum Trucks

Objectives. To recover oil from land and water surfaces by using suction generated by the vacuum truck to draw oil from concentrated areas into the truck for transport to reprocessing or disposal facilities.

Limitations. Access to spill site, high viscosity oils, thinness of oil concentration, and heavy debris.

General Instructions. Position truck adjacent to area of heaviest oil concentration such as behind booms, berms, trenches, sumps, etc. Suction hose nozzle is placed in the oil and maneuvered manually until recovery becomes inefficient. Light sheens should be recovered with sorbents. Screens should be fitted over nozzle to prevent ingestion of sediments or debris. When recovering oil on water, a duck bill or manta ray type skimmer head should be attached to the suction nozzle. This technique is illustrated in Figure 1.1.

Logistics. The primary logistical requirements for the vacuum truck techniques are given in Table 1.1.

Variations. Vacuum truck may be left onsite with recovered oil pumped periodically to tank trucks (can improve turn-around time in some cases, and vacuum truck acts as a primary oil-water separator).

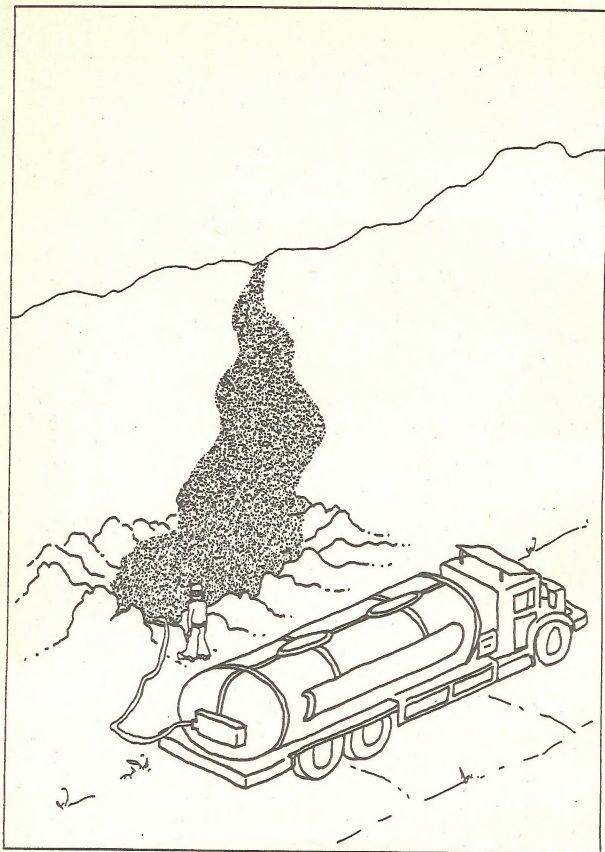


Figure 1.1 VACUUM TRUCK OIL RECOVERY

TABLE 1.1

LOGISTICAL REQUIREMENTS FOR THE VACUUM TRUCK TECHNIQUE

	Typical Suction Rate for Pooled Oil	Typical Suction Rate for Oil on Water	Fill Time for 110-Barrell Truck
<u>Equipment</u>			
● Vacuum truck w/3" suction hose	100 gpm (75% oil)	50 gpm (5% oil)	3/4 hr @ 100 gpm 1 1/2 hr 50 gpm
● Number of vacuum trucks required	Dependent on quantity of oil and number of pools present	Dependent on quantity of oil and number of recovery sites. Also on oil/water ratio.	
<u>Personnel</u> - 1 person per suction hose and 1 to 2 persons for manual skimming and concentrating of oil, and 1 supervisor.			
<u>Support</u>		<u>Range of Capacities</u>	
● Vacuum truck 6" suction hose 4" suction hose 3" suction hose		● 6 to 140 barrel @ 42 gallons/barrel 700 to 800-900 gpm max. ^a 500 to 600 gpm max. ^a 300 to 400 gpm max. ^a	
● Devices for concentrating oil on water		● Booms, skimming boards, low- pressure water hoses	
<u>Access requirements</u> - heavy equipment			

^aIntake completely submerged, drawing water with little or no suction lift.

2. Portable Skimmers/Pumps

Objectives. To recover small to moderate concentrations of oil from terrestrial or aquatic areas, where larger equipment cannot be brought in.

Limitations. Accessibility, high viscosity oils, sheens, adequate means of storage or disposal, and adverse environmental conditions (excessive wave heights or currents).

General Instructions. Position the skimmer or pump suction hose in the area of heaviest oil concentration behind booms, berms, trenches, etc., or where water currents will drive the oil to the skimmer or hose intake. Continually reposition the intake into area of thickest oil concentration. Duck bill type skimmer heads should be fitted to suction hose for aquatic spills or screens for terrestrial spills. Pump recovered oil to a temporary storage facility such as a tank truck, 55-gallon drums, pillow tanks, or lined pit. This technique is illustrated in Figure 2.1.

When using portable skimmers in shallow water a hole may have to be excavated in the bottom of the shallow waterway if the skimmer draft is greater than the water depth. Oil can now be herded or forced to the skimmer location by low pressure water flushing or by deploying a boom around a floating slick and pulling it to the floating skimmer.

Logistics. The primary logistical requirements for using portable skimmers or pumps are given in Table 2.1.

Variations. Portable skimmers can also be deployed from boats to recover open water spills contained by booms. Skimmer is operated as described previously and may be used with a floating bladder tank for oil storage as illustrated in Figure 2.2. Portable endless rope skimmers have particular application in shallow water areas such as wetlands or creeks. A typical configuration is shown in Figure 2.3.

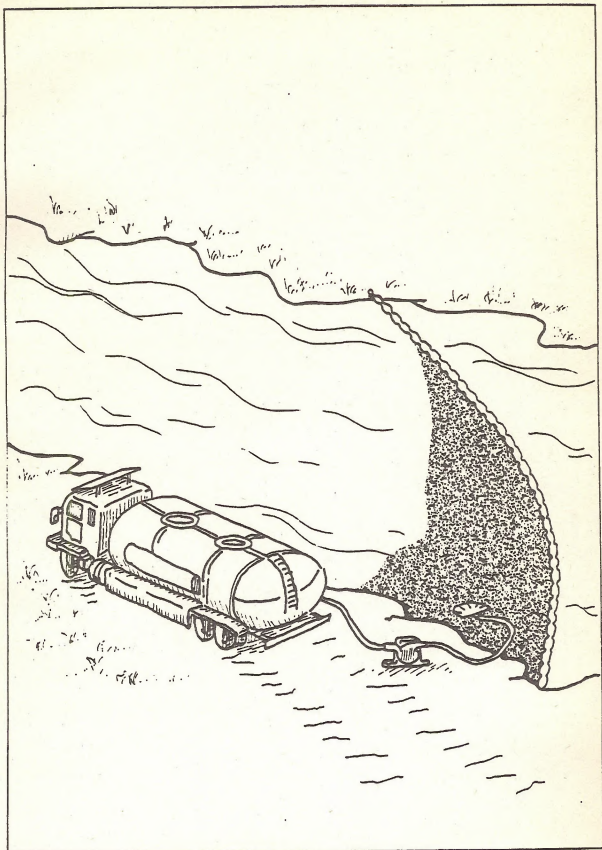


Figure 2.1 OIL RECOVERY USING PORTABLE PUMP,
SKIMMER HEAD, AND TANK TRUCK

TABLE 2.2
LOGISTICAL REQUIREMENTS FOR PORTABLE SKIMMERS/PUMPS

Logistics	Typical Recovery Rate for Thick Oil Layer (2 mm)	Typical Recovery Rate for Thin Oil Layer (.1 mm)
<u>Equipment</u>		
● High capacity trash pump w/3" suction hose	75 gpm (50% oil)	50 gpm (5% oil)
● Portable wier skimmer	_____	_____
● Portable disc skimmer	_____	_____
● Number of pumps or skimmers	Dependent upon quantity of oil and rate of introduction to skimmer or pump.	
<u>Personnel</u> - 1 person per pump suction hose, 1 to 2 persons for skimming and concentrating of oil, and 1 supervisor.		
<u>Support</u>		<u>Range of Capacities</u>
● Vacuum truck		6 to 140 barrels
● Tank truck		20 to 160 barrels
● 3" Suction hose		300 to 400 gpm max.
● Pillow tanks		2 to 2,500 barrels

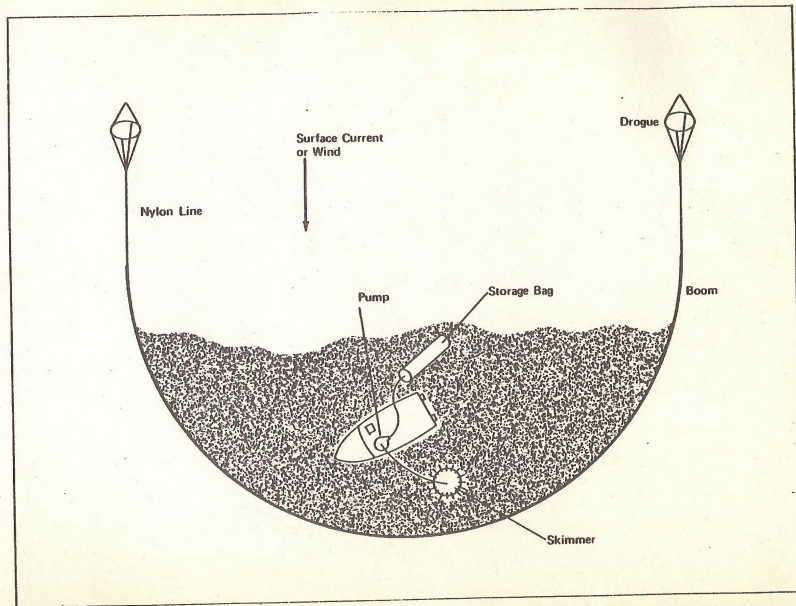


Figure 2.2 CONTAINED OIL SKIMMING
WITH PORTABLE SKIMMER

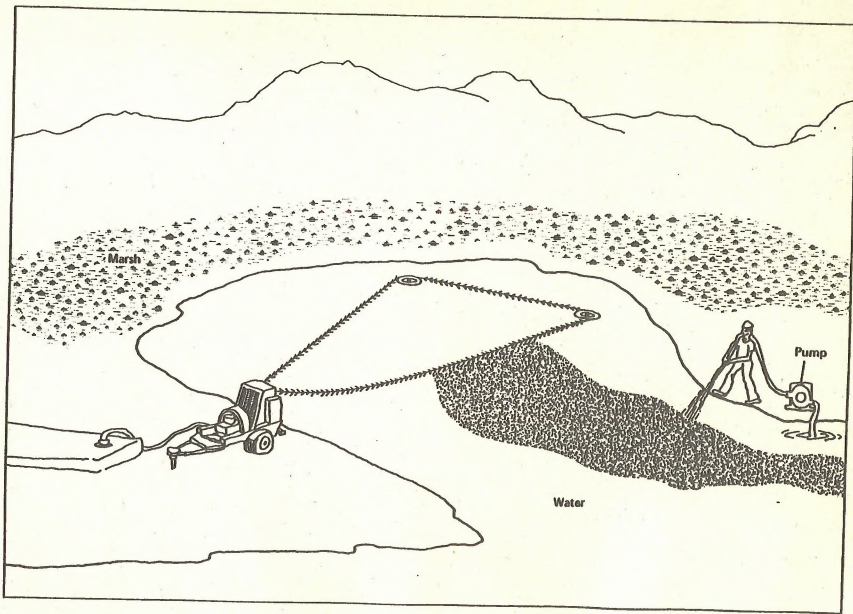


Figure 2.3 ENDLESS ROPE SKIMMER

3. Sorbent Recovery

Objectives. To recover small quantities of oil from terrestrial or aquatic areas, especially films or sheens remaining after skimming or pumping operations have been completed.

Limitations. Solidified or highly weathered oil, recovery and disposal of oiled sorbents, and possible interference by granular sorbents may be difficult to control on water surface collecting agents, if used simultaneously.

General Instructions. Place sorbents directly on the oil and turn continually until completely oiled. Put oiled sorbents in plastic bags or leak proof containers and replace with clean ones. Inert substrates can be wiped clean with sorbent pads or sheets. Sorbent sweeps or booms may be pulled between two boats across aquatic areas or anchored across slow moving streams to recover sheens.

Logistics. The logistical requirements are heavily dependent on the type and degree of oil contamination and therefore cannot be accurately quantified prior to a spill. Some of the basic equipment and materials required for sorbent recovery are pitchforks, rakes, shovels, boats (if needed), and plastic bags, drums, debris boxes, or other leakproof containers.

Variations. Sorbents can be placed on the ground in areas of heavy spill activities to prevent contamination of facilities, paths, work areas, etc.

4. Soil Removal

In cases where oils have penetrated the soil, excavation may be the only means for removing the contamination and preparing the area for restoration.

No standard instructions can be given regarding soil removal. This is a costly procedure with environmental damaging potential and must be confined to the smallest possible area. However, any soil contaminated will require removal.

Any area undergoing substrate removal will require restoration. A preliminary step prior to attempting restoration procedures involves returning the substrate surface to its original elevation.

APPENDIX 4.5

AIR QUALITY ADDENDUM

1.0 Introduction

This addendum replaces Section 4.2.1 and Appendix A of the Draft EIR/EIS. Air quality related comments on the DEIR/EIS that were not addressed in the Response to Comments are addressed herein. The general feeling of the reviewers of the DEIR/EIS was that more backup information was needed. This addendum provides that information.

The air quality modeling results have also been updated to reflect changes in the design of the Celeron/All American Pipeline since the preparation of the DEIR/EIS. The principal design change is for the Cadiz pump/heater station and tank farm. The current plan calls for five 300,000 bbl tanks rather than three 500,000 bbl tanks. The number of valves has been reduced from about 320 to about 140. Additionally, current plans call for the pumps at Cadiz to be natural gas turbine driven rather than electric. The other important change is that new emission factors are now being used for the natural gas heaters and gas turbine pump/heaters. These emission factors, based on manufacturer's specifications, are lower than those used in the DEIR/EIS.

2.0 APPLICABLE AIR QUALITY STANDARDS AND REGULATIONS

The National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards are shown in Table 2-1. State ambient air quality standards in Arizona and Texas are identical to the NAAQS. The New Mexico ambient standards, which differ from the NAAQS, are shown in Table 2-2.

The Federal Prevention of Significant Deterioration (PSD) increments for SO_2 and TSP are shown in Table 2-3. The newly adopted air quality increments for Santa Barbara County are shown in Table 2-4.

It is also relevant to note that the San Bernardino County Air Pollution Control District's New Source Review Rule (Regulation XIII) applies to any new source or modification to an existing source that would result in a net emission increase of any air contaminant of 250 lbs/day (except CO, which is 750 lbs/day).

TABLE 2-1

(REVISED DEIR/EIS TABLE A-1)

NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards ^{1,3,6}	National Standards ²	
			Primary ^{3,4}	Secondary ^{3,5}
O ₃	1-hour	0.10 ppm (200 µg/m ³)	235 µg/m ³ (0.12 ppm)	Same as Primary
CO	8-hour	9 ppm (10 mg/m ³)	10 mg/m ³ (9 ppm)	Same as Primary
	1-hour	20 ppm (23 mg/m ³)	40 mg/m ³ (35 ppm)	Same as Primary
NO ₂	Annual average	NS ⁷	100 µg/m ³ (0.05 ppm)	Same as Primary
	1-hour	0.25 ppm (470 µg/m ³)	NS	NS
SO ₂	Annual average	NS	80 µg/m ³ (0.03 ppm)	NS
	24-hour	0.05 ppm ⁸ (131 µg/m ³)	365 µg/m ³ (0.14 ppm)	NS
	3-hour	NS	NS	1,300 µg/m ³
	1-hour	0.5 ppm (1,310 µg/m ³)	NS	NS
TSP (PM10)	Annual Geometric mean	60 µg/m ³ (30 µg/m ³)	75 µg/m ³	60 µg/m ³
	24-hour	100 µg/m ³ (50 µg/m ³)	260 µg/m ³	150 µg/m ³
Sulfates	24-hour	25 µg/m ³	NS	NS
Lead	30-day	1.5 µg/m ³	NS	NS

TABLE 2-1

(REVISED DEIR/EIS TABLE A-1 CONTINUED)

Pollutant	Averaging Time	California Standards ^{1,3,6}	National Standards ²	
			Primary ^{3,4}	Secondary ^{3,5}
	Calendar quarter	NS	1.5 $\mu\text{g}/\text{m}^3$	NS
H ₂ S	1-hour	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	NS	NS
Ethylene	8-hour	0.1 ppm	NS	NS
	1-hour	0.5 ppm		
Visibility- Reducing Particles	One observation	In sufficient amounts to reduce the prevailing visibility to less than 70 percent		

Source: California Air Quality Data, Summary of Air Quality Data Gaseous and Particulate Pollutant, Annual Summary, Vol XII, 1980.

¹California standards, other than CO, SO₂ (1-hour), and PM₁₀, are values that are not to be equaled or exceeded. The CO, SO₂ (1-hour), and PM₁₀ standards are not to be exceeded. PM₁₀ represent particulate matter less than 10 μ in diameter.

²National standards, other than those based on annual averages or annual geometric means, are not to be exceeded more than once per year.

³Concentration is in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm Hg (1,013.2 millibars). In this table, ppm refers to ppm by volume, or micromoles of pollutant/mole of gas.

⁴The levels of air quality necessary, with an adequate margin of safety, to protect public health. Each state must attain the primary standards no later than 3 years after the state implementation plan is approved by EPA.

⁵The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by the EPA.

⁶Prevailing visibility is defined as the greatest visibility attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.

⁷NS = No Standard

⁸This state standard is violated if there is also a simultaneous violation of the state 1-hour oxidant standard or the state 24-hour suspended particulate matter standards.

TABLE 2-2
(REVISED DEIR/EIS TABLE A-2)
NEW MEXICO AIR QUALITY STANDARDS

	New Mexico Standard	Federal Standards	
		Primary	Secondary
<u>TSP</u>			
24-hour average	150 $\mu\text{g}/\text{m}^3$	260 $\mu\text{g}/\text{m}^3$	150 $\mu\text{g}/\text{m}^3$
Annual geometric mean	60 $\mu\text{g}/\text{m}^3$	74 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$
<u>SO₂</u>			
24-hour average	0.10 ppm (260 $\mu\text{g}/\text{m}^3$)	0.14 ppm	NS
Annual arithmetic mean	0.02 ppm (52 $\mu\text{g}/\text{m}^3$)	0.03 ppm	NS
3-hour average	NS ¹	NS	0.50 ppm
<u>CO</u>			
8-hour average	8.7 ppm (9.7 mg/m^3)	9 ppm	9 ppm
1-hour average	13.1 ppm (14.5 mg/m^3)	35 ppm	35 ppm
<u>O₃</u>			
1-hour average	0.06 ppm (120 $\mu\text{g}/\text{m}^3$)	0.12 ppm	0.12 ppm
<u>NO₂</u>			
24-hour average	0.10 ppm (200 $\mu\text{g}/\text{m}^3$)	NS	NS
Annual arithmetic mean	0.05 ppm (100 $\mu\text{g}/\text{m}^3$)	0.05 ppm	0.05 ppm
<u>Lead</u>			
Calendar quarterly Arithmetic average	NS	1.50 $\mu\text{g}/\text{m}^3$	NS

Source: Air Quality Bureau Annual Report, State of New Mexico Health and Environmental Department, Environmental Improvement Division, 1981-1982.

¹NS = No Standard

TABLE 2-3
(REVISED DEIR/EIS TABLE A-3)
PSD INCREMENT CEILINGS
($\mu\text{g}/\text{m}^3$)

Pollutant and Averaging Time	Area Classification	
	Class I	Class II
SO ₂	Annual	20
	24-hour	91
	3-hour	512
TSP	Annual	19
	24-hour	37

Source: EPA 40 CFR 52.21

TABLE 2-4
(REVISED DEIR/EIS TABLE A-4)
SANTA BARBARA COUNTY RULE 205.C AIR QUALITY INCREMENTS

	Maximum Allowable Increase ($\mu\text{g}/\text{m}^3$)		Baseline Date	Air Quality Standard
	Class I	Class II		
CO:				
8-hour maximum	200	2,500	1/1/84	10,000
1-hour maximum	800	10,000		40,000
NO ₂ :				
Annual Arithmetic Mean	2	25	1/1/84	100
1-hour maximum	10	100		470
Reactive Organic Compounds				
3-hour maximum	3	40	1/1/84	160
Particulate Matter 10:				
24-hour maximum	2	12	1/1/84	50

Source: Santa Barbara County Air Pollution Control District, Air Quality Rules and Regulations, 1984.

3.0 BASELINE AIR QUALITY

The relevant air quality data for 1980, 1981, and 1982 for Santa Barbara County, San Luis Obispo County, Kern County, and the Southeast Desert Air Basin of California are summarized in Tables 3-1, 3-2, 3-3, and 3-4, respectively. The stations shown are those nearest the pipeline route. Similar data for Arizona, New Mexico, and Texas are given in Tables 3-5, 3-6, and 3-7, respectively.

In assembling this data, preference was given to stations with relatively complete data during the 3-year period. If additional data were used to establish the background pollutant concentration at a specific point along the pipeline for use in comparing predicted total concentrations to standards, the specific data are identified in Section 6.0 of this addendum.

TABLE 3-1

(REVISED DEIR/EIS TABLE A-5)

SUMMARY OF RELEVANT SANTA BARBARA COUNTY AIR QUALITY DATA

Station	Year	O ₃ (ppm)		NO ₂ (µg/m ³)		SO ₂ (µg/m ³)		TSP (µg/m ³)	
		Maximum 1-Hour	Mean Daily	Maximum 1-Hour	Annual Average	Maximum 1-Hour	Annual Average	Maximum 24-Hour	Annual
			Maximum 1-Hour						Geometric Mean
El Capitan	1980	0.12	0.061	NA ¹	NA	26	0	302*	103
	1981	0.11	0.056	NA	NA	26	0	295	98
	1982	0.15	0.052	NA	NA	26	0	202	84
Santa Ynez	1980	0.09	0.039	NA	NA	NA	NA	NA	NA
	1981	0.11	0.048	NA	NA	NA	NA	NA	NA
	1982	0.11	0.053	NA	NA	NA	NA	NA	NA
Santa Maria	1980	0.09 ²	0.044	NA	NA	183	5	293 ⁴	98
	1981	0.10 ²	0.043	75 ³	17	183	5	416 ⁴	92
	1982	0.10 ⁵	0.031	94 ³	17	314	3	260 ⁴	65
Maricopa	1981	NA	NA	NA	NA	NA	NA	187	64
	1982	NA	NA	NA	NA	NA	NA	106	27

Source: California Air Quality Data Summary of Air Quality Data Gaseous and Particulate Pollutants, Annual Summary, Vols. XII-XIV, 1980-1982.

Sampling Stations:

¹Not Available²East Main³Glacier⁴Library⁵McClelland

*See note in Section 3.2.1.2 regarding El Capitan TSP.

TABLE 3-2
SUMMARY OF RELEVANT SAN LUIS OBISPO COUNTY AIR QUALITY DATA

Station	Year	O ₃ (ppm)		NO ₂ (µg/m ³)		SO ₂ (µg/m ³)		TSP (µg/m ³)	
		Maximum 1-Hour	Mean Daily	Maximum 1-Hour	Annual Average	Maximum 1-Hour	Annual Average	Maximum 24-Hour	Annual
			Maximum 1-Hour						Geometric Mean
Nipomo	1980	0.10	0.044	188	17	445	10	139	59
	1981	0.10	0.041	94	23	707	10	135	56
	1982	0.10	0.043	75	17	210	5	90	43

Source: California Air Quality Data Summary of Air Quality Data Gaseous and Particulate Pollutants, Annual Summary, Vols. XII-XIV, 1980-1982.

TABLE 3-3

(REVISED DEIR/EIS TABLE A-6)

SUMMARY OF RELEVANT KERN COUNTY AIR QUALITY DATA

Station	Year	O ₃ (ppm)		NO ₂ (µg/m ³)		SO ₂ (µg/m)		TSP (µg/m ³)		CO (mg/m ³)	
		Maximum 1-Hour	Mean Daily Maximum 1-Hour	Maximum 1-Hour	Annual Average	Maximum 1-Hour	Annual Average	Maximum 24-Hour	Annual Geometric Mean	Maximum 1-Hour	Maximum 8-Hour
Bakersfield	1980	0.17 ¹	0.057	244	68	498	29	470 ¹	143	19	14.1
	1981	0.18 ²	0.069	301	64	655	26	405 ¹	135	16	11.6
	1982	0.18 ²	0.11 ¹	207	56	236	16	250 ¹	116	16	12.9
Taft ¹	1980	NA ³	NA	NA	NA	NA	NA	287	146	NA	NA
	1981	NA	NA	NA	NA	NA	NA	411	112	NA	NA
	1982	NA	NA	NA	NA	NA	NA	278	88	NA	NA

Source: California Air Quality Data Summary of Air Quality Data Gaseous and Particulate Pollutants, Annual Summary, Vols. XII-XIV, 1980-1982.

Sampling Stations:

¹Chester

²Edison

³Not Available

TABLE 3-4

(REVISED DEIR/EIS TABLE A-7)

SUMMARY OF RELEVANT AIR QUALITY DATA IN SOUTHEAST DESERT AIR BASIN

Station	Year	O ₃ (ppm)		NO ₂ (µg/m ³)		TSP (µg/m ³)		CO (mg/m ³)	
		Maximum 1-Hour	Mean Daily	Maximum 1-Hour	Annual Average	Maximum 24-Hour	Annual	Maximum 1-Hour	Maximum 8-Hour
			Maximum 1-Hour				Geometric Mean		
Barstow	1980	0.19	0.057	226	49	224	71	7	5.6
	1981	0.16	0.063	564	47	300	71	7	2.4
	1982	0.16	0.056	376	47	116	46	6	3.8
Twentynine Palms	1980	0.12	0.051	NA ¹	NA	244	50	9	8.9
	1981	0.15	0.060	NA	NA	160	53	9	8.4
	1982	0.13	0.062	NA	NA	96	41	3	2.1
Boron	1980	NA	NA	NA	NA	426	73	NA	NA
	1981	NA	NA	NA	NA	129	52	NA	NA
	1982	NA	NA	NA	NA	140	43	NA	NA
Mojave	1980	NA	NA	NA	NA	195	73	NA	NA
	1981	NA	NA	NA	NA	213	66	NA	NA
	1982	NA	NA	NA	NA	186	68	NA	NA

Source: California Air Quality Data Summary of Air Quality Data Gaseous and Particulate Pollutants, Annual Summary, Vols. XII-XIV, 1980-1982.

¹Not Available

TABLE 3-5

(REVISED DEIR/EIS TABLE A-8)

SUMMARY OF RELEVANT ARIZONA AIR QUALITY DATA

Station	Year	O ₃ (ppm)	NO ₂ (µg/m ³)		SO ₂ (µg/m ³)		TSP (µg/m ³)		CO (mg/m ³)	
		Maximum 1-Hour	Maximum 24-Hour ¹	Annual Average	Maximum 24-Hour	Annual Average	Maximum 24-Hour	Annual Average	Maximum 1-Hour	Maximum 8-Hour
Buckeye (Phoenix) ²	1980	0.06 (0.12)	(324)	(75)	16	3	600	127	(18.3)	(10.3)
	1981	(0.16)	(176)	(75)	14	2	409	127	(19.4)	(11.4)
	1982	(0.11)	(141)	(67)	11	1	196	96	(18.3)	(11.4)
Coolidge	1980	0.07	86	10	22	1	220	87	NA	NA
	1981	NA ³	40	13	74	4	253	92	NA	NA
	1982	NA	28	16	49	4	185	76	NA	NA
Maricopa	1980	0.05	94	10	NA	NA	219	55	6	1
	1981	NA	33	7	17	2	155	54	16	9
	1982	NA	19	7	32	3	110	54	NA	NA
Willcox	1980	NA	27	18	24	13	160	44	NA	NA
	1981	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1982	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source: 1982 Air Quality Control for Arizona, Arizona Department of Health Services 1982.

¹For information only. Arizona does not have a 24-hour NO₂ standard.²The Phoenix E. Monroe station NO₂ and S. Central Station NO₃ and CO concentrations are given in brackets.³Not Available

TABLE 3-6
 (REVISED DEIR/EIS TABLE A-9)
 SUMMARY OF RELEVANT NEW MEXICO AIR QUALITY DATA

Station	Year	0 ₃ (ppm)	NO ₂ (µg/m ³)		SO ₂ (µg/m ³)		TSP (µg/m ³)		CO (mg/m ³)	
		Maximum 1-Hour	Maximum 24-Hour	Annual Average	Maximum 24-Hour	Annual Average	Maximum 24-Hour	Annual Geometric Mean	Maximum 1-Hour	Maximum 8-Hour
Lordbury	1980	NA ¹	56	19	26	0	200	56	NA	NA
	1981	NA	38	19	26	0	110	62	NA	NA
	1982	NA	38	19	26	0	193	55	NA	NA
Denning	1980	NA	56	38	0	0	178	70	NA	NA
	1981	NA	38	38	26	0	134	70	NA	NA
	1982	NA	38	19	26	0	262	60	NA	NA
Anthony	1980	(0.10) ²	56	19	0	0	391	114	(13.0)	(6.3)
	1981	(0.14)	75	19	26	0	470	122	NA	NA
	1982	(0.10)	38	19	26	0	369	107	NA	NA

Source: Air Quality Bureau Annual Report, State of New Mexico Health and Environmental Department, Environmental Improvement Division 1981-1982.

¹Not Available

²()Las Cruces station (#6W) substituted for CO, La Union station (#60) for ozone.

TABLE 3-7
 (REVISED DEIR/EIS TABLE A-10)
 SUMMARY OF RELEVANT TEXAS AIR QUALITY DATA

Station	Year	O ₃ (ppm)	NO ₂ (µg/m ³)		SO ₂ (µg/m ³)		TSP (µg/m ³)		CO (mg/m ³)	
		Maximum 1-Hour	Maximum 24-Hour	Annual Average	Maximum 24-Hour	Annual Average	Maximum 24-Hour	Annual Geometric Mean	Maximum 1-Hour	Maximum 8-Hour
Odessa	1980	0.11	NS ¹	19	26	0	201	58	20.9	10.8
	1981	0.10	NS	19	0	0	250	59	18.6	5.8
	1982	0.13	NS	19	26	0	402	71	6.3	NA
San Antonio	1980	0.12	NS	38	26	0	188	98	21.2	11.6
	1981	0.14	NS	38	26	0	143	76	20.4	9.0
	1982	0.14	NS	19	26	0	217	112	15.9	9.0

Sources: Summary of Total Suspended Particulate Data, Texas Air Control Board 1980-1982.
 Summary of Total Gaseous Pollutant Data Texas Air Control Board 1980-1982.

¹No standard in Texas.

²Not Available.

4.0 DEVELOPMENT OF PROJECT EMISSION ESTIMATES

The emissions inventory was developed for the construction and operational phases of the Getty and Celeron/All American pipelines. Input data to the emission estimations were supplied by Getty and All American. Emissions were calculated from manufacturer's specifications and emission factors from AP-42 and California Air Resources Board (CARB). The following sections provide the methods used to calculate the emissions for each phase.

4.1 Construction Emissions

Construction emissions were calculated for a pipeline spread that would construct a portion of the pipeline. It was assumed that Getty would use three spreads to construct its pipeline and Celeron/All American would use five spreads for its construction. Since each spread was identical, construction emissions were calculated for one spread and were assumed to be the same for the other spreads. Pollutants were projected in our typical pipeline spread to be emitted from several types of sources. These include: emissions from heavy-duty construction equipment, secondary emissions from passenger vehicles for transportation of workers to the site, dust and smoke from bush clearing and burning, and fugitive dust from the disturbed areas along the ROW. Tables 4-1 and 4-2 provide the parameters and emission factors used in the calculations of the Getty and Celeron/All American construction emissions, respectively. Table 4-3 shows the estimated emissions per spread using the information provided by Getty and Celeron/All American and emission factors from AP-42 and CARB vehicle emission factors.

4.2 Operational Emissions

Operational emissions consisted of the pollutants being emitted from natural gas-fired heaters and/or compressors from several pumping stations along the pipeline route; evaporative and fugitive hydrocarbon losses from valves, flanges and seals; and evaporative losses from the oil storage tank farm in Cadiz, California.

Heaters and Compressors

NO_x, HC, and CO emission estimates for the heaters and compressors were based upon manufacturers specifications for the heating requirement at each station. SO₂ and TSP emissions were based upon emission factors found in AP-42, Section 1.4. These emission factors were 0.6 lb/MMSCF and 10.0 lb/MMSCF, respectively. The conversion factor of 1,000 BTU/SCF was used to determine the amount of fuel used based upon the heat requirements at each pumping station. The operational characteristics for the heaters/compressors at each pump station are shown in Table 4-4. Table 4-5 presents the emissions for each pump station along the proposed route.

TABLE 4-1
OPERATIONAL PARAMETERS USED TO CALCULATE CONSTRUCTION EMISSIONS
FOR THE PROPOSED GETTY PIPELINE

Source Type ¹	Number of ¹ Equipment	Operational ¹ Parameter	Construction Parameters (per spread)					Units
			Emission Factors ¹					
			CO	HC	NO _x	SO ₂	PM	
Tractors ²	21 @ 105 HP	7.2 hrs/day	2.39	0.69	9.08	0.85	0.69	gm/HP-hr
Bulldozers ²	6 @ 200 HP	7.2 hrs/day	1.83	0.57	12.5	0.87	0.41	gm/HP-hr
Heavy Duty Gasoline Vehicles ²	10 @ 50 HP	7.2 hrs/day	198.0	6.49	4.79	0.26	0.30	gm/HP-hr
Light Duty Gasoline Vehicles ³	16	68 mi/day	12.25	1.3	2.44	0.13	0.35	gm/mi
Miscellaneous Equipment - Diesel ²	3 @ 250 HP	7.2 hrs/day	2.82	1.04	14.8	0.93	0.90	gm/HP-hr
Miscellaneous Equipment - Gasoline ²	8 @ 85 HP	7.2 hrs/day	198.0	6.49	4.79	0.26	0.30	gm/HP-hr
Graders ²	6 @ 135 HP	7.2 hrs/day	2.19	0.49	10.5	0.87	0.63	gm/HP-hr
Secondary Vehicle Emissions ³	129	68 mi/day	12.25	1.3	2.44	0.13	0.35	gm/mi
Burning (Weeds) ⁴	9.1 acres	3.2 tons/acre	85	12	NA	NA	15	lb/ton
Disturbed Areas ⁵	9.1 acres	NA ⁶	NA	NA	1.2	NA	NA	ton/acre-mos.

¹Source: Getty Permit Application.

²Emission Factor: AP-42, Sec. 3.2.7.2.

³Emission Factor: Composite Emission Factors (45 mph); light duty passenger vehicles, cars, 1979.

⁴Emission Factor: AP-42, Sec. 2.4.3.

⁵Emission Factor: AP-42, Sec. 3.2.7.2.

⁶Not Applicable

TABLE 4-2
 OPERATIONAL PARAMETERS USED TO CALCULATE CONSTRUCTION EMISSIONS
 FOR THE PROPOSED CELERON/ALL AMERICAN PIPELINE

Source Type ¹	Number of ¹ Equipment	Operational ¹ Parameter	Construction Parameters (per spread)					Units
			Emission Factors ²					
			CO	HC	NO _x	SO ₂	PM	
Tractors	28	10 hrs/day	0.386	0.110	1.47	0.137	0.112	lb/hr
Farm Tractors	22	10 hrs/day	0.355	0.172	0.996	0.093	0.136	lb/hr
Heavy Duty Diesel Vehicles	57	108.4 mi/day	28.7	4.6	20.9	2.8	1.3	gm/mi
Heavy Duty Gasoline Vehicles	5	108.4 mi/day	188	19.4	12.5	NA ³	NA	gm/mi
Light Duty Gasoline Vehicles	28	108.4 mi/day	42.8	6.5	5.3	NA	NA	gm/mi
Miscellaneous Equipment - Diesel	18	10 hrs.day	0.414	0.157	2.27	0.143	0.133	lb/hr
Miscellaneous Equipment - Gasoline	33	10 hrs/day	17.0	0.728	0.412	0.023	0.026	lb/hr
Graders	2	10 hrs/day	0.215	0.054	1.05	0.086	0.061	lb/hr
Secondary Vehicle Emissions	335	22 mi/day	29.8	4.7	8.0	0.23	0.60	gm/mi
Burning (Weeds)	18.18 acres	3.2 tons/acre	85	12	NA	NA	15	lb/ton
Disturbed Areas	18.18 acres	NA	NA	NA	1.2	NA	NA	ton/acre-mo.

¹Source: All American Pipeline Company.

²AP-42, Secs. 2.4.3, 3.1.1.1, 3.1.4.2, 3.1.4.3, 3.1.5.1, 3.1.5.2, 3.2.6.2, 3.2.7.2, 11.2.4.3.

³Not Applicable

TABLE 4-3

EMISSIONS INVENTORY FOR CONSTRUCTION PHASE FOR THE
GETTY AND CELERON/ALL AMERICAN PIPELINE

	Emissions (lb/day)				
	NO _x	SO ₂	TSP	CO	HC
PIPELINE CONSTRUCTION¹					
<u>Celeron/All American</u>					
Tractors	630.7	58.9	61.3	186.2	68.6
Graders	21.0	1.7	1.2	4.3	1.1
Misc. Equipment-Diesel	408.6	25.7	25.0	74.5	28.3
Misc. Equipment-Gasoline	136.0	7.6	8.6	5,610.0	240.2
Heavy Duty Diesel Vehicles	284.7	38.1	17.7	390.9	62.7
Heavy Duty Gasoline Vehicles	14.9	0.0	0.0	224.6	23.2
Light Duty Gasoline Vehicles	35.5	0.0	0.0	286.4	43.5
Secondary Vehicle Emissions	130.0	3.7	9.7	484.2	76.4
Weed Burning	0.0	0.0	872.7	4,945.5	698.2
Wind Erosion	0.0	0.0	1,454.5	0.0	0.0
TOTAL	1,661.4	135.7	2,450.7	9,206.6	1,242.20
<u>Getty</u>					
Tractors	273.0	25.2	21.0	71.4	21.0
Bulldozers	204.0	14.4	6.6	30.0	9.0
Heavy Duty Gasoline Vehicles	32.0	2.1	2.4	1,340.0	44.0
Light Duty Gasoline Vehicles	4.8	0.3	0.6	25.6	3.2
Misc. Equipment-Diesel	150.9	9.6	9.3	28.8	10.5
Misc. Equipment-Gasoline	44.0	2.8	3.2	1,829.6	60.0
Graders	115.8	9.6	6.6	24.0	5.4
Secondary Vehicle Emissions	40.5	2.2	5.0	202.8	21.5
Weed Burning			436.8	2,475.2	349.4
Disturbed Areas	0.0	0.0	727.2	0.0	0.0
TOTAL	865.0	66.2	1,218.7	6,027.4	524.0

Source: Emission Factors = AP-42, Sec. 2.4, Sec. 3.1, Sec. 3.2, and Sec. 11.2.

TABLE 4-4

OPERATIONAL PARAMETERS USED TO CALCULATE PUMP STATION EMISSIONS
FOR THE PROPOSED CELERON/ALL AMERICAN PROJECT

Pump Station	Number of Heaters	Number of Pump Seals	Number of Valves-Flanges	Heat Requirement (MMBTU/hr)	Throughput (BPD)
Cuyama	1	2	30	51.5	300,000
Emidio ²	0	4	35	0	230,000
Tejon	0	4	30	0	230,000
Twelve-Gauge	2	4	30	52.7	230,000
Cadiz ³	2	4	138	75.9	300,000
La Paz ³	2	4	40	75.3	300,000
Gila ³	2	4	40	86.1	300,000
Coolidge ³	2	4	40	68.1	300,000
Tom Mix ⁴	2	4	40	0	300,000
Hot Springs ³	2	4	40	75.9	300,000
Lordsburg	2	4	40	90.7	300,000
Anthony	2	4	40	88.2	300,000
Salt Flats	2	4	40	83.1	300,000
Wink	2	4	54	89.9	300,000
McCamey	0	0	54	0	300,000

¹NO_x emission estimates were manufacturer's specifications, G.C. Branch Co., Tulsa, Oklahoma, July, 1984. SO₂ emissions were calculated using AP-42, Sec. 1.4-1; 0.6 lb-SO₂/10⁶ SCF and 1000 BTU/scf; TSP emissions were calculated using AP-42, Sec. 1.4-1; 10 lb-TSP/10⁶ scf and 1000 Btu/scf; HC emissions for pump seals were calculated using AP-42, Sec. 9.1.2; 3 lb-HC/seal-day; HC emissions for valves and flanges were calculated using AP-42, Sec. 9.1.2; 0.15 lb/valve-day.

²Two heaters will be in place at Emidio and will be used in the start-up (low throughput) phase. However, once the actual throughput approaches the maximum throughput consistently, these heaters will not be used.

³Heaters and compressors will be combined in a waste heat recovery process.

⁴Compressors only.

TABLE 4-5

EMISSIONS INVENTORY FOR THE OPERATION PHASE
FOR THE GETTY AND CELERON/ALL AMERICAN PIPELINE

	Emissions (lb/day)				
	NO _x ¹	SO ₂ ²	TSP ²	CO ¹	HC ^{1,3}
<u>PIPELINE OPERATION</u>					
<u>Las Flores - Emidio</u>					
Cuyama Pumping Station					
Heaters	192.0	0.6	1.1	48.0	8.0
Fugitive	0.0	0.0	0.0	0.0	18.0
<u>Emidio - Blythe</u>					
Emidio Pump Station					
Heaters	0.0	0.0	0.0	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	17.3
Tejon Pump Station					
Fugitive	0.0	0.0	0.0	0.0	16.5
Twelve-Gauge Pump Station					
Heaters	197.3	0.8	12.6	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	16.5
Cadiz Pump Station					
Heaters-Compressors	480.4	1.1	18.2	0.0	0.0
Tanks	0.0	0.0	0.0	0.0	75.0
Fugitive	0.0	0.0	0.0	0.0	32.7
<u>Blythe - McCamey</u>					
La Paz Pump Station					
Heaters-Compressors	480.0	1.1	18.1	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	18.0
Gila Pump Station					
Heaters-Compressors	483.4	1.2	20.7	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	18.0
Coolidge Pump Station					
Heaters-Compressors	481.4	1.0	16.3	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	18.0
Tom Mix Pump Station					
Compressors	479.6	0.0	0.0	168.4	48.9
Fugitive	0.0	0.0	0.0	0.0	18.0

TABLE 4-5 (continued)

EMISSIONS INVENTORY FOR THE OPERATION PHASE
FOR THE GETTY AND CELERON/ALL AMERICAN PIPELINE

	Emissions (lb/day)				
	NO _x ¹	SO ₂ ²	TSP ²	CO ¹	HC ^{1,3}
Hot Springs Pump Station					
Heaters-Compressors	477.6	1.1	18.2	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	18.0
Lordsburg Pump Station					
Heaters	185.2	1.3	21.8	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	18.0
Anthony Pump Station					
Heaters	232.3	1.3	21.2	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	18.0
Salt Flats Pump Station					
Heaters	173.2	1.2	19.7	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	18.0
Wink Pump Station					
Heaters	236.7	1.3	21.6	0.0	0.0
Fugitive	0.0	0.0	0.0	0.0	20.1
McCamey Delivery Station					
Fugitive	0.0	0.0	0.0	0.0	8.1

Source: ¹NO_x, HC, CO Heater/Compressor Emissions- Manufacturer's Specification, The G.C. Broach Co., Tulsa, Oklahoma, July 1984.

Source: ²SO₂ and TSP Emissions-AP-42, Sec. 1.4-1.

Source: ³Fugitive HC Emissions-AP-42, Sec. 9.1.2.

Valves, Flanges, and Pump Seals

Evaporative HC emissions are emitted due to leaks from miscellaneous valves, flanges, and seals. AP-42 emission factors of 0.15 lb/day-valve (for valves and flanges) and 3.0 lb/day-seal (for pump seals) were used to calculate the fugitive HC losses due to these sources at each pump station. Table 4-4 gives the number of valves and flanges at each site. It is assumed that 6 pump seals would be installed at each pump station. The fugitive emissions are given in Table 4-5 and are broken down for each station.

Oil Storage Tanks

The hydrocarbon emissions from the crude oil storage tanks at Cadiz, shown in Table 4-5, were determined as the sum of the standing storage loss, L_s , and the working loss, L_w . The standing storage loss was calculated from the formula (AP-42, Supplement 12)

$$L_s = K_s V^N P^* D M_V K_C E_f$$

where,

$$K_s = \text{seal factor} = 0.2 \text{ [lb-mole]/[ft(mph)}^N \text{ yr]}$$

$$V = \text{average wind speed at tank site} = 10 \text{ mph} \\ (\text{mean of annual averages for Daggett and Rice})$$

$$N = \text{seal-related wind speed experiment} = 1.0$$

$$P^* = \text{vapor pressure function} = 0.160 \\ (\text{assume product true vapor pressure of 7.0 psia})$$

$$D = \text{tank diameter} = 183 \text{ ft}$$

$$M_V = \text{average vapor molecular weight} = 50 \text{ lb/lb mole}$$

$$K_C = \text{product factor} = 0.4$$

$$E_f = \text{secondary seal factor} = 0.25 \text{ (tank and seal in good condition)}$$

The annual standing storage loss thus calculated is 293 lbs/year per tank; the 5-tank total is, therefore, 0.7 tons/year (4 lbs/day). The working loss was calculated from the formula

$$L_w = \frac{0.943 \text{ QCW}}{D}$$

where,

$$Q = \text{annual throughput} = 300,000 \times 365 \text{ barrels}$$

$$C = \text{drainage factor} = 0.0060 \text{ bb/1,000 ft}^2$$

$$W = \text{density of the crude oil} = 7.67 \text{ lb/gal}$$

$$D = \text{tank diameter} = 183 \text{ ft}$$

The working loss is 5,190 lbs/year tank; the 5-tank total is 13 tons/year (71 lb/day).

Relief Tank

The plan for both the Getty pipeline and Celeron/All-American pipeline is to have a relief tank at Emidio to handle temporary and infrequent surges in the pipeline pressure, such as would result after the closing of a block valve (before the pumps shut down). As a worst case, it is estimated that one day per year it would be necessary to divert 5,000 bbl of oil into the relief tank. Since it is necessary that the tank be able to fill quickly, a fixed-roof tank without an internal floater is best suited to this application. However, the HC emissions resulting from a worst-case surge, though short term in nature (≤ 1 hour), can be sizable for a fixed-roof tank. The emission factor for the working losses from a fixed-roof tank is calculated from the formula (AP-42, Supplement 12):

$$L_w = 0.024 M_v P K_N K_C$$

where,

M_v = molecular weight of the vapor = 50 lb/lb-mole

P = true vapor pressure of the crude oil 7.0 psia

K_N = turnover factor = 1.0

K_C = crude oil factor = 0.84

The resulting emission factor is 7.1 lbs/1000 gals. Therefore, the working loss for a 5,000 bbl surge is 1,490 lbs of HC. It should be stressed that such a release does not occur during normal pipeline operation and represents a worst-case estimate.

5.0 MODELING METHODOLOGY

5.1 Nonreactive Modeling

In order to calculate maximum project concentrations from the construction phase of the pipeline, the Industrial Source Complex (ISC) model was used. This model was selected because of its ability to simulate a line source, which is most appropriate for the construction phase. The construction emissions were assumed to be distributed over a 5-mile by 100-ft rectangle. Receptors were assumed to be placed along the pipeline length every 100 meters downwind from the line source. Only short-term concentrations were calculated since construction occurs for a relatively short period of time at any location. One-hour average concentrations were calculated using the ISC model for two meteorological conditions. Table 5-1 shows the model inputs used in the calculations. Since the construction workers would be working 10-hour days (during daylight hours), it was assumed (worst case) that a maximum of 1 hour would occur during stable, low wind speed conditions. Thus, maximum 1-hour concentrations were derived from the results of the ISC model for the stable case (stability class F). However, since the stable condition could occur only during the first hour of construction each day, the remaining hours would probably be unstable to neutral. Under worst-case conditions, it was assumed that the remainder of the hours would be neutral. (Neutral, low wind speed conditions could occur during cloudy conditions.) Thus, maximum 3- and 8-hour average concentrations were calculated by allowing 1 hour of stable conditions and having the remainder of the hours be neutral stability and light wind speeds. Maximum 24-hour concentrations were computed assuming 1 hour of stable conditions and 9 hours of neutral conditions. The remaining 14 hours would have no effect on the 24-hour average concentrations, due to the planned 10-hour workday.

For the operational phase, the Environmental Protection Agency (EPA) PTPLU and VALLEY models were used to determine the maximum project concentrations at each pump station. The PTPLU model was used to model flat-terrain, short-term situations. The VALLEY model was used for complex terrain, short-term scenarios and annual average modeling.

In the near-field and in relatively smooth terrain, the PTPLU model was used to calculate maximum short-term concentrations from the operation of the proposed pipeline. Since no source orientations have been finalized, all point sources at each station were conservatively assumed to be omitted from a single location. For each pumping/heating station, 1-hour concentrations were computed for a series of meteorological conditions in order to determine the 1-hour maximum concentration. The worst-case, 3-hour concentration was conservatively determined by allowing the 1-hour concentration to persist for 3 hours. Maximum 8-hour concentrations were calculated for three scenarios. First, the maximum 1-hour concentration during unstable conditions was assumed to persist for 4 hours in the worst-case direction. The remaining hours were assumed to be from a direction that would have no effect on the maximum concentration. Secondly, the maximum 1-hour neutral stability concentration was allowed to persist for 8 hours. Thirdly, the maximum 1-hour concentration during stable conditions persisted for 6 hours with the remaining hours having no effect. The

TABLE 5-1
MODEL INPUTS USED IN THE ISC MODEL FOR
CONSTRUCTION ANALYSIS

Volume Source Data¹

Length	= 30.5 m
Width	= 30.5 m
Height	= 10.0 m
Elevation	= 0.0 m
Temperature	= 293.0°K (ambient)
Emission Rate ²	= 1 g/sec

Meteorological Data

Wind Direction	= 0°
Wind Speed	= 1.0 m/sec
Mixing Height	= 10,000 m
Temperature	= 293.0°K
Stability	= 4,6

Source: ERT

¹Source data represent data for a single box. Using a series of those boxes next to each other would then represent a line source. As suggested in the ISC Manual, 132 boxes would be required to represent a 5-mile line source.

²Concentrations for each pollutant would be computed by using the ratio of the actual emissions (Table 4-3) to the generic emission rate (1 g/sec).

maximum concentration derived from these three scenarios was assumed to be worst case. The maximum 24-hour concentration was determined using the same technique as in the 8-hour determination, with one exception. Neutral conditions were allowed to persist for 12 hours rather than 8 hours. As in the construction phase, maximum background values in the vicinity of each pumping station were obtained to determine total ambient concentrations. Table 5-2 presents the inputs used to model the short-term worst-case impacts.

The VALLEY model was used to compute maximum short-term concentrations in complex terrain and annual concentrations. Short-term concentrations were modeled assuming stable conditions and allowing the plume to impact on surrounding high terrain. These results were then compared with the PTLU results to determine maximum short-term concentrations. Table 5-3 displays the model inputs used in the VALLEY modeling analysis. Due to the paucity of summarized wind data near the pump stations, annual modeling was performed for three locations along the pipeline route that would represent the worst case impacts. Daggett, Tucson, and El Paso Star windroses were used as input into the VALLEY model along with the source emissions from Cadiz, Hot Springs, and Anthony stations, respectively, to determine maximum annual project concentrations. It should be noted that the sector-averaging VALLEY model is appropriate for determining annual average concentrations from a windrose because the wind direction data are reported on a 16-point compass system, i.e., in 22.5° sectors. Therefore, by using sector averaging one only assumes that on an annual basis the wind blows with equal frequency from all directions within each sector.

5.2 Reactive Modeling

ERT's PLMSTAR model was used to assess the impact of the reactive pollutant emissions from the proposed Cadiz pumping/heating station and tank farm on the ozone levels in the Southeast Desert Air Basin. The PLMSTAR trajectory model is described in Attachment I of this addendum. The emission rates for HC and NO_x from the proposed Cadiz facility are given in Section 4.3 above. These rates were used in the photochemical modeling with one exception. The rate of standing storage loss of HC from the tanks was adjusted down to correspond to the wind speed of the modeling scenario (i.e., 1 m/s) that is lower than the annual average wind speed. This results in HC emissions of 105 lbs/day to go along with the operational NO_x emissions of 480 lbs/day.

Simulations were made for one trajectory, with meteorological conditions conducive to high ozone concentrations. The meteorological inputs were developed from data available from past studies in the high desert area of California [e.g., SCE (1979), Hovind (1968)]. The assumed date was June 21, the summer solstice. Wind speeds were assumed to be light when the parcel passes over the Cadiz site, heading toward the northeast. It was assumed that the only significant emissions into the parcel were due to the proposed Cadiz facility; therefore, there is actually no directional dependence to the simulation inputs.

TABLE 5-2
 MODEL INPUTS USED IN THE PTLU MODEL FOR
 OPERATIONAL ANALYSIS

<u>Source Data</u>		<u>Heaters</u>		
Stack Height (m)				9.1
Stack Diameter (m)				1.1
Stack Velocity (m/sec)				6.9
Stack Temperature (°K)				450.0
Emission Rate (g/sec) ¹				1.0

Stability	Wind Speed (m/sec)	Temperature (°K)	Wind Direction (degrees)	Mixing Height (meters)
1	0.5	293	180	400
1	0.8	293	180	400
1	1.0	293	180	400
1	1.5	293	180	400
1	2.0	293	180	400
1	2.5	293	180	400
1	3.0	293	180	400
2	0.5	293	180	400
2	0.8	293	180	400
2	1.0	293	180	400
2	1.5	293	180	400
2	2.0	293	180	400
2	2.5	293	180	400
2	3.0	293	180	400
2	4.0	293	180	400
2	5.0	293	180	400
3	2.0	293	180	400
3	2.5	293	180	400
3	3.0	293	180	400
3	4.0	293	180	400
3	5.0	293	180	400
3	5.0	293	180	400
3	7.0	293	180	400
3	10.0	293	180	400
4	0.5	293	180	400
4	0.8	293	180	400
4	1.0	293	180	400
4	1.5	293	180	400
4	2.0	293	180	400
4	2.5	293	180	400
4	3.0	293	180	400
4	4.0	293	180	400
4	5.0	293	180	400
4	7.0	293	180	400
4	10.0	293	180	400

TABLE 5-2 (CONTINUED)

Stability	Wind Speed (m/sec)	Temperature (°K)	Wind Direction (degrees)	Mixing Height (meters)
4	12.0	293	180	400
4	15.0	293	180	400
5	2.0	293	180	400
5	2.5	293	180	400
5	3.0	293	180	400
5	4.0	293	180	400
5	5.0	293	180	400
6	2.0	293	180	400
6	2.5	293	180	400
6	3.0	293	180	400
6	4.0	293	180	400
6	5.0	293	180	400

Source: ERT

¹See note 2, Table 5-1.

TABLE 5-3

MODEL INPUTS USED IN THE VALLEY MODEL FOR
OPERATIONAL ANALYSIS

Source Data		Heaters			
	Stack Height (m)				9.1
	Stack Diameter (m)				1.1
	Stack Velocity (m/sec)				6.9
	Stack Temperature (°K)				450.0
	Emission Rate (g/sec) ¹				1.0

Meteorological Data	Stability	Wind Speed (m/sec)	Temperature (°K)	Wind Direction (degrees)	Mixing Height (meters)
	6	2.5	293	180	10,000

Source: ERT

¹See note 2, Table 5-1.

The meteorological inputs along the trajectory are summarized in Table 5-4. Clear sky conditions were assumed for the simulation. Deposition velocities of about 0.25 cm/sec were used for ozone only.

The initial concentrations used in the simulations are shown in Table 5-5. The concentrations are based on measurements taken at Cadiz beginning in September 1984. The hydrocarbon speciation is based on gas chromatograph (GC) analysis of a grab sample taken in October at Cadiz. The reactive hydrocarbons (RHC) concentration of that sample was 213 ppb C; this was assumed to be a typical ozone season value. As an estimate of high initial conditions, an RHC concentration of 50 percent higher (320 ppb C) was assumed; the speciation by class was assumed to be the same.

The dimensions of the "wall-of-cells" air parcel are given in Table 5-6. The pump/heater NO_x emissions and the fugitive HC emissions (storage tanks, pump seals, valves, etc.) are introduced into the center column of the air parcel. The pump/heater emissions, due to their considerable plume rise, are introduced into the second row of cells, whereas the fugitive emissions are added in the first (lowest) row. The pollutants are emitted into the parcel shortly after 0600 PST.

5.3 Visibility

A Level-1 visibility screening analysis (Latimer and Ireson 1980) was performed to assess the impact of operation-phase impacts of the proposed All American pipeline on visibility at Edwards Air Force Base in California. This is a simple calculation procedure designed for EPA to identify emission sources that have little potential for adversely affecting visibility in a Class I area. According to normal regulatory policy, if a source "passes" the Level-1 tests, it would not be likely to cause adverse visibility impairment and further analysis is considered unnecessary.

The Level-1 visibility screening analysis is designed to evaluate two types of potential visibility impairment that can be caused by pollutant plumes from emission sources. The pollutants of concern in these analyses are SO₂, NO_x, and PM. The first type of impairment which is caused principally by NO₂ gas formed from NO_x emissions, is discoloration of a bright horizon sky caused by a dark plume. The other type of adverse effect is a bright plume observed against a dark terrain viewing background. This effect is caused principally by particle emissions and sulfate aerosol formed from SO₂ emissions.

The Level-1 analysis consists of calculating three contrast parameters, defined as follows:

C_1 = plume contrast against the sky

C_2 = plume contrast against the terrain

C_3 = change in sky/terrain contrast caused by primary and secondary aerosol.

TABLE 5-4
 SCHEDULE OF METEOROLOGICAL INPUTS USED IN THE
 CADIZ OZONE MODELING

Time (PST)	Wind Speed (m/s)	Mixing Height (m)	Stability Class
6	1.0	50	B
7	1.0	70	B
8	1.0	120	B
9	1.0	200	B
10	1.0	310	A
11	1.0	590	A
12	1.0	730	A
13	1.0	870	A
14	1.0	960	B
15	1.0	1,000	B
16	1.0	1,000	B
17	1.0	1,000	B
18	1.0	1,000	B

Source: ERT

TABLE 5-5
 INITIAL POLLUTANT CONCENTRATIONS (ppb) USED IN
 THE REACTIVE MODELING

Species	Typical	High
NO	1	1
NO ₂	4	6
O ₃	40	40
CO	20	20
Formaldehyde (HCHO)	6.4	9.6
Other Aldehydes (ALD2)	2.1	3.2
>C ₃ Alkanes (ALKA)	33.1	49.7
Ethylene (ETHE)	0.05	0.075
Terminal Alkenes (PRPE)	0.73	1.10
Internal Alkenes (BUTE)	0.79	1.19
Monoalkyl Benzenes (TOLU)	4.2	6.3
Di- and Tri-alkyl Benzenes (XYLE)	1.25	1.88

Source: ERT

TABLE 5-6
 DIMENSIONS OF CELLS IN PLMSTAR AIR PARCEL

Row No. ¹	Height, width (m)						
	1	2	3	4	5	6	7
5	500, 4,000	500, 2,500	500, 1,000	500, 500	500, 1,000	500, 2,500	500, 4,000
4	250, 4,000	250, 2,500	250, 1,000	250, 500	250, 1,000	250, 2,500	250, 4,000
3	150, 4,000	150, 2,500	150, 1,000	150, 500	150, 1,000	150, 2,500	150, 4,000
2	50, 4,000	50, 2,500	50, 1,000	50, 500	50, 1,000	50, 2,500	50, 4,000
1	50, 4,000	50, 2,500	50, 1,000	50, 500	50, 1,000	50, 2,500	50, 4,000

¹Row 1 is the lowest (surface-based) cell.

The analysis requires as input only the SO₂, NO_x, and PM emission rates of the source in question and the distance of the source from the area of interest. If the absolute values for any of the three calculated indices exceed 0.10, then further analysis is recommended. If the absolute values of all indices are below 0.10, then no significant visibility degradation is expected.

The emission rates for the Twelve-Gauge Lake Heat Station for NO_x, SO₂, and TSP are 197.3, 0.8, and 12.6 lbs/day, respectively. The heat station is approximately 15 miles east of Edwards. The results of the analysis are presented in Section 6.3.

6.0 RESULTS OF IMPACT ASSESSMENT

This section presents the air quality impacts from the proposed Celeron/All American and Getty pipelines due to the construction and operation of the pipeline, pumping stations, and delivery stations. During each phase, various pollutants would be emitted into the atmosphere including sulfur dioxide (SO_2), oxides of nitrogen (NO_x), total suspended particulates (TSP), carbon monoxide (CO), and hydrocarbons (HC). Maximum concentrations of NO_2 , TSP, CO, and O_3 were estimated to determine air quality impacts resulting from the Celeron/All American and Getty proposals.

The analytical techniques used to generate the results (Section 5) varied slightly depending upon averaging time, location, and operation being modeled. These variations necessitated the use of several models. Due to the lack of available data near the proposed pipeline route, assumed worst-case scenarios were developed for the short-term (24 hours or less) averaging times.

The project emissions were compared with applicable Federal, state, and county emissions thresholds (e.g., New Source Review), and project emission control devices were evaluated in terms of applicable BACT and LAER requirements. Air quality modeling using EPA-approved models was performed for sources emitting pollutants in excess of the significance thresholds. The modeling results were then compared with allowable pollutant concentrations as specified in county, state, and Federal ambient standards and increments, including those for Class I areas.

Air quality impacts were judged significant or not significant based on regulatory standards, and the best professional judgement of the resource specialists. The National Ambient Air Quality Standards (NAAQS), and the ambient air quality standards for California, Arizona, New Mexico, and Texas are all important benchmarks for significant impacts. Primary and secondary NAAQS and state standards have been issued for SO_2 , NO_2 , TSP, CO, ozone (O_3), and HC. These standards are summarized in Section 2. Primary standards are designed to protect public health, while secondary standards are designed to protect public welfare. Annual average standards are never to be exceeded. Short-term standards (24 hours or less) cannot be exceeded more than once per year, except in California and New Mexico where no standards can be exceeded.

New large pollutant sources in attainment areas (areas where the NAAQS are met) are also subject to prevention of significant deterioration (PSD) review. PSD regulations further control pollutant emissions by allowing the maximum predicted concentrations from a new major source and any other nearby previously permitted PSD sources to be a fraction of the NAAQS. PSD regulations in California, Arizona, New Mexico, and Texas establish air quality increments for SO_2 and TSP that restrict deterioration by major sources. The applicable SO_2 and TSP PSD increments are shown in Section 2. The PSD increments are much smaller than corresponding NAAQS and state standards; therefore, the increments are often more limiting in determining the size of new projects that may be built. Since no new emission sources would be located in Santa Barbara County, Santa Barbara Air Pollution Control District PSD regulations, which are stricter, would not apply.

The amount of deterioration by new sources is determined by the classification of the area. Presently, the entire area surrounding the proposed projects is designated as PSD Class II, which allows for moderate air quality deterioration. Little air quality deterioration is allowed in PSD Class I areas. The closest existing Class I areas are the Guadalupe Mountains National Park (Texas) located within 2.5 miles of the All American pipeline route, and the San Rafael Wilderness (California) located approximately 8.5 miles east of Getty's proposed Sisquoc pump station. The PSD increments apply not only to routinely operating sources such as the pump stations and tank farms, but also to temporary sources located near Class I areas [40 CFR 52.21(f)(6)]. Examples of temporary sources in the Celeron/All American and Getty proposals would include the construction of the pump stations and pipelines. No significant air quality impacts in Class I areas have been predicted by modeling results.

The following sections summarize the predicted maximum air quality impacts for reactive (O_3 formation) and non-reactive pollutants from the proposed construction and operational activities and compare the impacts to applicable significance criteria. The results are described for each pollutant for the construction phase of the pipeline as well as the operational phase of the pump/heater stations.

6.1 Non-Reactive Impacts

This section summarizes the air quality impacts for NO_2 , SO_2 , TSP, and CO from the construction and operational activities and compares the impacts to applicable significance criteria. Due to the lack of PM-10 data and because no estimation method has been developed to adjust TSP emissions and short-term background concentrations to PM-10, TSP concentrations were compared only to the Federal primary and secondary standards in California. The results are described for each of the pipeline segments and include the maximum concentrations for each pollutant due to the construction of the pipeline as well as the operational phase of the pump/heater stations.

6.1.1 Las Flores to Emidio

Construction

The Getty and Celeron construction emissions (Table 4-3) were used to determine maximum NO_2 , SO_2 , TSP, and CO impacts due to the construction of this segment of the pipelines. Since these sources are mobile in nature, the Industrial Source Complex (ISC) model described in Section 5 was used. The maximum 1-hour concentrations occurred within 500 meters of the construction activities while the maximum multi-hour concentrations occurred within 200 meters of the construction site. Table 6-1 presents the summary of worst-case impacts resulting from the construction of the Celeron and Getty pipelines. As seen from the table, the project contributions are very low (less than 3 percent of the standards for all pollutants from Celeron and less than 2 percent from Getty). However, the existing background concentrations violate the California 1-hour SO_2 standard and the federal 24-hour TSP secondary standard.

TABLE 6-1

SUMMARY OF AIR QUALITY IMPACTS FROM THE CONSTRUCTION OF THE PROPOSED CELERON
AND GETTY PIPELINES FROM LAS FLORES TO EMIDIO

Pollutant	Maximum Project Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Background Concentration ($\mu\text{g}/\text{m}^3$) ¹	Background Monitoring Site/ Distance Away (mi)	Total Ambient Concentration ($\mu\text{g}/\text{m}^3$)	California/Federal ² Standard ($\mu\text{g}/\text{m}^3$)
<u>Celeron</u>					
<u>SO₂</u>					
1-Hour	0.6	655	Bakersfield/20	655.6	655/NA ³
3-Hour	0.6	262	Bakersfield/20	262.6	NA/1300
24-Hour	0.2	125/100	Bakersfield/20	125.2/100.2	131/365
<u>NO₂</u>					
1-Hour	7.3	301	Bakersfield/20	308.3	470/NA
<u>TSP</u>					
24-Hour	4.3	244	Taft/10	248.3	NA/260-150
<u>CO⁴</u>					
1-Hour	0.0	NA	NA	NA	NA
8-Hour	0.0	NA	NA	NA	NA
<u>Getty</u>					
<u>SO₂</u>					
1-Hour	0.3	655/NA	Bakersfield/20	655.3	655/NA
3-Hour	0.3	NA/262	Bakersfield/20	262.3	NA/1300
24-Hour	0.1	125/100	Bakersfield/20	125.1/100.1	131/365
<u>NO₂</u>					
1-Hour	3.8	301	Bakersfield/20	304.8	470/NA
<u>TSP</u>					
24-Hour	2.2	244	Taft/10	246.2	NA/260-150
<u>CO⁴</u>					
1-Hour	0.0	NA	NA	NA	NA
8-Hour	0.0	NA	NA	NA	NA

¹When two values are shown, the first value is the maximum background concentration for comparison to the California Standard. The second value is highest second-highest concentration for comparison to the federal short-term standard.

²Values separated by a "-" represent the federal primary and secondary standard.

³Not Applicable

⁴Carbon monoxide concentrations are shown in mg/m^3 .

The maximum 1-hour background value for SO₂ (located in Bakersfield) is equal to the California 1-hour SO₂ standard (655 µg/m³, respectively). In addition, Bakersfield (the closest SO₂ monitor to this segment of the pipeline) is located in a highly urbanized area, approximately 25 miles away. Thus, the background concentration along the pipeline route is expected to be considerably less, and therefore, the pipeline construction would not be expected to cause a violation.

The background concentration also violates the Federal TSP (24-hour) secondary standard. The contribution from the construction emissions would account for less than 2 percent of the ambient concentration. In addition, since the emissions from construction activities are temporary and transient in nature, EPA (Diggs 1984, and Harper 1984) and county permitting agencies (Goff 1984, and Stroman 1984) believe that no significant long-term or permanent impacts would occur.

The maximum 24-hour TSP and the 3-hour SO₂ concentrations are estimated to be less than 1 µg/m³ at the San Rafael Wilderness which is the nearest Class I area (located approximately 8.5 miles from the pipeline). Thus no significant impacts are expected in the Class I area.

Operation

The operation of the initial pipeline segment from Las Flores to Emidio would consist of three pumping stations. All of the pump stations would be operated by electric-powered pumps. Only the pump station at Cuyama would have natural gas-fired oil heaters to meet possible heating requirements. The emissions from the Cuyama pump station can be found in Table 4-5. Due to the source configuration, maximum impacts from the PTPLU model (described in Section 5) were predicted within 100 meters of the source. Table 6-2 summarizes the impacts from the Cuyama station.

Similar to the situation during pipeline construction, the maximum 1-hour background value for SO₂ (located in Bakersfield, the nearest SO₂ monitor to the Cuyama pump station) is equal to the California 1-hour SO₂ standard (655 µg/m³), which is a violation. However, the maximum project contribution from Cuyama is less than one-tenth of 1 percent of the total ambient concentration (655.2 µg/m³). In addition, Bakersfield is located in a highly urbanized area, more than 50 miles away. Again, the background concentration near Cuyama is expected to be considerably less, and therefore, the pipeline operation would not be expected to cause a violation.

The background concentration also violates the Federal TSP (24-hour) secondary standard. The contribution from the Cuyama pump emissions would account for less than 1 percent of the ambient concentration. Thus, considering this along with discussions of the respective background values (above), no significant impacts are expected to occur from the operation of the pump/heater station at Cuyama (Ronyecz, 1984).

TABLE 6-2
SUMMARY OF AIR QUALITY IMPACTS FROM THE OPERATION OF THE
PROPOSED PIPELINES FROM LAS FLORES TO BLYTHE

Pollutant	Maximum Project Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Background ¹ Concentration ($\mu\text{g}/\text{m}^3$)	Background Monitoring Site/ Distance Away (mi)	Total Ambient Concentration ($\mu\text{g}/\text{m}^3$)	California/Federal ² Standard ($\mu\text{g}/\text{m}^3$)
LAS FLORES TO EMIDIO (Getty)					
<u>Cuyama</u>					
SO₂					
1-Hour	0.2	655	Bakersfield/30	655.2	655/NA ³
3-Hour	0.2	262	Bakersfield/30	262.2	NA/1300
24-Hour	0.1	125/100	Bakersfield/30	125.1/100.1	131/365
NO₂					
1-Hour	66.1	301	Bakersfield/30	367.1	470/NA
TSP					
24-Hour	0.4	187/170	Maricopa/10	187.4/170.4	NA/260-150
CO⁴					
1-Hour	0.0	NA	NA	NA	NA
8-Hour	0.0	NA	NA	NA	NA
EMIDIO TO BLYTHE (All American)					
<u>Twelve-Gauge</u>					
SO₂					
1-Hour	0.3	78	Trona/60	78.3	655/NA
3-Hour	0.3	52	Trona/60	52.3	NA/1300
24-Hour	0.1	26/26	Trona/60	26.1/26.1	131/365
NO₂					
1-Hour	68.0	564	Barstow/12	632.0	470/NA
TSP					
24-Hour	1.1	161	Barstow/12	162.1	NA/260-150
EMIDIO TO BLYTHE (All American)					
<u>Cadiz</u>					
SO₂					
1-Hour	0.4	78	Trona/150	78.4	655/NA
8-Hour	0.4	52	Trona/150	52.4	NA/1300
24-Hour	0.1	26/26	Trona/150	26.1/26/1	131/365
Annual	0.0	NA	NA	NA	NA
NO₂					
1-Hour	165.4	56 ⁵	Cadiz/8	211.4	470/NA
Annual	10.5	48.9	Barstow/110	59.4	100/100
TSP					
24-Hour	1.6	109	Twenty-nine Palms/45	110.6	NA/260-150
Annual	0.4	70.9	Twenty-nine Palms/45	71.3	NA/75-60

¹When two values are shown, the first value is the maximum background concentration for comparison to the California Standard. The second value is highest second-highest concentration for comparison to the federal short-term standard.

²Values separated by a "-" represent the federal primary and secondary standard.

³Not Applicable

⁴Carbon monoxide concentrations are shown in mg/m³.

⁵No representative data available; maximum background concentration was taken from on-site monitoring program data which started September 8, 1984.

6.1.2 Emidio to Blythe

Construction

The All American construction emissions for this segment, found in Table 4-3, were used to determine maximum impacts due to the construction activities. As in the previous section, maximum 1-hour concentrations occurred within 500 meters of the construction activities while the maximum multi-hour concentrations occurred within 200 meters of the construction site. Table 6-3 presents the summary of worst-case impacts resulting from the construction of the All American pipeline. Again the project contributions are very low (less than 3 percent of the standards for all pollutants). However, existing background concentrations again violate the California 1-hour NO_2 standard and the federal 24-hour TSP primary and secondary standards.

The maximum 1-hour background value for NO_2 (located in Barstow) is $564 \mu\text{g}/\text{m}^3$ and exceeds the California 1-hour NO_2 standard ($470 \mu\text{g}/\text{m}^3$) by 20 percent. However, the maximum project contribution from All American is less than 2 percent of the total ambient concentrations ($571.3 \mu\text{g}/\text{m}^3$). In addition, this standard has only been violated once in a three-year period (1980 through 1982) in Barstow, and since the construction period of the pipeline through this area is very short (10 to 14 days), the likelihood of the maximum background concentration occurring simultaneously with the construction phase through Barstow is small. Thus, the background concentration is expected to be considerably less during the construction phase, and therefore, the pipeline construction impact would not be significant.

The Federal TSP (24-hour) background concentration (at Boron) violates the Federal primary and secondary standards. Although the value is $423.3 \mu\text{g}/\text{m}^3$, the contribution from the construction emissions would account for less than 1 percent of the ambient concentration. Also, since the emissions from construction activities are temporary and transient in nature, the Southeast Desert Air Pollution Control District would not consider either the TSP or NO_x concentrations as significant impacts (Hubbard 1984). The short-term increase in TSP along the ROW is also not expected to significantly decrease visibility in the area around Edwards Air Force Base.

Operation

The operation of the 294-mile pipeline segment from Emidio to Blythe would consist of four pumping/heating stations as well as an oil storage facility at Cadiz. Except at Cadiz, electric-powered pumping would be used between Emidio and Blythe; thus only emissions from natural gas-fired oil heaters at the Twelve-Gauge Lake station and fugitive HC emissions from pump seals and valves would be generated. At Cadiz, natural gas-fired turbine pumps and heaters would be in operation along with the oil storage facility. The operational emissions can be found in Table 4-5.

TABLE 6-3

SUMMARY OF AIR QUALITY IMPACTS FROM THE CONSTRUCTION OF THE PROPOSED ALL AMERICAN
PIPELINE FROM EMIDIO TO BLYTHE

Pollutant	Maximum Project Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Background ¹ Concentration ($\mu\text{g}/\text{m}^3$)	Background Monitoring Site/ Distance Away (mi)	Total Ambient Concentration ($\mu\text{g}/\text{m}^3$)	California/Federal ² Standard ($\mu\text{g}/\text{m}^3$)
EMIDIO TO BLYTHE					
SO ₂					
1-Hour	0.1	78	Trona/60	78.6	655/NA ³
3-Hour	0.6	52	Trona/60	52.6	NA/1300
24-Hour	0.2	26/26	Trona/60	26.2/26.2	131/365
NO ₂					
1-Hour	7.3	564	Barstow/1	571.3	470/NA
TSP					
24-Hour	4.3	419	Boron/1	423.3	NA/260-150
CO ⁴					
1-Hour	0.0	NA	NA	NA	NA
8-Hour	0.0	NA	NA	NA	NA

¹When two values are shown, the first value is the maximum background concentration for comparison to the California Standard. The second value is highest second-highest concentration for comparison to the federal short-term standard.

²Values separated by a "-" represent the federal primary and secondary standard.

³Not Applicable

⁴Carbon monoxide concentrations are shown in mg/m^3 .

Due to the source configuration, maximum impacts from the PTLPU model (described in Section 5) were predicted within 100 meters of the source. Table 6-2 summarizes the impacts from Emidio to Blythe. Due to limited representative wind data for each site, annual modeling was performed only at Cadiz, which is expected to have maximum impacts. The nearest maximum background values exceed the California 1-hour NO₂ standard and the Federal TSP (24-hour) and annual secondary standard.

The maximum 1-hour NO₂ background concentration measured in Barstow was 564 µg/m³ (0.3 ppm) and was the only violation of the 1-hour standard in the three-year period (1980-1982). This indicates that the meteorological conditions associated with this unusually high value are extremely rare. In addition, the predicted maximum concentration from the project alone would not be the same meteorological conditions that generated the maximum background concentrations. Typically, high background NO₂ concentrations are associated with light wind speeds (less than 2 m/s) and low mixing heights. However, the meteorological condition associated with the maximum project concentrations were 10 m/s and a relative high mixing height. Maximum project concentrations from 2 m/s wind speeds (or less) range from 15 µg/m³ to 25 µg/m³, which is only 3 to 5 percent of the California 1-hour NO₂ standard.

Furthermore, the predicted project concentration is actually NO_x rather than NO₂. A sufficient amount of O₃ would be necessary to convert the NO_x to NO₂. For the worst case concentration (165.4 µg/m³), the O₃ concentration would need to be 0.08 ppm. Although the ambient O₃ concentration is missing for the same day at Barstow, a nearby station (Lancaster) had a similar NO₂ peak 2 days earlier. The maximum NO₂ concentration was 0.22 ppm while the daily maximum 1-hour O₃ concentration was 0.04 ppm. Even though the hourly data was not readily available, the O₃ concentration during the peak NO₂ hour was most likely less than the maximum concentration of 0.04 ppm for the day, since peak hour NO₂ concentrations and peak O₃ concentrations usually do not occur simultaneously. Thus, a high project concentration would not be likely to occur during a peak NO₂ background episode.

The maximum TSP background values (161 µg/m³ for 24-hour and 70 µg/m³ for annual) barely exceeded the national 24-hour and annual secondary standards of 150 µg/m³ and 60 µg/m³, respectively. However, the maximum project contributions of 1.1 µg/m³ and 0.4 µg/m³ are less than 1 percent of the secondary standards. Thus no significant impacts are expected to occur.

6.1.3 Blythe to McCamey

Construction

The All American construction emissions for this segment can be found in Table 4-3. These values were used to determine maximum impacts due to the construction activities. As in the previous sections, maximum 1-hour concentrations occurred within 500 meters of the construction activities while the maximum multi-hour concentrations occurred within 200 meters of the construction site. Table 6-4 presents the summary of worst-case impacts resulting from the construction of the

TABLE 6-4

SUMMARY OF AIR QUALITY IMPACTS FROM THE CONSTRUCTION OF THE PROPOSED ALL AMERICAN PIPELINE FROM BLYTHE TO McCAMEY

Pollutant	Maximum Project Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Background Concentration ($\mu\text{g}/\text{m}^3$)	Background Monitoring Site/ Distance Away (mi)	Total Ambient Concentration ($\mu\text{g}/\text{m}^3$)	State/Federal ² Standard ($\mu\text{g}/\text{m}^3$)
<u>Arizona</u>					
SO_2					
3-Hour	0.6	351B	San Manuel/2	351B.6	1300
24-Hour	0.2	360	San Manuel/2	360.2	365
TSP					
24-Hour	4.3	151	Coolidge/4	155.3	260-150
CO^3					
1-Hour	0.0	NA ⁴	NA	NA	NA
8-Hour	0.0	NA	NA	NA	NA
<u>New Mexico</u>					
SO_2					
3-Hour	0.6	1022	Ft. Bayard/6	1022.6	NA/1300
24-Hour	0.2	314/183	Ft. Bayard/6	314.2/183.2	262/365
NO_2					
24-Hour	2.9	75.2	Lordsburg/1	78.1	188/NA
TSP					
24-Hour	4.3	470.364	Anthony/1	474.3/364.3	150/260-150
CO^3					
1-Hour	0.0	NA	NA	NA	NA
8-Hour	0.0	NA	NA	NA	NA
<u>Texas</u>					
SO_2					
3-Hour	0.6	1179	EI Paso/30	1179.6	1300
24-Hour	0.2	314	EI Paso/30	314.2	260-150
TSP					
24-Hour	4.3	197	EI Paso/30	201.3	260-150
CO^3					
1-Hour	0.0	NA	NA	NA	NA
8-Hour	0.0	NA	NA	NA	NA

¹When two values are shown, the first value is the maximum background concentration for comparison to the New Mexico Standard. The second value is highest second-highest concentration for comparison to the federal short-term standard.

²When only one value is shown, the state and federal standards are the same. Values separated by a "-" represent the federal primary and secondary standard.

³Carbon monoxide concentrations are shown in mg/m^3 .

⁴Not Applicable

All American pipeline. Again the project contributions are very low (less than 3 percent of the standards for all pollutants). However, the existing background concentrations violate the New Mexico 24-hour TSP standard, the Federal 3-hour SO_2 standard in Arizona, and the Federal 24-hour TSP standards in Arizona, New Mexico, and Texas.

The maximum 3-hour SO_2 background concentration near the pipeline construction segment in Arizona is $3518 \mu\text{g}/\text{m}^3$ (located near San Manuel). This value is nearly 3 times the federal and state standard of $1300 \mu\text{g}/\text{m}^3$. The maximum 3-hour project concentration, however, is only $0.6 \mu\text{g}/\text{m}^3$, which is less than one-tenth of 1 percent of the Federal standard.

The appropriate TSP (24-hour) background concentrations violate the Federal primary and secondary standards in all three states as well as the New Mexico state standard. Although the total ambient concentrations range from $474.3 \mu\text{g}/\text{m}^3$ in New Mexico to $155.3 \mu\text{g}/\text{m}^3$ in Arizona, the project contribution is less than 3 percent of the total. In addition, since the construction emissions are temporary and transient, it is highly unlikely that worst case construction concentrations would occur simultaneously with the maximum background conditions. The New Mexico Health and Environment Department (Dhawan, 1984), the Arizona Department of Health Services (Leverock, 1984), and the Texas Air Control Board (Willis, 1984) were contacted and agreed that the predicted project concentrations would not constitute significant impacts. The maximum 24-hour TSP concentration is estimated to be $2.8 \mu\text{g}/\text{m}^3$ at the nearest point of the Guadalupe Mountains National Park in Texas. Thus no significant impacts are expected in the Class I area.

Operation

The operation of the final pipeline segment from Blythe to McCamey would consist of nine pumping/heating stations located through Arizona, New Mexico, and Texas. Except in Arizona, electric-powered pumping would be used between Blythe and McCamey; thus, only emissions from natural gas-fired oil heaters would be generated. In Arizona, natural gas-fired turbine pumps and heaters would be in operation. The operational emissions for one heater station can be found in Table 4-5.

Again, maximum impacts from the PTPLU model (described in Section 5) were predicted within 100 meters of the source. Table 6-5 summarizes the impacts from Blythe to McCamey. Due to limited representative wind data for each site, annual modeling was performed only at Hot Springs, Arizona, and Anthony, New Mexico, which were expected to have maximum impacts. From Table 6-5, the closest maximum background values exceed the Federal 24-hour and annual TSP secondary standards in all three states, as well as the New Mexico and Federal primary 24-hour and annual TSP standards. Although the total ambient 24-hour concentrations range from $471.9 \mu\text{g}/\text{m}^3$ in New Mexico to $152.4 \mu\text{g}/\text{m}^3$ in Arizona, the project contribution is less than 1 percent of any total ambient concentration. The annual contributions are also less than 1 percent of the total ambient concentrations in Arizona, New Mexico, and Texas. Thus no significant impact is expected to occur.

TABLE 6-5

SUMMARY OF AIR QUALITY IMPACTS FROM THE OPERATION OF THE PROPOSED
ALL AMERICAN PIPELINE FROM BYLTHE TO MCCAMEY

Pollutant	Maximum Project Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Background ¹ Concentration ($\mu\text{g}/\text{m}^3$)	Background Monitoring Site/ Distance Away (mi)	Total Ambient Concentration ($\mu\text{g}/\text{m}^3$)	State/Federal ² Standard ($\mu\text{g}/\text{m}^3$)
ARIZONA					
<u>LaPaz</u>					
SO_2					
3-Hour	0.4	148	Phoenix/135	148.4	1300
24-Hour	0.1	105	Phoenix/135	105.1	365
TSP					
24-Hour	1.6	228	Phoenix/135	229.6	260-150
<u>Gila</u>					
SO_2					
3-Hour	0.4	148	Phoenix/45	148.4	1300
24-Hour	0.1	105	Phoenix/45	105.1	365
TSP					
24-Hour	1.8	228	Phoenix/45	229.8	260-150
<u>Coolidge</u>					
SO_2					
3-Hour	0.3	148	Coolidge/9	148.3	1300
24-Hour	0.1	49	Coolidge/9	49.1	365
TSP					
24-Hour	1.4	151	Coolidge/9	152.4	260-150
<u>Hot Springs</u>					
SO_2					
3-Hour	0.4	191	Tucson/50	191.4	1300
24-Hour	0.1	49	Tucson/50	49.1	365
Annual	0.0	NA ³	NA	NA	NA
NO_2					
Annual	6.3	68	Tucson/50	74.3	100
TSP					
24-Hour	1.6	141	Tucson/50	142.6	260-150
Annual	0.2	62	Tucson/50	62.2	75-60
TEXAS					
<u>Wink</u>					
SO_2					
3-Hour	0.4	132	Odessa/45	132.4	1300
24-Hour	0.1	26	Odessa/45	26.1	365
TSP					
24-Hour	1.9	231	Odessa/45	232.9	260-150
NEW MEXICO					
<u>Lordsburg</u>					
SO_2					
3-Hour	0.4	1022	Ft. Bayard/35	1022.4	NA/1300
24-Hour	0.1	26/26	Lordsburg/3	26.1/26.1	262/365

TABLE 6-5 (CONTINUED)

Pollutant	Maximum Protect Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Background ¹ Concentration ($\mu\text{g}/\text{m}^3$)	Background Monitoring Site/ Distance Away (mi)	Total Ambient Concentration ($\mu\text{g}/\text{m}^3$)	California/Federal ² Standard ($\mu\text{g}/\text{m}^3$)
NO_2					
24-Hour	15.9	56	Lordsburg/3	71.9	188/NA
TSP					
24-Hour	1.9	200/134	Lordsburg/3	201.9/135.9	150/260-150
<u>Anthony</u>					
SO_2					
3-Hour	0.4	288	Anthony/3	288.4	NA/1300
24-Hour	0.1	26/26	Anthony/3	26.1/26.1	252/365
Annual	0.0	NA	NA	NA	NA
NO_2					
24-Hour	20.0	75	Anthony/3	95.0	188/NA
Annual	2.2	19	Anthony/3	21.2	100/100
TSP					
24-Hour	1.9	470/364	Anthony/3	471.9/365.9	150/260-150
Annual	0.2	122	Anthony/3	122.2	60/75-60
TEXAS					
<u>Salt Flats</u>					
SO_2					
3-Hour	0.4	1,179	El Paso/85	1179.4	1300
24-Hour	0.1	314	El Paso/85	314.1	365
TSP					
24-Hour	1.7	197	El Paso/85	198.7	260-150

¹When two values are shown, the first value is the maximum background concentration for comparison to the New Mexico Standard. The second value is highest second-highest concentration for comparison to the federal short-term standard.

²When only one value is shown, the state and federal standards are the same. Values separated by a "-" represent the federal primary and secondary standard.

³Not Applicable

6.2 Reactive Modeling

The results of the reactive modeling are given in Table 6-6, which shows the predicted ozone concentration versus time for the background and for background-plus-project for the typical and high initial concentration cases. In the typical initial concentration case, the background achieves an ozone concentration of 0.107 ppm, which is somewhat lower than the maximum one-hour average concentration of 0.117 ppm measured in the Cadiz area by SCE in 1979. For the high initial concentration case, the background achieves a maximum ozone level of 0.120 ppm, which equals the Federal one-hour standard.

With the project emissions included, the maximum ozone concentration predicted for the typical initial concentration case is 0.109 ppm, which is only 0.002 ppm above the corresponding baseline value. Similarly, with a value of 0.122 ppm, the maximum plus project predicted ozone concentration in the high initial concentration case is also only 0.002 ppm higher than the maximum in the corresponding baseline simulation.

Although the maximum predicted plus-project ozone concentration is only 0.002 ppm higher than the maximum predicted baseline ozone concentration, it should be pointed out that incremental difference between the plus-project and the background-only concentrations is as large as 0.008 ppm for the typical initial condition case and 0.010 ppm for the high initial condition case. This maximum incremental impact occurs at 1000 PST and is only seen in the three center columns of the wall-of-cells air parcel.

The reactive modeling indicates that the emissions from the proposed pump/heater station and tank farm at Cadiz would not cause a significant impact beyond travel times of about six hours. In the near field, the project is not expected to contribute appreciably to any violations of the Federal one-hour ozone standard and is not expected to cause additional violations of the state one-hour ozone standard.

6.3 Visibility

The results of the Level-1 screening analysis indicate that there would not be any significant visibility impact at Edwards Air Force Base due to the operation of the Twelve-Gauge Lake Heater Station. The values of the three contrast parameters described in Section 5.3 are as follows:

$$C_1 = -0.0017$$

$$C_2 = 0.0007$$

$$C_3 = 0.0000$$

The absolute values of C_1 , C_2 , and C_3 are well below the 0.1 significance limit.

TABLE 6-6

PREDICTED OZONE CONCENTRATION (ppm) OF BACKGROUND ONLY AND
BACKGROUND-PLUS PROJECT FOR TYPICAL AND HIGH INITIAL
CONCENTRATIONS

Time (PST)	Typical Initial Conditions		High Initial Conditions	
	Background	Plus-Project	Background	Plus-Project
0600	0.040	0.040	0.040	0.040
0630	0.040	0.040	0.042	0.042
0700	0.042	0.042	0.045	0.045
0730	0.048	0.041	0.054	0.047
0800	0.054	0.046	0.063	0.055
0830	0.062	0.057	0.073	0.070
0900	0.070	0.069	0.083	0.085
0930	0.076	0.080	0.090	0.097
1000	0.080	0.088	0.095	0.105
1030	0.085	0.091	0.100	0.108
1100	0.089	0.094	1.104	0.110
1130	0.091	0.096	0.107	0.112
1200	0.093	0.098	0.109	0.114
1230	0.095	0.100	0.111	0.115
1300	0.098	0.101	0.114	0.117
1330	0.100	0.102	0.115	0.118
1400	0.101	0.104	0.116	0.119
1430	0.102	0.105	0.117	0.120
1500	0.104	0.106	0.118	0.120
1530	0.105	0.107	0.119	0.121
1600	0.106	0.108	0.119	0.121
1630	0.106	0.108	0.120	0.122
1700	0.107	0.109	0.120	0.122
1730	0.107	0.109	0.120	0.122
1800	0.107	0.109	0.120	0.121

Source: ERT

7.0 SUMMARY

7.1 Summary of Results

7.1.1 Nonreactive Pollutants

Construction

The pipeline ROW passes through several areas where violations of state and/or Federal air quality standards have occurred in the past few years. There is, therefore, no way to positively ensure that pipeline construction emissions would not contribute, albeit in a small way, to future violations. It can only be said that 1) the pipeline construction emissions are "temporary and transient" in nature and, therefore, would not impact any single area longer than a period of several weeks; 2) the magnitude of construction-related impacts is very small relative to the background concentrations; and 3) the best available background concentrations are generally unrepresentative of the pipeline ROW because the monitors are located considerable distances away (≥ 20 miles) and/or in a more industrial/urbanized area. Therefore, the construction-related emissions are expected to have no significant long-term air quality impacts.

Operation

The operation-phase emissions of TSP, SO₂, and CO are sufficiently small that no significant impacts are expected, even though in a few cases the best available background data indicate that violations of state and/or Federal air quality standards have occurred in the general vicinity of some of the pump/heater stations. The NO_x emissions, however, are considerable at many of the pipeline pump stations. Nevertheless, the NO_x emissions threaten only one NO₂ standard (1-hour California) at one location (Barstow, where a single violation occurred during the 1980-82 baseline period). As indicated in Section 6.2, the meteorological conditions for which the high project-related impact was predicted are different from those associated with regional NO₂ buildup. Also, Barstow is 12 miles west of the Twelve-Gauge Lake Heater Station, and the maximum predicted project impact occurred within 200 meters of the source. For these reasons, the Twelve-Gauge Lake Heater Station is not expected to cause future violations of the California one-hour average NO₂ standard. Therefore, no significant NO₂ impacts would be expected from either the Getty or the Celeron/All American proposals.

7.1.2 Reactive Pollutants

The application of the PLMSTAR photochemical trajectory model to a conservative set of modeling conditions indicates that the operation phase emissions from the proposed pump/heater station and tank farm at Cadiz would not result in future violations of the Federal ozone standard and would not cause any additional future violations of the state ozone standard.

7.1.3 Visibility

No significant degradation of visibility at the Edwards Air Force Base is expected as a result of operation-phase emissions from the nearby Twelve-Gauge Lake Heater Station.

7.2 Mitigation

As summarized above and shown in Section 6.0, the Getty and Celeron/All American projects are expected to cause no long-term significant air quality impacts. Therefore, no mitigation measures would be required.

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ATTACHMENT I
PLMSTAR MODEL DESCRIPTION

PLMSTAR MODEL DESCRIPTION

I.1 Conceptual Formulation

In PLMSTAR (Godden and Lurmann 1983), the Lagrangian modeling concept is applied to a moving wall of computational cells. The wall is advected along a trajectory by the mean horizontal winds at a user-selected elevation that is usually selected to coincide with major point source plume centerline elevations. Backward or forward trajectories are determined by interpolation from a divergence-free, three-dimensional wind field (generated hourly). Lateral and vertical diffusion, photochemistry, and entrainment of emissions along the trajectory are accounted for in each cell. In addition, dry deposition removal processes are included in the surface cells. The extent of the wall in the crosswind and vertical directions is held fixed during a simulation; however, individual cells have different dimensions, as shown in Figure I-1, in order to maximize resolution of the individual point source plume(s) under consideration.

In the Lagrangian framework (i.e., moving in the x-direction with wind speed u), the governing conservation of mass equation for PLMSTAR reduces to:

$$\frac{\partial C_i}{\partial t} = \frac{\partial}{\partial y} K_y \frac{\partial C_i}{\partial y} + \frac{\partial}{\partial z} K_z \frac{\partial C_i}{\partial z} + R_i + S_i + D_i \quad (I-1)$$

Where: C_i = concentration of the i^{th} species,
 K_y, K_z = eddy diffusivity coefficients in the crosswind (y)
and vertical (z) directions,
 R_i = rate of chemical transformation of the i^{th} species,
 S_i = rate of emissions of the i^{th} species, and
 D_i = rate of deposition of the i^{th} species.

This equation is solved numerically in PLMSTAR to provide concentration-versus-time profiles for each species in each cell along the trajectory.

This formulation represents the most complete form of the Lagrangian equation. Yet in simplifying the equation to this point, it is assumed that vertical and horizontal wind shear is small. This

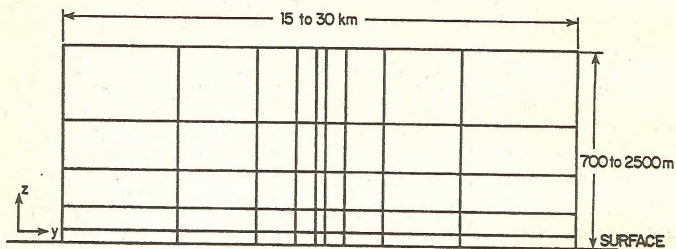


Figure I-1. Front view of typical PLMSTAR computation cell configuration (not to scale).

typically is not true at night or in the daytime under stagnation conditions. Hence, to ensure that the model is applied under conditions for which the Lagrangian concept is valid, one of PLMSTAR's algorithms calculates the wind speed and direction shear when interpolating trajectories from the three-dimensional wind field. A warning message is printed if conditions of excessive shear are encountered.

The alternative to this formulation is an Eulerian model which can account for wind shear and multi-day pollutant accumulation. These are significant advantages. However, Eulerian photochemical models are far more expensive computationally, and are generally applied without sufficient spatial resolution to address plume dispersion and chemistry in the detail possible in a Lagrangian model. Both modeling concepts have utility: the Lagrangian framework is effective for assessing maximum impacts from individual source clusters, and the Eulerian concept is useful for investigation of multi-day regional impacts. In addition, a Lagrangian model such as PLMSTAR could be incorporated into a Eulerian model to provide subgrid resolution of major point source plumes.

I .2 Overview of Data Processing Procedures

The PLMSTAR model consists of five processing modules to assemble data needed to solve Equation I-1 and one module to execute the solution. The six processing modules are:

- MIXMOD - Dispersion Characterization Module,
- WINDMOD - Wind field Generator,
- TRAJMOD - Trajectory and Meteorological Data Schedule Generator,
- AREASORC - Area Source Emissions Module,
- TALSORC - Point Source Emissions Module, and
- SOLMOD - Numerical Integration/Solution Module.

The inputs, outputs, and data transfers between modules are illustrated in Figure I-2.

Before describing the essential function of the modules, it is important to point out the approach used in PLMSTAR to generate meteorological and emission inputs along a trajectory. The selected approach involves first establishing the regional fields of parameters and reviewing the fields for reasonableness and consistency, and, second, calculating the specific conditions along the trajectory.

The first module executed is the MIXMOD. MIXMOD utilizes surface data for winds, roughness heights, temperature, cloud cover or incoming solar radiation, and vertical temperature profiles or user specified mixing heights to generate hourly fields of K_y and K_z coefficients, deposition velocities, vertically averaged temperatures, stability class, and inversion heights and temperature gradients. WINDMOD utilizes vertical stability profiles provided by MIXMOD and surface wind data, elevated wind data, and topographic data to compute hourly three-dimensional divergence-free wind fields. Given the output from WINDMOD and MIXMOD and user inputs for start location and advection level, TRAJMOD interpolates backward or forward trajectories. (The user may also input predetermined trajectories.) TRAJMOD then assembles all other schedules of meteorological parameters along the trajectories. The two emission modules are then executed to compile the regional inventories and retrieve schedules of trajectory-specific emissions rates for all 14 emission species. Lastly, user-supplied initial and background pollutant concentrations are combined with the meteorological outputs from TRAJMOD and the emission schedules to allow SOLMOD to compute the time profiles of concentration along the trajectory. The background concentrations may be updated at any time along the trajectory; between specified updates, the background concentrations are updated internally through integration of chemistry.

I.3. Meteorological Formulations

I.3.1 Vertical Diffusivities

In the unstable planetary boundary layer (PBL) over land, the following formulations for vertical eddy diffusivity (K_z) were adopted for PLMSTAR:

$$K_z = 1.35 k u_* z \left(1 - 9 \frac{z}{L}\right)^{1/2}, \quad z \leq L; \quad (I-2a)$$

$$= B k u_* z \left(-\frac{z}{L}\right)^{1/3}, \quad L \leq z \leq 0.1 z_i; \quad (I-2b)$$

$$= A w_* z \left(1 - \frac{z}{z_i}\right), \quad 0.1 z_i \leq z \leq z_i \quad (I-2c)$$

where k is the von Karman constant ($= 0.4$); u_* is the surface friction velocity; z is the height above ground; L is the Monin-Obukhov length; z_i is the height of the PBL; and w_* is the convective velocity scale. Equation I-2a is the familiar surface layer formulation, $K_z = k u_* z / \phi_m$, with the Businger et al. (1971) representation of the nondimensional wind shear ϕ_m . Equation I-2b was suggested by Venkatram (1981). A value of 2 is used for the coefficient B to match Equation I-2b with Equation I-2a at $z = L$. Equation I-2c was suggested by Wyngaard (1981). By equating I-2b and I-2c at $z = 0.1 z_i$, a value of 0.25 was determined for the coefficient A .

For the stable over land PBL, the K_z formulation of Brost and Wyngaard (1978) was adopted:

$$K_z = k u_* z \left(1 - \frac{z}{z_i}\right)^{3/2} / \left(0.74 + 4.7 \frac{z}{L}\right) \quad (I-3)$$

Above the PBL an arbitrarily small value of $0.01 \text{ m}^2/\text{s}$ is assigned to K_z for both stable and unstable boundary layers.

During stable conditions, the PBL height, z_i , is determined from the commonly used formulation suggested by Zilitinkevich (1972):

$$z_i = C \left(u_* \frac{L}{z}\right)^{1/2} \quad (I-4)$$

A value of 0.4 is used for C after Brost and Wyngaard (1978). During unstable conditions the inversion height is assumed to represent the PBL height. The inversion height is determined from hourly temperature profiles or by interpolation from periodic (i.e., about every six hours) vertical temperature profiles and hourly surface temperatures. A mechanical mixing height is also calculated during unstable conditions using Equation I-4 with $L = 50$. This value serves as the minimum PBL

height when the convective PBL is very shallow. As an option in MIXMOD, an externally-determined schedule of PBL height, e.g., from acoustic sounder data, may also be input and used.

Micrometeorological variables, L , u_* , and w_* were determined as follows. For unstable conditions, u_* is determined from wind speed and surface roughness (z_0) as suggested by Wang and Chen (1980). The Monin-Obukhov length is given by:

$$L = \frac{u_*^3 T}{g k Q_0} \quad (I-5)$$

where T is temperature, g is the acceleration of gravity, and Q_0 is the surface kinematic heat flux, determined as reported by Briggs (1975):

$$Q_0 = A S_I \quad (I-6)$$

where S_I is incoming solar radiation and A is a function of ground cover that varies from 0.25 for a crop canopy to 0.55 for a dry surface. The convective velocity scale is given by:

$$w_* = (g Q_0 z_i / T)^{1/3} \quad (I-7)$$

For stable conditions, u_* is determined from wind speed and surface roughness, and L is determined by:

$$L = 1.1 \times 10^3 u_*^2 \quad (I-8)$$

as suggested by Venkatram (1980).

In the marine boundary layer of height z_m , the vertical eddy diffusivities, K_z , are determined as follows:

$$K_z = \frac{k u_* z}{\phi_h \left(\frac{z}{L} \right)}, \text{ for } z \leq 0.1 z_m \quad (I-9a)$$

$$K_z = \frac{k u_* z}{\phi_h \left(\frac{z}{L} \right)} \cdot \frac{(1 - \frac{z}{z_m})}{0.9}, \text{ for } 0.1 z_m < z < z_m \quad (I-9b)$$

$$K_z = 0.01 \text{ m}^2/\text{sec}, \text{ for } z \geq z_m \quad (I-9c)$$

In the above equations, k is the von Karmann constant ($= 0.4$), u_* is the friction velocity, z is the height above the surface, L is the Monin-

Obukhov length, and ϕ_h is the non-dimensional surface layer temperature gradient. The above formulation for $z > 0.1 z_m$ includes a rolloff function so that values of K_z will be very small at the top of the marine boundary layer. The forms of ϕ_h are taken from Businger et al. (1971).

Overwater, Monin-Obukhov length, L , is determined from the wind speed (u) and vertical potential temperature (θ_v) at 10 m above the water surface and the vertical potential temperature (θ_{vs}) of the water surface, using a modified form of the Schacher et al. (1982) technique.

$$L = \frac{\theta_v C_{uN}}{0.141} \frac{u^2}{\theta_v - \theta_{vs}} \quad (I-10)$$

C_{uN} is the neutral momentum drag coefficient which in turn is a function of 10 m wind speed as follows (Kondo 1975):

10 m Wind Speed (m/sec)	C_{uN}
0.1 - 2.2	$1.08 u - 0.15 \cdot 10^{-3}$
2.2 - 5.0	$(0.77 + 0.086u) \cdot 10^{-3}$
5 - 8	$(0.87 + 0.067u) \cdot 10^{-3}$
8 - 25	$(1.2 + 0.025u) \cdot 10^{-3}$

The friction velocity, u_* , is determined from wind speed, surface roughness, and stability:

$$u_* = \frac{k \cdot u}{\ln \frac{z}{z_0} - \psi_m \frac{z}{L}} \quad (I-11)$$

where z_0 is the roughness height and ψ_m is the diabatic correction to the natural logarithmic wind profile. These terms are evaluated as follows:

$$z_0 = 2.0 \cdot 10^{-6} u^{2.5} \text{ (m/s)} \quad (I-12)$$

$$\psi_m \left(\frac{z}{L} < 0 \right) = 2 \ln \left(\frac{1 + \phi_m^{-1}}{2} \right) + \ln \left(\frac{1 + \phi_m^2}{2} \right) - 2 \tan^{-1} \left(\phi_m^{-1} + \frac{\pi}{2} \right) \quad (I-13a)$$

$$\psi_m \left(\frac{z}{L} \geq 0 \right) = -4.7 \frac{z}{L}$$

$$\psi_m \left(\frac{z}{L} \geq 0 \right) = (1 - 15 \frac{z}{L})^{-1/4} \quad (\text{I-13b})$$

The above relationship for z_0 is valid only for wind speeds at 10 m (Hosker 1974).

I.3.2 Horizontal Diffusivities

The horizontal diffusivity, K_y , can be determined by two methods in PLMSTAR. First, K_y can be determined as a function of K_z . That is:

$$K_y = r K_z \quad (\text{I-14})$$

where r is a stability dependent coefficient that has the values shown in Table I-1. This calculation is performed in MIXMOD.

Alternatively, K_y may be determined as a function of σ_y :

$$K_y = \frac{1}{2} \frac{d\sigma_y^2}{dt} \quad (\text{I-15})$$

where t is time along a trajectory. This is calculated in TRAJMOD. Over land, the Brookhaven National Laboratory (Smith, 1968) curves are used to determine the horizontal diffusion parameter σ_y . That is,

$$\sigma_y = ax^b \quad (\text{I-16})$$

where a and b are stability-dependent coefficients and x is distance along the trajectory. The values of a and b used for rural and urban applications are given in Table I-2. A separate value of σ_y , and therefore K_y , is determined for each vertical layer of the model and is a function of the weighted stability of the layer. To evaluate σ_y overwater, the following equation is used:

$$\sigma_y = i_y \times S_y(x) \quad (\text{I-17})$$

TABLE I-1

RATIO OF K_y to K_z USED IN MIXMOD

Stability (Class)	K_y/K_z ¹
Very unstable (A or 1)	1.00
Unstable (B or 2)	1.05
Slightly Unstable (C or 3)	1.10
Neutral (D or 4)	1.45
Slightly Stable (E or 5)	1.70
Stable (F or 6)	2.00
Very Stable (G or 7)	2.00

¹These ratios were synthesized from ratios of σ_y to σ_z (at 10 km) from the Brookhaven curves (Smith 1968) and from the ratios of K_y to K_z employed in the IMPACT grid model (Fabrick et al. 1977).

TABLE I-2
 COEFFICIENTS USED TO CALCULATE
 σ_y FOR RURAL AND URBAN SETTINGS

Stability (Class)	Rural		Urban	
	a	b	a	b
Very unstable (A or 1)	0.40	0.91	0.40	0.91
Unstable (B or 2)	0.36	0.86	0.40	0.91
Slightly unstable (C or 3)	0.32	0.78	0.36	0.86
Neutral (D or 4)	0.32	0.78	0.32	0.78
Slightly stable (E or 5)	0.31	0.71	0.32	0.78
Stable (E or 6)	0.31	0.71	0.31	0.71
Very stable (G or 7)	0.31	0.71	0.31	0.71

where x is the distance downwind from the point source, i_y is the horizontal turbulence intensity, and S_y is a function of x , such that (Cramer et al. 1964):

$$S_y(x) = \frac{x}{x_0}^{-0.1} \quad \text{for } x_0 = 1 \text{ m.} \quad (\text{I-18})$$

Values of i_y are calculated from the relationship (Hanna 1981):

$$i_y = (u_x/u) F_y (z_m/L) \quad (\text{I-19})$$

where (Panofsky et al. 1977):

$$F_y = 1.7, \frac{z_m}{L} > 0 \quad (\text{I-20a})$$

$$F_y = (4.9 - 0.5 \frac{z_m}{L})^{1/3}, \frac{z_m}{L} < 0. \quad (\text{I-20b})$$

The surface stability used in the calculation of K_y over land may be determined by either the Pasquill (1961) or Turner (1964) method. Stability aloft is determined by lapse rate as presented in U.S. Nuclear Regulatory Commission (1972). Over water, stability category is determined from L and using the Golder (1971) nomograph as analytically approximated by Shir and Shieh (1974).

It should be noted that the calculation of K_y from the rate of change of σ_y is the recommended procedure for applications involving major point source emissions. The option for calculating K_y from K_z is recommended for applications involving area source emissions only. For applications involving both point and area source emission, the former method is recommended primarily because of short-comings of the latter method. The physical processes that govern horizontal and vertical dispersion are not identical, so in general, the assumption of proportionality between K_y and K_z is a poor one. Vertical mixing is inhibited by the ground from below and by stable layers aloft, whereas lateral dispersion has no corresponding restrictions. Therefore, except in cases of unlimited mixing, the values of K_y determined from K_z are probably unrealistically small. It also should be pointed out that when K_y coefficients are calculated from σ_y , they are keyed to one particular source location. Since K_y values for a point source increase with

travel distance downwind, the K_y values determined in this manner may overestimate dispersion from point sources encountered at significant distances downwind of the primary source locations.

I.3.3 Surface Deposition

Deposition velocity is determined in PLMSTAR's MIXMOD module. Specifically, the deposition velocity for SO_2 is calculated using the approach suggested by Wesely and Hicks (1977). The deposition velocity is assumed to be the inverse sum of a series of resistances to transfer:

$$V_d = (r_a + r_s + r_c)^{-1} \quad (I-21)$$

where r_a is the aerodynamic resistance, r_s is the surface resistance, and r_c is the canopy stomatal resistance.

The Wesely and Hicks parameterization of Equation I-21 is

$$V_d = k_{u*} [\ln(z/z_0) + 2.6 + k_{u*} r_c - \psi_c]^{-1} \quad (I-22)$$

where ψ_c is the diabatic correction. Wesely and Hicks indicated the range of r_c is from 0 s cm^{-1} to about 2 s cm^{-1} and used 0.7 s cm^{-1} for a surface of actively growing dry vegetation.

A simplified approach has been adopted for the deposition velocities of other species: their deposition velocities are assumed to be proportional to the deposition velocity for SO_2 . SO_2 has been chosen as the baseline species because more canopy resistance data is available for it than other species and because its canopy resistance is generally small. Given the sparsity of resistance data for other gases and the difficulty in extrapolating the data to the composite of surfaces present in the real world, this approach is justified. The proportionality factors for the deposition velocities of O_3 , NO_2 , PAN, SO_4^{2-} , and HNO_3 to the SO_2 deposition velocity are shown in Table I-3. Dry deposition of gases with large canopy resistances such as NO, CO, and reactive hydrocarbons is ignored since its effect on pollutant concentrations on the mesoscale is very small.

TABLE I-3
COEFFICIENTS APPLIED TO SO₂ DEPOSITION VELOCITIES
FOR TREATMENT OF OTHER POLLUTANTS

<u>Species</u>	<u>Coefficient</u>
O ₃	0.35 (1)
NO ₂	0.7 (1)
PAN	0.25 (2)
SO ₄ ⁼	0.5 (3)
HNO ₃	1.0 (3)

- (1) Hill and Chamberlain, 1976.
(2) Garland and Penkett, 1976.
(3) Hicks, 1976.

I.3.4 Interpolation Procedures in MIXMOD

As indicated in Section I.2, the MIXMOD module of PLMSTAR produces gridded fields of quantities (mixing coefficients, deposition velocities, etc.) that are used as input to other PLMSTAR Modules. To facilitate the accurate representation of sudden changes in surface characteristics, the interpolation routine was formulated to allow the specification of barriers to interpolation. With this feature, only parameters calculated at points on the same side of a specified barrier of a particular grid square are used in interpolating a value for that grid square. The result is that an abrupt change in gridded parameter values can be achieved at a coastline, for example, with representative over water values on one side of the barrier and over land values on the other.

I.4 Wind Field Generation

WINDMOD is a diagnostic wind model capable of generating a three-dimensional, nondivergent wind field from a set of input wind measurements. The model is applicable to both moderately complex and flat terrain situation. The objective analysis procedure implemented in WINDMOD has been conceptually adapted from the scheme described by Goodin, McRae and Seinfeld (1980), but WINDMOD's treatment of the input data differs somewhat from that of Goodin et al. (1980).

The wind field algorithm consists of three basic steps. As a starting point, the modeling grid location and dimensions must be selected by the user. Once the grid geometry has been established, the input wind measurements are interpolated to obtain initial values at each grid point and the surface field is adjusted for topographic effects. The final step adjusts the interpolated flow field iteratively to reduce the anomalous divergence to an acceptable level.

I.5. Trajectory Generation

The trajectory generation module TRAJMOD works as follows. Starting from an initial position and time, the TRAJMOD calculates a wind vector interpolated (using inverse-distance-squared weighting) from the four closest grid points of a wind field to obtain the position of

the air parcel at either a previous or subsequent time. The backward calculations require an iterative loop wherein the upwind position from which to interpolate the prior hour's wind data is sought. This process generally converges in two or three iterations. The feature which distinguishes the TRAJMOD procedures from other models is that the user can select the elevation in a three-dimensional wind field for which to generate the trajectory. The wind vector is interpolated to the center of the selected model air parcel layer.

Another feature of TRAJMOD is that at specific time intervals it calculates the mean wind vector for each vertical layer of the air parcel. It also interpolates wind components (u, v, w) to all cells in the wall. The corresponding wind speeds and directions can be printed out for each trajectory segment to enable the user to assess the degree of horizontal and vertical shear in the wind field along the trajectory. Also a warning message is printed when TRAJMOD finds a wind vector for a particular cell which differs by more than a factor of 2 in speed or $\pm 90^\circ$ in direction from the average wind vector for the parcel.

TRAJMOD generates a new set of wind vectors at time intervals that are dependent on the wind speed. This occurs because the air parcel travel distance must be limited to approximately one grid square length in each interval to ensure that the wind field for the selected elevation is properly represented by the trajectory.

TRAJMOD also interpolates other data, such as K_z and K_y , along the trajectory for use by the TALSORC and SOLMOD modules of PLMSTAR.

1.6 The Emissions Processing Program

Two separate computer programs, AREASORC and TALSORC, were developed to perform the emissions inventory bookkeeping for PLMSTAR. The programs are suitable for compilation of urban emission inventories as well as less complex rural inventories. Two basic functions are performed by each program: (1) compilation of the spatially and temporally resolved regional emissions inventory, and (2) calculation of emission rate schedules along specific trajectories.

Inputs to the programs for the regional inventory consist of daily THC, NO_x , SO_x , and CO emission rates by category and grid square for

AREASORC, and by category and UTM coordinates for TALSORC. Each area source category and individual point source is keyed to user specified profiles for diurnal (i.e., hour-by-hour) emission rate variation, THC partitioning (to 8 RHC classes), NO_x partitioning (to NO and NO_2), and SO_x partitioning (to SO_2 and SO_4^-). In addition, each point source requires stack height, effluent temperature, and effluent flow rate data, as well as meteorological data along the trajectory.

Once AREASORC has compiled the regional inventory, the trajectory data and the wall-of-cell geometry are input. From this data, it generates area source emission schedules for each surface cell within the wall of cells along the trajectory. Similarly, TALSORC calculates point source emissions entrained into cells of the moving wall based on the time increment for the wall to pass the source at the prevailing wind speed. The plume rise of each source passed on the trajectory is calculated (Briggs 1969, 1975) from the stack parameters and meteorology (i.e., wind speed, stability, inversion height, inversion temperature gradient, and ambient temperature) within the parcel at the time of passing. Point source emissions may be entrained at any point along the trajectory, so that one may examine urban trajectories where plumes from major point sources passed early in the trajectory may interact with other major point source plumes entrained later in the day. Also, the wall of cells approach allows entrainment of emissions from sources located 5 to 10 kilometers from the trajectory centerline in the cross-wind direction.

I.7 Chemical Mechanism

A somewhat condensed version of the ERT photochemical reaction mechanism (Atkinson et al. 1982) is incorporated in PLMSTAR to account for chemical transformations in RHC/ NO_x / SO_x /air mixtures. This mechanism was developed in 1980 concurrently with a survey of kinetic and mechanistic data for photochemical reactions performed for EPA (Atkinson and Lloyd 1980).

The mechanism, shown in Table I-4, incorporates the inorganic and organic reactions believed to be important in smog formation. Many reactions in the mechanism represent the condensation of multiple reactions into one rate-limiting reaction. Organic precursor species

TABLE I-4
THE CONDENSED ERT PHOTOCHEMICAL MECHANISM

<u>Reaction</u>	<u>Rate Constant (ppm min units)</u>
<u>Inorganics</u>	
1. $\text{NO}_2 + h\nu \xrightarrow{\text{O}_2} \text{NO} + \text{O}_3$	radiation dependent
2. $\text{NO} + \text{O}_3 \rightarrow \text{NO}_2 + \text{O}_2$	$1.0 \times 10^6 \text{ T}^{-1} e^{-1450/\text{T}}$
3. $\text{O}_3 + h\nu \rightarrow 2 \text{OH}$	$8.1 k_1 \times 7.5 \times 10^{-6} [\text{H}_2\text{O}]$
4. $\text{OH} + \text{NO} \xrightarrow{\text{M}} \text{HONO}$	$8.7 \times 10^8 \text{ T}^{-2}$
5. $\text{OH} + \text{NO}_2 \xrightarrow{\text{M}} \text{HNO}_3$	$1.5 \times 10^9 \text{ T}^{-2}$
6. $\text{HONO} + h\nu \rightarrow \text{OH} + \text{NO}$	radiation dependent
7. $\text{HO}_2 \rightarrow \text{NO} \rightarrow \text{OH} + \text{NO}_2$	$3.7 \times 10^6 \text{ T}^{-1}$
8. $\text{HO}_2 + \text{NO}_2 \xrightarrow{\text{M}} \text{HO}_2\text{NO}_2$	$1.5 \times 10^8 \text{ T}^{-2}$
9. $\text{HO}_2\text{NO}_2 \xrightarrow{\text{M}} \text{HO}_2 + \text{NO}_2$	$7.8 \times 10^{-15} e^{-10420/\text{T}}$
10. $\text{HO}_2 + \text{HO}_2 \rightarrow \text{H}_2\text{O}_2 + \text{O}_2$	$3.4 \times 10^4 \text{ T}^{-1} e^{1100/\text{T}}$
11. $\text{HO}_2 + \text{HO}_2 + \text{H}_2\text{O} \rightarrow \text{H}_2\text{O}_2 + \text{O}_2 + \text{H}_2\text{O}$	$5.8 \times 10^{-5} \text{ T}^{-2} e^{5800/\text{T}}$
12. $\text{OH} + \text{CO} \xrightarrow{\text{O}_2} \text{HO}_2$	$1.3 \times 10^5 \text{ T}^{-1}$
13. $\text{NO}_2 + \text{O}_3 \rightarrow \text{NO}_3$	$5.3 \times 10^4 \text{ T}^{-1} e^{-2450/\text{T}}$
14. $\text{NO} + \text{NO}_3 \rightarrow 2\text{NO}_2$	$8.4 \times 10^6 \text{ T}^{-1}$
15. $\text{NO}_2 + \text{NO}_3 \xrightarrow{\text{M}} \text{N}_2\text{O}_5$	$3.1 \times 10^7 \text{ T}^{-1} e^{-1100/\text{T}}$
16. $\text{N}_2\text{O}_5 \xrightarrow{\text{M}} \text{NO}_2 + \text{NO}_3$	$3.5 \times 10^{18} e^{-12280/\text{T}}$
17. $\text{N}_2\text{O}_5 + \text{H}_2\text{O} \rightarrow 2 \text{HNO}_3$	$1.33 \times 10^{-3} \text{ T}^{-1}$
18. $\text{NO}_3 + h\nu \rightarrow 0.3 \text{ NO} + 0.7 \text{ NO}_2$ $\quad \quad \quad + 0.7 \text{ O}_3$	radiation dependent
19. $\text{OH} + \text{O}_3 \rightarrow \text{HO}_2$	$7.0 \times 10^5 \text{ T}^{-1} e^{-940/\text{T}}$
20. $\text{HO}_2 + \text{O}_3 \rightarrow \text{OH}$	$4.8 \times 10^3 \text{ T}^{-1} e^{-580/\text{T}}$

TABLE I-4 (CONTINUED)

<u>Reaction</u>	<u>Rate Constant (ppm min units)</u>
<u>Formaldehyde</u>	
21. $\text{HCHO} + \text{h}\nu \xrightarrow{\text{O}_2} \text{HO}_2 + \text{HO}_2 + \text{CO}$	radiation dependent
22. $\text{HCHO} + \text{h}\nu \rightarrow \text{CO} + \text{H}_2$	radiation dependent
23. $\text{OH} + \text{HCHO} \xrightarrow{\text{O}_2} \text{HO}_2 + \text{CO}$	$4.4 \times 10^6 \text{ T}^{-1}$
<u>Acetaldehyde</u>	
24. $\text{CH}_3\text{CHO} + \text{h}\nu \xrightarrow{\text{O}_2} \text{CH}_3\text{CO}_2 + \text{HO}_2 + \text{CO}$	radiation dependent
25. $\text{OH} + \text{CH}_3\text{CHO} \xrightarrow{\text{O}_2} \text{CH}_3\text{CO}_3$	$3.0 \times 10^6 \text{ T}^{-1} e^{250/\text{T}}$
26. $\text{CH}_3\text{CO}_3 + \text{NO}_2 \rightarrow \text{PAN}$	$2.1 \times 10^6 \text{ T}^{-1}$
27. $\text{PAN} \rightarrow \text{CH}_3\text{CO}_3 + \text{NO}_2$	$1.2 \times 10^{18} e^{-13543/\text{T}}$
28. $\text{CH}_3\text{CO}_3 + \text{NO} \xrightarrow{\text{O}_2} \text{NO}_2 + \text{CH}_3\text{O}_2$	$3.1 \times 10^6 \text{ T}^{-1}$
29. $\text{CH}_3\text{O}_2 + \text{NO} \rightarrow \text{HCHO} + \text{HO}_2 + \text{NO}_2$	$3.1 \times 10^6 \text{ T}^{-1}$
<u>Alkanes</u>	
30. $\text{OH} + \text{Alkane} \rightarrow \text{AO}_2$	$6.6 \times 10^6 \text{ T}^{-1} e^{-400/\text{T}}$
31. $\text{AO}_2 + \text{NO} \rightarrow .8 \text{ NO} + 1.7 \text{ NO}_2 + .9 \text{ HO}_2$ + .4 CH_3CHO + .45 MEK + .3 CH_3COCH_3	$3.1 \times 10^6 \text{ T}^{-1}$
32. $\text{OH} + \text{MEK} \xrightarrow{\text{O}_2} \text{NO} + \text{NO}_2 + \text{CH}_3\text{CHO}$ + CH_3CO_3	$4.4 \times 10^6 \text{ T}^{-1} e^{-330/\text{T}}$
33. $\text{MEK} + \text{h}\nu \rightarrow \text{CH}_3\text{CO}_3 + \text{C}_2\text{H}_5\text{O}_2$	radiation dependent
34. $\text{C}_2\text{H}_5\text{O}_2 + \text{NO} \rightarrow \text{NO}_2 + \text{CH}_3\text{CHO} + \text{HO}_2$	$3.1 \times 10^6 \text{ T}^{-1}$
<u>Alkenes</u>	
35. $\text{OH} + \text{Ethene} \xrightarrow{\text{O}_2} 2\text{HCHO} + \text{NO}_2 - \text{NO} + \text{HO}_2$	$9.7 \times 10^5 \text{ T}^{-1} e^{380/\text{T}}$
36. $\text{OH} + \text{Propene} \xrightarrow{\text{O}_2} \text{HCHO} + \text{CH}_3\text{CHO} + \text{HO}_2$ + $\text{NO}_2 - \text{NO}$	$1.8 \times 10^6 \text{ T}^{-1} e^{540/\text{T}}$
37. $\text{OH} + \text{Butene} \xrightarrow{\text{O}_2} 1.8 \text{ CH}_3\text{CHO} + 0.9 \text{ NO}_2$ + $0.9 \text{ HO}_2 - \text{NO}$	$5.0 \times 10^6 \text{ T}^{-1} e^{540/\text{T}}$

TABLE I-4 (CONTINUED)

<u>Reaction</u>	<u>Rate Constant (ppm min units)</u>
<u>Alkenes (continued)</u>	
38. $O_3 + \text{Ethene} \rightarrow \text{HCHO} + 0.4 \text{CH}_2\dot{O}_2 + 0.4 \text{CO} + 0.12 \text{HO}_2$	$4.2 \times 10^3 T^{-1} e^{-2560/T}$
39. $O_3 + \text{Propene} \rightarrow 0.5 \text{HCHO} + 0.5 \text{CH}_3\dot{\text{C}}\text{HO} + 0.2 \text{CH}_2\dot{O}_2 + 0.2 \text{CH}_3\dot{\text{C}}\text{HOO} + 0.3 \text{CO} + 0.2 \text{HO}_2 + 0.1 \text{OH} + 0.2 \text{CH}_3\text{O}_2$	$3.1 \times 10^3 T^{-1} e^{-1900/T}$
40. $O_3 + \text{Butenes} \rightarrow \text{CH}_3\dot{\text{C}}\text{HO} + 0.4 \text{CH}_3\dot{\text{C}}\text{HOO} + 0.3 \text{HO}_2 + 0.2 \text{OH} + 0.45 \text{CH}_3\text{O}_2 + 0.2 \text{CO}$	$3.3 \times 10^3 T^{-1} e^{-1050/T}$
41. $\text{CH}_2\dot{O}_2 + \text{NO} \rightarrow \text{HCHO} + \text{NO}_2$	$3.1 \times 10^3 T^{-1}$
42. $\text{CH}_2\dot{O}_2 + \text{NO}_2 \rightarrow \text{HCHO} + \text{NO}_3$	$3.1 \times 10^5 T^{-1}$
43. $\text{CH}_2\dot{O}_2 + \text{H}_2\text{O} \rightarrow \text{Product}$	$1.5 T^{-1}$
44. $\text{CH}_3\dot{\text{C}}\text{HO} + \text{NO} \rightarrow \text{CH}_3\text{CHO} + \text{NO}_2$	$3.1 \times 10^6 T^{-1}$
45. $\text{CH}_3\dot{\text{C}}\text{HO} + \text{NO}_2 \rightarrow \text{CH}_3\text{CHO} + \text{NO}_3$	$3.1 \times 10^5 T^{-1}$
46. $\text{CH}_3\dot{\text{C}}\text{HO} + \text{H}_2\text{O} \rightarrow \text{Product}$	$1.5 T^{-1}$
<u>Aromatics</u>	
47. $\text{OH} + \text{Toluene} \rightarrow 0.15 \text{ARO}_2 + 0.20 \text{Cresol} + 0.20 \text{HO}_2 + 0.65 \text{ADD}$	$2.7 \times 10^6 T^{-1}$
48. $\text{OH} + \text{Xylene} \rightarrow 0.25 \text{Cresol} + 0.25 \text{HO}_2 + 0.75 \text{ADD}$	$7.9 \times 10^6 T^{-1}$
49. $\text{ADD} + \text{NO} \rightarrow 0.75 \text{NO}_2 + 0.75 \text{HO}_2 + 0.75 \text{DIAL} + \alpha_1 (\text{CHO})_2 + \alpha_2 \text{CH}_3\text{COCHO}$	$3.1 \times 10^6 T^{-1}$
50. $\text{OH} + \text{DIAL} \rightarrow \text{E1}$	$1.3 \times 10^7 T^{-1}$
51. $\text{EL} + \text{NO}_2 \rightarrow \text{E1 NO}_2$	$2.1 \times 10^6 T^{-1}$

TABLE I-4 (CONTINUED)

<u>Reaction</u>	<u>Rate Constant (ppm min units)</u>
<u>Aromatics (continued)</u>	
52. $\text{EL NO}_2 \rightarrow \text{EL} + \text{NO}_2$	$1.2 \times 10^{18} e^{-13543/T}$
53. $\text{EL} + \text{NO} \rightarrow 3 \text{NO}_2 - 2 \text{NO} + \alpha_3 \text{HO}_2$ $+ \alpha_3 (\text{CHO})_2 + \alpha_4 \text{CH}_3\text{CO}_3 + \alpha_4$ $\text{CH}_3\text{COCHO} + \alpha_3 \text{CO}$	$3.1 \times 10^6 \text{ T}^{-1}$
54. $\text{OH} + (\text{CHO})_2 \xrightarrow{\text{O}_2} \text{HO}_2 + \text{CO}$	$8.8 \times 10^6 \text{ T}^{-1}$
55. $(\text{CHO})_2 + \text{h}\nu \rightarrow \text{HCHO} + \text{CO}$	radiation dependent
56. $\text{OH} + \text{CH}_3\text{COCHO} \xrightarrow{\text{O}_2} \text{CH}_3\text{CO}_3 + \text{CO}$	$6.6 \times 10^6 \text{ T}^{-1}$
57. $\text{CH}_3\text{COCHO} + \text{h}\nu \xrightarrow{\text{O}_2} \text{CH}_3\text{CO} + \text{HO}_2 + \text{CO}$	radiation dependent
58. $\text{OH} + \text{Cresol} \rightarrow -\text{NO} + .75 \text{NO}_2$ $+ .75 \text{HO}_2 + .75 \text{DIAL}$	$1.9 \times 10^7 \text{ T}^{-1}$
59. $\text{NO}_3 + \text{Cresol} \rightarrow -\text{NO}_2 + \text{HNO}_3$	$k = 6.6 \times 10^6 \text{ T}^{-1}$
<u>SO_x</u>	
60. $\text{SO}_2 + \text{OH} \xrightarrow{\text{M}} \text{SO}_4^-$	$1.5 \times 10^{13} \text{ T}^{-4}$
61. $\text{SO}_2 + \text{CH}_2\text{O}_2 \rightarrow \text{HCHO} + \text{SO}_4^-$	$3 \times 10^4 \text{ T}^{-1}$
62. $\text{SO}_2 + \text{CH}_3\text{CHO} \rightarrow \text{CH}_3\text{CHO} + \text{SO}_4^-$	$3 \times 10^4 \text{ T}^{-1}$

Notes

$$\alpha_1 = .075 k_{48} [\text{xylene}] / (k_{47} [\text{toluene}] + k_{49} [\text{xylene}])$$

$$\alpha_2 = .75 - \alpha_1$$

$$\alpha_3 = k_{47} [\text{toluene}] + .5 k_{48} [\text{xylene}] / (k_{47} [\text{toluene}] + k_{48} [\text{xylene}])$$

$$\alpha_4 = 1 - \alpha_3$$

HNO_3 is the total inorganic nitrate (e.g., the sum of HNO_3 (g) and NH_4NO_3 aerosol).

are partitioned into reactivity classes in the mechanism to minimize the number of chemical species and reactions. However, there is less "lumping" of HC species in this mechanism than in other mechanisms typically used in photochemical models. The rationale for the partitioning of the organics is based on differences in OH rate constants, O₃ rate constants (for alkenes), reaction products, and photolytic reaction rates (for oxygenated HC). Based on our analysis, the full mechanism, which includes slowly reacting organics, requires 13 classes and the condensed mechanism, which excludes slowly reacting organics and treats $\geq C_3$ aldehydes and ketones as acetaldehydes, requires eight classes, as shown in Table I-5. The elimination of propane, benzene and acetone as well as the less refined treatment of aldehydes and ketones in the condensed mechanism results in very small differences (<3%) in maximum ozone and NO₂ in one-day simulations (Atkinson et al. 1982).

The mechanism was tested against smog chamber irradiations of individual HC/NO_x and surrogate urban HC/NO_x mixtures from the University of California, Riverside's evacuable and all-glass chambers (Pitts, and Grosjean 1978; Pitts, et al. 1979; Carter, et al. 1979; Atkinson, et al. 1978). Additional testing was performed on irradiations of RHC/NO_x/SO_x/air mixture from the Battelle chamber (Miller 1978) to assess the model's performance with respect to sulfate. Further testing on individual HC/NO_x mixtures was performed using the University of North Carolina's outdoor smog chamber data (Jefferies, 1981; Lloyd et al. 1982). The mechanism was found to predict NO_x and HC decay rates accurately and peak NO₂, O₃, PAN, and SO₄⁼ within ± 20% over a broad range of HC/NO_x ratios and concentrations. In particular, the mechanism is believed to more accurately simulate the aromatic and alkene oxidation processes than previous mechanisms. The growing proportion of aromatic hydrocarbons in urban areas (Grosjean et al. 1981) makes it very important to predict aromatic hydrocarbon photooxidation as accurately as possible.

For all chemical reactions with rates that vary significantly with temperature, the updated mechanism accounts for this effect. This feature represents an important advancement over previous mechanisms. As shown in Hendry et al. (1977, 1978), the chemistry of nitrogen oxides

TABLE I-5

HYDROCARBON CLASSES IN THE CHEMICAL MECHANISM

<u>Compound Group</u>	<u>Hydrocarbon Class Number</u>	
	<u>Full Mechanism</u>	<u>Condensed Mechanism</u>
Methane	0*	0
Ethane	0	0
Propane	1	0
<u>>C₄</u> Alkanes	2	1
Ethene	3	2
Propene and Other Terminal Alkenes	4	3
Butene and Other Internal Alkenes	5	4
Benzene	6	0
Toluene and Other Monoalkylbenzenes	7	5
Xylene and Other Di- and Tri-alkylbenzenes	8	6
Formaldehyde	9	7
Acetaldehyde	10	8
<u>>C₃</u> Aldehydes	11	8
Acetone	12	0
Methylethylketone and Other Ketones	13,	8

*Class 0 is nonreactive

is particularly sensitive to temperature variations. This model feature is obviously important for application in areas that have significant diurnal variations in temperature.

I.8 Solution of Governing Equations

The solution module (SOLMOD) assembles all the trajectory-specific input data, performs integration of the governing differential equations to obtain concentrations at successive times and locations, and updates the data used in the equations from temporal schedules. The inputs required by SOLMOD, in addition to those provided by the meteorological and emissions preprocessors, are the initial pollutant concentrations in the parcel and initial background concentrations. If desired, the background concentrations can be externally updated at any time during a simulation. Here, background concentrations refer to the pollutant concentrations specified at the lateral boundaries of the parcel that are used in the horizontal diffusion calculation. Photochemical models are generally quite sensitive to the initial and background values, so these must be specified carefully.

The numerical integration of Equation I-1 is accomplished by splitting the equation into three equations solved sequentially. Thus, the problem is reduced to the solution of

$$\frac{\partial c}{\partial t} = \frac{\partial}{\partial y} \left(K_y \frac{\partial c}{\partial y} \right) \quad \text{for lateral diffusion,} \quad (\text{I-23a})$$

$$\frac{\partial c}{\partial t} = \frac{\partial}{\partial z} \left(K_z \frac{\partial c}{\partial z} \right) \quad \text{for vertical diffusion, and} \quad (\text{I-23b})$$

$$\frac{\partial c}{\partial t} = R + S + D \quad \text{for chemistry, emissions, and dry} \quad (\text{I-23c}) \\ \text{deposition.}$$

Splitting the problem in this manner allows one to employ numerical integration techniques appropriate for each type of equation. Integration of the lateral and vertical diffusion equations is accomplished using finite difference approximations. For small and moderate size eddy diffusivity coefficient (K), the Crank-Nicolson approximation (Crank and Nicolson 1947) is employed. For large mixing

coefficients, a fully implicit time integration technique, which overcomes the small time step limitation of the Crank-Nicolson method at large values of K without sacrificing accuracy, is used. The ordinary differential equations for chemistry, emissions, and deposition are integrated by a linear multi-step predictor-corrector scheme developed by Young and Boris (1977). When accompanied by an error control/time step selection procedure suitable for photochemical systems, this algorithm is several times more efficient than Gear-type algorithms (used in ELSTAR, EKMA, etc.) at comparable accuracy levels.

The complete solution for concentrations at time $t + \Delta t$, starting at time t , is produced by integrating, in order,

- 1) lateral diffusion from t to $(t + \Delta t/2)$,
- 2) vertical diffusion from t to $(t + \Delta t/2)$,
- 3) chemistry, emissions, and deposition from t to $(t + \Delta t)$,
- 4) vertical diffusion from $(t + \Delta t/2)$ to $(t + \Delta t)$, and
- 5) lateral diffusion from $(t + \Delta t/2)$ to $(t + \Delta t)$.

Ordering the individual time steps in this manner allows the model to perform the integration of the chemistry for longer periods than in conventional time splitting techniques (i.e., lateral diffusion, vertical diffusion and chemistry for $\Delta t/2$). This improves the overall computational efficiency of the model without loss of accuracy (McRae 1981). Within a given integration cycle of length $\Delta t/2$ or Δt , each solver takes one or more steps (usually more) to generate a solution at the specified output time. Nevertheless, the integration cycle size (Δt) is kept small (10 to 20 minutes) to prevent numerical artifacts of times splitting.

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APPENDIX 4.6
VISUAL RESOURCES ANALYSIS ON
LOS PADRES NATIONAL FOREST
(Revision of Appendix E in the DEIR/EIS)

INTRODUCTION

Impacts of pipeline construction and operation on visual resources are of particular concern in the Las Padres National Forest (LPNF). The following analysis of the differences in impacts among the routing alternatives is limited to the segments of the alternatives on LPNF. The following are definitions of the visual classifications used in this discussion:

- Variety Class - A particular level of visual variety or diversity of landscape character.
 - A = Distinctive
 - B = Common
 - C = Minimal.
- Sensitivity Level - A particular degree or measure of viewer interest in the scenic qualities of the landscape.
 - 1 = Highest concern
 - 2 = Average concern
 - 3 = Lowest concern or seldom seen.
- Viewing Distance - Areas of landscapes denoted by specified distances from the observer. Used as a form of reference in which to discuss landscape characteristics or activities.
 - Fg = Foreground, 0 to 0.5 mile
 - Mg = Middleground, 0.25 to 5 miles
 - Bg = Background, 3 or more miles.
- Visual Quality Objective (FS VQO) - A desired level of excellence based on physical and sociological characteristics of an area. Refers to acceptable alteration of the landscape (see Table 3-28).
- Visual Absorption Capability (VAC) - The ability of a landscape to absorb a human activity or facility without significantly altering the natural appearance.
 - H = High
 - M = Moderate
 - L = Low.
- Existing Visual Condition (EVC) - The current state of naturalness or alteration that exists at a particular site or landscape area (see Table 3-28).
- Future Visual Condition (FVC) A prediction of the expected future state of the landscape as it would appear after the Celeron/All American or Getty proposals were implemented (see Table 3-28).

CELERON PROPOSAL

Affected Environment

The Celeron route in La Brea Canyon would affect a total of 184 acres of land within the LPNF. Landscape variety is common (variety Class B) and typical of the Coastal Mountain Ranges within 73 percent of the corridor. The remainder of the corridor contains landscape variety that is minimal (variety Class C). Ninety-three percent of the corridor is visible from the La Brea Canyon Road and other travelways that contain significant numbers of aesthetically concerned viewers and is classified as high in sensitivity (sensitivity level 1). Approximately 85 percent of this route is viewed from critical viewing distance zones (foreground and middleground).

Approximately 18 percent of this corridor is presently untouched by human activities. Human activities remain subordinate to the natural landscape on 23 percent of the corridor (EVC Classes II & III) and dominate the natural landscape on the remaining 59 percent (EVC Classes IV and V).

The relative ability of the landscape to absorb pipeline development without loss of its natural character is low on approximately 85 percent of this route.

Under current Forest management direction, approximately 89 percent of the corridor is managed, as a minimum, to meet the Retention and Partial Retention visual quality objectives (VQOs). The remainder of the corridor is managed to meet the modification and maximum modification VQOs. Presently, these objectives are met on only 34 percent of the corridor due primarily to the impacts associated with the La Brea Canyon Road and fuel break construction.

Environmental Consequences

Development of the pipeline under the Celeron proposal would result in visual disturbances that would appear dominant over the natural landscape (visual condition Classes IV and V) on approximately 89 percent of the corridor. Pipeline activities would remain visually subordinate to the natural landscape on the remainder of the corridor.

Existing visual conditions would decline on approximately 39 percent of the corridor. Pipeline activities would not be consistent with LPNF visual quality objectives on approximately 89 percent of the corridor (a significant impact). Present VQO achievement levels would decline by 68 percent under this alternative.

GETTY PROPOSAL

Affected Environment

The Getty route in La Brea Canyon would affect a total of 92 acres of land within the LPNF. Landscape variety is common or typical of that found within the coastal mountains of southern California on 73 percent

of the corridor. The remainder of the corridor contains minimal landscape variety. Ninety-six percent of the corridor is visible from the La Brea Canyon Road and other travelways that are classified as high in sensitivity to the viewing public. Approximately 92 percent of the corridor is viewed from critical viewing distance zones (Fg & Mg).

Virtually the entire corridor has been disturbed by human activities. These disturbances remain visually subordinate to the natural landscape (EVC Classes I, II and III) on 31 percent of the corridor and are visually dominant on the remainder.

The relative ability of the landscape to absorb pipeline development activities without loss of natural character is low on 61 percent of the corridor, moderate on 37 percent, and high on 2 percent.

Under current Forest management direction, approximately 92 percent of the corridor is managed to meet, as a minimum, the Retention and Partial Retention VQOs. The remainder of the corridor is managed to meet the Modification and Maximum Modification VQOs. Presently these VQOs are met on approximately 17 percent of the corridor due to impacts associated with the La Brea Canyon Road and fuel break construction activities.

Environmental Consequences

Development of the pipeline under the Getty proposal would result in visual disturbances that would dominate the natural landscape (visual condition Classes IV and V) on 92 percent of the corridor. Pipeline activities would remain visually subordinate to the natural landscape on the remainder of the corridor.

Existing visual conditions would decline on approximately 30 percent of the corridor. Pipeline activities would not be consistent with the Forest's inventoried visual quality objectives on approximately 92 percent of the corridor (a significant impact). Present VQO achievement levels would decline by approximately 54 percent.

SANTA MARIA CANYON ALTERNATIVE A

Affected Environment

Santa Maria Canyon Alternative A would affect approximately 50 acres of land within the LPNF. Landscape variety is unique or distinctive (variety Class A) on approximately 7 percent of the corridor. Landscape variety is common or typical of that found within the coastal mountains of southern California on 78 percent of the land, and there is minimal variety on the remainder of the corridor. Approximately 58 percent of the corridor is visible from State Highway 166 at critical viewing distance zones. The remainder of the corridor is seldom seen by the public.

Approximately 46 percent of the corridor is untouched by human activities. On the remainder of the corridor, disturbances from human

activities remain visually subordinate to the natural landscape on approximately 44 percent of the corridor and are visually dominant on the remaining 10 percent.

The relative ability of the landscape to absorb pipeline activities without loss of natural character (VAC) is low on approximately 64 percent of the corridor and moderate on the remaining 36 percent.

Under current Forest management direction, approximately 58 percent of the corridor is managed, as a minimum, to meet the Retention and Partial Retention VQOs. The remainder of the corridor is managed to meet the modification VQO. Presently these objectives are met on approximately 84 percent of the corridor. Underachievement of VQOs on the remainder of the corridor is due to impacts associated with Highway 166 cuts and fills.

Environmental Consequences

Development of the pipeline under Santa Maria Canyon Alternative A would result in visual disturbances that would appear dominant over the natural landscape on approximately 24 percent of the corridor. Pipeline activities on the remainder of the corridor would remain visually subordinate to the natural landscape.

Existing visual conditions would decline on approximately 52 percent of the corridor. Pipeline activities would not be consistent with LPNF visual quality objectives on approximately 35 percent of the corridor (a significant impact). This under achievement would occur mostly within those portions of the corridor that are highly visible from Highway 166. Present VQO achievement levels would decline by 19 percent under this alternative.

SANTA MARIA CANYON ALTERNATIVE B

Affected Environment

Santa Maria Alternative B would affect approximately 29 acres of land within the LPNF. Landscape variety is common or typical of that found in the coastal mountains on 56 percent of the corridor, with minimal variety on the remaining 44 percent. Approximately 60 percent of the corridor is visible from State Highway 166 and the Sierra Madre Road of critical viewing distance zones. The remaining 40 percent of the corridor is seldom seen by the public.

Approximately 10 percent of the corridor is untouched by human activities. On 76 percent of the corridor, existing roads and fuelbreaks are unnoticed alterations. Only in the Sierra Madre Mountains are existing conditions noticeable, where fuelbreaks are visually dominant on 14 percent of the corridor.

The relative ability of the landscape to absorb pipeline activities without loss of natural character (VAC) is low on approximately 79 percent of the corridor and moderate on 21 percent.

Under current Forest management direction, approximately 60 percent of the corridor is managed, as a minimum, to meet the Retention and Partial Retention VQOs. The remainder of the corridor is managed to meet the modification VQO. Presently these objectives are met on approximately 86 percent of the corridor. Underachievement of VQOs on the remainder of the corridor is due to impacts associated with the existing fuelbreak on the Sierra Madre Mountains.

Environmental Consequences

Development of the pipeline under Santa Maria Canyon Alternative B would remain visually subordinate to the natural landscape. The corridor utilizes existing fuelbreaks and roads and would not be evident.

Existing visual conditions would not decline if this pipeline were constructed. Pipeline activities would be consistent with LPNF visual quality objectives on 100 percent of the corridor and would not be noticeable from high sensitivity travel routes. Present VQO achievement levels would not decline under this alternative.

COMPARISON AND EVALUATION OF ALTERNATIVES

Table 4.6 summarizes some of the differences among the routing alternatives. The visual quality index provides a measure of the overall visual quality that would result under each alternative. The index is a product of variety classes and future visual conditions. Highest possible visual quality (all acres = Variety Class A and Visual Condition Class I) would be indicated by an index of 100. The lowest possible visual quality would be indicated by an index of zero (all acres = variety Class C and visual condition Class VI). According to the calculations, the Santa Maria Canyon Alternative A would produce the highest overall visual quality index among the alternatives, and the Getty La Brea proposal would produce the lowest.

Existing visual conditions are significantly lower because of existing fuel breaks and roads preferred along the Celeron and Getty proposals. However, the pipeline development would offer little potential for enhancement or rehabilitation of visual resources in these corridors due to the large scale of the pipeline development proposals. The highly scenic, small scale character of La Brea Canyon, in particular, would undergo major changes in its existing natural character if one or both pipelines were constructed.

The Santa Maria Canyon Alternative B would have significantly higher future visual conditions and VQO achievement levels, would affect fewer acres of National Forest land, and would offer greater potential for concealing the pipeline development from public view than either the Celeron or Getty La Brea proposals, or Santa Maria Canyon Alternative A.

TABLE 4.6
COMPARISON OF ALTERNATIVES

	Celeron Proposal	Getty Proposal	Santa Maria Canyon Alternative A	Santa Maria Canyon Alternative B
<u>Future Visual Conditions</u>				
Condition Class I	0	0	0	0
Condition Class II	5 percent	4 percent	57 percent	86
Condition Class III	6 percent	4 percent	19 percent	0
Condition Class IV	34 percent	35 percent	0	0
Condition Class V	55 percent	57 percent	24 percent	14
Condition Class VI	0	0	0	0
Decline in Existing Visual Conditions	39 percent	30 percent	52 percent	10
VQO Achievement Levels	11 percent	8 percent	65 percent	86
Visual Quality Index	28.32	27.71	47.87	35.80

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Contract R8353: The contract dollar amount for this project is \$924,676.

