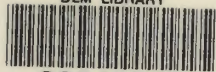


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**FINAL**  
**ENVIRONMENTAL**  
**ASSESSMENT**  
**of**

**The Proposed West Douglas**  
**Hydrocarbon Plant No. 2**

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**Prepared For :**



**Bureau Of Land Management**  
**White River Resource Area**

**By :**

**Western Slope Gas Company**  
**and Gingery Associates Inc**

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## CHAPTER 1 - PURPOSE AND NEED

### 1.1 Purpose

Western Slope Gas Company (Applicant) has made application for a right-of-way grant under the authority of Section 28 of the Mineral Leasing Act, as amended, to construct, operate and maintain a natural gas processing plant and associated pipeline facilities for the purpose of extracting hydrocarbons contained in the natural gas produced in its gathering fields.

Applicant presently processes its natural gas produced in the Dragon Trail/Douglas Creek gathering fields at a smaller extraction facility in its West Douglas Compressor Station and at the Continental Gas Plant northwest of Grand Junction, Colorado. The hydrocarbon products extracted at these facilities are stored on site and trucked to markets in Grand Junction and Rangely.

The Continental Gas Plant near Grand Junction is scheduled to be decommissioned in July of 1983. The capacity lost with the decommissioning of the Continental Plant is to be picked up by the proposed.

### 1.2 Need

The proposed action is the most cost efficient method to cleanse and condition natural gas to a clean burning form of energy and to prevent the buildup of hydrocarbon liquids in the pipeline system which would ultimately render the system useless.

In addition, the hydrocarbon liquids extracted from the natural gas are an important form of energy which can be converted to propane, butane and gasoline for commercial and individual consumption.

### 1.3 Location

The proposed action is located approximately 18 miles south of Rangely, Colorado along Colorado State Highway 139. The proposed is located in the West Douglas Creek drainage near the mouth of Sand Draw.

The exact locations of the proposed and the alternatives are described in Chapter 2.

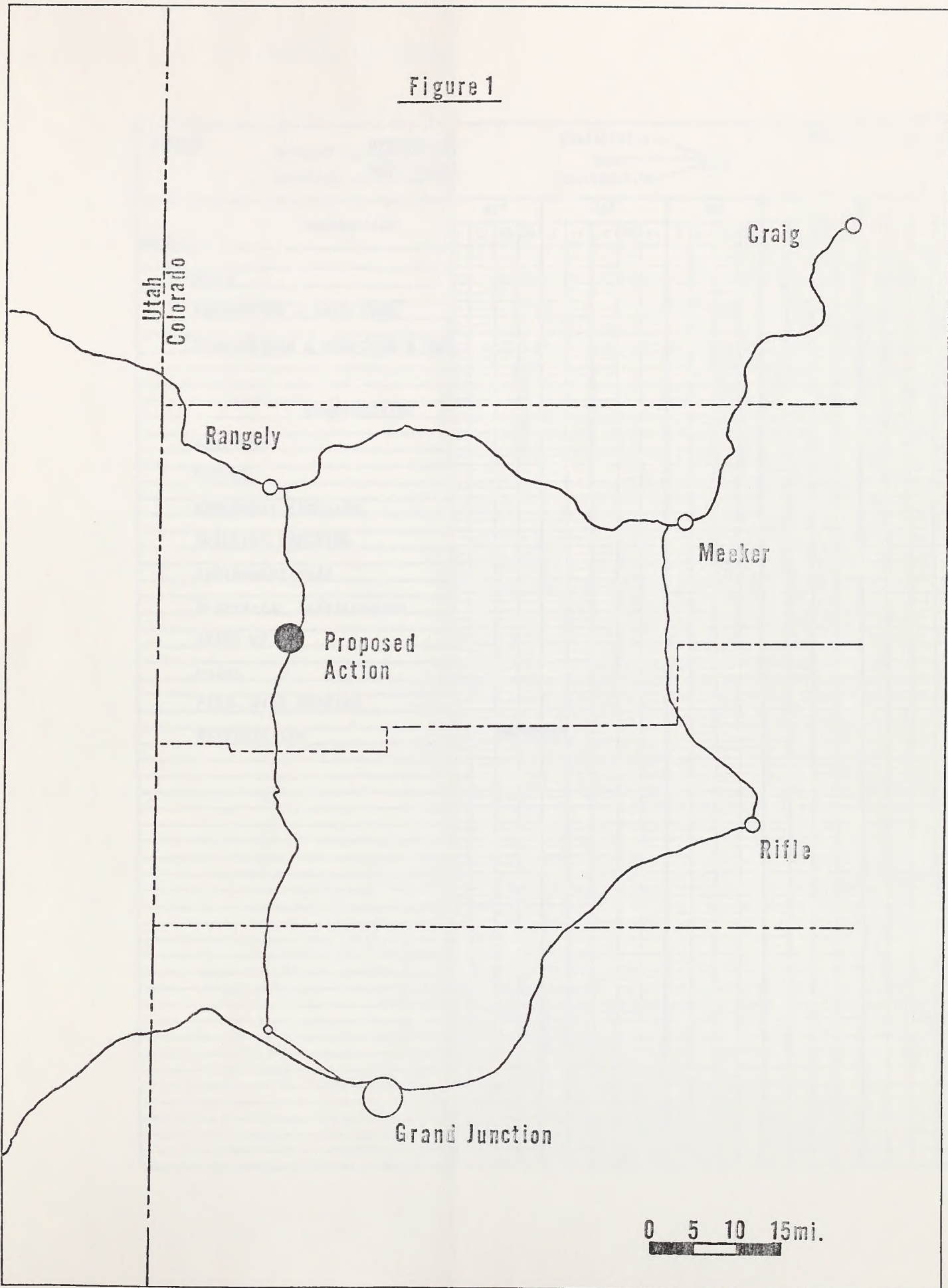
### 1.4 Construction Schedule

The proposed action is scheduled to be in operation by July 1983. The major components will be fabricated off site, shipped to the site and erected. The erection and piping process will require four to six weeks with excavation, site work and concrete foundation placement requiring four to five weeks in advance of erection (see Figure 2 Project Schedule). Some site work can be complete after the proposed is placed in operation.





Figure 1



FORM 248B 1-2 0218











## CHAPTER 2 - DESCRIPTION OF THE ALTERNATIVES INCLUDING THE PROPOSED ACTION

### 2.1 Alternative A (Preferred Action)

Alternative A would entail the granting of a right-of-way on public lands for the construction, operation and maintenance of a natural gas processing plant for the purpose of extracting liquid hydrocarbons at a location in Rio Blanco County adjacent to Colorado Highway 139 (see Figure 3).

#### 2.1.1 Legal Description

A parcel of land situated in the northwest one-quarter and the southwest one-quarter Section 5, Township 3 South, Range 101 West of the Sixth Principal Meridian, Rio Blanco County, Colorado, being more particularly described as follows:

Commencing at the found GLO brass cap for the west one-quarter corner of said Section 5, (the basis of bearings being north 0°03' west between the found GLO brass cap for the southwest corner of said Section 5 and said west one-quarter corner); thence north 89°12'52" east, 402.97 feet to the TRUE POINT OF BEGINNING; thence south 04°37'04" east, 661.5 feet to a point; thence north 85°22'56" east, 260.0 feet to a point; thence north 04°37'04" east, 661.5 feet to a point; thence south 85°22'56" west, 260.0 feet, more or less to the point of beginning, containing 3.95 acres, more or less.

Together with a right-of-way for pipelines commencing at the southerly boundary of the above described parcel and running southerly along and over an existing pipeline right-of-way (C-24276-C-R/W) to the West Douglas Compressor Station. Also, with a right-of-way for access roads from Highway 139 to the above described parcel.

#### 2.1.2 Construction Plan

Applicant proposes to construct a hydrocarbon extraction plant capable of processing 30 MMCFD (thirty million cubic feet per day) of natural gas and extracting therefrom approximately 650 barrels per day of liquid hydrocarbons. The plant would consist of extraction facilities (gas heaters, gas coolers, dehydrators, separators and piping), measurement and control buildings, office building, storage tanks capable of storage of four day's production, loading facilities and refrigeration compression facilities (see Figure 4 - Applicant's Concept of Proposed).

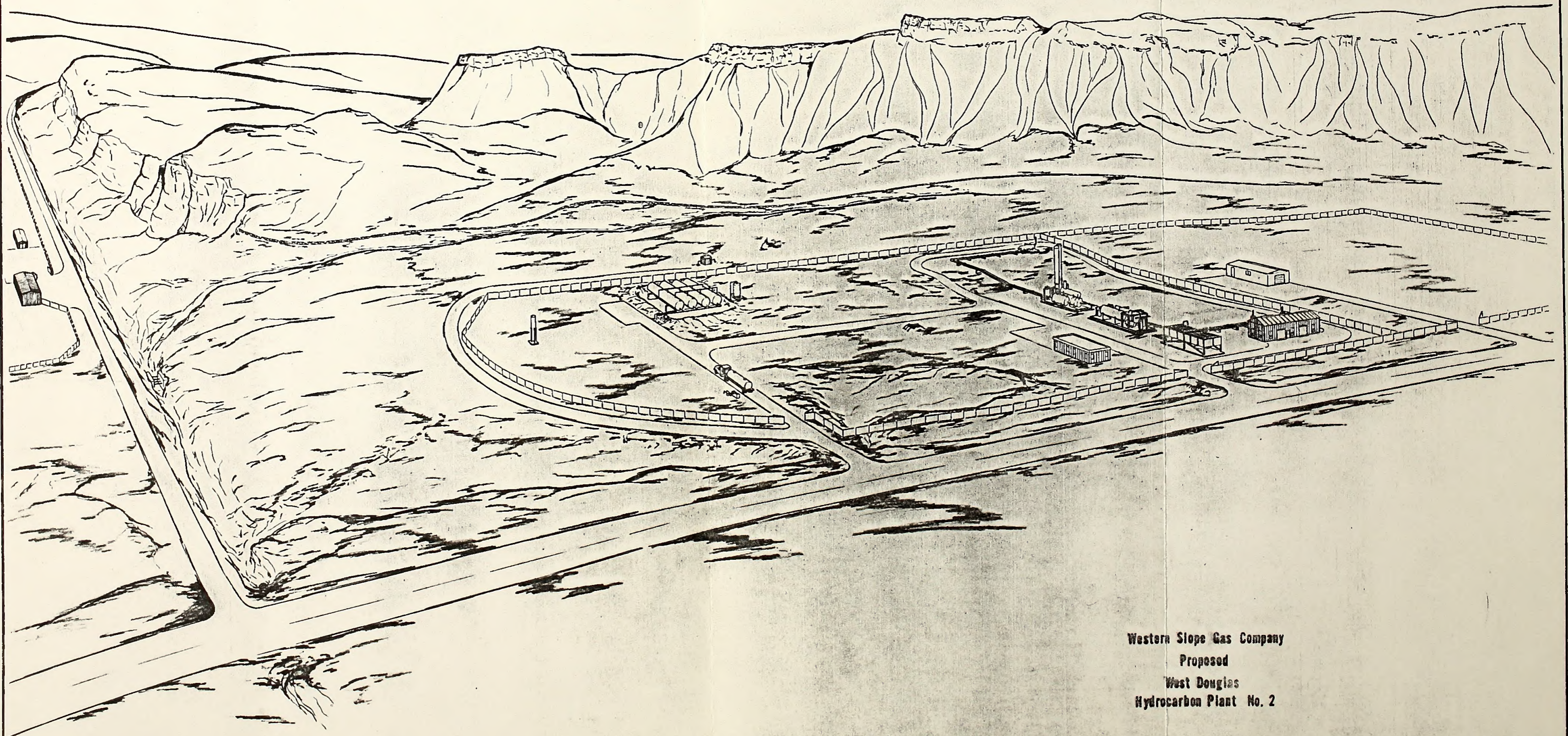
The facility would be located in close proximity to Applicant's West Douglas Compressor Station and would be connected to the compressor station by underground piping.

The piping will consist of one twelve-inch diameter inlet pipe which will deliver the compressed natural gas to the proposed, one twelve-inch diameter discharge pipe to return processed natural gas to the West Douglas Station and one four-inch diameter recompression gas pipeline which will transport residue gas back to the West Douglas Compressor to be recompressed and run through the system again.









Western Slope Gas Company  
Proposed  
West Douglas  
Hydrocarbon Plant No. 2

FIGURE 4





The piping will be welded steel and buried a minimum of 36-inches, except where it crosses Sand Draw where the pipes and the existing piping across Sand Draw will be suspended on concrete abutments above the high water line. The suspended portions of the pipelines will be painted to blend into the surrounding terrain.

Access to Alternative A would be from Colorado State Highway 139 via two entrance/exit driveways. Electrical and telephone lines are available at the site and have sufficient capacity without modification or enlargement, to serve the needs of the proposed.

Construction of Alternative A would require the relocation of a pipe storage facility owned by Fuel Resources Development Company (Fuelco) (C-12171-R/W). The relocation would be accomplished by rotating the storage yard approximately 180° around the existing office building. Applicant and Fuelco could share access driveways and utility lines.

Prior to construction, available topsoil will be stripped, stockpiled, and stabilized. After site grading and before actual placement of plant facilities, the perimeter of the site will be fenced and gates installed at access locations including entrance and exit driveways and the access at the west of the plant to the Conoco 5-1 well.

The fencing material will be steel, chain link, security type, six to seven feet high. Accessory screening will be installed, as required, to minimize visibility where human activity would disrupt livestock or wildlife activities. Unscreened "windows" will be left for security purposes.

After construction, the area inside the perimeter fence will be graveled for fire protection, dust abatement and noxious weed control. The disturbed areas outside the perimeter fence will be contoured and reseeded with native grasses. Some or all of the stockpiled topsoil will be spread on the disturbed areas for revegetation. Any unused topsoil will be stockpiled and stabilized for use upon termination of the proposed. Some native and decorative shrubs may be used on disturbed slopes to control erosion.

#### 2.1.3 Storage of Liquid Hydrocarbons

Storage of liquid hydrocarbons produced at the facility would be in above ground cylindrical storage tanks capable of holding four to five day's production (approximately 775 barrels or 32,500 gallons). The storage tanks would be located a sufficient distance away from other facilities to provide for safety and ease of loading and maneuvering haul trucks and would be completely surrounded with an earthen berm of sufficient dimension to contain the total quantity of stored liquids in the event of a spill or tank rupture.

#### 2.1.4 Transportation

Transportation of the liquid hydrocarbons to markets in Grand Junction and Rangely would be by liquid transport truck. At normal anticipated production rates, approximately three truckloads per day would leave the facility and travel Colorado State Highway 139 north to Rangely or south to Grand Junction.





#### 2.1.5 Production Schedule

The proposed facility would operate 24-hours per day and 365 days per year. There will be periodic shut down periods for overall maintenance, testing and repairs. During these periods, a small existing extraction plant at the West Douglas Compressor Station will be utilized to prevent hydrocarbon buildup in the natural gas pipeline system.

#### 2.1.6 Employment

The proposed facility will be essentially automatic and will operate with a minimum number of operating personnel. Routine maintenance will be done by Applicant's operating and maintenance personnel stationed at the adjacent West Douglas Compressor Station.

During construction of the facility, 7 to 20 laborers and skilled technicians will be employed on site.

#### 2.1.7 Relationship to Other Federal Grants or Leases

The proposed action will provide necessary and efficient means of extracting hydrocarbon liquids from natural gas produced in several mineral leases, transported through Applicant's West Douglas Compressor Station (C-056011-R/W).

The proposed will require and an amendment to Applicant's right-of-way C-093629 (A)-R/W to relocate the existing 4-inch drip loading line, and an amendment to Applicant's right-of-way C-24276 (C)-R/W to relocate the existing pipe storage areas as proposed in 2.1.2.

In addition, the proposed will require amendments to Moon Lake Electric right-of-way C-0102645-R/W and Mountain Bell right-of-way C-0102645-R/W and Mountain Bell right-of-way C-3435-R/W for electric and telephone extensions to the site.

#### 2.1.8 Potential Conflicts with Other Resources, Etc.

The Alternative A location is on a local mule deer herd migration route and, by its location, could also interfere with livestock movement along Highway 139.

An area of concern is the drainage of Sand Draw under Highway 139 to Douglas Creek. At present, during high water (Spring runoff and immediately following local thunderstorms) drainage exceeds the capacity of the culvert under Highway 139 and excess water is backed up into low-lying lands near the southern one-half of the Alternative A site. Construction of Alternative A could alter those low-lying areas, causing excess runoff to flow over Highway 139 to Douglas Creek.





The Alternative A site by its location in the Douglas Creek alluvium, has high potential for subsurface cultural remains.

#### 2.1.9 Summary of Impacts - Alternative A

The following is a summary of potential impacts without regard to possible mitigation efforts. Construction of Alternative A:

- would require the removal of approximately five acres of native vegetation.
- would result in the loss of 0.33 livestock AUM annually through the life of the proposed.
- could interrupt livestock migration from calving grounds to Douglas Creek.
- could result in the destruction of unknown subsurface cultural resources.
- will visually dominate the field of view for approximately one mile of travel along Colorado Highway 139.
- will increase heavy truck travel along Highway 139.
- could cause short-term siltation of Douglas Creek.
- will decrease air quality due to fugitive dust during construction.
- will decrease air quality due to exhaust stack emissions.
- will increase state and county revenues as a result of use taxes, road use taxes, property taxes and sales taxes.
- will increase local business revenues (motels, restaurants, service stations, etc.).
- could result in liquid hydrocarbon discharge into Douglas Creek in the event of a spill or tank rupture.
- could interfere with local mule deer improvements.

#### 2.1.10 Possible Mitigation Efforts in Relationship to Impacts

If Alternative A is selected, the following mitigation efforts could be included with standard stipulations:







- that prior to construction, an alternate livestock migration route be designated and appropriate barriers, cattle guards and diversion devices be constructed to encourage livestock use of said route.
- that prior to any surface disturbing activity, a Class III 100% pedestrian survey be conducted to determine the presence of cultural resources and recommend mitigative measures to protect any resources that are found.
- that the facilities to be constructed be painted a non-reflective color which blends with background coloration in order to minimize visual impact.
- that a buffer zone be maintained or barrier be constructed to prevent spillage of spoils into tributaries of Douglas Creek.
- that during construction, the construction area be watered on a "as needed" basis to control dust from construction activities.
- that emissions from exhaust stacks meet federal, state and local guidelines.
- that an earthen berm be constructed around all storage facilities to contain liquids in the event of a spill or tank rupture.
- that surface disturbing activities be monitored by a qualified archaeologist to determine the presence of subsurface cultural resources.
- that the perimeter fence be designed to screen human activities within the site and that fence angles be "softened" to minimize the barrier to local livestock and mule deer movement.
- that the working area inside the perimeter be graveled for fire protection, dust abatement and noxious weed control.
- that all disturbed areas outside the perimeter fence be recontoured and revegetated with native grasses.
- that overhead electric line extensions be constructed in accordance with "Suggested Practices for Raptor Protection on Power Lines - the State of the Art in 1981," Raptor Research Report No. 4.

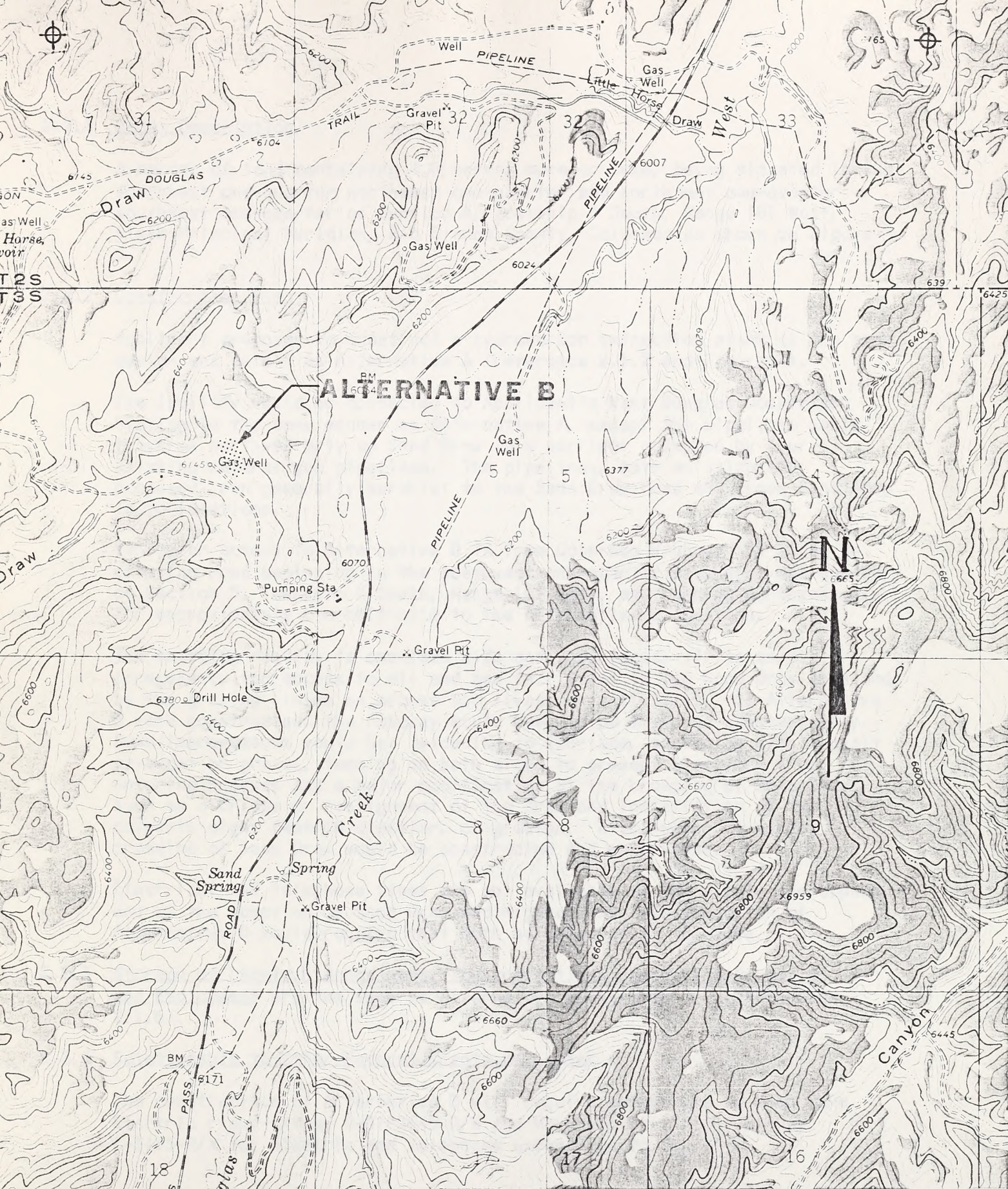
## 2.2 Alternative B - Sand Draw Location

Alternative B would entail the granting of a right-of-way on public lands for the construction, operation and maintenance of a natural gas processing plant for the purpose of extracting liquid hydrocarbons at a location in Sand Draw in Rio Blanco County, approximately one-half mile westerly from Colorado Highway 139 (see Figure 5).









Western Slope Gas Co.

TITLE **FIGURE 5**  
**ALTERNATIVE B**  
**SAND DRAW LOCATION**





### 2.2.1 Legal Description

A parcel of land containing 4.0 acres, more or less, being situated in the southeast one-quarter northeast one-quarter and northeast one-quarter southeast one-quarter of Section 6, Township 3 South, Range 101 West, Sixth Principal Meridian, Rio Blanco County, Colorado as shown on Figure 5.

### 2.2.2 Construction Plan

Applicant proposes to construct a hydrocarbon extraction plant of the same design and detail as Alternative A (reference 2.1.2 and Figure 4).

The facility would be connected to Applicant's West Douglas Compressor Station in the same manner as Alternative A, except the pipelines would traverse northwesterly up Sand Draw in a corridor occupied by four existing natural gas pipelines. The pipelines, both existing and proposed, run generally parallel to the Sand Draw road and cross Sand Draw in to locations.

Vehicular access to Alternative B is from Colorado Highway 139 along an existing road beginning in the southwest one-quarter southwest one-quarter of Section 5, Township 3 South, Range 101 West, and running northwesterly for approximately one-half mile to the Alternative B location.

The existing roadway is one-lane wide and unsurfaced. It is used irregularly for access to oil and gas facilities in the Sand Draw area and by the grazing lessee as access for livestock activities. If Alternative B were constructed, the roadway would have to be improved substantially. Some improvements would be: widening to two-lane, surfacing with asphalt pavement or gravel, fencing on both sides to prevent livestock from entering roadway and a major modification at the crossing of Sand Draw such as a bridge or realignment of the draw and installation of two culverts eight feet in diameter, or greater. A low-water livestock crossing of Sand Draw would be constructed and maintained.

Electrical and telephone lines are not available at the site. The closest are at the junction of Sand Draw and Highway 139. Construction of Alternative B would require that both be extended to the site.

### 2.2.3 Storage of Liquid Hydrocarbons, Transportation, Production Schedule and Employment are the same as Alternative A (Reference 2.1.3 through 2.1.6).

### 2.2.4 Relationship to Other Federal Grants or Leases

The construction of Alternative B will require amendments to Moon Lake Electric right-of-way C-0102645-R/W and Mountain Bell right-of-way C-3435-R/W for electric and telephone extensions to the site.





### 2.2.5 Potential Conflicts with Other Resources, Etc.

Alternative B is critical winter range for a local mule deer herd. The Alternative B site is an established, unimproved livestock holding area used during Spring and Fall roundups.

The Sand Draw access road passes in close proximity to a found and recorded pictograph panel (reference 3.13 Cultural Resources).

The Alternative B site is within a buffer zone established to protect eagles nesting at two sites in the northeast one-quarter southeast one-quarter of Section 6, Township 3 South, Range 101 West. Construction and operation of the proposed at the Alternative B site would be subject to consultation with the U.S. Fish and Wildlife Service and restrictions on construction dates and times and operation.

### 2.2.6 Summary of Impacts - Alternative B

The following is a summary of potential impacts without regard to possible mitigation efforts. Construction of Alternative B:

- ° would require the removal of approximately eight acres of native vegetation (includes extension of pipelines, electric and telephone lines and road widening).
- ° would result in the loss of 0.53 AUM annually through the life of the proposed.
- ° could result in the destruction of unknown subsurface cultural resources
- ° will increase heavy truck traffic along Colorado Highway 139.
- ° could cause short-term siltation of Douglas Creek.
- ° will decrease air quality due to fugitive dust during construction.
- ° will decrease air quality due to fugitive dust caused by heavy truck travel along Sand Draw road.
- ° will decrease air quality due to exhaust stack emissions.
- ° will increase noise levels in Sand Draw.
- ° will result in the loss of approximately 50 acres of critical deer winter range.





- will require the granting of rights-of-way across Federal lands for extensions of electric and telephone lines and additional pipelines in Sand Draw.
- will require the construction of a major vehicular crossing of Sand Draw.
- could interrupt seasonal livestock migration.
- would create a visually dominating feature in an established VRM Class IV area.
- will increase state and county revenues as a result of use taxes, road use taxes, property taxes and sales taxes.
- will increase local business revenues (motels, restaurants, service stations, etc.)
- could cause secondary or residual impacts to a found and recorded pictograph panel.
- could cause golden eagle nesting activities to be disrupted to the extent that existing nests (2) are abandoned.

#### 2.2.7 Possible Mitigation Efforts in Relationship to Impacts

If Alternative B is selected, the following mitigation efforts could be included with the standard stipulations:

- that prior to any surface disturbing activity, a Class III 100% pedestrian survey be conducted to determine the presence of cultural resources and recommend mitigative measures to protect any resources that are found.
- that the Sand Draw road be paved or graveled from Highway 139 to the Alternative B location.
- that the facilities to be constructed be painted a non-reflective color which blends with background coloration in order to minimize visual impact.
- that a buffer zone be maintained or barrier be constructed to prevent spillage of spoils into tributaries of Douglas Creek.
- that during construction, the construction area be watered on an "as needed" basis to control dust from construction activities.
- that emissions from exhaust stacks meet federal, state and local guidelines.
- that noise abatement devices (mufflers, insulation, etc.) be installed to minimize noise emissions.





- that an adequate bridge be constructed over Sand Draw for vehicular traffic.
- that a low-water livestock crossing be maintained at the Sand Draw crossing.
- that surface disturbing activities be monitored by a qualified archaeologist to determine the presence of subsurface cultural resources.
- that construction and/or operating schedules be restricted in critical golden eagle nesting and fledgling periods.
- that overhead electric line extensions be constructed in accordance with "Suggested Practices for Raptor Protection on Power Lines - the State of the Art in 1981," Raptor Research Report No. 4.
- that existing mule deer habitat be enhanced by vegetation manipulation.

### 2.3 Alternative C - East Bank Location

Alternative C would entail the granting of a right-of-way on public lands for the construction, operation and maintenance of a natural gas processing plant for the purpose of extracting liquid hydrocarbons at a location in Rio Blanco County adjacent to Colorado Highway 139 (see Figure 6).

#### 2.3.1 Legal Description

A parcel of land containing 4.0 acres, more or less, being situated in the northwest one-quarter southeast one-quarter and the northeast one-quarter southwest one-quarter of Section 5, Township 3 South, Range 101 West, Sixth Principal Meridian, Rio Blanco County, Colorado as shown on Figure 6.

#### 2.3.2 Construction Plan

Applicant proposes to construct a hydrocarbon extraction plant of the same design and detail as Alternative A (Reference 2.1.2 and Figure 4).

The facility would be connected to Applicant's West Douglas Compressor Station in the same manner as Alternative A, except the pipelines would bear northwesterly from the compressor station, under Highway 139, across Douglas Creek and extend approximately one-quarter mile to the Alternative C location.

Vehicular access to Alternative C would be from Highway 139 along an existing unimproved access road crossing Douglas Creek in the northwest one-quarter northeast one-quarter of Section 5, Township 3 South, Range 101 West, and then southerly approximately one-half mile to the site. The road would have to be improved substantially by widening, surfacing with asphalt pavement or gravel, and major improvements at the Douglas Creek













crossing such as a bridge or installation of large culverts to maintain the flow of Douglas Creek. A low-water livestock crossing would be required at the Douglas Creek crossing and a cattle guard installed at the allotment boundary fence in the northeast one-quarter of said Section 5.

Electrical and telephone lines are not available at the site. Construction of Alternative C would require extension of both from Highway 139 easterly across Douglas Creek to the site.

2.3.3 Storage of Liquid Hydrocarbons, Transportation, Production Schedule, and Employment are the same as Alternative A (Reference 2.1.3 through 2.1.6).

2.3.4 Relationship to Other Federal Grants and Leases

The construction of Alternative C will require amendments to Moon Lake Electric right-of-way C-0102645-R/W and Mountain Bell right-of-way C-3435-R/W for electric and telephone extensions to the site.

2.3.5 Potential Conflicts with Other Resources, Etc.

Alternative C is located in a local mule deer bedding area and migration route. The project areas has been identified as critical winter range.

The Alternative C site is in undisturbed Douglas Creek alluvium with high potential for subsurface cultural resources.

2.3.6 Summary of Impacts - Alternative C

The following is a summary of potential impacts without regard to possible mitigation efforts. Construction of Alternative C:

- ° would require the removal of approximately 11 acres of native vegetation.
- ° would result in the loss of 0.73 livestock AUM annually through the life of the proposed.
- ° could result in the destruction of unknown subsurface cultural resources.
- ° will visually dominate the field of view for approximately one mile of travel along Highway 139.
- ° will increase heavy truck traffic along Highway 139.
- ° could cause short-term siltation of Douglas Creek.
- ° will decrease air quality due to fugitive dust during construction.
- ° will decrease air quality due to exhaust stack emissions.





- ° will increase noise levels in Douglas Creek.
- ° will increase state and county revenues as a result of use taxes, road use taxes, property taxes and sales taxes.
- ° will increase local business revenues (motels, restaurants, service stations, etc.).
- ° could result in liquid hydrocarbon discharge into Douglas Creek in the event of a spill or tank rupture.
- ° could result in the loss of up to 100 acres of critical winter range.
- ° would require construction of a major vehicular crossing of Douglas Creek (bridge or other method).
- ° would require construction of approximately one-half mile of access road.
- ° would require extension of electric and telephone lines.
- ° would require construction of approximately one-fourth mile of inlet, outlet and recompression pipelines (three pipelines).
- ° would displace local mule deer use due to the loss of establishing bedding grounds.

#### 2.3.7 Possible Mitigation Efforts in Relationship to Impacts

If Alternative C is selected, the following mitigation efforts could be included with standard stipulations:

- ° that prior to any surface disturbing activity, a Class III 100% pedestrian survey be conducted to determine the presence of cultural resources and recommend mitigative measures to protect any resources that are found.
- ° that the facilities to be constructed be painted a non-reflective color which blends with background coloration in order to minimize visual impacts.
- ° that during construction, the construction area be watered on an "as needed" basis to control dust from construction activities.
- ° that emissions from exhaust stacks meet federal, state and local guidelines
- ° that noise abatement devices (mufflers, insulation, etc.) be installed to minimize noise emissions.
- ° that an earthen berm be constructed around all storage facilities to contain liquids in the event of a spill or tank rupture.





- ° that surface disturbing activities be monitored by a qualified archaeologist to determine the presence of subsurface cultural resources.
- ° that overhead electric line extensions be constructed in accordance with "Suggested Practices for Raptor Protection on Power Lines - the State of the Art in 1981," Raptor Research Report No. 4.
- ° that existing mule deer habitat be enhanced by vegetation manipulation.

#### 2.4 Alternative D - No Action

The no action alternative becomes valid in the event that the selection of any of the other alternatives is not in the public's best interest because of environmental concerns.

Since the need for the proposed is considered valid, the no action alternative would require Applicant to seek non-federal lands upon which to construct the proposed facility. The scarcity of non-federal lands in the area of need (see Figure 7) would suggest that even if a suitable site for construction of the proposed could be located and acquired, the granting of rights-of-way across federal lands for ancillary facilities such as pipelines, electric and telephone lines and access roads would be required.

##### 2.4.1 Summary of Impacts - Alternative D

The impacts of Alternative D - No Action would be addressed in a separate environmental assessment should this action be selected.

#### 2.5 Comparison of Alternatives

Alternatives A, B and C would allow construction of the proposed with mitigative measures to protect the environment. Alternative D, the no action alternative, would not prevent construction of the proposed. As Applicant has indicated it will, if necessary, seek less suitable non-federal lands on which to construct the proposed and the overall potential impacts of that action could be as great or greater than those of Alternatives A, B and C.

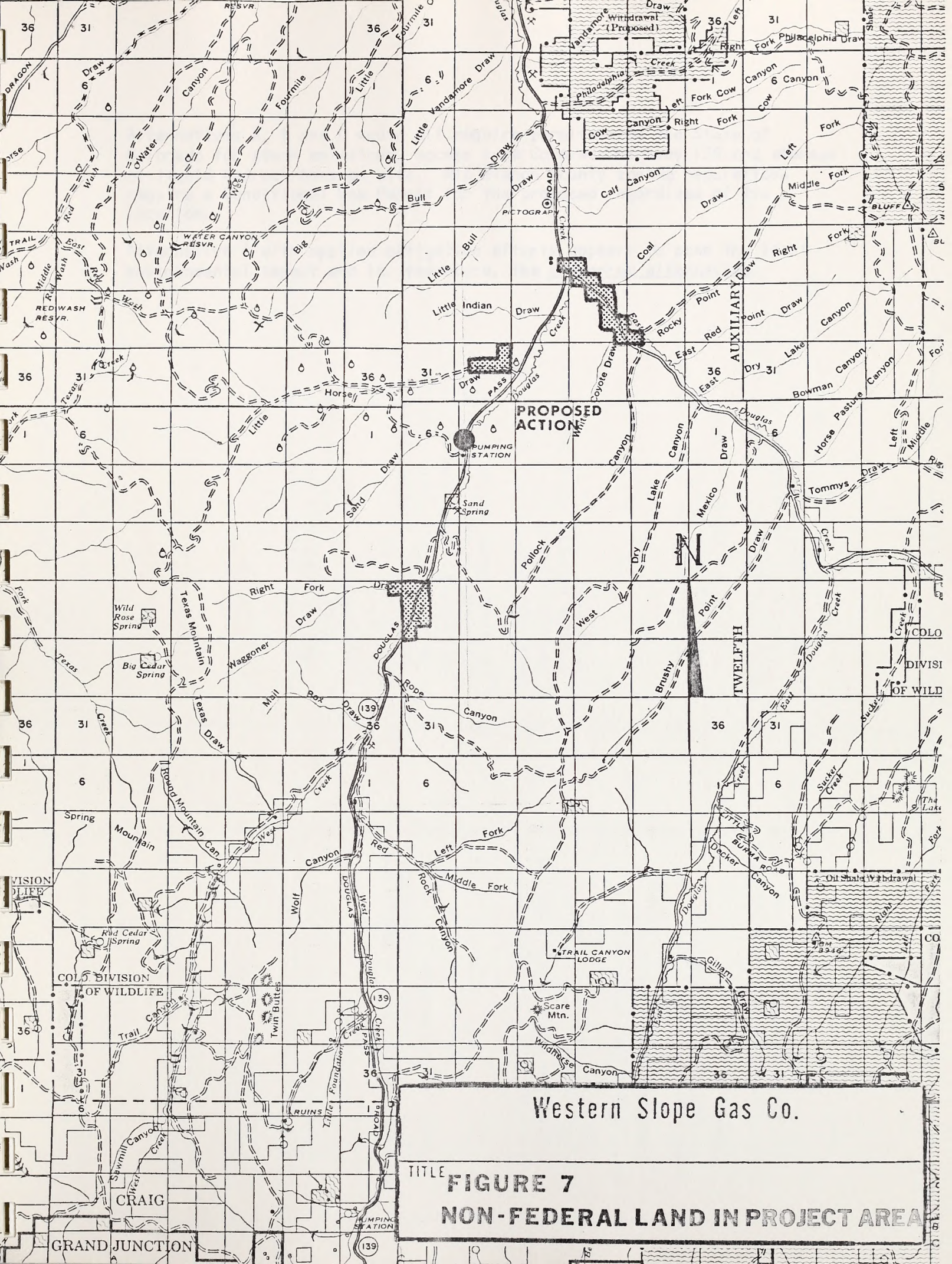
Alternative B by its location would not have the visual impact on the general viewing public that Alternative A and C by their locations along Highway 139 create, however, the impacts of the access road improvement, telephone and electric line extension and the addition of more pipelines to an already crowded corridor tend to offset the visual "benefits".

Alternative C would create the greatest visual impact of the three due to its exposure to Highway 139 and the fact that the east bank of Douglas Creek, to date, has had only minor development. In addition, the Alternative C site is prime wildlife winter forage which would be essentially eliminated by construction of the proposed and the auxiliary access road, pipelines and electric and telephone line extensions.









**PROPOSED ACTION**

PUMPING STATION

Western Slope Gas Co.

TITLE **FIGURE 7**  
**NON-FEDERAL LAND IN PROJECT AREA**

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Alternatives A, B and C would all require permits from the State of Colorado for stack emissions, access from Colorado Highway 139 and storage of liquid hydrocarbons on site. Rio Blanco County zoning regulations require a Conditional Use Permit for the proposed regardless of its location.

Alternative A with applied mitigation efforts appears to pose the least environmental impact and is, therefore, the preferred alternative.





COMPARISON OF IMPACTS & POTENTIAL MITIGATION EFFORTS

TABLE I

FORM 208 22 0210

IMPACTS	POTENTIAL MITIGATION	ALTERNATIVE
<p>Would require the removal of natural vegetation.</p> <p>Would result in the loss of livestock grazing.</p> <p>Could interrupt livestock migration routes.</p>	<p>Alternate migration routes could be designated and barriers erected to encourage livestock use of said alternate routes.</p>	<p>A, B, C</p> <p>A, B, C</p> <p>A, B</p>
<p>Could result in the destruction of unknown subsurface cultural resources.</p>	<p>That prior to construction, a 100% pedestrian survey be conducted to determine the presence of cultural resources and that all surface disturbing activities be monitored by a qualified archaeologist.</p>	<p>A, B, C</p>
<p>Will visually dominate the field of view from Highway 139.</p>	<p>That the facilities to be constructed be painted a non-reflective color which blends with background coloration.</p>	<p>A, C</p>
<p>Will increase heavy truck traffic along Highway 139.</p> <p>Could cause short term siltation of Douglas Creek.</p>	<p>That barriers be constructed to prevent spoils from entering tributaries to Douglas Creek.</p>	<p>A, B, C</p> <p>A, C</p>
<p>Will decrease air quality due to fugitive dust during construction.</p>	<p>That during construction, the construction area be watered on an "as needed" basis to control fugitive dust from construction activities.</p>	<p>A, B, C</p>





COMPARISON OF IMPACTS & POTENTIAL MITIGATION EFFORTS  
 TABLE I (Continued)---Page 2

FORM 288 22 0216

IMPACTS	POTENTIAL MITIGATION	ALTERNATIVE
<p>Will decrease air quality due to exhaust stack emissions.</p>	<p>That exhaust stack emissions meet federal, state and local guidelines.</p>	<p>A, B, C</p>
<p>Will increase noise levels in Douglas Creek.</p>	<p>That noise abatement devices (mufflers, insulation, etc.) be installed.</p>	<p>C</p>
<p>Will decrease air quality due to fugitive dust caused by heavy truck traffic along Sand Draw road.</p>	<p>That the Sand Draw road be paved or graveled from Highway 139 to the Alternate B site.</p>	<p>B</p>
<p>Will increase noise levels in Sand Draw.</p>	<p>That noise abatement devices (mufflers, insulation, etc.) be installed.</p>	<p>B</p>
<p>Would result in the loss of critical deer winter range.</p>	<p>That existing mule deer habitat be enhanced by vegetation manipulation.</p>	<p>B, C</p>
<p>Would require the granting of rights-of-way across Federal lands for extensions of electrical and telephone lines, additional pipelines and access roads.</p>		<p>A, B, C</p>
<p>Would require construction of a major vehicular crossing of Sand Draw.</p>		<p>B</p>
<p>Would require construction of a major vehicular crossing of Douglas Creek.</p>		<p>C</p>
<p>Would create a visually dominating feature in an established VRM Class IV area.</p>		<p>B</p>





COMPARISON OF IMPACTS & POTENTIAL MITIGATION EFFORTS  
 TABLE I (Continued) ---Page 3

FORM 200 22 0218

IMPACTS	POTENTIAL MITIGATION	ALTERNATIVE
<p>Would create a visually dominating feature in an established VRM Class III area.</p>		A, C
<p>Will increase State and County revenues as a result of use taxes, road use taxes, property taxes and sales taxes.</p>		A, B, C
<p>Will increase local business revenues (motels, restaurants, service stations, etc.).</p>		A, B, C
<p>Could result in liquid hydrocarbon discharge into Douglas Creek.</p>	<p>That an earthen berm be constructed to contain liquids in the event of a spill or tank rupture.</p>	A, B, C
<p>Could cause golden eagle nesting activities to be disrupted to the extent that two existing nests are abandoned.</p>	<p>That construction and/or operating schedules be restricted in critical golden eagle nesting and fledgling periods.</p>	B





# RATING CRITERIA

TABLE 2

	ALTERNATIVE A WITHOUT MITIGATION	ALTERNATIVE B WITHOUT MITIGATION	ALTERNATIVE C WITHOUT MITIGATION	ALTERNATIVE A WITH MITIGATION	ALTERNATIVE B WITH MITIGATION	ALTERNATIVE C WITH MITIGATION	COMMENTS
CLIMATE	○	○	○	○	○		
AIR QUALITY	◐	◐	◐	◐	◐	◐	
GEOLOGY	○	○	○	○	○	○	
MINERALS	○	○	○	○	○	○	
PALEONTOLOGY	○	○	○	○	○	○	
SOILS	◐	◐	◐	○	○	○	
SURFACE WATER	◐	◐	◐	○	○	○	
GROUND WATER	○	○	○	○	○	○	
FLOODPLAIN	○	○	○	○	○	○	
ALLUVIAL VALLEY FLOOR	○	○	○	○	○	○	
VEGETATION	◐	◐	◐	○	◐	◐	
MULE DEER	◐	●	●	◐	◐	◐	
GOLDEN EAGLES	○	●	○	○	●	○	
LAND USE	◐	◐	○	◐	◐	○	
CULTURAL RESOURCES	◐	◐	◐	○	○	○	
RECREATION	○	○	○	○	○	○	
VISUAL RESOURCES	◐	○	◐	○	○	○	
SOCIAL & ECONOMIC	◐	◐	◐	◐	◐	◐	*
TRAFFIC & NOISE	○	○	○	○	○	○	

KEY



NO CONSTRAINTS = 0 POINT

POSSIBLE CONSTRAINTS = 2 POINTS

SENSITIVE = 4 POINTS



BENEFICIAL; INCREASES TAXES





## CHAPTER 3 - AFFECTED ENVIRONMENT

### 3.1 Climate

The closest meteorological station to the site is located at Rangely, Colorado, approximately 22 miles north of the site on Douglas Pass Road. Records for this station are nearly continuous from June 1950, but the location of the station has moved a few times. The moves, however, are not considered to have caused a significant variation in the data.

Mean annual temperature at Rangely is 46°F, average maximum temperature is 63°F, and average minimum temperature is 29°F. Recorded high and low temperatures are 108°F and -37°F respectively. The frost-free period ranges between 66 and 157 days.

Average annual precipitation at Rangely is 9-inches. Precipitation in the region varies with elevation. Rangely is at elevation 5,290. The site is at 6,080 feet and Douglas Pass is at 8,628 feet. Average annual precipitation at the site is 14-inches and increases to 25-inches at Douglas Pass, the upper reach of Douglas Creek.

### 3.2 Air Quality

Air quality is generally very good in the project area. Fugitive dust occurs from traffic on dirt roads, especially oil and gas activities in the Douglas Creek drainage area.

National and state air quality standards limit the total amounts of these specific pollutants: carbon monoxide, lead, nitrogen dioxide, non-methane hydrocarbons, ozone, sulfur dioxide, and total suspended particulates. Areas which consistently exceed these levels due to human activities are non-attainment areas. To protect areas which are not non-attainment areas (attainment areas and unclassified areas), a system for the Prevention of Significant Deterioration (PSD) has been established. The project is in an unclassified area for total suspended particulates and ozone, and an attainment area for all other specific pollutants.

The PSD system classifies areas by the additional amounts of total suspended particulates and sulfur dioxide allowable. Class I areas, such as some national parks and wilderness areas, are areas in which even minimal additional amounts would be significant. Class II areas can accept moderate additional amounts of pollutants. The project is in a Class II area. The closest Class I area is the Flat Tops Wilderness Area, which is about 65 miles to the east. Dinosaur National Monument, 45 miles to the north, is a Class II area, but is an area of critical concern.





### 3.3 Geology

The three alternative sites are generally level. Natural soils at Alternative A are light brown to brown sandy and/or clayey silts over brown silty clay with scattered thin lenses of sand. Alluvial material is found in deeper layers in Douglas Creek. The clays extend downward to the Mancos Formation of Cretaceous age. The Mancos Formation consists of black marine shale. The sandstone cliffs are part of the Hunter Canyon Formation. The Mancos Formation and the Hunter Canyon Formation are both part of the Mesa Verde group.

Faults are present in the area but none are active. This is a low seismic activity zone.

### 3.4 Minerals

All three alternative sites are within a well recognized natural gas field, approximately 18 miles south of the Rangely oil fields. Oil has not been developed in the project area. Coal, oil shale, or other critical mineral resources have not been identified in the project area.

### 3.5 Paleontology

No significant vertebrate or floral fossils are known to occur, or are expected at the project site. The site is in an area which is part of the Mesa Verde formation which is almost void of fossils.

### 3.6 Soils

A soils survey of the region has recently been prepared by the Soil Conservation Service. The soil group in the area of all three sites is Tisworth fine sandy loam (see Figure 8). This is a deep, well drained soil normally found on valley floors and broad fans. It is formed in alluvium derived dominantly from sedimentary rock with a high content of gypsum and alkaline salt.

Native vegetation on this type of soil is mainly salt-tolerant shrubs and grasses. Greasewood and sagebrush plant communities are normally found.

These soils erode easily by wind and water. Revegetation of these soils may be difficult due to low precipitation in summer, alkalinity, and erosion potential.

### 3.7 Hydrology

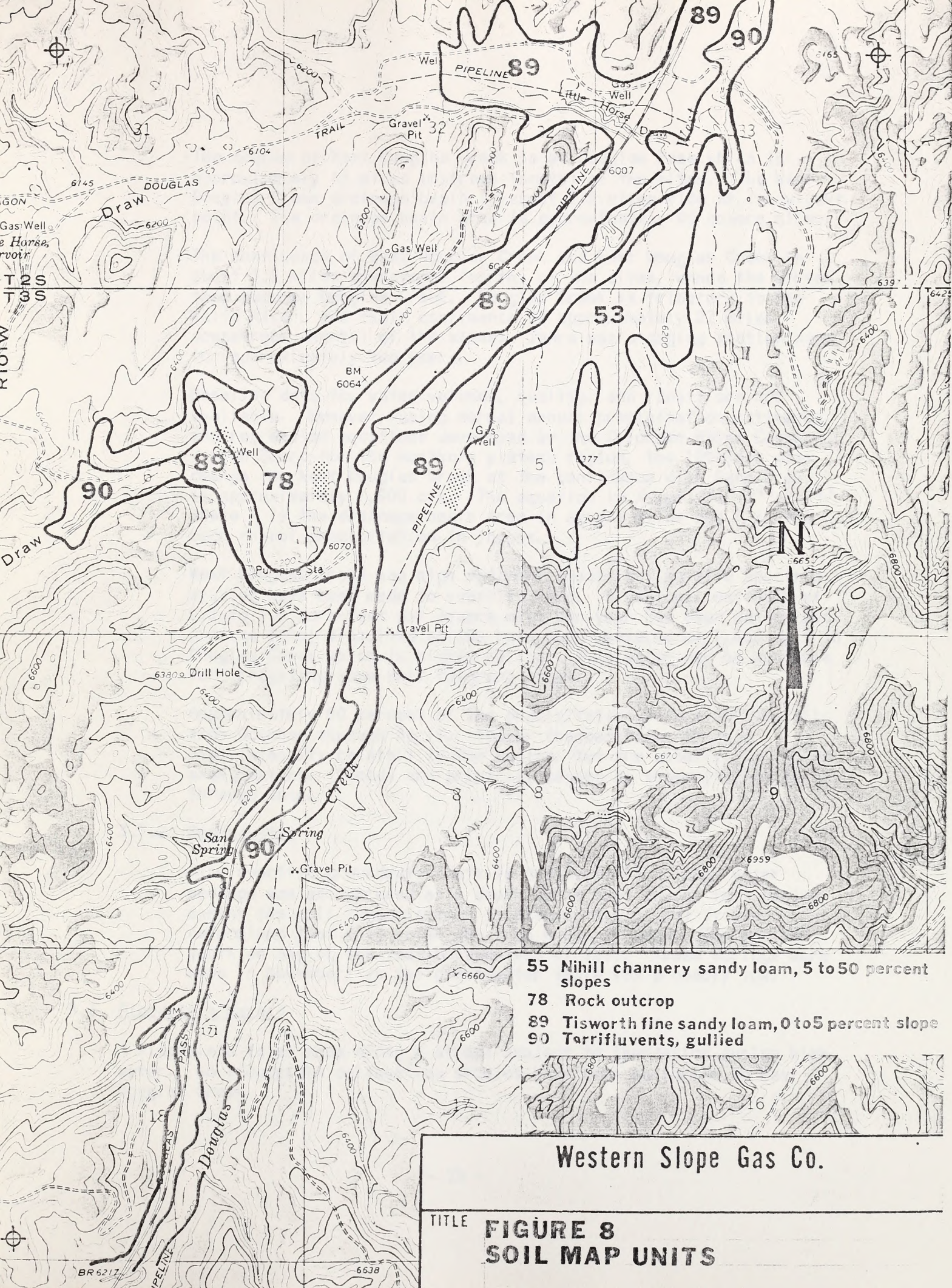
#### 3.7.1 Surface Water

All three sites are within the West Douglas Creek drainage basin. Alternatives A and C are directly tributary to West Douglas Creek. Alternative B is tributary to Sand Draw which drains into West Douglas Creek.

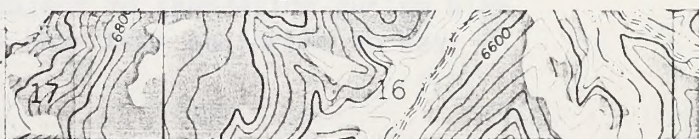








- 55 Nihill channery sandy loam, 5 to 50 percent slopes
- 78 Rock outcrop
- 89 Tisworth fine sandy loam, 0 to 5 percent slope
- 90 Tarrifluvents, gullied



Western Slope Gas Co.

**TITLE** **FIGURE 8**  
**SOIL MAP UNITS**





The source of West Douglas Creek is at Douglas Pass which is approximately 15 miles upstream (south) of the sites. The West Douglas Creek drainage basin is about 7.5 miles wide at its widest point. The drainage basin area is approximately 89 square miles.

The confluence of West Douglas Creek and East Douglas Creek is about 3.5 miles downstream (north) of the sites, where the stream then becomes Douglas Creek. Douglas Creek is tributary to the White River, and their confluence is approximately 22 miles downstream (north) of the sites. There was a gaging station here for approximately two years.

Baseline data for water volumes, quality, and runoff are not available. However, using normal annual precipitation estimates and regression equations developed by the Colorado Water Conservation Board for the northern plateau region, the 100-year discharge for West Douglas Creek at the confluence with Sand Draw is approximately 1,900 cfs. The equation is  $Q_{100} = 135A^{0.494}P^{0.143}$  where A is the drainage basin area in square miles and P is the mean annual precipitation in inches.

West Douglas Creek has high sediment loads, but no site specific studies have been made to quantify this. A regional estimate of 0.5 to 1.0 acre-feet per square mile per year has been determined. Average total dissolved solids have been measured at 1,852 mg/l in Douglas Creek which is highly saline. This water may be suitable for irrigating some salt tolerant crops.

Approximately 60 percent of the precipitation occurs as snowfall from October through April. Summer thunderstorms produce high-intensity rainfall in the region, but are usually limited in areal extent. Floods are primarily caused by snowmelt from April through June.

### 3.7.2 Groundwater

Site specific groundwater data is not available. Some water seepage was encountered at a depth of 14 feet in one test boring during the soil investigation at Alternative A, but it was determined that this water was from a nearby pond. The maximum depth on any of the test borings was 47 feet. These borings were made in November, so the groundwater table was probably low.

### 3.8 Floodplain Hazard

A floodplain is an area along a stream subject to inundation during high water. No floodplain delineation studies have been performed on West Douglas Creek.





The Colorado Water Conservation Board has developed a regression equation for estimating flood depth as a function of streambed slope. Using this equation, the 100-year floodplain depth is approximately 4.8 feet on West Douglas Creek. All three alternative sites are above this floodplain elevation. The equation is  $D_{100} = 17.2S_s - 0.310$  where  $S_s$  is the streambed slope in feet per mile.

### 3.9 Alluvial Valley Floors

An alluvial valley floor is an topographically low area with a thick layer of unconsolidated sediment which receives runoff moisture from upland areas. This moisture and the generally gentle slopes makes some of these areas suitable for subirrigated or floor irrigated agricultural production principally hay meadows. The West Douglas Creek Valley is not considered to have a sufficient quantity of groundwater to qualify as an alluvial valley floor.

### 3.10 Vegetation

The three alternative sites are on either sagebrush or greasewood, characteristic of valley bottoms (see Figure 9). No threatened or endangered plant species have been identified in this area.

Sagebrush stands are characterized by mixed high and low growing shrubs dominated by big sagebrush with a wide variety of understory grasses and forbs. Major plant species associated with sagebrush below 7,000 feet are western wheatgrass, Indian ricegrass, Colorado wildrye, and needle-and-thread.

Greasewood is most prevalent on deep, poorly drained, alluvial saline-alkaline soils at elevations below 6,600 feet. Greasewood is the dominant plant in this group, and the amount of understory vegetation varies with the density of the greasewood stand. Major plant species associated with greasewood are big sagebrush, shadscale, rubber rabbitbush, western wheatgrass, cheatgrass, mustard, and Russian thistle.

### 3.11 Wildlife

No threatened or endangered species of wildlife are known to inhabit the area in close proximity to the project site. The two species of primary concern at this site are mule deer and golden eagle.

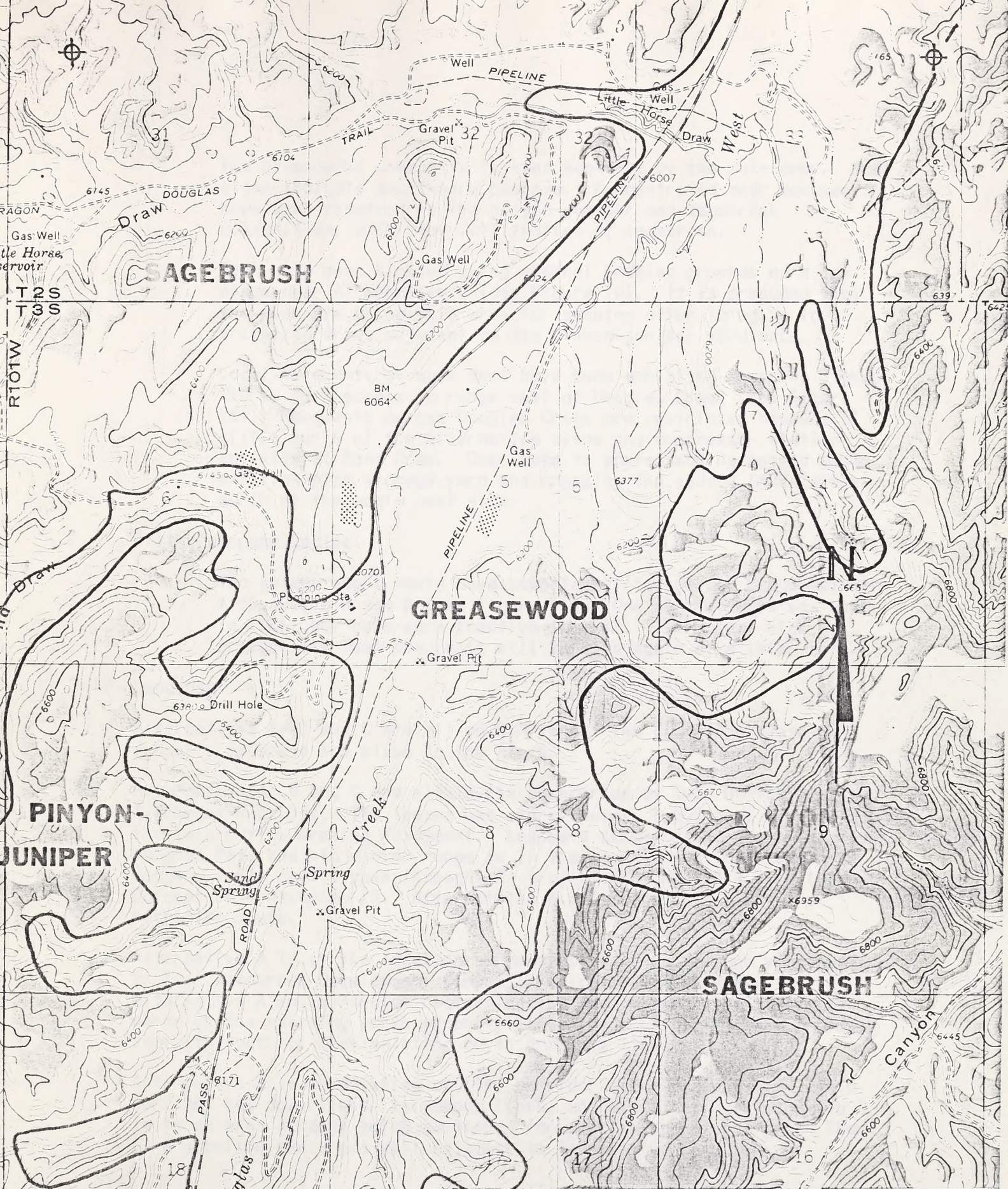
#### 3.11.1 Mule Deer

The project site falls within an area identified as critical winter range for mule deer. The winter season is December 1 - March 31. Critical winter range is an area essential to the winter maintenance of a given population which, if modified, could result in the loss of a significant portion of that particular population.









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TITLE **FIGURE 9**  
**VEGETATION TYPES**





The greasewood community is used scantily by the mule deer. Most signs indicate short-term passage. Concentrated deer movements have been observed in the pinyon-juniper and sagebrush communities, with heavy utilization of sagebrush.

Deer have been sighted using diurnal bedding grounds on a low ridge near Alternative C (see Figure 10). It is presumed that the deer are using this area for sunning after foraging in protected draws adjacent to the pinyon-juniper woodlands.

Local movements of mule deer have been exhibited crossing Highway 139 to gain access to range west of Douglas Creek (see Figure 10). Movements across Douglas Creek are restricted because of cliffs north of the alternative sites and compressor station activity at Sand Draw. Deer seem to prefer moving behind the existing pipe storage yard and crossing the saddle immediately north of the eagle nest site.

### 3.11.2 Golden Eagles

Two golden eagle nests have been identified on the ridge between Alternative A and B (see Figure 11). One of the nests was used in 1981, but both were inactive in 1982. There is a high probability that the nests will be used again at a later date.

### 3.12 Land Use

Alternatives A, B and C are all on BLM land. The closest private property is about 1.5 miles to the north.

Alternative A, B and C are within the boundaries of Twin Buttes Grazing Allotment No. 6354. The lessee has approximately 1,000 head of cattle on the Twin Buttes Grazing Allotment. Lessee's summer range is up towards Douglas Pass and his winter range is in the lower elevations near Rangely. His cattle pass through the project area May 15 - June 10 and October 10 - November 20. Alternatives A and B are both along the migration route.

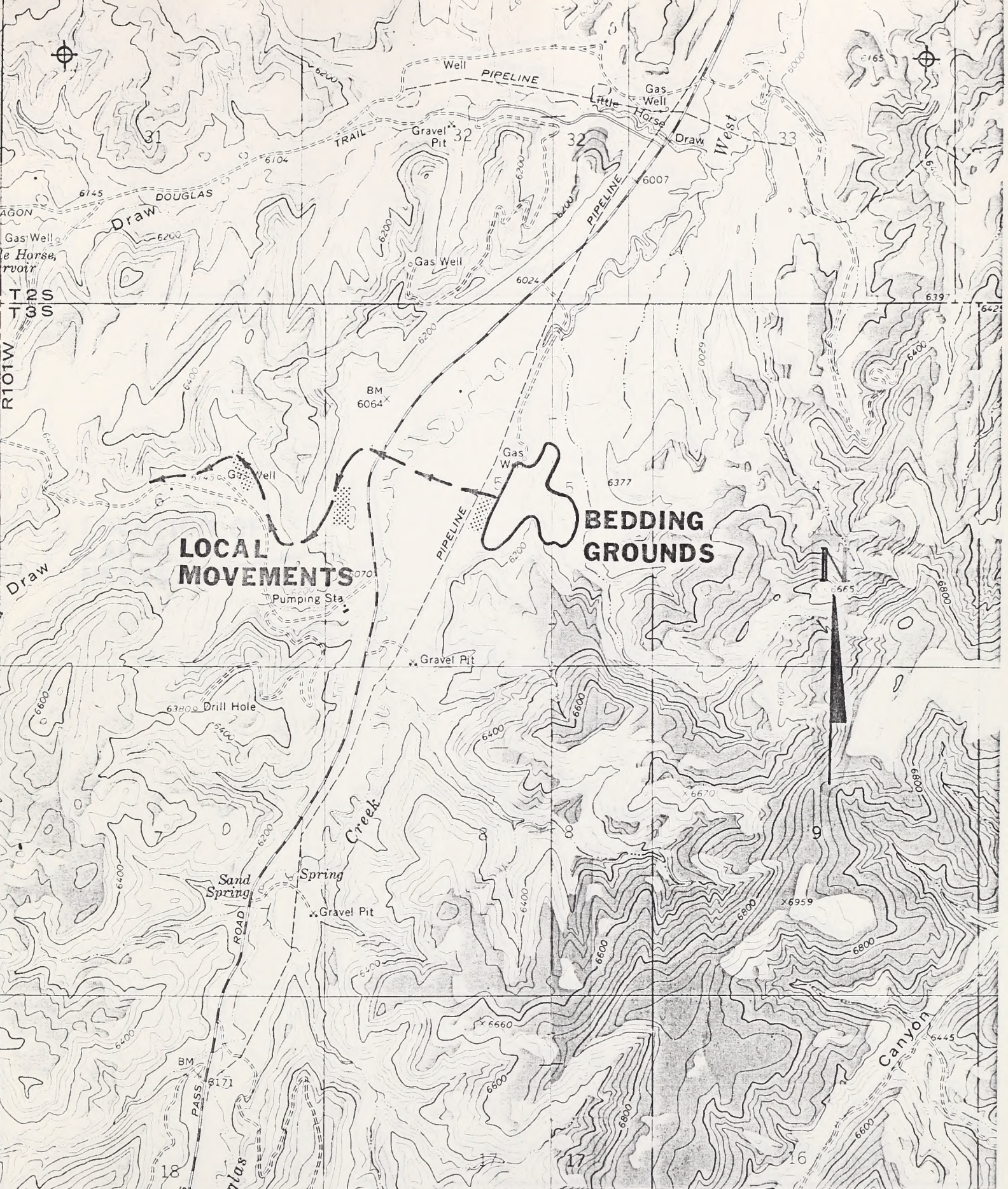
Alternative A is at the location of an existing pipe storage yard owned by Fuel Resources Development Company (Fuelco) (C-28171-R/W). Alternative A would require relocating the Fuelco yard to a location north of the existing north property line, and constructing the proposed facility south of that existing north property line.

Alternative A is an existing utility corridor along Highway 139. This corridor has powerlines, telephone lines, and pipelines. Alternative A is in an area already being developed for processing natural gas. There is a pipeline and a gas well adjacent to Alternative C.









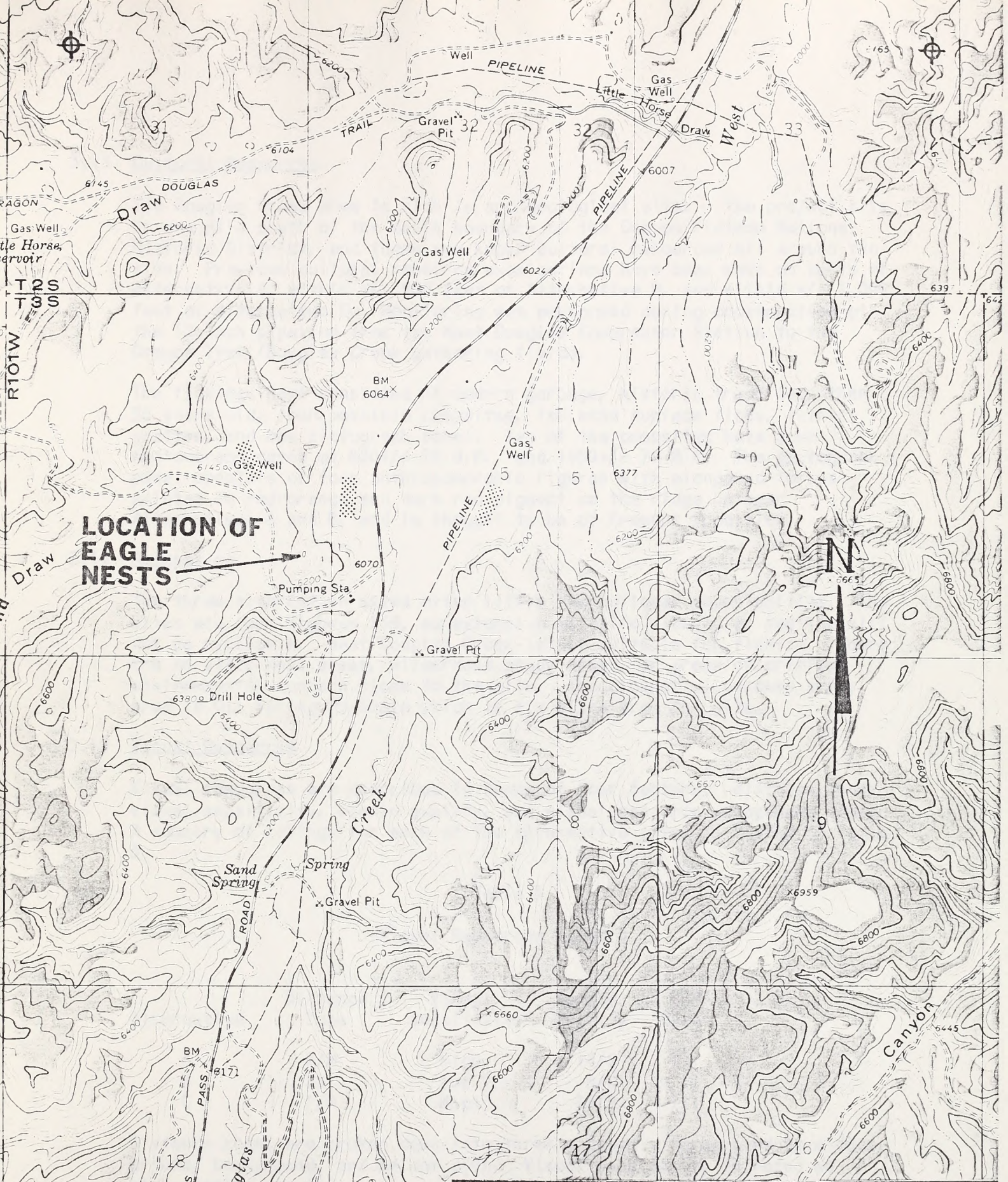
Western Slope Gas Co.

TITLE **FIGURE 10**  
**LOCAL MULE DEER MOVEMENTS**









Western Slope Gas Co.

TITLE **FIGURE 11**  
**LOCATION OF EAGLE NESTS**





### 3.13 Cultural Resources

The Douglas Creek area is rich in archaeological sites. The project site is one mile south of the south boundary of the Canyon Pintado National Historic District, and there are known cultural resources all around the site. Previous cultural resource examinations have been made on parts of Alternative A, within +/- 500 feet of Alternative B, and within +/- 1,000 feet of Alternative C. Monitoring was performed during construction of the 12-inch pipeline from the West Douglas Compressor Station to the Dragon Trail/Douglas Creek gathering fields.

The findings have consisted of modern garbage, historic trash less than 50 years old, four possible campsites, isolated surface finds, lithic scatter, and one pictograph panel. Two of the campsites have been radiocarbon dated as 880+/- 70 B.P. and 1950+/- 70 B.P. The pictograph panel consists of four anthropomorphic figures with elongated torsos painted in red-orange and dark red pigment on the ridge between Alternatives A and B, and is thought to be of Fremont tradition.

### 3.14 Recreation

The three alternative sites offer little recreational opportunities. The sites are near Highway 139, so extensive wildlife viewing or hunting will not be available. West Douglas Creek is not suitable for fishing. There are no wilderness areas, wilderness study areas, or areas of critical environmental concern close to the site. The closest wilderness study area is Oil Spring Mountain which is six miles from the site.

### 3.15 Visual Resources

Visual resources are described in terms of four factors: distance zones, visual sensitivity, scenic quality, and visual resource management class. A summary of ratings for each of the alternative sites is listed in Table 3.

Table 3

Visual Resources Summary

Alternative	Distance Zone	Visual Sensitivity	Scenic Quality	VRM Class
A	F/M	High	14/B	III
B	SS	Low	8/C	IV
C	F/M	High	14/B	III

Distance zones are broken down into three classes: foreground to middle ground, background, and seldom seen. Visual sensitivity is rated as high, medium and low.





Scenic quality is given a number and letter designation. The number rating is a description of the character of each landscape discussing the four basic elements of form, line, color and texture. Alternatives A, B and C all lie within the Rangely Planning Unit. Applicable Scenic Quality Rating Units are described below.

- (8) This unit is characterized by rolling to occasionally steep hills. Numerous rock outcrops occur within the unit but generally do not create much interest due to their small scale. Vegetation is dominated by relatively dense stands of pinyon/juniper trees. Sagebrush and mountainbrush exist in the unit but are generally obscured by the pinyon/juniper stands. Line is dominated by the drainages, vegetation changes, and skyline. A number of primitive roads occur in the unit creating additional line dominant features. Texture is generally coarse in the foreground and medium in the middle ground.
  
- (14) The landform in this landscape is characterized by low, flat meandering floodplains. Deep washes or arroyos are common. Vegetation consists primarily of sagebrush and greasewood. Water is present but seldom seen. Line is dominated by the meandering creek bottom and soil banks or bluffs. Texture is medium in the foreground and fine in the middle ground.

The letter designation for scenic quality is based on an inventory and evaluation of these key factors: landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modifications. Based on a weighted rating criteria, the site is given a score and put into one of the three following classes:

- (A) Areas that combine the most outstanding characteristics of each rating factor.
- (B) Areas in which there is a combination of some outstanding features and some that are fairly common to the physiographic region.
- (C) Areas in which the features are fairly common to the physiographic region.

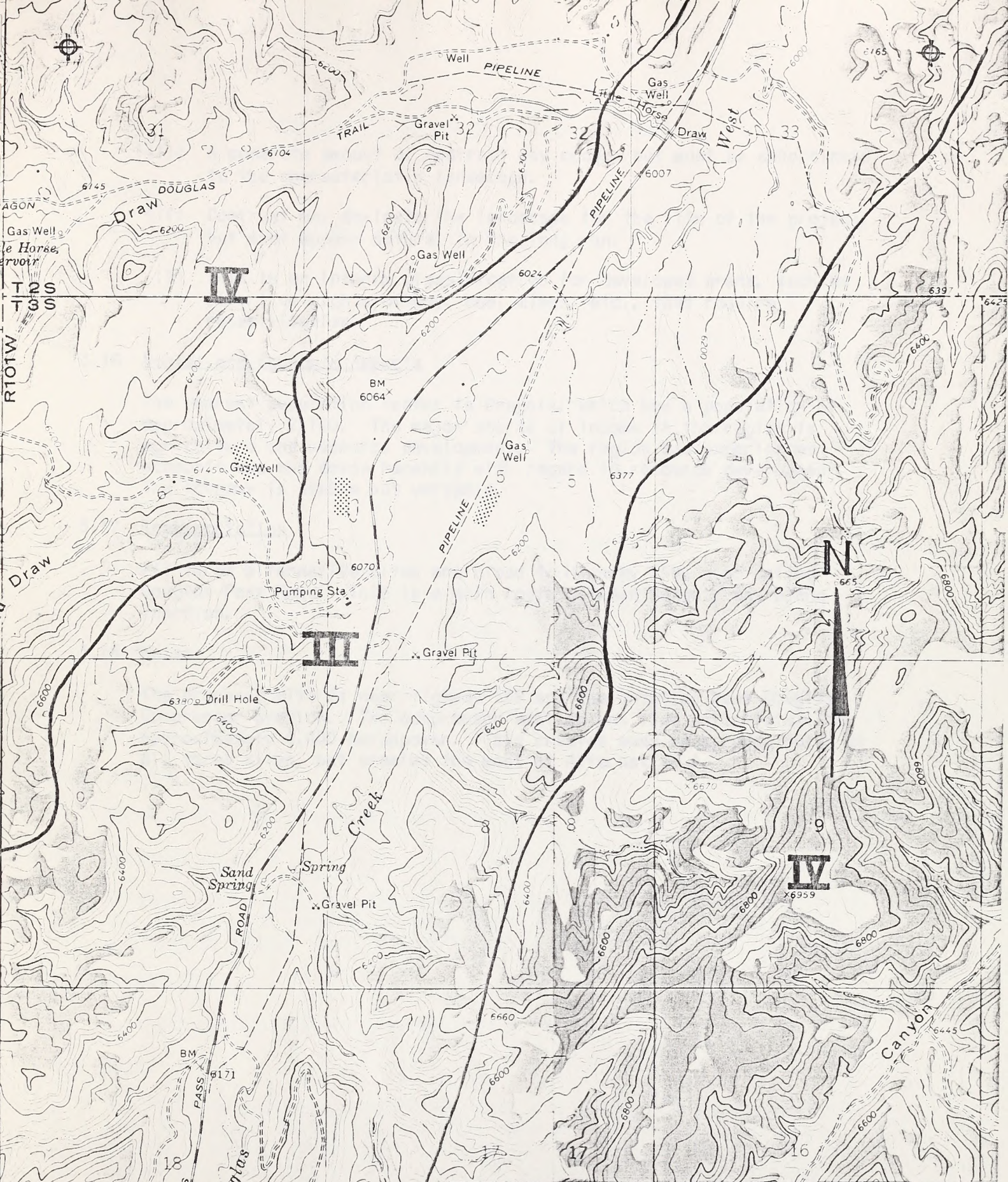
The visual resource management classes describe methods in which to manage the use of land (see Figure 12). Methods of management are described below:

- (I) This class applies only to designated wilderness or natural areas. It allows for natural ecological changes only.
- (II) Changes may occur, but must not be evident to the casual observer. They should give the appearance of natural occurrence.









Western Slope Gas Co.

TITLE **FIGURE 12  
VISUAL RESOURCE  
MANAGEMENT CLASSES**





- (III) A moderate amount of contrast may occur, but must be subordinate to the characteristic landscape.
- (IV) Contrast may dominate the landscape for the life of the project, but must appear natural in the long run.
- (V) This is an interim classification for developed areas, such as powerline rights-of-way, coal mines, etc., that require rehabilitation.

### 3.16 Social and Economic Aspects

The nearest population center is Rangely, which has a population of approximately 2,100. The major source of income in the region is agriculture and resource development. The region has experienced economic ups and downs recently with regard to resource development. The economy is stable but variable.

### 3.17 Transportation

All three alternative sites are close to Highway 139, also called Douglas Pass Road. This is a main route between Rangely and Grand Junction.

### 3.18 Noise

The proposed site is near Highway 139 and the existing West Douglas Compressor Station. The compressor station has five units totalling approximately 4,000 horsepower. This creates some background noise at all three sites, but creates the most at Alternative A.





## CHAPTER 4 - ENVIRONMENTAL CONSEQUENCES

### 4.1 Climate

Regional or local climatic changes due to construction of the hydrocarbon plant are not probable.

### 4.2 Air Quality

The plant will consist of two 293 horsepower engine compressors, one heater, one emergency electric generator and one blowdown vent to purge the station during shutdowns. Colorado Department of Health regulations state that sources of minor significance may be exempted by the Air Pollution Control Division from permit requirements. In addition, stationary internal combustion engines less than 1,000 horsepower in ozone attainment areas and emergency electric generators are exempt from permit requirements. Therefore, the only components of the plant for which a determination needs to be made are the heater and the vent.

The emissions of the natural gas fired heater will be 0.8 tons per year of NO<sub>x</sub> and 0.02 tons per year particulate matter based on information supplied by the heater supplier. The vent will be used at most twice per year and will release 50 pounds or 0.05 tons per year. The Air Pollution Control Division has made a preliminary determination that these emissions are of minor significance, and no permits will be necessary.

A short term impact will be increased levels of fugitive dust during construction. Once construction is completed, fugitive dust will return to existing levels.

### 4.3 Geology

No major adverse impacts are expected.

### 4.4 Minerals

No major adverse impacts are expected. Gas is already being withdrawn in the project area. Construction of the hydrocarbon plant will prevent drilling of another well, but USGS spacing criteria precludes this anyway.

### 4.5 Paleontology

No major adverse impacts are expected.

### 4.6 Soils

The soils at all three alternative sites are susceptible to erosion from wind and water. This will be a short term problem during construction. Available topsoil at the selected site will be stripped, stockpiled, and stabilized. The site will be gravelled within the perimeter fence and disturbed areas outside the fence will be recontoured and seeded with





native grasses. There is no prime or unique farmland at any of the alternative sites.

#### 4.7 Hydrology

##### 4.7.1 Surface Water

During construction, surface runoff over disturbed areas will increase sediment loads in Sand Draw and West Douglas Creek. Once the site is gravelled and revegetated, sediment loads will return to existing levels.

The buildings on the site will cause a small increase in the amount of impervious area. The gravel surfacing will cause no substantial change from existing conditions. Overall there is no significant adverse impact to surface runoff quantity.

##### 4.7.2 Groundwater

No major adverse impacts are expected. Some minor increase in flooding may occur during large storms due to the location of Alternative A.

#### 4.8 Floodplain Hazard

No major adverse impacts are expected.

#### 4.9 Alluvial Valley Floors

No major adverse impacts are expected.

#### 4.10 Vegetation

The only impact on vegetation will be removal of native vegetation at the project site. Alternative A will require the least amount of disturbance (5 acres), since the Fuelco yard currently is in this area. Alternative B will require the disturbance of 8 acres of native vegetation. Alternative C will require the disturbance of 11 acres of native vegetation.

#### 4.11 Wildlife

##### 4.11.1 Mule Deer

Impacts of development on deer fall into four categories: direct habitat loss, indirect habitat loss, behavioral changes, and human population related factors. Direct and indirect habitat loss are the only impacts which will be considered in the analysis of the environmental consequences of the alternatives for this project.





Direct habitat loss occurs from the actual areas rendered useless or removed from access by the animals. Indirect habitat loss results from avoidance of the area due to human activity.

Behavioral changes may be expected in deer when they get accustomed to human activities. In light of the fact that Highway 139 (Douglas Pass Road) and the West Douglas Compressor Station are close to all the alternative sites, additional behavioral changes should not be expected.

Human population related factors generally come into play when there is an increase in population in the area. The plant will be maintained by existing personnel at the compressor station. The only increase will be the 7 - 20 workers on site during the construction period. There will be no significant change in the impact of human population.

Indirect habitat loss could occur on a temporary basis at all three sites if construction activities coincide with winter grazing. Indirect habitat loss via avoidance would persist throughout the operational life of the station due to human activity, truck traffic, etc.

Alternative A will probably have no impact on habitat loss for critical winter range. Although this site is within the general area defined as critical winter range, this specific location is currently subject to a great deal of human activity. It is adjacent to Highway 139 and the existing compressor plant. This site in particular is probably not critical winter range. The site is, however, located in a location that could, without proper consideration, interfere with local mule deer movements.

Alternative B is critical winter range. This area is protected from activities on Highway 139 by the ridge. Construction of the hydrocarbon plant in this location could result in a combination of direct and indirect habitat loss of approximately 50 acres due to the removal of the plant site acreage from habitat, plus additional indirect loss due to daily activity and traffic in the area.

Alternative C is critical winter range. Although it is not screened from the highway, it is at a minimum a quarter mile off the highway. If the plant is constructed at this site, it will probably remove directly or indirectly, 100 acres between the site and Highway 139, as well as the area to the east of the site, from critical winter range. This would also eliminate a known bedding ground.

#### 4.11.2 Golden Eagles

If Alternative B is constructed, activity in close proximity to the existing nests could result in nest abandonment, disrupted nest visitation or expellment of pre-fledged young. The construction and operation of the plant will probably not cause direct damage to the





nests. Alternatives A and C will not cause any problems to the eagles.

#### 4.12 Land Use

Existing land use plans for the project areas are the White River Resource Area Grazing Management Plan, White River Resource Area Management Framework Plan, Coal Amendment to White River Resource Area Land Plan, and Rio Blanco County Land Use Regulations. Alternative A is consistent with these existing land use plans. It is a utility corridor and close to an existing industrial site.

Alternatives B and C are consistent with the overall land use plans for the area. They will, however, conflict to a minor degree with grazing use if constructed. Alternative B may interfere with cattle migration. Cattle are reluctant to pass closely to areas with a high degree of human activity.

The number of acres removed from cattle grazing (0.33 AUM for Alternative A, 0.52 AUM for Alternative B, and 0.73 AUM for Alternative C) is not the critical issue. What is important is how the site affects herd movement. Right angles on fence lines may confuse cattle and they may refuse to move around the corner to proceed with migration.

Cattle currently pass by the Alternative A area. Migration occurs along Sand Draw and cattle cross the highway north of the Fuelco pipe yard.

The area west of the ridge near Alternative B is sometimes used by lessee as a holding area for cattle during migration. Constructing the plant at Alternative B will impact this area by activity at the plant and by increased truck traffic on the road along Sand Draw.

#### 4.13 Cultural Resources

All three alternative sites have relatively equal potential for the discovery of cultural materials. These materials may be found on the surface or during excavation for foundations and pipelines. Impacts to archaeological sites cannot be completely analyzed without, at a minimum, a Class III 100% pedestrian survey of the sites. In addition, if the surface inventory did not indicate the possibility of an existing subsurface feature, that feature could be destroyed during excavation.

There is a potential for secondary or residual impacts on the pictograph panels as a result of increased activity at Alternative B. Although activity will increase in the vicinity, the site itself is off the road and inconvenient to get to during normal workday activities.

#### 4.14 Recreation

No major adverse impacts are expected.





#### 4.15 Visual Resources

Alternative A is in a visually sensitive area, but the pipe storage yard is already at the site. The West Douglas Compressor Station is very close to Alternative A. Alternative B is out of sight from the general public. Alternative C is not as prominent as Alternative A, but is certainly more visible than Alternative B. There is an existing pipeline at the site. In all cases, the hydrocarbon plant will dominate the view.

Alternatives B and C will require more disturbance to existing terrain than Alternative A. Putting the hydrocarbon plant at Alternative A will keep industrial operations in one compact area. Utilities will have to be extended to B, but they already exist at A. More vegetation must be removed at B and C. Three new pipelines are required between the compressor station and the hydrocarbon plant. These pipes can run along an existing pipeline corridor at Alternative A, but will create a new disturbance at B and C. In addition, Highway 139 must be excavated to get the pipes to Alternative C. Road improvements must be made for Alternative B, and a new road and bridge over West Douglas Creek must be constructed for Alternative C.

#### 4.16 Social and Economic Aspects

There will be a short term population increase during construction. Once constructed, the plant will be operated and maintained by existing personnel.

Only a small amount of the construction materials, primarily gravel and concrete, will be purchased locally. Most of the new plant will be prefabricated elsewhere.

The proposed hydrocarbon plant will increase tax revenues. Anticipated increases are for property, use, sales, and road use taxes.

#### 4.17 Transportation

Truck traffic will increase by three trucks per day for all three sites. Highway 139 is currently well below capacity, and this increase is not considered significant.

#### 4.18 Noise

Short term increases in noise levels during construction are expected as a result of heavy equipment operation. Because of the short term (60 - 80 days), these are not considered significant.

The longer term noise level increases from operation of the facility will be perceptible at the plant perimeter, however, outside the plant perimeter, the noise from the proposed will most likely be masked by noises from other sources (traffic and the West Douglas Compressor Station).





## CHAPTER 5 - UNAVOIDABLE ADVERSE IMPACTS

When the hydrocarbon plant is constructed, it will be impossible to avoid some adverse impacts. These impacts vary with each alternative.

Constructing the plant at Alternative A will cause a visual impact to a Class III VRM area. There will also be a loss of 5 acres of native vegetation and some loss or dilution of topsoil.

Constructing the plant at Alternative B will cause a visual impact to a Class IV VRM area. There will be a loss of 8 acres of native vegetation and some loss or dilution of topsoil. Approximately 50 acres could be removed from critical winter range for mule deer. It could also result in nest abandonment, disrupted nest visitation or expellment of pre-fledged young golden eagles.

Constructing the plant at Alternative C will cause a visual impact to a Class IV VRM area. There will be a loss of 11 acres of native vegetation and some loss or dilution of topsoil. Approximately 100 acres could be removed from critical winter range for mule deer. This would also eliminate a known bedding ground for mule deer.





## CHAPTER 6 - IRREVERSIBLE/IRRETRIEVABLE COMMITMENT OF SOURCES

There will be a minimum amount of irreversible or irretrievable commitment of resources at all three sites. If archaeological sites are disturbed during construction, this cultural resource would be irretrievably lost. The road construction required for Alternatives B and C will be an irretrievable loss of soil productivity.





## CHAPTER 7 - SHORT TERM USE VS. LONG TERM PRODUCTIVITY

All three alternative sites will cause a short term loss of productivity. The expected functional life of the hydrocarbon plant is 30 years. When the plant is decommissioned with proper reclamation, the long term productivity of the site could be increased.





## CHAPTER 8 - CUMULATIVE IMPACTS

Cumulative Impacts are those impacts on the environment which result from the incremental impact of the action when added to the other past, present, and reasonably foreseeable future actions occurring in the same general area. As a result of the construction of the hydrocarbon plant, there will be some diminishment of aesthetic values due to incremental and cumulative changes in landscape character caused by increased industrialization even after mitigation methods have been applied.





CHAPTER 9 - PUBLIC INTEREST

No public interest in this project has been expressed. The Rio Blanco County Planning Commission has approved the implementation of Alternative A.

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