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Analyses of Natural Gases, 1984

By B. J. Moore and John E. Hamak



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ANALYSES OF NATURAL GASES, 1984

By B. J. Moore¹ and John E. Hamak¹

INTRODUCTION

This Bureau of Mines publication contains analyses and related source data for 276 natural gas samples from 23 States. All samples except four were collected during calendar year 1984. Those four samples were collected earlier, but releases granting permission to publish were not received until 1984. All samples were obtained and analyzed as part of Bureau of Mines investigations of the occurrences of helium in natural gases of countries with free market economies. This survey has been conducted since 1917. The analyses published herein were made by the 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. Twenty-eight publications have presented the results of 13,957 gas analyses made prior to 1984. The first three bulletins (1-3)² 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, 26-28) containing 8,453 analyses of samples collected since 1960.

In 1976, a compilation of the analyses made prior to 1975 was prepared by the Bureau of Mines and published by the National Technical Information Service of the U.S. Department of Commerce (18). This compilation contains 10,562 analyses of gas samples from gas and oil wells and natural gas pipelines in 37 States and 23 foreign countries. In 1982, a compilation of analyses made prior to 1980 was published (25). 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.

In addition to being in the publications, all analyses and related information published through 1984 are available on a magnetic tape file. The tape is available for \$140 from the National Technical Information Service, Springfield, VA 22151; orders should refer to Bureau of Mines tape PB 84-188978.

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²Underlined numbers in parentheses refer to items in the list of previous publications at the end of the report.

ACKNOWLEDGMENTS

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. The analyses listed in the tables were made by the Section of Technical and Analytical Services, Helium Field Operations, Bureau of Mines, Amarillo, TX. The list of analyses was produced through use of a computer by the Section of Automatic Data Processing, Helium Field Operations, Bureau of Mines, Amarillo, TX.

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.³ 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. Owing to 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 3.

³Meyer, R. F. Geologic Provinces Code Map for Computer Use. AAPG Bull., v. 54, No. 7, July 1970, pp. 1301-1305.

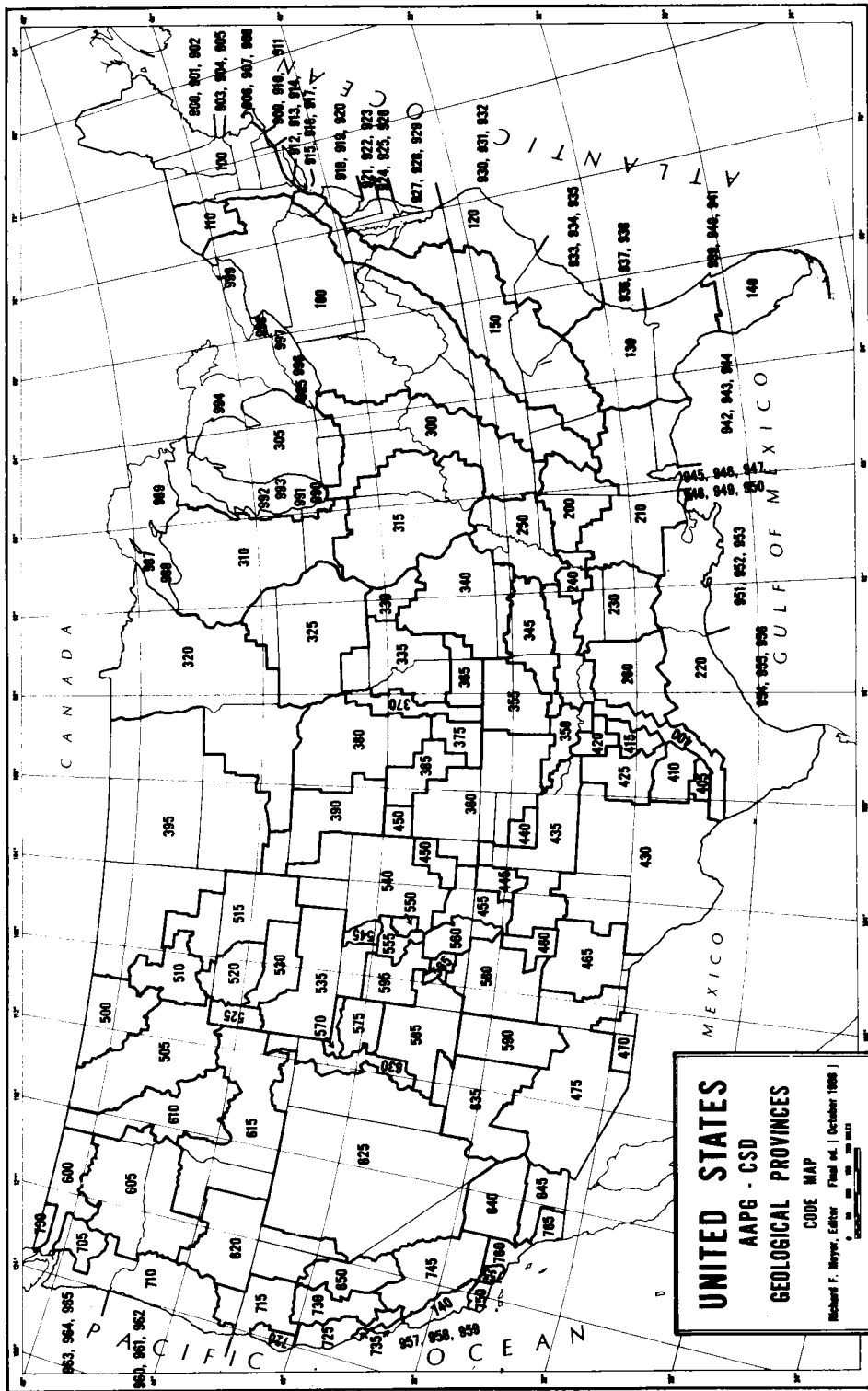


FIGURE 1. - Geologic provinces of the United States.

<u>Code</u>	<u>Province</u>
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	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
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

<u>Code</u>	<u>Province</u>
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
615	Snake River Basin
620	Southern Oregon Basin
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

<u>Code</u>	<u>Province</u>
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
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

<u>Code</u>	<u>Province</u>
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
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

<u>Code</u>	<u>Province</u>
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 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
Alabama.....	14	1	New York.....	10	1
Arkansas.....	13	1	North Dakota.....	5	2
California.....	28	1, 2	Ohio.....	4	1
Colorado.....	20	1	Oklahoma.....	49	1
Indiana.....	3	1	Pennsylvania.....	3	1
Kansas.....	13	1	South Dakota.....	4	1, 2
Kentucky.....	1	1	Tennessee.....	3	1
Louisiana.....	25	1	Texas.....	20	1
Michigan.....	1	1	Utah.....	8	1
Mississippi.....	5	1	West Virginia.....	1	1
Montana.....	14	1, 2	Wyoming.....	26	1, 2
New Mexico.....	6	1, 2			

All components of the analyses in the tables are reported to the nearest 0.1 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.

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

	INDEX SAMPLE 17199	INDEX SAMPLE 17211	INDEX SAMPLE 17396
STATE.....	ALABAMA	ALABAMA	ALABAMA
COUNTY.....	BALDWIN	FAYETTE	FAYETTE
FIELD.....	OYSTER BAY E	BETHEL CHURCH	BLOOMING GROVE
WELL NAME.....	MAX K. LAURENZ JR., UT. 8-1NO. 1	MADDEN-WHITAKER 36-7 NO. 1	CCNNORS NO. 18-10
LOCATION.....	SEC. 8, T9S, R4E	SEC. 36, T14S, R13W	SEC. 18, T15S, R13W
OWNER.....	TIDELANDS RESOURCES ET AL	CHARLES L. CHERRY & ASSOC.	TERRA RESOURCES, INC.
COMPLETED.....	11/--/83	11/07/83	12/--/82
SAMPLED.....	02/25/84	03/15/84	08/18/84
FORMATION.....	MIOC-MEYER	MISS-CARTER	MISS-CARTER
GEOLOGIC PROVINCE CODE.....	210	200	200
DEPTH, FEET.....	1321	2267	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	425	1200	NOT GIVEN
OPEN FLOW, MCFD.....	1500	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	95.4	96.8	96.7
ETHANE.....	TRACE	1.3	2.0
PROPANE.....	0.0	0.1	TRACE
N-BUTANE.....	0.1	TRACE	0.1
ISOBUTANE.....	0.0	TRACE	0.0
N-PENTANE.....	TRACE	TRACE	0.1
ISOPENTANE.....	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	TRACE	TRACE
NITROGEN.....	3.7	TRACE	TRACE
OXYGEN.....	0.6	1.6	0.8
ARGON.....	0.1	0.0	0.0
HYDROGEN.....	0.0	TRACE	TRACE
HYDROGEN SULFIDE*	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.0	0.0
HELIUM.....	0.01	TRACE	0.2
HEATING VALUE**.....	970	0.08	0.06
SPECIFIC GRAVITY.....	0.575	1006	1023
		0.567	0.573

* 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 4 17210	INDEX SAMPLE 5 17468	INDEX SAMPLE 6 17193
STATE.....	ALABAMA	ALABAMA	ALABAMA
COUNTY.....	FAYETTE	FAYETTE	FAYETTE
FIELD.....	BLUFF	MCCRACKEN MOUNTAIN	STUD HORSE CREEK
WELL NAME.....	ROBERTSON-REECE NO. 10-3	BRANYON NO. 1	LANNINGHAM NO. 2-15
LOCATION.....	SEC. 10, T14S, R13W	NOT GIVEN	SEC. 2, T14S, R12W
OWNER.....	CHARLES L. CHERRY & ASSOC.	BROWNING & WELCH, INC.	GRACE PETROLEUM CORP.
COMPLETED.....	01/26/84	09/30/84	03/--/82
SAMPLED.....	03/15/84	09/30/84	02/--/84
FORMATION.....	MISS-GILMER	MISS-LEWIS	MISS-CARTIER
GEOLOGIC PROVINCE CODE.....	200	200	200
DEPTH, FEET.....	1922	3280	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1050	600	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	30	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	53.5	90.7	97.4
ETHANE.....	2.2	4.9	0.8
PROPANE.....	0.7	1.6	TRACE
N-BUTANE.....	0.2	0.6	TRACE
ISOPUTANE.....	0.1	0.3	0.0
N-PENTANE.....	0.1	0.2	TRACE
ISOPENTANE.....	TRACE	0.1	TRACE
CYCLOPENTANE.....	TRACE	0.1	TRACE
HEXANES PLUS.....	0.1	0.1	TRACE
NITROGEN.....	2.8	0.8	1.5
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.4	0.1
HELIUM.....	0.08	0.07	0.04
HEATING VALUE*.....	1024	1100	1001
SPECIFIC GRAVITY.....	0.593	0.625	0.564

* 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 7 17460	INDEX SAMPLE 8 17191	INDEX SAMPLE 9 17510
STATE.....	ALABAMA	ALABAMA	ALABAMA
COUNTY.....	FRANKLIN	LAMAR	LAMAR
FIELD.....	BLUEGUT CREEK	BEAVERTON	BLOWHORN N
WELL NAME.....	MASSEY 33-16 NO. 21	LOGGINS NO. 4-11	SIZEMORE 3-10 NO. 1
LOCATION.....	SEC. 33, T8S, R15W	SEC. 4, T13S, R15W	SEC. 3, T14S, R14W
OWNER.....	L. W. JOHNSON & ASSOC.	GRACE PETROLEUM CORP.	GRACE PETROLEUM CORP.
COMPLETED.....	02/--/84	05/--/82	--/--/83
SAMPLED.....	10/--/84	02/--/84	10/27/84
FORMATION.....	MISS-EVANS	MISS-CARTER	MISS-CARTER
GEOLOGIC PROVINCE CODE...	300	200	200
DEPTH, FEET.....	1120	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG...	475	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	1600	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	97.8	97.9	99.8
ETHANE.....	0.4	0.6	5.4
PROPANE.....	0.1	0.1	1.9
N-BUTANE.....	0.1	0.0	0.6
ISOBUTANE.....	TRACE	0.0	0.3
N-PENTANE.....	TRACE	0.0	0.2
ISOPENTANE.....	TRACE	0.0	0.2
CYCLOPENTANE.....	TRACE	0.0	TRACE
HEXANES PLUS.....	TRACE	0.0	0.1
NITROGEN.....	1.3	1.1	1.2
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	0.1	TRACE	TRACE
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	TRACE
CARBON DIOXIDE.....	0.1	0.0	0.0
HELIUM.....	0.07	0.1	0.1
HEATING VALUE*.....	1004	0.07	0.10
SPECIFIC GRAVITY.....	0.566	1005	1108
		0.563	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 SAMPLE 17192	INDEX SAMPLE 17319	INDEX SAMPLE 17426
STATE.....	ALABAMA	ALABAMA	ALABAMA
COUNTY.....	LAMAR	LAMAR	LAMAR
FIELD.....	HELL'S CREEK	LITTLE HELL'S CREEK	MILLPORT
WELL NAME.....	BOYETTE NO. 25-7	VERLA HARRISON NO. 16-1	COLEMAN 14-16 NO. 1
LOCATION.....	NOT GIVEN	SEC. 16, T15S, R14W	SEC. 14, T17S, R15W
OWNER.....	GRACE PETROLEUM CORP.	MICHIGAN OIL CO.	TXO PRODUCTION CORP.
COMPLETED.....	NOT GIVEN	08/16/82	12/08/83
SAMPLED.....	02/--/84	06/10/84	09/24/84
FORMATION.....	CRET-LEWIS	MISS-CARTER	MISS-LEWIS
GEOLOGIC PROVINCE CODE.....	200	200	200
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	4550
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	170	618
OPEN FLOW, MCFD.....	NOT GIVEN	100	1501
COMPONENT, MOLE PCT			
METHANE.....	57.9	82.9	89.7
ETHANE.....	0.6	5.4	6.9
PROPANE.....	TRACE	3.4	1.2
N-BUTANE.....	0.0	2.8	0.4
ISOBUTANE.....	0.0	1.5	0.2
N-PENTANE.....	0.0	0.6	0.1
ISOPENTANE.....	0.0	1.4	0.1
CYCLOPENTANE.....	0.0	0.4	0.1
HEXANES PLUS.....	0.0	0.5	0.1
NITROGEN.....	0.8	1.0	1.0
OXYGEN.....	0.1	TRACE	TRACE
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	TRACE	TRACE
HELIUM.....	0.06	0.06	0.08
HEATING VALUE.....	1002	1296	1101
SPECIFIC GRAVITY.....	0.566	0.743	0.621

* 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 13 17461	INDEX SAMPLE 14 17256	INDEX SAMPLE 15 17190
STATE.....	ALABAMA	ALABAMA	ARKANSAS
COUNTY.....	MARION	MOBILE	FRANKLIN
FIELD.....	WILDCAT	DELCHAMP PROSPECT	BOONEVILLE
WELL NAME.....	EMERSON 11-4 NO. 21	F.A.B.-ALTHAYER 22-16 NO. 1	BRADLEY NO. 1-28
LOCATION.....	SEC. 11, T9S, R15W	SEC. 22, T7S, R2W	SEC. 28, T7N, R28W
OWNER.....	L. W. JOHNSON & ASSOC.	TEXACO INC.	STEPHENS PRODUCTION CO.
COMPLETED.....	02/--/84	12/22/82	11/17/82
SAMPLED.....	10/--/84	04/10/84	10/17/84
FORMATION.....	MISS-HARTSELLE	MIOC-AMOS	PENN-CARPENTER L
GEOLOGIC PROVINCE CODE.....	200	210	345
DEPTH, FEET.....	990	1902	5283
WELLHEAD PRESSURE, PSIG.....	400	700	1541
OPEN FLOW, MCFD.....	300	1138	2900
COMPONENT, MOLE PCT			
METHANE.....	58.6	99.1	96.6
ETHANE.....	0.1	TRACE	1.1
PROPANE.....	TRACE	TRACE	0.1
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
I SOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	1.1	0.8	1.2
OXYGEN.....	0.0	0.0	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	TRACE	0.7
HELIUM.....	0.10	0.01	0.09
HEATING VALUE*.....	1001	1004	1001
SPECIFIC GRAVITY.....	0.560	0.557	0.572

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** GUE 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 17065	INDEX SAMPLE 17422	INDEX SAMPLE 17206
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON	JOHNSON	JOHNSON
FIELD.....	KNOXVILLE	SCRANTON	UNION CITY
WELL NAME.....	BILLIE WITTENAUER NO. 1	U S A NO. 1-32	OZARK REAL ESTATE NO. 2
LOCATION.....	SEC. 15, T8N, R22W	SEC. 32, T9N, R24W	SEC. 14, T9N, R24W
OWNER.....	SUN EXP. & PROD. CO.	HAWKINS OIL & GAS, INC.	ARKOMA PRODUCTION CO.
COMPLETED.....	02/02/83	09/--/84	12/15/83
SAMPLED.....	09/19/83	09/--/84	03/13/84
FORMATION.....	PENN-TACKETT	PENN-KELLY & HALE M	PENN-BARTON
GEOLOGIC PROVINCE CODE.....	345	345	345
DEPTH, FEET.....	3537	6726	5600
WELLHEAD PRESSURE, PSIG.....	366	1358	1850
OPEN FLOW, MCFD.....	1813	1181	10000
COMPONENT, MOLE PCT			
METHANE.....	52.5	96.5	97.1
ETHANE.....	0.9	1.2	1.2
PROPANE.....	0.1	0.1	0.1
N-BUTANE.....	0.0	0.0	TRACE
ISOPUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	TRACE
ISOPENTANE.....	0.0	0.0	TRACE
CYCLOPENTANE.....	0.0	0.0	TRACE
HEXANES PLUS.....	0.0	0.0	TRACE
NITROGEN.....	5.6	0.3	0.5
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.6	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	1.8	0.9
HELIUM.....	0.17	0.14	0.07
HEATING VALUE*.....	958	1002	1008
SPECIFIC GRAVITY.....	0.580	0.580	0.572

* 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 17208	INDEX SAMPLE 17154	INDEX SAMPLE 17155
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	LAFAYETTE	LOGAN	LOGAN
FIELD.....	WILDCAT	BOONEVILLE	BOONEVILLE
WELL NAME.....	MABRY NO. 1	LEFTWICH NO. 1	LEFTWICH NO. 1
LOCATION.....	SEC. 24, T16S, R24W	SEC. 30, T6N, R28W	SEC. 30, T6N, R28W
OWNER.....	GOLDSBERRY OPERATING CO. INC	EXXON CO., U.S.A.	EXXON CO., U.S.A.
COMPLETED.....	10/18/83	01/12/84	01/12/84
SAMPLED.....	03/13/84	01/12/84	01/12/84
FORMATION.....	JURA-SWACKOVER	PENN-BORUM U&L	PERM-ALMA
GEOLOGIC PROVINCE CODE.....	230	345	345
DEPTH, FEET.....	7942	1297	4952
WELLHEAD PRESSURE, PSIG.....	324	310	1100
OPEN FLOW, MCFD.....	1000	1442	1713
COMPONENT, MOLE PCT			
METHANE.....	65.4	57.0	93.7
ETHANE.....	6.9	0.9	1.4
PROPANE.....	3.6	TRACE	0.1
N-BUTANE.....	1.5	TRACE	TRACE
ISOBUTANE.....	1.5	0.0	TRACE
N-PENTANE.....	0.6	TRACE	TRACE
ISOPENTANE.....	0.7	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.3	TRACE	0.3
NITROGEN.....	17.1	0.1	0.2
OXYGEN.....	TRACE	1.6	3.9
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	TRACE	0.0
HYDROGEN SULFIDE**.....	0.0	0.1	0.0
CARBON DIOXIDE.....	2.2	0.0	0.0
HFLLUM.....	0.08	TRACE	TRACE
HEATING VALUE.....	1052	0.06	0.09
SPECIFIC GRAVITY.....	0.794	1004	998
		0.566	0.587

* 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 17164	INDEX SAMPLE 17167	INDEX SAMPLE 17476
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	LOGAN	LOGAN	LOGAN
FIELD.....	CHISMVILLE	CHISMVILLE	SCRANTON
WELL NAME.....	LOWDER GU NO. 1	CHISMVILLE NO. 4	KERN "C" NO. 1
LOCATION.....	SEC. 2, T6N, R28W	SEC. 8, T6N, R27W	SEC. 34, T9N, R24W
OWNER.....	EXXON CO., U.S.A.	EXXON CO., U.S.A.	TXO PRODUCTION CORP.
COMPLETED.....	06/15/83	10/12/83	09/26/83
SAMPLED.....	01/25/84	01/27/84	10/10/84
FORMATION.....	PENN-NICHOLS	PENN-TURNER L&U	PENN-CARPENTER
GEOLOGIC PROVINCE CODE.....	345	345	345
DEPTH, FEET.....	5391	2444	2040
WELLHEAD PRESSURE, PSIG.....	2150	468	500
OPEN FLOW, MCFD.....	15353	2065	1500
COMPONENT, MOLE PCT			
METHANE.....	96.0	95.0	93.9
ETHANE.....	1.9	1.4	0.7
PROPANE.....	0.2	0.1	TRACE
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	1.5	3.2	4.8
OXYGEN.....	TRACE	0.1	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.2	0.2
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	TRACE	TRACE
HELIUM.....	0.05	0.07	0.16
HEATING VALUE*.....	1012	991	964
SPECIFIC GRAVITY.....	0.574	0.575	0.575

* 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 17153	INDEX SAMPLE 17491	INDEX SAMPLE 17492
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	SEBASTIAN	SEBASTIAN	SEBASTIAN
FIELD.....	BOONEVILLE	GRAGG	GREENWOOD
WELL NAME.....	BOONEVILLE NO. 1	FRENCH NO. 1-33	PEERLESS COAL NO. 2-13
LOCATION.....	SEC. 23, T6N, R29W	SEC. 33, T6N, R29W	SEC. 13, T6N, R31W
OWNER.....	EXXON CO., U.S.A.	STEPHENS PRODUCTION CO.	STEPHENS PRODUCTION CO.
COMPLETED.....	01/12/84	11/05/82	11/16/82
SAMPLED.....	01/12/84	10/17/84	10/17/84
FORMATION.....	PENN-BORUM L	PENN-NICHOLS	PENN-BORUM
GEOLOGIC PROVINCE CODE.....	345	345	345
DEPTH, FEET.....	5777	3642	6029
WELLHEAD PRESSURE, PSIG.....	1560	1190	1543
OPEN FLOW, MCFD.....	3788	3450	3025
COMPONENT, MOLE PCT			
METHANE.....	82.2	56.6	95.1
ETHANE.....	1.3	1.1	1.1
PROPANE.....	0.1	0.1	0.1
N-BUTANE.....	TRACE	0.0	0.0
ISOBUTANE.....	TRACE	0.0	0.0
N-PENTANE.....	TRACE	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.1	0.0	0.0
HEXANES PLUS.....	0.1	0.0	0.0
NITROGEN.....	15.6	1.2	2.4
OXYGEN.....	TRACE	0.1	0.3
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.2	0.1	0.1
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.7	0.8
HELIUM.....	0.06	0.09	0.02
HEATING VALUE*.....	868	1001	986
SPECIFIC GRAVITY.....	0.634	0.572	0.579

* 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 17300	INDEX 29 SAMPLE 17301	INDEX 30 SAMPLE 17310
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	COLUSA	COLUSA	CONTRA COSTA
FIELD.....	BOUNDE CREEK	BOUNDE CREEK	LOS MEDANOS
WELL NAME.....	TORRES NO. 24-1	TORRES NO. 24-1	NEELY NO. 1
LOCATION.....	SEC. 24, T18N, R2W	SEC. 24, T18N, R2W	SEC. 8, T2N, R1W
OWNER.....	ARKOMA PRODUCTION CO.	ARKOMA PRODUCTION CO.	CHEVRON U.S.A., INC.
COMPLETED.....	12/23/83	12/23/83	10/01/83
SAMPLED.....	05/23/84	05/23/84	05/---/84
FORMATION.....	CRET-FORBES LOWER ZONE TBG.	CRET-FORBES UPPER ZONE CSG.	ECCE-DOMEENGINE
GEOLOGIC PROVINCE CODE.....	730	730	730
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	3135
WELLHEAD PRESSURE, PSIG.....	3751	3210	800
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	57.2	96.8	95.8
ETHANE.....	0.2	0.3	2.4
PROPANE.....	TRACE	TRACE	0.3
N-PUTANE.....	0.0	0.0	0.1
ISOPUTANE.....	0.0	0.0	TRACE
N-PENTANE.....	0.0	0.0	TRACE
ISOPENTANE.....	0.0	0.0	TRACE
CYCLOPENTANE.....	0.0	0.0	TRACE
HEXANES PLUS.....	0.0	0.0	TRACE
NITROGEN.....	2.5	2.8	1.1
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	TRACE	0.2
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	988	986	1025
SPECIFIC GRAVITY.....	0.565	0.567	0.577

* 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 17218	INDEX SAMPLE 17360	INDEX SAMPLE 17166
STATE.....	CALIFORNIA	COLORADO	COLORADO
COUNTY.....	SUTTER	ARAPAHOE	BENT
FIELD.....	TISUALE	CHALICE	WILDCAT
WELL NAME.....	SEAWARD-SHANNON NO. 1-32	COLUMBINE STATE NO. 1	EARL HOFFMAN NO. 1
LOCATION.....	SEC. 32, T15N, R2E	SEC. 16, T4S, R64W	SEC. 31, T22S, R48W
OWNER.....	NATURAL GAS CORP. OF CA.	GERBER ENERGY CORP.	MURFIN DRILLING CO.
COMPLETED.....	02/21/84	12/05/83	12/--/82
SAMPLED.....	03/14/84	07/26/84	01/--/84
FORMATION.....	CRET-FORBES	CRET-J SAND	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	730	540	450
DEPTH, FEET.....	6062	8088	4609
WELLHEAD PRESSURE, PSIG.....	3059	1850	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	500	1080
COMPONENT, MOLE PCT			
METHANE.....	57.9	69.9	65.8
ETHANE.....	0.2	13.7	7.6
PROPANE.....	6.0	6.9	2.5
N-BUTANE.....	TRACE	2.1	0.3
ISOBUTANE.....	0.0	1.0	0.3
N-PENTANE.....	0.1	0.5	0.1
ISOPENTANE.....	0.0	0.9	0.2
CYCLOPENTANE.....	TRACE	0.3	TRACE
HEXANES PLUS.....	TRACE	0.6	0.2
NITROGEN.....	1.5	1.4	22.2
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	2.7	0.2
HELIUM.....	TRACE	0.03	0.36
HEATING VALUE.....	1000	1339	911
SPECIFIC GRAVITY.....	0.563	0.818	0.729

* CALCULATED GROSS BTU PFR 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 17375	INDEX SAMPLE 17386	INDEX SAMPLE 17484
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	JACKSON	KIOWA	LA PLATA
FIELD.....	MCCALLUM S	HASWELL	NIOBRARA
WELL NAME.....	CONOCO FED. 8-3 UNIT NO. 1	FRAZEE NO. 2-31	UTE INDIAN NO. 1-11
LOCATION.....	SEC. 8, T9N, R78W	SEC. 31, T18S, R50W	SEC. 11, T33N, R11W
OWNER.....	CONOCO, INC.	SAMSON OIL CO.	MOBIL OIL CORP.
COMPLETED.....	09/11/83	01/--/83	NOT GIVEN
SAMPLED.....	08/09/84	08/16/84	10/10/84
FORMATION.....	CRET-LAKOTA	PENN-MORROW	CRET-NIOBRARA
GEOLOGIC PROVINCE CODE.....	545	450	580
DEPTH, FEET.....	5308	5151	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	760	1090	400
OPEN FLOW, MCFD.....	8652	627	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	13.1	67.8	87.1
ETHANE.....	0.3	13.8	5.5
PROPANE.....	TRACE	7.1	2.7
N-BUTANE.....	0.1	1.8	0.6
ISOBUTANE.....	0.0	0.8	0.5
N-PENTANE.....	0.1	0.4	0.2
ISOPENTANE.....	TRACE	0.2	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	14.0	6.6	0.4
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	0.2	TRACE	0.1
HYDROGEN.....	0.8	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	70.2	0.8	2.7
HELIUM.....	1.01	0.57	0.01
HEATING VALUE*.....	153	1237	1106
SPECIFIC GRAVITY.....	1.297	0.780	0.662

* 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 17177	INDEX SAMPLE 17392	INDEX SAMPLE 17311
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	MESA	RIO BLANCO	RIO BLANCO
FIELD.....	COYOTE WASH	BLUE CLOUD	BLUE CLOUD-THUNDER
WELL NAME.....	CAMP GULCH NO. 1-24	EVACUATION CREEK NO. 32-1	KIRBY-EIDSON NO. 28-4
LOCATION.....	SEC. 24, T8S, R103W	SEC. 32, T4S, R102W	SEC. 28, T4S, R102W
OWNER.....	AMBRA OIL & GAS CO.	TENNECO OIL CO.	WALTER S. FEES, JR.
COMPLETED.....	09/77-83	11/06/82	08/20/82
SAMPLED.....	02/10/84	08/28/84	06/01/84
FORMATION.....	CRET-DAKOTA	CRET-MANCOS	CRET-MANCOS B
STRATIGRAPHIC PROVINCE CODE.....	595	595	595
DEPTH, FEET.....	2900	3749	3363
WELLHEAD PRESSURE, PSIG.....	1040	275	350
OPEN FLOW, MCFD.....	500	200	800
COMPONENT, MOLE PCT			
METHANE.....	81.9	80.6	79.8
ETHANE.....	4.0	6.7	6.7
PROPANE.....	1.8	5.3	5.1
N-BUTANE.....	0.5	1.7	1.5
ISOBUTANE.....	0.3	0.9	0.9
N-PENTANE.....	0.1	0.3	0.4
ISOPENTANE.....	0.1	0.5	0.4
CYCLOPENTANE.....	TRACE	0.1	0.2
HEXANES PLUS.....	0.1	0.2	0.3
NITROGEN.....	10.5	2.9	3.7
OXYGEN.....	0.0	0.0	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.3	0.8
HELIUM.....	0.26	0.17	0.20
HEATING VALUE*.....	989	1210	1199
SPECIFIC GRAVITY.....	0.660	0.715	0.725

* 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 40 17205	INDEX SAMPLE 41 17317	INDEX SAMPLE 42 17318
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	RIO BLANCO	RIO BLANCO	RIO BLANCO
FIELD.....	CATHEDRAL	DOUGLAS CREEK	DRAGON TRAIL
WELL NAME.....	CONTINENTAL NO. 2-21	DOUGLAS CREEK NO. 8	DRAGON TRAIL UNIT NO. 5
LOCATION.....	SEC. 21, T3S, R100W	SEC. 36, T2S, R102W	SEC. 20, T2S, R102W
OWNER.....	TWIN ARROW, INC.	CONOCO, INC.	CONOCO, INC.
COMPLETED.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
SAMPLED.....	03/01/84	06/06/84	06/01/84
FORMATION.....	CRET-MANCOS B	CRET-MANCOS B	CRET-MANCOS B
GEOLOGIC PROVINCE CODE.....	595	595	595
DEPTH, FEET.....	4509	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	450	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	140	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	85.1	84.1	86.0
ETHANE.....	7.1	6.8	6.2
PROPANE.....	3.2	3.0	3.2
N-BUTANE.....	1.1	0.8	0.8
ISOBUTANE.....	0.5	0.6	0.6
N-PENTANE.....	0.2	0.2	0.2
ISOPENTANE.....	0.5	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.3	0.2	0.2
NITROGEN.....	0.6	3.2	2.2
OXYGEN.....	0.1	0.1	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.1	0.6	0.1
HELIUM.....	0.02	0.15	0.14
HEATING VALUE*.....	1175	1130	1144
SPECIFIC GRAVITY.....	0.682	0.673	0.662

* 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 17303	INDEX SAMPLE 17304	INDEX SAMPLE 17305
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	RIO BLANCO	RIO BLANCO	RIO BLANCO
FIELD.....	EVACUATION CREEK	EVACUATION CREEK	EVACUATION CREEK
WELL NAME.....	GOVERNMENT NO. 13-31	GOVERNMENT NO. 4-31	GOVERNMENT C-561 NO. 2-31
LOCATION.....	SEC. 31, T4S, R102W	SEC. 31, T4S, R102W	SEC. 31, T4N, R102W
OWNER.....	TENNECO OIL CO.	TENNECO OIL CO.	TENNECO OIL CO.
COMPLETED.....	07/16/81	07/13/80	06/04/77
SAMPLED.....	05/24/84	05/24/84	05/24/84
FORMATION.....	CRET-MANCOS B	CRET-MANCOS B	CRET-MANCOS B
GEOLOGIC PROVINCE CODE.....	595	595	595
DEPTH, FEET.....	4844	4995	4934
WELLHEAD PRESSURE, PSIG.....	300	340	300
OPEN FLOW, MCFD.....	50	33	33
COMPONENT, MOLE PCT			
METHANE.....	79.7	79.1	82.3
ETHANE.....	5.1	5.2	5.3
PROPANE.....	4.1	4.0	4.1
N-BUTANE.....	1.4	1.3	1.3
ISOEUTANE.....	0.8	0.8	0.8
N-PENTANE.....	0.4	0.3	0.3
ISOPENTANE.....	0.4	0.4	0.3
CYCLOPENTANE.....	0.1	0.2	0.1
HEXANES PLUS.....	0.2	0.3	0.2
NITROGEN.....	7.5	7.9	4.8
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.3	0.3
HELIUM.....	0.23	0.23	0.20
HEATING VALUE*.....	1127	1122	1145
SPECIFIC GRAVITY.....	0.711	0.711	0.694

* 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 46 17306	INDEX SAMPLE 47 17290	INDEX SAMPLE 48 17294
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	RIO BLANCO	RIO BLANCO	RIO BLANCO
FIELD.....	EVACUATION CREEK	TAIGA MOUNTAIN	TAIGA MOUNTAIN
WELL NAME.....	EVACUATION CREEK NO. 30-12	FED. NO. 13-15-1S-103W	FED. NO. 11-23-1N-103
LOCATION.....	NOT GIVEN	SEC. 15, T1S, R103W	SEC. 23, T1N, R103W
OWNER.....	TENNECO OIL CO.	COSEKA RESOURCES (USA), LTD.	COSEKA RESOURCES (USA), LTD.
COMPLETED.....	NOT GIVEN	05/06/84	05/06/84
SAMPLED.....	05/24/84	05/06/84	05/06/84
FORMATION.....	CRET-MANCOS B	CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	595	595	595
DEPTH, FEET.....	NOT GIVEN	6464	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	310	2000	1200
OPEN FLOW, MCFD.....	100	NOT GIVEN	150
COMPONENT, MOLE PCT			
METHANE.....	82.0	82.1	77.6
ETHANE.....	4.0	6.7	7.7
PROPANE.....	4.4	2.8	7.0
N-BUTANE.....	1.5	1.0	2.4
ISOBUTANE.....	1.1	0.7	1.6
N-PENTANE.....	0.4	0.4	0.6
ISOPENTANE.....	0.5	0.3	0.7
CYCLOPENTANE.....	0.1	0.1	0.2
HEXANES PLUS.....	0.2	0.2	0.5
NITROGEN.....	5.2	5.3	0.8
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.1	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.1	0.9
HELIUM.....	0.22	0.12	0.03
HEATING VALUE*.....	1157	1126	1329
SPECIFIC GRAVITY.....	0.705	0.683	0.777

* 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 49 17293	INDEX SAMPLE 50 17344	INDEX SAMPLE 51 17364
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	RIO BLANCO	WELD	YUMA
FIELD.....	TAIGA MOUNTAIN	WILDHORSE	WHISPER
WELL NAME.....	FED. NO. 6-14-IN-103	DOLL NO. 1A	BRAND NO. 1-15
LOCATION.....	SEC. 14, T1N, R103W	SEC. 19, T7N, R58W	SEC. 15, T3N, R47W
OWNER.....	COSEKA RESOURCES (USA), LTD.	WEEKS ENERGY MINERALS CORP.	MIDLANDS GAS CORP.
COMPLETED.....	05/06/84	06/28/84	04/11/84
FORMATION.....	05/06/84	06/28/84	08/01/84
GEOLOGIC PROVINCE CODE.....	CRET-MANCOS B	CRET-D SAND	CRET-NIOBRARA
DEPTH, FEET.....	NOT GIVEN	540	540
WELLHEAD PRESSURE, PSIG.....	610	6603	2740
OPEN FLOW, MCFD.....	50	371	470
COMPONENT, MOLE PCT	356		700
METHANE.....	88.5	69.0	92.9
ETHANE.....	5.5	10.5	1.1
PROPANE.....	3.0	9.4	0.3
N-BUTANE.....	0.8	3.2	0.1
ISOBUTANE.....	0.4	1.2	TRACE
N-PENTANE.....	0.2	0.9	0.1
ISOPENTANE.....	0.1	0.8	0.1
CYCLOPENTANE.....	TRACE	0.4	TRACE
HEXANES PLUS.....	0.1	0.6	0.1
NITROGEN.....	1.0	2.3	3.4
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	1.7	1.6
HELIUM.....	0.09	0.05	0.06
HEATING VALUE*.....	1131	1358	986
SPECIFIC GRAVITY.....	0.645	0.848	0.600

* CALCULATED GROSS BTU PER CU FT, DPY, 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 17517	INDEX SAMPLE 17168	INDEX SAMPLE 17165
STATE.....	INDIANA	INDIANA	INDIANA
COUNTY.....	GIBSON	GREENE	RUSH
FIELD.....	WHEATONVILLE	SANBORN N	TRENTON
WELL NAME.....	HENRY MORGAN UNIT NO. 1	JAMES C. HARRIS NO. 1	R. STEVEN FROMAN NO. 1
LOCATION.....	SEC. 3, T3S, R9W	SEC. 35, T6N, R7W	SEC. 16, T14N, R9E
OWNER.....	ROBINSON ENGINEERING	JAMES C. & OREDITH M. HARRIS	R. STEVEN FROMAN
COMPLETED.....	NOT GIVEN	10/09/81	04/16/83
SAMPLED.....	10/--/84	02/02/84	01/25/84
FORMATION.....	PENN-	PENN-GAS SAND	ORDO-TRENTON
GEOLOGIC PROVINCE CODE.....	315	315	300
DEPTH, FEET.....	1062	202	875
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	105	120
OPEN FLOW, MCFD.....	400	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	50.7	82.6	78.2
ETHANE.....	7.6	3.2	3.7
PROPANE.....	1.4	0.7	0.9
N-BUTANE.....	0.4	0.2	0.2
ISOBUTANE.....	0.3	0.1	0.1
N-PENTANE.....	0.1	TRACE	0.1
ISOPENTANE.....	0.1	TRACE	0.1
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.1	TRACE	TRACE
NITROGEN.....	38.1	12.7	16.1
OXYGEN.....	TRACE		
ARGON.....	0.1	0.0	0.0
HYDROGEN.....	TRACE	0.0	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.2	0.1
HELIUM.....	0.71	0.25	0.37
HEATING VALUE*.....	727	922	900
SPECIFIC GRAVITY.....	0.784	0.635	0.657

* 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 55 17371	INDEX SAMPLE 56 17152	INDEX SAMPLE 57 17345
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	CLARK	FORC	GREELEY
FIELD.....	SITKA S	MINNEOLA	BRADSHAW GAS AREA
WELL NAME.....	SMITH NO. 1-30-34-21	MCCUNE A NO. 1	FECHE 7 NO. 5
LOCATION.....	SEC. 30, T34S, R21W	SEC. 25, T29S, R25W	SEC. 27, T18W, R40S
OWNER.....	DECK OIL CO.	CHAMPLIN PETROLEUM CO.	SMITH CATTLE, INC.
COMPLETED.....	01/--/83	11/23/82	05/--/84
SAMPLED.....	08/08/84	01/10/84	06/28/84
FORMATION.....	PENN-MORROW	PENN-MORROW	PERM-CHASE
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	5488	5404	2920
WELLHEAD PRESSURE, PSIG.....	840	283	550
OPEN FLOW, MCFD.....	702	163	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	67.7	71.0	48.3
ETHANF.....	5.1	6.6	4.4
PROPANE.....	2.6	4.7	2.8
N-RUTANE.....	0.8	1.6	0.9
ISOBUTANE.....	0.5	0.9	0.4
N-PENTANE.....	0.2	0.4	0.2
ISOPENTANE.....	0.4	0.5	0.1
CYCLOPENTANE.....	0.1	0.1	TRACE
HEXANES PLUS.....	0.3	0.3	0.1
NITROGEN.....	1.9	13.5	40.4
OXYGEN.....	TRACE	TRACE	1.3
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	TRACE	TRACE
HELIUM.....	0.12	0.30	0.83
HEATING VALUE.....	1136	1101	703
SPECIFIC GRAVITY.....	0.655	0.753	0.803

* 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 17346	INDEX 59 SAMPLE 17347	INDEX 50 SAMPLE 17348
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	GREELEY	GREELEY	GREELEY
FIELD.....	BRADSHAW GAS AREA	BRADSHAW GAS AREA	BRADSHAW GAS AREA
WELL NAME.....	FECHT 7 NO. 4	HELM 1 NO. 5	HELM 1 NO. 6
LOCATION.....	SEC. 27, T18N, R40S	SEC. 35, T18N, R40S	SEC. 35, T18N, R40S
OWNER.....	SMITH CATTLE, INC.	SMITH CATTLE, INC.	SMITH CATTLE, INC.
COMPLETED.....	05/--/84	06/--/84	06/--/84
SAMPLED.....	06/28/84	06/28/84	06/28/84
FORMATION.....	PERM-CHASE	PERM-GLORIETA	PERM-GLORIETA
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	2920	2200	2200
WELLHEAD PRESSURE, PSIG.....	550	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	51.6	0.1	0.1
ETHANE.....	4.7	0.0	0.0
PROPANE.....	3.0	0.0	0.0
N-BUTANE.....	0.9	0.0	0.0
ISOBUTANE.....	0.4	0.0	0.0
N-PENTANE.....	0.3	0.0	0.0
ISOPENTANE.....	0.1	0.0	0.0
CYCLOPENTANE.....	TRACE	0.0	0.0
HEXANES PLUS.....	0.1	0.0	0.0
NITROGEN.....	37.7	98.9	96.8
OXYGEN.....	0.1	0.6	2.4
ARGON.....	0.1	0.1	0.2
HYDROGEN.....	0.0	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.2	0.4
HELIUM.....	0.87	0.07	0.06
HEATING VALUE.....	751	1	1
SPECIFIC GRAVITY.....	0.750	0.968	0.972

* 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 61 17402	INDEX SAMPLE 62 17277	INDEX SAMPLE 53 17278
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	HARPER	HASKELL	HASKELL
FIELD.....	STOHRVILLE	VICTORY	VICTORY
WELL NAME.....	BASSFORD NO. 1	LIZ SMITH NO. 2	STANLEY NC. 2
LOCATION.....	SEC. 21, T33S, R6W	SEC. 26, T30S, R34W	SEC. 13, T30S, R34W
OWNER.....	THE REACH GROUP	CONTINENTAL ENERGY	CONTINENTAL ENERGY
COMPLETED.....	04/24/83	07/28/83	02/01/84
SAMPLED.....	08/31/84	04/10/84	04/10/84
FORMATION.....	MISS-	MISS-	MISS-ST. LOUIS
GEOLOGIC PROVINCE CODE.....	375	360	360
DEPTH, FEET.....	4436	5381	5491
WELLHEAD PRESSURE, PSIG.....	1050	NOT GIVEN	1000
OPEN FLOW, MCFD.....	800	5300	1700
COMPONENT, MOLE PCT			
METHANE.....	61.1	85.7	65.8
ETHANE.....	7.0	4.7	6.1
PROPANE.....	3.3	2.4	5.2
N-BUTANE.....	1.2	0.8	2.2
ISOBUTANE.....	0.6	0.5	1.4
N-PENTANE.....	0.5	0.3	0.3
ISOPENTANE.....	0.2	0.4	1.5
CYCLOPENTANE.....	0.2	0.1	0.3
HEXANES PLUS.....	0.4	0.3	0.7
NITROGEN.....	5.2	4.1	11.3
OXYGEN.....	TRACE	0.1	TRACE
ARGON.....	0.0	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.2	0.0
HELIUM.....	0.21	0.37	0.0
HEATING VALUE*.....	1151	1107	1.04
SPECIFIC GRAVITY.....	0.698	0.662	1197
			0.792

* 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 17197	INDEX 65 SAMPLE 17198	INDEX 56 SAMPLE 17260
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	MARION	PAWNEE	SEWARD
FIELD.....	LOST SPRINGS	ZOOK	SILVERMAN
WELL NAME.....	COTT NO. 2	KELLEMS NO. 3	HOFFMAN NO. R-1
LOCATION.....	SFC. 24, T16S, R4E	SEC. 7, T23S, R16W	SEC. 12, T32S, R34W
OWNER.....	R. F. WHITE	WHITE & ELLIS DRILLING, INC.	CITIES SERVICE OIL & GAS CO.
COMPLETED.....	08/25/83	02/27/84	10/06/83
SAMPLED.....	02/--/84	02/27/84	04/17/84
FORMATION.....	PENN-SEVERY	NOT GIVEN	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	375	385	360
DEPTH, FEET.....	1200	NOT GIVEN	5362
WELLHEAD PRESSURE, PSIG.....	450	NOT GIVEN	1243
OPEN FLOW, MCFD.....	2000	NOT GIVEN	7390
COMPONENT, MOLE PCT			
METHANE.....	70.1	84.1	87.8
ETHANE.....	2.8	3.1	4.2
PROPANE.....	1.3	1.1	1.8
N-BUTANE.....	0.2	0.6	0.6
ISOBUTANE.....	0.2	0.5	0.3
N-PENTANE.....	TRACE	0.9	0.3
ISOPENTANE.....	TRACE	1.0	0.3
CYCLOPENTANE.....	TRACE	0.5	0.2
HEXANES PLUS.....	TRACE	1.2	0.3
NITROGEN.....	24.3	6.2	3.7
OXYGEN.....	TRACE	0.1	TRACE
ARGON.....	0.1	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.2
HELIUM.....	0.93	0.72	0.25
HEATING VALUE.....	807	1134	1090
SPECIFIC GRAVITY.....	0.686	0.697	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 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE 67 17302	INDEX SAMPLE 68 17424	INDEX SAMPLE 59 17233
STATE.....	KANSAS	KENTUCKY	LOUISIANA
COUNTY.....	STAFFORD	DAVIESS	BEAUREGARD
FIELD.....	WILDCAT	OWENSBORO W	LITTLE BARNES CREEK
WELL NAME.....	COPFLAND NO. 1	DONALD FISHER NO. 1	OWENS ILLINOIS NO. 1
LOCATION.....	SEC. 29, T24S, R13W	CARTER COORDINATE 7-0-29	SEC. 36, T4S, R9,
OWNER.....	RAINS&WILLIAMSON OIL CO. INC	JAMES S. COLLINS	FOREST OIL CORP.
COMPLETED.....	01/24/83	11/--/80	10/05/81
SAMPLED.....	05/24/84	09/22/84	03/26/84
FORMATION.....	MISS-CONGLOMERATE	MISS-WALTERSBURG	EGG-COCKFIELD 9
GEOLOGIC PROVINCE CODE.....	385	315	220
DEPTH, FEET.....	3942	1170	7976
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	10	2367
OPEN FLOW, MCFD.....	4350	NOT GIVEN	2300
COMPONENT, MOLE PCT			
METHANE.....	72.4	4.2	83.9
ETHANE.....	4.5	0.1	6.6
PROPANE.....	2.3	TRACE	5.2
N-BUTANE.....	0.7	0.0	1.2
ISOBTANE.....	0.4	0.0	1.3
N-PENTANE.....	0.2	0.0	0.3
ISOPENTANE.....	0.2	0.0	0.3
CYCLOPENTANE.....	TRACE	0.0	0.1
HEXANES PLUS.....	0.1	0.0	0.2
NITROGEN.....	17.3	89.9	0.5
OXYGEN.....	TRACE	0.1	TRACE
ARGON.....	0.1	1.1	TRACE
HYDROGEN.....	TRACE	4.6	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	TRACE	0.5
HELIUM.....	1.57	0.04	0.01
HEATING VALUE*.....	933	59	1227
SPECIFIC GRAVITY.....	0.691	0.913	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 SAMPLE 70 17487	INDEX SAMPLE 71 17275	INDEX SAMPLE 72 17538
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	CAMERON	CAMERON	CAMERON
FIELD.....	BACK RIDGE S	HIGH ISLAND	SABINE LAKE
WELL NAME.....	LONNIE A. DAVIS ET AL NO. 1	MIAMI #1 NO. 1	SABINE LAKE V.U.--A NO. 2
LOCATION.....	SEC. 25, T14S, R9W	SEC. 32, T13S, R7W	SABINE LAKE
OWNER.....	WILLIAMS EXPLORATION CO.	ARCO OIL & GAS CO.	STATE OF LOUISIANA
COMPLETED.....	12/--/83	07/07/83	NOT GIVEN
SAMPLED.....	NOT GIVEN	05/02/84	12/13/84
FORMATION.....	NOT GIVEN	OLIG-CAMERINA	MIOC-HACKERRY
GEOLOGIC PROVINCE CODE.....	220	220	220
DEPTH, FEET.....	13360	17029	11940
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	12860	5250
OPEN FLOW, MCFD.....	NOT GIVEN	3310	8500
COMPONENT, MOLE PCT			
METHANE.....	85.3	92.8	85.7
ETHANE.....	8.1	3.3	7.2
PROPANE.....	2.8	0.6	3.5
N-BUTANE.....	0.7	0.1	0.8
ISOPUTANE.....	0.9	0.1	0.8
N-PENTANE.....	0.3	0.1	0.2
ISOPENTANE.....	TRACE	TRACE	0.3
CYCLOPENTANE.....	0.1	TRACE	0.1
HEXANES PLUS.....	0.4	0.1	0.2
NITROGEN.....	0.0	0.0	0.5
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.5	3.0	0.8
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	1173	1031	1177
SPECIFIC GRAVITY.....	0.679	0.614	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 SAMPLE 73 17190	INDEX SAMPLE 74 17313	INDEX SAMPLE 75 17489
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	CLAIBORNE	E. BATON ROUGE	EVANGELINE
FIELD.....	FRAZIER CREEK	PORT HUDSON	BASILE
WELL NAME.....	CONTINENTAL CAN NO. 1-29	HAZEL ANDREWS NO. 1	THOMAS YOUNG NO. 1
LOCATION.....	SEC. 29, T19N, R6W	SEC. 61, T4S, R2W	NOT GIVEN
OWNER.....	ARKLA EXPLORATION CO.	AMOCO PRODUCTION CO. (USA)	STRIKER PETROLEUM CORP.
COMPLETED.....	06/23/83	05/02/84	01/24/83
SAMPLED.....	02/21/84	06/06/84	10/11/84
FORMATION.....	JURA-TAYLOR	CRET-TUSCALOOSA	OLIG-FRIO B
GEOLOGIC PROVINCE CODE.....	230	220	220
DEPTH, FEET.....	11456	16986	8337
WELLHEAD PRESSURE, PSIG.....	5950	4900	500
OPEN FLOW, MCFD.....	6500	NOT GIVEN	30
COMPONENT, MOLE PCT			
METHANE.....	56.7	67.4	87.2
ETHANE.....	0.9	10.5	6.7
PROPANE.....	0.1	6.5	2.9
N-BUTANE.....	0.1	1.9	0.8
ISOBUTANE.....	TRACE	2.0	0.7
N-PENTANE.....	TRACE	0.6	0.2
ISOPENTANE.....	TRACE	0.6	0.4
CYCLOPENTANE.....	TRACE	0.1	0.1
HEXANES PLUS.....	TRACE	0.5	0.3
NITROGEN.....	0.3	0.6	0.2
OXYGEN.....	0.1	0.2	0.0
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.6	9.1	0.3
HELIUM.....	0.01	TRACE	TRACE
HEATING VALUE.....	1002	1252	1174
SPECIFIC GRAVITY.....	0.578	0.860	0.663

* 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 17259	INDEX SAMPLE 17322	INDEX SAMPLE 17382
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	EVANGELINE	LAFOURCHE	OUACHITA
FIELD.....	PORT BARRY	BOURG E	CADEVILLE
WELL NAME.....	HIRSCH TRUST NO. 1	STATE LEASE 9637 NO. 2	E. J. WHITE NO. 1
LOCATION.....	SEC. 25, T5S, R2W	T17S, R19E	SEC. 36, T17N, R1E
OWNER.....	WOOD PETROLEUM CORP.	MCCORMICK PRODUCTION CO.	DIAMOND SHAMROCK CORP.
COMPLETED.....	09/--/83	06/06/83	08/16/84
SAMPLED.....	04/17/84	06/13/84	08/16/84
FORMATION.....	OLLIG-FR IO	-KRUMBHAER C	JURA-COTTON VALLEY
GEOLOGIC PROVINCE CODE.....	220	220	230
DEPTH, FEET.....	8488	11917	10178
WELLHEAD PRESSURE, PSIG.....	500	4100	5800
OPEN FLOW, MCFD.....	20	NOT GIVEN	3100
COMPONENT, MOLE PCT			
METHANE.....	88.0	54.5	86.8
ETHANE.....	6.9	2.4	5.8
PROPANE.....	2.2	0.8	1.8
N-BUTANE.....	0.6	0.2	0.6
ISOBUTANE.....	0.6	0.3	0.4
N-PENTANE.....	0.2	0.1	0.3
ISOPENTANE.....	0.4	0.1	0.2
CYCLOPENTANE.....	0.2	TRACE	TRACE
HEXANES PLUS.....	0.4	0.1	0.3
NITROGEN.....	TRACE	0.3	0.7
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	0.0	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.6	2.9
HELIUM.....	TRACE	TRACE	0.01
HEATING VALUE.....	1166	1056	1100
SPECIFIC GRAVITY.....	0.657	0.594	0.666

* CALCULATED GROSS FTU 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 79 17243	INDEX SAMPLE 80 17244	INDEX SAMPLE 91 17245
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES
FIELD.....	BAY BATISTE	BAY BATISTE	BAY BATISTE
WELL NAME.....	LASL 9570 NO. 1	LASL 9570 NO. 3	LASL 9570 NO. 2
LOCATION.....	PORT SULPHUR	PORT SULPHUR	SEC. 8, T19S, R26E
OWNER.....	PEND OREILLE OIL & GAS CO.	PEND OREILLE OIL & GAS CO.	PEND OREILLE OIL & GAS CO.
COMPLETED.....	02/--/83	02/--/83	02/--/83
SAMPLED.....	04/06/84	04/06/84	04/06/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE.....	CGDE.	CGDE.	CGDE.
DEPTH, FEET.....	220	220	220
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	13770
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	2525
COMPONENT, MOLE PCT			630
METHANE.....	87.6	71.6	86.1
ETHANE.....	5.7	13.0	6.7
PROPANE.....	2.6	8.0	3.3
N-BUTANE.....	0.9	2.4	1.0
ISOBUTANE.....	0.7	2.1	0.8
N-PENTANE.....	0.3	0.6	0.3
ISOPENTANE.....	0.4	0.7	0.3
CYCLOPENTANE.....	0.1	0.2	0.1
HEXANES PLUS.....	0.3	0.5	0.3
NITROGEN.....	0.2	0.0	0.2
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.0	1.1	0.9
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	1160	1406	1183
SPECIFIC GRAVITY.....	0.665	0.820	0.678

* 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 82 17264	INDEX SAMPLE 83 17266	INDEX SAMPLE 34 17267
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES
FIELD.....	BAY JIMMY	BAY JIMMY	BAY JIMMY
WELL NAME.....	STATE LEASE 8512 NO. 1	STATE LEASE 8512 NO. 2	LL & EB NO. 1
LOCATION.....	PORT SULPHUR	PORT SULPHUR	PORT SULPHUR
OWNER.....	PEND OREILLE OIL & GAS CO.	PEND OREILLE OIL & GAS CO.	PEND OREILLE OIL & GAS CO.
COMPLETED.....	02/--/83	02/--/83	02/--/83
SAMPLED.....	04/20/84	04/20/84	04/20/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	220	220	220
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	50.0	83.7	84.8
ETHANE.....	4.6	7.0	7.1
PROPANE.....	2.1	4.3	3.8
N-BUTANE.....	0.8	1.5	1.3
ISOBUTANE.....	0.7	1.1	0.9
N-PENTANE.....	0.4	0.5	0.4
ISOPENTANE.....	0.2	0.4	0.3
CYCLOPENTANE.....	0.2	0.2	0.1
HEXANE'S PLUS.....	0.5	0.4	0.3
NITROGEN.....	0.1	0.1	0.1
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	6.8	0.7
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE.....	1158	1239	1208
SPECIFIC GRAVITY.....	0.654	0.711	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 SAMPLE 85 17519	INDEX SAMPLE 86 17378	INDEX SAMPLE 37 17391
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES
FIELD.....	COX BAY	DELTA DUCK CLUB	NOT GIVEN
WELL NAME.....	ORLEANS LEVEE BOARD NO. 1	DELTA DUCK CLUB UT. 1-A NO.1	STATE LEASE 7896 NO. 1
LOCATION.....	SEC. 28, T185, R15E	SEC. 29, T20S, R20E	BRETON SOUND BLK.23
OWNER.....	CAMPBELL ENERGY	SUPERIOR OIL CO. (TEXACO)	POGO PRODUCING CO.
COMPLETED.....	09/--/82	08/13/84	07/30/80
SAMPLED.....	11/06/84	08/13/84	08/20/84
FORMATION.....	MIOC-1200 FT. SAND	TERT-MIOCENE U	PLEI-3500 FT. SAND
GEOLOGIC PROVINCE CODE.....	220	220	220
DEPTH, FEET.....	12000	12000	3490
WELLHEAD PRESSURE, PSIG.....	3150	5485	1440
OPEN FLOW, MCFD.....	30000	800	1508
COMPONENT, MOLE PCT			
METHANE.....	57.8	83.7	98.8
ETHANE.....	0.7	7.2	0.1
PROPANE.....	0.2	4.3	TRACE
N-BUTANE.....	0.1	1.3	0.0
ISOBUTANE.....	TRACE	1.0	0.0
N-PENTANE.....	TRACE	0.3	0.0
ISOPENTANE.....	TRACE	0.3	0.0
CYCLOPENTANE.....	TRACE	0.1	0.0
HEXANES PLUS.....	TRACE	0.2	0.0
NITROGEN.....	0.5	0.6	0.8
OXYGEN.....	0.1	TRACE	0.1
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	TRACE	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	1.0	0.2
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	1012	1206	1003
SPECIFIC GRAVITY.....	0.567	0.699	0.562

* 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 17423	INDEX SAMPLE 17342	INDEX SAMPLE 17307
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	PLAQUEMINES	ST. MARY	TERREBONA
FIELD.....	SPANISH LAKE	LAKE SAND E	GRAND BOIS
WELL NAME.....	10800 RASUA, DELACROIX NO.F-1	S/L 10251 NO. 1	TENNECO FEE R NO. 7
LOCATION.....	SEC. 21, T15S, R13E	T17S, R8E	SEC. 7, T18S, R20E
OWNER.....	ARCO OIL & GAS CO.	UNION TEXAS PETROLEUM CORP.	TENNECO OIL CO.
COMPLET FD.....	04/19/83	06/08/84	05/29/84
SAMPLED.....	09/19/84	06/28/84	05/29/84
FORMATION.....	MIOC-10 800 FT. SAND	MIOC-ROB CHAMBERS: 3RD	MIOC-TEX-0
GEOLOGIC PROVINCE CODE.....	220	220	220
DEPTH, FEET.....	10810	17543	12168
WELLHEAD PRESSURE, PSIG.....	4500	13400	2789
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	10000
COMPONENT, MOLE PCT			
METHANE.....	58.5	93.4	94.1
ETHANE.....	0.4	2.6	2.8
PROPANE.....	0.1	0.7	0.8
N-BUTANE.....	0.1	0.2	0.2
ISOBUTANE.....	0.0	0.2	0.4
N-PENTANE.....	TRACE	0.1	0.2
ISOPENTANE.....	TRACE	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	0.2
HEXANES PLUS.....	TRACE	0.1	0.4
NITROGEN.....	0.3	0.6	0.3
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	2.2	0.5
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	1011	1038	1085
SPECIFIC GRAVITY.....	0.566	0.612	0.611

* 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 91 17459	INDEX SAMPLE 92 17486	INDEX SAMPLE 93 17237
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	VERMILION	W. BATON ROUGE	WEBSTER
FIELD.....	GUEYDAN SW	FALSE RIVER	DYKESVILLE E
WELL NAME.....	HARDSCRAMBLE NO. 3	F. E. FARWELL NO. 4	HEARN "A" NO. 1
LOCATION.....	SEC. 22, T12S, R2W	SEC. 61, T6S, R1W	SEC. 3, T22N, R9W
OWNER.....	HAWTHORNE OIL & GAS CORP.	CHEVRON U.S.A., INC.	CITIES SERVICE OIL&GAS CORP.
COMPLETED.....	NOT GIVEN	03/31/83	07/22/83
SAMPLED.....	09/--/84	10/09/84	04/02/84
FORMATION.....	OLIG-SUB ALLIANCE 2	CRET-TUSCALOOSA	JURA-SMACKOVER C
GEOLOGIC PROVINCE CODE.....	220	220	230
DEPTH, FEET.....	12035	19957	11565
WELLHEAD PRESSURE, PSIG.....	7131	4325	7325
OPEN FLOW, MCFD.....	6000	1515	6305
COMPONENT, MOLE PCT			
METHANE.....	89.6	50.6	93.5
ETHANE.....	5.0	0.4	3.1
PROPANE.....	1.7	TRACE	0.7
N-BUTANE.....	0.4	0.1	0.2
ISOBUTANE.....	0.8	0.0	0.4
N-PENTANE.....	0.3	TRACE	0.2
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.4	TRACE	TRACE
HEXANES PLUS.....	0.8	0.1	0.2
NITROGEN.....	0.1	0.4	0.1
OXYGEN.....	TRACE	0.1	0.0
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	8.3	1.5
HELIUM.....	TRACE	TRACE	0.01
HEATING VALUE.....	1153	933	1060
SPECIFIC GRAVITY.....	0.651	0.643	0.649

* 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 17325	INDEX 95 SAMPLE 17395	INDEX 96 SAMPLE 17425
STATE	MICHIGAN	MISSISSIPPI	MISSISSIPPI
COUNTY	OSCEOLA	JASPER	LOWNDES
FIELD	HERSEY-EVART	CENTRAL HEIDELBERG	CORINNE
WELL NAME	PAIDINO NO. 1-36	MASONITE NO. 1C36-6	COLUMBUS A F BASE 19-15 NO.1
LOCATION	SEC. 36, T17N, R9W	SEC. 36, T11N, R12E	SEC. 30, T16S, R18W
OWNER	PPG OIL & GAS CO.	GAV PRODUCTION CO.	TXO PRODUCTION CORP.
COMPLETED	11/16/83	08/29/84	12/01/83
SAMPLED	05/31/84	08/29/84	09/20/84
FORMATION	SILU-CLINTON	CRET-EUTAW	MISS-CARTER
SEOLOGIC PROVINCE CODE	305	210	200
DEPTH, FEET	8075	4977	6765
WELLHEAD PRESSURE, PSIG	3622	50	610
OPEN FLOW, MCFD	2942	500	283
COMPONENT, MOLE PCT			
ETHANE	56.3	50.3	80.3
PROPANE	2.6	1.0	7.6
N-BUTANE	0.2	1.7	3.9
ISOPUTANE	0.1	1.2	1.5
N-PENTANE	0.0	1.0	1.4
ISOPENTANE	TRACE	0.9	0.9
CYCLOPENTANE	0.0	0.3	0.6
HEXANES PLUS	TRACE	0.3	1.2
NITROGEN	0.6	1.0	1.8
OXYGEN	TRACE	2.0	0.7
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE*	0.0	0.0	0.0
CARBON DIOXIDE	0.1	0.4	0.0
HELIUM	0.03	0.03	0.08
HEATING VALUE*	1031	1165	1350
SPECIFIC GRAVITY	0.574	0.676	0.773

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** LUF 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 97 17185	INDEX SAMPLE 98 17186	INDEX SAMPLE 99 17316
STATE.....	MISSISSIPPI	MISSISSIPPI	MISSISSIPPI
COUNTY.....	MONROE	MONROE	SMITH
FIELD.....	ABERDEEN	BIBE	BOYKIN CHURCH
WELL NAME.....	CROSBY NO. 9-11	YOUNG NO. 35-2	USA 17-9 NO. 1
LOCATION.....	SEC. 9, T15S, R7E	SEC. 35, T11S, R7E	SEC. 17, T3N, R7E
OWNER.....	PRUET PRODUCTION CO.	PRUET PRODUCTION CO.	XMCO, INC.
COMPLETED.....	09/27/82	03/--/83	03/08/84
SAMPLED.....	02/20/84	02/20/84	06/08/84
FORMATION.....	MISS-CARTER	MISS-EVANS	CRET-RODE SSA
GEOLOGIC PROVINCF.....	200	200	210
DEPTH, FEET.....	3828	1798	10882
WELLHEAD PRESSURE, PSIG.....	740	120	2700
OPEN FLOW, MCFD.....	1100	464	500
COMPONENT, MOLE PCT			
METHANE.....	53.9	95.4	89.7
ETHANE.....	3.3	2.1	0.4
PROPANE.....	0.1	0.1	0.9
N-PUTANE.....	0.0	0.0	0.5
ISOPUTANE.....	0.0	0.0	0.9
N-PENTANE.....	0.0	0.0	0.9
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANF.....	0.0	0.0	0.3
HEXANES PLUS.....	0.0	0.0	1.4
NITROGEN.....	2.4	1.5	3.5
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.1	0.7	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.1	1.4
HELIUM.....	0.15	0.07	0.06
HEATING VALUE.....	1013	1009	1108
SPECIFIC GRAVITY.....	0.580	0.569	0.671

* CALCULATED GROSS PTU 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 17390	INDEX 101 SAMPLE 17430	INDEX 102 SAMPLE 17284
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	FERGUS	HILL	PHILLIPS
FIELD.....	LERGY	FRESNO	LOWING E
WELL NAME.....	FED. NO. N-27-23-19-N	STATE NO. 2-36	FED. NO. 2971-2
LOCATION.....	SEC. 27, T23N, R19E	SEC. 36, T33N, R13E	SEC. 29, T37N, R31E
OWNER.....	FUEL RESOURCES DEV. CO.	WESTERN NATURAL GAS CO.	PETROLEUM CORP. OF AMERICA
COMPLETED.....	08/23/84	09/27/84	08/13/83
SAMPLED.....	08/23/84	09/27/84	05/10/84
FORMATION.....	CRET-EAGLE	CRET-EAGLE	CRET-BOWDCIN
GEOLOGIC PROVINCE CODE.....	510	500	395
DEPTH, FEET.....	1323	1000	1556
WELLHEAD PRESSURE, PSIG.....	275	305	530
OPEN FLOW, MCFD.....	120	200	3047
COMPONENT, MOLE PCT			
METHANE.....	53.1	56.6	93.1
ETHANE.....	0.3	0.4	0.3
PROPANE.....	TRACE	TRACE	TRACE
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	6.2	2.8	6.2
OXYGEN.....	0.0	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARRON DIOXIDE.....	0.2	TRACE	0.1
HELIUM.....	0.08	0.08	0.07
HEATING VALUE*.....	948	986	948
SPECIFIC GRAVITY.....	0.562	0.567	0.581

* 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 17285	INDEX 104 SAMPLE 17161	INDEX 105 SAMPLE 17160
STATE.....	MONTANA	MONTANA	NEW MEXICO
COUNTY.....	PHILLIPS	PONDERA	EDDY
FIELD.....	LOVING E	MARIAS RIVER	ANTELOPE SINK
WELL NAME.....	FED. NO. 2-0361	D. S. FED. NO. 21-13	NEW MEXICO STATE "DE" NO. 1
LOCATION.....	SEC. 3, T36N, R31E	SEC. 13, T30N, R2W	SEC. 19, T19S, R23E
OWNER.....	PETROLEUM CORP. OF AMERICA	DIAMOND SHAMROCK EXP. CO.	EXXON CO., U.S.A.
COMPLETED.....	NOT GIVEN	08/26/83	03/30/83
SAMPLED.....	05/10/84	01/20/84	01/26/84
FORMATION.....	CRET-BOWDOIN GREENHORN PHIL.	CRET-BOW ISLAND 4TH	PENN-CISSCC CANYON
GEOLOGIC PROVINCE CODE.....	395	500	430
DEPTH, FEET.....	NOT GIVEN	1128	6240
WELLHEAD PRESSURE, PSIG.....	440	150	1630
OPEN FLOW, MCFD.....	1593	539	1900
COMPONENT, MOLE PCT			
METHANE.....	93.2	80.0	87.4
ETHANE.....	0.4	0.3	5.9
PROPANE.....	TRACE	0.0	2.4
N-BUTANE.....	0.0	TRACE	0.8
ISOBUTANE.....	0.0	0.0	0.6
N-PENTANE.....	0.0	0.1	0.3
ISOPENTANE.....	0.0	0.0	0.3
CYCLOPENTANE.....	0.0	TRACE	0.2
HEXANES PLUS.....	0.0	TRACE	0.4
NITROGEN.....	6.1	16.7	1.2
OXYGEN.....	TRACE	2.4	TRACE
ARGON.....	TRACE	0.2	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.2
HELIUM.....	0.07	0.22	0.03
HEATING VALUE.....	951	820	1154
SPECIFIC GRAVITY.....	0.582	0.642	0.659

* CALCULATED GROSS BTU PEF 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 17518	INDEX 107 SAMPLE 17297	INDEX 138 SAMPLE 17279
STATE.....	NEW MEXICO	NEW MEXICO	NEW YORK
COUNTY.....	EDDY	RIO ARRIBA	CATTARAUGUS
FIELD.....	UNDESIGNATED	DEVILS FORK	RANDOLPH
WELL NAME.....	EASTERN SHORE "TL" FED. NO.1	CANYON LARGO UNIT NO. 325	MEADE NO. 1
LOCATION.....	SEC. 8, T19S, R27E	SEC. 33, T25N, R6W	SEC.C IVORY QUAD,RANDOLPH T
OWNER.....	YATES PETROLEUM CORP.	MARRION & BAYLESS	PAUL & MARJORIE MEADE
COMPLETED.....	05/13/83	02/22/84	06/01/82
SAMPLED.....	11/08/84	05/22/84	05/08/84
FORMATION.....	PENN-MORROW	CRET-GALLUP	SILU-MEDINA
GEOLOGIC PROVINCE CODE.....	430	580	160
DEPTH, FEET.....	7708	4679	4570
WELLHEAD FRESSURE,PSIG.....	2410	1075	1250
OPEN FLOW, MCFD.....	3694	744	1237
COMPONENT, MOLE PCT			
METHANE.....	68.4	74.7	93.9
ETHANE.....	7.5	11.4	2.2
PROPANE.....	3.9	6.8	0.2
N-BUTANE.....	1.1	2.3	0.1
ISORUTANE.....	0.5	0.5	0.0
N-PENTANE.....	0.2	0.7	0.1
ISOPENTANE.....	0.5	0.6	TRACE
CYCLOPENTANE.....	0.1	0.2	0.1
HEXANES PLUS.....	0.2	0.2	0.1
NITROGEN.....	14.4	1.7	3.1
OXYGEN.....	2.7	0.1	TRACE
ARGON.....	0.1	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.5	TRACE
HELIUM.....	0.23	0.06	0.10
HEATING VALUE**.....	1026	1319	1012
SPECIFIC GRAVITY.....	0.751	0.774	0.587

* 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 17280	INDEX 110 SAMPLE 17481	INDEX 111 SAMPLE 17364
STATE.....	NEW YORK	NEW YORK	NEW YORK
COUNTY.....	CATTARAUGUS	CHAUTAUGUA	CHAUTAUGUA
FIELD.....	RANDOLPH	CHERRY CREEK	ELLINGTON
WELL NAME.....	SENN NO. 2	LANGLESS NO. 1	WEHREBERG NO. 1
LOCATION.....	SEC. C, RANDOLPH QUAD, RANDOLPH	SEC. D CHERRY CRK. QD. & TWP.	SEC. E, KENNEDY QUAD, ELLINGTON
OWNER.....	DALE S. & WILDA SENN	SEIS-EX. GEOPHYSICAL, LTD.	TRAHAN PETROLEUM, INC.
COMPLETED.....	06/03/82	02/25/82	10/26/82
SAMPLFD.....	05/08/84	10/10/84	10/01/84
FORMATION.....	SILU-MEDINA	SILU-MEDINA	SILU-MEDINA
GEOLOGIC PROVINCE CODE.....	160	160	160
DEPTH, FEET.....	4210	3850	4118
WELLHEAD PRESSURE, PSIG.....	1200	1075	1230
OPEN FLOW, MCFD.....	2768	2320	1250
COMPONENT, MOLE PCT			
METHANE.....	53.8	92.3	92.7
ETHANE.....	2.2	2.4	2.7
PROPANE.....	0.2	0.2	0.2
N-BUTANE.....	0.1	0.1	0.1
ISOBUTANE.....	0.0	TRACE	0.0
N-PENTANE.....	TRACE	0.0	0.1
ISOPENTANE.....	TRACE	0.1	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	3.4	4.6	3.8
OXYGEN.....	0.1	TRACE	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.1	0.1
HELIUM.....	0.11	0.14	0.11
HEATING VALUE.....	1003	996	1005
SPECIFIC GRAVITY.....	0.565	0.594	0.592

* 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 17A98	INDEX 113 SAMPLE 17497	INDEX 114 SAMPLE 17479
STATE.....	NEW YORK	NEW YORK	NEW YORK
COUNTY.....	CHAUTAQUA	CHAUTAQUA	CHAUTAQUA
FIELD.....	FRENCH CREEK-MEDINA	KIANTONE-MEDINA	LAKE SHORE
WELL NAME.....	C. VOLK NO. 1	T. NORDLAND NO. 1A	HOWARD GILBERT NO. 1
LOCATION.....	FRENCH CREEK TOWNSHIP	KIANTONE TOWNSHIP	SEC. 6-HAPLET QD CHAROTTE TP
OWNER.....	ENVIROGAS, INC.	ENVIROGAS, INC.	GREAT WESTERN DEV. CO.
COMPLETED.....	06/23/82	01/15/82	--/--/83
SAMPLED.....	10/15/84	10/15/84	10/04/84
FORMATION.....	SILU-MEDINA	SILU-MEDINA	SILU-MEDINA
GEOLOGIC PROVINCE CODE.....	160	160	160
DEPTH, FEET.....	4080	4200	147
WELLHEAD PRESSURE, PSIG.....	1235	1210	880
OPEN FLOW, MCFD.....	900	2000	1813
COMPONENT, MOLE PCT			
METHANE.....	88.2	93.7	91.7
ETHANE.....	4.5	2.4	3.0
PROPANE.....	1.0	0.2	0.4
N-BUTANE.....	0.3	0.1	0.1
ISOBUTANE.....	0.2	0.0	0.1
N-PENTANE.....	0.1	TRACE	TRACE
ISOPENTANE.....	0.1	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	TRACE	0.1
NITROGEN.....	4.9	3.2	4.4
OXYGEN.....	TRACE	TRACE	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.2	0.2	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.1
HELIUM.....	0.20	0.09	0.14
HEATING VALUE**.....	1031	1001	1005
SPECIFIC GRAVITY.....	0.619	0.583	0.602

* 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 17496	INDEX 116 SAMPLE 17362	INDEX 117 SAMPLE 17184
STATE.....	NEW YORK	NEW YORK	NEW YORK
COUNTY.....	CHAUTAUGUA	LIVINGSTON	WYOMING
FIELD.....	POLAND-MEDINA	UHLEY CORNERS	WILDCAT
WELL NAME.....	J. HILL NO. 1	ROGERS NO. 1 LRC NO. 93	GEORGE UNIT NO. 1-A
LOCATION.....	POLAND TOWNSHIP	SEC. H, LEROY QUAD, YORK TWP	WETHERSFIELD TWP.
OWNER.....	ENVIROGAS, INC.	LENAPE RESOURCES CORP.	LENAPE RESOURCES CORP.
COMPLETED.....	07/07/82	06/18/82	10/18/79
SAMPLED.....	10/15/84	07/24/84	02/20/84
FORMATION.....	SILU-MEDINA	SILU-MEDINA	SILU-MEDINA
GEOLOGIC PROVINCE	160	160	160
DEPTH, FEET.....	3910	1509	3256
WELLHEAD PRESSURE, PSIG.....	1345	200	700
OPEN FLOW, MCFD.....	5000	1043	331
COMPONENT, MOLE PCT			
METHANE.....	52.9	85.4	91.2
Ethane.....	2.2	7.0	2.3
Propane.....	0.2	1.6	0.2
N-BUTANE.....	0.1	0.3	0.1
ISOBUTANE.....	0.0	0.2	0.0
N-PENTANE.....	TRACE	0.1	0.0
ISOPENTANE.....	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	5.9
NITROGEN.....	4.1	4.8	TRACE
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.0	0.0
HYDROGEN.....	0.2	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.2	TRACE
HELIUM.....	0.12	0.24	0.21
HEATING VALUE*.....	955	1058	974
SPECIFIC GRAVITY.....	0.588	0.637	0.592

* 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 17419	INDEX 119 SAMPLE 17467	INDEX 120 SAMPLE 17274
STATE.....	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA
COUNTY.....	BILLINGS	MCKENZIE	MCKENZIE
FIELD.....	ROOSEVELT	ELK	JUNIPER
WELL NAME.....	CENEX FED. NO. 34-4	IVERSON NO. A-1	EIDE 35-11 NO. 1
LOCATION.....	SEC. 4, T142N, R102W	SEC. 6, T151N, R102W	SEC. 35, T149N, R99W
OWNER.....	DIAMOND SHAMROCK EXP. CO.	SUN EXP. & PROD. CO.	PLACID OIL CO.
COMPLETED.....	---/---/81	08/--/83	05/01/84
SAMPLED.....	09/16/84	09/19/84	05/01/84
FORMATION.....	DEVO-DUPEROW	MISS-MISSION CANYON	ORDO-RED RIVER
GEOLOGIC PROVINCE CODE.....	395	395	395
DEPTH, FEET.....	10790	9364	14280
WELLHEAD PRESSURE, PSIG.....	1415	820	4500
OPEN FLOW, MCFD.....	130	300	4500
COMPONENT, MOLE PCT			
METHANE.....	56.5	63.6	74.1
ETHANE.....	17.6	16.4	5.4
PROPANE.....	12.0	9.9	1.6
N-BUTANE.....	5.3	3.5	0.4
ISOBUTANE.....	2.9	1.6	0.6
N-PENTANE.....	1.6	0.7	0.2
ISOPENTANE.....	1.7	1.0	0.1
CYCLOPENTANE.....	0.4	0.2	0.1
HEXANES PLUS.....	0.9	0.4	0.3
NITROGEN.....	0.6	1.6	2.6
OXYGEN.....	TRACE	TRACE	0.5
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	12.8
CARBON DIOXIDE.....	0.5	1.1	1.2
HELIUM.....	0.01	0.02	0.02
HEATING VALUE*.....	1678	1468	1037
SPECIFIC GRAVITY.....	0.987	0.876	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 121 SAMPLE 17270	INDEX 122 SAMPLE 17493	INDEX 123 SAMPLE 17494
STATE	OHIO	OHIO	OHIO
COUNTY	GEAUGA	KNOX	KNOX
FIELD	MONTSVILLE	MOUNT VERNON N	MOUNT VERNON N
WELL NAME	CLEPSON NO. 1	BEST-CAMERON UNIT	RUBY & ARTHUR BURKE NO. 1
LOCATION	HAMDEN QUAD.	LOT. 24, GTR. 4, T-7, R-14	LOT 2, GTR 4, T-7, R-2
OWNER	COLLINS-MCGREGOR OPER. CO.	JADOIL, INC.	JADOIL, INC.
COMPLETED	11/18/82	09/30/80	10/20/83
SAMPLED	04/27/84	10/09/84	10/09/84
FORMATION	SILU-CLINTON	CAMB-TREMPEALEAU	SILU-CLINTON
GEOLOGIC PROVINCE CODE	160	160	160
DEPTH, FEET	3792	4096	2100
WELLHEAD PRESSURE, PSIG	870	1400	700
OPEN FLOW, MCFD	2800	150	6000
COMPONENT, MOLE PCT			
METHANE	81.9	80.3	79.3
ETHANE	7.3	6.6	6.8
PROPANE	3.5	3.6	2.5
N-BUTANE	1.2	1.1	0.8
ISOBUTANE	0.8	0.5	0.6
N-PENTANE	0.5	0.3	0.2
ISOPENTANE	0.2	0.3	0.3
CYCLOPENTANE	0.2	0.1	TRACE
HEXANES PLUS	0.6	0.3	0.2
NITROGEN	3.8	6.5	8.8
OXYGEN	TRACE	TRACE	TRACE
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	0.2	0.2
HYDROGEN SULFIDE*	0.0	0.0	0.0
CARBON DIOXIDE	0.0	TRACE	0.1
HELIUM	0.12	0.19	0.27
HEATING VALUE**	1187	1124	1069
SPECIFIC GRAVITY	0.704	0.693	0.685

* 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 17257	INDEX 125 SAMPLE 17374	INDEX 126 SAMPLE 17281
STATE.....	OHIO	OKLAHOMA	OKLAHOMA
COUNTY.....	TUSCARAWAS	BEAVER	CADDO
FIELD.....	BALTIC	DOMBEY NW	CRAIN
WELL NAME.....	DAN ANDREAS NO. 1	DANIEL STRICKLAND NO. 1	CRAIN NO. 1
LOCATION.....	SEC. 18, AUBURN TWP.	SEC. 32, T5N, R20ECM	SEC. 2, 110N, R12W
OWNER.....	CLARENCE SHERMAN	KELLOIL, INC.	RICKS EXPLORATION CORP.
COMPLETED.....	09/07/81	11/--/82	06/25/82
SAMPLED.....	04/16/84	08/10/84	05/01/84
FORMATION.....	ORDO-ROSE RUN	MISS-CHESTER	PENN-RED FORK
GEOLOGIC PROVINCE CODE.....	160	360	360
DEPTH, FEET.....	6790	7000	13100
WELLHEAD PRESSURE, PSIG.....	2200	925	NCT GIVEN
OPEN FLOW, MCFD.....	25	605	975
COMPONENT, MOLE PCT			
METHANE.....	89.6	87.0	85.2
ETHANE.....	5.0	5.0	6.6
PROPANE.....	1.7	2.3	1.9
N-BUTANE.....	0.6	1.0	0.3
ISOBUTANE.....	0.4	0.5	0.2
N-PENTANE.....	0.2	0.4	0.1
ISOPENTANE.....	0.2	0.2	0.1
CYCLOPENTANE.....	0.1	TRACE	0.1
HEXANES PLUS.....	0.2	0.2	0.1
NITROGEN.....	1.9	2.8	0.1
OXYGEN.....	TRACE	0.1	0.4
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.3	0.9
HELIUM.....	0.06	0.06	0.03
HEATING VALUE**.....	1106	1117	1105
SPECIFIC GRAVITY.....	0.633	0.656	0.632

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE DESCRIPTION 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 17183	INDEX SAMPLE 17236	INDEX SAMPLE 17189
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CADDO	CADDO	CADDO
FIELD.....	CYRIL W	EAKLY N	LIBBIE SW
WELL NAME.....	LG BOONE NO. 1	MELVIN CHISUM NO. 1	FROST NO. 1-17
LOCATION.....	SEC. 31, T6N, R10W	SEC. 29, T11N, R13W	SEC. 17, T11N, R13W
OWNER.....	PCX CORP.	SUN EXP. & PROD. CO.	LEAR PETROLEUM EXP., INC.
COMPLETED.....	03/--/83	03/10/84	08/--/81
SAMPLED.....	02/14/84	03/11/84	02/23/84
FORMATION.....	MISS-GODDARD	PENN-ATOKA	PENN-SPRINGER
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	19808	14302	15000
WELLHEAD PRESSURE, PSIG.....	5200	NOT GIVEN	3200
OPEN FLOW, MCFD.....	1200	20323	10064
COMPONENT, MOLE PCT			
METHANE.....	56.8	93.2	96.7
ETHANE.....	1.0	2.5	1.0
PROPANE.....	0.1	0.4	0.1
N-BUTANE.....	TRACE	0.1	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	TRACE	0.1	0.0
ISOPENTANE.....	0.0	TRACE	0.0
CYCLOPENTANE.....	TRACE	TRACE	0.0
HEXANFS PLUS.....	TRACE	TRACE	0.0
NITROGEN.....	0.2	2.2	0.5
OXYGEN.....	TRACE	0.5	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.7	0.9	1.6
HELIUM.....	0.02	0.02	0.02
HEATING VALUE*.....	1001	1007	1000
SPECIFIC GRAVITY.....	0.577	0.594	0.579

* 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 17380	INDEX 131 SAMPLE 17195	INDEX 132 SAMPLE 17314
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CADDO	SICKLES	CADDO
FIELD.....	LOOKEBA E	PECK NO. 1-10	SICKLES NE
WELL NAME.....	BAKER NO. 1	SEC. 10, T10N, R12W	BENNIE LINDLEY "A" NO. 30-2
LOCATION.....	SEC. 6, T10N, R10W	LEAR PETROLEUM EXP., INC.	SEC. 30, T11N, R11W
OWNER.....	ANR PRODUCTION CO.	09/--/82	GETTY OIL CO.
COMPLETED.....	07/16/77	02/23/84	11/17/83
SAMPLED.....	08/15/84	PENN-ATOKA	06/06/84
FORMATION.....	PENN-SPRINGER	360	PENN-SPRINGER
GEOLOGIC PROVINCE CODE.....	360	14276	360
DEPTH, FEET.....	13426	6400	13895
WELLHEAD PRESSURE, PSIG.....	5106	3583	7500
OPEN FLOW, MCFD.....	1800		4226
COMPONENT, MOLE PCT			
METHANE.....	55.5	93.5	92.4
ETHANE.....	2.2	3.3	4.1
PROPANE.....	0.4	0.6	0.9
N-BUTANE.....	0.1	0.1	0.3
ISOBUTANE.....	0.0	0.1	0.2
N-PENTANE.....	TRACE	TRACE	0.1
ISOPENTANE.....	TRACE	TRACE	0.1
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	0.5	1.3	0.2
OXYGEN.....	0.1	0.0	0.6
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.2	1.0	0.0
HELIUM.....	0.02	0.02	1.0
HEATING VALUE.....	1026	1034	0.02
SPECIFIC GRAVITY.....	0.588	0.602	1072
			0.615

* CALCULATED GROSS RTU 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 17248	INDEX 134 SAMPLE 17242	INDEX 135 SAMPLE 17521
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CLEVELAND	COAL	COMANCHE
FIELD.....	PECAN	TUPELO E	FLEITCHER
WELL NAME.....	JOHNSON "B" NO. 1-25	PALMER ROYALTY NO. 1	TEN BEARS NO. 1
LOCATION.....	SEC. 25, T10N, R1E	SEC. 6, T11N, R9E	SEC. 5, T4N, R9W
OWNER.....	ANADARKO PRODUCTION CO.	KEITH F. WALKER OIL PROD.	KERR-MCGEE CORP.
COMPLETED.....	08/26/83	10/08/83	07/--/84
SAMPLED.....	04/12/84	04/05/84	11/09/84
FORMATION.....	ORDO-SIMPSON	PENN-CROMWELL	MISS-SPIERS
GEOLOGIC PROVINCE CODE.....	355	345	350
DEPTH, FEET.....	5936	5117	18910
WELLHEAD PRESSURE, PSIG.....	1500	1646	8850
OPEN FLOW, MCFD.....	500	773	3500
COMPONENT, MOLE PCT			
METHANE.....	37.5	80.4	95.3
ETHANE.....	26.1	9.2	1.4
PROPANE.....	22.5	4.7	0.2
N-BUTANE.....	7.2	1.3	0.0
ISOBUTANE.....	2.3	0.6	0.0
N-PENTANE.....	1.5	0.3	0.0
ISOPENTANE.....	0.9	0.5	0.0
CYCLOPENTANE.....	0.3	0.3	0.0
HEXANES PLUS.....	0.6	0.5	0.0
NITROGEN.....	1.0	1.9	1.6
OXYGEN.....	TRACE	0.1	0.3
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	1.2
HELIUM.....	0.01	0.10	0.02
HEATING VALUE*.....	1897	1236	996
SPECIFIC GRAVITY.....	1.127	0.720	0.583

* 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 136 17320	INDEX SAMPLE 137 17388	INDEX SAMPLE 138 17254
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CREEK	CREEK	CUSTER
FIELD.....	MANNFORD	MANNFORD	ALEDO SW
WELL NAME.....	P. R. JACKSON NO. 1	FLORES NO. 2	SMITH "HH" NO. 1
LOCATION.....	SEC. 7, T18N, R9E	SEC. 29, T18N, R9E	SEC. 30, T15N, R19W
OWNER.....	TEXACO INC.	LITTLE RIVER ENERGY CO.	TEXAS OIL & GAS CORP.
COMPLETED.....	11/03/83	01/05/84	06/12/81
SAMPLED.....	04/25/84	08/22/84	04/17/84
FORMATION.....	PENN-BURGESS	PENN-SKINNER L	PENN-SKINNER
GEOLOGIC PROVINCE CODE.....	355	355	360
DEPTH, FEET.....	2898	2337	11124
WELLHEAD PRESSURE, PSIG.....	781	775	6175
OPEN FLOW, PCFD.....	1752	1300	3300
COMPONENT, MOLE PCT			
METHANE.....	70.7	68.1	79.9
ETHANE.....	9.4	7.4	9.7
PROPANE.....	4.9	5.3	5.0
N-BUTANE.....	1.2	1.3	1.4
ISOBUTANE.....	0.4	0.6	0.9
N-PENTANE.....	0.3	0.3	0.2
ISOPENTANE.....	0.2	0.2	0.7
CYCLOPENTANE.....	0.1	0.1	0.5
HEXANES PLUS.....	0.2	0.2	0.6
NITROGEN.....	12.3	16.0	0.4
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.2	0.6
HELIUM.....	0.07	0.27	0.03
HEATING VALUE.....	1101	1059	1278
SPECIFIC GRAVITY.....	0.741	0.756	0.737

* 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 17271	INDEX 140 SAMPLE 17349	INDEX 141 SAMPLE 17376
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CUSTER	CUSTER	CUSTER
FIELD.....	ALEDO SW	ARAPAHOE	CARPENTER E
WELL NAME.....	REINSCHMIEDT NO. 1	STRONG NO. 1	EL PASO YOUNG STATE NO. 1
LOCATION.....	SEC. 30, T15N, R19W	SEC. 18, T17N, R13N	SEC. 31, T13N, R19W
OWNER.....	TXO PRODUCTION CORP.	HARPER OIL CO.	EL PASO EXPLORATION CO.
COMPLETED.....	11/08/83	03/26/84	08/13/84
SAMPLED.....	04/29/84	07/06/84	08/10/84
FORMATION.....	PENN-SKINNER	PENN-ATOKA	PENN-RED FORK
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	11174	13387	12976
WELLHEAD PRESSURE, PSIG.....	3440	9300	3630
OPEN FLOW, MCFD.....	4400	3700	1386
COMPONENT, MOLE PCT			
METHANE.....	76.7	50.7	80.6
ETHANE.....	8.7	4.8	8.8
PROPANE.....	4.2	1.5	4.7
N-BUTANE.....	1.1	0.3	1.4
ISOBUTANE.....	0.7	0.5	1.2
N-PENTANE.....	0.3	0.2	0.4
ISOPENTANE.....	0.2	0.0	0.8
CYCLOPENTANE.....	0.2	0.1	0.2
HEXANES PLUS.....	0.3	0.5	0.5
NITROGEN.....	5.6	0.3	0.3
OXYGEN.....	1.3	TRACE	TRACE
ARGON.....	0.1	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	1.0	0.9
HELIUM.....	0.02	0.02	0.02
HEATING VALUE*.....	1147	1109	1268
SPECIFIC GRAVITY.....	0.726	0.634	0.732

* 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 17253	INDEX 143 SAMPLE 17182	INDEX 144 SAMPLE 17358
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CUSTER	CUSTER	DEWEY
FIELD.....	CARPENTER NE	WEATHERFORD	PUTNAM
WELL NAME.....	FOSS NO. 1	CORNELL NO. 1-24	E. S. COLLIER UNIT NO. 2
LOCATION.....	SEC. 18, T12N, R19W	SEC. 24, T13N, R15W	SEC. 15, T17N, R18W
OWNER.....	TEXAS OIL & GAS CORP.	ARKLA EXPLORATION CO.	ARCO OIL & GAS CO.
COMPLETED.....	06/26/82	07/26/83	04/19/84
SAMPLED.....	04/17/84	02/14/84	07/24/84
FORMATION.....	PENN-DES MOINES	PENN-ATOKA	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	13458	13007	10678
WELLHEAD PRESSURE, PSIG.....	4924	3850	3750
OPEN FLOW, MCFD.....	2100	6500	4000
COMPONENT, MOLE PCT			
METHANE.....	53.0	84.3	85.1
ETHANE.....	4.0	7.9	8.0
PROPANE.....	0.7	3.5	3.1
N-BUTANE.....	0.1	0.9	0.7
ISOBUTANE.....	0.1	0.8	0.5
N-PENTANE.....	TRACE	0.3	0.2
ISOPENTANE.....	0.1	0.5	0.2
CYCLOPENTANE.....	0.1	0.3	0.1
HEXANES PLUS.....	0.1	0.5	0.3
NITROGEN.....	0.7	0.5	0.6
OXYGEN.....	0.1	0.1	0.0
ARGON.....	TRACE	0.0	0.0
HYDROGEN.....	0.0	TRACE	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.0	0.4	1.1
HELIUM.....		0.02	0.03
HEATING VALUE*.....	1052	1215	1162
SPECIFIC GRAVITY.....	0.604	0.654	0.673

* CALCULATED GROSS RTU 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 17359	INDEX 146 SAMPLE 17482	INDEX X 147 SAMPLE 17308
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	DEWEY	GARVIN	GRADY
FIELD.....	PUTRAM	NEW HOPE SE	AMBER E
WELL NAME.....	E. S. COLLIER UNIT NO. 2	VAUGHN RANCHES A NO. 1	WEAVER NO. 2
LOCATION.....	SEC. 15, T17N, R18W	SEC. 10, T3N, R3W	SEC. 11, T8N, R6W
OWNER.....	ARCO OIL & GAS CO.	PHILLIPS OIL CO.	SULLIVAN & CO.
COMPLETED.....	04/19/84	04/26/84	11/02/83
SAMPLED.....	07/24/84	10/09/84	05/24/84
FORMATION.....	PENNA-RED FORK	DEVO-HUNTON	PENN-BOYD
GEOLOGIC PROVINCE CODE.....	360	350	360
DEPTH, FEET.....	9563	8378	6949
WELLHEAD PRESSURE, PSIG.....	3465	2350	2300
OPEN FLOW, MCFD.....	3000	750	250
COMPONENT, MOLE PCT			
METHANE.....	78.6	75.8	78.3
ETHANE.....	11.7	13.8	4.4
PROPANE.....	5.6	5.6	1.5
N-BUTANE.....	1.2	2.0	0.4
ISOBUTANE.....	0.7	TRACE	0.3
N-PENTANE.....	0.3	0.1	0.2
ISOPENTANE.....	0.3	0.5	0.1
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	0.2	0.1	0.2
NITROGEN.....	6.6	1.6	13.9
OXYGEN.....	0.0	TRACE	0.5
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	0.5	0.1
HELIUM.....	0.04	0.05	0.09
HEATING VALUE*.....	1251	1259	961
SPECIFIC GRAVITY.....	0.722	0.735	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 SAMPLE 148 17357	INDEX SAMPLE 149 17287	INDEX SAMPLE 150 17175
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	GRADY	GRADY	HARPER
FIELD.....	CHICKASHA NW	HARNES-DEEP	MOCANE-LAVERNE
WELL NAME.....	LILLY B. NO. 1	AGAWAH NO. 28-A	HIERONYPHUS UNIT "D" NO. 2
LOCATION.....	SEC. 2, T6N, R8W	SEC. 28, T5N, R7W	SEC. 2, T26N, R24W
OWNER.....	J. WALTER DUNCAN	RICKS EXPLORATION CO.	AMOCO PRODUCTION CO.
COMPLETED.....	03/21/84	09/14/82	NOT GIVEN
SAMPLED.....	06/28/84	05/15/84	10/12/84
FORMATION.....	PENN-YULE	PENN-CUNNINGHAM L	PENN-TONKAWA
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	8248	NOT GIVEN	5349
WELLHEAD PRESSURE, PSIG.....	2000	3000	175
OPEN FLOW, MCFD.....	1145	2300	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	54.6	50.9	80.0
ETHANE.....	2.7	5.5	8.3
PROFANE.....	0.6	1.6	4.5
N-BUTANE.....	0.1	0.2	1.5
ISOBUTANE.....	0.1	0.1	0.6
N-PENTANE.....	0.1	0.0	0.5
ISOPENTANE.....	TRACE	0.3	0.2
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.1	0.1	0.4
NITROGEN.....	1.5	0.5	3.4
OXYGEN.....	0.0	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.6	0.3
HELIUM.....	0.09	0.04	0.15
HEATING VALUE*.....	1042	1093	1201
SPECIFIC GRAVITY.....	0.592	0.621	0.715

* 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 151 17176	INDEX SAMPLE 152 17471	INDEX SAMPLE 153 17187
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	HASKELL	LINCOLN	LINCOLN
FIELD.....	KINTA	SPORN	TRYON
WELL NAME.....	ROSE NO. 2-24	HERT TRUST NO. 1-22	SPORN ESTATE NO. 23-1
LOCATION.....	SEC. 24, T7N, R19E	SEC. 22, T17N, R3E	SEC. 23, T16N, R3E
OWNER.....	SAMSON RESOURCES CO.	NONDORF OIL & GAS, INC.	CHAMPLIN EXPLORATION, INC.
COMPLETED.....	11/02/81	04/22/84	03/05/82
SAMPLED.....	02/14/84	10/02/84	02/--/84
FORMATION.....	PENN-WAPANUCK A	PENN-RED FORK	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	345	355	355
DEPTH, FEET.....	5635	3958	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	780	1325	NOT GIVEN
OPEN FLOW, MCFD.....	3100	1000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	54.1	76.8	76.0
ETHANE.....	0.6	7.7	7.6
PROPANE.....	0.1	3.8	3.6
N-BUTANE.....	TRACE	1.2	1.2
ISOBUTANE.....	TRACE	0.5	0.5
N-PENTANE.....	0.0	0.3	0.4
ISOPENTANE.....	0.2	0.1	0.3
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.1	0.2	0.2
NITROGEN.....	0.3	8.9	9.8
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	4.3	0.2	0.1
HELIUM.....	0.04	0.10	0.15
HEATING VALUE*.....	984	1103	1101
SPECIFIC GRAVITY.....	0.609	0.709	0.716

* CALCULATED GROSS FTU 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 17501	INDEX 155 SAMPLE 17288	INDEX 156 SAMPLE 17175
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	LOGAN	NOBLE	OKLAHOMA
FIELD.....	GUTHRIE LAKE	FOURDEE E	BRITTON S
WELL NAME.....	SHANNON NO. 1-36	MOE JEROME NO. 2	WOOD NO. 1-3
LOCATION.....	SEC. 36, T16N, R3W	SEC. 26, T22N, R1W	SEC. 3, T12N, R3W
OWNER.....	PSEC, INC.	WIL-MC OIL CORP.	PITCO CO.
COMPLETED.....	04/26/84	05/15/84	11/19/82
SAMPLED.....	10/12/84	05/15/84	02/15/84
FORMATION.....	PENN-SKINNER	MISS-CHAT	PENN-BASAL UNCONF. SAND
GEOLOGIC PROVINCE CODE.....	355	355	355
DEPTH, FEET.....	5517	3176	6900
WELLHEAD PRESSURE, PSIG.....	1000	100	2150
OPEN FLOW, MCFD.....	2300	250	475
COMPONENT, MOLE PCT			
METHANE.....	68.4	78.0	82.3
ETHANE.....	11.0	5.7	6.8
PROPANE.....	7.8	3.8	2.9
N-BUTANE.....	2.5	1.0	1.0
ISOBUTANE.....	0.8	0.5	0.4
N-PENTANE.....	0.5	0.3	0.4
ISOPENTANE.....	0.6	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.2	0.3
NITROGEN.....	5.3	10.0	4.4
OXYGEN.....	TRACE	TRACE	0.9
ARGON.....	2.2	TRACE	TRACE
HYDROGEN.....	0.2	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.1	0.2
HELIUM.....	0.08	0.20	0.04
HEATING VALUE*.....	1265	1077	1123
SPECIFIC GRAVITY.....	0.805	0.702	0.684

* 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 17465	INDEX 158 SAMPLE 17213	INDEX 159 SAMPLE 17214
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
FIELD.....	PEAVINE	WHEATLAND	WHEATLAND
WELL NAME.....	JULIUS NO. 3-A	PEERY NO. 20-1	PURCELL NO. 29-1
LOCATION.....	SEC. 4, T14N, R2W	SEC. 20, T11N, R4W	SEC. 29, T11N, R4W
OWNER.....	HARPER OIL CO.	RATLIFF EXPLORATION CO.	RATLIFF EXPLORATION CO.
COMPLETED.....	07/09/84	08/18/83	11/11/83
SAMPLED.....	10/03/84	03/20/84	03/20/84
FORMATION.....	PENN-BARTLESVILLE&CHECKERBOA	ORDO-VIOLA	ORDO-WILCOX
GEOLOGIC PROVINCE CODE.....	355	355	355
DEPTH, FEET.....	5010	8414	8666
WELLHEAD PRESSURE, PSIG.....	1700	2324	2042
OPEN FLOW, MCFD.....	920	1320	2100
COMPONENT, MOLE PCI			
METHANE.....	80.6	88.1	83.1
ETHANE.....	10.0	5.7	6.4
PROPANE.....	4.4	2.4	3.3
N-BUTANE.....	1.5	0.9	1.2
ISOBUTANE.....	0.6	0.4	0.6
N-PENTANE.....	0.5	0.4	0.5
ISOPENTANE.....	0.3	0.2	0.3
CYCLOPENTANE.....	0.1	0.2	0.2
HEXANES PLUS.....	0.3	0.4	0.4
NITROGEN.....	1.3	1.0	3.5
OXYGEN.....	0.1	TRACE	0.1
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.3	0.2
HELIUM.....	0.04	0.03	0.05
HEATING VALUE*.....	1234	1154	1165
SPECIFIC GRAVITY.....	0.712	0.659	0.693

* 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 160 SAMPLE 17215	INDEX 161 SAMPLE 17282	INDEX 152 SAMPLE 17289
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	OKLAHOMA	OKLAHOMA	OKMULGEE
FIELD.....	WHEATLAND	WILL ROGERS W	HASKELL
WELL NAME.....	HARDY NO. 21-1	HOOD NO. 31-1	ELIZABETH NO. 2
LOCATION.....	SEC. 21, T11N, R4W	SEC. 31, T11N, R4W	SEC. 23, T16N, R14E
OWNER.....	RATLIFF EXPLORATION CO.	RATLIFF EXPLORATION CO.	U.T.C. ENERGY RESOURCES, INC
COMPLETED.....	09/19/83	08/04/83	03/17/83
SAMPLED.....	03/20/84	05/07/84	05/10/84
FORMATION.....	PENN-BARTLESVILLE	PENN-SKINNER	PENN-DUTCHER
GEOLOGIC PROVINCE CODE.....	355	355	355
DEPTH, FEET.....	7602	8034	1815
WELLHEAD PRESSURE, PSIG.....	2492	2367	520
OPEN FLOW, MCFD.....	1800	11576	3500
COMPONENT, MOLE PCT			
METHANE.....	80.3	89.1	70.4
ETHANE.....	9.1	5.4	12.5
PROPANE.....	4.6	2.2	7.0
N-BUTANE.....	1.6	0.6	1.9
ISOBUTANE.....	0.7	0.3	0.9
N-PENTANE.....	0.6	0.2	0.4
ISOPENTANE.....	0.4	0.2	0.3
CYCLOPENTANE.....	0.4	0.2	0.3
HEXANES PLUS.....	0.7	0.3	0.4
NITROGEN.....	1.1	1.1	5.5
OXYGEN.....	0.1	TRACE	0.1
ARGON.....	0.0	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.4	0.2
HELIUM.....	0.03	0.05	0.10
HEATING VALUE*.....	1267	1127	1275
SPECIFIC GRAVITY.....	0.733	0.644	0.783

* 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 163 17209	INDEX SAMPLE 164 17194	INDEX SAMPLE 165 17230
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	OKMULGEE	OKMULGEE	OSAGE
FIELD.....	HOFFMAN	OKMULGEE NE	LABADIE LEASE
WELL NAME.....	GREEN NO. 1	DILCO NO. 1-27	LABADIE NG. 1
LOCATION.....	SEC. 20, T12N, R14E	SEC. 27, T14N, R13E	SEC. 31, T27N, R11E
OWNER.....	BAILEY PETROLEUM CORP.	DILCO	T.P.E.X. EXPLORATION, INC.
COMPLETED.....	08/15/83	09/08/83	01/09/81
SAMPLED.....	03/--/84	02/23/84	03/29/84
FORMATION.....	PENN-CROMWELL	PENN-WAPANUCKA	MISS-CHAT
GEOLOGIC PROVINCE CODE.....	355	355	355
DEPTH, FEET.....	2162	1999	1866
WELLHEAD PRESSURE, PSIG.....	167	600	200
OPEN FLOW, MCFD.....	572	1626	100
COMPONENT, MOLE PCT			
METHANE.....	83.7	87.8	86.5
ETHANE.....	8.9	5.9	0.7
PROPANE.....	3.3	2.0	TRACE
N-BUTANE.....	0.9	0.6	TRACE
ISOBUTANE.....	0.4	0.3	TRACE
N-PENTANE.....	0.3	0.2	TRACE
ICOPENTANE.....	0.1	0.2	0.1
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.2	0.1
NITROGEN.....	1.8	2.5	7.0
OXYGEN.....	TRACE	TRACE	1.1
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	0.0	TRACE	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.1	4.0
HELIUM.....	0.09	0.09	0.09
HEATING VALUE*.....	1168	1108	902
SPECIFIC GRAVITY.....	0.676	0.643	0.637

* 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 166 SAMPLE 17231	INDEX 167 SAMPLE 17268	INDEX 158 SAMPLE 17399
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	OSAGE	PAYNE	PITTSBURG
FIELD.....	MISSION CREEK LEASE	BROYLES	KIOWA SW
WELL NAME.....	MISSION CREEK NO. 1	CIRCLE "T" RANCH NO. 2	KINNICKIN NO. 1
LOCATION.....	SEC. 26, T28N, R11E	SEC. 26, T18N, R4E	SEC. 26, T3N, R14E
OWNER.....	T.P.E.X. EXPLORATION, INC.	EL DORADO DRILLING, INC.	SAMSON RESOURCES CO.
COMPLETED.....	11/18/83	08/06/83	12/13/83
SAMPLED.....	03/29/84	04/20/84	09/01/84
FORMATION.....	MISS-CHAT	PENN-BARTLESVILLE	PENN-WAPANUCKA
GEOLOGIC PROVINCE CODE.....	355	355	345
DEPTH, FEET.....	1880	3682	4941
WELLHEAD PRESSURE, PSIG.....	600	180	1950
OPEN FLOW, MCFD.....	600	623	19265
COMPONENT, MOLE PCT			
METHANE.....	51.5	77.2	94.0
ETHANE.....	1.3	10.3	3.8
PROPANE.....	0.1	4.8	0.9
N-BUTANE.....	0.2	1.5	0.2
ISOBUTANE.....	0.1	0.6	0.1
N-PENTANE.....	0.1	0.5	0.1
ISOPENTANE.....	0.1	0.1	TRACE
CYCLOPENTANE.....	TRACE	0.2	TRACE
HEXANES PLUS.....	0.1	0.4	0.1
NITROGEN.....	4.6	4.3	0.3
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.6	0.1	0.5
HELIUM.....	0.13	0.07	0.05
HEATING VALUE*.....	977	1216	1063
SPECIFIC GRAVITY.....	0.606	0.729	0.597

* 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 169 17477	INDEX SAMPLE 170 17157	INDEX SAMPLE 171 17261
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	ROGER MILLS	ROGER MILLS	ROGER MILLS
FIELD.....	NOT GIVEN	RED FORK	ROLL SE
WELL NAME.....	PARR NO. 1-36	MARGARET DEAN ET AL NO. 1-31	LOVETT "A" NO. 1
LOCATION.....	SEC. 36, T13N, R26W	SEC. 31, T15N, R21W	SEC. 12, T15N, R23W
OWNER.....	PIONEER PRODUCTION CORP.	DIAMOND SHAMROCK EXP. CO.	TEXAS OIL & GAS CORP.
COMPLETED.....	--/--/82	03/19/83	06/18/82
SAMPLED.....	10/11/84	01/24/84	04/18/84
FORMATION.....	PENN-MORROW U	PENN-CLEVELAND	PENN-RED FORK
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	16340	10873	11982
WELLHEAD PRESSURE, PSIG.....	3922	5864	3264
OPEN FLOW, MCFD.....	9000	2000	1375
COMPONENT, MOLE PCT			
METHANE.....	56.6	83.1	87.7
ETHANE.....	0.5	9.4	7.4
PROPANE.....	0.1	3.8	2.3
N-BUTANE.....	0.0	0.8	0.4
ISOBUTANE.....	0.0	0.6	0.4
N-PENTANE.....	0.0	0.1	0.1
ISOPENTANE.....	0.0	0.4	0.2
CYCLOPENTANE.....	0.0	0.1	0.1
HEXANES PLUS.....	0.0	0.2	0.2
NITROGEN.....	1.3	0.3	0.2
OXYGEN.....	0.3	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.2	0.9	1.0
HELIUM.....	0.02	0.03	0.02
HEATING VALUE.....	990	1191	1134
SPECIFIC GRAVITY.....	0.577	0.685	0.649

* 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 17247	INDEX SAMPLE 17379	INDEX SAMPLE 174 SAMPLE 17173
STATE.....	OKLAHOMA	OKLAHOMA	PENNSYLVANIA
COUNTY.....	WASHINGTON	WASHINGTON	CENTRE
FIELD.....	CHELATA N	SENTINEL	COUNCIL RUN
WELL NAME.....	ANTHIS NO. 8	KING NO. 9-1	COMM. OF PA. NO.1 TRACT 231
LOCATION.....	SEC. 25, T25N, R12E	SEC. 9, T8N, R19W	BOGGS TWP.
OWNER.....	DEVER EXPLORATION, INC.	CONOCO, INC.	EASTERN STATES EXP. CO.
COMPLETED.....	07/--/83	12/28/83	07/26/82
SAMPLED.....	04/10/84	08/08/84	02/08/84
FORMATION.....	PENN-OSWEGO	PENN-SPRINGER	DEVO-ELK SAND
GEOLOGIC PROVINCE CODE.....	355	360	160
DEPTH, FEET.....	905	12516	4650
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	5700	1740
OPEN FLOW, MCFD.....	283	4000	1958
COMPONENT, MOLE PCT			
METHANE.....	51.4	95.9	95.1
ETHANE.....	1.1	2.4	2.5
PROPANE.....	0.7	0.3	0.3
N-BUTANE.....	0.3	0.1	0.1
ISOBUTANE.....	0.3	0.0	TRACE
N-PENTANE.....	0.2	TRACE	0.1
ISOPENTANE.....	TRACE	0.1	0.0
CYCLOPENTANE.....	0.4	TRACE	0.1
HEXANES PLUS.....	0.4	TRACE	0.2
NITROGEN.....	3.0	0.3	1.2
OXYGEN.....	0.1	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	2.0	0.7	TRACE
HELIUM.....	0.04	0.03	0.15
HEATING VALUE.....	1028	1030	1038
SPECIFIC GRAVITY.....	0.629	0.581	0.584

* 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 175 17469	INDEX SAMPLE 176 17506	INDEX SAMPLE 177 17291
STATE.....	PENNSYLVANIA	FEANSYLVANIA	SOUTH DAKOTA
COUNTY.....	ERIE	ERIE	HARDING
FIELD.....	DRUMLIN	ERIE	CADY CREEK
WELL NAME.....	RUTKOWSKI NO. 2	CLIFFORD TROYER NO. 1	HARRISON-BECK NO. 2-9
LOCATION.....	SEC. E, CAMBRIDGE SPRINGS, NE QD	SEC. G, HAMMETT QD, GREENE TWP	SEC. 9, T15N, R3E
OWNER.....	VINEYARD OIL & GAS CO.	NRW PETROLEUM CORP.	SAM G. HARRISON
COMPLETED.....	07/17/84	03/12/83	06/---/83
SAMPLED.....	10/01/84	10/26/84	05/15/84
FORMATION.....	DEV0-ORISKANY & SILU-SALINA	SILU-MEDINA	CRET-SHANNON
GEOLOGIC PROVINCE CODE.....	160	160	395
DEPTH, FEET.....	2990	3473	1121
WELLHEAD PRESSURE, PSIG.....	800	1075	185
OPEN FLOW, MCFD.....	3000	2316	84
COMPONENT, MOLE PCT			
METHANE.....	78.7	50.5	92.5
ETHANE.....	12.6	3.2	0.2
PROPANE.....	4.3	0.4	TRACE
N-BUTANE.....	1.1	0.2	0.0
ISOBUTANE.....	0.4	0.0	0.0
N-PENTANE.....	0.3	0.1	0.0
ISOPENTANE.....	0.1	0.0	0.0
CYCLOPENTANE.....	0.1	TRACE	0.0
HEXANES PLUS.....	0.2	0.2	0.0
NITROGEN.....	2.0	5.1	7.1
OXYGEN.....	TRACE	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	0.1	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.1	0.1
HELIUM.....	0.20	0.14	0.02
HEATING VALUE.....	1216	1006	941
SPECIFIC GRAVITY.....	0.705	0.605	0.585

* 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 178 SAMPLE 17298	INDEX 179 SAMPLE 17299	INDEX 190 SAMPLE 17250
STATE.....	SOUTH DAKOTA	SOUTH DAKOTA	TENNESSEE
COUNTY.....	HARDING	HARDING	FENTRESS
FIELD.....	SHORT PINE HILLS W	SHORT PINE HILLS W	WILDCAT
WELL NAME.....	FFD. NO. 1-29	STATE NO. 2-5	PLATEAU PROPERTIES NO. 3
LOCATION.....	SEC. 29, T16N, R2E	SEC. 5, T16N, R2E	SEC. 22, T3S, R5E
OWNER.....	SAM G. HARRISON	JERRY MCCUTCHIN, JR.	CATOOZA EXPLORATION CORP.
COMPLETED.....	10/15/82	08/17/81	03/--/82
SAMPLED.....	05/21/84	05/--/84	04/11/84
FORMATION.....	CRET-SHANNON	CRET-SHANNON	MISS-FT. PAYNE
GEOLOGIC PROVINCE CODE.....	395	395	160
DEPTH, FEET.....	1246	1725	1297
WELLHEAD PRESSURE, PSIG.....	220	225	10
OPEN FLOW, MCFD.....	400	500	2
COMPONENT, MOLE PCT			
METHANE.....	93.3	92.7	82.2
ETHANE.....	0.2	0.2	7.1
PROPANE.....	TRACE	TRACE	2.3
N-BUTANE.....	0.0	0.0	0.7
ISOBUTANE.....	0.0	0.0	0.3
N-PENTANE.....	0.0	0.0	0.2
ISOPENTANE.....	0.0	0.0	0.1
CYCLOPENTANE.....	0.0	0.0	0.1
HEXANES PLUS.....	0.0	0.0	0.1
NITROGEN.....	6.3	6.9	5.3
OXYGEN.....	TRACE	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	1.2
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	TRACE
HELIUM.....	0.02	0.02	0.34
HEATING VALUE*.....	949	943	1079
SPECIFIC GRAVITY.....	0.582	0.584	0.652

* 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 181 SAMPLE 17466	INDEX 182 SAMPLE 17485	INDEX 183 SAMPLE 17262
STATE.....	TENNESSEE	TENNESSEE	TEXAS
COUNTY.....	MORGAN	PICKETT	COLEMAN
F IELD.....	PLEASANT RIDGE	WILDCAT	REEVES
WELL NAME.....	BRCHN-PEMBERTON NO. 1	W. CROUCH NO. 1	ERNEST REEVES NO. 1
LOCATION.....	SEC. 12, T3S, R58E	SEC. 11, A-53E	SEC. 31, BLK2, T&NO SUR., A-652
OWNER.....	B-J. INC.	MILLER CONTRACT DRLG., INC.	HRUBETZ OIL CO.
C OMPLETED.....	10/05/81	--/--/80	05/17/83
S AMPLED.....	10/01/84	10/05/84	04/18/84
F ORMATION.....	MISS-MONTEAGLE	ORDO-STONES RIVER	OKDO-ELLENBURGER
GEOLOGIC PROVINCE CODE.....	160	300	425
D EPTH, FEET.....	1220	1000	4553
WELLHEAD PRESSURE, PSIG.....	285	100	300
O P E N F L O W, MCFD.....	442	200	58
C O M P O N E N T, M O L E P C T			
METHANE.....	73.8	79.5	68.8
ETHANE.....	13.2	11.3	10.6
PROPANE.....	5.2	3.4	5.1
N-BUTANE.....	1.9	0.8	1.5
ISOBUTANE.....	0.6	0.3	0.6
N-PENTANE.....	0.6	0.2	0.3
ISOPENTANE.....	0.5	0.2	0.2
CYCLOPENTANE.....	0.2	TRACE	0.1
HEXANES PLUS.....	0.3	0.1	0.2
NITROGEN.....	2.9	3.7	11.5
OXYGEN.....	TRACE	0.2	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.6	0.1	0.0
HYDROGEN SULFIDE*	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.1	0.5
HELIUM.....	0.18	0.14	0.39
HEATING VALUE*	1275	1156	1125
SPECIFIC GRAVITY.....	0.750	0.688	0.757

* 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 184 SAMPLE 17292	INDEX 185 SAMPLE 17238	INDEX 186 SAMPLE 17169
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HEMPHILL	HEMPHILL	KENEDY
FIELD.....	HEMPHILL (GRANITE WASH)	SHRIEKY S	POTRERO FARIAS
WELL NAME.....	LOCKE NO.2-60	MATHERS NO. 1-14	MRS. S. K. EAST EST. NO. B-4
LOCATION.....	SEC. 60, BLK.A2, H&GN SUR.	SEC. 14, H&GN SURVEY, A2	LAS MOTAS DE LA BARRETA A-77
OWNER.....	WAGNER & BROWN	TOM F. MARSH, INC.	S. K. EAST ESTATE
COMPLETED.....	11/15/83	10/31/83	02/03/84
SAMPLED.....	05/15/84	04/06/84	02/03/84
FORMATION.....	PERM-GRANITE WASH	PENN-MORROW	MIOC-G-94 SAND
GEOLOGIC PROVINCE CODE.....	360	360	220
DEPTH, FEET.....	10198	11820	6950
WELLHEAD PRESSURE, PSIG.....	2528	NOT GIVEN	2640
OPEN FLOW, MCFD.....	31300	1350	70
COMPONENT, MOLE PCT			
METHANE.....	80.8	90.3	96.3
ETHANE.....	10.7	4.1	1.3
PROPANE.....	4.3	1.5	0.1
N-BUTANE.....	1.2	0.5	0.1
ISOBUTANE.....	0.6	0.3	TRACE
N-PENTANE.....	0.3	0.1	TRACE
ISOPENTANE.....	0.3	0.2	0.0
CYCLOPENTANE.....	0.1	0.2	TRACE
HEXANES PLUS.....	0.2	0.3	0.1
NITROGEN.....	0.7	1.3	1.9
OXYGEN.....	0.1	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.8	1.0	0.1
HELIUM.....	0.04	0.03	0.01
HEATING VALUE*.....	1222	1090	1010
SPECIFIC GRAVITY.....	0.708	0.634	0.575

* 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 187 SAMPLE 17351	INDEX 188 SAMPLE 17478	INDEX 189 SAMPLE 17321
STATE	TEXAS	TEXAS	TEXAS
COUNTY	LIBERTY	LIPSCOMB	LIPSCOMB
FIELD	COLONEL	KIOVA CREEK	WILEY-TONKAWA
WELL NAME	B. E. QUINN NO. 1	BRILLHART "D" NO. 2	TERREL NO. 1
LOCATION	JAMES HUMPHRIES SUR. A-212	SEC-851, BLK 43, 8TC SUR.	SEC. 80, BLK-10, H8TB SUR.
OWNER	WESTLAND OIL DEV. CORP.	PHILLIPS PETROLEUM CO.	ARGONAUT ENERGY CORP.
COMPLETED	11/02/83	04/23/84	06/15/83
SAMPLED	07/09/84	10/11/84	06/12/84
FORMATION	EOCE-WILCOX	PENN-CLEVELAND	PENN-TONKAWA
GEOLOGIC PROVINCE CODE	220	360	360
DEPTH, FEET	14000	7520	6276
WELLHEAD PRESSURE, PSIG	11000	1430	1342
OPEN FLOW, MCFD	1900	7500	3160
COMPONENT, MOLE PCT			
METHANE	88.9	87.7	87.4
ETHANE	4.7	6.9	6.3
PROPANE	0.9	2.4	2.3
N-BUTANE	0.2	0.8	0.7
ISOBUTANE	0.2	0.3	0.3
N-PENTANE	0.1	0.3	0.3
ISOPENTANE	TRACE	0.2	0.2
CYCLOPENTANE	TRACE	0.1	0.1
HEXANES PLUS	0.2	0.2	0.2
NITROGEN	0.0	0.4	1.1
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	0.0
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE*	0.0	0.0	0.0
CARBON DIOXIDE	4.8	0.5	0.9
HELIUM	TRACE	0.06	0.11
HEATING VALUE*	1036	1147	1127
SPECIFIC GRAVITY	0.646	0.651	0.653

* 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 190 SAMPLE 17350	INDEX 191 SAMPLE 17505	INDEX 192 SAMPLE 17296
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	LIVE OAK	MCPULLEN	MONTGOMERY
FIELD.....	MIKESKA N	LA JOLLA E	WILDCAT
WELL NAME.....	PATRICIA CROCKER NO. 1	CLIFTON WHEELER NO. 1	FRIENDSWOOD DEV. NO. 1
LOCATION.....	J. F. TORREY SUR. 305, A-466	AB&M SUR., 191, A-508	J. R. GROSS SUR., A-719
OWNER.....	GOLDKING PRODUCTION CO.	TEXAS GAS EXPLORATION CORP.	VOLVO PETROLEUM, INC.
COMPLETED.....	--/--/80	06/13/83	08/--/82
SAMPLED.....	07/03/84	09/25/84	05/--/84
FORMATION.....	ECCE-WILCOX	CRET-SLIGO	ECCE-WILCOX A-2
GEOLOGIC PROVINCE CODE.....	220	220	220
DEPTH, FEET.....	10300	16513	9983
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	12201	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	20408	2403
COMPONENT, MOLE PCT			
METHANE.....	81.2	84.3	86.5
ETHANE.....	7.8	0.1	6.4
PROPANE.....	4.3	TRACE	2.4
N-BUTANE.....	1.2	0.0	0.6
ISOBUTANE.....	0.7	0.0	0.5
N-PENTANE.....	0.2	0.0	0.1
ISOPENTANE.....	0.5	0.0	0.6
CYCLOPENTANE.....	0.2	0.0	0.2
HEXANES PLUS.....	0.2	0.0	0.3
NITROGEN.....	0.0	8.0	0.3
OXYGEN.....	0.0	0.0	0.1
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	TRACE	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	3.7	7.5	2.0
HELIUM.....	TRACE	0.02	0.01
HEATING VALUE*.....	1186	856	1143
SPECIFIC GRAVITY.....	0.723	0.660	0.673

* 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 193 17212	INDEX SAMPLE 194 17372	INDEX SAMPLE 195 17200
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	OCS	OLDHAM	ROBERTS
FIELD.....	OCS-6-4557	WILDCAT	HALE RANCH
WELL NAME.....	NO. B-1	RAFTER O RANCH NO. 1-28	R. D. MILLS NO. 1
LOCATION.....	BRAZOS BLK. 578	SEC. 28, BLK. 5, GC&SF SUR.	TRACT 1-B, CLAY CO. SCH. LD SJR
OWNER.....	SUPERIOR OIL CO.	BAKER & TAYLOR DRILLING CO.	AMAX PETROLEUM CORP.
DATE.....	06/23/82	--/--/84	05/15/83
SAMPLED.....	03/16/84	08/12/84	02/20/84
FORMATION.....	MIOC-BIG H	PENN-CANYON LS	MISS-KINDERHOOK L
GEOLOGIC PROVINCE CODE.....	956	435	360
DEPTH, FEET.....	11320	6412	12478
WELLHEAD PRESSURE, PSIG.....	1215	870	2900
OPEN FLOW, MCFD.....	14411	3000	1900
COMPONENT, MOLE PCT			
METHANE.....	55.3	21.4	88.4
ETHANE.....	1.6	3.6	6.6
PROPANE.....	0.3	2.2	2.2
N-BUTANE.....	0.1	0.6	0.6
ISOBUTANE.....	TRACE	0.3	0.4
N-PENTANE.....	TRACE	0.2	0.1
ISOPENTANE.....	TRACE	0.1	0.2
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	0.9	69.6	0.6
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	0.4	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.7	0.3	0.5
HELIUM.....	TRACE	1.20	0.05
HEATING VALUE*.....	1010	387	1122
SPECIFIC GRAVITY.....	0.590	0.905	0.638

* 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 17207	INDEX SAMPLE 17387	INDEX SAMPLE 17272
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	SHELBY	SHERMAN	TOM GREEN
FIELD.....	MEI	PALO DURO CREEK	FOR TSON -BLRKE
WELL NAME.....	HOWARD NO. 1	KATHRYN "A" NO.2	MUNN NO. 1
LOCATION.....	J. E. MYRICK SUR., A-472	SEC. 8, BLK.3B, GH&H SUR.	SEC.1119,ITRR SUR.,A-4367
OWNER.....	MARSHALL EXPLORATION INC.	PHILLIPS PETROLEUM CO.	HEXAGON OIL & GAS, INC.
COMPLETED.....	09/08/83	01/16/84	06/13/83
SAMPLED.....	03/13/84	08/21/84	05/02/84
FORMATION.....	CRET-PEITIII	MISS-ST. LOUIS	PENN-CANYON
GEOLOGIC PROVINCE CODE.....	260	360	430
DEPTH, FEET.....	6508	6062	6253
WELLHEAD PRESSURE,PSIG.....	3340	1515	2060
OPEN FLOW, MCFD.....	14628	5300	5652
COMPONENT, MOLE PCT			
METHANE.....	56.6	87.8	66.3
ETHANE.....	0.6	3.8	12.4
PROPANE.....	0.2	1.9	7.3
N-BUTANE.....	0.1	0.7	1.8
ISOBUTANE.....	0.1	0.4	1.5
N-PENTANE.....	0.1	0.2	0.6
ISOPENTANE.....	TRACE	0.3	0.6
CYCLOPENTANE.....	0.1	0.2	1.0
HEXANES PLUS.....	0.2	0.3	1.7
NITROGEN.....	0.8	4.1	6.4
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.8	0.1	0.2
HELIUM.....	0.02	0.23	0.11
HEATING VALUE*.....	1023	1088	1370
SPECIFIC GRAVITY.....	0.582	0.647	0.851

* 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 199 SAMPLE 17273	INDEX 200 SAMPLE 17397	INDEX 201 SAMPLE 17434
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	TOM GREEN	WEBB	WHEELER
FIELD.....	MUNN-WESTEX	RAPTURE	BRI SCOE -MCRROW
WELL NAME.....	MUNN NO. 2-A	P. M. FROST NO. 2	FINSTERWALD NO. 1
LOCATION.....	SEC. 1119, T1RR SUR.	CCSD & RGNG SUR., A-1041	SEC. 51, BLK. M-1, H&GN SUR.
OWNER.....	HEXAGON OIL & GAS, INC.	CONOCO, INC.	CAMBRIDGE & NAIL
COMPLETED.....	09/12/83	08/24/84	10/08/81
SAMPLED.....	05/02/84	08/24/84	10/01/84
FORMATION.....	PENN-CANYON	EOCE-WALKER	PENN-MORRICH PURYEAR
GEOLOGIC PROVINCE CODE.....	430	220	360
DEPTH, FEET.....	6355	9686	14535
WELLHEAD PRESURE, PSIG.....	2110	1400	6165
OPEN FLOW, MCFD.....	1713	1720	8300
COMPONENT, MOLE PCT			
METHANE.....	70.6	81.9	95.6
ETHANE.....	12.6	8.5	1.3
PROPANE.....	6.2	3.7	0.1
N-BUTANE.....	1.3	1.0	0.1
ISOBUTANE.....	0.7	0.9	0.0
N-PENTANE.....	0.3	0.2	0.1
ISOPENTANE.....	0.2	0.7	0.0
CYCLOPENTANE.....	0.3	0.1	TRACE
HEXANES PLUS.....	0.6	0.3	0.1
NITROGEN.....	6.7	0.2	0.7
OXYGEN.....	TRACE	TRACE	0.0
ARGON.....	0.0	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	2.4	1.9
HELIUM.....	0.12	TRACE	0.02
HEATING VALUE*.....	1233	1199	1008
SPECIFIC GRAVITY.....	0.770	0.713	0.595

* 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 202 SAMPLE 17251	INDEX 203 SAMPLE 17400	INDEX 204 SAMPLE 17323
STATE.....	TEXAS	UTAH	UTAH
COUNTY.....	WHEELER	EMERY	GRAND
FIELD.....	GAGEBY CREEK	WILDCAT	BAR X
WELL NAME.....	HOLMES NO. 1	RANGE CREEK - FED. NO. 1	NORTH BAR X NO. 1
LOCATION.....	SEC. 60, BLK. A-4, H&GN SUR.	SEC. 6, T18S, R16E	SEC. 1, T17S, R25E
OWNER.....	DAVIS OIL CO.	GULF OIL EXP. & PROD. CO.	BEARTOOTH OIL & GAS CO.
COMPLETED.....	10/25/82	02/--/83	05/--/84
SAMPLED.....	04/13/84	08/--/84	06/11/84
FORMATION.....	PENN-MORROW	CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	360	585	585
DEPTH, FEET.....	13609	6022	3603
WELLHEAD PRESSURE, PSIG.....	6403	1700	860
OPEN FLOW, MCFD.....	2500	2760	1148
COMPONENT, MOLE PCT			
METHANE.....	56.2	95.8	84.9
ETHANE.....	1.7	1.4	4.3
PROPANE.....	0.1	0.3	1.3
N-BUTANE.....	0.1	0.1	0.3
ISOPUTANE.....	0.0	0.1	0.3
N-PENTANE.....	0.1	0.1	0.1
ISOPENTANE.....	0.0	TRACE	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	0.3	2.0	7.7
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.4	0.1	0.8
HELIUM.....	0.02	0.05	0.08
HEATING VALUE*.....	1020	1019	1005
SPECIFIC GRAVITY.....	0.585	0.581	0.643

* 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 17495	INDEX SAMPLE 17174	INDEX SAMPLE 17295
STATE.....	UTAH	UTAH	UTAH
COUNTY.....	GRAND	GRAND	SAN JUAN
FIELD.....	BRYSON	SAN ARROYO	ANETH
WELL NAME.....	T0C. TXO P060 USA NO. 15-9	CRELMO CREEK NO. 1	MCELMO CREEK NO. T-18
LOCATION.....	SEC. 15, T17S, R24E	SEC. 5, T16S, R26E	SEC. 9, T41S, R25E
OWNER.....	TENNECO OIL CO.	TXO PRODUCTION CORP.	SUPERIOR OIL CO.
COMPLETED.....	09/02/82	02/--/82	12/19/83
SAMPLED.....	10/15/84	02/13/84	05/--/84
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA	PENN-DESERT CREEK
GEOLOGIC PROVINCE CODE.....	585	585	585
DEPTH, FEET.....	5333	5600	5582
WELLHEAD PRESSURE, PSIG.....	460	500	225
OPEN FLOW, MCFD.....	275	750	505
COMPONENT, MOLE PCT			
METHANE.....	53.5	88.1	74.4
ETHANE.....	3.5	5.5	14.1
PROPANE.....	0.7	1.6	5.8
N-BUTANE.....	0.1	0.4	1.6
ISOBUTANE.....	0.1	0.3	0.8
N-PENTANE.....	0.1	0.2	0.4
ISOPENTANE.....	0.1	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	0.3
HEXANES PLUS.....	0.1	0.2	1.8
NITROGEN.....	0.7	2.0	0.1
OXYGEN.....	TRACE	TRACE	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.2	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	1.2	TRACE
HELIUM.....	0.06	0.19	0.04
HEATING VALUE.....	1049	1087	1295
SPECIFIC GRAVITY.....	0.599	0.642	0.753

* 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 208 SAMPLE 17373	INDEX 209 SAMPLE 17180	INDEX 210 SAMPLE 17283
STATE.....	UTAH	UTAH	UTAH
COUNTY.....	SUMMIT	UINTAH	UINTAH
FIELD.....	CAVE CREEK	BONANZA	ISLAND
WELL NAME.....	CAVE CREEK NO. 12-30	FED. NO. 3-15	ISLAND UNIT NO. 15
LOCATION N.....	SEC. 30, T5N, R8E	SEC. 15, T10S, R23E	SEC. 7, T10S, R20E
OWNER.....	THE ANSCHUTZ CORP.	LOMAX EXPLORATION CO.	WEXPRO CO.
COMPLETED.....	06/04/83	10/04/83	08/24/83
SAMPLED.....	08/06/84	01/03/84	05/03/84
FORMATION.....	JURA-TWIN CREEK	CRET-MESAVERDE	EOCE-MASATCH
GEOLOGIC PROVINCE CODE.....	570	575	575
DEPTH, FEET.....	6908	7188	6661
WELLHEAD PRESSURE, PSIG.....	2975	2171	1050
OPEN FLOW, MCFD.....	5643	1124	3247
COMPONENT, MOLE PCT			
METHANE.....	75.5	50.6	93.3
ETHANE.....	8.3	4.4	4.3
PROPANE.....	3.8	2.0	1.2
N-BUTANE.....	1.3	0.6	0.3
ISOBUTANE.....	1.4	0.5	0.2
N-PENTANE.....	0.5	0.2	0.1
ISOPENTANE.....	0.5	0.2	0.1
CYCLOPENTANE.....	0.2	0.1	TRACE
HEXANES PLUS.....	0.8	0.2	0.1
NITROGEN.....	7.3	0.2	0.2
OXYGEN.....	TRACE	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	1.2	0.1
HELIUM.....	0.09	TRACE	TRACE
HEATING VALUE**.....	1194	1117	1084
SPECIFIC GRAVITY.....	0.745	0.641	0.603

* 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 211 SAMPLE 17181	INDEX 212 SAMPLE 17327	INDEX 213 SAMPLE 17239
STATE.....	WEST VIRGINIA	WYOMING	WYOMING
COUNTY.....	MCDOWELL	BIG HGRN	CAMPBELL
FIELD.....	MCDOWELL	DOBIE CREEK	ELK DRAW
WELL NAME.....	ROGERS NO. 25	DOBIE CREEK-GETTY 20-6	SAGE BRUSH FED. 1-11
LOCATION.....	SANDY RIVER DIST.	SEC. 20, T49N, R93W	SEC. 11, T51N, R76W
OWNER.....	ASHLAND EXPLORATION, INC.	AMERICAN QUASAR PET. CO.	AMINOIL, INC.
COMPLETED.....	09/10/82	10/15/82	12/19/82
SAMPLED.....	02/13/84	06/12/84	03/10/84
FORMATION.....	MISS-BE REA&BIGLIME&DEVOSHALE	CRET-MUDDY	CRET-MUDDY
GEOLOGIC PROVINCE CODE.....	160	520	515
DEPTH, FEET.....	3965	9958	10120
WELLHEAD PRESSURE, PSIG.....	775	2200	4000
OPEN FLOW, MCFD.....	5180	460	1500
COMPONENT, MOLE PCT			
METHANE.....	57.4	76.6	80.2
ETHANE.....	1.6	14.3	10.9
PROPANE.....	0.1	5.1	3.8
N-BUTANE.....	TRACE	1.2	0.8
ISOBUTANE.....	0.0	0.8	0.6
ISOPENTANE.....	TRACE	0.3	0.2
ISOPENTANE.....	TRACE	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	0.2
HEXANES PLUS.....	TRACE	0.2	0.4
NITROGEN.....	0.6	0.5	0.5
OXYGEN.....	0.0	TRACE	TRACE
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.1	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.6	2.2
HELIUM.....	0.09	0.01	0.01
HEATING VALUE*.....	1018	1267	1199
SPECIFIC GRAVITY.....	0.566	0.730	0.712

* 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 214 SAMPLE 17269	INDEX 215 SAMPLE 17241	INDEX 216 SAMPLE 17141
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	CARBON	CARBON	FREMONT
FIELD.....	CRESTEN S	SAVERY	MADEN DEEP
WELL NAME.....	SOCO HUSKYFED NO. 1C-18-17-92	SAVERY UNIT NO. G-15	HENDRY NO. 2-8
LOCATION.....	SEC. 18, T17N, R92W	SEC. 15, T13N, R89W	SEC. 8, T38N, R90W
OWNER.....	SOCO-SNYDER OIL CO.	BENSON-MONTIN-GREER DRILLING	MONSANTO CO.
COMPLETED.....	08/25/82	11/13/83	06/14/82
SAMPLED.....	04/20/84	04/--/84	11/29/83
FORMATION.....	CRET-MESAVERDE	CRET-MESAVERDE	CRET-CODY
GEOLOGIC PROVINCE CODE.....	535	535	530
DEPTH, FEET.....	8462	801	17168
WELLHEAD PRESSURE, PSIG.....	3775	95	7076
OPEN FLOW, MCFD.....	180	2000	250000
COMPONENT, MOLE PCT			
METHANE.....	87.8	98.0	96.8
ETHANE.....	5.2	0.4	0.1
PROPANE.....	2.0	0.1	TRACE
N-BUTANE.....	0.6	0.0	0.0
ISOBUTANE.....	0.5	0.0	0.0
N-PENTANE.....	0.2	0.0	0.0
ISOPENTANE.....	0.2	0.0	0.0
CYCLOPENTANE.....	0.1	0.0	0.0
HEXANES PLUS.....	0.2	0.0	0.0
NITROGEN.....	0.4	1.2	0.0
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	2.8	0.1	3.0
HELIUM.....	TRACE	0.03	TRACE
HEATING VALUE*.....	1103	1002	982
SPECIFIC GRAVITY.....	0.660	0.562	0.585

* 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 217 SAMPLE 17227	INDEX 218 SAMPLE 17405	INDEX 219 SAMPLE 17156
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	LINCOLN	NIOBRARA	SUBLETTE
FIELD.....	BIRD CANYON	BOGGY CREEK	JOHNSON RIDGE
WELL NAME.....	HAUN-FED. NO. 20-5	CHEROKEE FED. NO. 23-13	S 34-34
LOCATION.....	SEC. 5, T26N, R111W	SEC. 13, T40N, R64W	SEC. 34, T30N, R113W
OWNER.....	ENERGETICS, INC.	CHEROKEE OIL PRODUCTION INC.	BELCO DEVELOPMENT CORP.
COMPLETED.....	06/08/83	06/01/83	09/09/83
SAMPLED.....	03/27/84	09/01/84	01/09/84
FORMATION.....	CRET-BEAR RIVER	CRET-TURNER	CRET-TRANSITIONAL MESAVERDE
GEOLOGIC PROVINCE CODE.....	535	515	535
DEPTH, FEET.....	NOT GIVEN	4898	2800
WELLHEAD PRESSURE, PSIG.....	600	450	1205
OPEN FLOW, MCFD.....	976	18	3068
COMPONENT, MOLE PCT			
METHANE.....	88.2	56.2	85.9
ETHANE.....	6.6	10.9	7.3
PROPANE.....	2.6	15.8	2.6
N-BUTANE.....	0.6	6.7	0.6
ISOBUTANE.....	0.4	3.0	0.7
N-PENTANE.....	0.1	1.8	0.2
ISOPENTANE.....	0.4	2.0	0.2
CYCLOPENTANE.....	0.1	0.5	0.1
HEXANES PLUS.....	0.1	1.1	0.2
NITROGEN.....	0.6	1.5	0.1
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.5	2.2
HELIUM.....	0.01	0.01	0.02
HEATING VALUE.....	1143	1739	1143
SPECIFIC GRAVITY.....	0.648	1.035	0.674

* 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 220 SAMPLE 17226	INDEX 221 SAMPLE 17225	INDEX 222 SAMPLE 17354
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	BIRD CANYON	BUCKHORN CANYON	FABIAN DITCH
WELL NAME.....	HAUN-FED. NO. 4 0-9	LITTLE MONUMENT U.II NO30-11	STRANGE NO. 1-22
LOCATION.....	SEC. 9, T26N, R111W	SEC. 11, T25N, R111W	SEC. 22, T22N, R112W
OWNER.....	ENERGETICS, INC.	ENERGETICS, INC.	TENNECO OIL EXP. & PROD. CO.
COMPLETED.....	08/17/83	08/15/83	07/12/84
SAMPLED.....	03/29/84	03/29/84	07/13/84
FORMATION.....	CRET-BEAR RIVER & FRONTIER	CRET-FRONTIER	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	535	535	535
DEPTH, FEET.....	9204	9355	12030
WELLHEAD PRESSURE, PSIG.....	500	850	4500
OPEN FLOW, MCFD.....	280	137	305
COMPONENT, MOLE PCT			
METHANE.....	88.0	52.6	81.0
ETHANE.....	5.6	3.8	9.5
PROPANE.....	2.5	1.2	3.1
N-BUTANE.....	0.8	0.3	0.6
ISOBUTANE.....	0.4	0.1	0.8
N-PENTANE.....	0.1	0.1	0.1
I SOPENTANE.....	0.4	0.1	0.7
CYCLOPENTANE.....	0.1	0.1	0.3
HEXANES PLUS.....	0.2	0.1	0.5
NITROGEN.....	1.5	1.1	2.3
OXYGEN.....	TRACE	TRACE	0.4
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.4	0.6
HELIUM.....	0.01	TRACE	0.01
HEATING VALUE*.....	1132	1068	1189
SPECIFIC GRAVITY.....	0.652	0.607	0.704

* 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 223 SAMPLE 17229	INDEX 224 SAMPLE 17483	INDEX 225 SAMPLE 17228
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	HORN CANYON	LEUCITE HILLS	LINCOLN ROAD
WELL NAME.....	BLUE FOREST UNIT NO. 30-5	ANADARKO-FED. NO. B-32	LMU FED. NO. 30-28
LOCATION.....	SEC. 5, T24N, R110W	SEC. 32, T22N, R103W	SEC. 28, T25N, R111W
OWNER.....	ENERGETICS, INC.	LUFF EXPLORATION CO.	ENERGETICS, INC.
COMPLETED.....	03/17/83	03/03/83	05/13/83
SAMPLED.....	03/29/84	10/10/84	03/29/84
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	535	535	535
DEPTH, FEET.....	11218	6532	10010
WELLHEAD PRESSURE, PSIG.....	950	520	900
OPEN FLOW, MCFD.....	832	1450	1477
COMPONENT, MOLE PCT			
METHANE.....	86.1	94.1	94.9
ETHANE.....	6.4	3.5	2.8
PROPANE.....	3.6	0.8	0.6
N-BUTANE.....	1.0	0.2	0.2
ISOBUTANE.....	0.5	0.1	TRACE
N-PENTANE.....	0.2	0.1	0.1
ISOPENTANE.....	0.5	0.1	0.1
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.1
NITROGEN.....	0.9	0.6	0.6
OXYGEN.....	0.1	TRACE	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.5	0.7
HELIUM.....	0.01	0.01	0.01
HEATING VALUE*.....	1175	1060	1047
SPECIFIC GRAVITY.....	0.675	0.598	0.595

* 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 17150	INDEX SAMPLE 17315	INDEX SAMPLE 17172
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	MONUMENT BUTTE	NITCHE GULCH	PRETTY WATER CREEK
WELL NAME.....	MONUMENT BUTTE UNIT NO. 31-3	UNIT NO. 12-18	FED. NO. 1-2
LOCATION.....	SEC. 3, T25N, R110W	SEC. 18, T23N, R103W	SEC. 2, T15N, R104W
OWNER.....	ENERGETICS, INC.	TERRA RESOURCES, INC.	GREAT WESTERN DRILLING CO.
COMPLETED.....	12/--/82	12/09/83	08/22/81
FORMATION.....	12/--/83	06/07/84	02/05/84
SEOLOGIC PROVINCE CODE.....	CRET-DAKOTA	CRET-FRONTIER 3RD	PERM-PHOSPHORIA
DEPTH, FEET.....	11508	8050	6910
WELLHEAD PRESSURE, PSIG.....	1025	840	1854
OPEN FLOW, MCFD.....	1797	1800	5390
COMPONENT, MOLE PCT			
METHANE.....	69.4	59.8	34.7
ETHANE.....	3.7	3.4	2.5
PROPANE.....	2.4	0.7	1.5
N-BUTANE.....	0.8	0.2	1.1
ISOBUTANE.....	0.6	0.1	0.9
N-PENTANE.....	0.2	0.1	0.9
ISOPENTANE.....	0.5	TRACE	0.6
CYCLOPENTANE.....	0.1	TRACE	0.1
HEXANES PLUS.....	0.2	0.1	0.7
NITROGEN.....	1.4	0.4	27.6
OXYGEN.....	0.2	0.0	TRACE
ARGON.....	TRACE	TRACE	0.2
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE*	0.0	0.2	TRACE
CARBON DIOXIDE.....	0.6	0.0	28.2
HELIUM.....	0.01	0.01	0.92
HEATING VALUE*	1125	1059	606
SPECIFIC GRAVITY.....	0.652	0.591	1.046

* 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 229 17179	INDEX SAMPLE 230 17178	INDEX SAMPLE 231 17263
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	WILD HARE GULCH	WILD HARE GULCH	WILDCAT
WELL NAME.....	SEVEN MILE GULCH NO. 14	SEVEN MILE GULCH NO. 14	DRIPPING ROCK NO. 1
LOCATION.....	SEC. 18, T20N, R111W	SEC. 18, T20N, R111W	SEC. 17, T14N, R94W
OWNER.....	ANADARKO PRODUCTION CO.	ANADARKO PRODUCTION CO.	MOUNTAIN FUEL SUPPLY CO.
COMPLETED.....	05/17/82	05/17/82	01/16/84
SAMPLED.....	02/15/84	02/15/84	04/19/84
FORMATION.....	CRET-DAKOTA	CRET-FRONTIER	CRET-ALMOND
GEOLOGIC PROVINCE CODE.....	535	535	535
DEPTH, FEET.....	12534	11919	12557
WELLHEAD PRESSURE, PSIG.....	2600	3500	7400
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	8500
COMPONENT, MOLE PCT			
METHANE.....	79.6	81.0	92.4
ETHANE.....	11.1	11.7	3.3
PROPANE.....	4.9	3.7	0.5
N-BUTANE.....	1.0	0.7	0.1
ISOBUTANE.....	0.8	0.6	0.1
N-PENTANE.....	0.3	0.1	0.1
ISOPENTANE.....	0.4	0.4	TRACE
CYCLOPENTANE.....	0.1	0.1	TRACE
HEXANES PLUS.....	0.2	0.2	0.1
NITROGEN.....	0.9	0.9	0.0
OXYGEN.....	0.1	0.1	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.5	3.5
HELIUM.....	0.01	0.01	TRACE
HEATING VALUE.....	1237	1205	1024
SPECIFIC GRAVITY.....	0.715	0.695	0.618

* 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 232 SAMPLE 17324	INDEX 233 SAMPLE 17163	INDEX 234 SAMPLE 17353
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	UINTA	UINTA
FIELD.....	WINDMILL DRAW	BUTCHER KNIFE SPRINGS	CHURCH BUTTES
WELL NAME.....	WINDMILL DRAW NO. 4	UNIT NO. 8	CHURCH BUTTES NO. 31
LOCATION.....	SEC. 1, T15N, R94W	SEC. 12, T14N, R113W	SEC. 9, T17N, R112W
OWNER.....	CITIES SERVICE OIL&GAS CORP.	CELSIUS ENERGY CO.	MT. FUEL SUPPLY/CHAMPLIN PET
COMPLETED.....	10/07/82	10/11/83	NOT GIVEN
SAMPLED.....	06/14/84	01/23/84	07/12/84
FORMATION.....	CRET-MESAVERDE	CRET-DAKOTA	MISS-MADISON
GEOLOGIC PROVINCE CODE.....	535	535	535
DEPTH, FEET.....	10948	13040	18398
WELLHEAD PRESSURE, PSIG.....	4930	5518	NCT GIVEN
OPEN FLOW, MCFD.....	1734	7560	13723
COMPONENT, MOLE PCT			
METHANE.....	89.8	89.5	2.8
ETHANE.....	5.6	6.2	0.1
PROPANE.....	0.9	1.6	0.2
N-BUTANE.....	0.2	0.3	0.3
ISOBUTANE.....	0.1	0.3	0.1
N-PENTANE.....	0.1	0.1	0.1
ISOPENTANE.....	0.1	0.2	0.5
CYCLOPENTANE.....	0.1	TRACE	0.3
HEXANES PLUS.....	0.1	0.1	0.3
NITROGEN.....	0.0	0.7	7.8
OXYGEN.....	TRACE	0.1	0.6
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE*.....	0.0	0.0	0.9
CARBON DIOXIDE.....	2.9	0.9	85.5
HELIUM.....	TRACE	0.02	0.35
HEATING VALUE*.....	1061	1097	107
SPECIFIC GRAVITY.....	0.632	0.631	1.461

* 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 235 SAMPLE 17119	
STATE.....	WYOMING	
COUNTY.....	UINTA	
FIELD.....	HENRY	
WELL NAME.....	HENRY UNIT NO. 8	
LOCATION.....	SEC. 33, T14N, R113W	
OWNER.....	FOREST OIL CORP.	
COMPLETED.....	07/21/83	
SAMPLED.....	10/19/83	
FORMATION.....	CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	535	
DEPTH, FEET.....	13522	
WELLHEAD PRESSURE, PSIG.....	3900	
OPEN FLOW, MCFD.....	1636	
COMPONENT, MOLE PCT		
METHANE.....	84.5	-----
ETHANE.....	7.3	-----
PROPANE.....	3.5	-----
N-BUTANE.....	0.8	-----
ISOBTANE.....	0.9	-----
N-PENTANE.....	0.2	-----
ISOPEPTANE.....	0.3	-----
CYCLOPENTANE.....	0.1	-----
HEXANES PLUS.....	0.3	-----
NITROGEN.....	1.0	-----
OXYGEN.....	TRACE	-----
ARGON.....	TRACE	-----
HYDROGEN.....	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----
CARBON DIOXIDE.....	1.0	-----
HELIUM.....	0.01	-----
HEATING VALUE.....	1175	-----
SPECIFIC GRAVITY.....	0.684	-----

* 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 SAMPLE 17440	INDEX SAMPLE 17441	INDEX SAMPLE 17439
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	CONTRA COSTA	CONTRA COSTA	CONTRA COSTA
FIELD.....	CANADIAN GAS	OAKLEY	SACRAMENTO RIVER W&E
PLANT NAME.....	ANTIIOCH TERMINAL	BRENTWOOD DEHYDRATOR STA.	ANTIIOCH TERMINAL
LOCATION.....	36 IN. LINE VALVE 146	12 IN. LINE	16 IN. LINE VALVE 50
OWNER.....	PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/19/84	09/19/84	05/19/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730	730	730
PRESSURE, PSIG.....	810	550	315
FLOW, MCFD.....	600000	55000	44000
COMPONENT, MOLE PCT			
METHANE.....	96.2	92.9	92.8
ETHANE.....	1.5	4.1	3.3
PROPANE.....	TRACE	1.2	0.9
N-BUTANE.....	0.1	0.3	0.2
ISOBUTANE.....	0.0	0.2	0.2
N-PENTANE.....	0.1	TRACE	TRACE
ISOPENTANE.....	TRACE	0.2	0.1
CYCLOPENTANE.....	TRACE	0.1	0.1
HEXANES PLUS.....	TRACE	0.1	0.1
NITROGEN.....	1.6	0.4	1.9
OXYGEN.....	TRACE	0.0	TRACE
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.5	0.4
HELIUM.....	0.05	TRACE	TRACE
HEATING VALUE.....	1009	1080	1049
SPECIFIC GRAVITY.....	0.572	0.609	0.604

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 4 17436	INDEX SAMPLE 5 17452	INDEX SAMPLE 6 17451
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	FRESNO	KERN	KERN
FIELD.....	CHENEY	COLES LEVEE N	COLES LEVEE S
PLANT NAME.....	CHENEY FIELD COMPRESSOR UNIT	ATLANTIC RICHFIELD-M4702	MARATHON INSTALLATION-M4709
LOCATION.....	4 IN. DISCHARGE	10 IN. LINE NO. 103	34 IN. LINE NO. 225
OWNER.....	PACIFIC GAS & ELECTRIC CO.	SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	09/18/84	09/18/84	09/19/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
SEOLOGIC PROVINCE CODE.....	745	745	745
PRESSURE, PSIG.....	485	420	590
FLOW, MCFD.....	200	3060	42500
COMPONENT, MOLE PCT			
METHANE.....	83.6	84.2	91.3
ETHANE.....	5.9	10.4	7.1
PROPANE.....	4.5	2.1	0.8
N-BUTANE.....	1.4	TRACE	0.1
ISOBUTANE.....	1.5	0.0	0.0
N-PENTANE.....	0.3	0.1	0.1
ISOPENTANE.....	0.6	0.0	TRACE
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	TRACE	TRACE
NITROGEN.....	1.3	1.0	0.3
OXYGEN.....	TRACE	0.1	TRACE
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	2.0	0.3
HELIUM.....	0.01	TRACE	TRACE
HEATING VALUE.....	1219	1098	1080
SPECIFIC GRAVITY.....	0.708	0.652	0.605

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 17449	INDEX SAMPLE 17448	INDEX SAMPLE 17450
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	KERN	KERN	KERN
FIELD.....	CYMRIC	GOSFORD	MCKITTRICK, ELK HILLS
PLANT NAME.....	GETTY OIL CO. - M4356	TENNECO - M3628	12 IN. LINE NO. 303
LOCATION.....	10 IN. LINE NO. 133	4 IN. LINE NO. 5024	12 IN. LINE NO. 303
OWNER.....	SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	09/18/84	09/19/84	09/18/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745	745	745
PRESSURE, PSIG.....	380	388	375
FLOW, MCFD.....	1200	210	7600
COMPONENT, POLE PCT			
METHANE.....	85.9	77.5	84.7
ETHANE.....	6.4	8.0	9.2
PROPANE.....	3.5	4.9	1.1
N-BUTANE.....	1.0	0.9	0.2
ISOBUTANE.....	0.4	0.5	0.0
N-PENTANE.....	0.2	0.1	0.0
ISOPENTANE.....	0.1	TRACE	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	TRACE	TRACE
NITROGEN.....	2.3	5.3	0.1
OXYGEN.....	0.0	1.2	0.1
ARGON.....	TRACE	0.1	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	1.5	4.5
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE.....	1136	1107	1062
SPECIFIC GRAVITY.....	0.657	0.710	0.661

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 10 17435	INDEX SAMPLE 11 17458	INDEX SAMPLE 12 17437
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	KINGS	LOS ANGELES	MADERA
FIELD.....	TEXAS GAS	CASTAIC, PICO PORTERIO	VERNALIS
PLANT NAME.....	KETTLEMAN COMPRESSOR STA.	SUN GAS - M4512	VERNALIS FIELD COMPRESSOR STA
LOCATION.....	2-34 DISCH.	8 IN. LINE	6 IN. SUCTION
OWNER.....	PACIFIC GAS & ELECTRIC CO.	SOUTHERN CALIFORNIA GAS CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/18/84	09/26/84	09/19/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745	760	745
PRESSURE, PSIG.....	755	240	410
FLOW, MCFD.....	1021000	1500	3000
COMPONENT, MOLE PCT			
METHANE.....	89.9	95.9	88.4
ETHANE.....	6.1	3.4	0.7
PROpane.....	1.3	0.1	0.1
N-BUTANE.....	0.2	0.0	0.0
ISOBUTANE.....	0.1	0.0	0.0
N-PENTANE.....	0.1	0.0	0.0
ISOPENTANE.....	TRACE	0.0	0.0
CYCLOPENTANE.....	TRACE	0.0	0.0
HEXANES PLUS.....	0.1	0.0	0.0
NITROGEN.....	1.3	0.4	10.7
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARRON DIOXIDE.....	0.9	0.2	TRACE
HELIUM.....	0.04	TRACE	0.01
HEATING VALUE.....	1073	1035	911
SPECIFIC GRAVITY.....	0.621	0.576	0.604

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 13 17445	INDEX SAMPLE 14 17442	INDEX SAMPLE 15 17438
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	SACRAMENTO	SACRAMENTO	SAN JOAQUIN
FIELD.....	BEEHIVE BEND, T. HUNTER, ZAMORA	PIC VISTA, LINDSEY SLOUGH	LATHROP, UNION ISLAND
PLANT NAME.....	SACRAMENTO P.G. & E. LOAD CENT	DEHYDRATOR STA. NO. 196	LATHROP FIELD GATHERING UNIT
LOCATION.....	12 IN. LINE	12 IN. LINE	12 IN. SUCTION
OWNER.....	PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/21/84	09/20/84	09/19/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730	730	730
PRESSURE, PSIG.....	500	645	700
FLOW, MCFD.....	60000	50000	50000
COMPONENT, MOLE PCT			
METHANE.....	53.9	91.8	84.9
ETHANE.....	0.3	3.8	0.4
PROPANE.....	TRACE	1.3	0.1
N-BUTANE.....	0.0	0.3	0.0
ISOBUTANE.....	0.0	0.2	0.0
N-PENTANE.....	0.0	TRACE	0.0
ISOPENTANE.....	0.0	0.2	0.0
CYCLOPENTANE.....	0.0	0.1	0.0
HEXANES PLUS.....	0.0	0.1	0.0
NITROGEN.....	5.7	1.9	14.1
OXYGEN.....	TRACE	0.0	0.0
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.3	0.6
HELIUM.....	TRACE	TRACE	0.01
HEATING VALUE*.....	957	1066	870
SPECIFIC GRAVITY.....	0.579	0.613	0.622

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 17453	INDEX SAMPLE 17454	INDEX SAMPLE 17443
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	SANTA BARBARA	SANTA BARBARA	SOLANO
FIELD.....	CAT CANYON&SANTA MARIA BASIN	EL MOLINO	LINDSEY SLOUGH&RIO VISTA NW
PLANT NAME.....	UNION OIL BATTLES PLT.-M5805	PHILLIPS EL MOLINO-M3451	SERPA JUNCTION COMPRESSR STA
LOCATION.....	8 IN. LINE	8 IN. LINE	12 IN. LINE
OWNER.....	SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/26/84	09/26/84	09/20/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	750	750	730
PRESSURE, PSIG.....	390	940	700
FLOW, MCFD.....	1500	1500	41900
COMPONENT, MOLE PCT			
METHANE.....	77.2	88.5	90.3
ETHANE.....	10.6	6.5	4.5
PROPANE.....	0.8	2.7	1.6
N-BUTANE.....	0.1	0.8	0.4
ISOBUTANE.....	0.0	0.6	0.3
N-PENTANE.....	0.1	0.2	TRACE
ISOPENTANE.....	TRACE	0.2	0.3
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	TRACE	0.1	0.2
NITROGEN.....	2.5	0.1	2.2
OXYGEN.....	0.2	TRACE	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	8.5	0.1	TRACE
HELIUM.....	TRACE	TRACE	0.01
HEATING VALUE.....	1000	1152	1087
SPECIFIC GRAVITY.....	0.713	0.645	0.624

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 17444	INDEX SAMPLE 17446	INDEX SAMPLE 17455
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	SOLANO	SUTTER	VENTURA
FIELD.....	TREMONT, MILLAR, SAXON & BUNKER	NORTHERN CALIFORNIA GAS	MOBIL'S OFFSHORE FIELDS
PLANT NAME.....	MILLAR DEHYDRATOR STA.	YUBA CITY UNDERGROUND HOLDER	MOBIL RINCON-M3372
LOCATION.....	10 IN. LINE NO. 220	34 IN. INLET	10 IN. DISCH.
OWNER.....	PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	09/20/84	09/21/84	09/25/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730	730	755
PRESSURE, PSIG.....	520	520	945
FLOW, MCFD.....	42000	40000	6700
COMPONENT, POLE PCT			
METHANE.....	89.1	95.6	87.5
ETHANE.....	2.7	0.3	2.8
PROPANE.....	0.7	TRACE	3.9
N-BUTANE.....	0.1	0.0	1.2
ISOBUTANE.....	0.2	0.0	0.4
N-PENTANE.....	TRACE	0.0	0.1
ISOPENTANE.....	0.1	0.0	0.1
CYCLOPENTANE.....	0.1	0.0	TRACE
HEXANES PLUS.....	0.1	0.0	TRACE
NITROGEN.....	6.8	4.0	0.0
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.0	TRACE	0.0
HYDROGEN.....	TRACE	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.1	3.9
HELIUM.....	0.01	TRACE	TRACE
HEATING VALUE.....	992	974	1100
SPECIFIC GRAVITY.....	0.613	0.573	0.673

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 17456	INDEX SAMPLE 17457	INDEX SAMPLE 17447
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	VENTURA	VENTURA	YOLO
FIELD.....	SCHOOL CANYON	TORREY CANYON	NORTHERN CALIFORNIA GAS
PLANT NAME.....	GETTY NO. 7-M 3374	UNION OIL-M3723	HERSHEY JUNCTION
LOCATION.....	6 IN. DISCH.	10 IN. LINE	20 IN. INLET
OWNER.....	SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/25/84	09/26/84	09/21/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	755	755	730
PRESSURE, PSIG.....	123	252	705
FLOW, MCFD.....	2500	8000	70000
COMPONENT, MOLE PCT			
METHANE.....	82.2	86.8	96.2
ETHANE.....	7.9	6.0	0.3
PROPANE.....	4.3	1.4	TRACE
N-BUTANE.....	TRACE	0.3	0.0
ISOBUTANE.....	TRACE	0.2	0.0
N-PENTANE.....	0.0	TRACE	0.0
I SOPENTANE.....	TRACE	0.0	0.0
CYCLOPENTANE.....	TRACE	TRACE	0.0
HEXANES PLUS.....	TRACE	TRACE	0.0
NITROGEN.....	3.3	0.6	3.3
OXYGEN.....	0.6	0.1	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.5	4.5	0.1
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*	1086	1040	980
SPECIFIC GRAVITY.....	0.667	0.652	0.570

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 17369	INDEX SAMPLE 17334	INDEX SAMPLE 17370
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	BLAINE	BLAINE	CHOUTEAU
FIELD.....	BATTLE CREEK	TIGER RIDGE	BULLWACKER, LEROY, SAWTOOTH
PLANT NAME.....	BOXELDER COMPRESSOR STA.	BOX ELDER COMPRESSOR STA.	BIG SANDY COMPRESSOR STA.
LOCATION.....	6 IN. INLET	6 IN. INLET	10 IN. MAINLINE
OWNER.....	MONTANA POWER CO.	MONTANA POWER CO.	MONTANA POWER CO.
SAMPLED.....	08/01/84	06/22/84	08/01/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	395	395	500
PRESSURE, PSIG.....	410	370	450
FLOW, MCFD.....	625	1100	4000
COMPONENT, MOLE PCT			
METHANE.....	55.8	96.3	94.5
ETHANE.....	0.3	0.3	0.3
PROPANE.....	TRACE	TRACE	TRACE
N-BUTANE.....	0.0	0.0	0.0
ISOPUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	3.7	3.2	5.1
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	TRACE	0.0
HELIUM.....	0.08	0.08	0.07
HEATING VALUE*.....	976	981	963
SPECIFIC GRAVITY.....	0.570	0.568	0.577

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 28 17368	INDEX SAMPLE 29 17331	INDEX SAMPLE 30 17330
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	DAWSON	DAWSON	FALLON
FIELD.....	BOWDOIN & FT. PECK	WILLISTON BASIN-MONT. N. DAK	LITTLE KNIFE&NW NORTH DAKOTA
PLANT NAME.....	MORGAN CREEK JCT.	MORGAN CREEK JCT. COMP. STA.	CABIN CREEK COMPRESSOR STA.
LOCATION.....	8 IN. BOWDOIN	12 IN. WILLISTON BASIN INLET	16 IN. INLET
OWNER.....	MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA UTILITIES CO.
SAMPLED.....	08/02/84	06/21/84	06/20/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PR CV INCE CODE.....	395	395	395
PRESSURE, PS IG.....	430	180	450
FLOW, MCFD.....	18000	50000	75000
COMPONENT, MOLE PCT			
METHANE.....	52.0	74.9	72.1
ETHANE.....	0.2	15.6	13.5
PROPANE.....	TRACE	2.4	1.2
N-BUTANE.....	0.0	0.2	0.1
ISOBUTANE.....	0.0	0.1	0.1
N-PENTANE.....	0.0	0.0	0.1
ISOPENTANE.....	0.0	TRACE	0.0
CYCLOPENTANE.....	0.0	0.0	0.1
HEXANES PLUS.....	0.0	0.0	0.1
NITROGEN.....	7.5	6.0	11.3
OXYGEN.....	TRACE	0.0	1.1
ARGON.....	TRACE	0.1	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.7	0.3
HELIUM.....	0.07	0.03	0.04
HEATING VALUE.....	936	1111	1044
SPECIFIC GRAVITY.....	0.586	0.693	0.720

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 17338	INDEX SAMPLE 17339	INDEX SAMPLE 17337
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	GLACIER	GLACIER	TCOLE
FIELD.....	CUTBANK	S. ALBERTA & N. MONTANA	KEVIN-SUNBURST, LEROY & CANADA
PLANT NAME.....	COMPRESSOR STA. NO. 1	COMPRESSOR STA. NO. 1	CONRAD COMPRESSOR STA.
LOCATION.....	20 IN. INLET	16 IN. INLET	6 IN. INLET
OWNER.....	MONTANA POWER CO.	MONTANA POWER CO.	MONTANA POWER CO.
SAMPLED.....	06/25/84	06/25/84	06/25/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	500	500	500
PRESSURE, PSIG.....	200	481	280
FLOW, MCFD.....	14000	29000	300
COMPONENT, MOLE PCT			
METHANE.....	91.1	93.4	91.6
ETHANE.....	2.9	1.3	1.1
PROPANE.....	0.4	0.5	0.5
N-BUTANE.....	0.1	0.2	0.3
ISOBUTANE.....	0.0	0.1	0.1
N-PENTANE.....	TRACE	0.1	0.1
ISOPENTANE.....	0.0	TRACE	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	0.1
NITROGEN.....	3.9	4.3	5.4
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.5	TRACE	0.5
HELIUM.....	0.13	0.12	0.18
HEATING VALUE.....	989	1002	988
SPECIFIC GRAVITY.....	0.605	0.593	0.604

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX 34 SAMPLE 17202	INDEX 35 SAMPLE 17276	INDEX 36 SAMPLE 17363
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN	SAN JUAN	SAN JUAN
FIELD.....	BEAUTIFUL MOUNTAIN	BEAUTIFUL MOUNTAIN	BEAUTIFUL MOUNTAIN
PLANT NAME.....	NAVAJO REFINED HELIUM PLT.	NAVAJO REFINED HELIUM PLT.	NAVAJO REFINED HELIUM PLT.
LOCATION.....	INLET	INLET	INLET GAS TO PLANT
OWNER.....	NAVAJO REFINED HELIUM CO. INC	NAVAJO REFINED HELIUM CO. INC	NAVAJO REFINED HELIUM CO. INC
SAMPLED.....	02/29/84	04/18/84	07/23/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	580	580	580
PRESSURE, PSIG.....	665	640	530
FLOW, MCFD.....	2500	3000	2600
COMPONENT, MOLE PCT			
METHANE.....	2.0	1.9	1.9
ETHANE.....	0.2	0.2	0.2
PROPANE.....	0.1	0.1	0.1
N-BUTANE.....	0.1	0.1	0.1
ISOBUTANE.....	0.1	TRACE	TRACE
N-PENTANE.....	0.0	0.1	0.1
ISOPENTANE.....	0.1	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	90.0	89.9	89.9
OXYGEN.....	0.0	TRACE	0.1
ARGON.....	0.8	0.8	0.9
HYDROGEN.....	TRACE	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.6	0.6
HELIUM.....	5.94	6.13	6.04
HEATING VALUE.....	43	38	38
SPECIFIC GRAVITY.....	0.922	0.920	0.922

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 17367	INDEX SAMPLE 17329	INDEX SAMPLE 17328
STATE.....	NORTH DAKOTA	NORTH DAKOTA	SOUTH DAKOTA
COUNTY.....	MCKENZIE	STARK	BUTTE
FIELD.....	ALBERTA, CANADA	LITTLE KNIFE	RECLUSE & JOE CREEK
PLANT NAME.....	COMPRESSOR STA. NO. 4	BELFIELD COMPRESSOR STA.	BELLE FOURCHE COMPRESSOR STA
LOCATION.....	42 IN. INLET	8 IN. COMPOSITE	8 IN. INLET
OWNER.....	NORTHERN PLAINS NAT. GAS CO.	MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA UTILITIES CO.
SAMPLED.....	08/01/84	06/20/84	06/19/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	395	395	395
PRESSURE, PS IG.....	800	530	680
FLOW, MCFD.....	290000	40000	2500
COMPONENT, MOLE PCT			
METHANE.....	55.7	79.4	82.1
ETHANE.....	2.3	16.3	13.0
PROPANE.....	0.1	1.8	2.7
N-BUTANE.....	0.0	0.2	0.3
ISOBUTANE.....	0.0	0.1	0.2
N-PENTANE.....	0.0	TRACE	TRACE
ISOPENTANE.....	0.0	TRACE	TRACE
CYCLOPENTANE.....	0.0	TRACE	TRACE
HEXANES PLUS.....	1.9	1.7	1.7
NITROGEN.....	0.0	0.0	0.0
OXYGEN.....	TRACE	TRACE	TRACE
ARGON.....	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	TRACE
CARBON DIOXIDE.....	TRACE	0.5	0.0
HELIUM.....	0.05	0.03	0.02
HEATING VALUE*.....	1013	1153	1151
SPECIFIC GRAVITY.....	0.575	0.670	0.660

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

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 40 17340	INDEX SAMPLE 41 17341
STATE.....	WYOMING	WYOMING
COUNTY.....	BIG HORN	BIG HORN
FIELD.....	WORLAND & RIVERTON	WORLAND & RIVERTON
PLANT NAME.....	LOVELL COMPRESSOR STA.	LOVELL COMPRESSOR STA.
LOCATION.....	12 IN. INLET	2 IN. LINE AFTER SCRUBBER
OWNER.....	MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA UTILITIES CO.
SAMPLED.....	06/27/84	06/27/84
FORMATION.....	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	520	520
PRESSURE,PSIG.....	477	477
FLOW,MCFD.....	18000	NOT GIVEN
COMPONENT, MOLE PCT		
METHANE.....	93.9	93.8
ETHANE.....	3.7	3.7
PROPANE.....	0.3	0.4
N-BUTANE.....	0.1	0.1
ISOBUTANE.....	TRACE	0.1
N-PENTANE.....	0.1	TRACE
ISOPENTANE.....	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE
HEXANES PLUS.....	TRACE	TRACE
NITROGEN.....	0.4	0.5
OXYGEN.....	0.0	0.0
ARGON.....	TRACE	TRACE
HYDROGEN.....	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0
CARBON DIOXIDE.....	1.4	1.4
HELIUM.....	0.01	0.01
HEATING VALUE*.....	1033	1034
SPECIFIC GRAVITY.....	0.594	0.595

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

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