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Technical Note 399

Analyses of Natural Gases, 1994-95

By J.E. Hamak and D.L. Driskill
December 1996

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ANALYSES OF NATURAL GASES, 1994-95

J.E. Hamak¹ and D.L. Driskill²

ABSTRACT

This publication contains analyses and related source data for 160 natural gas samples from 16 states. Of the total samples, 149 were collected during calendar years 1994-95. The remainder were collected earlier, but releases granting permission to publish were not received until 1995. None of the analyses have been previously published in annual reports. All samples were obtained and analyzed as part of U.S. Department of the Interior, Bureau of Land Management investigations of the occurrences of helium in natural gases from countries with free-market economies. This survey has been conducted since 1917. The analyses published herein were made by mass spectrometer and chromatograph.

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INTRODUCTION

This Bureau of Land Management publication contains analyses and related source data for 160 natural gas samples from 16 states. None of the analyses have been previously published in annual reports. All samples were obtained and analyzed as part of the Bureau of Land Management's investigations of the occurrences of helium in natural gases from countries with free-market economies. This survey has been conducted since 1917. The analyses published herein were made by mass spectrometer and chromatograph.

The results of these investigations are published annually to make the information available to the petroleum industry and the general public. Forty publications have presented the results of 15,731 gas analyses made through 1993. The first three bulletins (1-3)³ contain analyses and related source data on 5,218 gas samples collected from 1917 through 1960; these bulletins have been supplemented annually by information circulars (4-17, 19-24, 26-30, 32-36, 38-40) containing 10,513 analyses of samples collected since 1960.

In 1976, a compilation of the analyses made prior to 1975 was prepared by the U.S. Bureau of Mines and published by the National Technical Information Service of the U.S. Department of Commerce (18). The 1976 compilation contains 10,562 analyses of gas samples from gas and oil wells and natural gas pipelines in 37 states and 23 foreign countries.

Three other compilations of analyses have been published (25, 31, 37) by the U.S. Bureau of Mines. The first of these was published in 1982 and contained analyses made prior to 1981. The 1982 publication contains 12,554 analyses of gas samples from gas and oil wells and natural gas pipelines in 39 states and 24 foreign countries and includes the analyses from the 1976 publication (25). The second of these compilations was published in 1987 and contains 14,242 analyses made prior to 1986. The samples were taken from wells or pipelines in 40 states and 24 foreign countries (31). In 1991, a compilation was completed as a supplement to the 1987 publication and contains all analyses published from 1986 through 1990. The 1991 publication contains 920 samples from gas and oil wells and pipelines in 26 states and 2 foreign countries (37).

In addition to being in the publications, all analyses and related information published through 1995 are available on a magnetic tape file and 3.5-inch diskettes. The tape and diskettes are available from the National Technical Information Service, Springfield, VA 22161, telephone No. 1-800-553-NTIS; orders should refer to Bureau of Land Management tape PB 94-504412. There are 10 diskettes available; diskette PB 93-504795 contains all available analyses, seven other diskettes contain analyses from various regions of the United States, one diskette contains foreign analyses, and one diskette contains historical analyses of samples collected prior to 1951.

The helium survey program is conducted by soliciting natural gas samples throughout the United States and other countries with free-market economies. Without the assistance of the petroleum industry, State and Federal agencies, and many individuals engaged in oil and gas exploration and production, the helium survey in its present scope would not be possible.

³Italicized numbers in parentheses refer to items in the list of previous publications at the end of this report.

GEOLOGIC PROVINCES OF THE UNITED STATES

The tables include geologic province codes so each sample source can be located within a specific geologic province as defined by the Committee on Statistics of Drilling of the American Association of Petroleum Geologists.⁴ These provinces, which are given in the following list and shown in figure 1, are delineated by political boundaries for convenience and for accommodation of data processing equipment. Not all of the provinces shown are gas-producing areas, so many of the codes are not used in this publication. Since State or Federal ownership is not always known in offshore areas, only one code is used for each state. Because of the lack of information on the location of wells in Alaska, only one code, 972, is used for all wells.

The following list and figure 1 are taken from the article cited in footnote 4:

Code	Province
100	New England Province
110	Adirondack Uplift
120	Atlantic Coast Basin
130	South Georgia-North Florida Sedimentary Province
140	South Florida Province
150	Piedmont-Blue Ridge Province
160	Appalachian Basin
200	Black Warrior Basin
210	Mid-Gulf Coast Basin
220	Gulf Coast Basin
230	Arkla Basin
240	Desha Basin
250	Upper Mississippi Embayment
260	East Texas Basin
300	Cincinnati Arch
305	Michigan Basin
310	Wisconsin Arch
315	Illinois Basin
320	Sioux Uplift
325	Iowa Shelf
330	Lincoln Anticline
335	Forest City Basin
340	Ozark Uplift
345	Arkoma Basin
350	South Oklahoma Folded Belt Province
355	Chautauqua Platform
360	Anadarko Basin
365	Cherokee Basin
370	Nemaha Anticline

⁴Meyer, R.F. Geologic Provinces Code Map for Computer Use. AAPG Bull., v. 54, No. 7, July 1970, pp. 1301-1305.

Code	Province
375	Sedgwick Basin
380	Salina Basin
385	Central Kansas Uplift
390	Chadron Arch
395	Williston Basin
400	Ouachita Tectonic Belt Province
405	Kerr Basin
410	Llano Uplift
415	Strawn Basin
420	Fort Worth Syncline
425	Bend Arch
430	Permian Basin
435	Palo Duro Basin
440	Amarillo Arch
445	Sierra Grande Uplift
450	Las Animas Arch
455	Las Vegas-Raton Basin
460	Estancia Basin
465	Orogrande Basin
470	Pedregosa Basin
475	Basin-and-Range Province
500	Sweetgrass Arch
505	Montana Folded Belt Province
510	Central Montana Uplift
515	Powder River Basin
520	Big Horn Basin
525	Yellowstone Province
530	Wind River Basin
535	Green River Basin
540	Denver Basin
545	North Park Basin
550	South Park Basin
555	Eagle Basin
560	San Luis Basin
565	San Juan Mountain Province
570	Uinta Uplift
575	Uinta Basin
580	San Juan Basin
585	Paradox Basin
590	Black Mesa Basin
595	Piceance Basin
600	Northern Cascade Range-Okanagan Province
605	Eastern Columbia Basin
610	Idaho Mountains Province

Code	Province
615	Snake River Basin
620	Southern Oregon
625	Great Basin Province
630	Wasatch Uplift
635	Plateau Sedimentary Province
640	Mojave Basin
645	Salton Basin
650	Sierra Nevada Province
700	Bellingham Basin
705	Puget Sound Province
710	Western Columbia Basin
715	Klamath Mountains Province
720	Eel River Basin
725	Northern Coast Range Province
730	Sacramento Basin
735	Santa Cruz Basin
740	Coastal Basins
745	San Joaquin Basin
750	Santa Maria Basin
755	Ventura Basin
760	Los Angeles Basin
765	Capistrano Basin
800	Heceta Island Area
805	Keku Islands Area
810	Gulf of Alaska Basin
815	Copper River Basin
820	Cook Inlet Basin
830	Kandik Province
835	Kobuk Province
840	Koyukuk Province
845	Bristol Bay Basin
850	Bethel Basin
855	Norton Basin
860	Selawik Basin
863	Yukon Flats Basin
865	Lower Tanana Basin
867	Middle Tanana Basin
870	Upper Tanana Basin
873	Galena Basin
875	Innoko Basin
877	Minchumina Basin
880	Holitna Basin
885	Arctic Foothills Province
890	Arctic Slope Basin

Code	Province
900	Maine Atlantic offshore--general
901	Maine Atlantic offshore--State
902	Maine Atlantic offshore--Federal
903	New Hampshire Atlantic offshore--general
904	New Hampshire Atlantic offshore--State
905	New Hampshire Atlantic offshore--Federal
906	Massachusetts Atlantic offshore--general
907	Massachusetts Atlantic offshore--State
908	Massachusetts Atlantic offshore--Federal
909	Rhode Island Atlantic offshore--general
910	Rhode Island Atlantic offshore--State
911	Rhode Island Atlantic offshore--Federal
912	Connecticut Atlantic offshore--general
913	Connecticut Atlantic offshore--State
914	Connecticut Atlantic offshore--Federal
915	New York Atlantic offshore--general
916	New York Atlantic offshore--State
917	New York Atlantic offshore--Federal
918	New Jersey Atlantic offshore--general
919	New Jersey Atlantic offshore--State
920	New Jersey Atlantic offshore--Federal
921	Delaware Atlantic offshore--general
922	Delaware Atlantic offshore--State
923	Delaware Atlantic offshore--Federal
924	Maryland Atlantic offshore--general
925	Maryland Atlantic offshore--State
926	Maryland Atlantic offshore--Federal
927	Virginia Atlantic offshore--general
928	Virginia Atlantic offshore--State
929	Virginia Atlantic offshore--Federal
930	North Carolina Atlantic offshore--general
931	North Carolina Atlantic offshore--State
932	North Carolina Atlantic offshore--Federal
933	South Carolina Atlantic offshore--general
934	South Carolina Atlantic offshore--State
935	South Carolina Atlantic offshore--Federal
936	Georgia Atlantic offshore--general
937	Georgia Atlantic offshore--State
938	Georgia Atlantic offshore--Federal
939	Florida Atlantic offshore--general
940	Florida Atlantic offshore--State
941	Florida Atlantic offshore--Federal
942	Florida Gulf of Mexico offshore--general
943	Florida Gulf of Mexico offshore--State

Code	Province
944	Florida Gulf of Mexico offshore--Federal
945	Alabama Gulf of Mexico offshore--general
946	Alabama Gulf of Mexico offshore--State
947	Alabama Gulf of Mexico offshore--Federal
948	Mississippi Gulf of Mexico offshore--general
949	Mississippi Gulf of Mexico offshore--State
950	Mississippi Gulf of Mexico offshore--Federal
951	Louisiana Gulf of Mexico offshore--general
952	Louisiana Gulf of Mexico offshore--State
953	Louisiana Gulf of Mexico offshore--Federal
954	Texas Gulf of Mexico offshore--general
955	Texas Gulf of Mexico offshore--State
956	Texas Gulf of Mexico offshore--Federal
957	California Pacific offshore--general
958	California Pacific offshore--State
959	California Pacific offshore--Federal
960	Oregon Pacific offshore--general
961	Oregon Pacific offshore--State
962	Oregon Pacific offshore--Federal
963	Washington Pacific offshore--general
964	Washington Pacific offshore--State
965	Washington Pacific offshore--Federal
972	Alaska Arctic offshore--general
973	Alaska Arctic offshore--State
974	Alaska Arctic offshore--Federal
975	Alaska Bering Sea offshore--general
976	Alaska Bering Sea offshore--State
977	Alaska Bering Sea offshore--Federal
978	Alaska Pacific offshore--general
979	Alaska Pacific offshore--State
980	Alaska Pacific offshore--Federal
987	Minnesota Lake Superior offshore
988	Wisconsin Lake Superior offshore
989	Michigan Lake Superior offshore
990	Indiana Lake Michigan offshore
991	Illinois Lake Michigan offshore
992	Wisconsin Lake Michigan offshore
993	Michigan Lake Michigan offshore
994	Michigan Lake Huron offshore
995	Michigan Lake Erie offshore
996	Ohio Lake Erie offshore
997	Pennsylvania Lake Erie offshore
998	New York Lake Erie offshore
999	New York Lake Ontario offshore

TABLES

The following tables include the results of analyses and related source data from the gas samples, which are divided into two groups as follows:

Table 1. - Samples from gas and oil wells in the United States

Table 2. - Samples from pipelines in the United States

The following list indicates the sources of the samples listed in the tables:

Source	Number of samples	Tables	Source	Number of samples	Tables
Alaska	3	1,2	New Mexico	6	1
Arizona	2	1	Ohio	1	1
Arkansas	2	1	Oklahoma	21	1
Colorado	7	1	Oregon	1	1
Kansas	12	1	South Dakota	1	1
Louisiana	10	1	Texas	79	1
Mississippi	4	1	Utah	3	1
Montana	1	1	Wyoming	7	1

All components of the analyses in the tables are reported to the nearest 0.1 percent (pct), except helium, which is reported to the nearest 0.01 pct. The word "trace" is used to denote quantities of helium of less than 0.005 pct and quantities of other components of less than 0.05 pct.

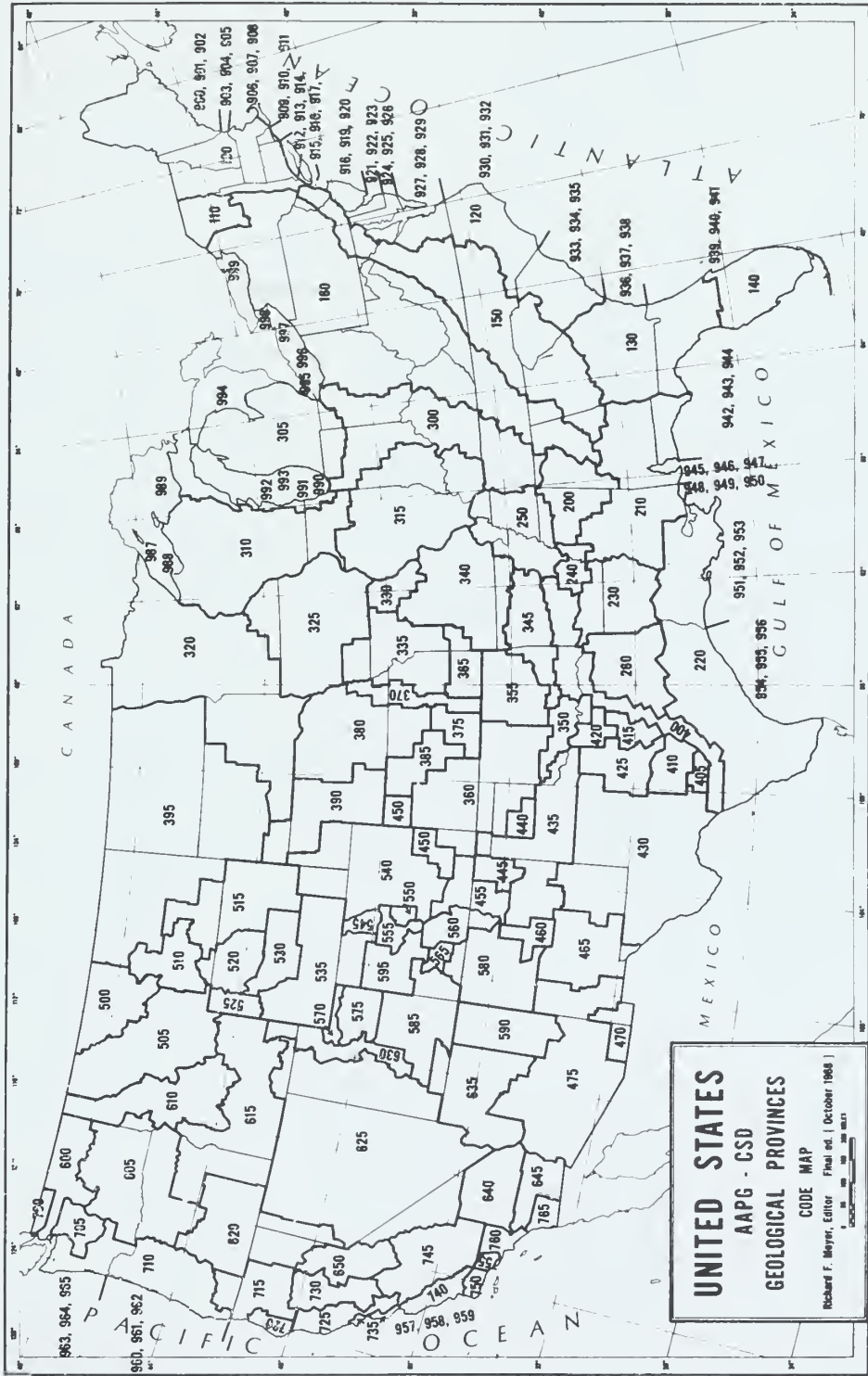


FIGURE 1. - Geologic provinces of the United States.

TABLES

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE 19470	INDEX SAMPLE 19471	INDEX SAMPLE 19709
STATE.....	ALASKA	ALASKA	ARIZONA
COUNTY.....	KENAI	KENAI	APACHE
FIELD.....	CANNERY LOOP	MCARTHUR RV-COOK INLET BASIN	BLACK ROCK
WELL NAME.....	CANNERY LOOP UNIT NO. 1	TRADING BAY UNIT NO. G-18DPN	BLACK ROCK NO. 12
API.....	501-332-0323	507332016001	02-001-20294
LOCATION.....	SEC. 7, T5N, R11W	SEC. 28, T9N, R13W	SEC. 7, T40N, R29E
OWNER.....	UNOCAL CORP.	UNOCAL CORP.	CHUSKA ENERGY CO.
COMPLETED.....	88/02/00	91/--/00	93/08/17
SAMPLED.....	92/10/28	92/10/00	94/01/07
FORMATION.....	PLIG-BELUGA	MIOC-TYONEK	PENN-PARADOX
GEOLOGIC PROVINCE CODE...	820	820	590
DEPTH, FEET.....	6500	NOT GIVEN	4620
WELLHEAD PRESSURE, PSIG...	1400	NOT GIVEN	800
OPEN FLOW, MCFD.....	8500	NOT GIVEN	1050
COMPONENT, MOLE PCT			
METHANE.....	98.1 -----	93.1 -----	82.8 -----
ETHANE.....	0.1 -----	0.1 -----	5.0 -----
PROPANE.....	TRACE -----	0.0 -----	2.3 -----
N-BUTANE.....	0.0 -----	0.0 -----	0.6 -----
ISOBUTANE.....	0.0 -----	0.0 -----	0.3 -----
N-PENTANE.....	0.1 -----	0.0 -----	0.1 -----
ISOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.0 -----	0.0 -----	0.1 -----
NITROGEN.....	1.2 -----	6.5 -----	5.2 -----
OXYGEN.....	0.3 -----	0.0 -----	0.3 -----
ARGON.....	0.0 -----	0.0 -----	0.1 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.2 -----	0.2 -----	2.9 -----
HELIUM.....	TRACE -----	0.01 -----	0.39 -----
HEATING VALUE*.....	1001 -----	946 -----	1028 -----
SPECIFIC GRAVITY.....	0.566	0.584	0.670

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE 19693	INDEX SAMPLE 19706	INDEX SAMPLE 19798
STATE.....	ARIZONA	ARKANSAS	ARKANSAS
COUNTY.....	APACHE	FRANKLIN	SEBASTIAN
FIELD.....	BOUNDARY BUTTE E	WHITE OAK	WITCHERVILLE
WELL NAME.....	NAVAJO NO. 1	MAGRUDER NO. 1-16	SHOPPACH NO. 1
API.....	02-001-05199	03-047-10812	03-131-10565
LOCATION.....	SEC. 4, T41N, R28E	SEC. 16, T10N, R27W	SEC. 35, T6N, R31W
OWNER.....	MERRION OIL & GAS CORP.	SEECO, INC.	KLABZUBA OPERATING CO.
COMPLETED.....	93/02/20	93/10/19	93/07/04
SAMPLED.....	93/12/00	94/01/05	94/06/25
FORMATION.....	MISS-LEADVILLE	PENN-HALE M C3	PENN-TURNER, ATOKA L
GEOLOGIC PROVINCE CODE...	590	345	345
DEPTH, FEET.....	5570	2955	4986
WELLHEAD PRESSURE, PSIG...	1245	1080	NOT GIVEN
OPEN FLOW, MCFD.....	1660	2500	2517
COMPONENT, MOLE PCT			
METHANE.....	45.9 -----	97.4 -----	97.7 -----
ETHANE.....	2.7 -----	1.1 -----	1.3 -----
PROPANE.....	0.8 -----	0.1 -----	0.2 -----
N-BUTANE.....	0.3 -----	0.0 -----	0.0 -----
ISOBUTANE.....	0.1 -----	0.0 -----	TRACE -----
N-PENTANE.....	0.3 -----	0.0 -----	0.0 -----
ISOPENTANE.....	0.0 -----	0.0 -----	TRACE -----
CYCLOPENTANE.....	0.1 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.2 -----	0.1 -----	0.0 -----
NITROGEN.....	33.4 -----	0.8 -----	0.3 -----
OXYGEN.....	0.1 -----	0.2 -----	0.0 -----
ARGON.....	0.3 -----	0.0 -----	TRACE -----
HYDROGEN.....	TRACE -----	TRACE -----	0.0 -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	11.6 -----	0.3 -----	0.4 -----
HELIUM.....	4.18 -----	0.05 -----	0.08 -----
HEATING VALUE*.....	575 -----	1012 -----	1019 -----
SPECIFIC GRAVITY.....	0.831	0.570	0.568

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE 19733	INDEX SAMPLE 19772	INDEX SAMPLE 19771
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	MESA	RIO BLANCO	RIO BLANCO
FIELD.....	ROBERTS CANYON	BANTA RIDGE	BAXTER PASS
WELL NAME.....	HORSESHOE NO. 2-20	TIAGA MOUNTAIN NO. 13-16	FEDERAL 17-D-23-4-103
API.....	05-077-08645	05-103-08549	05-103-08260
LOCATION.....	SEC. 20, T9S, R97W	SEC. 16, T1S, R103W	SEC. 23, T4S, R103W
OWNER.....	KOCH EXPLORATION CO.	BONNEVILLE FUELS CORP.	BONNEVILLE FUELS CORP.
COMPLETED.....	93/02/02	93/--/00	93/--/00
SAMPLED.....	94/02/02	94/05/00	94/05/12
FORMATION.....	CRET-DAKOTA	CRET-MANCOS	CRET-MANCOS
GEOLOGIC PROVINCE CODE...	595	595	595
DEPTH, FEET.....	7427	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG...	830	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	1368	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	92.7 -----	85.8 -----	85.1 -----
ETHANE.....	0.6 -----	7.3 -----	6.1 -----
PROPANE.....	0.2 -----	3.5 -----	4.5 -----
N-BUTANE.....	0.0 -----	0.9 -----	1.3 -----
ISOBUTANE.....	0.1 -----	0.6 -----	0.7 -----
N-PENTANE.....	0.0 -----	0.2 -----	0.3 -----
ISOPENTANE.....	0.0 -----	0.3 -----	0.3 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
HEXANES PLUS.....	0.0 -----	0.1 -----	0.2 -----
NITROGEN.....	0.7 -----	1.0 -----	1.2 -----
OXYGEN.....	0.1 -----	0.2 -----	0.1 -----
ARGON.....	0.0 -----	0.0 -----	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	5.5 -----	0.2 -----	0.2 -----
HELIUM.....	0.07 -----	0.02 -----	0.08 -----
HEATING VALUE*.....	958 -----	1165 -----	1188 -----
SPECIFIC GRAVITY.....	0.618	0.666	0.682

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 10 SAMPLE 19774	INDEX 11 SAMPLE 19884	INDEX 12 SAMPLE 19773
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	RIO BLANCO	RIO BLANCO	RIO BLANCO
FIELD.....	BAIXTER PASS	DOUGLAS CREEK	DOUGLAS CREEK N.
WELL NAME.....	COLUMBINE SPRING NO. 13-24-4	DOUGLAS CREEK UNIT NO. 61	FEDERAL NO. 21-3-1S-102
API.....	05-103-08715	05-103-9696	05-103-08968
LOCATION.....	SEC. 24, T4S, R104W	SEC. 6, T3S, R101W	SEC. 3, T1S, R102W
OWNER.....	BONNEVILLE FUELS CORP.	CONOCO, INC.	BONNEVILLE FUELS CORP.
COMPLETED.....	--/--/00	94/07/29	93/--/00
SAMPLED.....	94/05/12	95/10/05	94/05/00
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA	CRET-MANCOS B
GEOLOGIC PROVINCE CODE...	595	595	595
DEPTH, FEET.....	NOT GIVEN	4442	NOT GIVEN
WELLHEAD PRESSURE, PSIG...	NOT GIVEN	1280	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	630	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	87.0 -----	81.4 -----	87.1 -----
ETHANE.....	6.2 -----	2.1 -----	6.5 -----
PROPANE.....	2.7 -----	0.7 -----	3.3 -----
N-BUTANE.....	0.8 -----	0.3 -----	0.9 -----
ISOBUTANE.....	0.5 -----	0.1 -----	0.6 -----
N-PENTANE.....	0.2 -----	0.1 -----	0.2 -----
ISOPENTANE.....	0.3 -----	0.1 -----	0.3 -----
CYCLOPENTANE.....	0.1 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.1 -----
NITROGEN.....	0.8 -----	8.4 -----	0.8 -----
OXYGEN.....	0.1 -----	0.0 -----	0.0 -----
ARGON.....	TRACE	0.1	TRACE
HYDROGEN.....	0.4 -----	0.5 -----	TRACE
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.9 -----	5.9 -----	0.1 -----
HELIUM.....	0.10 -----	0.37 -----	0.09 -----
HEATING VALUE*.....	1133 -----	905 -----	1161 -----
SPECIFIC GRAVITY.....	0.654	0.671	0.659

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 13 SAMPLE 19726	INDEX 14 SAMPLE 19849	INDEX 15 SAMPLE 19708
STATE.....	COLORADO	KANSAS	KANSAS
COUNTY.....	RIO BLANCO	HASKELL	HASKELL
FIELD.....	LOWER HORSE DRAW	HUGOTON	LEMON NE
WELL NAME.....	LOWER HORSE DRAW NO. D-18	DANIELS 1-A	BRENNAN NO. 1-24
API.....		15-081-20862	15-081-20711
LOCATION.....	SEC. 12, T2S, R203W	SEC. 25, T29S, R33W	SEC. 24, T29S, R33W
OWNER.....	CONOCO, INC.	KANSAS NATURAL GAS, INC.	HUGOTON ENERGY CORP.
COMPLETED.....	80/09/28	94/08/30	92/02/15
SAMPLED.....	94/03/02	95/01/09	93/12/31
FORMATION.....	CRET-MANCOS B	PERM-CHASE GROUP	PENN-ATOKA
GEOLOGIC PROVINCE CODE...	595	360	360
DEPTH, FEET.....	NOT GIVEN	2629	5064
WELLHEAD PRESSURE, PSIG...	NOT GIVEN	355	1142
OPEN FLOW, MCFD.....	NOT GIVEN	1299	1348
COMPONENT, MOLE PCT			
METHANE.....	87.1 -----	74.9 -----	78.8 -----
ETHANE.....	6.2 -----	4.1 -----	6.4 -----
PROPANE.....	3.2 -----	2.0 -----	4.1 -----
N-BUTANE.....	1.0 -----	0.4 -----	1.2 -----
ISOBUTANE.....	0.5 -----	0.2 -----	0.3 -----
N-PENTANE.....	0.3 -----	0.1 -----	0.4 -----
ISOPENTANE.....	0.1 -----	0.0 -----	0.2 -----
CYCLOPENTANE.....	0.1 -----	0.0 -----	0.1 -----
HEXANES PLUS.....	0.2 -----	0.1 -----	0.2 -----
NITROGEN.....	1.2 -----	17.7 -----	7.9 -----
OXYGEN.....	0.0 -----	TRACE -----	0.0 -----
ARGON.....	TRACE -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	0.0 -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.1 -----	0.1 -----	0.1 -----
HELIUM.....	0.10 -----	0.52 -----	0.22 -----
HEATING VALUE*.....	1155 -----	912 -----	1108 -----
SPECIFIC GRAVITY.....	0.658	0.680	0.701

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 16 SAMPLE 19799	INDEX 17 SAMPLE 19860	INDEX 18 SAMPLE 19862
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	KIOWA	MEADE	MEADE
FIELD.....	WILDCAT	RAZORHAWK	RAZORHAWK
WELL NAME.....	LEWIS RALSTIN NO. 1	WILSON NO. 15-1	WEBBER NO. 9-1
API.....	15-097-21352		
LOCATION.....	SEC. 7, T28S, R19W	SEC. 15, T32S, R26W	SEC. 9, T32S, R26W
OWNER.....	WOOLSEY PETROLEUM CORP.	ENRON OIL & GAS CO.	ENRON OIL & GAS CO.
COMPLETED.....	93/06/15	93/01/00	94/01/00
SAMPLED.....	94/07/00	95/04/04	95/04/04
FORMATION.....	MISS---	MISS-CHESTER	MISS---
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	4884	5446	5456
WELLHEAD PRESSURE, PSIG...	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	1710	1538	2647
COMPONENT, MOLE PCT			
METHANE.....	54.0 -----	86.0 -----	80.2 -----
ETHANE.....	3.7 -----	6.0 -----	6.8 -----
PROPANE.....	0.8 -----	3.2 -----	4.1 -----
N-BUTANE.....	0.4 -----	0.9 -----	1.1 -----
ISOBUTANE.....	0.2 -----	0.4 -----	0.5 -----
N-PENTANE.....	0.1 -----	0.2 -----	0.2 -----
ISOPENTANE.....	0.1 -----	0.1 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.1 -----
NITROGEN.....	37.3 -----	2.8 -----	6.6 -----
OXYGEN.....	0.0 -----	0.0 -----	0.0 -----
ARGON.....	0.2 -----	TRACE	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.2 -----	0.2 -----	0.2 -----
HELIUM.....	2.96 -----	0.14 -----	0.15 -----
HEATING VALUE*.....	666 -----	1124 -----	1111 -----
SPECIFIC GRAVITY.....	0.741	0.657	0.689

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 19 SAMPLE 19695	INDEX 20 SAMPLE 19707	INDEX 21 SAMPLE 19830
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	MONTGOMERY	MORTON	MORTON
FIELD.....	NEODESHA	STIRRUP	WILDCAT
WELL NAME.....	LAVELY NO. C-1	MARQUARDT NO. 2-28	PUCKETT NO. 1
API.....	15-125-26878	15-129-21106	15-129-21221
LOCATION.....	SEC. 2, T31S, R16E	SEC. 28, T32S, R40W	SEC. 6, T35S, R41W
OWNER.....	GREAT EASTERN ENERGY & DEV. CO	HUGOTON ENERGY CORP.	H & L OPERATING CO.
COMPLETED.....	90/05/09	91/12/02	93/09/17
SAMPLED.....	93/12/20	93/12/31	94/09/18
FORMATION.....	PENN-WIER	PENN-MORROW U	PENN-MORROW
GEOLOGIC PROVINCE CODE...	365	360	360
DEPTH, FEET.....	994	5250	4746
WELLHEAD PRESSURE, PSIG...	215	1187	1262
OPEN FLOW, MCFD.....	45	11819 -	10500
COMPONENT, MOLE PCT			
METHANE.....	86.4 -----	80.4 -----	80.1 -----
ETHANE.....	7.1 -----	5.4 -----	6.7 -----
PROPANE.....	2.2 -----	4.2 -----	4.3 -----
N-BUTANE.....	0.5 -----	1.1 -----	1.0 -----
ISOBUTANE.....	0.4 -----	0.4 -----	0.3 -----
N-PENTANE.....	0.2 -----	0.4 -----	0.2 -----
ISOPENTANE.....	0.1 -----	0.1 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.2 -----	0.1 -----
NITROGEN.....	0.2 -----	7.3 -----	6.3 -----
OXYGEN.....	0.0 -----	0.1 -----	0.4 -----
ARGON.....	TRACE	0.0	0.0
HYDROGEN.....	TRACE -----	TRACE -----	0.0 -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	2.9 -----	0.2 -----	0.2 -----
HELIUM.....	TRACE	0.20	0.22
HEATING VALUE*.....	1104 -----	1101 -----	1108 -----
SPECIFIC GRAVITY.....	0.661	0.692	0.690

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 22 SAMPLE 19844	INDEX 23 SAMPLE 19807	INDEX 24 SAMPLE 19782
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	SEWARD	STANTON	STEVENS
FIELD.....	HUGOTON	SAND ARROYO	PERRILL SE
WELL NAME.....	FEDERAL LAND BANK NO. 2	GRACE KILGORE NO. 1	MLP GERROND A NO. 1
API.....	15-175-21325	15-187-20711	15-189-10099
LOCATION.....	SEC. 26, T31S, R34W	SEC. 20, T29S, R39W	SEC. 20, T31S, R37W
OWNER.....	OXY U.S.A., INC.	AMOCO PRODUCTION CO.	OXY U.S.A., INC.
COMPLETED.....	94/01/01	94/02/25	91/02/27
SAMPLED.....	94/12/02	94/07/22	94/06/08
FORMATION.....	PERM-CHASE GROUP	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	2550	5468	5378
WELLHEAD PRESSURE, PSIG...	221	831	1305
OPEN FLOW, MCFD.....	588	3894	41706
COMPONENT, MOLE PCT			
METHANE.....	73.7 -----	79.3 -----	71.1 -----
ETHANE.....	5.4 -----	4.3 -----	5.1 -----
PROPANE.....	2.9 -----	2.1 -----	5.1 -----
N-BUTANE.....	0.8 -----	0.6 -----	0.0 -----
ISOBUTANE.....	0.3 -----	0.2 -----	1.7 -----
N-PENTANE.....	0.2 -----	0.2 -----	0.5 -----
ISOPENTANE.....	0.1 -----	0.1 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.1 -----
NITROGEN.....	15.8 -----	11.8 -----	15.7 -----
OXYGEN.....	0.1 -----	TRACE -----	0.1 -----
ARGON.....	0.1 -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.1 -----	0.3 -----	0.0 -----
HELIUM.....	0.49 -----	0.75 -----	0.54 -----
HEATING VALUE*.....	971 -----	984 -----	1030 -----
SPECIFIC GRAVITY.....	0.699 -----	0.668 -----	0.733 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 25 SAMPLE 19783	INDEX 26 SAMPLE 19755	INDEX 27 SAMPLE 19883
STATE.....	KANSAS	LOUISIANA	LOUISIANA
COUNTY.....	STEVENS	BIENVILLE	BOSSIER
FIELD.....	PERRILL SW	BEAR CREEK	IVAN
WELL NAME.....	MLP DALE A NO. 1	LA MIN.B: BR OZ RA SUCC NO.1	PARDEE NO. 3-ALT
API.....	15-189-21445	17-013-20854	17-015-22749
LOCATION.....	SEC. 19, T31S, R38W	SEC. 8, T16N, R5W	SEC. 26, T21N, R11W
OWNER.....	OXY U.S.A., INC.	SONAT EXPLORATION CO.	ORyx ENERGY CO.
COMPLETED.....	91/07/16	94/03/00	95/05/11
SAMPLED.....	94/06/08	94/04/19	95/09/14
FORMATION.....	PENN-MORROW	CRET-BROWN-OZLEY	JURA-SMACKOVER, GRAY SAND
GEOLOGIC PROVINCE CODE...	360	230	230
DEPTH, FEET.....	5648	7780	11900
WELLHEAD PRESSURE, PSIG...	537	2250	4650
OPEN FLOW, MCFD.....	1712	1021	5000
COMPONENT, MOLE PCT			
METHANE.....	85.3 -----	96.7 -----	92.6 -----
ETHANE.....	4.5 -----	0.8 -----	2.6 -----
PROPANE.....	3.1 -----	0.2 -----	0.8 -----
N-BUTANE.....	0.0 -----	0.1 -----	0.4 -----
ISOBUTANE.....	1.4 -----	0.0 -----	0.6 -----
N-PENTANE.....	0.6 -----	0.0 -----	0.4 -----
ISOPENTANE.....	0.0 -----	0.1 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.2 -----	0.0 -----	0.4 -----
NITROGEN.....	4.5 -----	0.7 -----	0.1 -----
OXYGEN.....	0.0 -----	0.0 -----	0.1 -----
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.1 -----	1.4 -----	2.0 -----
HELIUM.....	0.33 -----	0.03 -----	0.01 -----
HEATING VALUE*.....	1106 -----	1005 -----	1079 -----
SPECIFIC GRAVITY.....	0.662 -----	0.579 -----	0.629 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 28 SAMPLE 19715	INDEX 29 SAMPLE 19742	INDEX 30 SAMPLE 19710
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	DE SOTO	PLAQUEMINES	ST. CHARLES
FIELD.....	SPIDER	LAKE WASHINGTON	PARADIS
WELL NAME.....	DE SOTO OIL & GAS TRUST NO.2	COCKRELL MORAN C NO. 1	IDEAL FUR CO. NO. 1
API.....	17-031-22946	17-075-23658	17-089-00653
LOCATION.....	SEC. 25, T12N, R15W	SEC. 14, T20S, R27E	SEC. 25, T13S, R19E
OWNER.....	KERR-MCGEE CORP.	LOUISIANA LAND & EXPLORATION C	TEXACO INC.
COMPLETED.....	93/11/30	93/12/01	93/11/04
SAMPLED.....	94/02/03	94/03/16	93/12/29
FORMATION.....	CRET-HOSSSTON	MIOC-P-4 SAND	MIOC-U-3 SAND, ROB L
GEOLOGIC PROVINCE CODE... 230		220	220
DEPTH, FEET.....	6680	12566	11147
WELLHEAD PRESSURE, PSIG... 2000		4100	1700
OPEN FLOW, MCFD..... 1056		1677	3000
COMPONENT, MOLE PCT			
METHANE.....	96.3 -----	97.4 -----	92.7 -----
ETHANE.....	0.5 -----	1.3 -----	3.7 -----
PROPANE.....	0.1 -----	0.3 -----	1.5 -----
N-BUTANE.....	0.0 -----	0.0 -----	0.4 -----
ISOBUTANE.....	0.0 -----	0.1 -----	0.3 -----
N-PENTANE.....	0.0 -----	0.0 -----	0.1 -----
ISOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.0 -----	0.1 -----
NITROGEN.....	2.3 -----	0.4 -----	0.4 -----
OXYGEN.....	0.0 -----	TRACE -----	TRACE -----
ARGON.....	0.0 -----	TRACE -----	TRACE -----
HYDROGEN.....	TRACE -----	0.1 -----	TRACE -----
HYDROGEN SULFIDE**..... 0.0		0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.7 -----	0.5 -----	0.7 -----
HELIUM.....	0.03 -----	TRACE -----	TRACE -----
HEATING VALUE*..... 990		1020 -----	1081 -----
SPECIFIC GRAVITY..... 0.576		0.571 -----	0.613 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 31 SAMPLE 19747	INDEX 32 SAMPLE 19729	INDEX 33 SAMPLE 19697
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	TERREBONNE	TERREBONNE	VERMILION
FIELD.....	LAKE PELTO	SHIP SHOAL	RICEVILLE E
WELL NAME.....	LAKE PELTO UNIT 13 NO. 54	STATE LEASE 14158 NO. 1	ZEMA M. HUMBLE NO. 1
API.....	17-109-21284		
LOCATION.....	SEC. 29, T23S, R18E	BLK. 45, SHIP SHOAL	SEC. 25, T11S, R2W
OWNER.....	TEXACO INC.	ESTATE OF WILLIAM G. HELIS	GREAT RIVER OIL & GAS CORP.
COMPLETED.....	73/05/22	92/06/00	92/10/12
SAMPLED.....	94/03/14	94/02/24	93/12/14
FORMATION.....	MIOC-BIGENERINA A	MIOC-CRISTELLARIA SAND	OLIG-MIOGYPSINOIDES
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	9288	10731	16940
WELLHEAD PRESSURE, PSIG...	100	3700	10558
OPEN FLOW, MCFD.....	300	5200	14100
COMPONENT, MOLE PCT			
METHANE.....	95.0 -----	93.4 -----	96.9 -----
ETHANE.....	2.3 -----	2.7 -----	0.3 -----
PROPANE.....	1.0 -----	1.2 -----	0.1 -----
N-BUTANE.....	0.3 -----	0.4 -----	0.0 -----
ISOBUTANE.....	0.3 -----	0.3 -----	0.0 -----
N-PENTANE.....	0.2 -----	0.3 -----	0.0 -----
ISOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
CYCLOPENTANE.....	0.1 -----	0.1 -----	0.0 -----
HEXANES PLUS.....	0.2 -----	0.3 -----	0.0 -----
NITROGEN.....	0.4 -----	1.0 -----	0.5 -----
OXYGEN.....	0.0 -----	0.1 -----	0.0 -----
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.3 -----	0.3 -----	2.2 -----
HELIUM.....	TRACE	TRACE	0.04
HEATING VALUE*.....	1071 -----	1079 -----	989 -----
SPECIFIC GRAVITY.....	0.599	0.611	0.580

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 34 SAMPLE 19739	INDEX 35 SAMPLE 19761	INDEX 36 SAMPLE 19869
STATE.....	LOUISIANA	LOUISIANA	MISSISSIPPI
PARISH.....	WEBSTER	WEBSTER	ADAMS
FIELD.....	COTTON VALLEY	SHONGALOO N	HOLIDAY
WELL NAME.....	E. SMITH ET AL 29 NO. 1	HA RD SUK:LONGINO-GOODE NO.7	BOE NO. 1-D
API.....	17-119-21509	17-119-21496	23-001-23152
LOCATION.....	SEC. 29, T21N, R10W	SEC. 7, T23N, R9W	SEC. 16, T5N, R1W
OWNER.....	MARATHON OIL CO.	MARATHON OIL CO.	OXY U.S.A., INC.
COMPLETED.....	93/12/29	93/02/03	93/08/01
SAMPLED.....	94/03/21	94/05/03	95/05/10
FORMATION.....	JURA-GRAY	JURA-HAYNESVILLE	CRET-TUSCALOOSA L
GEOLOGIC PROVINCE CODE...	230	230	210
DEPTH, FEET.....	10907	10344	11026
WELLHEAD PRESSURE, PSIG...	3000	1000	3350
OPEN FLOW, MCFD.....	3200	150	1700
COMPONENT, MOLE PCT			
METHANE.....	89.4 -----	84.4 -----	84.4 -----
ETHANE.....	4.9 -----	5.5 -----	6.9 -----
PROPANE.....	1.7 -----	2.4 -----	2.6 -----
N-BUTANE.....	0.6 -----	1.0 -----	0.6 -----
ISOBUTANE.....	0.9 -----	0.7 -----	0.6 -----
N-PENTANE.....	0.4 -----	0.3 -----	0.0 -----
ISOPENTANE.....	TRACE -----	0.5 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.3 -----	0.1 -----	0.1 -----
NITROGEN.....	0.2 -----	3.4 -----	1.6 -----
OXYGEN.....	0.0 -----	TRACE -----	0.4 -----
ARGON.....	TRACE -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	1.8 -----	1.8 -----	2.7 -----
HELIUM.....	TRACE -----	0.02 -----	0.02 -----
HEATING VALUE*.....	1116 -----	1107 -----	1095 -----
SPECIFIC GRAVITY.....	0.650	0.680	0.672

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 37 SAMPLE 19735	INDEX 38 SAMPLE 19891	INDEX 39 SAMPLE 19379
STATE.....	MISSISSIPPI	MISSISSIPPI	MISSISSIPPI
COUNTY.....	COVINGTON	COVINGTON	MARION
FIELD.....	DRY CREEK DOME	DRY CREEK DOME	SANDY HOOK W
WELL NAME.....	MINERALS MANAGEMENT 28-1 N01	WILLIE VON MCRANEY, SR NO. 1	J. W. HART NO. 1
API.....	23-031-21457	23-031-20161	
LOCATION.....	SEC. 28, T8N, R17W	SEC. 28, T8N, R17W	SEC. 27, T1N, R14E
OWNER.....	AMERADA HESS CORP.	AMERADA HESS CORP.	UMC PETROLEUM CORP.
COMPLETED.....	93/10/02	95/03/13	92/01/26
SAMPLED.....	94/03/18	95/11/28	92/04/20
FORMATION.....	CRET-HOSSTON	CRET-HOSSTON	CRET-PALUXY
GEOLOGIC PROVINCE CODE...	210	210	210
DEPTH, FEET.....	14200	15018	11800
WELLHEAD PRESSURE, PSIG...	2292	4400	3670
OPEN FLOW, MCFD.....	160	6618	1700
COMPONENT, MOLE PCT			
METHANE.....	92.3 -----	92.0 -----	95.2 -----
ETHANE.....	1.0 -----	4.5 -----	0.4 -----
PROPANE.....	0.7 -----	0.7 -----	0.1 -----
N-BUTANE.....	0.5 -----	0.2 -----	0.0 -----
ISOBUTANE.....	0.1 -----	0.2 -----	0.0 -----
N-PENTANE.....	0.3 -----	0.2 -----	0.0 -----
ISOPENTANE.....	TRACE -----	0.2 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.2 -----	0.0 -----	0.0 -----
NITROGEN.....	1.9 -----	1.9 -----	2.3 -----
OXYGEN.....	0.0 -----	0.0 -----	0.3 -----
ARGON.....	TRACE -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	0.0 -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	3.0 -----	0.0 -----	1.6 -----
HELIUM.....	0.04 -----	0.02 -----	0.03 -----
HEATING VALUE*.....	1015 -----	1063 -----	977 -----
SPECIFIC GRAVITY.....	0.623	0.606	0.586

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 40 SAMPLE 19856	INDEX 41 SAMPLE 19764	INDEX 42 SAMPLE 19487
STATE.....	MONTANA	NEW MEXICO	NEW MEXICO
COUNTY.....	BLAINE	EDDY	LEA
FIELD.....	TIGER RIDGE	OWEN MESA	CAPROCK E
WELL NAME.....	BLACKWOOD NO. 2-13	CORRAL FLY 35 FED. COM NO. 1	STATE COMM. UNIT NO. 1
API.....	25-005-22668	30-015-27381	30-025-00042
LOCATION.....	SEC. 2, T30N, R17E	SEC. 35, T24S, R29E	SEC. 11, T11S, R32E
OWNER.....	UMC PETROLEUM CORP.	MITCHELL ENERGY & DEVELOPMENT	W.O.G., INC.
COMPLETED.....	94/11/10	93/11/18	92/09/01
SAMPLED.....	95/03/20	94/05/06	92/12/01
FORMATION.....	CRET-EAGLE	PENN-MORROW	PENN-ATOKA
GEOLOGIC PROVINCE CODE...	395	430	430
DEPTH, FEET.....	1276	13466	10600
WELLHEAD PRESSURE, PSIG...	324	2503	2280
OPEN FLOW, MCFD.....	1651	1746	300
COMPONENT, MOLE PCT			
METHANE.....	94.4 -----	97.5 -----	81.4 -----
ETHANE.....	2.0 -----	0.9 -----	8.1 -----
PROPANE.....	0.6 -----	0.2 -----	4.1 -----
N-BUTANE.....	0.1 -----	0.0 -----	1.6 -----
ISOBUTANE.....	0.1 -----	0.1 -----	0.0 -----
N-PENTANE.....	0.0 -----	0.0 -----	0.7 -----
ISOPENTANE.....	0.1 -----	0.0 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
HEXANES PLUS.....	0.0 -----	0.0 -----	0.3 -----
NITROGEN.....	2.6 -----	0.6 -----	2.0 -----
OXYGEN.....	TRACE -----	0.0 -----	0.1 -----
ARGON.....	0.0 -----	0.0 -----	TRACE -----
HYDROGEN.....	0.0 -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.0 -----	0.7 -----	1.4 -----
HELIUM.....	0.08 -----	0.02 -----	0.06 -----
HEATING VALUE*.....	1019 -----	1011 -----	1184 -----
SPECIFIC GRAVITY.....	0.586 -----	0.571 -----	0.708 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE 19801	INDEX SAMPLE 19720	INDEX SAMPLE 19821
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	LEA	LEA	LEA
FIELD.....	JENKINS NW	LEA	REEVES W
WELL NAME.....	APACHE NO. 1	NEUHAUS 14 FED. NO. 2	MILKY WAY STATE NO. 1
API.....	30-025-31411	30-025-31970	30-025-30941
LOCATION.....	SEC. 5, T9S, R34E	SEC. 14, T20S, R35E	SEC. 17, T18S, R35E
OWNER.....	BRIGHT & COMPANY	MANZANO OIL CORP.	MITCHELL ENERGY & DEVELOPMENT
COMPLETED.....	93/03/03	93/07/14	94/03/04
SAMPLED.....	94/07/00	94/02/08	94/09/00
FORMATION.....	PENN-ATOKA	PERM-WOLFCAMP	PERM-DELAWARE
GEOLOGIC PROVINCE CODE...	430	430	430
DEPTH, FEET.....	10998	11574	4327
WELLHEAD PRESSURE, PSIG...	450	1200	960
OPEN FLOW, MCFD.....	500	7500	1756
COMPONENT, MOLE PCT			
METHANE.....	78.9 -----	79.7 -----	61.3 -----
ETHANE.....	10.3 -----	11.0 -----	6.6 -----
PROPANE.....	4.9 -----	4.9 -----	3.3 -----
N-BUTANE.....	1.5 -----	1.4 -----	0.8 -----
ISOBUTANE.....	0.7 -----	0.6 -----	0.4 -----
N-PENTANE.....	0.3 -----	0.4 -----	0.2 -----
ISOPENTANE.....	0.4 -----	0.2 -----	0.1 -----
CYCLOPENTANE.....	0.1 -----	0.1 -----	0.1 -----
HEXANES PLUS.....	0.1 -----	0.2 -----	0.1 -----
NITROGEN.....	2.0 -----	1.3 -----	26.9 -----
OXYGEN.....	0.0 -----	TRACE -----	0.0 -----
ARGON.....	TRACE -----	TRACE -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.6 -----	0.3 -----	0.0 -----
HELIUM.....	0.07 -----	0.02 -----	0.15 -----
HEATING VALUE*.....	1226 -----	1236 -----	887 -----
SPECIFIC GRAVITY.....	0.721 -----	0.713 -----	0.760 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 46 SAMPLE 19831	INDEX 47 SAMPLE 19822	INDEX 48 SAMPLE 19731
STATE.....	NEW MEXICO	OHIO	OKLAHOMA
COUNTY.....	RIO ARRIBA	WAYNE	ALFALFA
FIELD.....	TAPACITO	FREDRICKSBURG	BYRON S
WELL NAME.....	JICARILLA 98 NO. 10	STAN KINNEY NO. 22660	FELLERS NO. 1-31
API.....	30-039-25306	34-169-4939	35-003-21621
LOCATION.....	SEC. 17, T26N, R3W	FRANKLIN DIST., HOLMESVILLE QU	SEC. 31, T28N, R10W
OWNER.....	MERIDIAN OIL, INC.	COLUMBIA NATURAL RESOURCES, IN	KAISER FRANCIS OIL CO.
COMPLETED.....	93/12/28	93/07/29	93/12/16
SAMPLED.....	93/10/00	94/09/08	94/03/09
FORMATION.....	CRET-PICTURED CLIPPS, NV	ORDO-ROSE RUN	PENN-COTTAGE GROVE
GEOLOGIC PROVINCE CODE... 580		160	360
DEPTH, FEET.....	3757	5870	4462
WELLHEAD PRESSURE, PSIG... 830		2200	NOT GIVEN
OPEN FLOW, MCFD..... 7730		1300	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	84.6 -----	89.7 -----	84.5 -----
ETHANE.....	8.9 -----	4.8 -----	5.1 -----
PROPANE.....	3.6 -----	1.9 -----	3.1 -----
N-BUTANE.....	0.9 -----	0.6 -----	1.2 -----
ISOBUTANE.....	0.6 -----	0.3 -----	0.5 -----
N-PENTANE.....	0.3 -----	0.2 -----	0.4 -----
ISOPENTANE.....	0.2 -----	0.1 -----	0.2 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.2 -----
HEXANES PLUS.....	0.2 -----	0.1 -----	0.3 -----
NITROGEN.....	0.4 -----	1.7 -----	4.2 -----
OXYGEN.....	0.0 -----	0.1 -----	0.1 -----
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4 -----	0.2 -----	0.2 -----
HELIUM.....	0.02	0.05	0.14
HEATING VALUE*.....	1186 -----	1102 -----	1131 -----
SPECIFIC GRAVITY.....	0.674	0.632	0.676

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 49 SAMPLE 19758	INDEX 50 SAMPLE 19790	INDEX 51 SAMPLE 19711
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	ALFALFA	BEAVER	CADDO
FIELD.....	CHEROKITA TREND	BALKO S	CEMENT
WELL NAME.....	JOANNE NO. 1-6	NAYLOR NO. 1-4	DUNN NO. 1-26
API.....	35-003-21594	35-007-23965	35-015-22187
LOCATION.....	SEC. 6, T27N, R10W	SEC. 4, T1N, R22ECM	SEC. 26, T6N, R10W
OWNER.....	PETROCORP, INC.	MARATHON OIL CO.	AMOCO PRODUCTION CO.
COMPLETED.....	93/05/13	93/11/05	92/12/23
SAMPLED.....	94/04/29	94/06/13	94/01/13
FORMATION.....	PENN-COTTAGE GROVE	MISS-ST. LOUIS	PENN-HOZBAR, CULP
GEOLOGIC PROVINCE CODE... 360	360	360	360
DEPTH, FEET.....	4478	8340	10300
WELLHEAD PRESSURE, PSIG... 1615	1615	1384	1800
OPEN FLOW, MCFD..... 7104	7104	1210	26437
COMPONENT, MOLE PCT			
METHANE.....	85.2 -----	91.9 -----	90.3 -----
ETHANE.....	5.1 -----	2.2 -----	4.6 -----
PROPANE.....	3.0 -----	0.6 -----	2.6 -----
N-BUTANE.....	0.9 -----	0.5 -----	0.7 -----
ISOBUTANE.....	0.6 -----	0.0 -----	0.3 -----
N-PENTANE.....	0.1 -----	0.0 -----	0.2 -----
ISOPENTANE.....	0.3 -----	0.3 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
HEXANES PLUS.....	0.1 -----	0.0 -----	0.1 -----
NITROGEN.....	4.5 -----	3.5 -----	0.6 -----
OXYGEN.....	0.1 -----	0.4 -----	0.0 -----
ARGON.....	TRACE	0.1	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1 -----	0.3 -----	0.3 -----
HELIUM.....	0.15	0.25	0.03
HEATING VALUE*.....	1096 -----	1018 -----	1121 -----
SPECIFIC GRAVITY.....	0.659	0.605	0.634

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 52 SAMPLE 19756	INDEX 53 SAMPLE 19737	INDEX 54 SAMPLE 19866
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CARTER	CUSTER	CUSTER
FIELD.....	CADDO	CRANE W	CUSTER CITY N
WELL NAME.....	GEORGE AKERS NO. 3-34	CHRISTENSEN UNIT NO. 1-15	STEPHANIE NO. 1-26
API.....	35-019-24207	35-039-50028	35-039-20727
LOCATION.....	SEC. 34, T2S, R1W	SEC. 15, T15N, R15W	SEC. 26, T15N, R16W
OWNER.....	M. W. PETROLEUM CORP.	MOBIL OIL CORP.	TOKLAN OIL & GAS CORP.
COMPLETED.....	94/01/02	92/07/28	95/02/14
SAMPLED.....	94/04/19	94/03/14	95/04/24
FORMATION.....	PENN-SPRINGER, MISS-GODDARD	PENN-OSWEGO	ORDO-VIOLA
GEOLOGIC PROVINCE CODE...	350	360	360
DEPTH, FEET.....	3946	9674	14920
WELLHEAD PRESSURE, PSIG...	242	400	1658
OPEN FLOW, MCFD.....	273	95	1620
COMPONENT, MOLE PCT			
METHANE.....	89.2 -----	91.9 -----	96.4 -----
ETHANE.....	5.9 -----	4.1 -----	0.7 -----
PROPANE.....	2.6 -----	1.4 -----	0.2 -----
N-BUTANE.....	0.7 -----	0.3 -----	0.0 -----
ISOBUTANE.....	0.3 -----	0.1 -----	0.1 -----
N-PENTANE.....	0.1 -----	0.1 -----	0.0 -----
ISOPENTANE.....	0.2 -----	0.1 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.1 -----
NITROGEN.....	0.9 -----	1.2 -----	0.2 -----
OXYGEN.....	TRACE -----	TRACE -----	0.0 -----
ARGON.....	0.0 -----	TRACE -----	TRACE -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.1 -----	0.6 -----	2.3 -----
HELIUM.....	0.05 -----	0.06 -----	0.02 -----
HEATING VALUE*.....	1127 -----	1068 -----	1000 -----
SPECIFIC GRAVITY.....	0.637	0.611	0.586

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 55 SAMPLE 19872	INDEX 56 SAMPLE 19873	INDEX 57 SAMPLE 19712
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	ELLIS	GRADY	HARPER
FIELD.....	SHATTUCK S	CHITWOOD	NOT GIVEN
WELL NAME.....	IRA NORTHRUP NO. 2	RIDDLE NO. 4-32	STATE "E" NO. 1
API.....	35-045-21776	35-051-22472	
LOCATION.....	SEC . 21, T17N, R26W	SEC. 32, T5N, R5W	SEC. 16, T27N, R20W
OWNER.....	DEVON ENERGY CORP.	HOME-STAKE ROYALTY CORP.	UNIT PETROLEUM CO.
COMPLETED.....	95/03/09	95/01/20	93/09/07
SAMPLED.....	95/04/30	95/06/21	94/01/08
FORMATION.....	PENN-TONKAWA	MISS-SYC, DV-WDFD, HTN, ORD-VIO	PENN-MORROW
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	7332	12756	5910
WELLHEAD PRESSURE, PSIG...	1800	2100	2000
OPEN FLOW, MCFD.....	2489	1545	2140
COMPONENT, MOLE PCT			
METHANE.....	82.0 -----	78.3 -----	93.7 -----
ETHANE.....	8.8 -----	9.3 -----	2.5 -----
PROPANE.....	4.1 -----	3.7 -----	0.8 -----
N-BUTANE.....	1.0 -----	1.4 -----	0.2 -----
ISOBUTANE.....	0.5 -----	0.4 -----	0.0 -----
N-PENTANE.....	0.3 -----	0.6 -----	0.0 -----
ISOPENTANE.....	0.1 -----	0.1 -----	0.2 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.2 -----	0.0 -----
NITROGEN.....	2.2 -----	4.1 -----	1.6 -----
OXYGEN.....	0.4 -----	1.4 -----	0.6 -----
ARGON.....	0.0 -----	0.1 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.3 -----	0.3 -----	0.2 -----
HELIUM.....	0.08 -----	0.03 -----	0.08 -----
HEATING VALUE*.....	1172 -----	1160 -----	1031 -----
SPECIFIC GRAVITY.....	0.688	0.713	0.594

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 58 SAMPLE 19863	INDEX 59 SAMPLE 19846	INDEX 60 SAMPLE 19802
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	LATIMER	OKLAHOMA	PITTSBURG
FIELD.....	TALIHINA NW	LUTHER N	PINE HOLLOW S
WELL NAME.....	SECOR NO. 1-21	MAYER NO. 1-22	DOMINIC NO. 2
API.....	35-077-20812	35-109-21232	35-121-21764
LOCATION.....	SEC. 28, T4N, R21E	SEC. 22, T14N, R1E	SEC. 35, T6N, R13E
OWNER.....	WARD PETROLEUM CORP.	WILLIAM MULLEN COMPANY	G M OIL PROPERTIES, INC.
COMPLETED.....	95/02/10	93/12/06	93/11/29
SAMPLED.....	95/04/00	94/12/22	94/07/00
FORMATION.....	PENN-ATOKA L	PENN-SKINNER	PENN-HARTSHORNE
GEOLOGIC PROVINCE CODE...	345	355	345
DEPTH, FEET.....	7702	4986	3710
WELLHEAD PRESSURE, PSIG...	2800	726	300
OPEN FLOW, MCFD.....	4276	1998	1189
COMPONENT, MOLE PCT			
METHANE.....	95.3 -----	82.7 -----	89.0 -----
ETHANE.....	3.2 -----	6.6 -----	6.6 -----
PROPANE.....	0.6 -----	3.3 -----	2.4 -----
N-BUTANE.....	0.1 -----	0.9 -----	0.5 -----
ISOBUTANE.....	0.1 -----	0.3 -----	0.3 -----
N-PENTANE.....	0.0 -----	0.3 -----	0.2 -----
ISOPENTANE.....	0.0 -----	0.1 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.1 -----
NITROGEN.....	0.2 -----	5.3 -----	0.4 -----
OXYGEN.....	TRACE -----	0.0 -----	0.0 -----
ARGON.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN.....	0.0 -----	TRACE -----	0.0 -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.4 -----	0.2 -----	0.5 -----
HELIUM.....	0.03 -----	0.09 -----	0.03 -----
HEATING VALUE*.....	1050 -----	1107 -----	1122 -----
SPECIFIC GRAVITY.....	0.586	0.673	0.636

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 61 SAMPLE 19627	INDEX 62 SAMPLE 19828	INDEX 63 SAMPLE 19857
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	STEPHENS	STEPHENS	STEPHENS
FIELD.....	CRUCE W	DUNCAN NE	KNOX
WELL NAME.....	MARMADUKE NO. 1	SCHEER NO. 1	SLEDGE A NO. 1-23
API.....	35-137-25088	35-137-25138	35-137-00674
LOCATION.....	SEC. 29, T1N, R6W	SEC. 24, T1N, R7W	SEC. 23, T2N, R5W
OWNER.....	WILLIFORD ENERGY CO.	WILLIFORD ENERGY CO.	CHESAPEAKE OPERATING, INC.
COMPLETED.....	92/09/23	93/05/17	94/12/01
SAMPLED.....	93/06/17	94/10/02	95/03/22
FORMATION.....	PENN-CISCO	PENN-CISCO	MISS-SYC, DV-WDFD, HTN, ORD-VIO
GEOLOGIC PROVINCE CODE...	350	350	350
DEPTH, FEET.....	4997	5675	13708
WELLHEAD PRESSURE, PSIG...	1806	2045	4790
OPEN FLOW, MCFD.....	1250	3360	12988
COMPONENT, MOLE PCT			
METHANE.....	85.9 -----	88.5 -----	80.5 -----
ETHANE.....	5.5 -----	5.4 -----	6.7 -----
PROPANE.....	2.7 -----	2.5 -----	2.2 -----
N-BUTANE.....	1.0 -----	0.6 -----	0.7 -----
ISOBUTANE.....	0.1 -----	0.2 -----	0.2 -----
N-PENTANE.....	0.3 -----	0.1 -----	0.2 -----
ISOPENTANE.....	0.2 -----	0.1 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.2 -----	0.1 -----	0.1 -----
NITROGEN.....	3.8 -----	2.1 -----	6.9 -----
OXYGEN.....	TRACE -----	0.0 -----	1.7 -----
ARGON.....	0.0 -----	0.0 -----	0.1 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	TRACE -----
CARBON DIOXIDE.....	0.2 -----	0.3 -----	0.6 -----
HELIUM.....	0.09 -----	0.06 -----	0.02 -----
HEATING VALUE*.....	1107 -----	1100 -----	1039 -----
SPECIFIC GRAVITY.....	0.657 -----	0.637 -----	0.675 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 64 SAMPLE 19738	INDEX 65 SAMPLE 19719	INDEX 66 SAMPLE 19788
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	STEPHENS	STEPHENS	TEXAS
FIELD.....	MARLOW S	MARLOW W	GUYMON S
WELL NAME.....	SADLER NO. 1-36	GRAY NO. 2-22	REDWOOD NO. 1-8
API.....		35-137-25101	3513922511
LOCATION.....	SEC. 36, T2N, R8W	SEC. 22, T2N, R8W	SEC. 8, T2N, R15ECM
OWNER.....	CIMARRON OPERATING CO.	APACHE CORP.	SOUTHWESTERN ENERGY PRODUCTION
COMPLETED.....	92/10/00	92/12/22	94/01/11
SAMPLED.....	94/03/05	94/02/02	94/06/14
FORMATION.....	MISS-SYCAMORE, DEVO-WOODFORD	PENN-BEGGS, BRISCOE	PENN-MORROW
GEOLOGIC PROVINCE CODE...	350	350	360
DEPTH, FEET.....	13696	8097	6381
WELLHEAD PRESSURE, PSIG...	NOT GIVEN	1420	1549
OPEN FLOW, MCFD.....	2060	2645	3646
COMPONENT, MOLE PCT			
METHANE.....	92.5 -----	90.5 -----	89.9 -----
ETHANE.....	4.5 -----	4.9 -----	5.1 -----
PROPANE.....	1.3 -----	2.1 -----	1.8 -----
N-BUTANE.....	0.3 -----	0.5 -----	1.2 -----
ISOBUTANE.....	0.2 -----	0.3 -----	0.0 -----
N-PENTANE.....	0.2 -----	0.0 -----	0.0 -----
ISOPENTANE.....	0.0 -----	0.1 -----	0.5 -----
CYCLOPENTANE.....	0.1 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.2 -----	0.1 -----	0.1 -----
NITROGEN.....	0.2 -----	1.0 -----	0.8 -----
OXYGEN.....	0.0 -----	0.3 -----	0.0 -----
ARGON.....	0.0 -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.5 -----	0.2 -----	0.3 -----
HELIUM.....	0.01 -----	0.02 -----	0.12 -----
HEATING VALUE*.....	1090 -----	1094 -----	1119 -----
SPECIFIC GRAVITY.....	0.613	0.623	0.636

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 67 SAMPLE 19770	INDEX 68 SAMPLE 19885	INDEX 69 SAMPLE 19796
STATE.....	OKLAHOMA	OKLAHOMA	OREGON
COUNTY.....	TEXAS	WASHITA	COLUMBIA
FIELD.....	WILDCAT	BURNS FLAT W	MIST
WELL NAME.....	ATKINS B NO. 7	SCHRECK NO. 1-8	SOCKEYE NO. 31-15-65
API.....	35-139-22502	35-149-20699	36-009-00294
LOCATION.....	SEC. 35, T1N, R17ECM	SEC 8, T10N, R19W	SEC. 15, T6N, R5W
OWNER.....	PHILLIPS PETROLEUM CO.	ST. MARY OPERATING CO.	NAHAMA & WEAGANT ENERGY CO.
COMPLETED.....	94/02/24	95/04/12	92/11/18
SAMPLED.....	94/05/00	95/11/10	94/06/28
FORMATION.....	PENN-ATOKA	PENN-GRANITE WASH	EOCE-CLARK, WILSON
GEOLOGIC PROVINCE CODE...	360	360	710
DEPTH, FEET.....	6481	13546	2260
WELLHEAD PRESSURE,PSIG...	723	5694	160
OPEN FLOW, MCFD.....	2996	2021	500
COMPONENT, MOLE PCT			
METHANE.....	88.4 -----	84.9 -----	92.0 -----
ETHANE.....	4.9 -----	8.4 -----	0.1 -----
PROPANE.....	2.9 -----	3.7 -----	0.1 -----
N-BUTANE.....	0.8 -----	1.0 -----	0.0 -----
ISOBUTANE.....	0.2 -----	0.4 -----	0.0 -----
N-PENTANE.....	0.1 -----	0.2 -----	0.0 -----
ISOPENTANE.....	0.1 -----	0.2 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.0 -----
NITROGEN.....	2.0 -----	0.7 -----	7.8 -----
OXYGEN.....	0.1 -----	0.1 -----	0.0 -----
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.2 -----	0.5 -----	0.0 -----
HELIUM.....	0.19 -----	0.04 -----	0.01 -----
HEATING VALUE*.....	1108 -----	1170 -----	934 -----
SPECIFIC GRAVITY.....	0.641	0.669	0.588

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 70 SAMPLE 19791	INDEX 71 SAMPLE 19834	INDEX 72 SAMPLE 19769
STATE.....	SOUTH DAKOTA	TEXAS	TEXAS
COUNTY.....	FALL RIVER	ARANSAS	COLORADO
FIELD.....	IGLOO	CONN BROWN HARBOR	EL NINO
WELL NAME.....	POSEIDON FEDERAL NO. 24-32	STATE TRACT 278A NO. 1	GHEENS-MILLER NO. 1
API.....	40-047-20246	42-007-30812	
LOCATION.....	SEC. 32, T9S, R2E	BBB&C SUR., A-56	ELI CLAPP SUR., A-140
OWNER.....	WESTERN PRODUCTION CO.	NORTH CENTRAL OIL CORP.	SWIFT ENERGY CO.
COMPLETED.....	89/11/23	94/02/20	93/--/00
SAMPLED.....	94/06/14	94/10/07	94/05/05
FORMATION.....	PENN-LEO 1ST	OLIG-PRIO	BOCE-WILCOX
GEOLOGIC PROVINCE CODE...	390	220	220
DEPTH, FEET.....	2926	9365	9392
WELLHEAD PRESSURE, PSIG...	300	2741	1797
OPEN FLOW, MCFD.....	1500	4748	1837
COMPONENT, MOLE PCT			
METHANE.....	41.6 -----	91.3 -----	83.3 -----
ETHANE.....	8.1 -----	3.8 -----	6.1 -----
PROPANE.....	5.7 -----	1.5 -----	4.4 -----
N-BUTANE.....	1.6 -----	0.5 -----	1.3 -----
ISOBUTANE.....	0.6 -----	0.7 -----	1.0 -----
N-PENTANE.....	0.4 -----	0.3 -----	0.2 -----
ISOPENTANE.....	0.2 -----	0.1 -----	0.5 -----
CYCLOPENTANE.....	0.1 -----	0.1 -----	0.1 -----
HEXANES PLUS.....	0.2 -----	0.3 -----	0.1 -----
NITROGEN.....	40.9 -----	0.8 -----	0.3 -----
OXYGEN.....	0.3 -----	0.2 -----	0.0 -----
ARGON.....	0.1 -----	TRACE	TRACE
HYDROGEN.....	TRACE -----	0.0 -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.2 -----	0.5 -----	2.7 -----
HELIUM.....	0.17 -----	TRACE	0.01 -----
HEATING VALUE*.....	823 -----	1102 -----	1185 -----
SPECIFIC GRAVITY.....	0.873	0.630	0.709

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 73 SAMPLE 19859	INDEX 74 SAMPLE 19855	INDEX 75 SAMPLE 19785
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	CONCHO	COTTLE	DENTON
FIELD.....	HALLORAN	RHOMBOCHASM	NEWARK E
WELL NAME.....	CRAWFORD NO. 2	A. B. WINDFOHR 10 NO. 1	PENNINGTON GU A NO. 1
API.....	42-095-31614	42-101-30529	42-121-30558
LOCATION.....	SEC. 74, BLK. 8, H&TC SUR., A-	SEC. 10, BLK. K, R.M. THOMPSON	ABSOLOM C. MADDEN SUR., A-852
OWNER.....	VERDAD OIL & GAS CORP.	BURNETT OIL CO., INC.	MITCHELL ENERGY & DEVELOPMENT
COMPLETED.....	94/09/09	94/08/16	94/01/09
SAMPLED.....	95/04/03	95/02/21	94/06/17
FORMATION.....	PENN-GOEN	PENN-BEND CONGLOMERATE	MISS-BARNETT SHALE
GEOLOGIC PROVINCE CODE...	410	435	420
DEPTH, FEET.....	3801	7190	7794
WELLHEAD PRESSURE, PSIG...	1050	2500	3365
OPEN FLOW, MCFD.....	1681	11200	3170
COMPONENT, MOLE PCT			
METHANE.....	76.9 -----	84.3 -----	90.2 -----
ETHANE.....	7.1 -----	8.4 -----	5.7 -----
PROPANE.....	3.8 -----	3.5 -----	1.3 -----
N-BUTANE.....	1.0 -----	1.0 -----	0.0 -----
ISOBUTANE.....	0.3 -----	0.3 -----	0.5 -----
N-PENTANE.....	0.1 -----	0.1 -----	0.2 -----
ISOPENTANE.....	0.1 -----	0.2 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.0 -----	0.1 -----	0.0 -----
NITROGEN.....	9.8 -----	1.5 -----	0.6 -----
OXYGEN.....	0.1 -----	0.1 -----	0.0 -----
ARGON.....	0.0 -----	0.0 -----	TRACE -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.4 -----	0.5 -----	1.6 -----
HELIUM.....	0.38 -----	0.08 -----	0.03 -----
HEATING VALUE*.....	1058 -----	1153 -----	1070 -----
SPECIFIC GRAVITY.....	0.695	0.668	0.624

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 76 SAMPLE 19730	INDEX 77 SAMPLE 19867	INDEX 78 SAMPLE 19779
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	FAYETTE	FOARD	GOLIAD
FIELD.....	GIDDINGS	NEW BOOTS	BOYCE
WELL NAME.....	EDNA NO. 1-H	JOHNSON NO. 1	E. W. MUECKE NO. 1
API.....	42-149-32796	42-155-30575	42-175-32611
LOCATION.....	FRANKLIN LEWIS SUR., A-64	SEC. 35, BLK. L, SPRR SUR., A-	B. P. TUMLINSON 48 SUR., A-243
OWNER.....	SNYDER OIL CORP.	BURNETT OIL CO., INC.	ORYZ ENERGY CO.
COMPLETED.....	93/11/16	94/05/02	92/06/10
SAMPLED.....	94/03/07	95/04/25	94/05/18
FORMATION.....	CRET-AUSTIN CHALK	PENN-GUNSIGHT	EOCE-WILCOX L
GEOLOGIC PROVINCE CODE...	350	435	220
DEPTH, FEET.....	11100	3252	13754
WELLHEAD PRESSURE, PSIG...	3700	920	6402
OPEN FLOW, MCFD.....	7100	2300	5500
COMPONENT, MOLE PCT			
METHANE.....	57.7 -----	73.3 -----	92.4 -----
ETHANE.....	19.6	8.7	0.8
PROPANE.....	10.0 -----	5.5 -----	0.1 -----
N-BUTANE.....	3.7	1.5	0.0
ISOBUTANE.....	2.4 -----	0.7 -----	0.0 -----
N-PENTANE.....	1.0	0.4	0.0
ISOPENTANE.....	0.9 -----	0.2 -----	0.0 -----
CYCLOPENTANE.....	0.1	0.1	0.0
HEXANES PLUS.....	0.5 -----	0.2 -----	0.0 -----
NITROGEN.....	0.3	9.1	0.6
OXYGEN.....	0.0 -----	0.0 -----	0.1 -----
ARGON.....	TRACE	0.1	0.0
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	3.8 -----	0.2 -----	6.0 -----
HELIUM.....	TRACE	0.23	TRACE
HEATING VALUE*.....	1509 -----	1149 -----	955 -----
SPECIFIC GRAVITY.....	0.933	0.740	0.622

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 79 SAMPLE 19800	INDEX 80 SAMPLE 19399	INDEX 81 SAMPLE 19804
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HANSFORD	HANSFORD	HANSFORD
FIELD.....	DAHL-HOPE	HANSFORD	SPEARMAN NW
WELL NAME.....	WALKER NO. 1	O'LOUGHLIN NO. 1	L. W. MATTHEWS NO. 4
API.....	42-195-31202	42-195-31147	42-195-30677
LOCATION.....	SEC. 156, BLK. 2, GH&H SUR.	SEC. 19, BLK. 2, WCRR SUR.	SEC. 117, BLK. 45, H&TC SUR.
OWNER.....	STRAT LAND EXPLORATION CO.	MEWBOURNE OIL CO.	AMOCO PRODUCTION CO.
COMPLETED.....	94/04/00	91/12/17	91/11/07
SAMPLED.....	94/07/12	92/06/17	94/07/07
FORMATION.....	PENN-MORROW U	PENN-DOUGLAS	PENN-DOUGLAS
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	6841	5007	4909
WELLHEAD PRESSURE, PSIG...	1610	1189	1094
OPEN FLOW, MCFD.....	8000	2600	15578
COMPONENT, MOLE PCT			
METHANE.....	86.2 -----	79.7 -----	73.2 -----
ETHANE.....	6.2 -----	5.4 -----	6.2 -----
PROPANE.....	3.3 -----	3.7 -----	4.8 -----
N-BUTANE.....	1.1 -----	0.5 -----	1.9 -----
ISOBUTANE.....	0.3 -----	0.5 -----	0.6 -----
N-PENTANE.....	0.4 -----	0.0 -----	0.8 -----
ISOPENTANE.....	0.1 -----	1.2 -----	0.2 -----
CYCLOPENTANE.....	0.1 -----	0.0 -----	0.1 -----
HEXANES PLUS.....	0.2 -----	0.0 -----	0.4 -----
NITROGEN.....	1.8 -----	8.5 -----	11.3 -----
OXYGEN.....	0.1 -----	0.2 -----	0.1 -----
ARGON.....	0.0 -----	TRACE -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.3 -----	0.0 -----	0.2 -----
HELIUM.....	0.14 -----	0.29 -----	0.39 -----
HEATING VALUE*.....	1145 -----	1087 -----	1124 -----
SPECIFIC GRAVITY.....	0.663	0.692	0.747

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 82 SAMPLE 19698	INDEX 83 SAMPLE 19784	INDEX 84 SAMPLE 19768
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HARRISON	HARTLEY	HEMPHILL
FIELD.....	TATUM N	HARTLEY HUGOTON	CANADIAN SE
WELL NAME.....	ROLLIE C. SIMS NO. 3	FROST NO. 1	JONES TRUST NO. 25-2
API.....	42-203-32209	42-205-30248	42-211-32041
LOCATION.....	J. M. SORELLE SUR., A-645	SEC. 416, BLK. 44, H&TC SUR.	SEC. 25, BLK. 1, G&M SUR.
OWNER.....	AMERICAN NATURAL ENERGY	CAMBRIDGE PRODUCTION, INC.	SONAT EXPLORATION CO.
COMPLETED.....	93/10/03	93/10/05	93/12/03
SAMPLED.....	93/12/22	94/06/07	94/05/10
FORMATION.....	JURA-COTTON VALLEY	PERM-KRIDER	PENN-DOUGLAS
GEOLOGIC PROVINCE CODE...	260	435	360
DEPTH, FEET.....	8784	3478	7146
WELLHEAD PRESSURE, PSIG...	3066	378	900
OPEN FLOW, MCFD.....	3051	1100	1500
COMPONENT, MOLE PCT			
METHANE.....	90.2 -----	70.7 -----	84.4 -----
ETHANE.....	5.1 -----	6.1 -----	7.8 -----
PROPANE.....	1.4 -----	4.3 -----	4.8 -----
N-BUTANE.....	0.4 -----	0.0 -----	1.0 -----
ISOBUTANE.....	0.2 -----	1.6 -----	0.7 -----
N-PENTANE.....	0.2 -----	0.4 -----	0.0 -----
ISOPENTANE.....	0.0 -----	0.0 -----	0.4 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.0 -----	0.0 -----
NITROGEN.....	0.7 -----	15.9 -----	0.4 -----
OXYGEN.....	0.3 -----	0.0 -----	0.0 -----
ARGON.....	0.0 -----	0.1 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	1.4 -----	0.0 -----	0.2 -----
HELIUM.....	0.01 -----	1.01 -----	0.17 -----
HEATING VALUE*.....	1077 -----	1005 -----	1197 -----
SPECIFIC GRAVITY.....	0.627	0.721	0.679

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 85 SAMPLE 19781	INDEX 86 SAMPLE 19749	INDEX 87 SAMPLE 19759
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HEMPHILL	HEMPHILL	HEMPHILL
FIELD.....	CANADIAN SE	HEMPHILL	HEMPHILL
WELL NAME.....	CAMPBELL NO. 4-2	ARRINGTON RANCH NO. 9-64	FLOWERS NO. 9
API.....	42-211-32051	42-211-31990	42-211-32039
LOCATION.....	B&B SUR., NO. 2	SEC. 64, BLK. A2, H&GN SUR.	SEC 24, G&NMB&A SUR.
OWNER.....	MAXUS EXPLORATION CO.	UMC PETROLEUM CORP.	MERIDIAN OIL, INC.
COMPLETED.....	94/03/28	94/01/13	94/01/10
SAMPLED.....	94/05/31	94/04/06	94/05/00
FORMATION.....	PENN-DOUGLAS	PENN-GRANITE WASH	PENN-GRANITE WASH
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	7130	10450	10550
WELLHEAD PRESSURE, PSIG...	1325	1000	1773
OPEN FLOW, MCFD.....	4650	1000	2816
COMPONENT, MOLE PCT			
METHANE.....	82.7 -----	85.1 -----	85.0 -----
ETHANE.....	7.0 -----	7.9 -----	8.4 -----
PROPANE.....	4.4 -----	3.3 -----	3.4 -----
N-BUTANE.....	1.0 -----	1.0 -----	0.9 -----
ISOBUTANE.....	0.6 -----	0.4 -----	0.5 -----
N-PENTANE.....	0.1 -----	0.3 -----	0.1 -----
ISOPENTANE.....	0.3 -----	0.3 -----	0.3 -----
CYCLOPENTANE.....	0.0 -----	0.1 -----	0.0 -----
HEXANES PLUS.....	0.0 -----	0.2 -----	0.1 -----
NITROGEN.....	3.2 -----	0.6 -----	0.6 -----
OXYGEN.....	0.2 -----	0.0 -----	0.0 -----
ARGON.....	0.0 -----	TRACE	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.4 -----	0.7 -----	0.6 -----
HELIUM.....	0.14 -----	0.03 -----	0.03 -----
HEATING VALUE*.....	1147 -----	1175 -----	1171 -----
SPECIFIC GRAVITY.....	0.683	0.675	0.671

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 88 SAMPLE 19760	INDEX 89 SAMPLE 19812	INDEX 90 SAMPLE 19833
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HEMPHILL	HEMPHILL	HEMPHILL
FIELD.....	HEMPHILL	HEMPHILL	HEMPHILL
WELL NAME.....	FLOWERS NO. 10	YOUNG NO. 17-66	ARRINGTON FRENCH NO. 7-54
API.....	42-211-32028	42-211-32034	42-211-32056
LOCATION.....	SEC. 226, BLK. C, G&MB&A SUR.	SEC. 66, BLK. A-2, H&GN SUR.	SEC. 54, BLK. A-2, H&GN SUR.
OWNER.....	MERIDIAN OIL, INC.	UMC PETROLEUM CORP.	MAXUS EXPLORATION CO.
COMPLETED.....	94/01/18	93/11/24	94/04/14
SAMPLED.....	94/05/00	94/08/09	94/10/11
FORMATION.....	PENN-GRANITE WASH	PENN-GRANITE WASH	PENN-GRANITE WASH
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	10522	10808	10320
WELLHEAD PRESSURE, PSIG...	1225	1295	1593
OPEN FLOW, MCFD.....	4400	4800	5600
COMPONENT, MOLE PCT			
METHANE.....	84.5 -----	85.9 -----	78.0 -----
ETHANE.....	8.2 -----	7.7 -----	11.5 -----
PROPANE.....	4.0 -----	3.1 -----	5.9 -----
N-BUTANE.....	0.0 -----	0.8 -----	1.7 -----
ISOBUTANE.....	1.6 -----	0.4 -----	0.6 -----
N-PENTANE.....	0.5 -----	0.2 -----	0.4 -----
ISOPENTANE.....	0.0 -----	0.2 -----	0.3 -----
CYCLOPENTANE.....	0.0 -----	0.1 -----	0.1 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.2 -----
NITROGEN.....	0.5 -----	0.7 -----	0.9 -----
OXYGEN.....	0.0 -----	0.0 -----	TRACE -----
ARGON.....	0.0 -----	0.0 -----	TRACE -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.5 -----	0.7 -----	0.6 -----
HELIUM.....	0.03 -----	0.03 -----	0.03 -----
HEATING VALUE*.....	1191 -----	1158 -----	1262 -----
SPECIFIC GRAVITY.....	0.679 -----	0.665 -----	0.731 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 91 SAMPLE 19889	INDEX 92 SAMPLE 19754	INDEX 93 SAMPLE 19847
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HEMPHILL	HIDALGO	HOWARD
FIELD.....	WASHITA CREEK W	BELLE FERGUSON	LUTHER SE
WELL NAME.....	ELLEN NO. 1	BELLE FERGUSON NO. 4	J. J. MEADOR NO. 3
API.....	42-211-32097	42-215-31917	42-227-34794
LOCATION.....	SEC. 8, BLK A-1, H&GN SUR.	GREGERIO CANACHO SUR., NO. 68,	SEC. 37, BLK. 26, H&TC RR SUR.
OWNER.....	UPLAND RESOURCES, INC.	ENRON OIL & GAS CO.	PATTERSON PETROLEUM CO.
COMPLETED.....	95/05/09	93/12/06	94/01/11
SAMPLED.....	95/10/29	94/04/08	94/12/29
FORMATION.....	PENN-DOUGLAS	OLIG-FRIO	PENN-STRAWN
GEOLOGIC PROVINCE CODE...	360	220	430
DEPTH, FEET.....	7956	9928	7762
WELLHEAD PRESSURE, PSIG...	2500	3441	300
OPEN FLOW, MCFD.....	22000	3200	250
COMPONENT, MOLE PCT			
METHANE.....	85.0 -----	89.9 -----	57.2 -----
ETHANE.....	7.3 -----	5.7 -----	19.9 -----
PROPANE.....	3.8 -----	1.8 -----	13.9 -----
N-BUTANE.....	1.2 -----	0.5 -----	3.9 -----
ISOBUTANE.....	0.7 -----	0.6 -----	0.9 -----
N-PENTANE.....	0.4 -----	0.2 -----	0.7 -----
ISOPENTANE.....	0.2 -----	0.1 -----	0.7 -----
CYCLOPENTANE.....	0.1 -----	TRACE	0.1 -----
HEXANES PLUS.....	0.2 -----	0.1 -----	0.2 -----
NITROGEN.....	0.6 -----	0.6 -----	2.3 -----
OXYGEN.....	0.0 -----	0.2 -----	0.0 -----
ARGON.....	0.0 -----	TRACE	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.7 -----	0.3 -----	0.2 -----
HELIUM.....	0.05 -----	TRACE	0.03 -----
HEATING VALUE*.....	1185 -----	1115 -----	1531 -----
SPECIFIC GRAVITY.....	0.680	0.632	0.910

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 94 SAMPLE 19880	INDEX 95 SAMPLE 19851	INDEX 96 SAMPLE 19850
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HOWARD	HUTCHINSON	IRION
FIELD.....	TALBOT	PANHANDLE W	DOVE CREEK
WELL NAME.....	BYNUM 46 NO. 1	C. S. CARVER NO. 5	TWEEDY A NO. 10
API.....	42-227-34865	42-233-32521	42-235-33276
LOCATION.....	SEC. 46, BLK. 32, T2N, T&PRR S	BLK. 5, WILLIAM HEATH SUR., NO	SEC. 1006, J.A. BYLER SUR., A-
OWNER.....	COSTILLA PETROLEUM CORP.	TAYLOR, GORDON, OIL CO.	MARATHON OIL CO.
COMPLETED.....	95/01/19	93/12/24	94/10/11
SAMPLED.....	95/09/07	95/01/10	95/01/09
FORMATION.....	PENN-CANYON	PERM-BROWN DOLOMITE	PENN-CISCO, CANYON
GEOLOGIC PROVINCE CODE...	430	440	430
DEPTH, FEET.....	8667	2900	5509
WELLHEAD PRESSURE, PSIG...	1800	38	1145
OPEN FLOW, MCFD.....	1478	3800	3521
COMPONENT, MOLE PCT			
METHANE.....	68.6 -----	60.8 -----	71.1 -----
ETHANE.....	15.9 -----	12.2 -----	12.0 -----
PROPANE.....	8.2 -----	11.4 -----	7.6 -----
N-BUTANE.....	2.2 -----	4.6 -----	2.0 -----
ISOBUTANE.....	0.8 -----	1.7 -----	0.7 -----
N-PENTANE.....	0.6 -----	1.2 -----	0.4 -----
ISOPENTANE.....	0.3 -----	0.9 -----	0.4 -----
CYCLOPENTANE.....	0.1 -----	0.2 -----	0.1 -----
HEXANES PLUS.....	0.2 -----	0.5 -----	0.1 -----
NITROGEN.....	3.0 -----	5.7 -----	4.2 -----
OXYGEN.....	0.0 -----	TRACE -----	0.0 -----
ARGON.....	TRACE -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.3 -----	0.0 -----
CARBON DIOXIDE.....	0.1 -----	0.3 -----	1.4 -----
HELIUM.....	0.04 -----	0.22 -----	0.08 -----
HEATING VALUE*.....	1342 -----	1468 -----	1261 -----
SPECIFIC GRAVITY.....	0.797 -----	0.909 -----	0.778 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 97 SAMPLE 19852	INDEX 98 SAMPLE 19705	INDEX 99 SAMPLE 19743
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	JACKSON	JIM HOGG	JIM WELLS
FIELD.....	FENNER	HELLEN	CAPTAIN LUCE
WELL NAME.....	FENNER NO. 2	DANA HELLEN NO. 11C	LEONA DODD NO. 2
API.....	42-239-32733	42-247-32015	42-249-00826
LOCATION.....	SAMUEL CHANCE SUR., A-11	SEC. 150, DUVAL CSL SUR., A-36	A. GARCIA SUR., A-168
OWNER.....	YUMA PETROLEUM CO.	DAN A. HUGHES CO.	DEWBRE PETROLEUM CORP.
COMPLETED.....	93/11/18	93/10/00	94/01/08
SAMPLED.....	95/01/10	94/01/03	94/03/30
FORMATION.....	OLIG-PRIO	EOCE-COOK MOUNTAIN	MIOC-3800 SAND
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	3937	5180	3771
WELLHEAD PRESSURE, PSIG...	1570	1841	1290
OPEN FLOW, MCFD.....	6600	2975	1300
COMPONENT, MOLE PCT			
METHANE.....	98.4 -----	88.9 -----	98.7 -----
ETHANE.....	0.2 -----	5.2 -----	0.3 -----
PROPANE.....	0.1 -----	2.9 -----	0.1 -----
N-BUTANE.....	0.1 -----	0.7 -----	0.0 -----
ISOBUTANE.....	0.0 -----	0.6 -----	TRACE -----
N-PENTANE.....	0.1 -----	0.3 -----	0.0 -----
ISOPENTANE.....	0.0 -----	0.1 -----	0.0 -----
CYCLOPENTANE.....	0.1 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.0 -----
NITROGEN.....	0.5 -----	0.6 -----	0.0 -----
OXYGEN.....	0.0 -----	0.2 -----	0.0 -----
ARGON.....	0.0 -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	0.0 -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	TRACE -----
CARBON DIOXIDE.....	0.4 -----	0.4 -----	0.9 -----
HELIUM.....	0.01 -----	TRACE -----	0.01 -----
HEATING VALUE*.....	1017 -----	1132 -----	1007 -----
SPECIFIC GRAVITY.....	0.569	0.646	0.566

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 100 SAMPLE 19762	INDEX 101 SAMPLE 19776	INDEX 102 SAMPLE 19777
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	LIPSCOMB	LIPSCOMB	LIPSCOMB
FIELD.....	BRADFORD	BRADFORD	BRADFORD
WELL NAME.....	PIPER B NO. 2	PIPER NO. A-3	MILLER NO. B-5
API.....	42-295-32124	42-295-32154	42-295-32155
LOCATION.....	SEC. 777, BLK. 43, H&TC SUR.	SEC. 776, BLK. 43, H&TC SUR.	SEC. 778, BLK. 43, H&TC SUR.
OWNER.....	MAXUS EXPLORATION CO.	MAXUS EXPLORATION CO.	MAXUS EXPLORATION CO.
COMPLETED.....	94/03/07	94/04/03	94/04/01
SAMPLED.....	94/05/03	94/05/26	94/05/26
FORMATION.....	PENN-CLEVELAND	PENN-CLEVELAND	PENN-CLEVELAND
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	7670	7586	7680
WELLHEAD PRESSURE, PSIG...	1213	1547	922
OPEN FLOW, MCFD.....	1655	10050	2030
COMPONENT, MOLE PCT			
METHANE.....	84.8 -----	86.0 -----	83.0 -----
ETHANE.....	7.5 -----	7.2 -----	7.5 -----
PROPANE.....	3.8 -----	3.2 -----	5.0 -----
N-BUTANE.....	1.2 -----	1.0 -----	0.0 -----
ISOBUTANE.....	0.4 -----	0.1 -----	2.0 -----
N-PENTANE.....	0.3 -----	0.5 -----	0.9 -----
ISOPENTANE.....	0.3 -----	0.1 -----	0.0 -----
CYCLOPENTANE.....	0.1 -----	0.1 -----	0.1 -----
HEXANES PLUS.....	0.2 -----	0.3 -----	0.3 -----
NITROGEN.....	0.9 -----	0.8 -----	1.0 -----
OXYGEN.....	0.0 -----	0.0 -----	0.0 -----
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0 -----	0.0 -----	0.0 -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.4 -----	0.6 -----	0.2 -----
HELIUM.....	0.08 -----	0.08 -----	0.08 -----
HEATING VALUE*.....	1183 -----	1166 -----	1228 -----
SPECIFIC GRAVITY.....	0.678	0.669	0.703

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 103 SAMPLE 19778	INDEX 104 SAMPLE 19797	INDEX 105 SAMPLE 19817
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	LIPSCOMB	LIPSCOMB	LIPSCOMB
FIELD.....	BRADFORD	BRADFORD	BRADFORD
WELL NAME.....	BRADFORD NO. B-4	MARTIN MANDALEK NO. 3	LYDIA BRADFORD NO. 3
API.....	42-295-32163	42-295-32150	42-295-31632
LOCATION.....	SEC. 687, BLK. 43, H&TC SUR.	SEC. 867, BLK. 43, H&TC SUR.	SEC. 811, BLK. 43, H&TC SUR.
OWNER.....	MAXUS EXPLORATION CO.	MAXUS EXPLORATION CO.	MAXUS EXPLORATION CO.
COMPLETED.....	94/03/22	94/05/11	94/01/06
SAMPLED.....	94/05/26	94/07/07	94/09/02
FORMATION.....	PENN-CLEVELAND	PENN-CLEVELAND	PENN-TONKAWA
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	7530	7590	6450
WELLHEAD PRESSURE, PSIG...	1432	1990	1790
OPEN FLOW, MCFD.....	10400	7800	3800
COMPONENT, MOLE PCT			
METHANE.....	89.7 -----	86.5 -----	88.9 -----
ETHANE.....	5.7 -----	6.9 -----	6.0 -----
PROPANE.....	2.1 -----	3.3 -----	2.3 -----
N-BUTANE.....	0.0 -----	1.1 -----	0.7 -----
ISOBUTANE.....	0.6 -----	0.3 -----	0.2 -----
N-PENTANE.....	0.4 -----	0.3 -----	0.2 -----
ISOPENTANE.....	0.0 -----	0.1 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.1 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.2 -----	0.1 -----
NITROGEN.....	0.7 -----	0.8 -----	1.1 -----
OXYGEN.....	0.1 -----	0.0 -----	0.2 -----
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.6 -----	0.4 -----	0.2 -----
HELIUM.....	0.05 -----	0.08 -----	0.08 -----
HEATING VALUE*.....	1107 -----	1162 -----	1117 -----
SPECIFIC GRAVITY.....	0.632	0.663	0.636

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 106 SAMPLE 19832	INDEX 107 SAMPLE 19854	INDEX 108 SAMPLE 19748
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	LIPSCOMB	LIPSCOMB	LIPSCOMB
FIELD.....	BRADFORD	BRADFORD SE	FOLLETT
WELL NAME.....	BRADFORD C NO. 4	OLA NO. 1	LARKEY NO. 2
API.....	42-295-32148	42-295-31986	42-295-32133
LOCATION.....	SEC. 723, BLK. 43, H&TC SUR.	SEC. 776, BLK. 43, H&TC SUR	SEC.125, BLK.2., G. E. LARKEY
OWNER.....	MAXUS EXPLORATION CO.	MEDALLION PETROLEUM, INC.	REDSTONE OIL & GAS CO.
COMPLETED.....	94/04/21	93/11/06	93/12/04
SAMPLED.....	94/10/07	95/01/20	94/04/07
FORMATION.....	PENN-NORROW L	PENN-ATOKA	PENN-NORROW
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	9660	8754	8750
WELLHEAD PRESSURE, PSIG...	1188	1491	1500
OPEN FLOW, MCFD.....	3300	12800	1050
COMPONENT, MOLE PCT			
METHANE.....	95.0 -----	85.4 -----	92.6 -----
ETHANE.....	2.5 -----	8.4 -----	3.6 -----
PROPANE.....	0.7 -----	3.1 -----	1.4 -----
N-BUTANE.....	0.2 -----	1.3 -----	0.4 -----
ISOBUTANE.....	0.0 -----	0.2 -----	0.1 -----
N-PENTANE.....	0.1 -----	0.4 -----	0.1 -----
ISOPENTANE.....	0.0 -----	0.2 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.1 -----
NITROGEN.....	0.3 -----	0.5 -----	0.4 -----
OXYGEN.....	0.0 -----	0.0 -----	0.1 -----
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	1.1 -----	0.4 -----	1.0 -----
HELIUM.....	0.06 -----	0.05 -----	0.05 -----
HEATING VALUE*.....	1040 -----	1176 -----	1072 -----
SPECIFIC GRAVITY.....	0.592	0.670	0.613

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 109 SAMPLE 19753	INDEX 110 SAMPLE 19750	INDEX 111 SAMPLE 19722
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	MADISON	MOORE	MOORE
FIELD.....	MADISONVILLE	CHANNING E	PANHANDLE W
WELL NAME.....	J. W. MATHIS NO. 2	GASSER NO. 3	STATE NO. 503B
API.....	43-313-30710	42-341-32313	42-341-32236
LOCATION.....	ARTER CROWNOVER SUR., A-13	SEC. 3, BLK. 2, G&M SUR.	SEC. 53, BLK. 47, H&TC SUR.
OWNER.....	PARTEN OIL CO.	PHILLIPS PETROLEUM CO.	ANADARKO PETROLEUM CORP.
COMPLETED.....	94/09/10	93/11/29	93/12/03
SAMPLED.....	94/04/05	94/03/29	94/02/18
FORMATION.....	CRET-SUB CLARKSVILLE	PERM-RED CAVE	PERM-BROWN DOLOMITE
GEOLOGIC PROVINCE CODE...	220	440	440
DEPTH, FEET.....	8239	2464	2600
WELLHEAD PRESSURE, PSIG...	1050	650	16
OPEN FLOW, MCFD.....	800	1500	2700
COMPONENT, MOLE PCT			
METHANE.....	83.5 -----	76.9 -----	68.2 -----
ETHANE.....	8.2 -----	4.1 -----	7.9 -----
PROPANE.....	2.9 -----	3.2 -----	7.7 -----
N-BUTANE.....	0.9 -----	0.9 -----	3.9 -----
ISOBUTANE.....	0.5 -----	0.4 -----	1.5 -----
N-PENTANE.....	0.3 -----	0.3 -----	1.2 -----
ISOPENTANE.....	0.3 -----	0.1 -----	0.9 -----
CYCLOPENTANE.....	0.0 -----	0.1 -----	0.2 -----
HEXANES PLUS.....	0.2 -----	0.1 -----	0.6 -----
NITROGEN.....	1.0 -----	13.5 -----	7.2 -----
OXYGEN.....	0.0 -----	0.0 -----	0.0 -----
ARGON.....	TRACE	0.0	0.0
HYDROGEN.....	TRACE -----	0.0 -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	2.3 -----	0.1 -----	0.4 -----
HELIUM.....	0.01	0.43	0.35
HEATING VALUE*.....	1148 -----	1000 -----	1341 -----
SPECIFIC GRAVITY.....	0.687	0.691	0.843

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 112 SAMPLE 19814	INDEX 113 SAMPLE 19816	INDEX 114 SAMPLE 19775
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	MOORE	NEWTON	NOLAN
FIELD.....	PANHANDLE W	BROOKELAND	LAKE TRAMMEL S
WELL NAME.....	MASTERTSON NO. B-107	DONNER NO. 1	HARRIS RAILROAD UNIT NO. 2
API.....	42-341-32315	42-351-30561	
LOCATION.....	SEC. 45, BLK. 3, G&M SUR.	LUTCHER & MOORE SUR. 76, A-115	SEC. 95, BLK. X, T&P SUR., A-4
OWNER.....	MESA OPERATING CO.	UNION PACIFIC RESOURCES CO.	TUCKER DRILLING CO.
COMPLETED.....	94/02/21	93/05/07	93/02/23
SAMPLED.....	94/08/15	94/08/15	94/05/24
FORMATION.....	PERM-BROWN DOLOMITE	CRET-AUSTIN CHALK	PENN-CANYON
GEOLOGIC PROVINCE CODE...	440	220	430
DEPTH, FEET.....	1697	10393	5041
WELLHEAD PRESSURE, PSIG...	24	3540	225
OPEN FLOW, MCFD.....	1286	25600	15
COMPONENT, MOLE PCT			
METHANE.....	67.1 -----	80.9 -----	65.4 -----
ETHANE.....	7.6 -----	8.6 -----	10.0 -----
PROPANE.....	7.7 -----	2.6 -----	9.4 -----
N-BUTANE.....	4.2 -----	0.7 -----	3.0 -----
ISOBUTANE.....	1.5 -----	0.5 -----	1.5 -----
N-PENTANE.....	1.7 -----	0.2 -----	0.8 -----
ISOPENTANE.....	1.0 -----	0.1 -----	0.6 -----
CYCLOPENTANE.....	0.4 -----	0.0 -----	0.2 -----
HEXANES PLUS.....	1.1 -----	0.1 -----	0.5 -----
NITROGEN.....	7.0 -----	1.2 -----	8.2 -----
OXYGEN.....	0.0 -----	0.4 -----	0.0 -----
ARGON.....	0.0 -----	0.0 -----	TRACE -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.4 -----	4.7 -----	0.2 -----
HELIUM.....	0.37 -----	0.01 -----	0.11 -----
HEATING VALUE*.....	1392 -----	1099 -----	1334 -----
SPECIFIC GRAVITY.....	0.872	0.703	0.846

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 115 SAMPLE 19780	INDEX 116 SAMPLE 19803	INDEX 117 SAMPLE 19808
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	OCHILTREE	OCHILTREE	OCHILTREE
FIELD.....	ELLIS RANCH	LIPS W	LIPS W
WELL NAME.....	ROY LINN NO. C-4	AUSTIN UNIT NO. 3	LIPS RANCH B UNIT 15 NO. 35
API.....	42-357-32051	42-357-32041	42-357-32042
LOCATION.....	SEC. 654, BLK. 43, H&TC SUR.	SEC. 47, BLK. 4, AB&M SUR.	SEC. 50, BLK. R, AB&M SUR., A-
OWNER.....	MAZUS EXPLORATION CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.
COMPLETED.....	94/03/30	93/11/29	94/01/05
SAMPLED.....	94/05/26	94/07/08	94/07/13
FORMATION.....	PENN-CLEVELAND	PENN-CLEVELAND	PENN-CLEVELAND
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	7216	6584	6690
WELLHEAD PRESSURE, PSIG...	847	712	1032
OPEN FLOW, MCFD.....	2275	1350	1720
COMPONENT, MOLE PCT			
METHANE.....	82.2 -----	82.2 -----	82.7 -----
ETHANE.....	6.8 -----	9.0 -----	9.1 -----
PROPANE.....	5.2 -----	4.8 -----	4.5 -----
N-BUTANE.....	1.7 -----	1.5 -----	1.3 -----
ISOBUTANE.....	0.9 -----	0.4 -----	0.3 -----
N-PENTANE.....	0.1 -----	0.5 -----	0.4 -----
ISOPENTANE.....	0.5 -----	0.2 -----	0.2 -----
CYCLOPENTANE.....	0.1 -----	0.1 -----	0.1 -----
HEXANES PLUS.....	0.1 -----	0.2 -----	0.2 -----
NITROGEN.....	1.7 -----	0.8 -----	0.9 -----
OXYGEN.....	0.0 -----	0.0 -----	TRACE -----
ARGON.....	TRACE -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.6 -----	0.3 -----	0.3 -----
HELIUM.....	0.13 -----	0.08 -----	0.08 -----
HEATING VALUE*.....	1208 -----	1224 -----	1210 -----
SPECIFIC GRAVITY.....	0.707	0.701	0.692

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 118 SAMPLE 19757	INDEX 119 SAMPLE 19809	INDEX 120 SAMPLE 19870
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	OCHILTREE	PALO PINTO	PECOS
FIELD.....	TURNER E	PALO PINTO REGULAR	SADDLE BUTTE W
WELL NAME.....	DIXIE NO. 2-390	BIG HART NO. 1	UNIVERSITY 17 NO. 2-T
API.....	42-357-32038	42-363-34200	42-371-36499
LOCATION.....	SEC. 390, BLK. 43, H&TC SUR.	TE&L NO. 877 SUR., A-453	SEC. 17, BLK. 26, UNIVERSITY L
OWNER.....	NATURAL GAS ANADARKO CO.	RIPE OIL PROPERTIES, INC.	MARATHON OIL CO.
COMPLETED.....	93/12/01	93/12/05	95/01/18
SAMPLED.....	94/04/22	94/07/26	95/05/02
FORMATION.....	PENN-MORROW	PENN-STRAWN	PERM-WICHITA-ALBANY,GR WASH
GEOLOGIC PROVINCE CODE...	360	425	430
DEPTH, FEET.....	9079	3110	4518
WELLHEAD PRESSURE,PSIG...	821	860	1590
OPEN FLOW, MCFD.....	1150	1100	5001
COMPONENT, MOLE PCT			
METHANE.....	84.1 -----	84.9 -----	93.9 -----
ETHANE.....	7.6 -----	3.5 -----	1.6 -----
PROPANE.....	4.8 -----	2.8 -----	0.4 -----
N-BUTANE.....	0.0 -----	0.9 -----	0.1 -----
ISOBUTANE.....	1.6 -----	0.6 -----	0.0 -----
N-PENTANE.....	0.6 -----	0.3 -----	0.0 -----
ISOPENTANE.....	0.0 -----	0.1 -----	0.1 -----
CYCLOPENTANE.....	0.1 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.2 -----	0.2 -----	0.0 -----
NITROGEN.....	0.5 -----	6.2 -----	3.2 -----
OXYGEN.....	0.0 -----	0.1 -----	0.4 -----
ARGON.....	0.0 -----	0.0 -----	0.0 -----
HYDROGEN.....	TRACE -----	0.0 -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.3 -----	0.2 -----	0.2 -----
HELIUM.....	0.06 -----	0.24 -----	0.09 -----
HEATING VALUE*.....	1208 -----	1074 -----	997 -----
SPECIFIC GRAVITY.....	0.688	0.662	0.586

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 121 SAMPLE 19871	INDEX 122 SAMPLE 19882	INDEX 123 SAMPLE 19741
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	PECOS	REEVES	REFUGIO
FIELD.....	SADDLE BUTTE W	GREASEWOOD	ROCHE
WELL NAME.....	UNIVERSITY 17 NO. 2	TYL NO. 19-1	K. D. ROCHE NO. 27
API.....	42-371-36499	42-389-30476	42-391-03175
LOCATION.....	SEC. 17, BLK. 26, UNIVERSITY L	SEC. 19, BLK. 54, T-4-S T&T SU	JOHN M. SWISHER SUR., A-377
OWNER.....	MARATHON OIL CO.	HELMERICH & PAYNE, INC.	H & D OPERATING CO.
COMPLETED.....	95/01/18	95/05/31	93/12/09
SAMPLED.....	95/05/02	95/09/13	94/03/24
FORMATION.....	PERM-WICHITA-ALBANY,GR WASH	PENN-ATOKA	OLIG-PRIO
GEOLOGIC PROVINCE CODE...	430	430	220
DEPTH, FEET.....	4518	16994	6452
WELLHEAD PRESSURE, PSIG...	1590	NOT GIVEN	2094
OPEN FLOW, MCFD.....	5001	NOT GIVEN	5700
COMPONENT, MOLE PCT			
METHANE.....	92.6 -----	96.2 -----	90.2 -----
ETHANE.....	3.1 -----	0.5 -----	5.0 -----
PROPANE.....	1.1 -----	0.0 -----	2.2 -----
N-BUTANE.....	0.4 -----	0.1 -----	0.8 -----
ISOBUTANE.....	0.1 -----	0.0 -----	0.6 -----
N-PENTANE.....	0.1 -----	0.0 -----	0.3 -----
ISOPENTANE.....	0.0 -----	0.1 -----	0.2 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
HEXANES PLUS.....	0.1 -----	0.0 -----	0.2 -----
NITROGEN.....	1.7 -----	0.2 -----	0.3 -----
OXYGEN.....	0.0 -----	0.0 -----	TRACE -----
ARGON.....	0.0 -----	0.0 -----	TRACE -----
HYDROGEN.....	TRACE -----	TRACE -----	0.1 -----
HYDROGEN SULFIDE**.....	0.7 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.1 -----	2.9 -----	0.1 -----
HELIUM.....	0.06 -----	0.01 -----	TRACE -----
HEATING VALUE*.....	1049 -----	992 -----	1142 -----
SPECIFIC GRAVITY.....	0.603	0.590	0.640

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 124 SAMPLE 19806	INDEX 125 SAMPLE 19736	INDEX 126 SAMPLE 19837
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	ROBERTS	ROBERTS	ROBERTS
FIELD.....	HANSFORD	MENDOTA NW	ST. CLAIR
WELL NAME.....	LIPS RANCH B UNIT 4 NO. 33-L	FLOWERS C NO. 4-6	MCHORDIE NO. 3-86
API.....	42-393-31198	42-393-31196	42-393-31212
LOCATION.....	SEC. 32, BLK. A, H&GN SUR.	SEC. 6, BS&P SUR.	BLK. C, GUNN&MUNSON SUR., A-86
OWNER.....	AMOCO PRODUCTION CO.	SEAGULL MIDCON, INC.	MAXUS EXPLORATION CO.
COMPLETED.....	94/01/04	93/--/00	94/04/22
SAMPLED.....	94/07/15	94/03/03	94/10/25
FORMATION.....	PENN-MORROW	PENN-GRANITE WASH	PENN-GRANITE WASH
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	8482	9720	9403
WELLHEAD PRESSURE, PSIG...	10	2151	1320
OPEN FLOW, MCFD.....	1350	5279	32000
COMPONENT, MOLE PCT			
METHANE.....	90.1 -----	78.7 -----	75.4 -----
ETHANE.....	4.3 -----	11.5 -----	12.6 -----
PROPANE.....	2.2 -----	5.2 -----	6.5 -----
N-BUTANE.....	0.9 -----	1.6 -----	2.0 -----
ISOBUTANE.....	0.3 -----	0.5 -----	0.6 -----
N-PENTANE.....	0.3 -----	0.5 -----	0.5 -----
ISOPENTANE.....	0.2 -----	0.3 -----	0.3 -----
CYCLOPENTANE.....	0.1 -----	0.1 -----	0.1 -----
HEXANES PLUS.....	0.2 -----	0.3 -----	0.3 -----
NITROGEN.....	0.8 -----	0.8 -----	1.1 -----
OXYGEN.....	TRACE -----	0.0 -----	TRACE -----
ARGON.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.5 -----	0.6 -----	0.5 -----
HELIUM.....	0.10 -----	0.05 -----	0.05 -----
HEATING VALUE*.....	1118 -----	1255 -----	1299 -----
SPECIFIC GRAVITY.....	0.639	0.726	0.755

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 127 SAMPLE 19723	INDEX 128 SAMPLE 19721	INDEX 129 SAMPLE 19861
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	SCHLBICHER	SHERMAN	SHERMAN
FIELD.....	POZO RICO	CUMBERLAND	TEXHOMA
WELL NAME.....	BROOKS NO. 11-3	CLUCK D NO. 3	HAMILTON NO. 2-103
API.....	42-413-31914	42-421-30554	42-421-30569
LOCATION.....	SEC. 11, BLK. TT, TCRR SUR., A	SEC. 113, BLK. 1-C, GH&H SUR.	SEC. 103, BLK. 1-C, GH&H SUR.
OWNER.....	SWIFT ENERGY CO.	TEXACO EXPLOR. & PRODUCTION, I	COURSON OIL & GAS, INC.
COMPLETED.....	92/12/23	93/11/17	95/01/27
SAMPLED.....	94/02/17	94/02/16	95/03/31
FORMATION.....	PERM-WOLPCAMP	PENN-NORROW	PENN-DES MOINES
GEOLOGIC PROVINCE CODE...	430	360	360
DEPTH, FEET.....	4982	6406	5780
WELLHEAD PRESSURE, PSIG...	200	1544	1630
OPEN FLOW, MCFD.....	90	16000	10300
COMPONENT, MOLE PCT			
METHANE.....	70.7 -----	81.4 -----	78.5 -----
ETHANE.....	10.7 -----	7.6 -----	9.1 -----
PROPANE.....	8.6 -----	3.9 -----	4.6 -----
N-BUTANE.....	2.3 -----	1.2 -----	1.1 -----
ISOBUTANE.....	0.8 -----	0.3 -----	0.2 -----
N-PENTANE.....	0.6 -----	0.3 -----	0.2 -----
ISOPENTANE.....	0.5 -----	0.2 -----	0.1 -----
CYCLOPENTANE.....	0.1 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.3 -----	0.2 -----	0.1 -----
NITROGEN.....	4.9 -----	4.4 -----	5.8 -----
OXYGEN.....	0.0 -----	0.0 -----	0.0 -----
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	TRACE	TRACE	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4 -----	0.1 -----	0.1 -----
HELIUM.....	0.09	0.17	0.18
HEATING VALUE*.....	1302 -----	1147 -----	1133 -----
SPECIFIC GRAVITY.....	0.795	0.689	0.695

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 130 SAMPLE 19877	INDEX 131 SAMPLE 19732	INDEX 132 SAMPLE 19887
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	STERLING	TERRELL	TERRELL
FIELD.....	CONGER	PAKENHAM	PAKENHAM
WELL NAME.....	E.E. BARBEE JR. NO. 5	MITCHELL 87 NO. 1	ANNA MCCLUNG 1 NO. 3
API.....	42-431-32786	42-443-30392	42-443-30463
LOCATION.....	SEC. 4, F.A. BROOKS SUR., A-43	SEC. 87, BLK. 1, TC&RR SUR.	MRS. ANNA MCCLUNG NO. 1 SUR.
OWNER.....	TEXACO INC.	ENRON OIL & GAS CO.	CONOCO, INC.
COMPLETED.....	95/04/27	93/11/19	94/11/21
SAMPLED.....	95/08/22	94/03/09	95/11/02
FORMATION.....	PENN-CONGER	PERM-WOLFCAMP	PENN-STRAWN
GEOLOGIC PROVINCE CODE...	430	430	430
DEPTH, FEET.....	7661	7781	10994
WELLHEAD PRESSURE, PSIG...	1632	2875	5049
OPEN FLOW, MCPD.....	8078	13362	28000
COMPONENT, MOLE PCT			
METHANE.....	74.2 -----	91.1 -----	86.0 -----
ETHANE.....	10.4 -----	4.3 -----	8.0 -----
PROPANE.....	7.6 -----	2.1 -----	3.4 -----
N-BUTANE.....	1.9 -----	0.6 -----	0.8 -----
ISOBUTANE.....	0.7 -----	0.2 -----	0.5 -----
N-PENTANE.....	0.5 -----	0.2 -----	0.2 -----
ISOPENTANE.....	0.3 -----	0.1 -----	0.2 -----
CYCLOPENTANE.....	0.0 -----	0.1 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.2 -----	0.0 -----
NITROGEN.....	3.8 -----	0.7 -----	0.5 -----
OXYGEN.....	0.0 -----	0.0 -----	0.0 -----
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.4 -----	0.5 -----	0.3 -----
HELIUM.....	0.09 -----	0.05 -----	0.03 -----
HEATING VALUE*.....	1262 -----	1103 -----	1164 -----
SPECIFIC GRAVITY.....	0.759	0.626	0.660

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 133 SAMPLE 19876	INDEX 134 SAMPLE 19825	INDEX 135 SAMPLE 19792
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	TERRELL	THROCKMORTON	WEBB
FIELD.....	PARK S	JON BEAR	CARR
WELL NAME.....	CULBERTSON STATE 16 NO. 1	KELLY RANCH "E" NO. 1	J. E. CARR NO. 1
API.....	42-443-30484	42-447-35201	42-479-35907
LOCATION.....	SEC. 16, BLK 2, CCSD&RGNG SUR, A	BLK. 31, COMANCHE IND. RES. SUR. A	TC SUR. 1635, A-1797
OWNER.....	CONOCO, INC.	BURK ROYALTY CO.	CONOCO, INC.
COMPLETED.....	95/01/11	93/--/00	93/11/29
SAMPLED.....	95/08/02	94/09/22	94/06/22
FORMATION.....	PENN-SAND	PENN-BEND CONGLOMERATE	EOCE-LOBO 6
GEOLOGIC PROVINCE CODE... 430		425	220
DEPTH, FEET.....	10848	4478	8954
WELLHEAD PRESSURE, PSIG... 4883		1865	2846
OPEN FLOW, MCFD..... 21250		1648	4821
COMPONENT, MOLE PCT			
METHANE.....	87.1 -----	71.8 -----	90.7 -----
ETHANE.....	7.5 -----	9.1 -----	4.6 -----
PROPANE.....	3.1 -----	3.6 -----	1.7 -----
N-BUTANE.....	0.8 -----	1.2 -----	0.4 -----
ISOBUTANE.....	0.3 -----	0.3 -----	0.3 -----
N-PENTANE.....	0.2 -----	0.4 -----	0.2 -----
ISOPENTANE.....	0.1 -----	0.2 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.1 -----	0.1 -----
HEXANES PLUS.....	0.1 -----	0.2 -----	0.2 -----
NITROGEN.....	0.4 -----	9.2 -----	0.1 -----
OXYGEN.....	0.0 -----	0.1 -----	0.0 -----
ARGON.....	0.0 -----	0.0 -----	TRACE
HYDROGEN.....	TRACE -----	0.0 -----	TRACE
HYDROGEN SULFIDE**..... 0.0		0.0	0.0
CARBON DIOXIDE.....	0.3 -----	3.6 -----	1.6 -----
HELIUM.....	0.02 -----	0.24 -----	TRACE
HEATING VALUE*..... 1153		1076	1094
SPECIFIC GRAVITY..... 0.653		0.750	0.633

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 136 SAMPLE 19858	INDEX 137 SAMPLE 19727	INDEX 138 SAMPLE 19699
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	WEBB	WEBB	WEBB
FIELD.....	CUBA LIBRE	EL CABALLERO	LA ROSITA
WELL NAME.....	LAUREL A NO. 3	S. H. WILLIAMSON NO. 8	BRUNI MINERAL C NO. 13
API.....	42-479-36064	42-479-35930	42-479-35919
LOCATION.....	AMADO S. LAUREL SUR., A-2631	BS&F SUR. 539, A-1984	JOSE VASQUEZ BORREGO GRANT, A-
OWNER.....	ESENJAY PETROLEUM CORP.	ENRON OIL & GAS CO.	ENRON OIL & GAS CO.
COMPLETED.....	94/10/07	93/11/09	93/10/18
SAMPLED.....	95/03/01	94/02/17	93/12/27
FORMATION.....	EOCE-HINNANT 3RD	EOCE-LOBO	EOCE-LOBO
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	8579	7624	9958
WELLHEAD PRESSURE, PSIG...	5065	3740	4657
OPEN FLOW, MCFD.....	2831	2057	3775
COMPONENT, MOLE PCT			
METHANE.....	81.7 -----	93.1 -----	93.2 -----
ETHANE.....	8.4 -----	3.5 -----	3.6 -----
PROPANE.....	4.8 -----	1.3 -----	0.7 -----
N-BUTANE.....	1.3 -----	0.4 -----	0.2 -----
ISOBUTANE.....	0.8 -----	0.2 -----	0.0 -----
N-PENTANE.....	0.2 -----	0.1 -----	0.1 -----
ISOPENTANE.....	0.2 -----	0.1 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.1 -----
NITROGEN.....	0.1 -----	0.2 -----	0.1 -----
OXYGEN.....	0.0 -----	0.0 -----	0.0 -----
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE -----	0.0 -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	2.4 -----	0.9 -----	2.0 -----
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	1194 -----	1074 -----	1043 -----
SPECIFIC GRAVITY.....	0.709	0.610	0.607

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 139 SAMPLE 19766	INDEX 140 SAMPLE 19696	INDEX 141 SAMPLE 19328
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	WEBB	WHARTON	WHEELER
FIELD.....	MUJERES CREEK	ALWAN W	BRITT RANCH
WELL NAME.....	EL GATO NO. 22	HUTCHINS PEARSON ESTATE NO.2	BRITT CALDWELL NO. 1
API.....	42-479-35643	42-481-33620	42-483-30808
LOCATION.....	TTRR SUR. 1953, A-1817	W. J. WICKHAM SUR., A-356	WHEELER 15 SA-3
OWNER.....	TEXACO EXPLOR. & PRODUCTION, I	CONOCO, INC.	PETRO-HUNT CORP.
COMPLETED.....	92/12/18	93/05/21	81/11/25
SAMPLED.....	94/05/05	93/12/16	92/02/26
FORMATION.....	EOCE-LOBO	OLIG-PRIO	PENN-DES MOINES
GEOLOGIC PROVINCE CODE...	220	220	360
DEPTH, FEET.....	8798	4601	12348
WELLHEAD PRESSURE, PSIG...	3350	1489	2300
OPEN FLOW, MCFD.....	2200	9788	900
COMPONENT, MOLE PCT			
METHANE.....	85.4 -----	98.6 -----	81.1 -----
ETHANE.....	7.3 -----	0.8 -----	9.9 -----
PROPANE.....	3.5 -----	0.1 -----	2.9 -----
N-BUTANE.....	0.0 -----	0.0 -----	0.9 -----
ISOBUTANE.....	1.4 -----	TRACE -----	0.7 -----
N-PENTANE.....	0.5 -----	0.0 -----	0.6 -----
ISOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.2 -----
HEXANES PLUS.....	0.1 -----	0.1 -----	0.6 -----
NITROGEN.....	0.6 -----	0.2 -----	2.0 -----
OXYGEN.....	0.2 -----	0.0 -----	0.8 -----
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	1.0 -----	0.2 -----	0.2 -----
HELIUM.....	TRACE	TRACE	0.04
HEATING VALUE*.....	1161 -----	1020 -----	1195 -----
SPECIFIC GRAVITY.....	0.672	0.564	0.702

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 142 SAMPLE 19878	INDEX 143 SAMPLE 19767	INDEX 144 SAMPLE 19745
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	WHEELER	WHEELER	WISE
FIELD.....	CANDICE	NO-TEX	FLETCHER
WELL NAME.....	HORN NO. 1-8	HOGAN NO. 1	CRAWFORD NO. 1
API.....	42-483-31467	42-483-31447	42-497-33834
LOCATION.....	SEC. 8, BLK. A-2, H&GN SUR.	SEC. 23, BLK. A-5, H&GN SUR.	J. P. CAIN SUR., A-1066
OWNER.....	SIDWELL OIL & GAS, INC.	CAMBRIDGE PRODUCTION, INC.	BRISTOL RESOURCES CORP.
COMPLETED.....	95/02/09	94/01/24	94/01/01
SAMPLED.....	95/08/29	94/05/05	94/03/24
FORMATION.....	PENN-MORROW	DEVO-HUNTON, WOODFORD	PENN-ATOKA CONGLOMERATE
GEOLOGIC PROVINCE CODE...	360	360	420
DEPTH, FEET.....	12091	12730	6800
WELLHEAD PRESSURE, PSIG...	3768	2600	600
OPEN FLOW, MCFD.....	12000	2100	1200
COMPONENT, MOLE PCT			
METHANE.....	93.9 -----	86.6 -----	74.8 -----
ETHANE.....	3.3 -----	5.3 -----	10.3 -----
PROPANE.....	1.1 -----	3.6 -----	7.5 -----
N-BUTANE.....	0.3 -----	1.4 -----	1.9 -----
ISOBUTANE.....	0.1 -----	0.6 -----	1.1 -----
N-PENTANE.....	0.1 -----	0.2 -----	0.5 -----
ISOPENTANE.....	0.1 -----	0.3 -----	0.4 -----
CYCLOPENTANE.....	0.0 -----	0.1 -----	0.1 -----
HEXANES PLUS.....	0.0 -----	0.1 -----	0.3 -----
NITROGEN.....	0.4 -----	0.5 -----	2.4 -----
OXYGEN.....	TRACE -----	0.0 -----	0.0 -----
ARGON.....	TRACE -----	TRACE -----	0.0 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.8 -----	1.4 -----	0.7 -----
HELIUM.....	0.03 -----	0.02 -----	0.09 -----
HEATING VALUE*.....	1056 -----	1160 -----	1293 -----
SPECIFIC GRAVITY.....	0.599	0.675	0.768

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 145 SAMPLE 19786	INDEX 146 SAMPLE 19841	INDEX 147 SAMPLE 19793
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	WISE	ZAPATA	ZAPATA
FIELD.....	NEWARK E	AGARITO	HUNDIDO
WELL NAME.....	R. L. TITCH NO. 3	MARTINEZ NO. 4	J. G. RATHMELL NO. 10
API.....	42-497-33832		42-505-33044
LOCATION.....	BLK. 51, SMITH CSL SUR.	ONE MI. S US 83, NEAR WEBB CO	J. V. BORREGO GRANT, A-209
OWNER.....	MITCHELL ENERGY & DEVELOPMENT	COLUMBUS ENERGY CORP.	CONOCO, INC.
COMPLETED.....	94/02/02	93/07/10	93/10/04
SAMPLED.....	94/06/17	94/11/19	94/06/22
FORMATION.....	MISS-BARNETT SHALE	EOCE-LOBO	EOCE-SAND
GEOLOGIC PROVINCE CODE...	420	220	220
DEPTH, FEET.....	7764	7373	9292
WELLHEAD PRESSURE, PSIG...	3275	4040	5500
OPEN FLOW, MCFD.....	8200	3200	7197
COMPONENT, MOLE PCT			
METHANE.....	84.5 -----	90.3 -----	95.0 -----
ETHANE.....	9.6 -----	5.7 -----	2.0 -----
PROPANE.....	2.6 -----	1.5 -----	0.3 -----
N-BUTANE.....	0.6 -----	0.4 -----	0.1 -----
ISOBUTANE.....	0.4 -----	0.3 -----	0.1 -----
N-PENTANE.....	0.2 -----	0.3 -----	0.0 -----
ISOPENTANE.....	0.2 -----	0.0 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.1 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.3 -----	0.0 -----
NITROGEN.....	0.6 -----	0.1 -----	0.1 -----
OXYGEN.....	0.0 -----	0.0 -----	0.0 -----
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	1.2 -----	1.1 -----	2.4 -----
HELIUM.....	0.03 -----	TRACE	TRACE
HEATING VALUE*.....	1148 -----	1107 -----	1013 -----
SPECIFIC GRAVITY.....	0.666	0.633	0.594

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 148 SAMPLE 19853	INDEX 149 SAMPLE 19789	INDEX 150 SAMPLE 19734
STATE.....	TEXAS	TEXAS	UTAH
COUNTY.....	ZAPATA	ZAVALA	GRAND
FIELD.....	VOLPE	NIKOMA	BAR X
WELL NAME.....	SALVADOR GARCIA G NO. 24	MILBY NO. 1A	FEDERAL NO. 9-10
API.....	42-505-33231		43-019-31333
LOCATION.....	ISABLE GONZALES NO. 28 SUR, A-	JOHN G. TODD G-380 SUR., A-870	SEC. 9, T17S, R25E
OWNER.....	ENRON OIL & GAS CO.	SWIFT ENERGY CO.	LONE MOUNTAIN PRODUCTION CO.
COMPLETED.....	94/10/16	92/--/00	93/09/19
SAMPLED.....	95/01/15	94/06/09	93/03/00
FORMATION.....	EOCE-WILCOX	CRET-SAN MIGUEL	JURA-MORRISON
GEOLOGIC PROVINCE CODE...	220	220	585
DEPTH, FEET.....	8238	2118	NOT GIVEN
WELLHEAD PRESSURE, PSIG...	4036	577	NOT GIVEN
OPEN FLOW, MCFD.....	3300	840	2100
COMPONENT, MOLE PCT			
METHANE.....	93.3 -----	99.0 -----	88.8 -----
ETHANE.....	3.5 -----	0.1 -----	3.5 -----
PROPANE.....	1.0 -----	0.1 -----	0.8 -----
N-BUTANE.....	0.3 -----	0.0 -----	0.1 -----
ISOBUTANE.....	0.1 -----	TRACE -----	0.2 -----
N-PENTANE.....	0.1 -----	0.0 -----	0.0 -----
ISOPENTANE.....	0.1 -----	0.0 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	0.1 -----	0.0 -----	0.0 -----
NITROGEN.....	0.1 -----	0.7 -----	5.5 -----
OXYGEN.....	TRACE -----	0.0 -----	0.0 -----
ARGON.....	0.0 -----	TRACE -----	0.1 -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	1.4 -----	0.2 -----	0.8 -----
HELIUM.....	TRACE -----	0.01 -----	0.18 -----
HEATING VALUE*.....	1056 -----	1006 -----	996 -----
SPECIFIC GRAVITY.....	0.607	0.560	0.617

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 151 SAMPLE 19751	INDEX 152 SAMPLE 19752	INDEX 153 SAMPLE 19848
STATE.....	UTAH	UTAH	WYOMING
COUNTY.....	UINTAH	UINTAH	FREMONT
FIELD.....	NATURAL BUTTES	NATURAL BUTTES	BEAVER CREEK
WELL NAME.....	NATURAL COTTON NO. 13-20	CHAPITA WELLS 27N NO. 359	BEAVER CREEK UNIT NO. 140
API.....	43-047-32429	43-047-32436	49-013-21406
LOCATION.....	SEC. 20, T9S, R21E	SEC. 15, T9S, R22E	SEC. 10, T33N, R96W
OWNER.....	ENRON OIL & GAS CO.	ENRON OIL & GAS CO.	AMOCO PRODUCTION CO.
COMPLETED.....	94/12/08	94/02/02	93/11/29
SAMPLED.....	94/04/09	94/04/09	94/12/00
FORMATION.....	EOCE-GREEN RIVER	EOCE-WASATCH	CRET-FRONTIER, DAKOTA
GEOLOGIC PROVINCE CODE...	575	575	530
DEPTH, FEET.....	4800	5400	6980
WELLHEAD PRESSURE, PSIG...	1550	1830	NOT GIVEN
OPEN FLOW, MCPD.....	5000	4000	2300
COMPONENT, MOLE PCT			
METHANE.....	92.6 -----	94.2 -----	91.7 -----
ETHANE.....	4.2 -----	3.5 -----	4.6 -----
PROPANE.....	1.6 -----	1.0 -----	1.8 -----
N-BUTANE.....	0.4 -----	0.3 -----	0.6 -----
ISOBUTANE.....	0.2 -----	0.1 -----	0.2 -----
N-PENTANE.....	0.1 -----	0.1 -----	0.2 -----
ISOPENTANE.....	0.2 -----	0.1 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.0 -----
HEXANES PLUS.....	TRACE -----	0.1 -----	0.1 -----
NITROGEN.....	0.5 -----	0.4 -----	0.5 -----
OXYGEN.....	0.0 -----	0.0 -----	0.0 -----
ARGON.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.1 -----	0.2 -----	0.3 -----
HELIUM.....	0.02 -----	0.01 -----	0.01 -----
HEATING VALUE*.....	1088 -----	1070 -----	1099 -----
SPECIFIC GRAVITY.....	0.610 -----	0.597 -----	0.619 -----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 154 SAMPLE 19713	INDEX 155 SAMPLE 19787	INDEX 156 SAMPLE 19826
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	LINCOLN	LINCOLN	PARK
FIELD.....	LA BARGE	WILSON RANCH	OREGON BASIN
WELL NAME.....	LA BARGE NO. 16	ALTROGGE FED. NO. 3-18	SAMUEL NO. 27
API.....	49-023-20964	49-023-21002	49-029-20318
LOCATION.....	SEC. 3, T26N, R113W	SEC. 18, T19N, R112W	SEC. 32, T51N, R100W
OWNER.....	TEXACO EXPLOR, & PRODUCTION, I	UNION PACIFIC RESOURCES CO.	MARATHON OIL CO.
COMPLETED.....	93/10/31	93/11/20	94/04/13
SAMPLED.....	94/01/24	94/06/14	94/09/21
FORMATION.....	CRET-FRONTIER	CRET-DAKOTA	TRIA-CHUGWATER
GEOLOGIC PROVINCE CODE...	535	535	520
DEPTH, FEET.....	5924	11918	2500
WELLHEAD PRESSURE, PSIG...	2100	3000	400
OPEN FLOW, MCFD.....	4262	1320	1000
COMPONENT, MOLE PCT			
METHANE.....	87.7 -----	84.0 -----	90.6 -----
ETHANE.....	5.7 -----	9.6 -----	4.3 -----
PROPANE.....	1.4 -----	3.0 -----	1.3 -----
N-BUTANE.....	0.5 -----	1.0 -----	0.4 -----
ISOBUTANE.....	0.1 -----	0.1 -----	0.2 -----
N-PENTANE.....	0.1 -----	0.0 -----	0.3 -----
ISOPENTANE.....	0.1 -----	0.5 -----	0.0 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
HEXANES PLUS.....	0.1 -----	0.0 -----	0.2 -----
NITROGEN.....	3.5 -----	0.9 -----	2.5 -----
OXYGEN.....	0.6 -----	0.1 -----	0.0 -----
ARGON.....	0.0 -----	0.0 -----	TRACE
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0 -----	0.0 -----	0.0 -----
CARBON DIOXIDE.....	0.2 -----	0.8 -----	0.0 -----
HELIUM.....	0.03 -----	0.01 -----	0.08 -----
HEATING VALUE*.....	1058 -----	1161 -----	1072 -----
SPECIFIC GRAVITY.....	0.631	0.671	0.619

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX 157 SAMPLE 19842	INDEX 158 SAMPLE 19700	INDEX 159 SAMPLE 19840
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SUBLETTE	SWEETWATER	SWEETWATER
FIELD.....	RED HILL	HAYSTACK	WANSUTTER N
WELL NAME.....	RED HILL NO. 2-18	POLAR BAR NO. 1	UPRC NO. 2-27
API.....	49-035-21294	49-037-23037	49-037-23138
LOCATION.....	SEC. 18, T27N, R112W	SEC. 22, T14N, R96W	SEC.27, T21N, R94W
OWNER.....	ENRON OIL & GAS CO.	BASS ENTERPRISES PRODUCTION CO	DALEN RESOURCES OIL & GAS CO.
COMPLETED.....	94/06/07	93/05/06	93/12/22
SAMPLED.....	94/11/29	93/12/28	94/11/15
FORMATION.....	CRET-FRONTIER	CRET-ALMOND	CRET-ALMOND
GEOLOGIC PROVINCE CODE...	535	535	535
DEPTH, FEET.....	6890	14064	10232
WELLHEAD PRESSURE,PSIG...	450	8800	1100
OPEN FLOW, MCFD.....	1962	NOT GIVEN	650
COMPONENT, MOLE PCT			
METHANE.....	92.8 -----	96.3 -----	88.9 -----
ETHANE.....	4.3 -----	0.3 -----	5.3 -----
PROPANE.....	1.5 -----	0.1 -----	1.9 -----
N-BUTANE.....	0.4 -----	0.0 -----	0.5 -----
ISOBUTANE.....	0.1 -----	0.0 -----	0.3 -----
N-PENTANE.....	0.1 -----	0.0 -----	0.2 -----
ISOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
CYCLOPENTANE.....	0.0 -----	0.0 -----	0.1 -----
HEXANES PLUS.....	0.1 -----	0.0 -----	0.2 -----
NITROGEN.....	0.4 -----	0.1 -----	0.3 -----
OXYGEN.....	0.0 -----	0.0 -----	0.1 -----
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	TRACE -----	TRACE -----	TRACE -----
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2 -----	3.3 -----	2.3 -----
HELIUM.....	0.01	TRACE	TRACE
HEATING VALUE*.....	1082 -----	982 -----	1091 -----
SPECIFIC GRAVITY.....	0.607	0.589	0.645

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 1
 SAMPLE 19813

STATE.....	ALASKA	
COUNTY.....	KENAI	
FIELD.....	COOK INLET	
LOCATION.....	A-1,2,3,4,6,7,8,9,11,12,&13 WE	
OWNER.....	PHILLIPS PETROLEUM CO.	
SAMPLED.....	94/08/10	
FORMATION.....	NOT GIVEN	
GEOLOGIC PROVINCE CODE...	820	
DEPTH, FEET.....	NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT		
METHANE.....	99.1	-----
ETHANE.....	0.1	
PROPANE.....	0.1	-----
N-BUTANE.....	0.0	
ISOBUTANE.....	TRACE	-----
N-PENTANE.....	0.0	
ISOPENTANE.....	0.0	-----
CYCLOPENTANE.....	0.0	
HEXANES PLUS.....	0.0	-----
NITROGEN.....	0.7	
OXYGEN.....	0.0	-----
ARGON.....	0.0	
HYDROGEN.....	TRACE	-----
HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.1	-----
HELIUM.....	TRACE	
HEATING VALUE*.....	1007	-----
SPECIFIC GRAVITY.....	0.559	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

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