

Information Circular 8780

Analyses of Natural Gases, 1977

By B. J. Moore



UNITED STATES DEPARTMENT OF THE INTERIOR
Cecil D. Andrus, Secretary
BUREAU OF MINES

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ANALYSES OF NATURAL GASES, 1977

by

B. J. Moore¹

INTRODUCTION

This publication contains analyses and related source data for 256 natural gas samples from wells and pipelines in 17 States. All of the samples were obtained and analyzed during calendar year 1977 as a 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 in the United States by the Bureau of Mines since 1917. In late 1965, the survey was expanded to include foreign gasfields. The analyses published herein were made by mass spectrometer and a special helium analysis apparatus, which are described in Bureau of Mines Bulletins 486² and 576.³

The results of the investigation of the occurrences of helium are published annually to make the information available as soon as possible to the gas industry and the public in general. Nineteen previous publications have presented the results of 11,317 gas analyses prior to 1977. The first three, Bulletins 486,⁴ 576,⁵ and 617,⁶ contain analyses and related source data on 5,218 gas samples collected from 1917 through 1960. The other 16

¹Chief, Section of Helium Resources Evaluation, Branch of Helium Resources, Helium Operations, Bureau of Mines, Amarillo, Tex.

²Anderson, C. C., and H. H. Hinson. Helium-Bearing Natural Gases of the United States. Analyses and Analytical Methods. BuMines Bull. 486, 1951, 141 pp.

³Boone, W. J., Jr. Helium-Bearing Natural Gases of the United States. Analyses and Analytical Methods. Supplement to Bulletin 486. BuMines Bull. 576, 1958, 117 pp.

⁴Work cited in footnote 2.

⁵Work cited in footnote 3.

⁶Munnerlyn, R. D., and R. D. Miller. Helium-Bearing Natural Gases of the United States: Analyses. Second Supplement to Bulletin 486. BuMines Bull. 617, 1963, 93 pp.

publications,⁷ which were issued as information circulars, supplement the 3 bulletins and contain 6,099 analyses of samples collected since 1960. This publication is the 17th publication supplementing the 3 bulletins.

In 1976, a compilation of the analyses made prior to 1975 was published by the National Technical Information Service of the U.S. Department of Commerce. This compilation, entitled "Analyses of Natural Gases, 1917-74," contains 10,562 analyses of gas samples from oil and gas wells and natural gas pipelines in 37 States and 23 foreign countries. The compilation is available from the National Technical Information Service, Springfield, Va. 22161. Catalog number of the publication is PB 251-202 and the price is \$24.

In addition to being included in the publications, all published analyses and related information are available on a magnetic tape file. The tape is also available from the National Technical Information Service, and orders should refer to Bureau of Mines Tape PB 267-696, \$102.

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 oil and gas industry, State and national agencies, and many individuals engaged in oil and gas exploration and production, the helium survey with its present scope would be impossible.

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

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- ⁷Miller, R. D., and G. P. Norell. Analyses of Natural Gases of the United States, 1961. BuMines IC 8221, 1964, 148 pp.
 _____. Analyses of Natural Gases of the United States, 1962. BuMines IC 8239, 1964, 120 pp.
 _____. Analyses of Natural Gases of the United States, 1963. BuMines IC 8241, 1965, 102 pp.
 Moore, B. J., R. D. Miller, and R. D. Shrewsbury. Analyses of Natural Gases of the United States, 1964. BuMines IC 8302, 1966, 144 pp.
 Moore, B. J., and R. D. Shrewsbury. Analyses of Natural Gases of the United States, 1965. BuMines IC 8316, 1966, 181 pp.
 _____. Analyses of Natural Gases, 1966. BuMines IC 8356, 1967, 130 pp.
 _____. Analyses of Natural Gases, 1967. BuMines IC 8395, 1968, 187 pp.
 Cardwell, L. E., and L. F. Benton. Analyses of Natural Gases, 1968. BuMines IC 8443, 1969, 169 pp.
 _____. Analyses of Natural Gases, 1969. BuMines IC 8475, 1970, 134 pp.
 _____. Analyses of Natural Gases, 1970. BuMines IC 8518, 1971, 130 pp.
 _____. Analyses of Natural Gases, 1971. BuMines IC 8554, 1972, 163 pp.
 _____. Analyses of Natural Gases, 1972. BuMines IC 8607, 1973, 104 pp.
 Moore, B. J. Analyses of Natural Gases, 1973. BuMines IC 8658, 1974, 96 pp.
 _____. Analyses of Natural Gases, 1974. BuMines IC 8684, 1975, 122 pp.
 _____. Analyses of Natural Gases, 1975. BuMines IC 8717, 1976, 82 pp.
 _____. Analyses of Natural Gases, 1976. BuMines IC 8749, 1977, 94 pp.

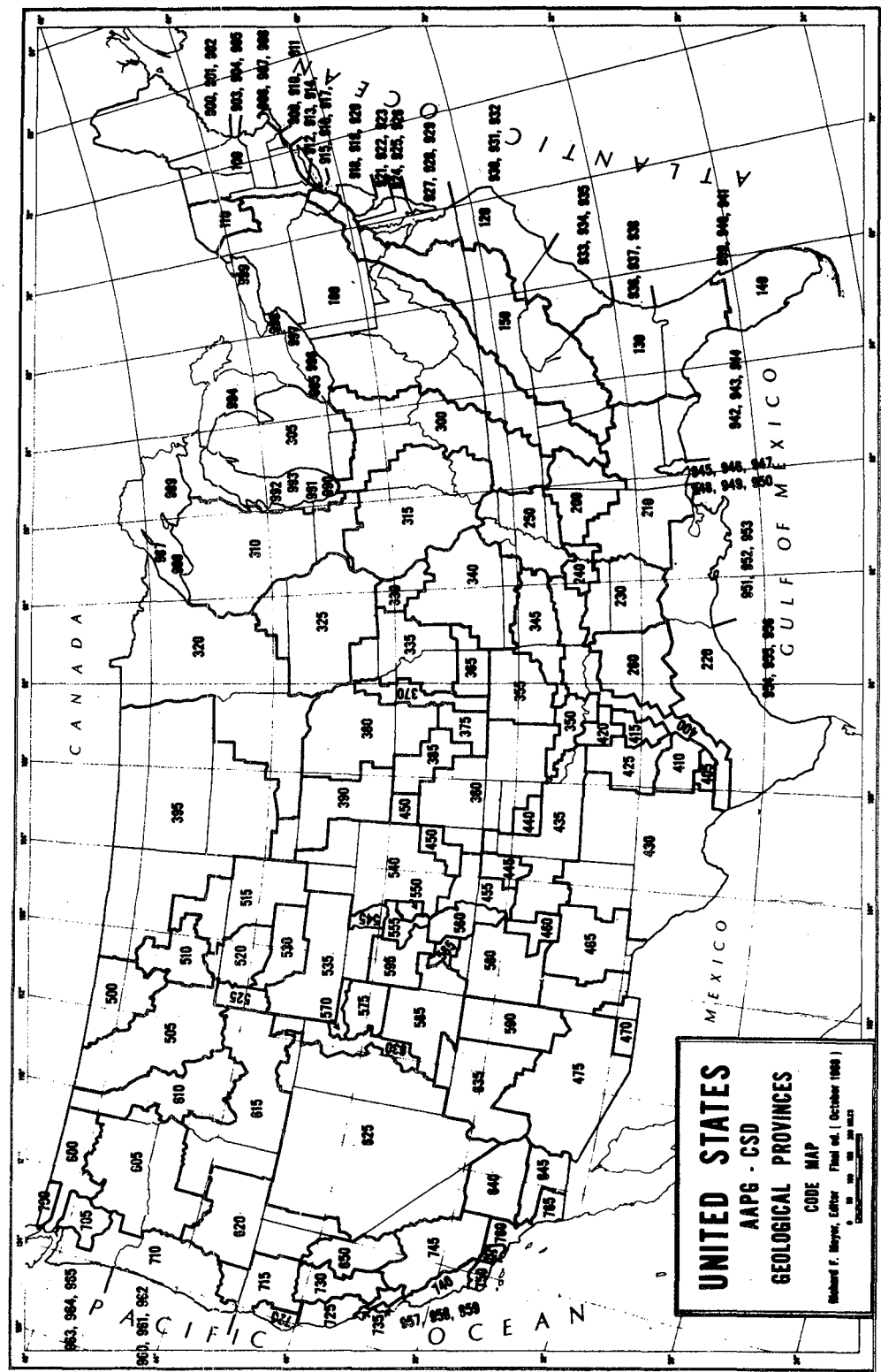


FIGURE 1: - Geologic provinces of the United States;

GEOLOGIC PROVINCES OF THE UNITED STATES

The tables include geologic province codes so that 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.⁸ 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. The accompanying list and figure 1 are taken from the article cited in footnote 8. Not all of the provinces shown are gas-producing areas, so many of the codes are not used in this publication. In offshore areas, only one code is used for each State, since State or Federal ownership is not always known. Only one code, 972, is used for all wells in Alaska, both onshore and offshore, because of the lack of information on the location of wells in that State.

<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

⁸Meyer, R. F. Geologic Provinces Code Map for Computer Use. AAPG Bull., v. 54/7, July 1970, pp. 1301-1305.

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

<u>Code</u>	<u>Province</u>
625	Great Basin province
630	Wasatch uplift
635	Plateau sedimentary province
640	Mojave basin
645	Salton basin
650	Sierra Nevada province
700	Bellingham basin
705	Puget Sound province
710	Western Columbia basin
715	Klamath Mountains province
720	Eel River basin
725	Northern Coast Range province
730	Sacramento basin
735	Santa Cruz basin
740	Coastal basins
745	San Joaquin basin
750	Santa Maria basin
755	Ventura basin
760	Los Angeles basin
765	Capistrano basin
800	Heceta Island area
805	Keku Islands area
810	Gulf of Alaska basin
815	Copper River basin
820	Cook Inlet basin
830	Kandik province
835	Kobuk province
840	Koyukuk province
845	Bristol Bay basin
850	Bethel basin
855	Norton basin
860	Selawik basin
863	Yukon Flats basin
865	Lower Tanana basin
867	Middle Tanana basin
870	Upper Tanana basin
873	Galena basin
875	Innoko basin
877	Minchumina basin
880	Holitna basin
885	Arctic Foothills province
890	Arctic Slope basin
900	Maine Atlantic offshore--general
901	Maine Atlantic offshore--State
902	Maine Atlantic offshore--Federal
903	New Hampshire Atlantic offshore--general

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

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

TABLES

The following tables include the results of analyses and related source data from 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
Alabama.....	2	1
Arkansas.....	8	1
Colorado.....	10	1
Kansas.....	14	1
Louisiana.....	28	1
Michigan.....	7	1
Mississippi.....	3	1
Montana.....	6	1
Nevada.....	2	1
New Mexico.....	8	1
New York.....	3	1
Ohio.....	1	2
Oklahoma.....	54	1, 2
Pennsylvania.....	1	1
Texas.....	89	1, 2
Utah.....	3	1
Wyoming.....	17	1

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

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

	INDEX SAMPLE 14966	INDEX SAMPLE 15052	INDEX SAMPLE 14932
STATE.....	ALABAMA	ALABAMA	ARKANSAS
COUNTY.....	FAYETTE	FAYETTE	FRANKLIN
FIELD.....	NOT GIVEN	WILDCAT	JETHRO
WELL NAME.....	CANNON NO. 33-15	J. C. RANDOLPH NO. 1	CARR NO. 1
LOCATION.....	SEC. 33, T14S, R11W	SEC. 17, T15S, R12W	SEC. 21, T11N, R27W
OWNER.....	CLEARY PETROLEUM CORP.	TERRA RESOURCES, INC.	ARKANSAS WESTERN GAS CO.
COMPLETED.....	NOT GIVEN	NOT GIVEN	09/08/76
SAMPLED.....	04/--/77	07/13/77	03/09/77
FORMATION.....	MISS-CARTER	MISS-CARTER	PENN-DUNN A
GEOLOGIC PROVINCE CODE...	200	200	345
DEPTH, FEET.....	2366	2570	1600
WELLHEAD PRESSURE, PSIG...	550	1100	494
OPEN FLOW, MCFD.....	2600	8225	3500
COMPONENT, MOLE PCT			
METHANE.....	93.7	97.5	98.0
ETHANE.....	1.6	0.7	0.9
PROPANE.....	0.1	0.1	0.1
N-BUTANE.....	TRACE	0.0	TRACE
ISOBUTANE.....	TRACE	0.0	TRACE
N-PENTANE.....	TRACE	0.0	TRACE
ISOPENTANE.....	TRACE	0.0	TRACE
CYCLOPENTANE.....	TRACE	0.0	TRACE
HEXANES PLUS.....	TRACE	0.0	TRACE
NITROGEN.....	1.2	1.5	0.8
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.....	3.2	0.1	TRACE
HELIUM.....	0.10	0.08	0.09
HEATING VALUE*.....	980	1003	1011

* 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 14942	INDEX SAMPLE 14944	INDEX SAMPLE 15120
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	FRANKLIN	FRANKLIN	JOHNSON
FIELD.....	VESTA	VESTA	BATSON
WELL NAME.....	ALLEN W. KING NO. 1	ALLEN W. KING NO. 1	BIBLER BROTHERS NO. 1
LOCATION.....	SEC. 29, T 8N, R28W	SEC. 29, T8N, R28W	SEC. 8, T11N, R24W
OWNER.....	STEPHENS PRODUCTION CO.	STEPHENS PRODUCTION CO.	ARKANSAS WESTERN GAS CO.
COMPLETED.....	04/14/76	04/14/76	09/27/77
SAMPLED.....	03/17/77	03/17/77	10/13/77
FORMATION.....	PERM-ALMA	PENN-HALE	PENN-SELLS
GEOLOGIC PROVINCE CODE.....	345	345	345
DEPTH, FEET.....	2513	7600	1015
WELLHEAD PRESSURE, PSIG.....	1015	2377	116
OPEN FLOW, MCFD.....	2200	2750	290
COMPONENT, MOLE PCT			
METHANE.....	96.3	96.8	97.6
ETHANE.....	1.6	1.6	0.2
PROPANE.....	0.2	0.2	TRACE
N-BUTANE.....	0.0	0.0	TRACE
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.1
ISOPENTANE.....	0.0	0.0	TRACE
CYCLOPENTANE.....	0.0	0.0	TRACE
HEXANES PLUS.....	0.0	0.0	TRACE
NITROGEN.....	0.7	0.3	1.6
OXYGEN.....	0.1	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.....	1.1	1.1	0.2
HELIUM.....	0.07	0.08	0.11
HEATING VALUE*.....	1009	1014	997

* 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 15021	INDEX SAMPLE 15087	INDEX SAMPLE 15088
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON	JOHNSON	JOHNSON
FIELD.....	KNOXVILLE	LINVILLE	LINVILLE
WELL NAME.....	STOKES NO. 1-35	G. PAYNE NO. 1-24	G. PAYNE NO. 1-24
LOCATION.....	SEC. 35, T9N, R23W	SEC. 24, T11N, R25W	SEC. 24, T11N, R25W
OWNER.....	TENNECO OIL CO.	OIL DEVELOPMENT CO. OF UTAH	OIL DEVELOPMENT CO. OF UTAH
COMPLETED.....	10/--/76	NOT GIVEN	NOT GIVEN
SAMPLED.....	06/08/77	08/30/77	08/30/77
FORMATION.....	PENN-ARECI	PENN-ORR	-PATTERSON
GEOLOGIC PROVINCE CODE...	345	345	345
DEPTH, FEET.....	4648	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG...	840	265	241
OPEN FLOW, MCFD.....	4963	664	1838
COMPONENT, MOLE PCT			
METHANE.....	98.0	98.4	97.4
ETHANE.....	1.2	0.2	0.2
PROPANE.....	0.1	0.1	0.1
N-BUTANE.....	0.0	0.0	0.2
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.1
ISOPENTANE.....	0.0	0.0	0.1
CYCLOPENTANE.....	0.0	0.0	TRACE
HEXANES PLUS.....	0.0	0.0	0.1
NITROGEN.....	0.4	1.1	1.4
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.1	0.1
HELIUM.....	0.13	0.13	0.13
HEATING VALUE*.....	1017	1003	1013

* 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 15124	INDEX SAMPLE 15008	INDEX SAMPLE 15110
STATE.....	ARKANSAS	COLORADO	COLORADO
COUNTY.....	POPE	ADAMS	GARFIELD
FIELD.....	LINVILLE	CHIEFTAN	SOUTH CANYON
WELL NAME.....	G. PAYNE NO. 1	AMOCO CHAMPLIN NO. 67D-1	PALMER NO. 2-23
LOCATION.....	SEC. 24, T11N, R25W	SEC. 21, T2S, R63W	SEC. 23, T7S, R104W
OWNER.....	OIL DEVELOPMENT CO. OF UTAH	AMOCO PRODUCTION CO.	PALMER OIL & GAS CO.
COMPLETED.....	NOT GIVEN	07/18/75	02/--/77
SAMPLED.....	10/17/77	05/23/77	09/27/77
FORMATION.....	PENN-HALE	CRET-DAKOTA J	CRET-DAKOTA
GEOLOGIC PROVINCE CODE...	345	540	595
DEPTH, FEET.....	NOT GIVEN	7606	3900
WELLHEAD PRESSURE, PSIG...	510	NOT GIVEN	635
OPEN FLOW, MCFD.....	2031	3938	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	98.1	73.9	76.3
ETHANE.....	0.1	12.4	3.6
PROPANE.....	TRACE	6.0	1.1
N-BUTANE.....	0.0	1.7	0.3
ISOBUTANE.....	0.0	0.7	0.2
N-PENTANE.....	0.0	0.5	0.1
ISOPENTANE.....	0.0	0.5	0.1
CYCLOPENTANE.....	0.0	0.1	TRACE
HEXANES PLUS.....	0.0	0.3	0.1
NITROGEN.....	1.5	2.1	11.1
OXYGEN.....	TRACE	TRACE	0.0
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	1.8	6.2
HELIUM.....	0.11	0.04	0.64
HEATING VALUE*.....	996	1269	897

* 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 15111	INDEX SAMPLE 15113	INDEX SAMPLE 15114
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	GARFIELD	GARFIELD	GARFIELD
FIELD.....	SOUTH CANYON	SOUTH CANYON	SOUTH CANYON
WELL NAME.....	PALMER NO. 23-12	PALMER NO. 27-11	PALMER NO. 27-8
LOCATION.....	SEC. 23, T7S, R104W	SEC. 27, T7S, R104W	SEC. 27, T7S, R104W
OWNER.....	PALMER OIL & GAS CO.	PALMER OIL & GAS CO.	PALMER OIL & GAS CO.
COMPLETED.....	03/--/77	06/--/77	04/--/76
SAMPLED.....	09/27/77	09/27/77	09/27/77
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE...	595	595	595
DEPTH, FEET.....	3700	3700	3700
WELLHEAD PRESSURE, PSIG...	840	840	830
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	72.6	70.0	71.2
ETHANE.....	3.6	3.2	3.4
PROPANE.....	1.2	1.0	1.0
N-BUTANE.....	0.5	0.3	0.3
ISOBUTANE.....	0.3	0.2	0.2
N-PENTANE.....	0.2	0.1	0.1
ISOPENTANE.....	0.2	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	0.2	0.1	0.2
NITROGEN.....	10.1	10.8	11.9
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.1	0.1	0.1
HYDROGEN.....	0.0	0.0	0.4
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	10.6	13.4	10.7
HELIUM.....	0.53	0.59	0.57
HEATING VALUE*.....	885	823	849

* 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 15072	INDEX SAMPLE 15073	INDEX SAMPLE 15074
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	HUERFANO	HUERFANO	HUERFANO
FIELD.....	SHEEP MOUNTAIN	SHEEP MOUNTAIN	SHEEP MOUNTAIN
WELL NAME.....	SHEEP MOUNTAIN NO. 12	SHEEP MOUNTAIN NO. 7	SHEEP MOUNTAIN NO. 7
LOCATION.....	SEC. 15, T27S, R70W	SEC. 9, T27S, R70W	SEC. 9, T22S, R70W
OWNER.....	ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.
COMPLETED.....	01/05/77	02/--/76	02/--/76
SAMPLED.....	08/03/77	07/21/77	07/23/77
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA
	455	455	455
GEOLOGIC PROVINCE CODE...			
DEPTH, FEET.....	3078	3380	3380
WELLHEAD PRESSURE, PSIG...	696	680	680
OPEN FLOW, MCFO.....	8000	11500	11500
COMPONENT, MOLE PCT			
METHANE.....	1.8	6.1	3.4
ETHANE.....	0.2	0.3	0.2
PROPANE.....	0.1	0.1	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
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	0.2	2.1	1.1
OXYGEN.....	TRACE	0.1	0.1
ARGON.....	TRACE	0.1	0.1
HYDROGEN.....	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	97.7	91.1	95.0
HELIUM.....	0.03	0.12	0.08
HEATING VALUE*.....	24	70	41

* 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 15123	INDEX SAMPLE 15126	INDEX SAMPLE 15067
STATE.....	COLORADO	COLORADO	KANSAS
COUNTY.....	MONTESUMA	MONTESUMA	BARBER
FIELD.....	WILDCAT	WILDCAT	NURSE
WELL NAME.....	HOVENWEEP FEDERAL NO. 1	HOVENWEEP FEDERAL NO. 1	PACKARD NO. 1
LOCATION.....	SEC. 19, T38N, R18W	SEC. 19, T38N, R18W	SEC. 22, T31S, R13W
OWNER.....	MOBIL OIL CORP.	MOBIL R & D CORP.	OIL PROPERTY MANAGEMENT, INC
COMPLETED.....	NOT GIVEN	NOT GIVEN	05/05/77
SAMPLED.....	09/25/77	10/14/77	08/02/77
FORMATION.....	MISS-	MISS-	PERM-INDIAN CAVE
GEOLOGIC PROVINCE CODE.....	585	585	375
DEPTH, FEET.....	8357	8284	2628
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	290	1020
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	4258
COMPONENT, MOLE PCT			
METHANE.....	0.2	0.2	77.6
ETHANE.....	TRACE	0.1	3.7
PROPANE.....	0.0	TRACE	1.2
N-BUTANE.....	0.0	0.0	0.3
ISOBUTANE.....	0.0	0.0	0.2
N-PENTANE.....	0.0	0.0	TRACE
ISOPENTANE.....	0.0	0.0	0.1
CYCLOPENTANE.....	0.0	0.0	TRACE
HEXANES PLUS.....	0.0	0.0	0.1
NITROGEN.....	1.2	1.0	16.1
OXYGEN.....	0.0	TRACE	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	98.5	98.6	0.1
HELIUM.....	0.09	0.08	0.44
HEATING VALUE*.....	2	4	910

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

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

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

	INDEX SAMPLE 15022	INDEX SAMPLE 14903	INDEX SAMPLE 15075
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	BARBER	CLARK	COMANCHE
FIELD.....	WHELAN SE	MCKINNEY	OVEROCKER
WELL NAME.....	WHEELLOCK NO. 1	THEIS "W" NO. 1-8	OVEROCKER NO. 1
LOCATION.....	SEC. 33, T31S, R12W	SEC. 8, T35S, R25W	SEC. 6, T33S, R20W
OWNER.....	CHIEF DRILLING CO., INC.	NORTHERN NATURAL GAS CO.	NATIONAL OIL CO.
COMPLETED.....	11/09/76	10/21/76	03/--/76
SAMPLED.....	06/08/77	02/15/77	08/--/77
FORMATION.....	MISS-	MISS-CHESTER	PENN-MORROW
GEOLOGIC PROVINCE CODE...	375	360	360
DEPTH, FEET.....	4260	5955	5216
WELLHEAD PRESSURE, PSIG...	1320	1576	1650
OPEN FLOW, MCFD.....	925	4400	2600
COMPONENT, MOLE PCT			
METHANE.....	76.5	90.0	90.6
ETHANE.....	6.8	4.8	3.9
PROPANE.....	3.5	2.1	1.3
N-BUTANE.....	1.0	0.6	0.4
ISOBUTANE.....	0.3	0.3	0.1
N-PENTANE.....	0.3	0.2	0.1
ISOPENTANE.....	0.2	0.2	0.1
CYCLOPENTANE.....	0.1	0.1	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	10.7	1.2	3.0
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.....	0.1	0.3	0.3
HELIUM.....	0.32	0.09	0.15
HEATING VALUE*.....	1062	1108	1052

* 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 15034	INDEX SAMPLE 14967	INDEX SAMPLE 14976
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	GRANT	HASKELL	KINGMAN
FIELD.....	PANOMA	PANOMA	NEGRO POOL
WELL NAME.....	DAVATZ "B" NO. 4	UNGLES A-2	LOWE NO. 1
LOCATION.....	SEC. 13, T28S, R36W	SEC. 36, T30N, R34W	SEC. 21, T28N, R7W
OWNER.....	CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.	MACK OIL CO.
COMPLETED.....	NOT GIVEN	NOT GIVEN	05/24/76
SAMPLED.....	06/22/77	04/15/77	04/18/77
FORMATION.....	NOT GIVEN	PENN-LANSING	MISS-
GEOLOGIC PROVINCE CODE...	360	360	375
DEPTH, FEET.....	2939	4161	3970
WELLHEAD PRESSURE, PSIG...	201	929	1345
OPEN FLOW, MCFD.....	NOT GIVEN	1411	668
COMPONENT, MOLE PCT			
METHANE.....	72.5	86.5	86.4
ETHANE.....	6.5	5.8	5.5
PROPANE.....	3.6	2.7	2.6
N-BUTANE.....	1.0	0.8	0.9
ISOBUTANE.....	0.4	0.3	0.3
N-PENTANE.....	0.2	0.3	0.2
ISOPENTANE.....	0.2	0.3	0.1
CYCLOPENTANE.....	TRACE	0.1	0.1
HEXANES PLUS.....	0.1	0.3	0.1
NITROGEN.....	15.0	2.6	3.2
OXYGEN.....	0.0	TRACE	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	TRACE
HELIUM.....	0.41	0.17	0.20
HEATING VALUE*.....	1014	1132	1112

* 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 15061	INDEX SAMPLE 14997	INDEX SAMPLE 14998
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	KINGMAN	KIOWA	KIOWA
FIELD.....	WILDCAT	WILDCAT	WILDCAT
WELL NAME.....	MILDRED-ARNOLD NO. 1	LONG NO. 1	DAVIS NO. 1
LOCATION.....	SEC. 35, T27S, R8W	SEC. 2, T27S, R17W	SEC. 18, T27S, R16W
OWNER.....	PUBLISHERS PETROLEUM	IMPERIAL OIL CO.	IMPERIAL OIL CO.
COMPLETED.....	07/--/77	10/08/76	10/22/76
SAMPLED.....	07/--/77	05/12/77	05/12/77
FORMATION.....	MISS-	MISS-	PENN-CHEROKEE
GEOLOGIC PROVINCE CODE.....	375	360	360
DEPTH, FEET.....	3971	4648	4593
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1350	1370
OPEN FLOW, MCFD.....	85	4094	3624
COMPONENT, MOLE PCT			
METHANE.....	68.6	84.6	87.9
ETHANE.....	6.2	5.2	3.7
PROPANE.....	3.3	2.7	1.7
N-BUTANE.....	0.9	0.6	0.5
ISOBUTANE.....	0.5	0.4	0.2
N-PENTANE.....	0.3	0.2	0.2
ISOPENTANE.....	0.3	0.2	0.2
CYCLOPENTANE.....	0.2	0.1	0.1
HEXANES PLUS.....	0.3	0.1	0.2
NITROGEN.....	18.7	5.3	4.5
OXYGEN.....	0.1	0.3	0.3
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	TRACE	0.1
HELIUM.....	0.77	0.36	0.37
HEATING VALUE*.....	987	1080	1056

* 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 15060	INDEX SAMPLE 15024	INDEX SAMPLE 15037
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	PAWNEE	PRATT	RICE
FIELD.....	CARPENTER	IUKA-CARMI	BOY
WELL NAME.....	PARAMORE NO. 2	ALBERT HOEME NO. 1	L. BOY NO. 2
LOCATION.....	SEC. 7, T23S, R16W	SEC. 25, T26S, R12W	SEC. 17, T21S, R10W
OWNER.....	KEWANE OIL CO.	W. L. KIRKMAN, INC.	LEBSACK OIL PRODUCTION, INC.
COMPLETED.....	06/10/77	10/31/76	--/--/76
SAMPLED.....	07/27/77	06/09/77	06/28/77
FORMATION.....	PENN-CONGLOMERATE	PENN-HOWARD & SEVERY	PENN-SEVERY
GEOLOGIC PROVINCE CODE...	385	385	385
DEPTH, FEET.....	4076	NOT GIVEN	2500
WELLHEAD PRESSURE, PSIG...	1030	947	800
OPEN FLOW, MCFD.....	4146	4800	2000
COMPONENT, MOLE PCT			
METHANE.....	82.3	64.7	62.2
ETHANE.....	3.7	4.5	1.9
PROPANE.....	1.5	4.1	0.7
N-BUTANE.....	0.6	1.5	0.2
ISOBUTANE.....	0.3	0.6	0.1
N-PENTANE.....	0.2	0.4	0.0
ISOPENTANE.....	0.1	0.2	0.1
CYCLOPENTANE.....	TRACE	0.1	TRACE
HEXANES PLUS.....	0.1	0.2	TRACE
NITROGEN.....	9.6	23.1	33.7
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.1	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.2	0.1
HELIUM.....	1.06	0.46	1.00
HEATING VALUE*.....	987	953	697

* 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 15045	INDEX SAMPLE 14904	INDEX SAMPLE 14937
STATE.....	KANSAS	LOUISIANA	LOUISIANA
COUNTY.....	RICE	BIENVILLE	CADDO
FIELD.....	BOY	WOODARDVILLE	ELM GROVE
WELL NAME.....	FLORA NO. 2	T. A. MARTIN NO. 1	WHITTINGTON NO. 2
LOCATION.....	SEC. 21, T21S, R10W	SEC. 28, T15N, R9W	SEC. 30, T16N, R12W
OWNER.....	LEBSACK OIL PRODUCTION, INC.	MAY PETROLEUM, INC.	ARKLA EXPLORATION CO.
COMPLETED.....	NOT GIVEN	07/23/76	NOT GIVEN
SAMPLED.....	06/28/77	02/11/77	02/22/77
FORMATION.....	PENN-SEVERY	CRET-RODESSA	JURA-COTTON VALLEY
GEOLOGIC PROVINCE CODE.....	385	230	230
DEPTH, FEET.....	2525	5147	8500
WELLHEAD PRESSURE, PSIG.....	800	2200	3200
OPEN FLOW, MCFD.....	2500	2651	600
COMPONENT, MOLE PCT			
METHANE.....	61.9	94.3	87.6
ETHANE.....	1.8	1.4	5.8
PROPANE.....	0.7	0.2	2.0
N-BUTANE.....	0.2	0.1	0.7
ISOBUTANE.....	0.1	0.1	0.4
N-PENTANE.....	0.0	TRACE	0.2
ISOPENTANE.....	0.1	0.1	0.2
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	0.2
NITROGEN.....	34.1	0.7	0.2
OXYGEN.....	TRACE	0.1	0.0
ARGON.....	0.1	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	2.9	2.6
HELIUM.....	0.96	0.01	0.01
HEATING VALUE*.....	692	1002	1108

* 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 37 15043	INDEX SAMPLE 38 14926	INDEX SAMPLE 39 15031
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	CADDO	CLAIBORNE	DESOTO
FIELD.....	JOHNSON BRANCH	OAKS	CASPIANA
WELL NAME.....	NORMAN G. ALEXANDER NO. 1	WARE NO. 1	OLINKRAFT NO. 2
LOCATION.....	SEC. 1, T15N, R16W	SEC. 10, T22N, R7W	SEC. 19, T15N, R13W
OWNER.....	NORTH AMERICAN ROYALTIES INC	LYONS PETROLEUM, INC.	MAY PETROLEUM, INC.
COMPLETED.....	07/01/77	07/07/76	09/02/76
SAMPLED.....	06/30/77	02/17/77	06/23/77
FORMATION.....	JURA-COTTON VALLEY	JURA-SMACKOVER	CRET-RODESSA
GEOLOGIC PROVINCE CODE...	230	230	230
DEPTH, FEET.....	9500	10763	5170
WELLHEAD PRESSURE, PSIG...	3000	5600	1700
OPEN FLOW, MCFD.....	2000	1000	1200
COMPONENT, MOLE PCT			
METHANE.....	52.5	85.1	93.1
ETHANE.....	17.0	7.7	3.8
PROPANE.....	12.4	2.9	1.1
N-BUTANE.....	5.6	0.9	0.4
ISOBUTANE.....	4.0	0.8	0.2
N-PENTANE.....	1.9	0.3	0.2
ISOPENTANE.....	1.9	0.3	0.1
CYCLOPENTANE.....	0.2	TRACE	TRACE
HEXANES PLUS.....	1.6	0.2	0.2
NITROGEN.....	0.0	0.3	0.4
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.0	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	3.0	1.4	0.5
HELIUM.....	TRACE	0.01	0.02
HEATING VALUE.....	1734	1168	1083

* 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 14931	INDEX SAMPLE 14993	INDEX SAMPLE 14994
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	DESOTO	IBERIA	IBERIA
FIELD.....	HOLLY	JEFFERSON ISLAND	JEFFERSON ISLAND
WELL NAME.....	BURFORD ESTATE NO. 1	J.L. BAYLESS NO. 1	J.L. BAYLESS NO. 1-D
LOCATION.....	SEC. 27, T14N, R14W	SEC. 65, T12S, R5E	SEC. 65, T12S, R5E
OWNER.....	PLACID OIL CO.	C & K PETROLEUM, INC.	C & K PETROLEUM, INC.
COMPLETED.....	09/12/76	02/14/77	02/04/77
SAMPLED.....	03/02/77	05/04/77	05/04/77
FORMATION.....	CRET-HOSSTON	MIOC-	MIOC-
GEOLOGIC PROVINCE CODE.....	230	220	220
DEPTH, FEET.....	NOT GIVEN	13759	13381
WELLHEAD PRESSURE, PSIG.....	2700	5000	4960
OPEN FLOW, MCFD.....	2000	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	96.4	87.8	85.6
ETHANE.....	0.9	5.1	6.2
PROPANE.....	0.1	2.7	3.0
N-BUTANE.....	0.1	0.9	0.7
ISOBUTANE.....	TRACE	0.8	0.9
N-PENTANE.....	0.0	0.3	0.2
ISOPENTANE.....	TRACE	0.3	0.1
CYCLOPENTANE.....	TRACE	0.1	TRACE
HEXANES PLUS.....	TRACE	0.3	0.2
NITROGEN.....	1.3	0.1	1.0
OXYGEN.....	0.0	0.0	0.2
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.0	1.6	1.9
HELIUM.....	0.02	0.00	0.00
HEATING VALUE*.....	999	1153	1133

* 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 15109	INDEX SAMPLE 15166	INDEX SAMPLE 15090
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	IBERIA	JEFFERSON DAVIS	NATCHITOCHES
FIELD.....	JEFFERSON ISLAND	THORNWELL	GROGAN
WELL NAME.....	CLEVELAND DUHON NO. 1	J.M. PETITJEAN NO. 1	MARTIN NO. B-1
LOCATION.....	SEC. 65, T12S, R5E	SEC. 15, T11S, R4W	SEC. 28, T11N, R10W
OWNER.....	C & K PETROLEUM, INC.	ANSCHUTZ CORP.	PHILLIPS PETROLEUM CO.
COMPLETED.....	07/24/77	11/01/76	08/09/76
SAMPLED.....	09/26/77	12/08/77	09/05/77
FORMATION.....	MIOC-SD2	MIOC-	JURA-SMACKOVER
GEOLOGIC PROVINCE CODE..	220	220	230
DEPTH, FEET.....	13592	15744	13282
WELLHEAD PRESSURE, PSIG..	100	5600	8300
OPEN FLOW, MCFD.....	NOT GIVEN	3700	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	84.2	87.3	93.7
ETHANE.....	6.6	6.0	0.1
PROPANE.....	3.2	2.3	0.1
N-BUTANE.....	1.0	0.5	0.1
ISOBUTANE.....	0.9	0.5	0.0
N-PENTANE.....	0.3	0.2	0.1
ISOPENTANE.....	0.3	0.2	0.1
CYCLOPENTANE.....	0.1	TRACE	0.1
HEXANES PLUS.....	0.4	0.3	0.1
NITROGEN.....	1.5	0.1	0.1
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.5	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.1
CARBON DIOXIDE.....	1.0	2.7	5.4
HELIUM.....	0.01	TRACE	TRACE
HEATING VALUE*.....	1170	1118	975

* 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 15143	INDEX SAMPLE 15028	INDEX SAMPLE 15169
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	OUACHITA	PLAQUEMINES	PLAQUEMINES
FIELD.....	CALHOUN	CLAM LAKE	WEST BAY
WELL NAME.....	BRIMBERRY GAS UNIT NO. 1	ORLEANS LEVEE BOARD NO. 1	STATE LEASE 192 "PP" 133
LOCATION.....	SEC. 7, T17N, R1E	' T17S, R15E	LAT 29 07 42 LONG 89 26 2
OWNER.....	MITCHELL ENERGY CORP.	PEL-TEX OIL CO., INC.	GULF ENERGY & MINERALS CO.
COMPLETED.....	04/27/77	06/09/76	05/20/77
SAMPLED.....	11/09/77	06/05/77	12/15/77
FORMATION.....	JURA-CADEVILLE	MIOC-BASAL	PLEI-2MKR SAND
GEOLOGIC PROVINCE CODE...	230	220	220
DEPTH, FEET.....	9580	12390	2484
WELLHEAD PRESSURE, PSIG...	6000	4426	1000
OPEN FLOW, MCFD.....	NOT GIVEN	2700	2400
COMPONENT, MOLE PCT			
METHANE.....	77.2	70.4	99.2
ETHANE.....	8.2	11.4	0.0
PROPANE.....	5.5	8.8	TRACE
N-BUTANE.....	2.5	3.1	0.0
ISOBUTANE.....	1.6	2.8	0.0
N-PENTANE.....	1.0	0.8	0.0
ISOPENTANE.....	1.0	1.2	0.0
CYCLOPENTANE.....	0.1	0.1	0.0
HEXANES PLUS.....	0.7	0.6	0.0
NITROGEN.....	0.6	0.0	0.6
OXYGEN.....	0.1	0.0	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.....	1.5	0.8	0.1
HELIUM.....	0.01	TRACE	TRACE
HEATING VALUE*.....	1335	1464	1005

* 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 15068	INDEX SAMPLE 50 14964	INDEX SAMPLE 51 15161
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	PLAQUEMINES	RAPIDES	ST. JAMES
FIELD.....	WEST DELTA BLOCK 55	NOT GIVEN	LAPICE
WELL NAME.....	STATE LEASE 979 NO. 21	R-1109(312442N0921210.D1)	HAWTHORNE NO. 1
LOCATION.....	OFFSHORE	SEC. 19, T5N, R3E	SEC. 41, T12S, R15E
OWNER.....	CONTINENTAL OIL CO.	U.S. GEOLOGICAL SURVEY	BROCK EXPL. CORP.
COMPLETED.....	11/15/76	NOT GIVEN	04/29/77
SAMPLED.....	08/02/77	04/11/77	11/25/77
FORMATION.....	MIOC-	PLEI-PRAIRIE TERRACE	MIOC-J SAND
GEOLOGIC PROVINCE CODE.....	952	220	220
DEPTH, FEET.....	7764	50	11314
WELLHEAD PRESSURE, PSIG.....	2700	3	3900
OPEN FLOW, MCFO.....	2448	NOT GIVEN	1250
COMPONENT, MOLE PCT			
METHANE.....	94.0	59.8	89.3
ETHANE.....	2.2	0.2	5.1
PROPANE.....	1.3	0.0	1.7
N-BUTANE.....	0.5	0.0	0.4
ISOBUTANE.....	0.4	0.0	0.5
N-PENTANE.....	0.2	0.0	0.2
ISOPENTANE.....	0.1	0.0	0.1
CYCLOPENTANE.....	TRACE	0.0	0.1
HEXANES PLUS.....	0.1	0.0	0.2
NITROGEN.....	0.7	33.6	1.4
OXYGEN.....	TRACE	0.4	0.0
ARGON.....	TRACE	0.5	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	5.4	0.8
HELIUM.....	TRACE	0.02	0.01
HEATING VALUE*.....	1074	609	1098

* 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 52 14958	INDEX SAMPLE 53 14907	INDEX SAMPLE 54 14908
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	ST. MARTIN	TERREBONNE	TERREBONNE
FIELD.....	BAYOU LONG	BAYOU CAPASAW	BAYOU CAPASAW
WELL NAME.....	JEANERETTE L & S NO. 1	CONTINENTAL L&F CO. A NO. 1	CONTINENTAL L&F CO. A NO. 1
LOCATION.....	SEC. 12, T13S, R11E	SEC. 18, T18S, R15E	SEC. 18, T18S, R15E
OWNER.....	CHEVRON OIL CO.	SOUTHPORT EXPLORATION, INC.	SOUTHPORT EXPLORATION, INC.
COMPLETED.....	01/29/76	03/--/76	03/--/76
SAMPLED.....	03/28/77	02/17/77	02/17/77
FORMATION.....	MIOC-14900 SAND	MIOC-	MIOC-TEXTULARIAN
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	13966	10188	8617
WELLHEAD PRESSURE, PSIG...	5400	3500	3300
OPEN FLOW, MCFD.....	3500	2000	500
COMPONENT, MOLE PCT			
METHANE.....	84.2	96.9	94.9
ETHANE.....	2.3	1.7	2.6
PROPANE.....	0.8	0.3	1.0
N-BUTANE.....	0.3	TRACE	0.2
ISOBUTANE.....	0.3	0.1	0.2
N-PENTANE.....	0.2	TRACE	TRACE
ISOPENTANE.....	TRACE	TRACE	0.1
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	0.1	TRACE	0.1
NITROGEN.....	8.7	0.6	0.7
OXYGEN.....	2.0	0.0	0.0
ARGON.....	0.1	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.9	0.3	0.2
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	949	1023	1060

* 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 15091	INDEX SAMPLE 15020	INDEX SAMPLE 15012
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	TERREBONNE	UNION	VERMILION
FIELD.....	CAILLOU ISLAND	HONROE	TIGRE LAGOON
WELL NAME.....	STATE LEASE 188 NO. 645	LITTLE NO. 1	EDNA DELCEMBRE NO. 1
LOCATION.....	TIMBALIER BAY, T23S, R20E	SEC. 23, T22N, R2E	8 MI. S. OF DELCMBRE
OWNER.....	TEXACO INC.	ERGON INC.	GEOTHERMIC RESOURCES
COMPLETED.....	11/09/76	02/03/77	05/--/77
SAMPLED.....	09/07/77	06/10/77	05/29/77
FORMATION.....	MIOC-X SAND	CRET-SARATOGA	MIOC-PLANULINA
GEOLOGIC PROVINCE CODE...	952	230	220
DEPTH, FEET.....	19970	2130	12870
WELLHEAD PRESSURE, PSIG...	12000	500	5600
OPEN FLOW, MCFD.....	NOT GIVEN	40	250
COMPONENT, MOLE PCT			
METHANE.....	77.7	89.6	93.4
ETHANE.....	6.3	0.7	2.6
PROPANE.....	5.0	0.2	0.8
N-BUTANE.....	3.3	0.1	0.2
ISOBUTANE.....	2.1	0.1	0.3
N-PENTANE.....	1.1	TRACE	0.1
ISOPENTANE.....	1.3	TRACE	0.1
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.9	0.1	0.1
NITROGEN.....	0.2	9.1	0.5
OXYGEN.....	0.0	TRACE	0.1
ARGON.....	0.0	0.1	0.1
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.9	0.0	0.0
HELIUM.....	TRACE	TRACE	1.8
HEATING VALUE*.....	1364	937	1044

* 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 14970	INDEX SAMPLE 14961	INDEX SAMPLE 14971
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	WINN	WINN	WINN
FIELD.....	HICKORY VALLEY	HICKORY VALLEY N	HICKORY VALLEY NE
WELL NAME.....	LOUISIANA-PACIFIC B NO. 1	HERRING NO. 1	MORRIS EST. & BOZEMAN NO. 1
LOCATION.....	SEC. 10, T12N, R1E	SEC. 33, T13N, R1E	SEC. 2, T12N, R1E
OWNER.....	TRIDENT OIL & GAS CORP.	JUSTISS-MEARS OIL CO.	TRIDENT OIL & GAS CORP.
COMPLETED.....	12/15/75	07/16/76	05/21/76
SAMPLED.....	04/18/77	04/06/77	04/18/77
FORMATION.....	EOCE-WILCOX	EOCE-WILCOX	EOCE-WILCOX
GEOLOGIC PROVINCE CODE...	230	230	230
DEPTH, FEET.....	2007	2050	2136
WELLHEAD PRESSURE, PSIG...	855	800	920
OPEN FLOW, MCFD.....	1000	250	1000
COMPONENT, MOLE PCT			
METHANE.....	97.7	97.1	97.3
ETHANE.....	0.2	0.1	0.1
PROPANE.....	0.1	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.....	1.9	2.5	2.3
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.....	0.1	0.1	0.2
HELIUM.....	0.03	0.03	0.03
HEATING VALUE*.....	996	988	987

* 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 14988	INDEX SAMPLE 14995	INDEX SAMPLE 15160
STATE.....	LOUISIANA	LOUISIANA	MICHIGAN
PARISH.....	WINN	WINN	GRAND TRAVERSE
FIELD.....	WILDCAT	WILDCAT	BLAIR 21
WELL NAME.....	BODCAW NO. 1	BODCAW NO. 1	STATE-BLAIR NO 2-21A
LOCATION.....	SEC. 30, T12N, R4W	SEC. 30, T12N, R4W	SEC. 21, T26N, R11W
OWNER.....	GETTY OIL CO.	GETTY OIL CO.	NORTHERN MICHIGAN EXPL.
COMPLETED.....	12/31/76	12/31/76	02/04/77
SAMPLED.....	04/29/77	05/11/77	11/28/77
FORMATION.....	CRET-HOSSTON	CRET-SLIGO	SILU-NIAGARAN
GEOLOGIC PROVINCE CODE...	230	230	305
DEPTH, FEET.....	9081	8413	5533
WELLHEAD PRESSURE, PSIG...	2900	3400	2519
OPEN FLOW, MCFD.....	1500	1650	5825
COMPONENT, MOLE PCT			
METHANE.....	94.2	77.3	84.4
ETHANE.....	0.2	1.1	7.4
PROPANE.....	0.1	0.9	3.2
N-BUTANE.....	0.0	1.2	1.0
ISOBUTANE.....	0.0	0.9	1.2
N-PENTANE.....	0.0	0.6	0.5
ISOPENTANE.....	0.0	0.8	0.3
CYCLOPENTANE.....	0.0	0.1	0.1
HEXANES PLUS.....	0.0	0.5	0.6
NITROGEN.....	2.4	6.4	1.3
OXYGEN.....	0.0	0.1	TRACE
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	3.1	10.1	TRACE
HELIUM.....	0.06	0.05	0.04
HEATING VALUE*.....	960	986	1213

* 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 64 15059	INDEX SAMPLE 65 15080	INDEX SAMPLE 66 15081
STATE.....	MICHIGAN	MICHIGAN	MICHIGAN
COUNTY.....	GRAND TRAVERSE	LAPEER	LAPEER
FIELD.....	WHITewater	RICH	RICH
WELL NAME.....	STATE WHITEWATER-E NO. 1	COOPER CONSOLIDATED NO. 1	RANDALL NO. 2
LOCATION.....	SEC. 22, T27N, R9W	SEC. 27, T10N, R10E	SEC. 27, T10N, R10E
OWNER.....	AMOCO PRODUCTION CO.	MID-STATE OIL & GAS CO.	MID-STATE OIL & GAS CO.
COMPLETED.....	10/05/76	--/--/75	--/--/74
SAMPLED.....	07/18/77	08/25/77	08/25/77
FORMATION.....	SILU-NIAGARAN	MISS-BEREA	DEV0-DETROIT RIVER
GEOLOGIC PROVINCE CODE...	305	305	305
DEPTH, FEET.....	6172	1500	3000
WELLHEAD PRESSURE, PSIG...	2440	720	980
OPEN FLOW, MCFD.....	5500	260	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	86.1	71.9	59.7
ETHANE.....	6.8	5.8	13.5
PROPANE.....	3.0	1.9	6.4
N-BUTANE.....	0.9	0.4	1.8
ISOBUTANE.....	1.1	0.1	0.6
N-PENTANE.....	0.2	TRACE	0.4
ISOPENTANE.....	0.3	0.1	0.3
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.2	TRACE	0.2
NITROGEN.....	1.2	19.4	0.2
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	13.0
CARBON DIOXIDE.....	0.1	TRACE	3.9
HELIUM.....	0.02	0.38	0.03
HEATING VALUE*.....	1171	903	1217

* 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 15032	INDEX SAMPLE 15084	INDEX SAMPLE 15085
STATE.....	MICHIGAN	MICHIGAN	MICHIGAN
COUNTY.....	MANISTEE	OTSEGO	OTSEGO
FIELD.....	CLEON 19-24N-13W	CHESTER TOWNSHIP	CHESTER TOWNSHIP
WELL NAME.....	STATE-CLEON NO. 1-19	STATE CHESTER NO. N-1	STATE CHESTER NO. 1
LOCATION.....	SEC. 19, T24N, R13W	SEC. 15, T29N, R2W	SEC. 15, T29N, R2W
OWNER.....	MILLER BROTHERS	MURELL L. WELCH	MURELL L. WELCH
COMPLETED.....	NOT GIVEN	--/--/70	--/--/68
SAMPLED.....	06/17/77	08/29/77	08/29/77
FORMATION.....	SILU-NIAGARAN	SILU-NIAGARAN	DEVO-ANTRIM
GEOLOGIC PROVINCE CODE...	305	305	305
DEPTH, FEET.....	5073	6500	1500
WELLHEAD PRESSURE, PSIG...	2266	2800	400
OPEN FLOW, WCFD.....	5500	50	200
COMPONENT, MOLE PCT			
METHANE.....	83.2	83.7	91.9
ETHANE.....	8.0	8.3	0.6
PROPANE.....	3.7	3.5	0.3
N-BUTANE.....	1.1	1.0	0.0
ISOBUTANE.....	1.1	1.2	0.0
N-PENTANE.....	0.3	0.3	0.0
ISOPENTANE.....	0.3	0.4	0.0
CYCLOPENTANE.....	TRACE	TRACE	0.0
HEXANES PLUS.....	0.2	0.2	0.0
NITROGEN.....	1.8	1.1	0.3
OXYGEN.....	0.0	0.1	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.3	0.0
HELIUM.....	0.04	0.01	6.9
HEATING VALUE*.....	1192	1202	TRACE
			949

* 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 14956	INDEX SAMPLE 71 14975	INDEX SAMPLE 72 15035
STATE.....	MISSISSIPPI	MISSISSIPPI	MISSISSIPPI
COUNTY.....	JEFFERSON DAVIS	MONROE	WALTHALL
FIELD.....	BASSFIELD	CORINNE	TYLERTOWN
WELL NAME.....	G. L. DEEN NO. 1	SELF NO. 12-1	MITCHELL-LAIRD NO. 1
LOCATION.....	SEC. 27, T7N, R17W	SEC. 12, T16S, R19W	SEC. 26, T2N, R11E
OWNER.....	SUN OIL CO.	CLEARY PETROLEUM CO.	FLORIDA GAS EXPL. CO.
COMPLETED.....	12/15/76	NOT GIVEN	03/28/77
SAMPLED.....	04/02/77	04/13/77	06/23/77
FORMATION.....	CRET-HOSSON & BOOTH	MISS-CARTER	CRET-PALUXY
GEOLOGIC PROVINCE CODE...	210	200	210
DEPTH, FEET.....	16143	5010	12698
WELLHEAD PRESSURE, PSIG...	5200	1150	3200
OPEN FLOW, MCFD.....	10500	4000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	93.5	88.0	95.8
ETHANE.....	0.3	6.3	0.2
PROPANE.....	0.1	2.2	0.1
N-BUTANE.....	0.1	0.7	0.0
ISOBUTANE.....	TRACE	0.4	0.0
N-PENTANE.....	0.1	0.2	0.0
ISOPENTANE.....	TRACE	0.3	0.0
CYCLOPENTANE.....	TRACE	0.1	0.0
HEXANES PLUS.....	0.1	0.2	0.0
NITROGEN.....	1.5	1.3	0.0
OXYGEN.....	0.0	0.0	1.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	4.1	0.2	0.0
HELIUM.....	0.03	0.08	3.0
HEATING VALUE*.....	968	1134	0.03
			977

* 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 14915	INDEX SAMPLE 14943	INDEX SAMPLE 14887
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	BLAINE	CHOUTEAU	LIBERTY
FIELD.....	LEROY	BULLWACKER	KEITH E
WELL NAME.....	GEORGE BLEHA NO. 1	HENDERSON NO. 5-27	GUNDERSON NO. 13-34
LOCATION.....	SEC. 11, T24N, R18E	SEC. 27, T27N, R17E	SEC. 34, T37N, R6E
OWNER.....	GUTHRIE OIL & GAS CO.	MONTANA POWER CO.	MONTANA POWER CO.
COMPLETED.....	10/07/76	09/03/76	NOT GIVEN
SAMPLED.....	02/18/77	03/16/77	01/22/77
FORMATION.....	CRET-EAGLE	CRET-EAGLE	JURA-SAWTOOTH
GEOLOGIC PROVINCE CODE...	395	500	500
DEPTH, FEET.....	1530	2365	3150
WELLHEAD PRESSURE, PSIG...	406	436	1177
OPEN FLOW, MCFD.....	2875	2000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	94.7	85.2	97.3
ETHANE.....	0.3	2.8	0.2
PROPANE.....	TRACE	1.5	TRACE
N-BUTANE.....	0.0	0.4	TRACE
ISOBUTANE.....	0.0	0.3	0.0
N-PENTANE.....	0.0	0.1	TRACE
ISOPENTANE.....	0.0	0.2	TRACE
CYCLOPENTANE.....	0.0	TRACE	TRACE
HEXANES PLUS.....	0.0	0.1	TRACE
NITROGEN.....	4.8	9.3	1.3
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	TRACE	0.9
HELIUM.....	0.07	0.10	0.05
HEATING VALUE*.....	965	994	989

* 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 14948	INDEX SAMPLE 14978	INDEX SAMPLE 15041
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	TOOLE	TOOLE	TOOLE
FIELD.....	CUT BANK	KEVIN SUNBURST	WHITLASH
WELL NAME.....	YULE NO. 11-20-36-4	LEONARD BASHOR NO. 1	JOHNSON NO. 31-26
LOCATION.....	SEC. 20, T36N, R4W	SEC. 34, T35N, R1W	SEC. 26, T37N, R3E
OWNER.....	MONTANA POWER CO.	ENERGY RESERVES GROUP	FULTON PRODUCING CO.
COMPLETED.....	02/08/77	01/10/76	07/27/76
SAMPLED.....	03/18/77	04/19/77	06/22/77
FORMATION.....	CRET-CUT BANK	DEVO-NISKU	CRET-SUNBURST
GEOLOGIC PROVINCE CODE.....	500	500	500
DEPTH, FEET.....	2790	2885	2692
WELLHEAD PRESSURE, PSIG.....	207	979	826
OPEN FLOW, MCFD.....	2050	1600	3000
COMPONENT, MOLE PCT			
METHANE.....	87.0	82.2	81.1
ETHANE.....	2.3	6.3	1.5
PROPANE.....	1.5	2.1	0.6
N-BUTANE.....	0.7	0.8	0.3
ISOBUTANE.....	0.3	0.1	0.1
N-PENTANE.....	0.2	0.3	0.1
ISOPENTANE.....	0.2	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	0.8	5.8	13.2
OXYGEN.....	0.0	0.0	2.2
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	6.8	2.0	0.4
HELIUM.....	0.03	0.14	0.06
HEATING VALUE*.....	1017	1053	891

* 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 79 15121	INDEX SAMPLE 80 15127	INDEX SAMPLE 81 15049
STATE.....	NEVADA	NEVADA	NEW MEXICO
COUNTY.....	WASHOE	WASHOE	CHAVES
FIELD.....	PYRAMID LAKE	PYRAMID LAKE	WILDCAT
WELL NAME.....	GAS SEEP	AUGER HOLE	UNION FEDERAL NO. 1
LOCATION.....	NW OF TRUKEE R DELTA	SEC. 22, T23N, R23E	SEC. 1, T8S, R31E
OWNER.....	BUREAU OF RECLAMATION	BUREAU OF RECLAMATION	HOLLY ENERGY, INC.
COMPLETED.....	NOT GIVEN	NOT GIVEN	11/01/75
SAMPLED.....	10/17/77	10/19/77	07/06/77
FORMATION.....	NOT GIVEN	QUAT-	MISS-
GEOLOGIC PROVINCE CODE.....	620	620	430
DEPTH, FEET.....	NOT GIVEN	45	9542
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	2750
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	96.8	95.6	68.9
ETHANE.....	0.0	0.0	13.1
PROPANE.....	TRACE	TRACE	8.0
N-BUTANE.....	0.0	0.0	2.9
ISOBUTANE.....	0.0	0.0	1.8
N-PENTANE.....	0.0	0.0	0.6
ISOPENTANE.....	0.0	0.0	1.6
CYCLOPENTANE.....	0.0	0.0	0.2
HEXANES PLUS.....	0.0	0.0	0.6
NITROGEN.....	2.2	3.2	1.8
OXYGEN.....	0.0	0.1	0.0
ARGON.....	0.1	0.1	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.9	1.0	0.5
HELIUM.....	TRACE	TRACE	0.05
HEATING VALUE*.....	981	968	1431

* 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 15047	INDEX SAMPLE 15156	INDEX SAMPLE 14882
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	EDDY	LEA	RIO ARRIBA
FIELD.....	WILLOW LAKE	PEARL N	BLANCO
WELL NAME.....	WILLOW LAKE UNIT NO. 1	HENRY RECORD NO. 1	SAN JUAN 29-6 UNIT NO. 4A
LOCATION.....	SEC. 22, T24N, R28E	SEC. 26, T19S, R35E	SEC. 17, T29N, R6W
OWNER.....	AMINOIL U.S.A., INC.	DORCHESTER EXPLORATION, INC.	NORTHWEST PIPELINE CORP.
COMPLETED.....	01/16/76	11/13/74	10/05/76
SAMPLED.....	07/07/77	11/--/77	12/28/76
FORMATION.....	PENN-ATOKA	PENN-MORROW	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE...	430	430	580
DEPTH, FEET.....	11680	12529	5068
WELLHEAD PRESSURE, PSIG...	4200	3955	724
OPEN FLOW, MCFD.....	34997	3846	12911
COMPONENT, MOLE PCT			
METHANE.....	95.2	82.6	84.7
ETHANE.....	2.8	8.3	8.7
PROPANE.....	0.5	4.3	3.5
N-BUTANE.....	0.2	1.4	0.8
ISOBUTANE.....	TRACE	0.7	0.6
N-PENTANE.....	0.1	0.3	0.2
ISOPENTANE.....	0.1	0.7	0.2
CYCLOPENTANE.....	TRACE	0.2	TRACE
HEXANES PLUS.....	0.1	0.4	0.1
NITROGEN.....	0.7	0.8	0.4
OXYGEN.....	0.0	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.....	0.4	0.3	0.7
HELIUM.....	0.01	0.03	0.01
HEATING VALUE*.....	1048	1239	1174

* 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 14881	INDEX SAMPLE 86 14883	INDEX SAMPLE 87 15142
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARRIBA	SAN JUAN	SAN JUAN
FIELD.....	GAVILAN	BLANCO	BLANCO MESAVERDE
WELL NAME.....	JICARILLA 93 NO. 5	COX CANYON UNIT NO. 1A	YAGER NO. 2
LOCATION.....	SEC. 34, T27N, R3W	SEC. 16, T32N, R11W	SEC. 20, T32N, R6W
OWNER.....	NORTHWEST PIPELINE CORP.	NORTHWEST PIPELINE CORP.	PALMER OIL & GAS CO.
COMPLETED.....	11/19/75	09/07/76	11/01/77
SAMPLED.....	12/28/76	01/05/77	11/09/77
FORMATION.....	CRET-PICTURED CLIFFS	CRET-MESAVERDE	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE...	580	580	580
DEPTH, FEET.....	3922	5160	6000
WELLHEAD PRESSURE, PSIG...	949	831	1000
OPEN FLOW, MCFD.....	2088	10392	3500
COMPONENT, MOLE PCT			
METHANE.....	83.7	86.4	96.4
ETHANE.....	8.6	8.3	1.3
PROPANE.....	3.9	2.2	0.2
N-BUTANE.....	0.9	0.5	0.0
ISOBUTANE.....	0.7	0.4	0.0
N-PENTANE.....	0.2	0.1	0.0
ISOPENTANE.....	0.3	0.2	0.0
CYCLOPENTANE.....	0.1	TRACE	0.0
HEXANES PLUS.....	0.2	0.1	0.0
NITROGEN.....	1.1	0.2	0.5
OXYGEN.....	TRACE	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.....	0.1	1.6	1.6
HELIUM.....	0.04	0.01	0.01
HEATING VALUE*.....	1192	1129	1005

* 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 88 15122	INDEX SAMPLE 89 15168	INDEX SAMPLE 90 15151
STATE.....	NEW MEXICO	NEW YORK	NEW YORK
COUNTY.....	SAN JUAN	CATTARAUGUS	CHAUTAUQUA
FIELD.....	TOCITO DOME	NOT GIVEN	WILDCAT
WELL NAME.....	NAVAJO-TOCITO NO. 3	GAS SEEP IN LAKE	SIMMENTAL NO. 1
LOCATION.....	SEC. 9, T26N, R18W	ELLICOTTVILLE QUADRANGLE	PANAMA (I)
OWNER.....	MOBIL OIL CORP.	BOB WESTFALL	BOUNTY OIL & GAS CO.
COMPLETED.....	NOT GIVEN	NOT GIVEN	10/26/77
SAMPLED.....	10/06/77	12/03/77	11/18/77
FORMATION.....	PENN-D	NOT GIVEN	SILU-GRIMSBY
GEOLOGIC PROVINCE CODE.....	580	160	160
DEPTH, FEET.....	6414	NOT GIVEN	4366
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	73
COMPONENT, MOLE PCT			
METHANE.....	60.0	76.4	90.8
ETHANE.....	5.8	0.0	3.1
PROPANE.....	1.9	TRACE	0.4
N-BUTANE.....	0.5	0.0	0.1
ISOBUTANE.....	0.2	0.0	TRACE
N-PENTANE.....	0.2	0.0	TRACE
ISOPENTANE.....	0.1	0.0	0.1
CYCLOPENTANE.....	0.1	0.0	TRACE
HEXANES PLUS.....	0.2	0.0	0.1
NITROGEN.....	25.9	2.0	5.2
OXYGEN.....	0.0	1.0	0.0
ARGON.....	0.3	0.1	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	3.4	20.6	TRACE
HELIUM.....	1.47	TRACE	0.14
HEATING VALUE*.....	811	774	998

* 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 15162	INDEX SAMPLE 15050	INDEX SAMPLE 14940
STATE.....	NEW YORK	OHIO	OKLAHOMA
COUNTY.....	STEBEN	COLUMBIANA	BEAVER
FIELD.....	CORNING N	ADAIR	MOCAINE-LAVERNE
WELL NAME.....	SARA CASS NO. 1	ELLYSON NO. 1	ROCK NO. 1
LOCATION.....	CORNING QUADRANGLE	SEC. 19, HANOVER TWP.	SEC. 36, T 4N, R22ECM
OWNER.....	J.V.P. EXPLORATION	POMINEX, INC.	ARGONAUT ENERGY CORP.
COMPLETED.....	11/23/77	08/17/76	09/01/76
SAMPLED.....	11/23/77	07/01/77	03/17/77
FORMATION.....	DEVO-ORISKANY	SILU-CLINTON	PENN-MORROW
GEOLOGIC PROVINCE CODE...	160	160	360
DEPTH, FEET.....	3620	5708	6900
WELLHEAD PRESSURE, PSIG...	1728	1400	818
OPEN FLOW, MCFD.....	13300	2400	2132
COMPONENT, MOLE PCT			
METHANE.....	96.7	92.9	92.7
ETHANE.....	2.4	2.9	3.3
PROPANE.....	0.1	0.4	1.4
N-BUTANE.....	0.0	0.2	0.5
ISOBUTANE.....	0.0	0.0	0.2
N-PENTANE.....	0.0	TRACE	0.2
ISOPENTANE.....	0.0	0.1	0.3
CYCLOPENTANE.....	0.0	TRACE	0.1
HEXANES PLUS.....	0.0	0.1	0.2
NITROGEN.....	0.6	3.3	0.7
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.....	0.1	0.1	0.4
HELIUM.....	0.03	0.00	0.08
HEATING VALUE*.....	1025	1020	1093

* 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 15101	INDEX SAMPLE 14941	INDEX SAMPLE 14992
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	BEAVER	BEAVER	BECKHAM
FIELD.....	MOCANE-LAVERNE	UNION STAR N	MAYFIELD W
WELL NAME.....	HENNIGH-LOTSPEICH NO. 1	DRUM NO. 1-21	GREEN ESTATE NO. 1
LOCATION.....	SEC. 15, T6N, R28ECM	SEC. 21, T 3N, R23ECM	SEC. 29, T10N, R26W
OWNER.....	AMERICAN PETROFINA CO.	NATURAL GAS ANADARKO, INC.	CONTINENTAL OIL CO.
COMPLETED.....	06/11/77	08/05/76	12/--/76
SAMPLED.....	09/13/77	03/17/77	04/28/77
FORMATION.....	MISS-CHESTER	MISS-CHESTER	DEVO-HUNTON
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	5818	7265	18192
WELLHEAD PRESSURE, PSIG...	1779	1046	6900
OPEN FLOW, MCFD.....	4592	2294	34000
COMPONENT, MOLE PCT			
METHANE.....	90.4	89.8	96.7
ETHANE.....	4.8	4.4	1.1
PROPANE.....	2.0	2.3	0.2
N-BUTANE.....	0.6	0.8	0.1
ISOBUTANE.....	0.3	0.2	TRACE
N-PENTANE.....	0.2	0.2	TRACE
ISOPENTANE.....	0.2	0.3	0.1
CYCLOPENTANE.....	0.1	0.1	TRACE
HEXANES PLUS.....	0.2	0.2	0.1
NITROGEN.....	0.9	1.2	0.8
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	U.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.4	0.9
HELIUM.....	0.08	0.12	0.02
HEATING VALUE*.....	1115	1117	1017

* 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 14929	INDEX SAMPLE 14953	INDEX SAMPLE 15100
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	BECKHAM	BLAINE	BLAINE
FIELD.....	WILDCAT	GEARY W	THOMAS E
WELL NAME.....	HARRISON ESTATE NO. 1	GROENDYKE HALL NO. 1	TWIN WOMAN NO. 1
LOCATION.....	SEC. 14, T10N, R21W	SEC. 10, T13N, R12W	SEC. 29, T18N, R13W
OWNER.....	EL PASO NATURAL GAS CO.	WOODS PETROLEUM CORP.	ST. JOE PETROLEUM CORP.
COMPLETED.....	04/18/76	08/23/76	NOT GIVEN
SAMPLED.....	03/03/77	03/24/77	09/12/77
FORMATION.....	PENN-MORROW	PENN-MORROW	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	15816	11677	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	11328	4740	5614
OPEN FLOW, MCFD.....	4575	4295	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	95.3	88.7	89.6
ETHANE.....	2.9	6.3	5.8
PROPANE.....	0.5	2.4	2.0
N-BUTANE.....	0.1	0.4	0.4
ISOBUTANE.....	TRACE	0.4	0.3
N-PENTANE.....	TRACE	0.2	0.2
ISOPENTANE.....	0.1	0.1	0.1
CYCLOPENTANE.....	TRACE	0.2	0.2
HEXANES PLUS.....	TRACE	0.4	0.5
NITROGEN.....	0.2	0.0	0.0
OXYGEN.....	0.0	TRACE	TRACE
ARGON.....	TRACE	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.9	0.8	0.5
HELIUM.....	0.02	0.03	0.03
HEATING VALUE.....	1038	1127	1114

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

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

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

	INDEX 100 SAMPLE 15112	INDEX 101 SAMPLE 14947	INDEX 102 SAMPLE 14949
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CADDO	CADDO	CADDO
FIELD.....	BRIDGEPORT	SCOTT	SCOTT
WELL NAME.....	RANDAL FOSTER NO. 1	SHOOK NO. 1	SAH-HAH-NIN NO. 1
LOCATION.....	SEC. 11, T12N, R12W	SEC. 6, T9N, R9W	SEC. 31, T10N, R9W
OWNER.....	DAVIS OIL CO.	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.
COMPLETED.....	07/--/77	10/01/76	12/08/76
SAMPLED.....	09/16/77	03/24/77	03/24/77
FORMATION.....	PENN-SPRINGER	PENN-MORROW & SPRINGER	PENN-MORROW & SPRINGER
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	12950	12941	13184
WELLHEAD PRESSURE, PSIG...	5600	6587	8600
OPEN FLOW, MCFD.....	1275	200000	640000
COMPONENT, MOLE PCT			
METHANE.....	97.4	92.3	96.8
ETHANE.....	1.0	4.6	1.7
PROPANE.....	0.2	1.3	0.3
N-BUTANE.....	0.0	0.2	0.0
ISOBUTANE.....	0.0	0.1	0.0
N-PENTANE.....	0.0	TRACE	0.0
ISOPENTANE.....	0.0	0.1	0.0
CYCLOPENTANE.....	0.0	TRACE	0.0
HEXANES PLUS.....	0.0	0.1	0.0
NITROGEN.....	0.2	0.3	0.0
OXYGEN.....	0.0	0.0	0.2
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.1	0.9	1.0
HELIUM.....	0.02	0.02	0.02
HEATING VALUE.....	1010	1071	1019

* 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 15027	INDEX 104 SAMPLE 15082	INDEX 105 SAMPLE 15042
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CANADIAN	CANADIAN	CANADIAN
FIELD.....	FORT RENO S	RICHLAND N	RICHLAND NW
WELL NAME.....	CRYSTAL BARNHART NO. 27-1	MCLAIN NO. 1	SMITH NO. 1
LOCATION.....	SEC. 27, T12N, R8W	SEC. 14, T13N, R 6W	SEC. 18, T13N, R6W
OWNER.....	JONES & PELLOW OIL CO.	R.P. LAMMERTS OIL CO.	MACK OIL CO.
COMPLETED.....	10/18/76	08/13/76	06/10/77
SAMPLED.....	06/77/77	08/26/77	06/29/77
FORMATION.....	PENN-RED FORK	DEVO-HUNTON	MISS-DEVO-BOIS DARC&SILU-
GEOLOGIC PROVINCE CODE.....	360	360	360
DEPTH, FEET.....	9680	8336	8807
WELLHEAD PRESSURE, PSIG.....	2264	2700	2700
OPEN FLOW, MCFD.....	277	500000	5283
COMPONENT, MOLE PCT			
METHANE.....	84.3	41.1	81.1
ETHANE.....	7.4	23.2	11.2
PROPANE.....	3.4	18.4	4.1
N-BUTANE.....	0.6	8.5	1.2
ISOBUTANE.....	0.2	2.9	0.4
N-PENTANE.....	0.2	2.1	0.4
ISOPENTANE.....	0.2	0.2	0.2
CYCLOPENTANE.....	0.1	0.2	0.1
HEXANES PLUS.....	0.1	0.9	0.2
NITROGEN.....	2.4	0.0	0.6
OXYGEN.....	0.5	0.0	TRACE
ARGON.....	TRACE	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	0.4	0.4
HELIUM.....	0.03	TRACE	0.03
HEATING VALUE*.....	1128	1932	1222

* 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 106 15096	INDEX SAMPLE 107 15133	INDEX SAMPLE 108 14968
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	CANADIAN	CIMARRON	CIMARRON
FIELD.....	WATONGA TREND	KEYES	RICE SW
WELL NAME.....	CANYON CAMP UNIT NO. 1	M.B. ROSS NO. 3	SMALTS NO. 1-A
LOCATION.....	SEC. 19, T11N, R10W	SEC. 28, T5N, R9ECM	SEC. 12, T2N, R9ECM
OWNER.....	DONALD C. SLAWSON	ASHLAND EXPLORATION, INC.	ARGONAUT ENERGY CORP.
COMPLETED.....	07/15/77	06/24/77	01/12/77
SAMPLED.....	09/10/77	11/02/77	04/19/77
FORMATION.....	PENN-SPRINGER	PENN-LANSING	PENN-MORROW
GEOLOGIC PROVINCE CODE...	360	435	435
DEPTH, FEET.....	11992	3190	4524
WELLHEAD PRESSURE, PSIG...	6800	356	1090
OPEN FLOW, MCFD.....	NOT GIVEN	800	52500
COMPONENT, MOLE PCT			
METHANE.....	76.5	56.9	73.6
ETHANE.....	9.4	6.3	5.1
PROPANE.....	3.2	3.4	2.7
N-BUTANE.....	0.7	0.9	1.0
ISOBUTANE.....	0.6	0.3	0.4
N-PENTANE.....	0.2	0.2	0.2
ISOPENTANE.....	0.3	0.2	0.4
CYCLOPENTANE.....	0.2	TRACE	0.1
HEXANES PLUS.....	0.5	0.1	0.2
NITROGEN.....	6.2	30.6	15.6
OXYGEN.....	1.5	TRACE	0.0
ARGON.....	0.1	0.1	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	0.1	0.1
HELIUM.....	0.03	0.92	0.59
HEATING VALUE*.....	1125	840	994

* 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 15017	INDEX 110 SAMPLE 15014	INDEX 111 SAMPLE 15015
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	COMANCHE	COMANCHE	COMANCHE
FIELD.....	LAWTON	STERLING W	STERLING W
WELL NAME.....	WATSON NO. B-2	W.S. SANDERS NO. 10-1	HARDZOG NO. 15-1
LOCATION.....	SEC. 16, T2N, R10W	SEC. 10, T3N, R10W	SEC. 15, T3N, R10W
OWNER.....	OUACHITA EXPLORATION, INC.	WOODS PETROLEUM CORP.	WOODS PETROLEUM CORP.
COMPLETED.....	NOT GIVEN	01/13/77	02/04/77
SAMPLED.....	04/14/77	05/10/77	05/10/77
FORMATION.....	NOT GIVEN	PENN-SPRINGER	PENN-SPRINGER
GEOLOGIC PROVINCE CODE...	350	350	350
DEPTH, FEET.....	NOT GIVEN	5684	7260
WELLHEAD PRESSURE, PSIG...	360	2412	2415
OPEN FLOW, MCFD.....	250	35622	41399
COMPONENT, MOLE PCT			
METHANE.....	84.3	93.0	93.4
ETHANE.....	4.8	3.6	3.7
PROPANE.....	1.9	1.1	1.2
N-BUTANE.....	0.6	0.3	0.3
ISOBUTANE.....	0.2	0.1	0.1
N-PENTANE.....	0.2	0.2	0.1
ISOPENTANE.....	0.1	0.1	0.1
CYCLOPENTANE.....	TRACE	0.1	0.1
HEXANES PLUS.....	0.1	0.2	0.2
NITROGEN.....	6.5	1.1	0.7
OXYGEN.....	1.0	0.0	0.0
ARGON.....	0.1	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	0.1
HELIUM.....	0.06	0.05	0.05
HEATING VALUE**.....	1034	1075	1080

* 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 14950	INDEX 113 SAMPLE 14889	INDEX 114 SAMPLE 14959
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	DEWEY	DEWEY	DEWEY
FIELD.....	LEEDEY N	LEEDEY SE	PUTNAM
WELL NAME.....	FARRIS NO. 1	GAMBLE NO. 1	FARRIS NO. 1
LOCATION.....	SEC. 36, T17N, R20W	SEC. 15, T16N, R20W	SEC. 7, T16N, R18W
OWNER.....	WOODS PETROLEUM CORP.	UNION OIL CO. OF CALIFORNIA	WESSELY ENERGY CORP.
COMPLETED.....	12/08/75	05/28/76	04/15/76
SAMPLED.....	03/17/77	01/27/77	04/07/77
FORMATION.....	PENN-RED FORK	DEVO-HUNTON	PENN-COTTAGE GROVE
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	10406	16582	8512
WELLHEAD PRESSURE, PSIG...	2828	4340	2239
OPEN FLOW, MCFD.....	1290	NOT GIVEN	969
COMPONENT, MOLE PCT			
METHANE.....	82.1	94.5	82.1
ETHANE.....	8.9	0.3	9.7
PROPANE.....	4.4	TRACE	4.6
N-BUTANE.....	1.1	0.0	1.1
ISOBUTANE.....	0.7	0.0	0.5
N-PENTANE.....	0.4	0.0	0.3
ISOPENTANE.....	0.5	0.0	0.2
CYCLOPENTANE.....	0.2	0.0	0.1
HEXANES PLUS.....	0.5	0.0	0.2
NITROGEN.....	0.5	2.1	0.9
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	3.0	0.3
HELIUM.....	0.03	0.04	0.07
HEATING VALUE*.....	1237	963	1214

* 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 14960	INDEX SAMPLE 14938	INDEX SAMPLE 14885
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	DEWEY	ELLIS	ELLIS
FIELD.....	PUTNAM	HIGGINS S	SHATTUCK N
WELL NAME.....	FARRIS NO. 1	STATE NO. 1-11	MOGAN NO. 1
LOCATION.....	SEC. 7, T16N, R18W	SEC. 11, T18N, R26W	SEC. 2, T22N, R25W
OWNER.....	WESSELY ENERGY CORP.	HOOVER & BRACKEN, INC.	H & L OPERATING CO.
COMPLETED.....	04/15/76	12/05/76	10/21/76
SAMPLED.....	04/07/77	03/14/77	01/19/77
FORMATION.....	PENN-TONKAWA	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	7883	11829	8744
WELLHEAD PRESSURE, PSIG...	1836	NOT GIVEN	2800
OPEN FLOW, MCFD.....	450	6000	2600
COMPONENT, MOLE PCT			
METHANE.....	81.9	95.1	91.3
ETHANE.....	9.3	2.0	4.5
PROpane.....	4.4	0.3	1.5
N-BUTANE.....	1.1	0.1	0.4
ISOBUTANE.....	0.5	0.1	0.2
N-PENTANE.....	0.3	TRACE	0.1
ISOPENTANE.....	0.2	TRACE	0.2
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	0.1	0.1	0.2
NITROGEN.....	1.5	0.3	0.5
OXYGEN.....	0.1	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.....	0.5	2.0	1.0
HELIUM.....	0.10	0.03	0.04
HEATING VALUE*.....	1191	1019	1091

* 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 118 15083	INDEX SAMPLE 119 14930	INDEX SAMPLE 120 15103
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	GARFIELD	GARVIN	GARVIN
FIELD.....	KREMLIN	BUTTERLY NW	PAULS VALLEY E
WELL NAME.....	THOMPSON NO. 1	MCKINLEY NO. 1	MOODY NO. 1
LOCATION.....	SEC. 1, T24N, R 6W	SEC. 15, T1N, R1E	SEC. 6, T3N, R2E
OWNER.....	R.P. LAMMERTS OIL CO.	WESTHEIMER NEUSTADT CORP.	SHEBESTER, INC.
COMPLETED.....	12/27/76	08/12/76	10/19/76
SAMPLED.....	08/26/77	02/24/77	09/21/77
FORMATION.....	PENN-SKINNER	PENN-HOXBAR	PERM-ADA
GEOLOGIC PROVINCE CODE...	360	350	350
DEPTH, FEET.....	5326	3061	2628
WELLHEAD PRESSURE, PSIG...	800	340	1055
OPEN FLOW, MCFD.....	1250	1200	3500
COMPONENT, MOLE PCT			
METHANE.....	77.0	78.2	80.7
ETHANE.....	7.2	10.2	2.0
PROPANE.....	4.6	4.8	TRACE
N-BUTANE.....	1.5	1.2	0.1
ISOBUTANE.....	0.6	0.4	0.0
N-PENTANE.....	0.4	0.3	0.0
ISOPENTANE.....	0.3	0.2	0.2
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.1
NITROGEN.....	7.8	4.6	16.6
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.....	0.3	TRACE	0.1
HELIUM.....	0.12	0.05	0.15
HEATING VALUE*.....	1143	1180	870

* 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 15003	INDEX SAMPLE 15016	INDEX SAMPLE 14957
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	GRANT	GREER	HARPER
FIELD.....	MAYFLOWER NW	WILLOW NE	BUFFALO SE
WELL NAME.....	PICKETT NO. 1	KOPECEK NO. 1	MAPHET NO. 1
LOCATION.....	SEC. 30, T28N, R3W	SEC. 33, T7N, R22W	SEC. 14, T27N, R22W
OWNER.....	PETROLEUM RESOURCES CO.	THERMO DYNE, INC.	NATIONAL COOP REFINERY ASSN.
COMPLETED.....	12/28/76	NOT GIVEN	06/23/76
SAMPLED.....	05/19/77	06/08/77	03/30/77
FORMATION.....	PENN-RED FORK	PERM-GRANITE WASH	PENN-MORROW & MISS-CHESTER
GEOLOGIC PROVINCE CODE...	360	350	360
DEPTH, FEET.....	4556	1500	6047
WELLHEAD PRESSURE, PSIG...	1288	250	1528
OPEN FLOW, MCFD.....	5479	NOT GIVEN	16442
COMPONENT, MOLE PCT			
METHANE.....	78.5	90.6	94.0
ETHANE.....	6.9	4.2	2.5
PROPANE.....	2.4	1.8	0.7
N-BUTANE.....	0.7	0.6	0.3
ISOBUTANE.....	0.3	0.2	TRACE
N-PENTANE.....	0.3	0.2	0.1
ISOPENTANE.....	0.2	0.2	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.1
NITROGEN.....	10.1	2.0	1.3
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	TRACE	0.5
HELIUM.....	0.16	0.08	0.08
HEATING VALUE*.....	1046	1089	1039

* 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 14952	INDEX 125 SAMPLE 14939	INDEX 126 SAMPLE 14917
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	HASKELL	HUGHES	KAY
FIELD.....	STIGLER W	DUSTIN S	OILWORTH
WELL NAME.....	JOHNSON NO. 1	MCKAY NO. 1-31	GREEL NO. 1
LOCATION.....	SEC. 17, T9N, R20E	SEC. 31, T 9N, R12E	SEC. 6, T28N, R 1E
OWNER.....	SERVICE DRILLING CO.	N.F.C. PETROLEUM CORP.	UNIT OPERATIONS, INC.
COMPLETED.....	10/12/76	11/02/76	07/12/76
SAMPLED.....	03/29/77	03/11/77	02/21/77
FORMATION.....	PENN-SPIRO	PENN-BOOCH	PENN-OSWEGO
GEOLOGIC PROVINCE CODE...	345	355	355
DEPTH, FEET.....	3900	2820	2995
WELLHEAD PRESSURE, PSIG...	1375	454	685
OPEN FLOW, MCFD.....	10310	3401	2398
COMPONENT, MOLE PCT			
METHANE.....	97.0	83.8	76.6
ETHANE.....	1.0	6.3	8.3
PROPANE.....	0.1	2.6	4.0
N-BUTANE.....	0.1	0.6	1.2
ISOBUTANE.....	0.0	0.2	0.4
N-PENTANE.....	0.1	0.2	0.3
ISOPENTANE.....	0.1	0.1	0.2
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	0.1
NITROGEN.....	1.4	4.9	8.5
OXYGEN.....	TRACE	0.6	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.2	0.2
HELIUM.....	0.09	0.09	0.18
HEATING VALUE*.....	1015	1074	1109

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

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

	INDEX 127 SAMPLE 15040	INDEX 128 SAMPLE 14991	INDEX 129 SAMPLE 15055
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	MAJOR	MAJOR	NOBLE
FIELD.....	DANE	FAIRVIEW W	PERRY LAKE S
WELL NAME.....	MARTIN NO. 2-32	EDWARDS NO. 1	MARTIN KNORI "A" NO. 1
LOCATION.....	SEC. 32, T20N, R13W	SEC. 28, T21N, R14W	SEC. 7, T20N, R 1W
OWNER.....	UNIVERSAL RESOURCES CORP.	TEXAS OIL & GAS CORP.	BONRAY DRILLING CO.
COMPLETED.....	11/20/76	08/21/76	10/24/76
SAMPLED.....	06/29/77	05/09/77	07/13/74
FORMATION.....	MISS-CHESTER	PENN-RED FORK	PENN-CAMPBELL
GEOLOGIC PROVINCE CODE...	360	360	355
DEPTH, FEET.....	7919	7264	1835
WELLHEAD PRESSURE, PSIG...	2700	1850	725
OPEN FLOW, MCFD.....	6700	3950	14108
COMPONENT, MOLE PCT			
METHANE.....	91.2	89.2	67.2
ETHANE.....	4.5	4.9	6.3
PROPANE.....	1.9	2.4	3.7
N-BUTANE.....	0.6	0.8	1.2
ISOBUTANE.....	0.2	0.4	0.6
N-PENTANE.....	0.2	0.2	0.4
ISOPENTANE.....	0.1	0.2	0.2
CYCLOPENTANE.....	0.1	TRACE	0.1
HEXANES PLUS.....	0.1	0.2	0.2
NITROGEN.....	0.8	1.1	19.8
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.....	0.3	0.4	0.1
HELIUM.....	0.04	0.07	0.27
HEATING VALUE*.....	1102	1121	990

* 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 15048	INDEX SAMPLE 15062	INDEX SAMPLE 15063
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
FIELD.....	CHOCTAW	EDMOND W	EDMOND W
WELL NAME.....	DARRON "A" NO. 1	SNYDER NO. 1	SNYDER NO. 1
LOCATION.....	SEC. 14, T12N, R1W	SEC. 2, T14N, R4W	SEC. 2, T14N, R4W
OWNER.....	BEARD OIL CO.	CALVERT DRILLING CO.	CALVERT DRILLING CO.
COMPLETED.....	NOT GIVEN	12/--/76	12/--/76
SAMPLED.....	06/29/77	07/28/77	07/28/77
FORMATION.....	PENN-OSWEGO	PENN-PRUE	DEVO-HUNTON
GEOLOGIC PROVINCE CODE...	355	355	355
DEPTH, FEET.....	5570	6180	6400
WELLHEAD PRESSURE, PSIG...	1450	1500	307
OPEN FLOW, MCFD.....	NOT GIVEN	9275	1027
COMPONENT, MOLE PCT			
METHANE.....	84.7	83.5	81.8
ETHANE.....	8.2	8.8	9.6
PROPANE.....	3.3	3.9	4.4
N-BUTANE.....	1.0	1.1	1.5
ISOBUTANE.....	0.3	0.4	0.5
N-PENTANE.....	0.3	0.3	0.5
ISOPENTANE.....	0.2	0.2	0.3
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.2	0.3
NITROGEN.....	1.5	1.4	0.9
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.1	0.2
HELIUM.....	0.05	0.04	0.03
HEATING VALUE.....	1170	1191	1236

* 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 15005	INDEX SAMPLE 14919	INDEX SAMPLE 15070
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	OSAGE	PAWNEE	PITTSBURG
FIELD.....	DOGA	WATCHORN E	FEATHERSTONE
WELL NAME.....	TATE NO. 2120	DOYLE NO. 4	FEATHERSTONE TOWNSITE NO. 1
LOCATION.....	SEC. 17, T24N, R4E	SEC. 36, T23N, R 3E	SEC. 15, T7N, R17E
OWNER.....	CEJA CORP.	JAY PETROLEUM, INC.	OXLEY PETROLEUM CO.
COMPLETED.....	NOT GIVEN	NOT GIVEN	05/06/77
SAMPLED.....	05/12/77	02/25/77	07/27/77
FORMATION.....	MISS-CHAT	PENN-OSWEGO	PENN-HARTSHORNE
GEOLOGIC PROVINCE CODE.....	355	355	345
DEPTH, FEET.....	3415	3200	2372
WELLHEAD PRESSURE, PSIG.....	1300	1380	230
OPEN FLOW, MCFD.....	NOT GIVEN	1559	1639
COMPONENT, MOLE PCT			
METHANE.....	66.3	68.6	95.4
ETHANE.....	8.3	7.3	2.6
PROPANE.....	3.9	3.3	0.3
N-BUTANE.....	1.2	0.9	0.2
ISOBUTANE.....	0.3	0.3	TRACE
N-PENTANE.....	0.3	0.2	0.1
ISOPENTANE.....	0.3	0.3	0.1
CYCLOPENTANE.....	0.1	0.1	TRACE
HEXANES PLUS.....	0.1	0.2	0.1
NITROGEN.....	18.4	18.4	0.5
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.....	0.4	0.2	0.6
HELIUM.....	0.33	0.20	0.04
HEATING VALUE*.....	1007	987	1041

* 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 14999	INDEX SAMPLE 14974	INDEX SAMPLE 14996
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	PITTSBURG	ROGER MILLS	ROGER MILLS
FIELD.....	REAMS NW	CHEYENNE	CHEYENNE W
WELL NAME.....	MCKAY NO. 1-1	ROARK NO. 1	L.L. ROARK UNIT NO. 1
LOCATION.....	SEC. 1, T6N, R13E	SEC. 17, T13N, R24W	SEC. 16, T13N, R24W
OWNER.....	ARKLA EXPLORATION CO.	HOOVER & BRACKEN, INC.	SUN PRODUCTION CO.
COMPLETED.....	08/08/75	10/08/76	12/23/76
SAMPLED.....	05/13/77	04/20/77	05/11/77
FORMATION.....	PENN-CROMWELL	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	345	360	360
DEPTH, FEET.....	5721	15835	15174
WELLHEAD PRESSURE, PSIG.....	1800	5910	10800
OPEN FLOW, MCFD.....	4053	20721	16700
COMPONENT, MOLE PCT			
METHANE.....	95.0	97.3	97.1
ETHANE.....	0.8	0.6	0.6
PROPANE.....	0.1	0.1	0.1
N-BUTANE.....	TRACE	0.0	0.0
ISOBUTANE.....	0.0	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.....	TRACE	0.0	0.0
NITROGEN.....	0.9	0.2	0.2
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.....	2.9	1.8	2.0
HELIUM.....	0.06	0.02	0.02
HEATING VALUE*.....	984	999	997

* 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 15167	INDEX SAMPLE 14987	INDEX SAMPLE 14888
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	ROGER MILLS	STEPHENS	STEPHENS
FIELD.....	MIDWAY	HOPE SW	NEW HOPE
WELL NAME.....	HICKEY NO. 1-32	CLARK NO. 1-15	HINES NO. 1
LOCATION.....	SEC. 32, T15N, R26W	SEC. 15, T1N, R7W	SEC. 16, T1N, R7W
OWNER.....	ARKLA EXPLORATION CO.	TESORO PETROLEUM CORP.	MACK OIL CO.
COMPLETED.....	09/03/77	03/04/77	08/07/76
SAMPLED.....	12/13/77	04/05/77	01/21/77
FORMATION.....	PENN-MORROW	PENN-HOXBAR	PENN-HOXBAR
GEOLOGIC PROVINCE CODE...	360	350	350
DEPTH, FEET.....	14404	9062	9442
WELLHEAD PRESSURE, PSIG...	10100	2762	3225
OPEN FLOW, MCFD.....	3897	14347	3292
COMPONENT, MOLE PCT			
METHANE.....	97.1	90.4	87.9
ETHANE.....	0.7	4.4	5.3
PROPANE.....	0.1	2.2	3.0
N-BUTANE.....	0.0	0.7	0.9
ISOBUTANE.....	0.0	0.2	0.3
N-PENTANE.....	0.0	0.2	0.2
ISOPENTANE.....	0.0	0.1	0.1
CYCLOPENTANE.....	0.0	0.2	0.2
HEXANES PLUS.....	0.0	0.1	0.1
NITROGEN.....	0.2	1.1	1.6
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.....	1.8	0.2	0.2
HELIUM.....	0.02	0.07	0.06
HEATING VALUE*.....	999	1113	1139

* 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 14884	INDEX 143 SAMPLE 15011	INDEX 144 SAMPLE 14927
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	WASHITA	WOODWARD	WOODWARD
FIELD.....	ELK CITY	WILDCAT	WOODWARD N
WELL NAME.....	WILLIE PIERCE NO. 1-A	WEBER NO. 1	PHILLIPS-DUNCAN NO. 1
LOCATION.....	SEC. 36, T10N, R20W	SEC. 24, T21N, R20W	SEC. 29, T23N, R21W
OWNER.....	EL PASO NATURAL GAS CO.	TOM BROWN, INC.	HILLIARD OIL & GAS, INC.
COMPLETED.....	06/15/75	12/09/76	12/18/75
SAMPLED.....	01/12/77	05/27/77	02/26/77
FORMATION.....	PENN-MORROW	PENN-MORROW	ORDO-BROMIDE
GEOLOGIC PROVINCE CODE...	360	360	360
DEPTH, FEET.....	14824	9200	10868
WELLHEAD PRESSURE, PSIG...	11568	2941	3523
OPEN FLOW, MCFD.....	11149	1299	14091
COMPONENT, MOLE PCT			
METHANE.....	95.4	91.4	90.2
ETHANE.....	2.2	4.0	3.1
PROPANE.....	0.4	1.9	1.2
N-BUTANE.....	TRACE	0.6	0.4
ISOBUTANE.....	TRACE	0.2	0.4
N-PENTANE.....	TRACE	0.2	0.2
ISOPENTANE.....	0.1	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	TRACE
HEXANES PLUS.....	TRACE	0.2	0.2
NITROGEN.....	0.9	0.8	3.2
OXYGEN.....	0.2	0.0	0.2
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	0.5	0.7
HELIUM.....	0.02	0.07	0.09
HEATING VALUE*.....	1020	1105	1055

* 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 15036	INDEX SAMPLE 15046	INDEX SAMPLE 147 14951
STATE.....	PENNSYLVANIA	TEXAS	TEXAS
COUNTY.....	WASHINGTON	ANDREWS	BEE
FIELD.....	BELLE VERNON	THREE-BAR	PETTUS SE
WELL NAME.....	HALLIE E. TAYLOR NO. 1	J. E. PARKER NO. 43	J. E. MCKINNEY NO. 2
LOCATION.....	SEC. E, CALIF. QUADRANGLE	SEC. 2, BLK. A-54, PSL SUR.	L. C. RANDOLPH SUR. A-279
OWNER.....	PEOPLES NATURAL GAS CO.	EXXON CO., U.S.A.	HUGHES & HUGHES
COMPLETED.....	10/11/76	11/05/75	06/18/75
SAMPLED.....	06/16/77	06/11/77	03/30/77
FORMATION.....	DEVO-GANTZ	PERM-YATES	EOCE-WILCOX
GEOLOGIC PROVINCE CODE...	160	430	220
DEPTH, FEET.....	2323	2884	8750
WELLHEAD PRESSURE, PSIG...	900	1603	4198
OPEN FLOW, MCFD.....	18600	8000	90000
COMPONENT, MOLE PCT			
METHANE.....	94.1	50.6	85.1
ETHANE.....	2.1	7.7	6.4
PROPANE.....	0.2	2.7	3.2
N-BUTANE.....	0.1	0.6	0.8
ISOBUTANE.....	TRACE	0.2	0.4
N-PENTANE.....	0.0	0.1	0.2
ISOPENTANE.....	TRACE	0.1	0.3
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	TRACE	0.1	0.1
NITROGEN.....	3.0	37.8	0.2
OXYGEN.....	TRACE	TRACE	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.1	3.1
HELIUM.....	0.20	0.03	TRACE
HEATING VALUE*.....	999	761	1130

* 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 15146	INDEX SAMPLE 15175	INDEX SAMPLE 15149
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	BRAZORIA	BRAZORIA	BRAZORIA
FIELD.....	ALLIGATOR POINT	OYSTER CREEK	RATTLESNAKE MOUND
WELL NAME.....	ALLIGATOR POINT UNIT 1	SUN-FEE NO. 1	E.A. SWEET NO. 2-A
LOCATION.....	PIERCE MILLER SUR. A-348	JOHN MARTIN SUR. A-33	A. SWINGLE SUR. A-369
OWNER.....	GENERAL CRUDE OIL CO.	HILLIARD OIL & GAS, INC.	GENERAL CRUDE OIL CO.
COMPLETED.....	02/06/76	02/03/75	02/03/76
SAMPLED.....	11/05/77	12/27/77	11/05/77
FORMATION.....	OLIG-FRIO	OLIG-FRIO	MIOC-
	220	220	220
GEOLOGIC PROVINCE CODE...			
DEPTH, FEET.....	11358	7000	5288
WELLHEAD PRESSURE, PSIG...	7350	3300	2000
OPEN FLOW, MCFD.....	1250	64000	15000
COMPONENT, MOLE PCT			
METHANE.....	91.4	96.2	97.8
ETHANE.....	4.4	2.1	1.0
PROPANE.....	1.3	0.5	0.2
N-BUTANE.....	0.3	0.2	TRACE
ISOBUTANE.....	0.4	0.1	TRACE
N-PENTANE.....	0.1	0.1	TRACE
ISOPENTANE.....	0.1	0.1	TRACE
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.1
NITROGEN.....	0.3	0.4	0.7
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.....	1.4	0.1	0.1
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	1085	1049	1019

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

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

	INDEX 151 SAMPLE 14989	INDEX 152 SAMPLE 14891	INDEX 153 SAMPLE 14890
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	CALHOUN	CHAMBERS	COLORADO
FIELD.....	STEAMBOAT PASS	DEVILLIER	CECIL NOBLE
WELL NAME.....	STATE TRACT 184 NO. 1	EARL COOPER NO. 2	FORD WEGENHOFT NO. 1
LOCATION.....	ESPRITU SANTO BAY	WILLIAM GODFREY SUR., A-511	SEL E. TUMLINSON SUR. A-44
OWNER.....	HOUSTON OIL & MINERALS CORP.	GULF ENERGY & MINERALS CO.	PRAIRIE PRODUCING CO.
COMPLETED.....	10/05/75	12/05/75	07/28/75
SAMPLED.....	05/01/77	01/24/77	01/20/77
FORMATION.....	MIOC-	OLIG-VICKSBURG	EOCE-WILCOX
GEOLOGIC PROVINCE CODE...	954	220	220
DEPTH, FEET.....	1700	10782	8842
WELLHEAD PRESSURE, PSIG...	700	7440	1749
OPEN FLOW, MCFD.....	1200	50000	4600
COMPONENT, MOLE PCT			
METHANE.....	97.0	91.5	86.6
ETHANE.....	0.1	3.9	5.5
PROPANE.....	TRACE	1.1	3.0
N-BUTANE.....	0.0	0.3	0.8
ISOBUTANE.....	0.0	0.2	0.5
N-PENTANE.....	0.0	0.1	0.2
ISOPENTANE.....	0.0	0.2	0.4
CYCLOPENTANE.....	0.0	TRACE	0.1
HEXANES PLUS.....	0.0	0.1	0.2
NITROGEN.....	2.8	1.4	0.5
OXYGEN.....	0.0	0.3	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.8	2.4
HELIUM.....	0.02	TRACE	0.01
HEATING VALUE*.....	984	1060	1137

* 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 14965	INDEX SAMPLE 15018	INDEX SAMPLE 15019
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	COLORADO	COLORADO	COLORADO
FIELD.....	GARWOOD SE	MUSTANG CREEK	MUSTANG CREEK
WELL NAME.....	MCLANE TRUST "B" NO. 1C	LEHRER NO. 1	LEHRER NO. A-1
LOCATION.....	BLK. 42, I&GNRR SURV. A-293	I&GNRR SUR. 27, A-275	I&GNRR SUR. 27, A-274
OWNER.....	GOLDKING PRODUCTION CO.	TEAL PETROLEUM CO.	TEAL PETROLEUM CO.
COMPLETED.....	01/15/75	12/30/74	03/26/75
SAMPLED.....	04/13/77	05/30/77	05/30/77
FORMATION.....	OLIG-FRIO	EOCE-YEGUA	MIOC-
GEOLOGIC PROVINCE CODE.....	220	220	220
DEPTH, FEET.....	3202	5570	3344
WELLHEAD PRESSURE, PSIG.....	1465	1225	325
OPEN FLOW, MCFD.....	5000	6000	9000
COMPONENT, MOLE PCT			
METHANE.....	98.6	95.0	95.5
ETHANE.....	0.2	2.8	2.7
PROPANE.....	TRACE	0.7	0.6
N-BUTANE.....	0.0	0.1	0.1
ISOBUTANE.....	0.0	0.1	0.1
N-PENTANE.....	0.0	0.0	TRACE
ISOPENTANE.....	0.0	0.1	0.1
CYCLOPENTANE.....	0.0	TRACE	TRACE
HEXANES PLUS.....	0.0	TRACE	TRACE
NITROGEN.....	0.3	0.8	0.5
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.....	0.8	0.4	0.3
HELIUM.....	0.01	0.01	0.01
HEATING VALUE*.....	1002	1042	1042

* 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 157 15065	INDEX SAMPLE 158 15163	INDEX SAMPLE 159 15164
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	COLORADO	COLORADO	COLORADO
FIELD.....	MUSTANG CREEK	THOMAS	THOMAS
WELL NAME.....	ALTON ALLEN NO. 2	GARDNER DUNCAN NO. 1C	GARDNER DUNCAN NO. 2
LOCATION.....	SA&MG SUR., A-876	JAMES ROSS SUR., A-39	JAMES ROSS SUR., A-39
OWNER.....	DUER WAGNER & CO.	GAS PRODUCING ENTERPRISES	GAS PRODUCING ENTERPRISES
COMPLETED.....	02/04/75	02/26/76	03/28/76
SAMPLED.....	07/29/77	12/03/77	12/03/77
FORMATION.....	MIOC-	MIOC-THOMAS	MIOC-THOMAS
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	2019	2170	2296
WELLHEAD PRESSURE, PSIG...	990	750	850
OPEN FLOW, MCFD.....	350	1000	1000
COMPONENT, MOLE PCT			
METHANE.....	99.3	97.8	88.1
ETHANE.....	0.1	0.2	0.1
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.....	0.5	1.9	9.3
OXYGEN.....	0.0	0.0	2.3
ARGON.....	0.0	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	TRACE	0.1
HELIUM.....	TRACE	0.01	TRACE
HEATING VALUE*.....	1008	995	894

* 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 15165	INDEX SAMPLE 15079	INDEX SAMPLE 14896
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	COLORADO	CROCKETT	DEWITT
FIELD.....	THOMAS	WHITEHEAD	HOLLY
WELL NAME.....	GARDNER DUNCAN NO. 1T	JAKE BEASLEY NO. 1	E. BOMBA NO. 1-A
LOCATION.....	JAMES ROSS SUR., A-39	SEC. 6, BLK. G, GC&SFRR SUR.	JAMES DUFF SUR., A-153
OWNER.....	GAS PRODUCING ENTERPRISES	AMOCO PRODUCTION CO.	HARKINS & CO.
COMPLETED.....	02/26/76	03/16/76	08/08/74
SAMPLED.....	12/03/77	08/24/77	02/07/77
FORMATION.....	MIOC-THOMAS	PENN-STRAWN	NOT GIVEN
GEOLOGIC PROVINCE CODE...	220	430	220
DEPTH, FEET.....	2303	9401	NOT GIVEN
WELLHEAD PRESSURE, PSIG...	966	2755	NOT GIVEN
OPEN FLOW, MCFD.....	31000	7525	2000
COMPONENT, MOLE PCT			
METHANE.....	98.3	95.7	89.6
ETHANE.....	0.1	1.9	5.3
PROPANE.....	TRACE	0.3	2.2
N-BUTANE.....	0.0	0.1	0.6
ISOBUTANE.....	0.0	TRACE	0.5
N-PENTANE.....	0.0	TRACE	0.1
ISOPENTANE.....	0.0	0.1	0.6
CYCLOPENTANE.....	0.0	TRACE	0.1
HEXANES PLUS.....	0.0	0.1	0.3
NITROGEN.....	1.5	0.8	0.4
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.2	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.8	0.3
HELIUM.....	0.01	0.03	0.01
HEATING VALUE*.....	998	1025	1146

* 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 14898	INDEX SAMPLE 15025	INDEX SAMPLE 15086
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	DEWITT	DEWITT	DUVAL
FIELD.....	HOLLY	REIFFERT	BRELU
WELL NAME.....	E. BOMBA NO. 1-A	REIFFERT-FRAIR NO. 1	DCRC NCT-29 NO. 7
LOCATION.....	JAMES DUFF SUR., A-153	S&MGR SUR. 9, A-442	J. POITEVENT SUR. A-447
OWNER.....	HARKINS & CO.	BOK PRODUCTION CO., INC.	TEXACO INC.
COMPLETED.....	08/08/74	12/24/74	01/07/75
SAMPLED.....	02/07/77	06/13/77	08/--/77
FORMATION.....	EOCE-YEGUA	EOCE-YEGUA	EOCE-CHERNOSKY
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	4802	4933	1526
WELLHEAD PRESSURE, PSIG...	NOT GIVEN	1365	660
OPEN FLOW, MCFD.....	2000	3764	5600
COMPONENT, MOLE PCT			
METHANE.....	88.1	94.2	97.9
ETHANE.....	5.3	2.6	0.1
PROPANE.....	2.5	1.3	0.1
N-BUTANE.....	1.0	0.4	0.0
ISOBUTANE.....	0.8	0.3	0.1
N-PENTANE.....	0.5	0.2	TRACE
ISOPENTANE.....	0.7	0.1	0.0
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.4	0.1	0.1
NITROGEN.....	0.5	0.6	1.6
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.2	0.1
HELIUM.....	0.01	9.01	0.01
HEATING VALUE*.....	1188	1076	1005

* 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 15058	INDEX 167 SAMPLE 15154	INDEX 168 SAMPLE 15155
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	EASTLAND	FORT BEND	FORT BEND
FIELD.....	WILDCAT	NEEDVILLE	NEEDVILLE
WELL NAME.....	L. ABBOTT NO. 1	NOWOTNY NO. 1	NOWOTNY NO. 1
LOCATION.....	L. ABBOTT SUR. NO. A-2	H&TCRR SUR. 39, A-224	H&TCRR SUR. 39, A-224
OWNER.....	TEXAS PACIFIC OIL CO.	GROVER J. GEISELMAN	GROVER J. GEISELMAN
COMPLETED.....	04/24/76	02/05/76	02/05/76
SAMPLED.....	07/25/77	11/14/77	11/14/77
FORMATION.....	PENN-MARBLE FALLS	MIOC-	MIOC-
GEOLOGIC PROVINCE CODE...	425	220	220
DEPTH, FEET.....	3421	3903	3708
WELLHEAD PRESSURE, PSIG...	1400	900	1000
OPEN FLOW, MCFD.....	4726	2000	6000
COMPONENT, MOLE PCT			
METHANE.....	79.6	99.1	99.4
ETHANE.....	9.8	0.1	0.1
PROPANE.....	4.0	TRACE	TRACE
N-BUTANE.....	1.0	TRACE	0.0
ISOBUTANE.....	0.4	TRACE	0.0
N-PENTANE.....	0.3	TRACE	0.0
ISOPENTANE.....	0.2	TRACE	0.0
CYCLOPENTANE.....	0.1	TRACE	0.0
HEXANES PLUS.....	0.2	TRACE	0.0
NITROGEN.....	4.3	0.5	0.4
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.....	TRACE	TRACE	TRACE
HELIUM.....	0.12	0.01	0.01
HEATING VALUE*.....	1168	1006	1009

* 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 15173	INDEX SAMPLE 15094	INDEX SAMPLE 15095
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	FORT BEND	FREESTONE	FREESTONE
FIELD.....	SUGAR LAND	FREESTONE	FREESTONE
WELL NAME.....	HAMNER FEE NO. 14	C. A. NEWSOM NO. 1	C. A. NEWSOM NO. 1
LOCATION.....	W. LITTLE SUR. A-54	JOEL NEWSOM SUR. A-420	JOEL NEWSOM SUR. A-420
OWNER.....	EXXON CORP.	ENSERCH EXPLORATION, INC.	ENSERCH EXPLORATION, INC.
COMPLETED.....	03/11/76	03/19/76	03/19/76
SAMPLED.....	12/21/77	09/02/77	09/02/77
FORMATION.....	MIOC-	JURA-BOSSIER	CRET-TRAVIS PEAK
GEOLOGIC PROVINCE CODE...	220	260	260
DEPTH, FEET.....	1920	11849	9787
WELLHEAD PRESSURE, PSIG...	185	5640	3505
OPEN FLOW, MCFD.....	47185	5709	4686
COMPONENT, MOLE PCT			
METHANE.....	98.7	92.1	97.1
ETHANE.....	0.1	4.0	0.8
PROPANE.....	TRACE	0.9	0.1
N-BUTANE.....	0.0	0.2	0.0
ISOBUTANE.....	0.0	0.2	0.0
N-PENTANE.....	0.0	0.1	0.0
ISOPENTANE.....	0.0	0.1	0.0
CYCLOPENTANE.....	0.0	TRACE	0.0
HEXANES PLUS.....	0.0	0.1	0.0
NITROGEN.....	0.6	0.3	0.8
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.....	0.5	2.0	1.2
HELIUM.....	TRACE	0.01	0.01
HEATING VALUE*.....	1002	1055	1001

* 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 172 SAMPLE 15141	INDEX 173 SAMPLE 15135	INDEX 174 SAMPLE 14985
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	GALVESTON	GALVESTON	GALVESTON
FIELD.....	CAPLEN	DOLLAR POINT	GALVESTON ISLAND
WELL NAME.....	ZINN & FOREMAN NO. 5	STATE LEASE 115-A NO. 2	STATE OF TEXAS 70601 NO. 1
LOCATION.....	S.F. HUGHES SUR. A-90	STATE TRACT 115A	SEC. 3, TRIMBLE&LINDSEY SUR.
OWNER.....	SUN OIL CO.	HOUSTON OIL & MINERALS CORP.	CABOT CORP.
COMPLETED.....	06/05/76	08/03/76	03/12/76
SAMPLED.....	11/03/77	11/02/77	04/28/77
FORMATION.....	OLIG-FRIO	OLIG-FRIO A	MIOC-DISCORBIS
GEOLOGIC PROVINCE CODE.....	220	220	955
DEPTH, FEET.....	5798	9925	7618
WELLHEAD PRESSURE, PSIG.....	2313	2290	3082
OPEN FLOW, MCFD.....	13756	73000	51000
COMPONENT, MOLE PCT			
METHANE.....	95.8	81.0	95.0
ETHANE.....	1.4	7.6	2.9
PROPANE.....	0.3	4.3	0.7
N-BUTANE.....	0.2	1.5	0.2
ISOBUTANE.....	0.1	1.9	0.2
N-PENTANE.....	TRACE	0.7	TRACE
ISOPENTANE.....	TRACE	0.7	0.2
CYCLOPENTANE.....	TRACE	0.1	TRACE
HEXANES PLUS.....	0.1	0.8	0.1
NITROGEN.....	1.6	0.2	0.5
OXYGEN.....	0.0	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.....	0.4	1.2	0.2
HELIUM.....	0.01	TRACE	TRACE
HEATING VALUE.....	1019	1287	1060

* 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 175 SAMPLE 14895	INDEX 176 SAMPLE 14954	INDEX 177 SAMPLE 15130
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	GALVESTON	HANSFORD	HARRIS
FIELD.....	TEXAS CITY	SPEARMAN E	AMAREX
WELL NAME.....	STATE TRACT 114A NO. 1	LASSTER NO. 1	BROWN ESTATE NO. 3
LOCATION.....	GALVESTON BAY	SEC. 15, BLK. 2, WCHR SUR.	W.H. LLOYD SUR. A-1342
OWNER.....	HOUSTON OIL & MINERALS CORP.	PARAMOUNT PRODUCING INC.	AMAREX INC.
COMPLETED.....	11/11/75	NOT GIVEN	01/17/76
SAMPLED.....	01/24/77	03/31/77	10/26/77
FORMATION.....	OLIG-FRIO	PENN-MORROW U	EOCE-YEGUA
GEOLOGIC PROVINCE CODE...	220	360	220
DEPTH, FEET.....	10200	7334	6994
WELLHEAD PRESSURE, PSIG...	3100	293	1050
OPEN FLOW, MCFD.....	132000	3900	1000
COMPONENT, MOLE PCT			
METHANE.....	88.8	91.3	91.5
ETHANE.....	5.4	3.8	4.5
PROPANE.....	2.2	1.6	1.7
N-BUTANE.....	0.6	0.5	0.5
ISOBUTANE.....	0.8	0.1	0.3
N-PENTANE.....	0.2	0.2	0.1
ISOPENTANE.....	0.4	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.4	0.1	0.1
NITROGEN.....	0.5	1.5	0.2
OXYGEN.....	TRACE	0.1	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.4	0.7
HELIUM.....	TRACE	0.15	TRACE
HEATING VALUE*.....	1150	1081	1100

* 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 14918	INDEX 179 SAMPLE 15064	INDEX 180 SAMPLE 14969
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HARRISON	HEMPHILL	HEMPHILL
FIELD.....	WOODLAWN	CANADIAN SW	RAMP NE
WELL NAME.....	WINSTON BROWN NO. 1	JENKIE CAMPBELL NO. 1	RAMP NO. 1
LOCATION.....	F. W. PUGH SUR., A-559	SEC. 1, G.M. FROGGE SUR.	SEC. 26, BLK. 41, H&TC SUR.
OWNER.....	DYCO PETROLEUM CORP.	GULF OIL CO.-U.S.	WESSELY ENERGY CORP.
COMPLETED.....	09/21/75	11/29/76	10/--/75
SAMPLED.....	02/25/77	07/29/77	04/06/77
FORMATION.....	CRET-RODHILL	PERM-GRANITE WASH	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE...	260	360	360
DEPTH, FEET.....	5798	10081	11725
WELLHEAD PRESSURE, PSIG...	2105	2512	5885
OPEN FLOW, MCFD.....	3300	12500	6350
COMPONENT, MOLE PCT			
METHANE.....	92.2	81.4	89.9
ETHANE.....	4.2	10.8	6.0
PROPANE.....	1.0	4.1	1.8
N-BUTANE.....	0.3	0.9	0.4
ISOBUTANE.....	0.2	0.4	0.3
N-PENTANE.....	0.2	0.2	0.2
ISOPENTANE.....	0.1	0.2	0.1
CYCLOPENTANE.....	TRACE	0.1	TRACE
HEXANES PLUS.....	0.2	0.1	0.2
NITROGEN.....	0.9	1.2	0.5
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.....	0.6	0.5	0.5
HELIUM.....	0.02	0.05	0.02
HEATING VALUE*.....	1075	1194	1112

* 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 15150	INDEX SAMPLE 14916	INDEX SAMPLE 15033
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	HEMPHILL	HIDALGO	IRION
FIELD.....	RED DEER CREEK	WHITTIED	BURNT ROCK
WELL NAME.....	ISAACS NO. 2-207	CAMPBELL UNIT NO. 1	SHEEN "3061" NO. 1
LOCATION.....	SEC. 207, BLK. C, GMMBA SUR.	2 MI. N. MCALLEN	SEC. 3061, BLK. 28, HATCRR SUR.
OWNER.....	GULF ENERGY & MINERALS CO.	MCCORMICK OIL & GAS CORP.	UNION TEXAS PETROLEUM
COMPLETED.....	10/02/77	10/20/75	08/03/76
SAMPLED.....	11/21/77	02/21/77	06/23/77
FORMATION.....	PENN-MORROW U	OLIG-FRIO	PENN-CANYON
GEOLOGIC PROVINCE CODE.....	360	220	430
DEPTH, FEET.....	11364	7226	6559
WELLHEAD PRESSURE, PSIG.....	3194	2232	1695
OPEN FLOW, MCFD.....	3086	3600	3512
COMPONENT, MOLE PCT			
METHANE.....	84.8	93.7	39.3
ETHANE.....	7.1	3.3	5.7
PROPANE.....	3.3	1.0	4.3
N-BUTANE.....	1.0	0.3	1.4
ISOBUTANE.....	0.6	0.4	0.5
N-PENTANE.....	0.5	0.2	0.3
ISOPENTANE.....	0.5	0.1	0.4
CYCLOPENTANE.....	0.1	TRACE	0.1
HEXANES PLUS.....	0.5	0.2	0.2
NITROGEN.....	0.5	0.6	2.2
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.0	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.1	0.1	45.4
HELIUM.....	0.02	0.01	0.06
HEATING VALUE*.....	1198	1081	720

* 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 15076	INDEX 185 SAMPLE 14886	INDEX 186 SAMPLE 15066
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	IRION	IRION	JACK
FIELD.....	ELA SUGG	SPRAYBERRY	JACKSBORO S
WELL NAME.....	ELA C. SUGG "G" NO. 6	ELA C. SUGG G NO. 6	W. R. RICHARDS "16" NO. 1
LOCATION.....	SEC.103,BLK. 14, H&TC SUR.	SEC.103, BLK. 14, H&TC SUR.	JAMES ANDERS SUR. A-16
OWNER.....	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	SOUTHWESTERN GAS PIPELINE
COMPLETED.....	06/16/76	06/16/76	01/12/76
SAMPLED.....	07/08/77	01/25/77	07/--/77
FORMATION.....	PERM-WICHITA ALBANY	PERM-WICHITA ALBANY	PENN-CONGLOMERATE
GEOLOGIC PROVINCE CODE...	430	430	420
DEPTH, FEET.....	7814	7900	5224
WELLHEAD PRESSURE,PSIG...	2160	2150	2005
OPEN FLOW, MCFO.....	9100	9000	2600
COMPONENT, MOLE PCT			
METHANE.....	75.8	71.4	79.1
ETHANE.....	12.2	12.3	8.7
PROPANE.....	4.6	6.6	4.8
N-BUTANE.....	1.2	1.8	1.4
ISOBUTANE.....	0.5	0.7	0.5
N-PENTANE.....	0.3	0.4	0.4
ISOPENTANE.....	0.3	0.5	0.2
CYCLOPENTANE.....	TRACE	0.1	0.1
HEXANES PLUS.....	0.1	0.3	0.2
NITROGEN.....	3.9	4.7	4.4
OXYGEN.....	0.3	0.6	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.8	0.4	0.2
HELIUM.....	0.07	0.07	0.14
HEATING VALUE*.....	1194	1257	1185

* 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 14893	INDEX 188 SAMPLE 14911	INDEX 189 SAMPLE 14910
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	JEFFERSON	KARNES	KARNES
FIELD.....	GILBERT RANCH	KENEDY	SPEARY
WELL NAME.....	GILBERT ESTATE NO. 1	ESTELLE ROLF NO. 1	B. B. TIPS NO. 1
LOCATION.....	JOHN RICORD SUR. A-189	CARLOS MARTINEZ GR. A-6	CARLOS MARTINEZ SUR. A-6
OWNER.....	KILROY CO. OF TEXAS, INC.	GENERAL CRUDE OIL CO.	GENERAL CRUDE OIL CO.
COMPLETED.....	11/15/74	10/18/74	10/18/75
SAMPLED.....	01/30/77	02/15/77	02/15/77
FORMATION.....	OLIG-MUDOSARIA	CRET-EDWARDS	CRET-EDWARDS
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	8754	13065	13450
WELLHEAD PRESSURE, PSIG...	2501	4957	5865
OPEN FLOW, MCFD.....	10406	8850	5800
COMPONENT, MOLE PCT			
METHANE.....	93.4	89.8	87.8
ETHANE.....	3.4	1.6	3.3
PROPANE.....	1.3	0.4	0.9
N-BUTANE.....	0.4	0.2	0.4
ISOBUTANE.....	0.3	0.1	0.2
N-PENTANE.....	0.2	0.1	0.2
ISOPENTANE.....	0.2	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.2
NITROGEN.....	0.3	0.4	0.2
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.....	0.3	7.4	6.9
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE*.....	1087	973	1015

* 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 15026	INDEX 191 SAMPLE 15097	INDEX 192 SAMPLE 14900
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	KLEBERG	KLEBERG	LAVACA
FIELD.....	MAY SE	PADRE ISLAND N	HALLETTSVILLE NW
WELL NAME.....	V. T. COLLINS NO. 1	STATE TRACT 924-S NO. 1	JULIUS TECHNIK UNIT NO. 1
LOCATION.....	G. TREVINO GRANT, A-232	6 MI. SE CORPUS CHRISTI	JAMES CAMPBELL SUR.: A-6
OWNER.....	TEXAS OIL & GAS CORP.	MC MORAN EXPLORATION CO.	HOWELL DRILLING, INC.
COMPLETED.....	02/26/75	03/02/72	06/30/75
SAMPLED.....	06/16/77	09/07/77	02/11/77
FORMATION.....	OLIG-FRIO	OLIG-FRIO	EOCE-WILCOX
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	8222	8450	8735
WELLHEAD PRESSURE, PSIG...	3700	900	2865
OPEN FLOW, MCFD.....	470	15300	5600
COMPONENT, MOLE PCT			
METHANE.....	92.3	94.6	82.7
ETHANE.....	4.1	2.7	6.6
PROPANE.....	1.4	0.7	4.9
N-BUTANE.....	0.4	0.2	1.1
ISOBUTANE.....	0.4	0.2	0.9
N-PENTANE.....	0.2	0.1	0.2
ISOPENTANE.....	0.1	0.1	0.4
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	0.2	0.1	0.2
NITROGEN.....	0.8	0.7	0.6
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.6	2.2
HELIUM.....	0.01	0.01	0.01
HEATING VALUE.....	1095	1052	1190

* 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 15145	INDEX SAMPLE 15038	INDEX SAMPLE 15134
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	LIBERTY	LOVING	MATAGORDA
FIELD.....	RAYWOOD W	M.A.J.	HAMMAN
WELL NAME.....	MALLET MITCHELL NO. 1	LAGO GAS UNIT NO. 1	GLOVER UNIT NO. 1
LOCATION.....	URIAH ANDERSON SUR. A-1	SEC. 34, BLK. 56, T-1, 12P SUR.	J.T. BELKNAP SUR. A-113
OWNER.....	GENERAL CRUDE OIL CO.	TEXACO INC.	ATLANTIC RICHFIELD CO.
COMPLETED.....	05/04/76	11/26/75	11/04/77
SAMPLED.....	05/15/77	06/29/77	11/03/77
FORMATION.....	EOCE-COOK MOUNTAIN	SILU-FUSSELMAN	PENN-CLEVELAND
GEOLOGIC PROVINCE CODE..	220	430	220
DEPTH, FEET.....	11904	17500	9151
WELLHEAD PRESSURE, PSIG..	1550	5500	NOT GIVEN
OPEN FLOW, MCFD.....	5000	2000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	90.2	73.6	87.8
ETHANE.....	4.4	0.5	5.6
PROPANE.....	1.4	TRACE	2.5
N-BUTANE.....	0.4	TRACE	0.7
ISOBUTANE.....	0.3	TRACE	0.9
N-PENTANE.....	0.2	TRACE	0.3
ISOPENTANE.....	0.2	TRACE	0.2
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.2
NITROGEN.....	1.4	4.1	0.6
OXYGEN.....	0.3	0.0	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.1	0.0
CARBON DIOXIDE.....	1.1	1.7	1.2
HELIUM.....	TRACE	0.04	TRACE
HEATING VALUE*.....	1084	760	1140

* 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 15153	INDEX SAMPLE 15069	INDEX SAMPLE 15071
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	NEWTON	OCHILTREE	PALO PINTO
FIELD.....	BLUE MARSH	PERRYTON W	CAMILLE
WELL NAME.....	B.E. GUINN NO. 3	MCLARTY NO. 1	BRANNON NO. 1
LOCATION.....	GB&CNR SUR. A-562	SEC. 86, BLK. 11, H&IG SUR.	LEWIS P. COOKE SUR. A-122
OWNER.....	NORTH CENTRAL OIL CORP.	H&L OPERATING	W. L. PENNINGTON
COMPLETED.....	04/28/76	05/23/77	05/20/76
SAMPLED.....	11/19/77	08/04/77	08/10/77
FORMATION.....	OLIG-FRIO	PENN-MORROW	PENN-CONGLOMERATE
GEOLOGIC PROVINCE CODE...	220	360	425
DEPTH, FEET.....	3882	8189	3670
WELLHEAD PRESSURE, PSIG...	500	804	650
OPEN FLOW, MCFD.....	108000	1850	80
COMPONENT, MOLE PCT			
METHANE.....	98.5	92.3	83.5
ETHANE.....	0.2	3.0	8.9
PROPANE.....	0.1	1.1	2.5
N-BUTANE.....	0.0	0.4	0.4
ISOBUTANE.....	TRACE	0.1	0.2
N-PENTANE.....	TRACE	0.2	0.2
ISOPENTANE.....	0.0	0.2	0.1
CYCLOPENTANE.....	TRACE	0.1	0.1
HEXANES PLUS.....	0.1	0.2	0.2
NITROGEN.....	0.8	2.0	3.4
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.....	0.3	0.6	0.4
HELIUM.....	0.01	0.08	0.12
HEATING VALUE*.....	1009	1065	1117

* 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 15078	INDEX SAMPLE 15105	INDEX SAMPLE 15030
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	PANOLA	PECOS	PECOS
FIELD.....	BECKVILLE W	CASEY DRAW	WILDCAT
WELL NAME.....	ELVE TOMKINS NO. 1	JOHNSON NO. 2	ARCO-TERRAZAS NO. 1
LOCATION.....	W.C. BAINS SUR. A-64	SEC. 22, BLK. C-11, PSL SUR.	SEC. 1, BLK. 105 W.P. HOWARD
OWNER.....	MCCORMICK OIL & GAS CO.	MONSANTO CO.	C & K PETROLEUM, INC.
COMPLETED.....	12/23/75	08/23/76	07/30/76
SAMPLED.....	08/22/77	09/--/77	06/22/77
FORMATION.....	JURA-COTTON VALLEY	PERM-DELAWARE	PERM-WOLFCAMP
GEOLOGIC PROVINCE CODE...	260	430	430
DEPTH, FEET.....	9864	3886	9660
WELLHEAD PRESSURE, PSIG...	4010	1515	3836
OPEN FLOW, MCFD.....	5200	2200	7606
COMPONENT, MOLE PCT			
METHANE.....	90.8	96.0	85.4
ETHANE.....	5.0	0.7	7.1
PROPANE.....	1.4	0.1	3.6
N-BUTANE.....	0.4	0.1	1.0
ISOBUTANE.....	0.3	0.0	0.3
N-PENTANE.....	0.2	0.1	0.2
ISOPENTANE.....	0.1	TRACE	0.3
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	0.2	TRACE	0.1
NITROGEN.....	0.3	2.0	1.7
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	1.3	1.0	0.3
HELIUM.....	0.01	0.03	0.02
HEATING VALUE*.....	1092	995	1160

* 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 14980	INDEX SAMPLE 15138	INDEX SAMPLE 204 15152
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	POLK	POLK	POLK
FIELD.....	HORTENSE	LIVINGSTON	SEVEN OAKS N
WELL NAME.....	SOUTHLAND MILLS MUNIT NO. 1	DR. H.J. PRATT NO. 16	SEVEN OAKS TOWNSITE NO. 1
LOCATION.....	J. A. CUMMINGS SUR. A-647	9 MI. SE OF LIVINGSTON	B.J. HARPER SUR. A-36
OWNER.....	BELCO PETROLEUM CORP.	SUN OIL CO.	MITCHELL ENERGY CORP.
COMPLETED.....	10/01/75	01/17/77	09/13/77
SAMPLED.....	04/16/77	11/03/77	11/21/77
FORMATION.....	CRET-WOODBINE	EOCE-YEGUA	CRET-WOODBINE
GEOLOGIC PROVINCE CODE..	220	220	220
DEPTH, FEET.....	12578	4614	12332
WELLHEAD PRESSURE, PSIG..	4400	1740	3700
OPEN FLOW, MCFD.....	7526	5867	1750
COMPONENT, MOLE PCT			
METHANE.....	76.3	77.9	84.3
ETHANE.....	7.1	3.5	7.4
PROPANE.....	5.9	1.6	2.7
N-BUTANE.....	2.2	0.5	0.7
ISOBUTANE.....	1.5	0.3	0.4
N-PENTANE.....	0.6	0.2	0.2
ISOPENTANE.....	0.7	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	TRACE
HEXANES PLUS.....	0.4	0.2	0.1
NITROGEN.....	0.2	12.8	0.2
OXYGEN.....	0.0	2.4	0.0
ARGON.....	0.0	0.1	0.0
HYDROGEN.....	0.0	0.0	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	4.9	0.3	3.7
HELIUM.....	0.01	0.02	0.01
HEATING VALUE.....	1258	951	1116

* 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 205 SAMPLE 15104	INDEX 206 SAMPLE 14897	INDEX 207 SAMPLE 15106
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	REEVES	REEVES	ROBERTS
FIELD.....	CASEY DRAW	RIPPLINGER	WILLOW CREEK
WELL NAME.....	JOHNSON NO. 1	WORSHAM UNIT NO. 1	BRAINARD NO. 2
LOCATION.....	SEC. 22, BLK. C-11, PSL SUR.	SEC. 4, BLK. C-7, PSL SUR.	SEC. 4, BLK. A, H8GN SUR.
OWNER.....	MONSANTO CO.	UNION OIL CO. OF CALIFORNIA	PARAMOUNT PRODUCING, INC.
COMPLETED.....	03/09/76	08/09/75	NOT GIVEN
SAMPLED.....	09/-/-/77	02/04/77	09/23/77
FORMATION.....	PERM-DELAWARE	DEVO-	PENN-MORROW
GEOLOGIC PROVINCE CODE..	430	430	360
DEPTH, FEET.....	3836	18147	NOT GIVEN
WELLHEAD PRESSURE, PSIG..	1550	6340	NOT GIVEN
OPEN FLOW, MCFD.....	2400	2565	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	95.9	96.4	90.0
ETHANE.....	0.7	0.9	4.1
PROPANE.....	0.1	0.1	1.7
N-BUTANE.....	TRACE	0.0	0.5
ISOBUTANE.....	TRACE	0.0	0.1
N-PENTANE.....	0.1	0.0	0.2
ISOPENTANE.....	0.1	0.0	0.1
CYCLOPENTANE.....	TRACE	0.0	0.1
HEXANES PLUS.....	TRACE	0.0	0.1
NITROGEN.....	2.2	0.5	2.6
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.9	2.1	0.3
HELIUM.....	0.03	0.01	0.18
HEATING VALUE*.....	995	995	1071

* 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 15107	INDEX SAMPLE 15092	INDEX SAMPLE 15056
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	ROBERTS	RUSK	SAN PATRICIO
FIELD.....	WILLOW CREEK	BIG BARNETT	PORTLAND N
WELL NAME.....	BRAINARD NO. 1	DR. JOSEPH L. GOLDMAN NO. 1	SIMONS GAS UNIT NO. B-2
LOCATION.....	SEC. 3, BLK. E, H8GN SUR.	E. TAYLOR SUR. A-771	W. B. RHEW SUR. A-318
OWNER.....	PARAMOUNT PRODUCING, INC.	ALAMO PETROLEUM CO.	GALAXY OIL CO.
COMPLETED.....	NOT GIVEN	05/10/75	01/09/75
SAMPLED.....	09/23/77	09/09/77	07/19/77
FORMATION.....	PENN-MORROW	CRET-RODESSA	OLIG-FRIO
GEOLOGIC PROVINCE CODE...	360	260	220
DEPTH, FEET.....	NOT GIVEN	6993	10550
WELLHEAD PRESSURE, PSIG...	NOT GIVEN	3057	5600
OPEN FLOW, MCFD.....	NOT GIVEN	3800	18000
COMPONENT, MOLE PCT			
METHANE.....	89.6	93.7	88.5
ETHANE.....	4.4	2.4	6.2
PROPANE.....	2.1	0.5	2.3
N-BUTANE.....	0.7	0.2	0.5
ISOBUTANE.....	0.2	0.1	0.5
N-PENTANE.....	0.2	0.1	0.2
ISOPENTANE.....	0.1	TRACE	0.2
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.1
NITROGEN.....	1.9	1.7	0.5
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	1.0	0.8
HELIUM.....	0.15	0.02	TRACE
HEATING VALUE*.....	1098	1025	1123

* 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 15174	INDEX 212 SAMPLE 15129	INDEX 213 SAMPLE 15148
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	SAN PATRICIO	SCHLEICHER	SCHLEICHER
FIELD.....	WHITE POINT E	UNIVERSITY 53	UNIVERSITY 53
WELL NAME.....	MAYO KOONCE UNIT NO. 1	STATE "TH" NO. 18-53	STATE "TI" 18-53
LOCATION.....	H.S. DAY SUR. A-102	SEC. 18, BLK. 53, ULSUR.	SEC. 18, BLK. 53, UL SUR.
OWNER.....	MARATHON OIL CO.	GULF ENERGY & MINERALS CO.	GULF ENERGY & MINERALS CO.
COMPLETED.....	09/11/76	03/15/76	10/26/76
SAMPLED.....	12/22/77	10/25/77	11/17/77
FORMATION.....	OLIG-FRIO	ORDO-ELLENBURGER	PENN-CANYON
GEOLOGIC PROVINCE CODE...	220	430	430
DEPTH, FEET.....	10994	7806	7046
WELLHEAD PRESSURE, PSIG...	1100	2315	1140
OPEN FLOW, MCFD.....	5200	16000	2600
COMPONENT, MOLE PCT			
METHANE.....	89.0	75.8	77.0
ETHANE.....	5.6	11.8	9.1
PROPANE.....	2.4	5.1	5.7
N-BUTANE.....	0.6	1.4	2.6
ISOBUTANE.....	0.5	0.5	0.9
N-PENTANE.....	0.3	0.3	0.4
ISOPENTANE.....	0.1	0.3	0.1
CYCLOPENTANE.....	TRACE	0.1	TRACE
HEXANES PLUS.....	0.2	0.2	0.1
NITROGEN.....	0.5	3.8	3.5
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.8	0.5	0.4
HELIUM.....	TRACE	0.09	0.10
HEATING VALUE.....	1129	1215	1236

* 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 15147	INDEX SAMPLE 14955	INDEX SAMPLE 14934
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	SCHLEICHER	SHELBY	SUTTON
FIELD.....	VELREX SW	STOCKMAN	SHURLEY RANCH
WELL NAME.....	W.E. DELONG NO. 1	GRANT NO. 1	GENONI #39" NO. 1
LOCATION.....	SEC. 6, BLK. 11, TCRS SUR.	ARCADIA, TEXAS	SEC. 39, TTRR SUR., A-759
OWNER.....	GULF ENERGY & MINERALS CO.	ARKLA EXPLORATION CO.	MITCHELL ENERGY CORP.
COMPLETED.....	10/10/76	01/14/77	05/15/76
SAMPLED.....	11/01/77	03/24/77	03/08/77
FORMATION.....	PENN-STRAWN	JURA-COTTON VALLEY	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	260	430
DEPTH, FEET.....	7257	10281	8301
WELLHEAD PRESSURE, PSIG.....	1870	4100	1499
OPEN FLOW, MCFD.....	4800	757	2650
COMPONENT, MOLE PCT			
METHANE.....	78.2	92.6	85.6
ETHANE.....	9.7	3.6	7.0
PROPANE.....	4.6	0.6	2.1
N-BUTANE.....	1.4	0.2	0.6
ISOBUTANE.....	0.4	0.2	0.4
N-PENTANE.....	0.4	TRACE	0.2
ISOPENTANE.....	0.3	0.1	0.2
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.3	0.1	0.3
NITROGEN.....	3.7	0.2	2.3
OXYGEN.....	0.0	0.0	0.2
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.8	2.4	1.1
HELIUM.....	0.09	TRACE	0.04
HEATING VALUE*.....	1195	1041	1113

* 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 14877	INDEX 218 SAMPLE 14892	INDEX 219 SAMPLE 15170
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	TYLER	TYLER	VAL VERDE
FIELD.....	PAVEY KIRBY	SUGAR CREEK	WILL-O
WELL NAME.....	KIRBY LUMBER CO. NO. 1	ARCO ABBOTT G.U. NO. 1	MILLS MINERAL TRUST NO. 1
LOCATION.....	F. HELFONSTEIN SUR., A-352	MARTIN L ABBOTT SUR. A-742	SEC. 29, BLK. Q-3, TCRR SUR.
OWNER.....	SHELL OIL CO.	C & K PETROLEUM, INC.	MOBIL OIL CORP.
COMPLETED.....	07/25/74	10/08/75	07/11/75
SAMPLED.....	12/30/76	01/27/77	12/--/77
FORMATION.....	EDGEWILCOX	CRET-WOODBINE	ORDO-ELLENBURGER
GEOLGIC PROVINCE CODE...	220	220	430
DEPTH, FEET.....	10883	11008	14695
WELLHEAD PRESSURE, PSIG...	2100	3500	4710
OPEN FLOW, MCFD.....	3500	87000	7900
COMPONENT, MOLE PCT			
METHANE.....	85.6	87.4	83.4
ETHANE.....	6.8	3.4	0.2
PROPANE.....	2.8	0.8	TRACE
N-BUTANE.....	0.7	0.2	0.0
ISOBUTANE.....	0.5	0.2	0.0
N-PENTANE.....	0.2	0.0	0.0
ISOPENTANE.....	0.3	0.2	0.0
CYCLOPENTANE.....	0.1	TRACE	0.0
HEXANES PLUS.....	0.2	TRACE	0.0
NITROGEN.....	0.4	2.7	0.4
OXYGEN.....	TRACE	0.3	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	2.4	4.7	15.9
HELIUM.....	TRACE	0.01	0.03
HEATING VALUE*.....	1137	989	848

* 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 15132	INDEX 221 SAMPLE 15044	INDEX 222 SAMPLE 15054
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	WARD	WARD	WARD
FIELD.....	BURKHOLDER	QUITO	WILDCAT
WELL NAME.....	BURKHOLDER N. UNIT N-1	PIONEER GP, STATE NO. 1	ROBERTSON "138" NO. 1
LOCATION.....	SEC.199,BLK.34,H&TC SUR.	SEC. 226, BLK.34: H&TC SUR.	SEC.138, BLK. 34: H&TC SUR.
OWNER.....	GULF OIL CORP.	AMARILLO OIL CO.	HNG OIL CO.
COMPLETED.....	02/11/76	09/25/76	11/27/76
SAMPLED.....	10/31/77	06/27/77	07/---/77
FORMATION.....	MISS-	PENN-ATOKA	ORDO-ELLENBURGER
GEOLOGIC PROVINCE CODE...	430	430	430
DEPTH, FEET.....	16314	15378	20823
WELLHEAD PRESSURE, PSIG...	6855	10822	4120
OPEN FLOW, MCFD.....	5000	11600	24300
COMPONENT, MOLE PCT			
METHANE.....	95.3	97.7	59.4
ETHANE.....	0.5	0.5	8.3
PROPANE.....	0.1	0.1	8.4
N-BUTANE.....	0.0	TRACE	4.2
ISOBUTANE.....	0.0	TRACE	2.9
N-PENTANE.....	0.0	TRACE	0.9
ISOPENTANE.....	0.0	TRACE	2.7
CYCLOPENTANE.....	0.0	TRACE	0.0
HEXANES PLUS.....	0.0	TRACE	1.0
NITROGEN.....	0.4	0.5	11.5
OXYGEN.....	0.0	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.....	3.7	1.0	0.5
HELIUM.....	0.01	0.01	0.01
HEATING VALUE*.....	977	1001	1413

* 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 14912	INDEX SAMPLE 224 15136	INDEX SAMPLE 225 15137
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	WEBB	WHARTON	WHARTON
FIELD.....	SANCHEZ HILL	LOUISE	LOUISE
WELL NAME.....	KILLAM & HERD NO. 1	HAWES NO. 1-T	HAWES NO. 1-C
LOCATION.....	10 MI. NE LAREDO	2 MI. S OF LOUISE	2 MI. S OF LOUISE
OWNER.....	GENERAL CRUDE OIL CO.	PATRICK PETROLEUM CO.	PATRICK PETROLEUM CO.
COMPLETED.....	02/07/75	04/28/75	04/28/75
SAMPLED.....	02/14/77	11/01/77	11/01/77
FORMATION.....	EOCE-WILCOX	OLIG-FRIO	OLIG-FRIO
GEOLOGIC PROVINCE CODE...	220	220	220
DEPTH, FEET.....	6161	6348	5966
WELLHEAD PRESSURE, PSIG...	2324	2100	1600
OPEN FLOW, MCFD.....	6000	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	90.6	94.8	86.8
ETHANE.....	3.9	2.8	5.4
PROPANE.....	2.0	1.1	2.5
N-BUTANE.....	0.6	0.3	0.8
ISOBUTANE.....	0.3	0.2	0.9
N-PENTANE.....	0.2	TRACE	0.3
ISOPENTANE.....	0.6	0.2	0.4
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.3	0.1	0.3
NITROGEN.....	0.7	0.2	0.1
OXYGEN.....	TRACE	0.0	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	0.2	0.4
HELIUM.....	0.01	TRACE	TRACE
HEATING VALUE*.....	1123	1073	1167

* 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 15139	INDEX SAMPLE 15140	INDEX SAMPLE 14945
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	WHARTON	WHARTON	WHEELER
FIELD.....	LOUISE	LOUISE	LOTT RANCH
WELL NAME.....	HENDERSON NO. 2-C	HENDERSON NO. 2-T	LUTHER WILLIS NO. 1
LOCATION.....	T.J. WINSTON SUR. A-66	T.J. WINSTON SUR. A-66	SEC. 9, CAMP COUNTY SCHOOL
OWNER.....	PATRICK PETROLEUM CO.	PATRICK PETROLEUM CO.	C.I.G. EXPLORATION, INC.
COMPLETED.....	04/11/75	04/11/75	09/02/76
SAMPLED.....	11/01/77	11/01/77	03/16/77
FORMATION.....	OLIG-FRIO	OLIG-FRIO	PENN-MORROW U
GEOLOGIC PROVINCE CODE...	220	220	360
DEPTH, FEET.....	5914	5980	15056
WELLHEAD PRESSURE, PSIG...	1500	1000	7795
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	12500
COMPONENT, MOLE PCT			
METHANE.....	95.5	91.6	96.6
ETHANE.....	2.6	3.5	1.2
PROPANE.....	0.8	1.8	0.1
N-BUTANE.....	0.2	0.7	TRACE
ISOBUTANE.....	0.1	0.5	TRACE
N-PENTANE.....	TRACE	0.2	TRACE
ISOPENTANE.....	0.1	0.5	TRACE
CYCLOPENTANE.....	0.1	0.1	TRACE
HEXANES PLUS.....	0.1	0.3	TRACE
NITROGEN.....	0.3	0.3	0.5
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.....	0.2	0.3	1.5
HELIUM.....	TRACE	0.01	0.02
HEATING VALUE.....	1058	1127	1003

* 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 14913	INDEX SAMPLE 14914	INDEX SAMPLE 15053
STATE.....	TEXAS	TEXAS	TEXAS
COUNTY.....	WHEELER	WHEELER	WINKLER
FIELD.....	MOBEETIE	MOBEETIE W	WILDCAT
WELL NAME.....	V. MURRELL NO. 1	V. MURRELL NO. 1	UNIVERSITY "21-3" NO. 2
LOCATION.....	SEC. 69, BLK. A-5, H&GN SUR.	SEC. 69, BLK. A-5, H&GN SUR.	SEC. 3, BLK. 21, U.L. SUR.
OWNER.....	GETTY OIL CO.	GETTY OIL CO.	HNG OIL CO.
COMPLETED.....	11/09/76	11/09/76	11/05/76
SAMPLED.....	02/18/77	02/18/77	07/--/77
FORMATION.....	ORDO-ELLENBURGER	ORDO-SIMPSON	PENN-ATOKA
GEOLOGIC PROVINCE CODE...	360	360	430
DEPTH, FEET.....	12220	11838	12719
WELLHEAD PRESSURE, PSIG...	3742	3490	5751
OPEN FLOW, MCFD.....	10374	2136	7850
COMPONENT, MOLE PCT			
METHANE.....	90.2	92.2	87.6
ETHANE.....	4.0	3.3	5.1
PROPANE.....	1.6	1.7	1.7
N-BUTANE.....	0.6	0.7	0.5
ISOBUTANE.....	0.3	0.1	0.2
N-PENTANE.....	0.3	0.3	0.1
ISOPENTANE.....	0.3	0.1	0.3
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.4	0.1	0.2
NITROGEN.....	1.6	0.9	4.0
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.....	0.5	0.4	0.2
HELIUM.....	0.06	0.04	0.02
HEATING VALUE*.....	1107	1090	1078

* 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 15009	INDEX 233 SAMPLE 15172	INDEX 234 SAMPLE 14982
STATE.....	TEXAS	TEXAS	UTAH
COUNTY.....	ZAPATA	ZAVALA	CARBON
FIELD.....	JENNINGS N	SPINACH	PETERS POINT
WELL NAME.....	F. CUELLAR EST. NO. B-1	R.J. KLEINMANN "B" NO. 1	PETERS POINT NO. 1
LOCATION.....	TCRR SUR. 243, A-161	NARCISO AGUIRRE SUR, A-3	SEC. 6, T13S, R17E
OWNER.....	HUGHES & HUGHES	HUGHES & HUGHES	RESERVE OIL, INC.
COMPLETED.....	06/16/75	05/30/77	08/12/76
SAMPLED.....	05/17/77	12/21/77	04/17/77
FORMATION.....	EOCE-WILCOX	CRET-SAN MIGUEL	EOCE-WASATCH
GEOLOGIC PROVINCE CODE...	220	220	575
DEPTH, FEET.....	9498	3774	4622
WELLHEAD PRESSURE, PSIG...	4106	1565	500
OPEN FLOW, MCFD.....	2650	9000	474
COMPONENT, MOLE PCT			
METHANE.....	90.6	91.5	89.3
ETHANE.....	4.4	2.7	6.3
PROPANE.....	1.4	2.5	2.2
N-BUTANE.....	0.4	0.8	0.6
ISOBUTANE.....	0.2	0.4	0.3
N-PENTANE.....	0.1	0.1	0.2
ISOPENTANE.....	0.2	0.2	0.3
CYCLOPENTANE.....	0.1	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	0.2	1.7	0.5
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.....	2.3	TRACE	0.1
HELIUM.....	TRACE	0.02	0.01
HEATING VALUE*.....	1075	1099	1131

* 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 14946	INDEX SAMPLE 15089	INDEX SAMPLE 15013
STATE.....	UTAH	UTAH	WYOMING
COUNTY.....	DUCHESNE	SUMMIT	CARBON
FIELD.....	ALTAMOUNT	PINEVIEW	DEEP CREEK
WELL NAME.....	FORTUNE UTE NO. 1-11C5	UNION PACIFIC RR NO. 3-2	BROWN HILL UNIT NO. B-31
LOCATION.....	SEC. 11, T3S, R5W	SEC. 3, T2N, R7E	SEC. 31, T16N, R90W
OWNER.....	GULF ENERGY & MINERALS-U.S.	AMERICAN QUASAR PETROLEUM CO	BENSON-MONTIN-GREER DRILLING
COMPLETED.....	12/28/76	02/11/77	NOT GIVEN
SAMPLED.....	03/18/77	08/30/77	05/26/77
FORMATION.....	EOCE-WASATCH	JURA-TWIN CREEK	NOT GIVEN
GEOLOGIC PROVINCE CODE...	575	570	535
DEPTH, FEET.....	10278	9455	NOT GIVEN
WELLHEAD PRESSURE, PSIG...	3000	850	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	76.5	16.7	98.4
ETHANE.....	12.2	26.9	0.5
PROPANE.....	5.9	34.6	0.1
N-BUTANE.....	1.9	0.0	0.0
ISOBUTANE.....	0.9	16.2	0.0
N-PENTANE.....	0.6	4.3	0.0
ISOPENTANE.....	0.6	0.0	0.0
CYCLOPENTANE.....	0.1	TRACE	0.0
HEXANES PLUS.....	0.4	0.9	0.0
NITROGEN.....	0.5	0.3	0.3
OXYGEN.....	0.0	TRACE	0.0
ARGON.....	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.0	0.0
HELIUM.....	0.01	TRACE	0.7
HEATING VALUE*.....	1317	2321	TRACE
			1008

* 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 15099	INDEX SAMPLE 15029	INDEX SAMPLE 14902
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	CARBON	LINCOLN	LINCOLN
FIELD.....	NOT GIVEN	MOXA	WILLOW CREEK
WELL NAME.....	CHAMPLIN 242 AMOCO A NO. 1	BRUFF UNIT NO. 3	FEDERAL NO. 4-11
LOCATION.....	SEC. 1, T19N, R93W	SEC. 16, T19N, R112W	SEC. 11, T24N, R114W
OWNER.....	AMOCO PRODUCTION CO.	MOUNTAIN FUEL SUPPLY CO.	RAINBOW RESOURCES, INC.
COMPLETED.....	10/02/76	03/--/77	07/--/76
SAMPLED.....	09/17/77	06/14/77	02/10/77
FORMATION.....	CRET-ALMOND	CRET-FRONTIER	EOCE-FORT UNION
GEOLOGIC PROVINCE CODE...	535	535	535
DEPTH, FEET.....	9760	12111	1450
WELLHEAD PRESSURE, PSIG...	3650	4910	696
OPEN FLOW, MCFD.....	NOT GIVEN	4000	3800
COMPONENT, MOLE PCT			
METHANE.....	84.9	86.3	74.7
ETHANE.....	7.9	7.4	14.5
PROPANE.....	2.8	1.7	6.3
N-BUTANE.....	0.6	0.5	1.1
ISOBUTANE.....	0.4	0.6	0.9
N-PENTANE.....	0.2	0.3	0.2
ISOPENTANE.....	0.1	0.8	0.2
CYCLOPENTANE.....	0.1	0.3	TRACE
HEXANES PLUS.....	0.1	0.8	0.1
NITROGEN.....	0.2	0.8	1.8
OXYGEN.....	0.0	0.0	0.1
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	2.8	0.5	0.1
HELIUM.....	0.01	0.01	0.02
HEATING VALUE*.....	1130	1187	1269

* 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 15023	INDEX SAMPLE 15117	INDEX SAMPLE 15118
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	BAXTER BASIN N	HAY RESERVOIR	HAY RESERVOIR
WELL NAME.....	CHAMPLIN NO. 4-11	HAY RESERVOIR NO. 3	HAY RESERVOIR NO. 5
LOCATION.....	SEC. 11, T19N, R103W	SEC. 27, T24N, R97W	SEC. 22, T24N, R97W
OWNER.....	CHANDLER & ASSOCIATES, INC.	DAVIS OIL CO.	DAVIS OIL CO.
COMPLETED.....	NOT GIVEN	08/23/76	04/08/77
SAMPLED.....	06/14/77	09/30/77	09/30/77
FORMATION.....	NOT GIVEN	CRET-LEWIS	CRET-LEWIS
GEOLOGIC PROVINCE CODE...	535	535	535
DEPTH, FEET.....	NOT GIVEN	9970	10152
WELLHEAD PRESSURE, PSIG...	NOT GIVEN	5800	5400
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	97.3	80.4	85.8
ETHANE.....	1.8	11.0	9.1
PROPANE.....	0.1	4.6	2.7
N-BUTANE.....	0.0	1.2	0.6
ISOBUTANE.....	0.0	0.7	0.3
N-PENTANE.....	0.0	0.2	0.2
ISOPENTANE.....	0.0	0.3	0.1
CYCLOPENTANE.....	0.0	0.1	TRACE
HEXANES PLUS.....	0.0	0.2	0.1
NITROGEN.....	0.4	0.3	0.1
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.....	0.4	1.0	0.9
HELIUM.....	0.03	TRACE	TRACE
HEATING VALUE*.....	1020	1230	1151

* 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 244 SAMPLE 15001	INDEX 245 SAMPLE 15002	INDEX 246 SAMPLE 15098
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	LEUCITE HILLS	LEUCITE HILLS	NOT GIVEN
WELL NAME.....	AMOCO CHAMPLIN NO. 1-1	AMOCO CHAMPLIN NO. 1-5	FIVE MILE GULCH UNIT NO. 1
LOCATION.....	SEC. 1, T21N, R104W	SEC. 5, T21N, R103W	SEC. 27, T21W, R93W
OWNER.....	KENNETH D. LUFF	KENNETH D. LUFF	AMOCO PRODUCTION CO.
COMPLETED.....	02/25/77	01/20/77	01/09/77
SAMPLED.....	05/19/77	05/19/77	09/17/77
FORMATION.....	CRET-FRONTIER	CRET-FRONTIER	CRET-ALMOND
GEOLOGIC PROVINCE CODE...	535	535	535
DEPTH, FEET.....	5584	6387	10796
WELLHEAD PRESSURE, PSIG...	600	800	4600
OPEN FLOW, MCFD.....	2800	1559	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	89.9	93.7	86.3
ETHANE.....	5.8	3.8	6.9
PROPANE.....	2.0	1.1	1.8
N-BUTANE.....	0.6	0.3	0.4
ISOBUTANE.....	0.3	0.1	0.3
N-PENTANE.....	0.2	TRACE	0.2
ISOPENTANE.....	0.2	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1
NITROGEN.....	0.8	0.6	0.0
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.....	0.1	0.2	3.8
HELIUM.....	0.02	0.02	TRACE
HEATING VALUE*.....	1119	1069	1086

* 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 14981	INDEX SAMPLE 15125	INDEX SAMPLE 15119
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	SALT WELLS S	STORM SHELTER	TABLE ROCK
WELL NAME.....	SOUTH SALT WELLS UNIT NO. 1	STORM SHELTER UNIT #6	TABLE ROCK UNIT NO. 21
LOCATION.....	SEC. 14, T14N, R103W	SEC. 20, T23N, R111W	SEC. 10, T18N, R98W
OWNER.....	RESERVE OIL, INC.	DAVIS OIL CO.	TEXACO INC.
COMPLETED.....	07/15/75	NOT GIVEN	12/09/76
SAMPLED.....	04/21/77	10/18/77	09/29/77
FORMATION.....	CRET-FRONTIER	CRET-FRONTIER	MISS-MADISON
GEOLOGIC PROVINCE CODE...	535	535	535
DEPTH, FEET.....	6658	10486	18287
WELLHEAD PRESSURE, PSIG...	1200	4000	5400
OPEN FLOW, MCFD.....	900	5117	9923
COMPONENT, MOLE PCT			
METHANE.....	93.9	77.9	72.4
ETHANE.....	4.1	12.2	2.0
PROPANE.....	0.9	4.0	0.4
N-BUTANE.....	0.2	0.6	0.3
ISOBUTANE.....	0.1	0.6	0.0
N-PENTANE.....	TRACE	0.1	0.1
ISOPENTANE.....	0.1	0.5	0.2
CYCLOPENTANE.....	TRACE	0.2	0.1
HEXANES PLUS.....	TRACE	0.6	0.2
NITROGEN.....	0.5	2.4	5.2
OXYGEN.....	0.0	0.3	0.0
ARGON.....	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	1.7
CARBON DIOXIDE.....	0.3	0.5	17.0
HELIUM.....	0.02	0.02	0.33
HEATING VALUE*.....	1062	1216	827

* 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 15157	INDEX SAMPLE 15158	INDEX SAMPLE 15159
STATE.....	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	TABLE ROCK	TABLE ROCK	TABLE ROCK
WELL NAME.....	DELANEY RIM NO. 2	TABLE ROCK NO. 15	CHAMPLIN NO. 21-15
LOCATION.....	SEC. 7, T18N, R97W	SEC. 2, T18N, R98W	SEC. 15, T18N, R98W
OWNER.....	TEXACO INC.	TEXACO INC.	CHAMPLIN PETROLEUM CO.
COMPLETED.....	08/30/75	--/--/68	11/23/66
SAMPLED.....	11/28/77	11/28/77	11/28/77
FORMATION.....	CRET-LEWIS	JURA-NUGGET	CRET-ALMOND
GEOLOGIC PROVINCE CODE...	535	535	535
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.....	89.5	94.0	91.0
ETHANE.....	5.3	0.5	4.6
PROPANE.....	2.7	TRACE	1.4
N-BUTANE.....	0.8	TRACE	0.4
ISOBUTANE.....	0.3	0.0	0.2
N-PENTANE.....	0.2	0.1	0.1
ISOPENTANE.....	0.2	TRACE	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	TRACE	0.1
NITROGEN.....	0.5	1.9	0.1
OXYGEN.....	0.0	0.2	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	3.1	2.0
HELIUM.....	0.01	0.03	TRACE
HEATING VALUE*.....	1131	965	1074

* 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 253 SAMPLE 15102
STATE.....	WYOMING
COUNTY.....	SWEETWATER
FIELD.....	WAMSUTTER UNIT
WELL NAME.....	CHAMPLIN UPRR4-31 NO. 2
LOCATION.....	NOT GIVEN
OWNER.....	CHAMPLIN PETROLEUM CO.
COMPLETED.....	NOT GIVEN
SAMPLED.....	09/14/77
FORMATION.....	CRET-LEWIS
GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1425
OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT	
METHANE.....	92.2
ETHANE.....	4.7
PROPANE.....	1.6
N-BUTANE.....	0.4
ISOBUTANE.....	0.2
N-PENTANE.....	0.2
ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1
NITROGEN.....	0.0
OXYGEN.....	0.0
ARGON.....	TRACE
HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.4
HELIUM.....	0.01
HEATING VALUE*.....	1102

* 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 15006	INDEX SAMPLE 15007	INDEX SAMPLE 15176
STATE.....	OKLAHOMA	OKLAHOMA	TEXAS
COUNTY.....	OSAGE	OSAGE	BRAZORIA
FIELD.....	DUGA	DUGA	OYSTER CREEK
LOCATION.....			NOT GIVEN
OWNER.....	CEJA CORP.	CEJA CORP.	HILLIARD OIL & GAS, INC.
SAMPLED.....	05/12/77	05/12/77	12/27/77
FORMATION.....	MISS-CHAT	MISS-CHAT	OLIG-FRIO
GEOLOGIC PROVINCE CODE...	355	355	220
PRESSURE, PSIG.....	1300	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	2030
COMPONENT, MOLE PCT			
METHANE.....	55.8	56.5	95.7
ETHANE.....	11.5	11.0	2.3
PROPANE.....	8.6	7.0	0.7
N-BUTANE.....	4.2	2.9	0.2
ISOBUTANE.....	1.4	0.9	0.2
N-PENTANE.....	1.4	0.8	0.1
ISOPENTANE.....	1.1	0.7	0.1
CYCLOPENTANE.....	0.2	0.2	TRACE
HEXANES PLUS.....	0.8	0.5	0.1
NITROGEN.....	14.3	18.9	0.4
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.....	0.4	0.3	0.2
HELIUM.....	0.32	0.28	TRACE
HEATING VALUE*.....	1339	1177	1056

* 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

