

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-35

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG TOP FT	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
2041	WELLMAN; Terry	1950	9,816	350	Wolfcamp, Permian		LM	231	7	WD	0.40	42	9,920	Pennsylvanian	1,240	31	0	0	26	4	707,232	10,358
2042	WELLMAN NORTHWEST; Terry	1954	12,763	15	Silurian, Devonian	AC	LM					34	12,797	Devonian	80	2	0	0	0	2	13,066	265
2043	WELLS (DEVONIAN); Dawson	1955	12,083	10	Devonian							37	12,093	Devonian	120	3	0	0	0	2	43,365	172
2044	WEMAC (ELLENBURGER); Andrews	1954	13,306	37	Ellenburger, Ordovician	AC	DO	34	2	WD	0.13	48	13,554	Ellenburger	440	11	0	0	9	1	434,468	3,200
2045	WEMAC (WOLF CAMP); Andrews	1953	8,708	164	Wolfcamp Lime, Permian		LM				0.11	43	9,175	Wolfcamp Lime	400	10	3	0	2	7	88,472	575
2046	WEMAC NORTH (WOLF CAMP REEF); Andrews	1957	8,565	40	Wolfcamp, Permian	Reef		15	9	SGD		37	13,520	Ellenburger	280	7	2	0	0	7	72,118	379
2047	WENDKIRK; Coke	1953	3,691	5	Cisco Sand, Pennsylvanian	AC	SS	215	18	WD		40	3,696	Cisco Sand	960	24	0	0	5	19	155,918	1,159
2048	WENDKIRK WEST (CROSS CUT SAND); Coke	1956	5,010	10	Cross Cut, Pennsylvanian							42	5,606	Goen	80	2	0	0	0	2	12,770	49
2049	WENDKIRK WEST (ELLENBURGER); Coke	1957	6,120	30	Ellenburger, Ordovician							42	6,666	Wilberns Sand	40	1	Inactive at end of 1958.			0	10	
2050	WENDLAND; Coke	1949	6,230	20	Ellenburger, Ordovician		DO				0.10	47	6,250	Ellenburger	120	3	0	0	0	1	639	35
2051	WENDLAND (CROSS CUT SAND); Coke	1956	5,118	4	Cross Cut Sand, Pennsylvanian							41	6,329	Strawn	40	1	Abandoned 1957			0	2	
2052	WENTZ; Pecos	1941	4,307	135	Ellenburger, Ordovician	AC	DO				0.40	33	4,634	Pre-Cambrian	80	2	0	0	0	2	9,132	260
2053	WENTZ (CLEARFORK); Pecos	1953	2,415	34	Clearfork Lime, Permian	AC	DO		11			35	4,753	Ellenburger Lime	1,360	34	1	0	0	34	168,303	528
2054	WENTZ TUBB; Pecos	1954	2,910	11	Tubb, Permian	AC	DO					33	4,477	Pre-Cambrian	40	1	0	0	0	1	475	14
2055	WENTZ (EAST TUBB); Pecos	1957	2,952	30	Tubb, Permian							31	2,995	Tubb	40	1	0	0	0	1	135	4
2056	WESCOTT; Gaines	1954	10,980	28	Strawn, Pennsylvanian	AC	LM	35	8	SGD	0.11	46	14,284	Granite	200	5	0	0	3	2	143,445	1,128
2057	WEST; Yoakum	1937	5,126	35	San Andres, Permian		DO					30	11,250	Devonian	40	1	0	0	0	1	4,782	149
2058	WEST (DEVONIAN); Yoakum	1957	11,058	19	Devonian			10	4	WD		40	11,250	Devonian	640	16	0	0	15	1	515,165	1,078
2059	WESTBROOK; Mitchell	1920	2,900	100	Clearfork, Permian	AC	DO		4	SGD		25	8,201	Ellenburger	20,160	511	7	0	2	441	1,601,204	22,692
2060	WESTBROOK (UPPER CLEARFORK); Mitchell	1957	3,021	33	Clearfork, Permian								8,201	Ellenburger	120	3	1	0	0	3	3,460	10
2061	WESTBROOK WEST; Mitchell	1954	2,648	82	Clearfork, Permian	AC	DO		6			28	3,050	Clearfork	40	1	Abandoned 1955.			0	5	
2062	WESTLUND; Gaines	1951	6,345	57	Clearfork, Permian	AC	DO	63	7	SGD		28			2,000	50	Renamed Flanagan Upper Clearfork				1,500	
2063	WHEAT; Loving	1925	4,212	20	Delaware, Permian	ML	SS		20		0.20	38	5,083	Delaware	7,360	184	0	0	13	128	419,811	14,655
2064	WHEAT (SHALLOW); Loving	1951	2,490		Castile, Permian	ML	SS					28			40	1	Abandoned 1951			0	.6	
2065	WHEELER (DEVONIAN); Winkler-Ector	1945	8,540	300	Devonian	AC	DO		5	SGD	0.80	40	10,813	Ellenburger	2,200	55	1	0	13	17	158,551	8,800
2066	WHEELER (ELLENBURGER); Winkler-Ector	1943	10,300	200	Ellenburger, Ordovician	AC	DO	54	1	WD	0.29	46	10,813	Ellenburger	1,720	43	0	0	6	18	338,786	15,615
2067	WHEELER (SILURIAN); Winkler	1945	9,220	85	Silurian	AC	LM				0.65	33	10,813	Ellenburger	520	14	1	0	2	9	89,880	706
2068	WHEELER (WOLF CAMP); Ector	1959	7,550	116	Wolfcamp, Permian								9,360	Devonian	200	5	5	0	3	2	86,841	87
2069	WHEELER NORTHWEST (ELLENBURGER); Winkler	1950	10,735	40	Ellenburger, Ordovician	AC	DO				0.20	43	10,813	Ellenburger	40	1	0	0	0	1	2,424	68
2070	WHEELER NORTHWEST (FUSSELMAN); Winkler	1950	9,350	50	Fusselman, Silurian	AC	DO				0.71	32	10,813	Ellenburger	320	2	Changed to gas wells in 1953.				61	
2071	WHEELER NORTHWEST (WOLF CAMP); Winkler	1959	7,656	144	Wolfcamp, Permian								9,445	Fusselman	40	1	1	0	1	0	500	.5
2072	WHITE & BAKER; Pecos	1935	1,650	40	Queen, Permian	AC	SS			SGD		31	9,811	Ellenburger	3,920	98	0	0	13	66	91,846	3,059
2073	WHITE & BAKER (LIME); Pecos	1943	1,857		Grayburg Lime, Permian	AC	LM					32			40	1	Abandoned November 1947			0	17	
2074	WHITE & BAKER (STRAWN); Pecos	1945	7,580	48	Pennsylvanian	AC	LM					38	9,811	Ellenburger	80	2	Inactive at end of 1957.			0	43	
2075	WICKETT SOUTH; Ward	1952	2,698	44	Yates, Permian	AC	SS					28	2,920	Yates	1,200	30	9	0	13	17	66,777	424
2076	WIGHT RANCH (CLEARFORK); Winkler	1957	6,338	30	Tubb, Permian							36	11,596	Ellenburger	40	1	0	0	0	1	2,339	8
2077	WIGHT RANCH (ELLENBURGER); Winkler	1952	1,152	76	Ellenburger, Ordovician	AC	DO					44	11,596	Ellenburger	40	1	0	0	0	1	5,746	47
2078	WILBANKS (CLEARFORK); Crockett	1958	6,381	10	Clearfork, Permian							32	11,675	Ellenburger	40	1	Not Producing at end of 1958.			0	.3	
2079	WILIE (FLIPPEN); Cottle	1955	3,234	5	Canyon-Reef, Pennsylvanian	MC	LS	24	8	SGD		36	3,515	Pennsylvanian Reef	80	2	0	0	0	2	2,618	13
2080	WIL-TOHN; Ward	1953	3,051	10	Delaware Sand, Permian	MC	SS					37	5,464	Delaware	80	2	0	0	1	1	6,697	43
2081	WILLIAMS; Pecos	1951	2,814	20	Yates, Permian	AC	SS		15			34	2,863	Yates	80	2	0	0	0	1	1,219	18
2082	WILLIS; Runnels	1950	2,672	13	Serratt Sand, Pennsylvanian		SS		10		0.23	41	4,500	Caddo	40	2	0	0	0	2	1,067	44
2083	WILLRODE (CISCO); Upton	1955	8,795	20	Cisco, Pennsylvanian		LM	P		SGD		41	13,200	Ellenburger	160	4	0	0	1	1	19,845	229
2084	WILLRODE (LEONARD); Upton	1956	7,438	20	Leonard, Permian							36	13,200	Ellenburger	40	1	0	0	1	0	3,613	16
2085	WILLRODE (STRAWN); Upton	1955	10,200	65	Strawn, Pennsylvanian								13,200	Ellenburger	40	1	0	0	1	0	5,579	34
2086	WILL-WHAR (MORRIS); Runnels	1954	3,720	6	Morris Sand, Pennsylvanian		SS					40	4,210	Pennsylvanian	20	1	0	0	0	1	1,364	4
2087	WILSHIRE; Upton	1948	7,800	100	Wolfcamp, Permian	AC	DO		5			37	13,977	Ellenburger	40	1	0	0	0	1	675	36
2088	WILSHIRE (ELLENBURGER); Upton	1951	12,306	100	Ellenburger, Ordovician	AC	DO	10	3	WD	0.05	43	12,438	Ellenburger	1,680	42	0	0	34	8	1,369,953	22,155
2089	WILSHIRE (PENNSYLVANIAN); Upton	1951	9,365	40	Pennsylvanian	AC	DO		5		0.10	43	12,438	Ellenburger	200	5	0	0	4	0	16,934	108
2090	WINDHAM (WOLF CAMP); Upton	1952	9,038		Wolfcamp	A	DO					42			40	1	Inactive at end of 1952			0	1	
2091	WINFIELD; Scurry	1949	8,220	20	Pennsylvanian								8,922	Granite	80	2	Combined with Fluvanna and Fluvanna Strawn, November 1954.				111	
2092	WINFIELD (ELLENBURGER); Scurry	1952	8,360	10	Ellenburger, Ordovician	AC	DO					42	8,370	Ellenburger	160	4	Combined with Fluvanna Ellenburger, November 1954.				133	
2093	WINFIELD (PERMIAN); Scurry-Borden	1948	3,955		Permian								4,032	Permian	40	1	Abandoned			0	5	
2094	WINGATE; Runnels	1943	5,290									42			10	1	Abandoned			0	.5	
2095	WINGATE (GARDNER); Runnels	1956	4,838	10	Gardner Sand, Pennsylvanian								4,920	Strawn	280	7	0	0	0	2	6,280	46
2096	WINTERS; Runnels	1943	2,510	8	Pennsylvanian		SS		10		0.20	43	4,914		40	2	Abandoned			0	30	
2097	WINTERS (CADD0RS																					

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-16

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVERAGE NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULFUR P.P.T. (WT)	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	ABANDONED	FLOWING	ARTIFICIAL LIFT	DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
901	HAZEDA (DELAWARE SAND); Ward	1957	4,754	13	Delaware Sand, Permian								4,967	Delaware Sand	200	5	Combined with Twohreds (Delaware)			Field 9-1-57	
902	HEADLEE (BEND); Ector	1955	10,648	76	Bend, Pennsylvanian								12,055	Devonian	40	1	Abandoned			0	38
903	HEADLEE (DEVONIAN); Ector	1953	11,756	86	Devonian	AC	DO	.34	6	SGD	0.07	47	13,319	Ellenburger	3,840	96	13	0	96	0	1,530,896 4,562
904	HEADLEE (ELLENBURGER); Ector	1953	13,106	213	Ellenburger Lime, Ordovician	AC	DO	1	2		2.0	42	13,319	Ellenburger Lime	2,280	57	0	1	38	13	1,924,255 15,216
905	HEADLEE (STRAWN); Midland	1955	9,895	35	Strawn, Pennsylvanian	AC	LM		10			51	13,312	Ellenburger	240	6	0	0	2	0	16,190 421
906	HEADLEE NORTH (DEVONIAN); Ector	1956	12,210	160	Devonian	AC	DO		5	SGD	0.19	46	13,777	Ellenburger	560	14	2	0	10	1	100,047 482
907	HEINER; Pecos	1941	5,250	200	Ellenburger, Ordovician	AC	DO					36	8,460	Ellenburger	120	3	Inactive at end of 1958			0	107
908	HEINER NORTH; Pecos	1948	5,630		Silurian	AC					0.36	39	8,460	Ellenburger	320	8	Combined with Pecos Valley High Gravity Oct. 1953. Now carried as Maverick North (Cross Cut)			6	
909	HELEN - KAY (MORRIS SAND); Runnels	1952	4,251		Morris Sand, Pennsylvanian							28									
910	HELUMA (DEVONIAN); Upton	1956	8,705	120	Devonian								11,100	Ellenburger	80	2	0	0	1	1	13,092 63
911	HELUMA (ELLENBURGER); Upton	1956	10,590	136	Ellenburger, Ordovician		DO	10	4			50	10,888	Ellenburger	160	4	0	0	2	2	120,797 674
912	HELUMA (PENNSYLVANIAN); Upton	1956	8,030	12	Pennsylvanian								10,980	Ellenburger	40	1	0	0	0	1	9,625 11
913	HELUMA (SAN ANDRES); Upton	1956	3,044	72	San Andres, Permian							28	3,194	Grayburg	40	1	Inactive at end of 1958			0	3
914	HENARD; Yoakum	1950	5,205	80	San Andres, Permian	MC	DO					32	5,285	San Andres	80	2	0	0	0	1	3,683 67
915	HENDERSON; Winkler	1936	3,050	100	Yates-Seven Rivers, Permian	AC	SS			WD	1.1	32	3,500	Whitehouse	6,040	131	0	4	4	10	42,275 14,266
916	HENDERSON-PECOS; Pecos	1951	2,040		Permian	AC				WD		26			520	17	0	0	0	15	37,874 130
917	HENDERICK; Winkler	1926	2,400	300	Yates-Seven Rivers, Permian	AC	LM			WD	1.5	30	13,813	Ellenburger	22,320	558	41	0	41	293	1,924,652 232,199
918	HENSON (CROSS CUT); Runnels	1955	3,100	5	Cross Cut Sand, Pennsylvanian		SS					41	4,085	Strawn	20	1	0	0	0	1	726 6
919	HENSON (JENNINGS); Runnels	1955	3,636	6	Jennings Sand, Pennsylvanian		SS					40	4,085	Strawn	50	3	0	0	0	1	3,165 40
920	HENSON (MORRIS); Runnels	1955	3,470	12	Morris Sand, Pennsylvanian		SS					42	4,085	Strawn	60	3	Abandoned 1959			60	16
921	HERMLEIGH; Scurry	1949	7,314	43	Ellenburger, Ordovician								7,357	Ellenburger	120	3	Abandoned 2-1-57			0	67
922	HERMLEIGH (STRAWN); Scurry	1953	6,530	12	Strawn Sand, Pennsylvanian							39	7,550	Ellenburger, Lime	200	5	0	0	1	0	3,361 77
923	HERMLEIGH (6200'); Scurry	1957	6,194	20	Canyon Sand, Pennsylvanian								7,550	Ellenburger	320	8	5	0	2	6	52,364 123
924	HERRELL; Sterling	1950	2,425	10	Clearfork, Permian		DO		20			32	2,539	Clearfork	120	3	0	0	0	3	4,899 57
925	HERRELL EAST (QUEEN SAND); Sterling	1953	1,454	11	Queen Sand, Permian	AC	SS					32	1,475	Queen Sand	280	7	1	0	0	7	36,104 131
926	HERRINGTON; Upton	1937	2,890									24					No Production since 1944			0	72
927	HICKS (McKEE); Pecos	1956	5,489	42	McKee, Ordovician							43	6,423	Ellenburger	40	1	0	0	0	1	12,521 84
928	HI-LONESOME (PENNSYLVANIAN); Midland	1951	10,685	23	Bend, Pennsylvanian	AC					0.30	43	10,722	Pennsylvanian	120	3	0	0	1	2	14,159 204
929	HI-LONESOME (WOLF CAMP); Midland	1951	9,560	170	Wolfcamp, Permian	AC	LM				0.16	41	10,750	Bend	160	4	0	0	1	2	8,240 148
930	HIRSCH (CLEARFORK); Upton	1956	7,120	20	Spraberry, Permian							40	8,469	Dean			Renamed Spraberry Clearfork				61
931	HOBBS EAST; Gaines	1949	6,390	56	Clearfork, Permian	AC	DO					37	7,510	Clearfork	320	8	0	1	0	7	41,117 674
932	HOBBS EAST (3900'); Gaines	1950	3,760	10	Queen, Permian	ML	SS					25	6,430	Clearfork	80	2	Abandoned 1955			0	1
933	HOBBS EAST (4400'); Gaines	1951	4,418	41	San Andres, Permian	AC	DO	M	15			30	4,459	San Andres	200	5	0	1	0	3	5,064 241
934	HOBBS EAST (5900'); Gaines	1950	5,845	10	San Angelo, Permian	AC	SS					36	6,430	Clear Fork	40	1	0	0	0	1	4,900 91
935	HOBBS SOUTHEAST (DEVONIAN); Gaines	1957	9,036	20	Devonian	MU	DO						11,578	Granite	40	1	0	0	0	1	8,018 66
936	HOBLITZELLE; Hockley	1954	8,318	56	Wolfcamp, Permian		LM					28	10,215	Devonian	40	1	Abandoned 1954			0	10
937	HOBLITZELLE (LOWER CANYON); Hockley	1954	10,070	19	Lower Canyon, Pennsylvanian	Reef					0.10	46	10,089	Strawn	120	3	Inactive at end of 1958			0	126
938	HOB0 (PENNSYLVANIAN); Borden	1951	7,103	7	Pennsylvanian Reef	Reef	LM	602	9	WD		43	7,110	Pennsylvanian	1,200	30	0	2	11	14	282,955 4,552
939	HOB0 (WOLF CAMP); Borden	1954	6,393	41	Wolfcamp, Permian		LM					43	7,300	Pennsylvanian	40	1	Inactive at end of 1958			0	23
940	HOFFERKAMP (PENNSYLVANIAN); Midland	1951	11,140	176	Pennsylvanian	AC						46	11,316	Pennsylvanian	40	1	0	0	0	1	42 29
941	HOFFERKAMP (SPRABERRY); Midland	1956	8,626	24	Spraberry, Permian								12,700	Ellenburger	40	1	0	0	0	1	2,107 11
942	HOFFERKAMP (STRAWN); Midland	1954	10,450	60	Strawn, Pennsylvanian	AC						47	12,700	Ellenburger	40	1	Abandoned 1955			0	3
943	HOKIT (PENNSYLVANIAN); Pecos	1957	9,429	18	Strawn, Pennsylvanian								11,506	Ellenburger	40	1	Inactive at end of 1958			0	1
944	HOKIT (2550' QUEEN); Pecos	1959	2,567	23	Queen, Permian								2,679	Queen	40	1	1	0	0	1	189 .2
945	HOLLEKIRK (CAPPS LIME); Runnels	1957	4,068	10	Capps Lime, Pennsylvanian		LM						4,739	Caddo	40	1	0	0	0	1	4,955 42
946	HOLLEKIRK (GOEN LIME); Runnels	1957	4,253	2	Goen Lime, Pennsylvanian		LM						4,788	Gray Sand	40	1	0	0	1	0	18,304 67
947	HOLLEKIRK (JENNINGS SAND); Runnels	1957	4,408	6	Jennings Sand, Pennsylvanian		SS						4,800	Caddo	40	1	0	0	0	1	304 7
948	HOLLOW CREEK (DOG BEND); Runnels	1959	3,158	14	Dog Bend, Pennsylvanian								4,208	Ellenburger	40	2	2	0	2	0	6,103 6
949	HOLLOW CREEK (SERRATT); Runnels	1959	2,110	8	Serratt Sand, Pennsylvanian								4,208	Ellenburger	20	1	1	0	0	1	1,708 2
950	HOLTON (STRAWN); Martin	1958	10,804	36	Strawn, Pennsylvanian								12,785	Ellenburger	40	1	Inactive at end of 1958			0	.7
951	HOOD (PENNSYLVANIAN); Borden	1958	8,074	4	Pennsylvanian							40	9,210	Granite	40	1	0	0	0	1	2,876 11
952	HOOPER; Crockett	1938	1,400	15	Queen, Permian	AC	SS					25	8,440	Ellenburger	480	12	0	0	0	5	3,399 86
953	HOOPER (SAN ANDRES); Crockett	1957	1,882	10	San Andres, Permian								2,052	San Andres	40	1	Inactive at end of 1957			0	.4
954	HOSKE (PENNSYLVANIAN); Dawson	1957	10,680	14	Strawn, Pennsylvanian								12,885	Ellenburger	40	1	0	0	0	1	990 9
955	HOWARD DRAW (SHALLOW); Crockett	1950	1,292	25	San Andres, Permian	AC	DO					30	1,335	Grayburg	320	8	0	0	2	4	5,180 26
956	HOWARD GLASSCOCK; Mitchell-Howard-Glasscock	1926	1,276 3,200	15	Permian	AC	SS		24		1.02	32	10,906	Ellenburger	62,360	559	20	0	2	1,534	5,268,205 206,038
957	HUDDELL-MANNING; Dawson	1950	7,856	170	Spraberry, Permian	MC	SS				0.35	39	9,914	Dean	40	1	0	0	0	1	12,481 157
958	HUDDELLTON; Runnels	1940	3,557														Combined with Beddo 1950			0	28
959	HUDSON; Andrews	1951	7,445	105	Wichita Albany, Permian	AC	DO					42	7,600	Wichita Albany	40	1	Abandoned July 1953			0	4
960	HUGHLENE; Upton	1954	11,350	15	Ellenburger, Ordovician	AC	DO					43	11,500	Ellenburger	40	1	Plugged back to Fusselman 1957				11

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-17

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVE. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md	POROSITY PER CENT. ESTIMATED	PRODUCTION MECHANISM	SULPHUR SEP. CENT.	GRAVITY API. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
9-1	HUGLENE (FUSSELMAN); Upton	1957	10,885	20	Fusselman, Silurian	AC	DO					43	11,500	Ellenburger	40	1	0	0	0	1	655	7
9-2	HULLDALE (PENNSYLVANIAN REEF); Schleicher	1950	5,772	31	Strawn Reef, Pennsylvanian	Reef	LM	61	11	GCD	0.20	39	5,803	Strawn	5,000	125	3	0	77	48	1,117,851	12,822
9-3	HULLDALE NORTH (PENNSYLVANIAN REEF); Schleicher	1951	5,614	61	Strawn, Pennsylvanian	Reef	LM	50	10			42	5,675	Strawn	400	10	0	0	1	9	80,748	1,077
9-4	HULLDALE SOUTH (PENNSYLVANIAN REEF); Schleicher	1953	5,784	26	Strawn Lime, Pennsylvanian	Reef	LM					40				2	Combined with Hulddale Pennsylvanian Reef June 1, 1958.					51
9-5	HULL-DOBBS (GARDNER); Runnels	1950	3,975	16	Gardner, Pennsylvanian								4,207	Gray	1,580	79	Combined with Goldsboro Gardner District 7-B.					2,110
9-6	HULL-DOBBS (GRAY); Runnels	1953	4,036		Gray, Pennsylvanian										20	1	Transferred to Coleman County August 1, 1954 District 7-B.					3
9-7	HULL-DOBBS (MORRIS); Runnels	1953	3,670		Morris, Pennsylvanian										80	2	Transferred to Coleman County August 1, 1954 District 7-B.					64
9-8	HULL-DOBBS NORTH (FRY); Runnels	1953	3,721		Fry, Pennsylvanian										20	1	Transferred to Coleman County August 1, 1954 District 7-B.					13
9-9	HULL-DOBBS NORTH (UPPER GARDNER); Runnels	1953															Combined with Hull-Dobbs Gardner District 7-B.					45
9-10	HUNT; Andrews	1946	11,959									40					November 1953.					0
9-11	HUNTLEY (GLORIETA); Garza	1954	4,020	7	Glorieta, Permian	AC	DO	80	16			37	4,346	San Andres	1,560	39	0	0	0	39	302,418	2,048
9-12	HUNTLEY (3400'); Garza	1954	3,371	22	San Andres, Permian	AC	DO	3	14			35	4,430		1,640	41	0	0	5	36	249,011	1,686
9-13	HUNTLEY EAST (SAN ANDRES); Garza	1956	3,182	100	San Andres, Permian	AC	DO	8	15			36	4,940	Clearfork	1,240	31	0	0	0	31	182,509	413
9-14	MURDLE; Upton	1926	2,000	40	Grayburg, Permian	AC	DO	2	9	SGD		25	3,085	Grayburg	760	21	0	0	0	11	17,251	431
9-15	MURDLE (QUEEN); Upton	1956	1,634	8	Queen, Permian								2,131	San Andres	40	1	0	0	0	1	1,304	8
9-16	MURLBUT; Mitchell	1952	130	2	Sunflower, Quaternary	SS						18	132	Sunflower	80	2	Abandoned February 1953					0
9-17	MUTEX (DEAN); Andrews	1959	9,595	125	Dean, Permian								12,559	Devonian	40	1	1	0	0	1	5,203	5
9-18	MUTEX (DEVONIAN); Andrews	1953	12,509	22	Devonian	AC	DO	125	7	SGD	0.31	44	12,533	Devonian Lime	1,640	41	1	0	20	21	1,304,535	4,978
9-19	MUTTO; Howard	1950	7,370	60	Wolfcamp, Permian	Reef	LM					35	9,349	Ellenburger	40	1	0	0	0	1	5,132	45
9-20	I. A. B. (MENIELE PENNSYLVANIAN); Coke	1957	5,700	46	Canyon, Pennsylvanian	Reef	LM	2	5	SGD		42	6,910	Ellenburger	2,280	57	13	0	50	7	943,300	1,408
9-21	I. A. B. (PENNSYLVANIAN); Coke	1957	5,070	18	Pennsylvanian Sand	MU	SS		15	SGD			6,910	Ellenburger	40	1	0	0	0	0	0	7
9-22	I. A. B. (5070' PENNSYLVANIAN); Coke	1957	5,070	18	Pennsylvanian Sand	MU	SS		15	SGD			6,910	Ellenburger	560	14	5	0	10	4	70,814	136
9-23	I. A. B. SOUTHWEST (CANYON); Coke	1958	5,594	24	Canyon Sand, Pennsylvanian	ML	SS		15	SGD			5,950	Pennsylvanian	40	1	0	0	1	0	5,688	32
9-24	JATAN (SAN ANDRES); Howard-Mitchell	1957	2,119	39	San Andres, Permian	AC		.5	6	SGD		30	2,755	San Andres	440	11	5	0	0	11	60,436	111
9-25	JATAN EAST HOWARD; Howard-Mitchell	1926	2,600	200	San Angelo-Clearfork, Permian	D	DO					27	4,220	Wichita Albany	26,520	663	25	0	0	663	1,771,860	38,408
9-26	JATAN NORTH; Howard	1942	2,950	75	Permian	AC	DO					30	4,246	Clearfork	1,240	31	0	1	0	28	30,867	848
9-27	ILLUSION LAKE; Lamb	1957	4,116	15	San Andres, Permian	AC	DO	2	14	SGD		27	4,131	San Andres	1,200	30	3	0	0	30	190,744	446
9-28	INEZ (WOLF CAMP); Andrews	1952															(Renamed Fasken Wolfcamp 1953)					
9-29	IVOLANTHE; Sterling	1948	8,200	30	Strawn, Pennsylvanian	AC					0.25	45	8,444	Ellenburger	40	1	Abandoned 1955				0	6
9-30	IRION; Irion	1929	1,350	10	Permian	MC	DO					38	2,455	Clearfork	960	24	0	5	0	1	570	130
9-31	IRISH; Hale	1946	5,500		Clearfork, Permian												Combined with Anton-Irish					
9-32	JAMESON; Coke	1946	6,200	245	Pennsylvanian	MC		4	7	GI	0.08	46	7,141	Ellenburger	6,080	152	0	3	115	21	1,416,795	24,405
9-33	JAMESON (CADD0); Coke	1954	6,557	3	Caddo, Pennsylvanian		LM					39	7,830	Granite	40	1	Abandoned 1955				0	2
9-34	JAMESON (STRAWN); Coke	1952	5,925	122	Strawn Sand, Pennsylvanian	MC		4	11			48	8,331	Ellenburger	20,160	504	0	4	418	69	1,392,113	21,403
9-35	JAMESON NORTH; Mitchell	1953	5,928	18	Strawn Sand, Pennsylvanian	MC	SS		12		0.08	44	6,866	Strawn Lime	680	18	0	0	17	0	84,585	848
9-36	JAMESON SOUTH; Coke	1947	6,114	137	Pennsylvanian								6,260	Pennsylvanian	40	1	Combined with Jameson 1948					0
9-37	JAMESON SOUTHWEST (STRAWN); Sterling	1955	7,355	80	Strawn, Pennsylvanian							43	7,497	Strawn	160	4	0	0	3	0	6,571	51
9-38	JAMESON WEST (STRAWN); Sterling	1955	6,868	76	Strawn, Pennsylvanian			4	11	WD			7,000	Strawn	880	24	1	0	22	1	133,765	470
9-39	JAMESON-POLIARD; Pecos	1941	2,050	4	Permian	AC	SS				1.14	24	2,550	San Andres	280	7	Abandoned 1955				0	193
100-1	CANIE L (SAN ANDRES); Andrews	1956	4,758	12	San Andres, Permian	DO		4	7	WD		30	4,868	San Andres	480	12	0	1	0	9	16,025	81
100-2	CANILLE (CLEARFORK); Ward	1955	4,345	25	Clearfork, Permian							35	5,338	Tubb	40	1	Abandoned 1956				0	7
100-3	CANICE (SAN ANDRES); Yoakum	1955	5,246	17	San Andres, Permian							31	5,263	San Andres	160	4	1	0	0	4	15,126	59
100-4	CASPER (MISSISSIPPIAN); Winkler	1957	8,458	12	Mississippian	AC	LM	P	11	SGD		36	11,810	Ellenburger	40	1	0	0	0	1	10,940	31
100-5	CAX (DEVONIAN); Crane	1958	5,478	38	Devonian	MU	CH	15	18	SGD			5,688	Silurian	160	4	2	0	2	2	69,793	84
100-6	CAX (4450' PERMIAN); Crane	1956	4,445	65	Wolfcamp, Permian	DO				SGD		44	6,240	Ellenburger	120	3	0	0	0	2	2,617	20
100-7	CAYTON (LOWER PENNSYLVANIAN) Kent	1959	6,574	16	Pennsylvanian								6,695	Strawn	40	1	1	0	0	1	16,338	16
100-8	CEAN BURK (GOEN LIME); Runnels	1952	4,421	6	Goen Lime, Pennsylvanian								5,007	Strawn	80	2	Abandoned November 1955					0
100-9	JENKINS; Gaines	1948	9,100	100	Devonian	AC	DO		8			38	11,705	Granite Wash	80	2	0	0	0	2	17,686	278
100-10	JENKINS (SAN ANDRES); Gaines	1950	4,543	277	San Andres, Permian	AC	DO					31	11,702	Pre-Cambrian	80	2	0	0	0	2	11,033	94
100-11	JENKINS NORTH (CANYON); Gaines	1952	8,990	20	Canyon, Pennsylvanian	AC	LM	250	6	SGD		43	10,000	Devonian	240	6	0	0	0	5	35,781	758
100-12	JENKINS NORTH (CLEARFORK); Gaines	1954	7,148	63	Clearfork, Permian								9,005		120	3	0	2	0	0	10,501	76
100-13	JENKINS NORTH (DEVONIAN); Gaines	1952	9,678	30	Devonian	AC	DO		8	SGD		38	9,983	Devonian	160	4	0	1	0	2	14,733	436
100-14	JIGGER "Y"; Upton	1951	9,145	105	Pennsylvanian	AC	LM			SGD	0.06	42	12,385	Ellenburger	120	3	0	0	3	0	5,893	139
100-15	JIM ADAMS (CAPPS); Runnels	1954	4,406		Lower Capps, Pennsylvanian										20	1	Abandoned February 1958					0
100-16	JIM ADAMS (FRY); Runnels	1950	4,373	16	Fry Sand, Pennsylvanian	AC	SS	40	16	WF		41	4,796	Ellenburger	1,520	38	0	0	0	24	22,197	1,065
100-17	JIM ADAMS (STRAWN); Runnels	1949	4,512	8	Strawn Lime, Pennsylvanian								4,796	Ellenburger	20	1	0	0	1	0	5,525	137
100-18	JIM BURT; Runnels	1949	2,349	17	King Sand, Pennsylvanian								4,738	Ellenburger	120	6	0	2	0	1	1,743	106
100-19	JIM BURT (CADD0); Runnels	1952	4,388	8	Caddo Lime, Pennsylvanian		LM					46	4,494	Caddo	800	2						

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-16

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG. TOP FT.	ESTIMATE PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR, PER CENT	GRAVITY, A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMP. LETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1001	JIM BURT SOUTH (UPPER GARDNER); Runnels	1953	4,076	19	Upper Gardner, Pennsylvanian	SS						43			80	2	Abandoned				0	18
1002	JIM BURT SOUTH (McMILLIAN); Runnels	1953	2,637	11	McMillian Sand, Pennsylvanian	SS						44			40	1	Abandoned	February 1954			0	11
1003	JOHN SCOTT; Reagan	1953	2,534	19	Grayburg Lime, Permian	DO						37	2,796	San Andres Lime	360	9	0	0	0	9	10,125	53
1004	JOHN SCOTT NORTH (SAN ANDRES); Reagan	1957	2,305	89	San Andres, Permian								2,529	San Andres	40	1	Inactive at end of 1958				0	3
1005	JOHNSON; Ector	1940	4,100	75	Permian	AC	DO		10		0.17	34	6,098	Clear Fork	8,000	200	1	7	9	160	549,280	13,528
1006	JO-MILL; Borden-Dawson	1954	7,095	50	Spraberry, Permian	AC	SS	3	16	SGD	0.31	37	8,358	Reef	8,600	215	0	4	12	199	3,589,011	14,903
1007	JO-MILL (CANYON); Dawson	1956	9,086	6	Canyon, Pennsylvanian								9,171	Canyon	80	2	0	0	0	1	16,314	101
1008	JO-MILL NORTH (SPRABERRY); Borden	1955	7,108	86	Spraberry, Permian			P	16	SGD		39	7,285	Spraberry	400	10	0	0	0	10	141,798	548
1009	JONES RANCH; Gaines-Yoakum	1945	11,181	250	Devonian	AC	DO		2	WD		45	11,544	Ellenburger	320	8	0	0	1	7	199,897	4,970
1010	JONES RANCH (WICHITA ALBANY); Yoakum	1954	8,965	12	Wichita Albany, Permian	DO					0.30	42	11,530	Devonian	120	3	Abandoned	1958			0	115
1011	JONES RANCH SOUTH; Gaines	1953	11,258	10	Devonian	AC	DO		2	WD		45	11,301	Devonian	80	2	Abandoned	8-15-57			0	67
1012	JORDAN; Crane-Ector	1937	3,650	150	Permian	AC	LM		17	SGD	2.10	35	9,964	Ellenburger	11,520	288	1	0	74	214	1,710,165	36,537
1013	JORDAN (CONNELL); Ector	1948	8,830	30	Simpson, Ordovician	AC	SS	150	13	SGD	0.10	44	9,964	Ellenburger	960	24	0	2	7	7	73,477	3,023
1014	JORDAN (ELLENBURGER); Crane-Ector	1947	8,925	80	Ellenburger, Ordovician	AC/f	DO		1	WD	0.20	43	9,964	Ellenburger	2,480	62	0	4	45	10	856,227	12,937
1015	JORDAN (FUSSELMAN); Ector	1951	7,420	41	Fusselman, Silurian	AC	DO		4	SGD	0.18	43	7,461	Fusselman	640	16	0	1	0	13	63,609	1,272
1016	JORDAN (PENNSYLVANIAN); Crane	1953	7,830	20	Pennsylvanian Detrital Chert	H	LM	EX	15	SGD		40	9,068	Devonian Lime Chert	280	7	0	0	0	7	99,901	992
1017	JORDAN (TUBE); Ector	1948	5,242	35	Permian	AC	DO	70	8	SGD	0.75	40	9,964	Ellenburger	800	25	0	3	1	13	82,593	2,521
1018	JORDAN (WADDELL); Ector	1951	8,375	39	Waddell, Ordovician	AC	SS				0.08	44	8,916	Ellenburger	160	4	0	0	1	1	15,356	192
1019	JORDAN (4500'); Crane	1947	4,660	30	Clear Fork, Permian	MC	DO		9			34	9,964	Ellenburger	360	9	0	1	0	8	14,636	399
1010	JORDAN SOUTH (FUSSELMAN); Ector	1956	7,507	20	Fusselman, Silurian	AC	DO					44	7,532	Montoya	80	2	0	0	1	1	24,635	194
1011	JU-JAN-JAC (STRAWN); Tom Green	1956	6,884	6	Strawn, Pennsylvanian								7,201	Ellenburger	40	1	0	0	0	1	1,778	8
1012	JUSTICEBURG (GLORIETA); Garza	1954	2,516	10	Glorieta, Permian	AC	DO	3	15	SGD		38	2,530	Glorieta	3,160	79	9	0	0	79	302,576	1,518
1013	JUSTICEBURG (SAN ANDRES); Garza	1957	1,962	50	San Andres, Permian	AC	DO	1	10				7,834	Mississippian	40	1	Inactive at end of 1958				0	3
1014	JUSTICEBURG (LOWER SAN ANDRES); Garza	1959	2,466	7	Lower San Andres, Permian								2,665	Glorieta	200	5	5	0	0	5	9,445	9
1015	JUSTICEBURG (STRAWN); Garza	1951	7,388	65	Strawn, Pennsylvanian							39	7,834	Mississippian	40	1	Abandoned	April 1953			0	2
1016	JUSTICEBURG NORTH; Garza	1954	2,580	24	Glorieta, Permian		DO		15			40	2,774	San Andres	40	1	Abandoned	1955			0	2
1017	JUSTICEBURG NORTHWEST (GLORIETA); Garza	1955	2,560	90	Glorieta, Permian	AC	DO	3	15	SGD		37	2,790	Glorieta	1,840	46	Combined with Post	Glorieta 8-1-59			249	
1018	JUSTICEBURG NORTHWEST (SAN ANDRES); Garza	1959	2,036	18	San Andres, Permian								2,680	Glorieta	160	4	4	0	0	4	13,350	13
1019	"JY"; King	1950	4,224	1	Strawn, Pennsylvanian	AC	SS					37	4,225	Canyon	40	1	Abandoned	1955			0	9
1020	KCA (WOLFCAMP); Crockett	1958	6,384	10	Wolfcamp, Permian								7,842	Ellenburger	40	1	0	0	0	1	1,152	4
1021	KATZ NORTH (LORENTZEN); King	1959	5,244	3	Katz Sand, Pennsylvanian								5,300	Strawn Sand	40	1	1	0	0	1	2,290	2
1022	KAY (WOLFCAMP REEF); Gaines	1959	10,386	22	Wolfcamp Reef, Permian								11,530	Strawn	160	4	4	0	3	1	116,485	116
1023	KELLY; Scurry	1948	6,795	20	Pennsylvanian								7,905	Ellenburger	1,520	38	Combined with Kelly Snyder May 1950				1,843	
1024	KELLY SNYDER; Scurry	1948	6,260	220	Canyon, Pennsylvanian	Reef	LM		9		0.32	42	9,627	Canyon	52,560	1,314	0	16	691	142	19,092,914	226,706
1025	KELLY SNYDER (CADD0); Scurry	1950	7,680		Strawn, Pennsylvanian		LM				0.45	39	7,775	Mississippian	80	2	0	0	0	1	2,976	80
1026	KELLY SNYDER (CISCO); Scurry	1952	6,180	82	Cisco, Pennsylvanian	Reef	LM	35	18	SGD	0.17	42	6,906	Reef	4,160	104	0	3	2	62	803,082	6,826
1027	KELLY SNYDER (LOWER CLEAR FORK); Scurry	1956	3,320	60	Clear Fork, Permian		DO					23	3,597	Clear Fork	1,000	25	0	2	0	23	113,461	315
1028	KELLY SNYDER SOUTH; Scurry	1955	6,877	40	Pennsylvanian	Reef	LM					41	6,920	Pennsylvanian Reef	40	1	Abandoned	1955			0	6
1029	KELLY SNYDER SOUTHEAST (LOWER CANYON); Scurry	1954	7,220	10	Canyon, Pennsylvanian	Reef	LM		7		0.19	39	7,982		40	1	Inactive at end of 1958				0	35
1030	KELLY SNYDER SOUTHEAST (MIDDLE CANYON); Scurry	1954	6,840	136	Middle Canyon, Pennsylvanian	Reef	LM		7			33	7,560		40	1	Inactive at end of 1957				0	59
1031	KEN (STRAWN LIME); Kimble	1950	2,910	10	Strawn, Pennsylvanian							40	2,922	Strawn	160	4	Inactive at end of 1953				0	10
1032	KENDRICK (GARDNER); Runnels	1955	4,292	10	Gardner Sand, Pennsylvanian	SS						41	4,750	Strawn	120	3	0	0	0	3	6,275	64
1033	KENNEMER; Tom Green	1953	5,756	7	Strawn Sand, Pennsylvanian	MC	LM					43	7,296	Ellenburger	40	1	Abandoned	1953			0	.9
1034	KEN REGAN (DELAWARE); Reeves	1954	3,350	10	Delaware Sand, Permian	ML	Sb		20			36	3,360	Delaware Sand	1,000	25	6	0	15	10	113,815	249
1035	KERMIT; Winkler	1928	3,000	200	Permian	AC	SS		20		1.50	35	10,896	Ellenburger	44,400	1,110	28	0	32	646	4,562,809	62,857
1036	KERMIT (ELLENBURGER); Winkler	1943	10,460	225	Ellenburger, Ordovician	AC	DO				0.14	43	10,896	Ellenburger	680	26	4	0	26	0	247,216	1,424
1037	KERMIT (FUSSELMAN); Winkler	1955	8,572	200	Fusselman, Silurian	AC						36	10,690	Ellenburger	80	2	0	0	1	1	6,968	54
1038	KERMIT (GRAYBURG); Winkler	1957	3,249	37	Grayburg, Permian							30	10,896	Ellenburger	240	6	0	0	5	1	46,998	122
1039	KERMIT SOUTH (DEVONIAN); Winkler	1956	8,322	8	Devonian	A	LM	70	8	WD		34	10,695	Ellenburger	1,600	40	13	0	30	1	441,027	620
1040	KERMIT SOUTH (ELLENBURGER); Winkler	1956	10,632	18	Ellenburger, Ordovician							43	10,695	Ellenburger	580	13	1	0	13	0	125,826	262
1041																						

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-19

WELL NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET.	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SUIPER PER CENT	GRAVITY A.P.L. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1001	KEYSTONE (SILURIAN); Winkler	1945	8,460	175	Silurian, Ordovician	AC	LM		3	SGD	0.61	38	11,502	Ellenburger	2,200	55	3	0	37	18	500,296	10,480
1002	KEYSTONE SOUTH; Winkler	1948	6,470	120	Clear Fork, Permian	AC	DO	3	11	SGD	0.48	35	11,502	Ellenburger	760	19	1	0	11	8	88,747	1,189
1003	KEYSTONE SOUTH (DEVONIAN); Winkler	1957	8,645	40	Devonian	AC	CHT					36	11,502	Ellenburger	80	2	0	0	0	1	12,231	96
1004	KEYSTONE SOUTH (PENNSYLVANIAN); Winkler	1957	8,040	90	Pennsylvanian	AC	LM					40	11,389	Ellenburger	40	1	0	0	1	0	8,510	25
1005	KING MOUNTAIN (DEVONIAN); Upton	1956	10,386	90	Devonian							47	11,858	Ellenburger	240	6	1	0	4	2	62,981	233
1006	KING MOUNTAIN (ELLENBURGER); Upton	1955	11,623	217	Ellenburger, Ordovician	AC/F	DO	9	2			55	11,855	Ellenburger	680	17	1	0	12	5	568,868	2,368
1007	KING MOUNTAIN (FUSSELMAN); Upton	1956	10,568	18	Fusselman, Silurian	AC/F		.14	3	SGD			11,935	Ellenburger	40	1	0	0	1	0	2,229	57
1008	KINGSLEY; Irion	1951	7,819	19	Ellenburger, Ordovician	AC	DO					44	7,838	Ellenburger	40	1	Abandoned	1953			0	9
1009	KINGEL (SAN ANDRES); Sterling	1959	1,345	4	San Andres, Permian								1,349	San Andres	40	1	1	0	0	1	220	.2
1000	KNICKERBOCKER; Tom Green	1952	350	16	San Andres, Permian		DO					26	366	San Andres	160	4	0	2	0	1	147	7
1001	KNOTT (PENNSYLVANIAN); Howard	1957	8,985	20	Pennsylvanian, Reef								9,500	Pennsylvanian	40	1	0	0	0	1	6,271	19
1002	KOONSMAN (SPRABERRY); Borden	1957	5,185	100	Spraberry, Permian	MC		55	19	SGD		34	8,557	Ellenburger	160	4	0	0	0	4	32,705	98
1003	KOONSMAN (STRAWN); Borden	1959	7,938	7	Strawn, Pennsylvanian								8,557	Ellenburger	40	1	1	0	0	1	10,840	11
1004	KOZYA; Crockett	1951			Permian										80	2	Combined with Wyatt 1953				0	10
1005	KRASNER (CLEAR FORK); Pecos	1951	3,090	23	Clear Fork, Permian								3,113	Clear Fork	480	12	Combined with Brown & Thorp November 1953				Clearfork	287
1006	KRASNER (ELLENBURGER); Pecos	1953	4,018		Ellenburger, Ordovician	AC	DO			WD		40			40	1	Renamed Brown & Thorp November 1953					10
1007	LAME (SPRABERRY); Borden	1957	6,265	14	Upper Spraberry, Permian								9,800	Ellenburger	80	2	0	0	0	2	27,946	82
1008	LAMESA EAST (SPRABERRY); Dawson	1955	7,221	20	Spraberry, Permian	AC	SS					39	8,313	Pennsylvanian	160	4	0	0	0	3	21,188	146
1009	LAMESA WEST (MISSISSIPPIAN); Dawson	1959	11,280	42	Mississippian								12,089	Ellenburger	40	1	1	0	1	0	2,056	2
1100	LANCASTER HILL; Crockett	1947	1,667	18	Lower Grayburg, Permian	AC	DO					33	2,300	Permian	120	3	Abandoned	March 1954			0	37
1101	LANDON; Cochran	1945	5,040	40	San Andres, Permian	AC	DO	20	10	SGD	1.80	30	11,166	Mississippian	1,440	36	0	0	0	29	219,273	2,514
1102	LANDON (BEND); Cochran	1950	10,120	55	Bend, Pennsylvanian	AC	CG					39	11,703	Devonian	40	1	Abandoned	1954			0	26
1103	LANDON (DEVONIAN); Cochran	1949	10,193	42	Devonian	AC/F	DO		6	WD	0.55	39	10,955	Devonian	40	1	0	0	1	0	45,171	593
1104	LANDON (STRAWN); Cochran	1947	10,378	160	Strawn, Pennsylvanian	AC			7		0.33	39	11,166	Mississippian	80	2	0	0	0	2	21,486	741
1105	LANDON SOUTHEAST (DEVONIAN); Yoakum	1958	12,098	10	Devonian							38	12,175	Devonian	40	1	0	1	0	0	1,435	8
1106	LANGLEY; Mitchell	1951	4,324	124	Clear Fork, Permian		DO					29	8,180	Ellenburger	40	1	Abandoned	June 1952			0	.9
1107	LARGO VERDE (STRAWN); Coke	1956	6,186	3	Strawn, Pennsylvanian							40	6,974	Ellenburger	40	1	Inactive at end of 1958				0	4
1108	LAWSON (SAN ANDRES); Ector	1950	4,320	20	San Andres, Permian	AC	DO	P	10		1.21	37	5,888	Clear Fork	800	20	8	0	8	1	22,543	105
1109	LAWSON-SIMPSON; Ector	1949	5,546	49	Clear Fork, Permian								5,595	Glorieta	520	13	Combined with Goldsmith 500' September 1951					
1110	LAZY JL (PENNSYLVANIAN); Garza	1958	7,968	23	Pennsylvanian							37	8,810	Ellenburger	40	1	0	0	1	0	29,735	69
1111	LAZY JL SOUTHWEST (PENNSYLVANIAN); Garza	1958	8,017	11	Pennsylvanian							39	8,602	Ellenburger	40	1	Inactive at end of 1958				0	.6
1112	LEA (CONNELL); Crane	1953	8,180	15	Connell Sand, Ordovician	AC	SS		10	SGD	0.13	43	8,359	Ellenburger	400	10	0	0	2	8	124,747	955
1113	LEA (ELLENBURGER); Crane	1953	8,165	35	Ellenburger, Ordovician	AC	DO	2	1	WD	0.22	43	8,448	Ellenburger	1,080	27	0	0	23	4	689,190	5,185
1114	LEA (MCKEE); Crane	1954	7,490	30	McKee, Ordovician	AC	SS		por	SGD	0.12	43	8,448	Ellenburger	80	2	0	0	0	2	6,779	55
1115	LEA (PENNSYLVANIAN); Crane	1952	7,425	125	Pennsylvanian	AC	LM				0.38	33	10,932	Ellenburger	40	1	0	0	0	1	4,947	93
1116	LEA (SAN ANDRES); Crane	1955	3,075	79	San Andres, Permian	AC	DO	P	10	SGD		38	8,501	Ellenburger	1,000	25	1	0	0	24	68,371	478
1117	LEA (TUBB); Crane	1955	4,448	114	Tubb, Permian	AC	DO		9			42	4,600	Clear Fork	520	14	0	2	1	11	39,374	262
1118	LEA SOUTH (CLEARFORK); Crane	1958	4,238	70	Clearfork, Permian	AC	DO			SGD		37	8,590	Connell	40	1	0	0	0	1	3,088	5
1119	LEA SOUTH (CONNELL); Crane	1957		20	Connell, Ordovician	Nose	SS			SGD		40	8,730	Waddell	120	3	0	0	0	2	17,996	54
1120	LEA SOUTH (DEVONIAN); Crane	1957		74	Devonian	Nose	LM			SGD		46	8,730	Waddell	160	4	0	0	0	4	24,518	68
1121	LECK; Winkler	1928	2,700	150	Yates-Seven Rivers, Permian							25	3,962	San Andres	6,080	152	13	0	45	70	409,674	7,046
1122	LECK WEST (TANSILL-YATES); Winkler	1959	3,153	84	Tansill-Yates, Permian								9,980	Bone Springs	40	1	0	0	0	1	5,051	5
1123	LEE HARRISON; Lubbock	1941	5,002	25	Clearfork, Permian		DO					25		Clearfork	3,080	77	0	6	0	71	412,586	1,869
1124	LEE-HUMPHREY (LOWER CADDO); Runnels	1952	5,108	7	Lower Caddo, Pennsylvanian		LM					40	5,115	Caddo	80	2	Abandoned July 1958				0	83
1125	LEEFER (GLORIETA); Terry	1958	5,896	44	Glorieta, Permian			1	10	SGD		28	7,273	Clearfork	560	14	9	0	0	14	89,791	119
1126	LEHN; Pecos	1938	900			AC	SS					35			2,400	60	Combined with Lehn-Apco in 1940				493	
1127	LEHN-APCO (ELLENBURGER); Pecos	1955	4,772	44	Ellenburger, Ordovician	AC	DO					36	4,895	Ellenburger	40	1	Inactive at end of 1957				0	3
1128	LEHN-APCO (QUEEN SAND); Pecos	1956	1,549	16	Queen, Permian								4,888	Ellenburger	880	22	3	0	4	18	72,488	171
1129	LEHN-APCO (1600'); Pecos	1939	1,670	50	Seven Rivers-Queen, Permian	AC	SS					34	1,980	Grayburg	4,840	126	0	1	3	67	175,460	1,950
1130	LEHN-APCO NORTH (1600'); Pecos	1946	1,968		Queen, Permian	AC	SS					35	2,020	Queen	2,000	56	3	0	5	36	182,161	1,393
1131	LEONARD; Runnels & Coleman	1945	3,028	25	Palo Pinto, Pennsylvanian								4,013	Ellenburger	460	23	0	0	0	12	6,118	269
1132	LEONARD NORTH (3460' SAND); Runnels	1956	3,467	6	Jennings Sand, Pennsylvanian								3,600	Strawn	20	1	0	0	0	1	662	3
1133	LEONARD SOUTHWEST (GRAY SAND); Runnels	1952	3,406	4	Gray Sand, Pennsylvanian		SS					42	3,460	Gray	20	1	Abandoned December 1954				0	1
1134	LEON VALLEY; Pecos	1956	2,498	25	Yates, Permian	AC	SS		16	SGD		38	2,907	Yates	560	14	2	0	3	11	60,057	80
1135	LEPPART (PALO PINTO); Coke	1959	4,256	9	Palo Pinto, Pennsylvanian								5,316	Ellenburger	40	1	0	0	0	1	922	.9
1136	LEVELLAND; Hockley-Cochran	1939	4,750	180	San Andres, Permian	H	LM	P														

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-20

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION				RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS				WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION	COMPLETED TO END OF 1959		1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS		
																	COMP. LETED	ABANDONED	FLOWING	ARTIFICIAL LIFT				
1141	LINDEMANN (McMILLIAN SAND); Runnels	1951	2,490	4	McMillian Sand, Pennsylvanian		SS		17			44	4,151	Ellenburger	700	35	0	8	0	13	42,719	1,153		
1142	LINDEMANN (MORRIS SAND); Runnels	1953	3,504	6	Morris Sand, Pennsylvanian		SS					43			200	5	0	0	0	1	1,936	57		
1143	LINDSEY; Dawson	1951	10,957	10	Strawn Reef, Pennsylvanian	Reef					0.10	45	10,972	Strawn Reef	40	1	0	0	0	1	27,380	313		
1144	LION; Ward	1944	4,979	15	Delaware, Permian		SS				0.20	33	4,994	Delaware	200	5	Abandoned	November 1958			0	129		
1145	LIPAN CREEK (CANYON); Tom Green	1958	4,561	40	Canyon, Pennsylvanian	ML	SS			SGD		37	6,000	Ellenburger	40	1	0	0	0	1	7,067	13		
1146	LITTLEFIELD (SAN ANDRES); Lamb	1953	3,952	52	San Andres, Permian	AC	DO	1	13	SGD		28	9,842	Pre-Cambrian	1,300	65	4	1	0	62	389,648	1,841		
1147	LITTMAN; Andrews	1951	4,319	20	San Andres, Permian	AC	DO					33	4,339	San Andres	880	22	0	0	5	17	48,092	748		
1148	LIVE OAK; Crockett	1940	1,984	35	Permian							30	2,150	San Andres	40	1	Abandoned	1950			0	8		
1149	LLOYD; Runnels	1950	4,345	12	Fry Sand, Pennsylvanian		SS			PM	0.22	43	4,768	Caddo	240	12	0	0	5	3	20,587	583		
1150	LLOYD (GARDNER); Runnels	1952	4,756	12	Gardner Sand, Pennsylvanian		SS		15			42	4,798	Strawn	40	1	Abandoned	1953			0	2		
1151	LOHN; McCulloch	1936	215	3	Cisco, Pennsylvanian							39	1,080	Cisco, Pennsylvanian	80						0	.4		
1152	LOVE; Runnels	1951	1,927	14	Serratt Sand, Pennsylvanian		SS		10			42	3,777	Bend	80	4	Abandoned	January 1957			0	43		
1153	LOWE; Winkler	1946	5,220	100	Permian	AC							6,500	Clearfork	200	5	Abandoned	1947			0	3		
1154	LOWE (ELLENBURGER); Andrews	1957	13,314	21	Ellenburger, Ordovician								13,342	Ellenburger	40	1	Abandoned	1959			0	1		
1155	LOWE (SILURIAN); Andrews	1953	12,818	11	Silurian	AC					0.04	47	13,560	Ellenburger	80	2	0	0	2	0	29,772	178		
1156	LOWERY-WILSON; Pecos	1951	2,000	12	San Andres, Permian	AC	DO					34	2,019	San Andres	40	1	Abandoned	May 1952			0	1		
1157	LOZONE (2700' SAND); Scurry	1956	2,693	33	Glorieta, Permian	AC	Sdy	5	17	SGD		37	2,780	Glorieta	280	7	1	0	0	7	11,034	32		
1158	LUBBOCK; Lubbock	1941	5,002		Clearfork, Permian							28					Transferred to Lee Harrison Field				1948	19		
1159	LUBBOCK WEST (LEONARD); Lubbock	1958	7,470	23	Lower Clearfork, Permian								10,555	Strawn	40	1	Inactive at end of	1958			0	2		
1160	LUCK POT; Borden	1954	8,226	14	Canyon Reef, Permian	Reef	LM					45	8,266	Canyon	80	2	0	0	0	1	6,568	74		
1161	LUCKY-MAG (LOWER CLEARFORK); Irion	1956	3,412	38	Lower Clearfork, Permian			P	12			37	6,700	Canyon	240	6	0	0	0	6	54,366	173		
1162	LUCKY-MAG (DIVIDE SAND); Irion	1956	6,472	31	Canyon, Pennsylvanian								7,875	Ellenburger	120	3	Inactive at end of	1958			0	12		
1163	LUCKY-MAG (SAN ANGELO); Irion	1958	1,483	3	San Angelo, Permian								1,655	San Angelo	160	4	1	0	0	4	11,498	28		
1164	LUCKY-MAG (3200' SAND); Irion	1958	3,281	20	Clearfork, Permian								4,068	Clearfork	80	2	0	0	0	2	4,153	9		
1165	LUCKY-MAG SOUTHEAST (SAN ANGELO); Irion	1958	1,172	2	San Angelo, Permian							32	4,005	Wolfcamp	40	1	0	1	0	0	369	.7		
1166	LUCY (CLEARFORK); Borden	1955	4,065	7	Clearfork, Permian	H	DO	26	16	SGD		38	8,310	Ellenburger	320	8	1	0	0	8	74,073	135		
1167	LUCY (PENNSYLVANIAN); Borden	1957	7,692	52	Pennsylvanian								8,634	Ellenburger	80	2	0	0	2	0	16,165	29		
1168	LUCY (WICHITA ALBANY); Borden	1955	5,696	50	Wichita Albany, Permian								8,310	Ellenburger	40	1	Abandoned	1955			0	.7		
1169	LULU (DEVONIAN); Crockett	1951	8,610			AC						47					Abandoned	Prior to 1956			0	49		
1170	LUTHER EAST (CANYON REEF); Howard	1955	7,708	6	Canyon Reef, Pennsylvanian	Reef						46	7,714	Canyon	40	1	0	0	0	1	6,434	50		
1171	LUTHER EAST (SPRABERRY); Howard	1957	5,926	25	Spraberry, Permian								8,650	Strawn	40	1	Inactive at end of	1958			0	6		
1172	LUTHER NORTH (CANYON REEF); Howard	1952	8,160	8	Canyon, Pennsylvanian	Reef	LM					44	8,324	Pennsylvanian	280	7	0	0	4	3	92,473	892		
1173	LUTHER SOUTHEAST (SILURIAN-DEVONIAN); Howard	1953	9,855	25	Silurian-Devonian	MC	DO	13	10	SGD	0.10	44	10,092	Ellenburger	1,520	38	4	0	20	18	790,212	4,997		
1174	LUTHER SOUTHWEST; Howard	1954	9,880	38	Fusselman, Silurian										160	4	Combined with Luther Southeast Silurian-Devonian July 1954				5,685	97		
1175	LUTRICK; Hale	1948	7,927	72	Permian							41	8,065	Pennsylvanian	80	2	0	0	1	0				
1176	LYGAY; Coke	1948	5,808	30	Pennsylvanian		SS		14			44	7,047	Ellenburger	320	8	0	0	6	2	29,802	494		
1177	LYGAY EAST (STRAWN LIME); Coke	1958	6,390	19	Strawn Lime, Pennsylvanian		SS		11			45	6,462	Strawn	40	1	Inactive at end of	1958			0	1		
1178	LYGAY SOUTH (CADD0); Coke	1951	6,011	11	Caddo, Pennsylvanian		LM					41	6,885	Strawn	40	1	Abandoned	1955			0	61		
1179	LYGAY SOUTH (STRAWN); Coke	1951	6,771	4	Strawn, Pennsylvanian								7,270	Ellenburger	40	1	0	0	0	1	2,527	25		
1180	LYMAN (FUSSELMAN); Reagan	1957	9,411	39	Fusselman, Silurian								9,605	Ellenburger	40	1	0	0	0	1	16,626	49		
1181	MEE (SAN ANDRES); Andrews	1955	4,678	52	San Andres, Permian	AC	DO						4,827	San Andres	40	1	Abandoned	1956			0	2		
1182	MABEE; Andrews-Martin	1944	4,640	50	Grayburg, Permian	AC	DO	3	11		2.19	31	4,807	San Andres	8,080	202	0	0	0	189	1,673,227	15,659		
1183	MABEE NORTH (FUSSELMAN); Andrews	1953	12,862	4	Fusselman, Silurian	AC	DO					44	13,410	Ellenburger	40	1	0	0	0	1	5,694	42		
1184	MABEE NORTH (WOLFCAMP); Andrews	1954	9,793	151	Wolfcamp, Permian	AC	LM					42	13,040	Fusselman	40	1	Abandoned	6-15-57			0	7		
1185	MAC BORING (BEND); Ector	1954	10,620	24	Pennsylvanian	AC	LM					41	13,423	Ellenburger	40	1	Abandoned	1956			0	9		
1186	MAC BORING (STRAWN); Ector	1956	9,602	70	Strawn, Pennsylvanian							41	13,423	Ellenburger	40	1	Abandoned	1956			0	2		
1187	MAC BORING (WOLFCAMP "C"); Ector	1952	8,650	114	Wolfcamp, Permian	AC	DO					43	10,314	Pennsylvanian	160	4	0	0	0	4	14,248	309		
1188	MAC BORING (WOLFCAMP "G"); Ector	1952	9,640	22	Wolfcamp, Permian	AC	DO					45	10,314	Pennsylvanian	40	1	Abandoned	April 1953			0	7		
1189	MAC DER; Pecos	1944	4,800		Wolfcamp, Permian								5,374	Pre-Cambrian	320	2	Abandoned	1948			0	2		
1190	MAGGIE NEAL (GRAYBURG); Crockett	1955	2,225	95	Grayburg, Permian	AC	DO					31	2,622	San Andres	320	8	0	0	0	2	2,214	20		
1191	MAGNOLIA SEALY; Ward	1930	2,735	70	Yates-Seven Rivers, Permian	A	SD		20	SGD		34	3,175	Grayburg	2,800	70	10	0	4	36	187,973	2,546		
1192	MAGNOLIA SEALY SOUTH; Ward	1940	2,950	50	Seven Rivers, Permian	AC	DO	P	15	WD		29	3,281	Grayburg	1,520	38	5	0	18	6	69,684	2,417		
1193	MAGNOLIA SEALY WEST (BRUSHY-CANYON); Ward	1959	6,190	10	Brushy Canyon, Permian								7,200	Bone Springs	40	1	1	0	0	1	2,039	2		
1194	MAGNOLIA SEALY WEST (CHERRY CANYON); Ward	1959	5,214	10	Cherry Canyon, Permian								7,000	Leonard	40	1	1	0	0	1	480	.5		
1195	MAGNOLIA SEALY WEST (YATES); Ward	1958	3,199	6	Yates, Permian								3,214	Yates	80	2	0	0	2	0	20,992	24		
1196	MAGUTEX (DEVONIAN); Andrews	1953	12,504	54	Devonian Lime	AC	DO	83	5	SGD	0.26	42	13,993	Ellenburger	2,400	60	5	0	35	25	1,472,310	8,834		
1197	MAGUTEX (ELLENBURGER); Andrews	1952	13,840	44	Ellenburger, Ordovician	AC</																		

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-21

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVE. FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF '59 THOUSANDS OF BARRELS
																	COMP. LETED	ABANDONED	FLOW-ING	ARTIFICIAL LIFT		
1201	MALLET; Hockley	1953	7,398	56	Clearfork Lime, Permian		DO					27	10,544	Strawn Lime	40	1	Not	Producing at end of 1954		9		
1202	MARINELL; Hockley	1959	4,700	30	San Andres, Permian								4,746	San Andres	120	3	3	0	0	3	9,559	10
1203	MARSH; Culberson	1953	2,670	20	Delaware Sand, Permian	SS						22	3,024	Delaware Sand	40	1	Abandoned	Prior to 1956		0	3	
1204	MARTIN; Andrews	1945	6,790	246	Clearfork, Permian	AC	AN	3	10	SGD		38	9,160	Ellenburger	240	6	Abandoned	1947		0	211	
1205	MARTIN (CLEARFORK); Andrews	1953	5,590 6,240		Clearfork Lime, Permian	AC	AN	3	10	SGD		48	9,105	Ellenburger	760	19	0	1	13	3	75,091	301
1206	MARTIN (ELLENBURGER); Andrews	1946	8,900	150	Ellenburger, Ordovician	AC/F	DO	369	2	WD	0.31	44	9,160	Ellenburger	1,840	46	0	1	0	35	933,828	23,276
1207	MARTIN (FUSSELMAN); Andrews	1958	8,190	30	Fusselman, Silurian	AC	DO	P	9	SGD		43	9,217	Ellenburger	40	1	Inactive at end of 1958			0	2	
1208	MARTIN (McKEE); Andrews	1945	8,500	30	Simpson, Ordovician	AC/F	SS	12	16	SGD	0.21	41	9,160	Ellenburger	1,000	25	0	3	0	22	124,203	2,840
1209	MARTIN (SAN ANDRES); Andrews	1940	4,405	40	San Andres, Permian	AC	DO	3	6	SG		37	9,160	Ellenburger	3,440	86	0	4	19	60	282,944	1,920
1210	MARTIN (TUBB); Andrews	1955	6,260	120	Tubb, Permian	AC	DO	P	10	SGD		42	9,275	Ellenburger	80	2	0	0	0	2	3,142	26
1211	MARTIN (WICHITA); Andrews	1945	6,805	50	Wichita, Permian	AC	DO	P	10	SGD		41	9,160	Ellenburger	240	6	1	0	1	4	23,810	387
1212	MARTIN (WOLFCAMP); Martin	1951	7,956	14	Wolfcamp, Permian	AC	LM	M	12	SGD	0.59	43	9,296	Ellenburger	80	2	0	1	0	0	30	138
1213	MARTIN (7200'); Andrews	1958	7,106	131	Lower Clearfork, Permian	AC	AN	P	7	SGD		36	9,217	Ellenburger	40	1	0	0	1	0	2,999	10
1214	MARTIN SOUTH (CLEARFORK); Andrews	1956	5,712	50	Clearfork, Permian	AC	AN	P	10	SGD		39	9,275	Ellenburger	200	5	0	0	3	2	11,634	83
1215	MARVIN; Sterling	1948	4,252	90	Wichita-Albany, Permian		DO					26	8,230	Ellenburger	120	3	0	2	0	0	1,696	155
1216	MASCHO; Andrews	1942	4,575		San Andres, Permian										160		Transferred to Fullman-Mascho Field					
1217	MASON; Loving	1937	3,950	45	Delaware, Permian	ML	SS		22		0.34	42	4,165	Delaware	1,320	33	0	0	4	25	98,647	2,241
1218	MASON NORTH (DELAWARE SAND); Loving	1952	4,045	20	Delaware, Permian	ML	SS	52	24	SGD	0.34	39	4,135	Delaware	2,080	52	1	0	21	31	324,627	3,507
1219	MASTERSON; Pecos	1929	1,400	40	Queen, Permian	AC	SS		19		1.40	28	5,356	Ellenburger	4,880	122	0	2	0	16	99,445	1,853
1220	MASTERSON (3500'); Pecos	1943	3,500	17	Clearfork, Permian	AC	SS					22	3,557	Clearfork	40	1	Abandoned	1950		0	71	
1221	MAUDE (CLEARFORK); Mitchell	1953	2,512	58	Clearfork Lime, Permian		DO					27	3,477	Clearfork Lime	200	5	2	0	0	5	5,425	25
1222	MAVERICK NORTH (CROSS CUT); Runnels	1952	4,243	7	Cross Cut Sand, Pennsylvanian		SS					41	4,265	Strawn	120	3	0	0	0	3	4,161	79
1223	MAYBERRY; Crane	1951	5,133	4	Connell Sand, Ordovician	AC	SS					40	5,335	Ellenburger	40	1	Abandoned	October 1951		0	.8	
1224	MAYHEW (DEVONIAN); Andrews	1958	9,645	40	Devonian	AC						43	12,396	Ellenburger	40	1	0	0	0	1	4,294	7
1225	McCABE; Mitchell	1951	6,045	15	Pennsylvanian			5	13	SGD		43	7,330	Ellenburger	360	9	0	0	9	0	49,493	650
1226	McCAMEY; Upton-Crane	1925	2,000	80	Grayburg, Permian	AC	DO				2.20	28	8,358	Ellenburger	54,320	1,358	0	2	0	900	1,882,004	101,429
1227	McCAMEY (ELLENBURGER); Upton	1948	8,070	60	Ellenburger, Ordovician	AC	DO				0.35	43	8,358	Ellenburger	40	1	0	0	0	1	7,014	172
1228	McCAMEY EAST (GRAYBURG); Upton	1955	2,757	30	Grayburg, Permian	AC	DO					29	2,818	San Andres	40	1	0	1	0	0	216	4
1229	McCAMEY SOUTH (WICHITA); Upton	1953	4,783	51	Wichita-Albany Lime, Permian	AC	DO					35	5,532	Devonian Lime-Chert	40	1	Inactive at end of 1957			0	15	
1230	McCAUGHAN; Runnels	1951	4,486	3	Gardner Sand, Pennsylvanian		SS					47	4,526	Strawn	40	2	Abandoned	October 1951		0	2	
1231	McCLINTIC; Crane		2,700		Grayburg, Permian							32					Transferred to McLroy Field 1-1-41.					
1232	McCULLOCH (CLEARFORK); Hockley	1957	6,423	150	Clearfork, Permian								10,996	Mississippian	40	1	0	0	0	1	1,476	3
1233	McCUTCHEN; Coke	1950	3,950	15	Cisco, Pennsylvanian	AC	SS	550	17	SGD	0.15	43	6,685	Ellenburger	400	10	0	0	0	8	29,843	981
1234	McCUTCHEN WEST; Coke	1951	3,985	13	Cisco, Pennsylvanian		SS		16		0.15	45	4,010	Cisco	80	2	Inactive at end of 1958			0	31	
1235	McDOW (WOLFCAMP); Glasscock	1952	7,140		Wolfcamp, Permian	AC	DO				2.2	39			40	1	Abandoned	1955		0	.5	
1236	McELROY; Crane-Upton	1926	2,700	150	Grayburg, Permian	AC	DO	50	16	SGD	2.4	32	12,796	Ellenburger			0	0	21	1,600	9,170,986	286,186
1237	McELROY (PENNSYLVANIAN); Upton	1958	9,032	20	Pennsylvanian	MC	LM	P	17	SGD	0.06	42	11,437	Silurian	40	1	0	0	1	0	79,125	103
1238	McELROY EAST (SAN ANDRES); Crane	1955	3,380	114	San Andres, Permian								3,590	San Andres	280	7	Combined with McElroy 1956				221	
1239	McELROY WEST (SAN ANDRES); Crane	1955	2,882	132	San Andres, Permian	AC	DO					22	3,070	San Andres	80	2	Abandoned	1955		0	3	
1240	McFARLAND (GRAYBURG); Andrews	1955	5,024	11	Grayburg, Permian	AC	DO					26	14,040	Ellenburger	40	1	Abandoned	1958		0	13	
1241	McFARLAND (PENNSYLVANIAN); Andrews	1956	10,423	31	Pennsylvanian							46	14,040	Ellenburger	280	7	2	0	6	0	126,828	428
1242	McFARLAND (QUEEN); Andrews	1955	4,788	16	Queen, Permian	AC	SS	17	20	SGD		37	14,040	Ellenburger	12,200	305	3	0	11	285	1,579,571	9,458
1243	McFARLAND (WOLFCAMP); Andrews	1955	9,134	126	Wolfcamp, Permian	Reef	LM	67	10	SGD		41	14,040	Ellenburger	560	14	2	0	5	9	212,128	840
1244	McFARLAND EAST (DEVONIAN); Andrews	1957	12,721	50	Devonian							39	13,355	Devonian	40	1	0	0	0	1	4,748	11
1245	McFARLAND EAST (QUEEN); Andrews	1955	4,789	45	Queen, Permian	AC	SS					35	12,818	Devonian	1,080	27	0	0	4	20	204,249	412
1246	McFARLAND SOUTH (QUEEN); Andrews	1956	4,822	10	Queen Sand, Permian		SS					32	4,877	Queen			Combined with McFarland Queen 1956				46	
1247	McINTYRE (CLEARFORK); Irion	1956	4,535	32	Clearfork, Permian							39	4,898	Clearfork	40	1	0	0	1	0	429	2
1248	McKEE; Crane	1942	6,126	60	Simpson, Ordovician	MU						43	7,204	Ellenburger	120	3	Combined with McKee Lower Clearfork May 1952				149	
1249	McKEE (LOWER CLEARFORK); Crane	1950	4,050	25	Lower Clearfork, Permian	AC	DO		14	SGD		36	7,204	Ellenburger	640	16	0	0	2	10	34,523	557
1250	McKEE (WOLFCAMP); Crane	1958	5,320	70	Wolfcamp, Permian	AC	DO					36	5,875	Waddell	40	1	0	0	1	0	1,454	2
1251	McKENZIE; Pecos	1935											4,259	Strawn			Depleted Prior to 1939				2	
1252	McMILLIAN; Runnels	1927	3,522		Pennsylvanian							42	4,259	Strawn	230	23	Abandoned	April 1953		0	977	
1253	McNEELEY; McCulloch	1954	1,732	3	Strawn Sand, Pennsylvanian								1,778	Strawn	20	1	Abandoned	June 1955		0	.4	
1254	McPEC (LOWER WOLFCAMP); Pecos	1956	4,630	45	Lower Wolfcamp, Permian		LM					36	5,483	Granite	40	1	Abandoned	9-5-57		0	1	
1255	MEANS; Andrews	1934	4,250	90	Grayburg-San Andres, Permian	AC	DO	3	6	SGD	2.4	32	5,205	San Andres	15,960	399	5	0	38	348	2,626,431	38,379
1256	MEANS (QUEEN); Andrews	1954	4,024	42	Queen, Permian	AC	SS	466														

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-22

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS				WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. FT.	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, md	POROSITY, PER CENT.	ESTIMATED PRODUCTION MECHANISM	SULPHUR PER CENT.	GRAVITY A.P.I. AVG.	DEPTH OF HOLE, FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 (THOUSANDS OF BARRELS)	
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT			
1261	MEANS SOUTH (WOLFCAMP); Andrews	1956	9,378	36	Wolfcamp, Permian	Reef	LM	8	5	SGD		40	14,165	Ellenburger	280	7	1	0	4	3	129,389	530	
1262	MEDLIN (SAN ANDRES); Gaines	1956	4,974	32	San Andres, Permian		DO					33	13,223	Devonian	80	2	Inactive at end of 1957			0	2		
1263	MELVIN; Concho	1954	1,821	8	Pennsylvanian Sand		SS					34	2,000	Pennsylvanian Sand	20	1	Inactive at end of 1954			0	.2		
1264	MERETA (STRAWN); Concho	1955	4,008	7	Strawn, Pennsylvanian		SS					38	5,850	Pre-Cambrian	40	1	Abandoned January 1959			0	10		
1265	MERTZON (CLEARFORK); Irion	1953	3,340	17	Clearfork Lime, Permian	MC	DO					35	8,171		40	1	Abandoned 1954			0	.6		
1266	MERTZON (LOWER CLEARFORK); Irion	1956	7,858	27	Clearfork, Permian								7,902	Ellenburger	160	4	0	0	1	1	13,330	72	
1267	MERTZON (SAN ANGELO); Irion	1955	1,648	5	San Angelo, Permian	AC	SS	55	18	SGD		36	7,606	Cambrian	2,040	51	0	0	25	26	295,996	951	
1268	MERTZON EAST (SAN ANGELO); Irion	1957	1,380	30	San Angelo, Permian								1,500	San Angelo	80	2	1	0	0	1	488	3	
1269	MERTZON WEST (SAN ANGELO); Irion	1957	1,948	10	San Angelo, Permian							38	3,255	Clearfork	80	2	0	0	0	2	4,817	22	
1270	MESA (STRAWN); Crockett	1959	8,306	6	Strawn, Pennsylvanian								9,600	Ellenburger	40	1	1	0	0	1	8,517	9	
1271	MESSENGER (GARDNER); Runnels	1952	4,172	10	Gardner Sand, Pennsylvanian		SS		10			41	4,204	Gardner	60	3	Not Producing at end of 1957			0	45		
1272	MESSENGER (PALO PINTO); Runnels	1952	3,550	10	Palo Pinto, Pennsylvanian		LM					30	4,470	Ellenburger	120	6	0	1	0	5	8,942	85	
1273	METZ; ELLENBURGER); Ector	1959	9,170	20	Ellenburger, Ordovician								9,312	Ellenburger	40	1	1	0	0	1	7,684	8	
1274	METZ (GLORIETA); Ector	1959	4,420	22	Glorieta, Permian								5,794	Wichita Albany	360	9	9	0	2	7	63,532	64	
1275	METZ (WICHITA ALBANY); Ector	1959	5,680	49	Wichita Albany, Permian								5,794	Wichita Albany	80	2	2	0	1	1	7,393	7	
1276	MIDDLETON (SPRABERRY); Dawson	1957	6,964	14	Upper Spraberry, Permian								8,830	Pennsylvanian Reef	40	1	0	0	0	1	5,245	21	
1277	MIDKIFF; Midland	1951	7,304	131	Spraberry, Permian								7,520	Spraberry	3,360	84	Combined with Spraberry Trend March 1953			1,688			
1278	MIDLAND; Midland	1945	10,370	20	Pennsylvanian	AC						46	11,620	Ellenburger	120	3	Abandoned May 1947			0	21		
1279	MIDLAND SOUTH; Midland	1947	8,500	70	Wolfcamp, Permian								11,445	Devonian	120	3	0	0	1	1	7,474	71	
1280	MIDLAND FARMS; Andrews	1944	4,840	80	Grayburg, Permian	AC	DO		8	SGD		23	4,942	San Andres	13,120	328	6	0	0	278	2,760,589	47,646	
1281	MIDLAND FARMS (ELLENBURGER); Andrews	1952	12,672	30	Ellenburger, Ordovician	AC	DO	504	1	WD	0.06	49	12,795	Ellenburger	1,520	38	0	0	36	1	1,623,867	8,790	
1282	MIDLAND FARMS (FUSSELMAN); Andrews	1953	11,886	94	Fusselman, Silurian	AC	DO			SGD	0.06	48	13,180	Ellenburger	440	11	0	0	5	6	214,453	987	
1283	MIDLAND FARMS (WOLFCAMP); Andrews	1953	8,375	29	Wolfcamp Lime, Permian	AC		11	12	SGD		45	12,581	Ellenburger	880	22	0	0	11	10	405,539	1,829	
1284	MIDLAND FARMS NORTH (GRAYBURG); Andrews	1953	4,795	35	Grayburg Lime, Permian								12,955	Ellenburger	1,640	41	0	2	0	37	495,343	3,145	
1285	MIDLAND FARMS NORTHEAST (ELLENBURGER); Andrews	1953	12,450	20	Ellenburger Lime, Ordovician	AC	DO	26	3	WD	0.06	49	12,635	Ellenburger Lime	680	17	0	0	13	2	571,178	4,516	
1286	MIDLAND FARMS SOUTHEAST; Midland	1953	4,600	40	Grayburg Lime & Sand, Permian	AC	DO					30	4,800	San Andres	40	1	Abandoned Prior to 1956			0	5		
1287	MIDWAY LANE; Crockett	1947	7,530	135	Ellenburger, Ordovician	AC	DO		6	WD	0.18	50	7,680	Ellenburger	1,840	46	0	1	2	1	9,547	4,438	
1288	MIDWAY LANE (PERMIAN); Crockett	1950	1,076	53	Permian	AC	SS		16		1.72	28	7,680	Ellenburger	1,120	28	0	1	0	27	84,705	594	
1289	MIDWAY LANE (1300'); Crockett	1953	1,286	6	San Andres, Permian	AC	SS	P	Por	WI	1.50	34	7,680	Ellenburger	1,000	25	0	1	0	21	48,277	528	
1290	MIDWEST (BEND); Midland	1956	10,779	40	Bend, Pennsylvanian							41	13,140	Ellenburger	40	1	0	0	1	0	4,960	30	
1291	MIEETHER (GRAYBURG); Upton	1956	3,261	174	Grayburg, Permian		DO					30	3,491	Grayburg	440	11	0	0	0	10	54,579	204	
1292	MILES NORTH; Runnels	1949	3,933	33	Palo Pinto, Pennsylvanian								4,312	Capps	10	1	Abandoned 1950			0	.3		
1293	MILLARD (QUEEN); Pecos	1957		25	Queen, Permian	AC	LM	1	10	SGD			1,717	Queen	560	14	6	0	1	13	24,370	48	
1294	MILLARD NORTH (QUEEN); Crockett	1959	1,220	20	Queen, Permian								1,509	Queen	80	2	2	0	2	0	5,177	5	
1295	MILLER BLOCK B-29 (PENNSYLVANIAN); Ward	1959	7,972	132	Pennsylvanian								8,800	Pennsylvanian	40	1	1	0	0	1	855	.9	
1296	MILLERSVIEW; Concho	1953	1,660	30	Canyon Lime, Pennsylvanian								3,080	Ellenburger	20	1	Abandoned 1953			0	.6		
1297	MILLERSVIEW-WAIDE; Concho	1953	2,214	13	Pennsylvanian Sand		SS					41	3,080	Ellenburger	40	2	0	0	0	0	0	9	
1298	MILLICAN; Coke	1948	5,955	45	Strawn, Pennsylvanian	Reef	LM	128	6	SGD	0.15	45	7,155	Ellenburger	1,440	37	0	2	29	0	294,288	5,527	
1299	MIM (SAN ANGELO); Irion	1959	1,402	5	San Angelo, Permian								1,525	San Angelo	40	1	1	0	0	1	3,107	3	
1300	MISTI (STRAWN); Runnels	1957	4,034	10	Gardner Sand, Pennsylvanian								4,100	Gray Sand	40	1	Abandoned November 1957			0	1		
1301	MITCHELL (FRY SAND); Runnels	1957	4,328	10	Fry Sand, Pennsylvanian								5,025	Caddo	440	11	3	0	9	2	71,750	142	
1302	MODESTA; Howard	1954	8,620	33	Pennsylvanian Lime	Reef	LM					42	8,653	Reef	40	1	0	0	0	1	4,024	54	
1303	MONAHANS (CLEARFORK); Ward	1945	4,685	150	Clearfork, Permian	AC	DO	100	13	SGD	1.50	37	10,545	Ellenburger	2,560	64	0	2	26	34	263,042	4,175	
1304	MONAHANS (DEVONIAN); Ward	1957	7,650	10	Devonian								10,545	Ellenburger	80	2	0	0	2	0	9,136	56	
1305	MONAHANS (ELLENBURGER); Ward	1942	10,082	215	Ellenburger, Ordovician	AC	DO		3	WD	0.16	47	10,545	Ellenburger	320	8	0	1	5	0	136,191	4,568	
1306	MONAHANS (FUSSELMAN); Ward	1954	8,336	57	Fusselman, Silurian	AC	DO	9	3			42	10,422	Ellenburger	200	6	0	0	5	1	91,705	297	
1307	MONAHANS (PERMIAN TUBB # 3); Ward	1942	5,635	20	Clearfork, Permian								10,545	Ellenburger	240	6	0	0	2	1	24,940	315	
1308	MONAHANS NORTH; Winkler	1944	6,069	200	San Angelo-Clearfork, Permian	AC	DO	10		SGD		37	10,545	Ellenburger	320	8	0	0	6	1	18,701	563	
1309	MONAHANS NORTH (DEVONIAN); Winkler	1955	9,460	150	Devonian	AC	Cht	14	3	SGD		38	13,200	Granite	880	22	0	1	20	1	496,894	1,135	
1310	MONAHANS NORTH (ELLENBURGER); Winkler	1955	12,030	80	Ellenburger, Ordovician	AC			1			43	13,200	Granite	640	16	3	0	13	3	411,958	983	
1311	MONAHANS NORTH (FUSSELMAN); Winkler	1957	9,945	39	Fusselman, Silurian	AC			5			37	12,573	Ellenburger	320	8	1	0	4	4	178,242	376	
1312	MONAHANS NORTH (GLORIETA); Winkler	1946	5,115	109	San Angelo, Permian	AC	DO		15			35	10,545	Ellenburger	120	3	0	0	2	0	6,375	143	
1313	MONAHANS NORTH (MONTROYA); Winkler	1956	10,092	22	Montoya, Ordovician	AC	LM	5	14	SGD		38	12,795	Granite	80	2	0	0	2	0	54,336	275	
1314	MONAHANS NORTH (WADDELL); Winkler	1957	11,530	103	Waddell, Ordovician							41	12,673	Ellenburger	40	1	0	0	0	1	8,487	31	
1315	MONROE; Ward	1930	4,663	10	Delaware, Permian	MC	SS		16		0.14	29	4										

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-23

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG. TOP FT.	ESTIMATED PROD. THICK. FT.	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT.	ESTIMATED PRODUCTION MECHANISM	SULPHUR PER CENT.	GRAVITY API, AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 *THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1321	MORELAND (WOLFCAMP); Hockley	1958	8,505	40	Wolfcamp, Permian							30	10,450	Strawn	40	1	0	0	0	1	4,029	6
1322	MORITA; Howard	1944	3,200	10	Permian								3,585	San Andres	160	4	Abandoned		September 1953		0	11
1323	MORRIS-WHITLEY; Runnels	1951	3,484	11	Morris Sand, Pennsylvanian								3,499	Strawn	20	1	Abandoned		January 1954		0	5
1324	MORROW; Menard	1946	2,209									34					Inactive					.4
1325	MOSS (GRAYBURG); Ector	1955	3,760	64	Grayburg, Permian	MC	DO	3	5	SGD		34	4,024	San Andres	1,080	27	4	0	4	23	82,828	333
1326	MOTLEY (CANYON); Runnels	1956	3,389	5	Canyon Sand, Pennsylvanian					PM			3,440	Canyon	160	4	0	0	0	3	4,537	35
1327	MOTLEY (MISSISSIPPIAN); Runnels	1955	4,708	19	Mississippian Lime								4,731	Mississippian	120	3	Abandoned		January 1959		855	41
1328	MOTLEY NORTH (GOEN LIME); Runnels	1959	4,321	4	Goen Lime, Pennsylvanian								4,865	Ellenburger	80	2	2	0	0	2	14,572	15
1329	MOTLEY NORTH (PALO PINTO); Runnels	1959	3,897	3	Palo Pinto, Pennsylvanian								4,364	Goen	60	3	3	0	0	3	7,939	8
1330	MOTLEY NORTHWEST (CANYON); Runnels	1959	3,445	7	Canyon Sand, Pennsylvanian								4,865	Ellenburger	40	1	1	0	1	0	6,725	7
1331	MOUND LAKE; Terry	1949	9,400	33	Cisco, Pennsylvanian	REEF					0.55	43	11,845	Ellenburger	80	2	Abandoned		May 1953		0	59
1332	MOUNT SUSAN (5350'); Tom Green	1955	5,359	12	Strawn, Pennsylvanian		LM					40	5,829	Strawn	120	3	0	0	0	3	4,057	35
1333	MOUNT SUSAN SOUTH (5250'); Tom Green	1954	5,254	4	Strawn Reef, Pennsylvanian							41	5,625	Strawn	920	23	0	0	6	17	182,185	1,228
1334	MOZELLE (QUEEN); Schleicher	1956	2,192	15	Cisco, Pennsylvanian	MC	SS			SGD		41	2,460	San Andres	80	2	0	0	0	2	11,289	48
1335	MULE CREEK; Pecos	1943	1,350	5	Permian								1,390	Permian	10	1	Abandoned		March 1947		0	.4
1336	MUNGERVILLE; Dawson	1951	8,575	15	Pennsylvanian	REEF	DO	62	12	SGD	0.14	42	8,640	Pennsylvanian	800	20	4	0	0	20	289,191	2,675
1337	MUNGERVILLE EAST (CANYON REEF); Dawson	1956	9,065	38	Canyon, Pennsylvanian	REEF	LM	12	6	WD		37	9,147	Canyon	280	7	0	0	2	5	97,119	374
1338	MUNGERVILLE NORTHWEST; Dawson	1953	8,566	13	Pennsylvanian	REEF					0.14	42	8,589	Pennsylvanian	40	1	Abandoned		1956		0	7
1339	MURN; Coke	1954	4,912	42	Canyon Sand, Pennsylvanian	MC	SS	4	13	SGD		43	5,660		200	5	0	2	0	2	5,083	123
1340	MURRAY-RUST SOUTH; Tom Green	1955	4,639	31	Strawn, Pennsylvanian		LM						5,914	Cambrian	40	1	Abandoned		1956		0	.9
1341	MURRAY-STEVENS; Runnels	1949	4,500		Strawn, Pennsylvanian							44					Transferred to Jim Adams (Strawn) Field 1950.					
1342	MYRTLE; Borden	1951	7,732	17	Canyon Reef, Pennsylvanian						0.30	38	7,760	Canyon Reef	120	3	Inactive at end of		1958		0	103
1343	MYRTLE EAST (STRAWN); Borden	1959	7,711	8	Strawn, Pennsylvanian								8,376	Ellenburger	40	1	1	0	1	0	7,739	8
1344	MYRTLE WEST (ELLENBURGER); Borden	1958	8,383	4	Ellenburger, Ordovician	DO							8,391	Ellenburger	80	2	0	0	1	1	72,812	81
1345	MYRTLE WEST (STRAWN); Borden	1956	8,072	6	Pennsylvanian Lime	AC	LM	32	8	SGD		41	8,368	Ellenburger	360	9	3	0	7	2	153,275	481
1346	N S D (ELLENBURGER); Borden	1958	8,740	14	Ellenburger, Ordovician							35	8,754	Ellenburger	40	1	0	1	0	0	2,078	7
1347	NANCY "S"; Schleicher	1954	4,033	16	Canyon Sand, Pennsylvanian	MC	SS					32	5,584	Ellenburger	40	1	Abandoned		May 1954		0	11
1348	NASWORTHY; Tom Green	1952	5,916	11	Strawn, Pennsylvanian							34	6,406	Ellenburger	40	1	Abandoned		1952		0	7
1349	NATHAN MILLER (BIGGS LIME); Irion	1957	5,047	20	Leonard, Permian		LM					41	7,646	Strawn	80	2	0	0	0	2	3,622	23
1350	NEAL RANCH; Upton	1948	10,025	40	Permian	AC	LM				0.10	36	12,543	Ellenburger	40	1	0	0	1	0	4,525	138
1351	NELSON (ELLENBURGER); Andrews	1946	10,382	174	Ellenburger, Ordovician	AC/F	DO	52	2	WD	0.15	44	10,606	Granite Wash	600	15	0	0	0	9	121,860	3,617
1352	NELSON (WICHITA); Andrews	1948	7,160	105	Permian	AC/F	DO	39	4		0.15	44	10,685	Ellenburger	880	22	0	0	5	14	98,780	1,252
1353	NETTERTVILLE; Pecos	1924	2,250	30	Yates, Permian	AC	SS	8	19	SGD		34	2,750	Grayburg	3,680	92	0	2	5	74	145,012	1,417
1354	NEVA WEST (CANYON); Schleicher	1952	6,122	23	Canyon, Pennsylvanian	REEF	LM	13	13	SGD		37	6,704	Strawn	200	5	1	0	1	3	21,506	315
1355	NEVA WEST (STRAWN); Schleicher	1951	6,317	20	Strawn, Pennsylvanian	REEF	LM	50	13	WD		41	6,372	Strawn	1,280	32	0	0	29	3	726,592	4,725
1356	NEVINS (UPPER FRY SAND); Runnels	1957	3,768	6	Upper Fry Sand, Pennsylvanian								4,350	Gray Sand	20	1	Inactive at end of		1957.		0	1
1357	NEVINS (GARDNER SAND); Runnels	1957	4,184	10	Gardner Sand, Pennsylvanian		SS	27	13	SGD			4,365	Gray Sand	240	6	0	0	5	1	59,595	219
1358	NEVINS (GRAY SAND); Runnels	1957	4,231	14	Gray Sand, Pennsylvanian								4,267	Gray Sand	40	1	Abandoned		January 1959		0	2
1359	NEPPLE PEAK (ELLENBURGER); Coke	1955	6,330	28	Ellenburger, Ordovician	AC	DO					47	6,862	Cambrian	40	1	Abandoned		1956		0	2
1360	NIX; Andrews	1948	7,360	20	Clearfork, Permian	AC	DO			7	SGD		40		80	2	Combined with Nix South		1956			83
1361	NIX (4400' DOLOMITE); Andrews	1956	4,413	110	San Andres, Permian		DO			10	SGD		33	4,575	San Andres	840	21	Combined with Furman-Mascho		March 1957		
1362	NIX SOUTH; Andrews	1953	7,386		Clearfork, Permian	AC	DO			7	SGD		38		880	22	0	0	9	13	204,350	945
1363	NOBLES (WOLFCAMP); Midland	1958	9,800	52	Wolfcamp, Permian		LM					40	10,864	Strawn	80	2	0	1	0	1	2,398	18
1364	NOELKE; Crockett	1940	1,200	25	Seven Rivers, Permian	AC	SS	300	20	WF		32	2,877	San Andres	3,000	75	0	1	0	35	943,937	3,219
1365	NOELKE (CLEARFORK); Crockett	1950	3,943	18	Clearfork, Permian	AC	DO					39	7,290	Ellenburger	40	1	Abandoned		1950		0	1
1366	NOELKE (3250'); Crockett	1957	3,256	22	Clearfork, Permian							40	4,250	Clearfork	80	2	Inactive at end of		1958		0	2
1367	NOELKE (3565'); Crockett	1953	3,565	15	Clearfork Lime, Permian	AC	DO					42	4,810	Wolfcamp Lime	160	4	0	2	0	0	469	83
1368	NOELKE (4400'); Crockett	1953	4,378	62	Upper Strawn Lime, Pennsylvanian	AC	LM					51	4,866	Strawn Lime	80	2	0	0	2	0	887	17
1369	NOELKE (5300'); Crockett	1952	5,966	6	Strawn, Pennsylvanian	AC	LM					34	6,461	Ellenburger	40	1	Inactive at end of		1958		0	5
1370	NOELKE SOUTHEAST (QUEEN); Crockett	1958	1,928	16	Queen Sand, Permian							33	1,944	Queen Sand	200	5	4	0	1	4	21,474	23
1371	NOELKE SOUTHEAST (LOWER QUEEN); Crockett	1959	1,835	16	Queen, Permian								1,851	Queen	200	5	5	0	5	0	35,413	35
1372	NOLLEY (QUEEN); Andrews	1955	4,495	27	Queen, Permian	MC	SS	37	13	SGD		31	4,522	Grayburg	760	19	0	0	1	18	77,183	576
1373	NOLLEY (WICHITA ALBANY); Andrews	1951	8,165		Wichita Albany, Permian	AC	DO					30			120	3	0	0	0	3	11,404	108
1374	NOLLEY (WOLFCAMP); Andrews-Gaines	1951	9,227	73	Wolfcamp, Permian	REEF	LM	53	7	SGD	0.50	39	14,085	Ellenburger	2,320	58	0	0	0	56	736,410	5,782
1375	NORA (GARDNER); Runnels	1950	4,075	6	Gardner, Pennsylvanian	Nose	SS			12	0.23	46	4,530	Ellenburger	1,560	39	0	0	0	18	51,631	1,541
1376	NORA (GOEN); Runnels	1954	3,882	6	Goen Lime, Pennsylvanian		LM					45	4,134	Pennsylvanian Sand	40	2	Abandoned		August 1959		458	

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-24

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG. TOP FT.	ESTIMATED PRODUCTION PER AC. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS	
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT			
1381	NORTON EAST (GOEN); Runnels	1956	4,286	4	Goen Lime, Pennsylvanian							4,300	Strawn	200	5	1	0	2	3	34,383	175		
1382	NORTON NORTH (LOWER FRY); Runnels	1954	4,341	11	Lower Fry, Pennsylvanian	SS		18			50	4,882	Pennsylvanian Sand	200	5	0	0	0	5	27,164	279		
1383	NORTON NORTH (GARDNER); Runnels	1955	4,560	4	Gardner Lime, Pennsylvanian	LM					47	4,717	Strawn	720	18	0	2	1	15	72,742	617		
1384	NORTON NORTH (GOEN); Runnels	1956			Goen, Pennsylvanian							4,700	Strawn	120	3	0	0	2	1	15,326	151		
1385	NORTON NORTH (GRAY SAND); Runnels	1956	4,674	9	Gray Sand, Pennsylvanian							4,735	Strawn	160	4	0	1	0	3	15,544	102		
1386	NORTON NORTH (HOME CREEK); Runnels	1956	3,450	8	Home Creek Lime, Pennsylvanian							4,510	Canyon	40	1	0	0	0	1	3,011	25		
1387	NORTON NORTH (JENNINGS SAND); Runnels	1956	4,456	4	Jennings Sand, Pennsylvanian	SS	40	6	SGD		44	4,676	Strawn	360	9	0	1	1	1	13,269	214		
1388	NORTON NORTH (PALO PINTO); Runnels	1956			Palo Pinto, Pennsylvanian							4,850		40	1	Abandoned	1957			0	11		
1389	NORTON WEST (CROSS CUT); Runnels	1954	4,239	5	Cross Cut Sand, Pennsylvanian	SS					38	4,296	Pennsylvanian Sand	80	2	0	0	0	2	6,640	64		
1390	NORTON WEST (LOWER FRY); Runnels	1954	4,330	14	Lower Fry Sand, Pennsylvanian	SS	122	18	WF		50	4,885	Pennsylvanian Sand	520	13	0	0	0	12	26,959	526		
1391	NORTON WEST (GARDNER); Runnels	1955	4,679	3	Gardner Sand, Pennsylvanian							4,870	Strawn	80	2	1	0	0	1	1,774	2		
1392	NORTON WEST (GOEN LIME); Runnels	1956	4,380	2	Goen Lime, Pennsylvanian							4,674	Strawn	40	1	Inactive				0	15		
1393	NORTON WEST (PALO PINTO); Runnels	1955	3,938	10	Palo Pinto, Pennsylvanian	LM					41	4,870	Strawn	140	7	1	0	0	7	44,625	142		
1394	NOTREES NORTH (SAN ANDRES); Ector	1956	4,266	74	San Andres, Permian	AC	DO		SGD		37	6,141	Clearfork	40	1	0	0	1	0	810	5		
1395	NYSTEL; Terry	1950	11,475												Combined with Corrigan					1950	0	23	
1396	O. D. C. (DEVONIAN); Gaines	1956	11,933	97	Devonian	AC		7	3	WD		38	13,405	Granite	120	3	0	0	0	2	93,238	441	
1397	O. D. C. (PERMO-PENNSYLVANIAN); Gaines	1956	11,008	24	Permo-Pennsylvanian							43	12,527	Devonian	120	3	0	0	0	2	9,840	45	
1398	O. D. C. (SAN ANDRES); Gaines	1957	5,160	40	San Andres, Permian	DO	21	9				33	12,527	Devonian	520	13	0	0	0	13	129,012	311	
1399	O. H. TRIANGLE (CANYON); Irion	1956	6,385	10	Canyon, Pennsylvanian							38	8,091	Ellenburger	40	1	Abandoned	1956			0	4	
1400	O. H. TRIANGLE (WOLFCAMP); Irion	1956	5,890	22	Wolfcamp, Permian							38	8,091	Ellenburger	40	1	Abandoned	1956			0	1	
1401	O. S. RANCH (GLORIETA); Garza	1955	2,666	11	Glorieta, Permian	AC	DO	.12	11			37	8,170	Ellenburger	840	22	Combined with Post Glorieta August					1959	88
1402	OATES; Pecos	1947	790	55	Rustler, Permian	AN					0.69	18	985	Permian	360	9	0	0	0	9	45,473	390	
1403	OCEANIC; Howard	1953	8,140	55	Strawn Reef Lime, Pennsylvanian	REEF	LM	83	12	SGD		42	8,195	Strawn Lime	1,880	47	0	0	27	20	717,537	6,103	
1404	O'DANIEL (CANYON); Howard	1950	7,975	35	Canyon, Pennsylvanian	REEF	LM				0.22	44	8,780	Ellenburger	40	1	Inactive				0	45	
1405	O'DANIEL (WOLFCAMP); Howard	1957	6,172	30	Wolfcamp, Permian								8,780	Ellenburger	40	1	0	0	0	1	3,443	17	
1406	ODESSA (UPPER PENNSYLVANIAN); Ector	1956	9,838	10	Upper Pennsylvanian	LM						35	13,905	Ellenburger	40	1	Abandoned	1956				.5	
1407	O'DONNELL; Lynn	1950	8,615	15	Strawn, Pennsylvanian								9,385	Ellenburger	40	1	Abandoned	February 1954			0	47	
1408	O'DONNELL (ELLENBURGER); Lynn	1952	9,309	16	Ellenburger, Ordovician	AC	DO					42	9,367	Ellenburger	40	1	Abandoned	1953			0	2	
1409	O'DONNELL (MISSISSIPPIAN); Lynn	1950	9,020	60	Mississippian	AC	DO				0.75	34	9,385	Ellenburger	80	2	0	0	0	1	6,210	81	
1410	O'DONNELL NORTHEAST (MISSISSIPPIAN); Garza	1957	8,662	31	Mississippian	AC	LM					37	8,882	Ellenburger	40	1	0	0	0	1	3,247	10	
1411	O'HARROW (CANYON); Schleicher	1955	4,756	10	Canyon, Pennsylvanian	ML	SS	47	14			37	5,945	Ellenburger	440	11	0	1	6	4	94,460	493	
1412	OLDS (DELAWARE); Reeves	1958	3,030	7	Delaware Sand, Permian							41	3,037	Delaware Sand	280	7	2	0	5	2	45,344	96	
1413	OLIVER; Schleicher	1948	5,630	60	Pennsylvanian							37	6,150	Ellenburger	40	1	Abandoned	June 1949			0	1	
1414	OLSON; Crockett	1942	2,063	40	Grayburg-San Andres, Permian	AC	DO	11	8	SGD		26	2,322	San Andres	5,220	133	0	4	0	128	610,422	5,416	
1415	OLSON (CANYON); Crockett	1958	5,820	10	Wolfcamp, Permian							36	7,000	Ellenburger	40	1	0	1	0	0	1,703	7	
1416	OLSON (WOLFCAMP); Crockett	1959	5,381	13	Wolfcamp, Permian								7,000	Ellenburger	40	1	1	0	0	1	4,106	4	
1417	OPP; Schleicher	1939	4,050									34				Abandoned Prior to 1956						3	
1418	ORIENT; Pecos	1948	1,785	45	Yates, Permian	AC	SS	6	19	WI		28	2,826	Yates	680	17	0	0	1	11	7,879	176	
1419	ORLA SOUTH; Reeves	1953	3,406	4	Delaware Sand, Permian	MC	SS	15	22	SGD	0.34	34	3,563	Delaware Sand	600	15	0	1	11	12	46,253	294	
1420	ORLA SOUTHEAST (DELAWARE); Reeves	1959	3,643	2	Delaware, Permian								3,700	Delaware	40	1	1	0	0	1	1,396	1	
1421	ORSON (PENNSYLVANIAN); Andrews	1957	10,090	90	Pennsylvanian Lime							43	11,537	Pennsylvanian	80	2	Inactive	at end of 1958			0	5	
1422	OTTO (CANYON); Schleicher	1957	4,619	8	Canyon Sand, Pennsylvanian	SS						36	6,216	Ellenburger	560	14	1	0	12	2	135,281	256	
1423	OTTO (STRAWN); Schleicher	1957	5,162	1	Strawn, Pennsylvanian	MC	LM		12	GCD		37	5,398	Strawn	480	12	8	0	11	1	65,625	87	
1424	OTTO (STRAWN LOWER); Schleicher	1958	5,258	3	Strawn, Pennsylvanian	LM						41	5,413	Strawn	40	1	0	0	1	0	35,491	51	
1425	OWNBY; Yoakum	1941	5,250	60	San Andres, Permian	AC	DO	2	13	SGD	1.6	30	5,502	San Andres	2,160	54	1	0	5	48	173,576	4,735	
1426	OWNBY (UPPER CLEARFORK); Yoakum	1959	6,592	98	Upper Clearfork, Permian								13,129	Devonian	200	5	5	0	0	5	130,372	130	
1427	OWNBY WEST; Yoakum	1953	5,307	138	Lower San Andres Lime, Permian	LM			8		1.6	33	5,468	Lower San Andres	360	9	4	0	0	9	38,520	118	
1428	OZONA NORTH; Crockett	1954	8,070	16	Ellenburger, Ordovician	AC	DO					44	8,242	Ellenburger	40	1	Inactive				0	29	
1429	OZONA NORTH (UPPER PENNSYLVANIAN); Crockett	1955	5,931	14	Pennsylvanian								8,203	Ellenburger	40	1	Abandoned				0	2	
1430	P. G. A. (CLEARFORK UPPER); Mitchell	1958	2,588	26	Clearfork, Permian							28	3,220	Clearfork	40	1	Inactive	at end of 1958			0	4	
1431	P. H. D.; Garza	1945	3,400	60	San Andres, Permian	DO		11	20			38	9,603	Pre-Cambrian	2,720	68	0	0	0	64	302,789	2,220	
1432	P. H. D. (GLORIETA); Garza	1955	4,298	29	Glorieta, Permian	AC	DO		12			37	4,421	Glorieta	560	14	0	0	0	11	72,319	384	
1433	P. H. D. (BASAL SAN ANDRES); Garza	1955	3,764	20	San Andres, Permian	DO						38	3,830	San Andres	160	4	0	0	0	4	13,997	101	
1434	P. H. D. (SAN ANDRES LOWER); Garza	1954	3,704	101	San Andres, Permian	DO		11	20			37	3,830	San Andres	40	1	Transferred to P. H. D. Field 2-1955					6	
1435	P-W-C (SERRATT); Runnels	1954	2,212	3	Serratt Sand, Pennsylvanian	SS			18			48	3,955	Pennsylvanian Sand	400	20	0	1	0	17	64,229	558	
1436	P-W-C NORTH (SERRATT SAND); Runnels	1957	2,188	6	Serratt, Pennsylvanian								3,100	Canyon	20	1	Inactive	at end of 1958			0	.7	
1437	PAGE (FRY SAND); Runnels	1952	4,458	8	Fry Sand, Pennsylvanian	AM	SS	71	16	SGD	0.13	43											

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-25

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS				WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. INT.	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS	
																	ABANDONED	FLOWING	ARTIFICIAL LIFT				
1441	PANALE NORTH (2100'); Crockett	1957	2,068	132	Clearfork, Permian								2,200	Clearfork	40	1	Inactive at end of		1958	0	.3		
1442	PANCHO-MAG (CANYON); Borden	1954	7,588	9	Canyon Reef, Pennsylvanian		LM					45	8,560	Mississippian	80	2	Abandoned	1955		0	7		
1443	PANCHO-MAG SOUTHWEST; Borden	1954	7,652	59	Canyon Reef, Pennsylvanian	REEF	LM					44	7,711	Spraberry	80	2	Abandoned	1955		0	15		
1444	PANTHER GAP (PENNSYLVANIAN SAND); Coke	1957	5,582	14	Canyon Sand, Pennsylvanian								7,005	Ellenburger	40	1	0	0	1	0	1,901	23	
1445	PANTHER GAP (PENNSYLVANIAN REEF); Coke	1959	6,307	12	Pennsylvanian Reef								6,680	Strawn Reef	40	1	1	0	1	0	3,021	3	
1446	PARKER; Andrews	1935	4,700	25	Permian	AC	LM	P	8	SGD		30	10,398	Ellenburger	320	8	0	0	0	7	25,456	422	
1447	PARKER (PENNSYLVANIAN); Andrews	1954	9,087	16	Pennsylvanian	AC	LM		7		9.10	42	9,103	Pennsylvanian	720	18	4	0	1	17	196,235	1,253	
1448	PARKER (WOLFCAMP); Andrews	1953	8,556	68	Wolfcamp Lime, Permian	AC	DO	138	10	SGD	0.80	37	10,398	Ellenburger	480	12	0	0	0	11	82,934	891	
1449	PARKER (WOLFCAMP DETRITAL); Andrews	1959	8,543	10	Wolfcamp, Permian								9,100	Pennsylvanian	80	2	2	0	2	0	40,265	40	
1450	PARKER WEST; Andrews	1948	8,380	40	Devonian	MU	DO	54	20	SGD	0.43	42	10,398	Ellenburger	400	10	Combined with Three Bar		Devonian)	5-1-50.	0	283	
1451	PARKS (ELLENBURGER); Midland	1950	12,955	15	Ellenburger, Ordovician	AC	DO		20	5	SGD	0.10	44	13,030	Pennsylvanian	2,400	62	0	6	22	8	374,761	4,275
1452	PARKS (PENNSYLVANIAN); Midland	1950	10,485		Pennsylvanian	AC	DO																
1453	PARKS (SPRABERRY); Midland	1957	7,826	260	Spraberry, Permian							37	13,030	Ellenburger	200	5	0	0	0	5	29,379	113	
1454	PAROCHIAL-BADE (CLEARFORK); Sterling	1954	2,211		Clearfork, Permian	AC	DO		20			30	2,437	Clearfork	1,080	27	1	0	0	27	153,169	603	
1455	PAROCHIAL-BADE (QUEEN); Sterling	1951	1,097	16	Queen Sand, Permian	AC	SS					32	1,113	Queen	560	14	0	0	0	14	46,854	327	
1456	PAROCHIAL-BADE (LOWER QUEEN SAND); Sterling	1954	1,274	61	Queen, Permian	AC	SS					33	1,335	Queen	200	5	0	0	0	5	16,787	144	
1457	PAROCHIAL-BADE (SAN ANDRES); Sterling	1954	1,737	10	San Andres, Permian							28	2,216	Clearfork	40	1	0	0	0	1	763	7	
1458	PATRICIA (FUSSELMAN); Dawson	1959	12,020	24	Fusselman, Silurian								12,754	Ellenburger	200	5	5	0	5	0	194,541	195	
1459	PATSY; Runnels	1951	2,531	4	Swastika, Pennsylvanian		SS		13			44	2,531	Cisco	280	14	1	0	2	8	131,428	287	
1460	PATSY (SERRATT); Runnels	1959	2,396	5	Serratt, Pennsylvanian								2,542	McMillian	40	4	4	0	2	2	29,785	30	
1461	PAUL THOMAS (3000' SAND); Runnels	1956	3,000	6	King Sand, Pennsylvanian		SS	260	19			43	3,047	Canyon	120	6	0	1	0	5	23,442	212	
1462	PAYTON; Pecos-Ward	1937	1,950	40	Yates, Permian	AC	SS	35	15	WF	1.10	37	2,313	Yates	9,920	248	5	0	14	153	649,366	9,798	
1463	PAYTON (DEVONIAN); Pecos	1955	6,884	91	Devonian								7,317	Devonian	40	1	Abandoned	1956		0	2		
1464	PAYTON (5950'); Ward	1954	5,952	44	Permian	AC	DO					38	7,096	Devonian	40	1	Abandoned	1956		0	4		
1465	P-BAR (WOLFCAMP); Ector	1956	10,020	32	Wolfcamp, Permian							43	11,384	Bend	40	1	Abandoned	1956		0	.7		
1466	PEARL VALLEY (BRONIE); Runnels	1959	5,046	5	Gardner, Pennsylvanian								5,550	Ellenburger	20	1	1	0	0	1	1,820	2	
1467	PEARL VALLEY (LOWER GARDNER); Runnels	1959	5,166	4	Lower Gardner Sand, Pennsylvanian								5,550	Ellenburger	40	1	1	Abandoned Oct. 1, 1959		1,773	.2		
1468	PEARL VALLEY (UPPER GARDNER); Runnels	1959	4,987	5	Upper Gardner Sand, Pennsylvanian								5,550	Ellenburger	40	1	1	0	1	0	11,032	11	
1469	PECAN STATION; Tom Green	1953	4,506	15	Canyon Lime, Pennsylvanian	AC	LM		8		0.14	43	5,636	Lime	680	17	1	0	0	16	52,418	820	
1470	PECAN STATION (STRAWN); Tom Green	1954	4,893	8	Strawn, Pennsylvanian	AC	SS	P	por	SGD		41	4,970	Strawn	40	1	Inactive at end of	1957		0	3		
1471	PECOS-SHEARER; Pecos	1955	1,812	56	Queen, Permian		SS	15	17	SGD		34	1,891	Queen	1,120	28	3	1	16	11	45,078	258	
1472	PECOS-SHEARER WEST; Pecos	1955	1,847	45	Queen, Permian							37	1,892	Queen	80	2	0	0	0	2	1,158	6	
1473	PECOS VALLEY (ELLENBURGER); Pecos	1949	7,971	186	Ellenburger, Ordovician								8,300	Ellenburger	160	4	Abandoned	1955		0	135		
1474	PECOS VALLEY (FUSSELMAN); Pecos	1953	5,682	50	Fusselman, Silurian	A	LM			SGD		42	8,100	Ellenburger	80	2	0	0	1	0	7,626	104	
1475	PECOS VALLEY (HIGH GRAVITY); Pecos-Ward	1929	1,750	60	Yates, Permian	AC	SS	47	14	WF	1.10	41	7,480	Simpson	18,000	450	2	30	44	328	1,148,759	10,595	
1476	PECOS VALLEY (LOWER GRAVITY); Pecos	1928	1,625	25	Yates, Permian	AC	SS	11	18	WI	1.70	31	7,480	Simpson	5,020	127	0	0	1	103	287,401	3,565	
1477	PECOS VALLEY (PERMIAN LOWER); Pecos	1957	5,245	153	Detrital, Permian				20			38	5,475	Silurian	600	15	4	0	13	2	150,443	234	
1478	PECOS VALLEY (WOLFCAMP); Pecos	1959	5,168	111	Wolfcamp, Permian								5,655	Devonian	40	1	1	0	1	0	577	.6	
1479	PECOS VALLEY (5100' DEVONIAN); Pecos	1956	5,175	32	Devonian		LM					39	5,575	Montoya	240	6	3	0	4	2	42,061	112	
1480	PECOS VALLEY (5400' DEVONIAN); Pecos	1953	5,368	36	Devonian	MC	LM	M	18			38	5,710	Montoya Sand	400	10	1	0	10	0	132,957	349	
1481	PECOS VALLEY SOUTH (ELLENBURGER); Pecos	1957	6,902	40	Ellenburger, Ordovician		DO					40	7,535	Ellenburger	320	2	0	0	0	0	0	9	
1482	PEGASUS (DEVONIAN); Midland	1952	533	7	Devonian	AC	DO		8	SGD	0.08	48	13,652	Ellenburger	400	10	1	0	8	0	67,325	552	
1483	PEGASUS (ELLENBURGER); Midland-Upton	1949	12,700	120	Ellenburger, Ordovician	AC	DO	FRC	3	WI	0.09	53	13,295	Ellenburger	4,640	116	0	2	77	27	2,224,204	31,367	
1484	PEGASUS (FUSSELMAN); Midland	1958	12,144	22	Fusselman, Silurian	AC	LM					52	12,266	Fusselman	240	6	3	0	5	1	252,655	328	
1485	PEGASUS (PENNSYLVANIAN); Upton-Midland	1951	10,465	20	Pennsylvanian	AC	DO	9	6	WF	0.07	44	13,652	Ellenburger	3,920	98	0	0	81	10	388,968	8,077	
1486	PEGASUS (SAN ANDRES); Midland	1954	5,584	26	San Andres, Permian	AC	DO	13	18	SGD		33	13,295	Ellenburger	1,520	38	3	0	0	38	367,116	1,764	
1487	PEGASUS (SPRABERRY); Upton-Midland	1952	7,660	85	Spraberry, Permian	AC	SS	FRC	12	SGD	0.33	35	13,104	Ellenburger	2,400	60	9	0	17	43	698,197	2,294	
1488	PEGASUS (WOLFCAMP); Upton	1952	9,875	244	Wolfcamp, Permian	AC	DO				0.12	42	13,586	Ellenburger	160	4	0	0	0	1	3,436	41	
1489	PENBROOK; Upton	1950	7,030	70	Leonard, Permian							39	12,660	Ellenburger	8,160	204	Combined with Spraberry Trend 3-1953			4,164			
1490	PENBROOK NORTH; Upton-Reagan	1951	7,170	63	Spraberry, Permian							38	7,233	Spraberry	12,240	306	Combined with Spraberry Trend 3-1953			5,868			
1491	PENCE (WOLFCAMP); Gaines	1955	9,416	8	Wolfcamp, Permian		LM						11,255	Bend	40	1	Abandoned	1956		0	.1		
1492	PENTECOST (WOLFCAMP); Hockley	1959	8,602	34	Wolfcamp, Permian								10,791	Strawn	40	1	1	0	0	1	3,607	4	
1493	PENWELL; Ector	1929	3,600	100	San Andres, Permian	AC	DO	P		SGD	2.60	34	9,357	Ellenburger	4,000	350	32	0	150	193	1,908,474	39,803	
1494	PENWELL (CLEARFORK); Ector	1953	4,960,9																				

Oil Production Data for the Permian Basin

Table No. NM-7

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS						CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC 1959		OIL PRODUCTION																					
			AVG TOP FT.	ESTIMATED PROD THICK. (AVERAGE)	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION	COMPLETED TO END OF 1959		1959		FLOWING	ARTIFICIAL LIFT	DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS																					
																	COMPLETED	ABANDONED																									
361	VACCUM SOUTH (DEVONIAN); Lea	1958	11,643	37	Devonian	AC	DO	226	7	WD		48	11,848	Silurian	320	8	5	0	7	1	442,370	582																					
362	WANTZ (ABO); Lea	1952	7,218	20	Lower Leonard, Permian	AC	DO	P	14	SGD		41	9,208	Montoya	1,000	25	2	0	10	11	233,019	1,352																					
363	WARREN (ABO); Lea	1954	7,250	45	Abo, Permian	AC	DO	P	5	SGD		40	9,852	Pre-Cambrian	160	4	0	0	0	2	6,148	63																					
364	WARREN (BLINEBRY); Lea	1959			Yeso, Permian										40	1	1	0	1	0	1,041	1																					
365	WARREN (CONNELL); Lea	1958	9,245		Connell, Ordovician										40	1	1	0	1	0	32,120	32																					
366	WARREN (DRINKARD); Lea	1950	6,765	15	Yeso, Permian	AC	DO	P	Por	SGD		53	9,352	Pre-Cambrian	160	3	0	0	2	1	16,497	170																					
367	WARREN (McKEE); Lea	1948	8,965	50	Simpson, Ordovician	AC	SS	40	13	SGD		46	9,852	Pre-Cambrian	1,760	44	0	0	23	21	1,130,023	6,293																					
368	WARREN NORTH (McKEE); Lea	1952	9,012	100	Simpson, Ordovician	AC	SS	40	13	SGD		45	9,475	Ellenburger	1,040	26	Combined with Warren McKee 1957				5,607																						
369	WARREN WEST (ABO); Lea	1958	7,362		Abo, Permian										40	1	Temporarily Abandoned May 1959.				115	.1																					
370	WATKINS; Lea	1945	3,564	10	Seven Rivers, Permian	MC	SS	P	Por	SGD		25	4,266	Grayburg	240	6	0	0	0	2	2,128	67																					
371	WATKINS (GRAYBURG); Lea	1948	4,217	15	Grayburg, Permian	MC	SS	P	Por	SGD		27	4,266	Grayburg	40	1	0	0	0	1	4,714	78																					
372	WEBB; Lea	1946	6,760	50	Leonard, Permian	AC	DO	P	Por	SGD	0.9	38	10,465	Pre-Cambrian	80	2	0	0	0	1	11,856	107																					
373	WELCH (DELAWARE); Eddy	1957	2,082	6	Delaware, Permian		SS	M	24	SGD			12,620	Atoka	160	4	0	0	0	4	26,718	55																					
374	WHITE RANCH (SILURO-DEVONIAN); Chaves	1953	8,727	35	Siluro-Devonian	AC	DO	150	8	WD		47	8,810	Devonian	120	3	0	0	1	2	32,952	490																					
375	WHITE RANCH WEST (DEVONIAN); Chaves	1959	8,132	12	Devonian								8,260	Devonian	40	1	1	0	1	0	13,453	13																					
376	WILLIAMS (PENNSYLVANIAN); Lea	1955	11,097	6	Bend, Pennsylvanian	ML	SS	P	Por	SGD		48	12,519	Devonian	40	1	0	0	1	0	4,458	55																					
377	WILSON; Lea	1928	3,600	30	Yates-Seven Rivers, Permian	ML	SS	P	15	SGD	1.0	31	4,695	San Andres	2,560	64	5	0	3	40	218,454	7,715																					
378	WILSON NORTH; Lea	1951	3,850	20	Yates-Seven Rivers, Permian	ML	SS	P	15	SGD		32	4,201	Seven Rivers	80	2	0	0	0	1	991	23																					
379	WILSON WEST; Lea	1948	3,936	10	Seven Rivers, Permian	ML	SS	P	15	WD		27	3,948	Seven Rivers	400	10	1	0	0	1	26,079	644																					
380	YOUNG; Lea	1945	3,765	10	Queen, Permian	Nose	SS	P	Por	SGD	1.0	37	4,677	Grayburg	1,080	27	0	0	9	18	87,480	977																					
381	YOUNG (SAN ANDRES); Lea	1956	4,048	27	San Andres, Permian	Nose	SS	P	Por	SGD		36	4,648	San Andres	80	2	0	0	1	1	5,101	38																					
382	UNDESIGNATED; Chaves														520	13	0	0	1	8	3,159	3																					
383	UNDESIGNATED; Eddy														1,360	34	0	0	17	15	69,463	194																					
384	UNDESIGNATED; Lea														1,480	37	0	0	16	11	187,626	272																					
385	UNDESIGNATED; Roosevelt														40	1	0	0	1	0	3,956	4																					
TOTAL - NEW MEXICO																																								86,419,565	1,421,319		
RECAPITULATION FOR PERMIAN BASIN - YEAR 1959																																											
TOTAL - TEXAS																																									426,361,748	6,717,520	
TOTAL - NEW MEXICO																																										86,419,565	1,421,319
GRAND TOTAL																																										512,781,313	8,138,839

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-26

LINE NUMBER	FIELD COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION		RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, MD	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET		GEOLOGICAL FORMATION	COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1501	PENWELL (WICHITA ALBANY); Ector	1953	6,670	10	Wichita Albany Lime, Permian	AC	DO					41	8,961	Ellenburger	160	4	0	1	0	2	10,961	137
1502	PENWELL (4500'); Ector	1948	4,410	50	Clearfork, Permian	AC	DO					33	9,357	Ellenburger	80	2	0	1	0	1	3,374	45
1503	PETERSBURG; Hale	1947	6,890	102	Cisco Lime, Pennsylvanian	MC	LM		6	WD		40	8,394	Pre-Cambrian	40	1	0	0	0	1	8,682	111
1504	PETERSBURG WEST; Hale	1948	7,910	72	Cisco, Pennsylvanian								8,373	Pennsylvanian	80	7	In	In	In	since 1948.	24	
1505	PETERSON (SAN ANDRES); Irion	1955	1,875	15	San Andres, Permian	MC	DO					36	1,890	San Andres	120	3	0	0	0	2	1,872	15
1506	PETTIT (SAN ANDRES);Hockley	1958	4,719	19	San Andres, Permian		DO					31	4,767	San Andres	40	1	Inactive at end of 1958				0	.6
1507	PFUGER; Concho	1951	2,121	3	Swastika, Pennsylvanian	SS			15		0.35	34	3,640	Ellenburger	80	4	0	0	0	1	762	22
1508	PILLOW (CLEARFORK); Crockett	1959	3,960	60	Clearfork, Permian								8,060	Ellenburger	40	1	1	0	0	1	3,517	4
1509	PINAL DOME (DELAWARE); Loving	1955	5,032	6	Delaware, Permian							39	5,147	Delaware	40	1	0	0	0	1	900	11
1510	PLATANG; Yoakum	1954	11,438	37	Devonian		DO					37	11,553	Devonian	80	2	0	0	1	1	38,381	334
1511	PLATANG (SAN ANDRES); Yoakum	1955	5,189	45	San Andres, Permian							29	5,325	San Andres	40	1	0	0	0	1	278	2
1512	POE (BRECKENRIDGE); Runnels	1959	2,724	42	Breckenridge, Pennsylvanian								4,513	Goen	40	2	1	0	0	2	9,310	9
1513	POE (GOEN LIME); Runnels	1952	4,440	8	Goen, Pennsylvanian	SS						46	5,513	Ellenburger	60	3	0	0	0	2	14,118	238
1514	POE (KING SAND); Runnels	1953	2,868	6	King Sand, Pennsylvanian	SS						43			100	5	0	0	0	2	2,745	20
1515	POE (REEF); Runnels	1952	2,996	12	Canyon Reef, Pennsylvanian								4,513	Goen	80	4	0	0	0	4	20,882	291
1516	POKORNY (DELAWARE); Culberson	1958	1,693	3	Delaware Sand, Permian	SS						43	1,870	Delaware Sand	40	1	0	0	0	1	241	.5
1517	POLAR; Kent	1946	7,773	165	Ellenburger, Ordovician	DO						42	7,938	Ellenburger	160	4	Abandoned 1951				0	100
1518	POLAR (ELLENBURGER); Kent	1954	7,778		Ellenburger, Ordovician	AC	DO					41	7,882	Ellenburger	40	1	Abandoned 1955				0	.8
1519	POLAR (MIDDLE ELLENBURGER); Kent	1958	7,795	53	Ellenburger, Ordovician	LM						41	7,848	Ellenburger	160	4	0	3	1	0	18,614	25
1520	POLAR (PENNSYLVANIAN); Kent	1954	7,241	2	Strawn, Pennsylvanian	LM						40			40	1	Abandoned November 1954					3
1521	POLAR EAST; Kent	1950	6,853	18	Pennsylvanian Reef	LM						38	6,880	Pennsylvanian	480	12	0	0	0	11	44,639	750
1522	POLAR NORTH (ELLENBURGER); Kent	1950	7,782	40	Ellenburger, Ordovician	AC	DO					41	7,822	Ellenburger	80	2	0	0	0	1	13,383	261
1523	POOL (WOLFCAMP); Ector	1956	8,900	50	Wolfcamp, Permian	AC	DO					35	13,486	Ellenburger	80	2	0	0	0	2	5,425	38
1524	POOL (9900' WOLFCAMP); Ector	1956	9,870	14	Wolfcamp, Permian	AC	DO					37	12,440	Devonian	80	2	0	1	1	0	12,412	31
1525	POST; Garza	1950	3,046	108	Permian		DO					35	3,155	Clearfork	3,460	87	Combined with Post	Glorieta 8-1959				81
1526	POST (GLORIETA); Garza	1959	2,785	84	Glorieta, Permian								2,959	Glorieta	7,840	196	29	0	2	194	588,239	1,728
1527	PRENICE; Yoakum-Terry	1951	5,940	67	Glorieta, Permian	AC	DO	11	12	SGD		27	6,074	Glorieta	8,360	209	4	3	0	202	1,923,200	18,041
1528	PRENICE (LOWER CLEARFORK); Terry	1955	7,826	150	Clearfork, Permian	AC	DO	4	4	SGD		32	13,400	Granite	360	9	0	0	0	9	86,087	513
1529	PRENICE (6700'); Yoakum-Terry	1952	6,430	165	Upper Clearfork, Permian	AC	DO	16	9	SGD		27	6,682	Clearfork	9,044	226	3	2	0	216	2,255,353	15,228
1530	PRENICE (7200' TUBB); Terry	1955	7,264	30	Tubb, Permian	AC	DO					26	8,503	Tubb	40	1	0	0	0	1	10,968	84
1531	PRENICE NORTH (SAN ANDRES); Terry	1956	5,120	46	San Andres, Permian		DO					34	5,237	San Andres	40	1	0	0	0	1	4,200	17
1532	PREWITT (1000' SAND); Culberson	1958	884	10	Castile, Permian							24	2,207	Castile	80	2	1	1	0	1	2,368	7
1533	PRICE (GRAYBURG); Reagan	1953	2,410	70	Grayburg Lime,Permian	MC	DO			SGD		29	9,745	Ellenburger	920	23	3	0	0	23	70,053	178
1534	PRICE NORTHEAST (2650' SAND); Reagan	1954	2,644	111	Grayburg-San Andres, Permian	MC	DO					32	2,810	San Andres	800	21	0	0	0	21	56,229	138
1535	PRICHARD (DEVONIAN); Andrews	1953	12,320	130	Devonian	AC	DO	12	2	WD	0.15	44	13,700	Ellenburger	840	21	Combined with Rutex	Devonian 6-1-58				3,400
1536	PRICHARD (ELLENBURGER); Andrews	1953	13,475	12	Ellenburger Lime, Ordovician	AC	DO				0.10	47	13,487	Ellenburger	40	1	0	0	0	1	7,286	63
1537	PRIEST & BEAVERS (QUEEN); Pecos	1957	2,179	40	Queen, Permian	AC	SS	22	14	SGD		31	10,224	Ellenburger	1,200	30	18	0	2	28	141,019	290
1538	PHUITT; Ward	1942	4,861									32					Abandoned April 1944				0	3
1539	PUCKETT (PENNSYLVANIAN OIL); Pecos	1959	10,892	33	Pennsylvanian								12,073	Devonian	40	1	1	0	1	0	1,375	1
1540	PULLIAM; Tom Green	1950	5,515	37	Canyon, Pennsylvanian Reef	LM			P		0.19	38	5,532	Canyon	120	3	0	0	0	1	4,685	168
1541	PULLIAM (PALO PINTO); Tom Green	1950	5,179	5	Palo Pinto, Pennsylvanian	Reef	LM		P		0.32	38	5,532	Canyon	160	4	0	4	0	0	526	230
1542	PURE BEAN; Crockett	1952	1,364	6	San Andres, Permian	AC	DO		9			33	1,486	San Andres	1,200	30	0	0	1	28	93,508	634
1543	PUTNAM (QUEEN); Pecos	1957	1,370	26	Queen, Permian		SS					31	4,995	Ellenburger	40	1	Inactive at end of 1957				0	2
1544	PYOTE; Ward	1942	2,820	20	Yates-Seven Rivers, Permian	REEF	LM				1.80	19	3,100	Queen	80	2	0	0	0	1	6,881	311
1545	QUITO; Ward	1953	4,984	10	Delaware Sand, Permian	AC	SS	14	20	SGD	0.34	38	5,132	Delaware	1,000	45	1	1	3	41	173,209	1,380
1546	QUITO EAST; Ward	1954	5,136	10	Delaware Sand, Permian	AC	SS	20	20			38	6,965	Cherry Canyon	120	3	0	0	1	2	7,415	77
1547	QUITO WEST; Ward	1955	4,732	11	Delaware, Permian		SS		24			38	4,935	Delaware	880	22	5	0	4	18	147,731	335
1548	R. E. G. (TILLERY); Schleicher	1958	4,906	6	Pennsylvanian	ML	SS		18			37	6,270	Ellenburger	80	2	0	2	0	0	6	3
1549	R & W (CLEARFORK); Midland	1957	7,434	11	Clearfork, Permian							37	13,390	Ellenburger	80	2	0	0	0	2	19,346	52
1550	RAFTER CROSS (ELLENBURGER); Borden	1958	8,505	20	Ellenburger, Ordovician							38	8,525	Ellenburger	80	2	0	0	2	0	79,800	116
1551	RAFTER CROSS (STRAWN); Borden	1959	7,935	20	Strawn, Pennsylvanian								8,520	Ellenburger	80	2	2	0	1	1	47,397	47
1552	RAMBO; Runnels	1949	4,512	8	Strawn, Pennsylvanian													Combined with Jim Adams 1950				
1553	RANCH (STRAWN); Crockett	1953	8,171	20	Lower Strawn, Pennsylvanian	REEF	LM	118	12	GCD		47	8,247	Strawn Lime	360	9	1	0	6	3	146,542	986
1554	RANCEEL (WOLFCAMP); Upton	1952	9,765	95	Wolfcamp, Permian	AC	DO					40	11,300	Devonian	40	1	Abandoned 1958				0	12
1555	RANDOLPH (MISSISSIPPIAN); Gaines	1956	11,580	24	Mississippian							39	12,945	Devonian	40	1	Abandoned 1956				0	2
1556	RAPE; Tom Green	1952	448		Clearfork, Permian		DO					27			40	1	Abandoned 1952				0	.3
1557	RATLIFF; Ector	1954	13,559	21</																		

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-27

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL			DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS				WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG TOP FT	ESTIMATED PROD. THICK. PROS. FT NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, MD	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION	1959		FLOWING	ARTIFICIAL LIFT	DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS				
															COMPLETED TO END OF 1959						ABANDONED			
1561	RAWLINGS (4200'); Coke	1953	4,184	9	Canyon Sand, Pennsylvanian	AC	SS	20	12	WD		46	5,616	Ellenburger	80	2	0	0	0	2	4,717	60		
1562	RAWLINGS (4500'); Coke	1953	4,512	48	Palo Pinto, Pennsylvanian	AC	LS	10	5	WD		45	4,560	Palo Pinto Lime	160	4	0	0	0	3	10,519	215		
1563	RAWLINGS (5100'); Coke	1953	5,031	14	Goen Lime, Pennsylvanian	AC	LM	200	11	WD		50	5,677	Ellenburger	240	6	0	0	2	4	55,986	636		
1564	RAWLINGS (5300'); Coke	1952	5,298	40	Strawn-Gardner, Pennsylvanian	AC	LM	18	6	WD		50	5,820	Granite	280	7	0	1	1	3	27,949	461		
1565	RAWLINGS (5500'); Coke	1953	5,541	12	Cambrian	AC	SS	527	15	WD		52	5,605	Cambrian	120	3	0	0	0	2	11,510	204		
1566	REAVES (DELAWARE); Reeves	1958	3,169	5	Delaware Sand, Permian		SS					38	3,240	Delaware Sand	80	2	1	0	1	0	944	2		
1567	RED BLUFF; Loving	1953	3,095	12	Delaware Sand, Permian		SS				0.34	42	3,107	Delaware Sand	40	1	0	0	0	1	563	8		
1568	RED FLAT (GARDNER SAND); Runnels	1957	4,268	6	Gardner, Pennsylvanian								4,599	Caddo	160	4	1	0	3	1	27,053	79		
1569	RED FLAT (PALO PINTO); Runnels	1958	3,620	6	Palo Pinto, Pennsylvanian		LM					42	4,335	Gardner	20	1	Abandoned	June 1959			253	2		
1570	RED FORK; Borden	1953	8,502	38	Mississippian		LM					44	8,606	Mississippian	40	1	Abandoned	November 1953			0	1		
1571	RED LOPLIN (ELLENBURGER); Garza	1958	8,175	20	Ellenburger, Ordovician								8,195	Ellenburger	120	3	0	0	2	1	106,457	118		
1572	RED LOPLIN (STRAWN); Garza	1958	7,787	20	Strawn, Pennsylvanian							41	8,195	Ellenburger	200	5	2	0	2	3	141,617	160		
1573	RED LOPLIN NORTH (ELLENBURGER); Garza	1959	8,264	13	Ellenburger, Ordovician								8,278	Ellenburger	40	1	1	0	0	1	3,840	4		
1574	RED LOPLIN NORTH (PENNSYLVANIAN); Garza	1959	7,820	6	Pennsylvanian								8,275	Ellenburger	80	2	2	0	0	2	13,144	13		
1575	REED (MIDDLE WADDELL); Crane	1954	5,790	53	Waddell, Ordovician		SS	173	10	SGD		37	6,555	Ellenburger	200	5	Combined with Running "W"				Waddell 5-1-57	103		
1576	REED NORTH (MIDDLE WADDELL); Crane	1956	5,928		Middle Waddell, Ordovician								6,020	Waddell	510	17	Combined with Running "W"				Waddell 5-1-57	157		
1577	REEVES (SAN ANDRES); Yoakum	1957	4,968	30	San Andres, Permian		DO	2	12	SGD		33	13,562	Devonian	1,840	46	27	0	3	43	281,051	434		
1578	REFOIL (3200' SAND); Crockett	1957	3,224	47	Wichita Albany, Permian							36	3,300	Wichita Albany	80	2	1	0	0	2	5,079	12		
1579	REGAN-EDWARDS (DELAWARE); Ward	1955	4,801	5	Delaware, Permian	MC	SS					38	4,825	Delaware	80	2	0	1	0	0	158	7		
1580	REGAN-EDWARDS (UPPER DELAWARE); Ward	1957	4,743	4	Delaware Sand, Permian								4,913	Delaware	160	4	0	0	2	2	20,589	82		
1581	REICK; Sutton	1948	4,143														Inactive					0	.5	
1582	REINECKE; Borden	1950	6,754	44	Cisco Reef, Pennsylvanian	Reef	LM		14	WD	0.15	46	7,035	Canyon	2,960	74	1	0	65	6	1,018,469	18,082		
1583	REINECKE (CLEARFORK); Borden	1952	4,559	19	Clearfork, Permian	AC	DO				0.16	38	6,995	Canyon Lime	40	1	Abandoned	Prior to 1956			0	4		
1584	REINECKE (WOLFCAMP); Borden	1954	6,305	15	Wolfcamp, Permian	AC	LM					37	7,055	Reef	40	1	Abandoned	1956			0	2		
1585	REVILO (CLEARFORK); Scurry	1957	3,458	52	Clearfork; Permian							28	3,602	Clearfork	40	1	Inactive at end of 1958					0	1	
1586	REVILO (GLORIETA); Scurry	1955	2,692	8	Glorieta, Permian	AC	DO	2	12			34	3,360	Clearfork	11,320	283	9	0	2	281	1,129,407	3,770		
1587	RHODES; Cochran	1941	5,050	20	San Andres, Permian		LM					31	5,150	San Andres			Combined with Slaughter				March 1954			
1588	RICHARDS; Pecos	1929	1,300	20	Permian							24	4,360	San Andres	60	3	Abandoned	1949			0	36		
1589	RIDE (CISCO LIME); Scurry	1955	6,845	6	Cisco, Pennsylvanian		LS					43	7,400	Ellenburger	200	5	0	1	0	1	4,804	88		
1590	RIDGE (CLEARFORK); Crosby	1957	4,246	53	Glorieta, Permian							24	4,412	Clearfork	160	4	3	0	0	4	16,216	18		
1591	RIDGE SOUTH (CLEARFORK); Crosby	1959	4,052	7	Clearfork, Permian								9,320	Ellenburger	40	1	1	0	0	1	229	.2		
1592	RIDGWAY (DELAWARE); Culbertson	1958	2,000	10	Delaware Sand, Permian								2,053	Delaware Sand	40	1	Inactive at end of 1958					0	.5	
1593	RILEY (CLEARFORK); Gaines	1947	7,045	192	Clearfork, Permian	AC	DO					33	7,251	Clearfork	40	1	0	0	0	1	6,798	39		
1594	RILEY NORTH; Gaines	1947	6,930	27	Upper Clearfork, Permian	AC	DO	12	6	SGD	2.01	33	7,290	Clearfork	3,520	88	8	0	2	78	727,797	7,506		
1595	RIO BRAVO (WICHITA ALBANY); Pecos	1958	4,459	27	Wichita Albany, Permian							40	5,280	Ellenburger	40	1	0	0	1	0	27,329	42		
1596	ROARING SPRINGS (PERMO-PENNSYLVANIAN); Motley	1957	4,150	20	Cisco, Pennsylvanian	MC		39	9	WD		43	6,123	Granite	400	11	0	0	0	10	176,622	376		
1597	ROARING SPRINGS WEST (PERMO-PENNSYLVANIAN); Motley	1958	4,188	52	Wolfcamp Reef, Permian	MC		39	9	WD		37	6,215	Pennsylvanian	360	9	8	0	0	9	68,070	76		
1598	ROBERT LEE (PALO PINTO); Coke	1955	5,462	8	Palo Pinto, Pennsylvanian		LS					43	7,025	Ellenburger	40	1	Abandoned	1956			0	2		
1599	ROBERTSON; Gaines	1942	5,910	60	San Andres-Clearfork, Permian	AC	LM		10	SGD		32	7,686	Wichita Albany	7,560	189	6	0	1	188	1,699,935	8,717		
1600	ROBERTSON (CANYON); Gaines	1950	9,030	112	Canyon, Pennsylvanian	AC	LM					46	12,120	Ellenburger	40	1	Abandoned	1956			0	141		
1601	ROBERTSON (LOWER CLEARFORK); Gaines	1950	7,040	80	Clearfork, Permian	AC	DO		10	SGD		36	12,080	Ellenburger	3,760	94	0	0	0	94	618,976	2,520		
1602	ROBERTSON (DEVONIAN); Gaines	1949	10,056	13	Devonian	AC	LM				0.30	36	12,080	Ellenburger	160	4	2	2	0	2	38,235	275		
1603	ROBERTSON (ELLENBURGER); Gaines	1949	11,900	60	Ellenburger, Ordovician	AC	DO				0.57	49	12,080	Ellenburger	80	2	Abandoned	1959			0	288		
1604	ROBERTSON (SAN ANDRES); Gaines	1952	4,750	14	San Andres, Permian							32	5,970	Lower San Andres	360	9	0	0	0	6	21,826	104		
1605	ROBERTSON NORTH (CANYON); Gaines	1957	8,861	180	Pennsylvanian Lime	AC	LM	10	8	SGD		46	10,202	Devonian	240	6	0	2	0	3	68,470	266		
1606	ROBERTSON NORTH (CLEARFORK 7100'); Gaines	1956	7,114	106	Clearfork, Permian	AC	DO	12	11	SGD		37	7,320	Clearfork	3,080	77	13	0	1	76	736,164	1,880		
1607	ROCKER "A"; Garza	1950	2,455		San Andres, Permian	AC	DO		19	SGD		37	2,785	San Andres	2,480	62	4	0	0	58	155,497	1,527		
1608	ROCKER "A" (CLEARFORK); Garza	1958	3,234	2	Clearfork, Permian							38	3,305	Clearfork	280	7	1	0	0	7	44,659	74		
1609	ROCKER "A" (GLORIETA); Garza	1955	3,082	142	Glorieta, Permian	AC	DO	67	16	SGD		38	3,305	Glorieta	840	21	5	0	0	21	105,336	273		
1610	ROCKER "A" SOUTH (GLORIETA); Garza	1957	2,941	67	Glorieta, Permian	AC	DO	67	15	SGD		37	8,058	Ellenburger	280	7	1	0	0	7	19,764	86		
1611	ROCKER "A" SOUTH (SAN ANDRES); Garza	1952	2,594	40	San Andres, Permian	AC	DO		19			37	8,074	Ellenburger	440	11	2	0	0	9	14,216	64		
1612	ROCKER "A" SOUTH (STRAWN); Garza	1956	7,616	8	Strawn, Pennsylvanian	AC	LM		6			40	8,076	Ellenburger	160	4	0	0	1	3	36,107	177		
1613	ROCKER "A" SOUTH (WOLFCAMP); Garza	1957	2,953	67	Glorieta, Permian	AC	DO		15			37	8,058	Ellenburger	40	1	0	0	0	1	163	14		
1614	ROCKER "B" (SAN ANDRES); Reagan	1957	1,774	73	San Andres, Permian							35	2,155	San Andres	40	1	Inactive at end of 1957					0	.3	
1615	ROCKER "B" EAST (PENNSYLVANIAN); Irion	1958	7,591	26	Penns																			

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-28

NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. FT. (IN.)	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED TO END OF 1959	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1621	ROMAC (STRAWN); Borden	1959	8,238	4	Strawn, Pennsylvanian								8,536	Ellenburger	40	1	1	0	1	0	6,847	7
1622	ROPES; Hockley	1950	9,290	35	Canyon Reef, Pennsylvanian	Reef	LM	138	10	SGD	0.40	42	9,445	Strawn	1,160	29	2	0	26	0	546,123	4,696
1623	ROPES NORTH; Hockley	1954	7,127	42	Wichita Albany, Permian	AC	DO					27	10,200	Pennsylvanian Lime	40	1	Abandoned	1956			0	9
1624	ROPES SOUTH; Hockley	1955	9,280	78	Reef, Pennsylvanian	D	LM	137	15	SGD		42	9,370	Reef			Re-Combined with Ropes Field 6-1-59.					
1625	ROPES WEST (CISCO SAND); Hockley	1953	9,875	33	Cisco Sand, Pennsylvanian	MC	SS	16	11			42	9,908	Canyon Reef	640	16	0	0	1	13	275,212	1,525
1626	ROPES WEST (WOLFCAMP); Hockley	1955	8,775	50	Wolfcamp, Permian							37	10,000	Pennsylvanian	40	1	Abandoned	1955			0	2
1627	ROSEMARY (SAN ANDRES); Glasscock	1955	2,485	15	San Andres, Permian		DO					31	3,040	San Andres	40	1	0	0	0	1	1,553	11
1628	ROSS RANCH; King	1944	5,341	40	Strawn, Pennsylvanian	AC	SS					39	6,601	Pre-Cambrian	680	17	0	0	2	13	116,526	3,634
1629	ROUGH CREEK (SAN ANDRES); Scurry	1956	1,974	62	San Andres, Permian							38	2,539	Glorieta	40		Inactive at end of	1957			0	.2
1630	ROWENA (CAPPS); Runnels	1955	3,718	12	Strawn Ls, Pennsylvanian		LM	93	7	SGD			3,730	Strawn	560	14	0	0	11	3	133,757	604
1631	ROWENA (LOWER CAPPS); Runnels	1957	3,789	9	Lower Capps, Pennsylvanian		LM	19	5	WD			4,030	Capps	160	8	2	0	0	7	34,570	173
1632	ROWENA (JENNINGS); Runnels	1959	3,957	5	Jennings, Pennsylvanian								4,004	Capps	160	4	4	0	0	4	39,332	39
1633	RUNNING "W" (MCKEE); Crane	1958	6,185	5	McKee, Ordovician	MJ	SS			SGD		35	6,260	McKee	40	1	0	0	1	0	8,643	16
1634	RUNNING "W" (WADDELL); Crane	1957	5,957	50	Waddell, Ordovician	AC/F	SS		10		0.04	37	6,555	Ellenburger	5,160	134	0	0	123	11	1,441,037	4,932
1635	RUSSELL (SAN ANDRES); Gaines	1955	4,898	28	San Andres, Permian		DO	8	12	SGD		35	7,975	Lower Permian	240	6	0	0	0	5	43,068	131
1636	RUSSELL (WICHITA ALBANY); Gaines	1958	7,708	52	Wichita Albany, Permian							34	8,570		40	1	0	0	0	1	1,859	5
1637	RUSSELL (6100' GLORIETA); Gaines	1945	6,145	40	Glorieta, Permian	AC	DO	9	9	SGD		34	11,205	Devonian	1,040	26	0	0	0	24	277,906	2,983
1638	RUSSELL (7000' CLEARFORK); Gaines	1943	7,756	125	Clearfork, Permian	AC	DO	10	4	SGD		34	11,205	Devonian	7,120	178	15	2	0	169	1,692,932	14,937
1639	RUST; Tom Green	1950	3,965		Strawn, Pennsylvanian		LM					31			40	1	Abandoned	April 1953			0	1
1640	RUST SOUTH; Tom Green	1953	4,513	19	Upper Strawn Lime, Pennsylvanian		LM					32	4,775	Strawn Lime	200	5	0	0	0	4	12,944	70
1641	RUSTLER HILLS; Culberson	1948	470	10	Permian							26	484	Permian	120	3	0	0	0	3	425	2
1642	RUTH SCHARBAUER (ELLENBURGER); Midland	1955	12,720	70	Ellenburger, Ordovician								13,098	Ellenburger	40	1	Abandoned	1955			0	1
1643	RUTH SCHARBAUER (PENNSYLVANIAN); Midland	1956	10,415	80	Strawn, Pennsylvanian	AC	LM			SGD		59	13,098	Ellenburger	40	1	0	0	1	0	4,473	47
1644	RUTH SCHARBAUER (WOLFCAMP); Midland	1955	8,970	80	Wolfcamp, Permian							36	12,840	Ellenburger	40	1	Abandoned	1955			0	.4
1645	S. M. S. (CANYON REEF); Kent	1953	6,639	16	Canyon Lime, Pennsylvanian		LM					37	6,655	Canyon Lime	40	1	Combined with S. M. S. Canyon Sand	April 1954			695,818	4,883
1646	S. M. S. (CANYON SAND); Kent	1954	6,100		Canyon Sand, Pennsylvanian	MC	SS	170	20	WD		40	6,655	Canyon Lime	3,280	82	0	0	0	73		
1647	S. W. T. (WOLFCAMP); Irion	1956	5,535	20	Wolfcamp, Permian							34	5,972	Wolfcamp	40	1	Abandoned	1956			0	.5
1648	SABLE (SAN ANDRES); Yoakum	1957	5,258	38	San Andres, Permian	AC	LM	1	9	SGD		32	5,340	San Andres	600	15	13	0	0	15	70,704	76
1649	SABRE (DELAWARE); Reeves	1958	2,954	14	Delaware Sand, Permian	ML	SS	56	19			34	3,031	Delaware Sand	1,480	31	13	0	11	2	227,567	276
1650	SADIE (ELLENBURGER); Coke	1958	6,685	22	Ellenburger, Ordovician			3	10			45	7,500	Cambrian Sand	40	1	Inactive at end of	1958			0	.5
1651	SAGE CANYON (QUEEN); Crane	1959	4,046	16	Queen, Permian								4,465	Grayburg	40	1	1	0	0	1	2,855	3
1652	SALT CREEK; Kent	1950	6,484	36	Canyon, Pennsylvanian	Reef	LM	16	12	SGD	0.6	39	7,330		4,200	105	0	0	86	14	3,873,834	30,519
1653	SALT CREEK (STRAWN); Kent	1952	6,613	15	Strawn, Pennsylvanian		LM		5			37	6,693	Strawn	40	1	Inactive at end of	1958.			0	101
1654	SALT CREEK SOUTH; Kent	1952	6,622	37	Canyon, Pennsylvanian		LM		9			40	6,659	Canyon	240	6	0	0	0	6	41,800	440
1655	SAN ANGELO (CANYON SAND); Tom Green	1957	4,930	14	Canyon Sand, Pennsylvanian							35	6,130	Ellenburger	40	1	0	0	0	1	7,177	24
1656	SAN BENITO; Coke	1948	6,495	20	Marble Falls, Pennsylvanian		LM					46	6,868	Ellenburger	80	2	Abandoned	1953			0	52
1657	SAN BENITO (ELLENBURGER); Coke	1948	6,818	50	Ellenburger, Ordovician							46	6,868	Ellenburger	40	1	Abandoned	1954			0	77
1658	SAND HILLS (ELLENBURGER); Crane	1958	5,754	18	Ellenburger, Ordovician	AC	DO	Frc	F	WD		35	5,784	Ellenburger	160	4	1	0	4	0	94,532	110
1659	SAND HILLS MCKNIGHT; Crane	1935	3,390	80	San Andres, Permian	AC	DO	F	10	SGD	2.76	36	7,891	Ellenburger	16,040	401	3	0	217	283	3,064,034	24,411
1660	SAND HILLS (ORDOVICIAN); Crane	1935	5,700	20	Simpson, Ordovician	AC/F	SS				0.18	37	7,891	Ellenburger	2,400	60	Combined with Running "W"	1959			Waddell	6,073
1661	SAND HILLS (TUBB); Crane	1930	3,700	200	Clearfork, Permian	AC	DO		15	SGD	1.10	35	7,891	Ellenburger	17,040	426	0	0	246	153	1,561,788	47,543
1662	SAND HILLS (WICHITA ALBANY); Crane	1958	4,500	30	Wichita Albany, Permian	MC	DO	P	Por	SGD		37	6,050	Ellenburger	80	2	1	0	1	0	7,299	18
1663	SAND HILLS (WOLFCAMP); Crane	1958	5,684	80	Wolfcamp, Permian	AC	DO		Por			35	6,025	Ellenburger	160	4	0	0	1	3	70,640	100
1664	SAND HILLS (NORTH ELLENBURGER); Crane	1957	6,000	30	Ellenburger, Ordovician	AC/F	DO	Frc	F	WD	0.83	36	6,030	Ellenburger	200	5	0	0	4	1	50,979	133
1665	SAND HILLS WEST; Crane	1943	3,800	25	San Angelo, Permian	AC	DO	P	8	SGD	0.22	35	7,891	Ellenburger	1,040	26	2	0	2	0	94,129	648
1666	SAND HILLS WEST (ELLENBURGER); Crane	1937	5,980	100	Ellenburger, Ordovician	AC/F	DO		F	WD	0.20	44	7,891	Ellenburger	720	18	0	0	0	1	1,487	1,187
1667	SAND HILLS WEST (TUBB); Crane	1952	4,620	85	Tubb, Permian	AC	DO					33	8,220	Ellenburger	80	2	0	0	0	1	2,056	51
1668	SAND LAKE (DELAWARE); Reeves	1958	4,220	8	Delaware Sand, Permian							35	4,300	Delaware	80	2	1	0	0	2	11,228	12
1669	SAND SPRINGS (FUSSELMAN); Howard	1959	9,302	10	Fusselman, Silurian								9,452	Ellenburger	40	1	1	0	0	1	4,269	4
1670	SANFORD (FRY); Runnels	1954	4,516	13	Fry Sand, Pennsylvanian		SS		14		0.12	41	4,570	Pennsylvanian Sand	3,160	79	0	3	9	66	259,992	1,492
1671	SANFORD (GARDNER); Runnels	1955	4,978	6	Gardner Sand, Pennsylvanian		SS					42	5,265	Caddo	40	1	Abandoned	December 1955			0	4
1672	SANFORD SOUTHEAST (GARDNER); Runnels	1957	4,910	12	Gardner Sand, Pennsylvanian		SS						5,366	Ellenburger	80	2	0	0	0	2	2,258	9
1673	SANSOM RANCH (1300'); Concho	1953	1,341												20	1	Abandoned	September 1955	</			

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-29

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG. TOP FT.	ESTIMATE PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY API AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1681	SCARBROUGH NORTH; Winkler	1947	3,286	50	Grayburg, Permian	AC	LM					37	3,339	Grayburg	1,200	30	0	0	0	28	367,069	1,306
1682	SCHMITTEL; Scurry	1948	6,816	75	Canyon, Pennsylvanian	Reef	LM				0.40	44	8,110	Ellenburger	40	1	Abandoned	1955		0	37	
1683	SCOTT; Ward	1946	4,839	20	Delaware, Permian	MC	SS		23			34	5,721	Delaware Sand	480	12	2	0	9	3	46,957	147
1684	SCREWBEAN (DELAWARE); Culberson	1958	2,548	13	Delaware Sand, Permian	ML	SS	17	20			28	2,561	Delaware Sand	280	7	1	0	5	2	39,652	59
1685	SCREWBEAN (1000' SAND); Culberson	1958	1,024	4	Castile, Permian	ML	SS						1,028	Castile	160	4	1	0	0	4	28,011	49
1686	SCREWBEAN EAST (1000' SAND); Reeves	1959	1,005	7	Castile, Permian								1,012	Castile	40	1	1	0	0	1	656	.7
1687	SEAGRAVES (SILURO-DEVONIAN); Gaines	1955	13,028	100	Siluro-Devonian	AC	DO					37	13,133	Devonian	240	6	0	0	1	5	301,112	1,451
1688	SEAGRAVES (STRAWN); Gaines	1956	11,243	43	Strawn, Pennsylvanian	AC	DO	29	12	SGD		47	13,022	Devonian	240	6	0	0	0	6	77,314	418
1689	SEAGRAVES SOUTH (SILURO-DEVONIAN); Gaines	1955	13,022	33	Devonian	AC	DO		5			37	13,071	Devonian	80	2	0	0	0	2	85,157	315
1690	SEAGRAVES WEST (DEVONIAN); Gaines	1956	13,060	18	Devonian							37	13,060	Devonian		Combined with Seagraves Siluro-Devonian.						
1691	SEAGRAVES WEST (STRAWN); Gaines	1956	11,454	36	Strawn, Pennsylvanian	AC	DO	29	7	SGD		48	13,222	Devonian	200	5	0	0	0	3	35,145	248
1692	SEALY SOUTH (YATES); Ward	1946	2,199	6	Yates, Permian								3,214	Yates	560	14	0	0	2	10	35,367	74
1693	SECTION 83 (PENNSYLVANIAN); Yoakum	1955	9,494	28	Pennsylvanian		LM					40	9,989	Pennsylvanian	40	1	0	0	0	1	10,778	62
1694	SEITZ (FRY); Runnels	1954	4,508	6	Fry Sand, Pennsylvanian		SS					38	5,391	Ordovician	20	1	Inactive at end of 1957				0	3
1695	SEMINOLE (SAN ANDRES); Gaines	1936	5,200	175	San Andres, Permian	AC	DO	18	11	SGD	1.80	37	9,312	Wolfcamp	13,971	349	0	0	275	63	2,818,693	97,135
1696	SEMINOLE (SAN ANGELO); Gaines	1947	6,336	109	San Angelo, Permian	AC	DO			SGD	2.02	28	9,312	Wolfcamp	600	15	0	0	0	13	123,085	1,742
1697	SEMINOLE (WOLFCAMP); Gaines	1956	9,120	63	Wolfcamp, Permian	AC	DO	EX	26	WD		27	11,574	Devonian	40	1	0	0	1	0	16,879	136
1698	SEMINOLE EAST (SAN ANDRES); Gaines	1959	5,450	16	San Andres, Permian								5,500	San Andres	120	3	3	0	0	3	34,991	35
1699	SEMINOLE NORTHWEST (CANYON); Gaines	1956	10,240	10	Canyon, Pennsylvanian							29	12,945	Granite Wash	40	1	Depleted 1956.				0	8
1700	SEMINOLE SOUTHWEST (DEVONIAN); Gaines	1955	11,568	61	Devonian	AC	DO					36	11,630	Devonian	80	2	Recompleted in Seminole Southwest Pennsylvanian Field 3-1-57					62
1701	SEMINOLE SOUTHWEST (PENNSYLVANIAN); Gaines	1956	10,410	54	Pennsylvanian							43	13,314	Granite	200	6	1	0	0	4	33,374	226
1702	SEMINOLE WEST; Gaines	1948	5,042	160	San Andres, Permian	AC	DO	49	15	SGD		37	9,312	Wolfcamp	3,000	75	1	0	60	13	570,641	9,294
1703	SEMINOLE WEST (DEVONIAN); Gaines	1956	11,181	24	Devonian							38	12,585	Granite	80	2	0	0	1	1	45,072	293
1704	SEMINOLE WEST (DEVONIAN FB-2); Gaines	1957	10,528	40	Devonian							37	10,596	Devonian	160	4	0	0	4	0	85,883	261
1705	SEMINOLE WEST (LEONARD); Gaines	1956	8,742	44	Leonard, Permian								10,938	Devonian	200	5	0	0	0	5	44,324	305
1706	SEMINOLE WEST (WOLFCAMP FB-2); Gaines	1958	9,078	32	Wolfcamp, Permian							32	10,596	Devonian	40	1	0	0	1	0	72,605	85
1707	SERVICE (CROSS CUT); Runnels	1954	3,309	10	Cross Cut Sand, Pennsylvanian		SS					43	3,979	Pennsylvanian Sand	160	8	1	0	1	4	6,487	61
1708	SEVEN "D"; Reagan	1951	8,100	125	Wolfcamp, Permian	AC	DO		3			45	10,285	Ellenburger	120	3	0	0	0	1	2,860	56
1709	SEVEN "J" (ELLENBURGER); Borden	1959	8,304	16	Ellenburger, Ordovician								8,320	Ellenburger	80	2	2	0	1	0	23,961	24
1710	SEVEN "J" (STRAWN); Borden	1959	7,780	8	Strawn, Pennsylvanian								8,320	Ellenburger	160	4	4	0	2	2	66,089	66
1711	SHAFTER LAKE (CLEARFORK); Andrews	1948	6,910	110	Clearfork, Permian	AC	DO		10			34	11,948	Ellenburger	640	16	2	0	0	14	109,336	497
1712	SHAFTER LAKE (DEVONIAN); Andrews	1947	9,700	140	Devonian	AC	DO		4		0.75	38	11,948	Ellenburger	2,600	65	0	0	0	49	453,038	14,218
1713	SHAFTER LAKE (ELLENBURGER); Andrews	1948	11,685	160	Ellenburger, Ordovician	AC	DO	M	1	WD	0.24	43	11,948	Ellenburger	440	11	0	0	0	8	109,406	4,267
1714	SHAFTER LAKE (PENNSYLVANIAN); Andrews	1950	8,580	70	Pennsylvanian	AC	LM						11,948	Ellenburger	40	1	Abandoned April 1953				0	22
1715	SHAFTER LAKE (SAN ANDRES); Andrews	1953	4,389		San Andres, Permian	AC	DO	4	6	SGD		35	4,659	San Andres	13,360	338	5	0	11	327	1,630,880	9,049
1716	SHAFTER LAKE (WOLFCAMP); Andrews	1948	8,410	50	Wolfcamp, Permian	AC	DO	48	17	SGD	0.47	41	11,948	Ellenburger	2,000	50	0	0	0	35	242,446	6,215
1717	Shafter Lake (Yates); Andrews	1952	2,997	57	Yates, Permian	AC	SS					42	3,054	Yates	3,200	80	0	0	55	15	56,937	930
1718	SHAFTER LAKE EAST; Andrews	1951	9,130	5	Pennsylvanian	AC	LM					38	11,948	Ellenburger	40	1	Abandoned 7-24-57.				0	20
1719	SHAFTER LAKE NORTH (SAN ANDRES); Andrews	1952	4,504	28	San Andres, Permian	AC	LM		6			31	4,532	San Andres	840	21	4	0	0	15	70,985	465
1720	SHAFTER LAKE SOUTH; Andrews	1952	3,057	94	Yates, Permian	AC	SS					42	3,153	Yates	160	1	Combined with Shafter Lake (Yates) Field 1955					
1721	SHAFTER LAKE SOUTH (SAN ANDRES); Andrews	1959	4,518	46	San Andres, Permian								4,732	San Andres	40	1	1	0	0	1	935	.9
1722	SHANNON; Crockett	1943	2,188		Permian							25					Divided into Various Fields.					31
1723	SHANNON (CISCO); Crockett	1953	6,608	10	Cisco Lime, Pennsylvanian	AC	DO					40	8,189	Ellenburger	40	1	Abandoned Prior to 1956.					2
1724	SHANNON (GRAYBURG); Crockett	1943	2,200	30	Grayburg, Permian	AC	DO					30	8,440	Ellenburger	480	12	0	0	0	2	763	21
1725	SHANNON (SAN ANDRES); Crockett	1947	2,356	4	San Andres, Permian	AC	DO		12			25	8,440	Ellenburger	5,200	130	0	0	2	128	411,952	3,316
1726	SHANNON (STRAWN); Crockett	1955	8,046	9	Strawn, Pennsylvanian	AC	LM					41	9,898	Ellenburger	40	1	Abandoned 1957.				0	5
1727	SHARON RIDGE (CANYON); Scurry	1949	6,650	30	Canyon, Pennsylvanian	Reef	LM	44	8	PM		44	8,238	Ellenburger	8,040	201	Combined with Diamond-M Canyon December 1951					7,536
1728	SHARON RIDGE (CLEARFORK); Scurry	1950	2,994		Clearfork, Permian		DO	12	3	SGD		29	8,238	Ellenburger	4,960	142	10	0	0	142	374,541	1,428
1729	SHARON RIDGE (1700'); Mitchell-Scurry	1925	1,750	25	San Andres, Permian		DO	14	7	SGD	0.21	30	8,238	Ellenburger	45,560	1,139	31	0	0	1,139	1,279,738	14,292
1730	SHARON RIDGE (2400'); Mitchell-Scurry	1938	2,513	200	San Angelo, Permian	AC	DO	.6	9	SGD	0.90	29	8,238	Ellenburger	9,480	237	3	0	0	232	508,386	6,076
1731	SHARON RIDGE (2900'); Scurry	1950	2,988		Clearfork, Permian		DO		8			31	8,238	Ellenburger	240	6	0	0	0	2	2,758	26
1732	SHEARER; Pecos	1932	1,350	30	Seven Rivers, Permian	AC	SS					34	1,750	Grayburg	1,920	48	0	0	0	33	114,889	2,198
1733	SHEARER (1700'); Pecos	1949	1,695	5	Grayburg, Permian	AC	DO					30	1,708	Grayburg	120	3	0	0	0	1	1,531	56

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-30

LINE NO.	FIELD COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMP. LETEN	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1741	SHIRK (GRAYBURG); Upton	1956	2,850	70	Grayburg, Permian								2,927	Grayburg	120	3	1	0	0	3	11,959	46
1742	SHIRK (WOLF CAMP); Upton	1956	7,170	24	Wolfcamp, Permian							38	11,098	Ellenburger	40	1	Abandoned	1956		0	2	
1743	SILER & JOHNSON (1700'); McCulloch	1953	1,675	6	Strawn Lime, Pennsylvanian								1,960	Strawn	40	1	0	0	0	1	71	8
1744	SIMPSON; Crockett	1947	1,527	24	Seven Rivers, Permian	AC	DO					33	1,720	Grayburg	400	10	1	0	0	1	5,500	102
1745	SIMS (GLORIETA); Garza	1955	3,681	14	Glorieta, Permian		DO					36	4,310	Clearfork	160	4	0	0	0	2	6,798	37
1746	SIMS SOUTHWEST (SAN ANDRES); Garza	1959	3,232	20	San Andres, Permian								4,344	Glorieta	40	1	1	0	0	1	320	.3
1747	SIX-MILE POOL (WICHITA); Hockley	1956	6,120	234	Wichita, Permian							31	7,786	Clearfork	40	1	0	0	0	1	434	5
1748	SIXTY-SEVEN (STRAWN); Irion	1956	6,898	10	Strawn, Pennsylvanian							54	7,514	Cambrian	80	2	0	0	0	2	14,755	97
1749	SLATOR (SAN ANDRES); Ector	1957	4,156	18	San Andres, Permian	AC	DO			SGD		36	6,355	Tubb	600	19	1	0	12	7	135,512	267
1750	SLAUGHTER; Cochran-Hockley-Terry	1936	4,950	100	San Andres, Permian	MC	DO	10	12	SGD		32	7,000	Clearfork	87,246	2,585	1	1	826	1,688	8,979,232	260,078
1751	SMITH (CLEARFORK); Andrews	1950	7,340	168	Clearfork, Permian	MC	DO				0.50	38	7,508	Wichita Albany	120	3	0	0	0	2	8,558	177
1752	SMITH (SPRABERRY); Dawson	1950	7,940	43	Spraberry, Permian	MC	SS				0.15	38	9,685	Strawn	200	5	0	0	0	5	37,231	403
1753	SMYER; Hockley	1944	5,850	25	Clearfork, Permian		DO	3	9			26	6,000	Clearfork	2,640	75	2	0	0	75	320,145	4,268
1754	SMYER NORTH (CANYON); Hockley	1956	9,630	72	Canyon, Pennsylvanian	AC	LS	36	6	WD		40	11,565	Granite	160	4	0	0	4	0	109,288	423
1755	SMYER NORTH (STRAWN); Hockley	1956	9,968	20	Strawn, Pennsylvanian		DO	39	5	SGD		44	10,100	Strawn	440	11	0	0	11	0	264,470	714
1756	SNOWDEN; Dawson	1951	7,288	10	Spraberry, Permian		SS				0.12	40	8,700	Pennsylvanian	320	8	0	0	0	6	39,743	416
1757	SNOWDEN (SPRABERRY UPPER); Dawson	1957	6,566	16	Upper Spraberry, Permian							38	7,456	Upper Spraberry	40	1	0	0	0	1	10,662	43
1758	SNYDER; Howard-Mitchell	1937	2,600	50	San Angelo, Permian		DO		9		0.17	32	6,419	Pennsylvanian	17,040	426	3	0	0	426	1,188,622	10,747
1759	SNYDER NORTH; Scurry	1948	6,260	475	Pennsylvanian	Reef		23	14			44	6,419	Pennsylvanian	40	1	Combined to form Kelly Snyder 1950.				5,695	
1760	SNYDER NORTH (ELLENBURGER); Scurry	1949	7,713	22	Ellenburger, Ordovician		DO					36	7,735	Ellenburger	40	1	Abandoned	1950.		0	1	
1761	SNYDER NORTH (PENNSYLVANIAN STRAWN ZONE "A"); Scurry	1953	7,143	20	Strawn Lime Zone "A", Pennsylvanian		LM				0.35	37	7,540	Strawn Lime	80	2	Inactive at end of 1958				0	14
1762	SNYDER NORTH (STRAWN); Scurry	1950	7,403	23	Strawn, Pennsylvanian							45	8,405	Ellenburger	800	20	Divided into Zone B & C 1953.				1,471	
1763	SNYDER NORTH (STRAWN "B"); Scurry	1950	7,300	23	Strawn "B", Pennsylvanian		LM	36	10	SGD	0.20	45	8,405	Ellenburger	1,000	25	0	0	1	24	241,126	3,556
1764	SNYDER NORTH (STRAWN "C"); Scurry	1949	7,494	14	Strawn, Pennsylvanian		LM		8	SGD	0.20	45	8,405	Ellenburger	720	18	Inactive at end of 1958				0	1,311
1765	SONORA SOUTHEAST; Sutton	1951	5,125	26	Strawn, Pennsylvanian		LS					33	5,165	Strawn	40	1	Abandoned	1951		0	2	
1766	SON ROSS; Sutton	1954	4,450	20	Canyon, Pennsylvanian	ML	SS					29	4,950	Strawn	40	1	Abandoned	1955		0	.3	
1767	SPADE; Sterling	1948	7,970	30	Ellenburger, Ordovician	AC	DO					49	8,000	Ellenburger	40	1	Abandoned	8-31-57		0	50	
1768	SPADE (MISSISSIPPIAN); Sterling	1952	8,070	25	Mississippian	AC	LS					42	8,163	Ellenburger	40	1	Abandoned	June 1953		0	3	
1769	SPADE (SPRABERRY); Sterling	1952	7,674	10	Spraberry, Permian		SS					47	7,761	Ellenburger	40	1	Abandoned	1955		0	3	
1770	SPARENBURG (PENNSYLVANIAN); Dawson	1951	9,442		Pennsylvanian	Reef	LM					42					Inactive at end of 1952				0	16
1771	SPARTON; Kent	1950	7,353	6	Permian								7,895	Pennsylvanian	40	1	Abandoned				0	3
1772	SPECK (JENNINGS); Concho	1957	3,185	15	Jennings Sand, Pennsylvanian								3,716	Caddo	60	3	0	0	0	3	13,304	31
1773	SPECK (STRAWN); Concho	1953	3,683	9	Caddo, Pennsylvanian		LS					39	4,365	Hickory	80	4	0	0	0	2	3,258	57
1774	SPENCER; Ward	1941	2,900	40	Yates-Seven Rivers, Permian		SS			SGD		26	3,000	Seven Rivers	840	28	7	0	10	18	96,344	1,193
1775	SPILL; Runnels	1952	3,376	12	Palo Pinto, Pennsylvanian		LM					40	4,264	Caddo	20	1	Abandoned	March 1956		0	5	
1776	SPILL (GARDNER); Runnels	1959	4,019	3	Gardner Sand, Pennsylvanian								4,286	Caddo	40	1	1	0	1	0	1,509	2
1777	SPILL (MORRIS LIME); Runnels	1955	3,375	5	Upper Capps Lime, Pennsylvanian		SS					41	4,309	Strawn	60	3	0	0	0	2	4,720	37
1778	SPIRES; Kent	1950	6,755	16	Canyon, Pennsylvanian	AC	LM				0.50	42	7,564	Ellenburger	80	2	0	0	0	1	9,576	124
1779	SPIVEY (SAN ANDRES); Yoakum	1958	5,350	20	San Andres, Permian							33	5,501	San Andres	120	3	2	0	1	2	13,558	16
1780	SPRABERRY; Dawson	1946	3,730	165	Permian	AC	DO	6	15	SGD		33	11,136	Ellenburger	600	15	0	0	0	14	41,006	621
1781	SPRABERRY (DEEP); Dawson	1949	6,420	150	Spraberry, Permian	AC	SS	4	15	SGD		40	11,136	Pennsylvanian	1,560	39	0	0	8	27	271,898	5,304
1782	SPRABERRY (DEEP LOWER SPRABERRY); Dawson	1957	6,659	30	Spraberry, Permian								8,430	Wolfcamp, Reef	840	21	0	0	13	8	385,363	737
1783	SPRABERRY WEST (PENNSYLVANIAN); Dawson	1953	8,060	38	Pennsylvanian Reef, Lime	Reef	LM	338	5	WD		40	8,203	Pennsylvanian Lime	120	3	0	0	3	0	66,249	671
1784	SPRABERRY WEST (DEEP PENNSYLVANIAN); Dawson	1954	8,195	32	Reef, Pennsylvanian	Reef	LM	186	4	WD		40	8,285	Reef	160	4	0	0	0	4	37,342	404
1785	SPRABERRY (DEEP) WEST; Dawson	1953	6,420		Spraberry, Permian	AC	SS	28	15			40	8,291	Reef	1,040	26	0	0	6	20	316,459	1,854
1786	SPRABERRY WEST (DEEP LOWER SPRABERRY); Dawson	1954	7,484	90	Spraberry, Permian	AC	SS	8	18			42	8,291	Reef	960	24	0	0	2	21	347,436	1,585
1787	SPRABERRY TREND AREA; Upton-Reagan-Glasscock-Midland	1953	6,800	350	Upper Spraberry, Permian	H	SS	Frc	12f	SGD		38	12,055	Ellenburger	113,400	2,835	41	0	1,000	2,292	11,496,318	120,232
1788	SPRABERRY TREND AREA (CLEARFORK); Midland-Reagan-Glasscock	1955	6,300	10	Clearfork, Permian	H	DO	Frc	10	SGD		39	12,055	Ellenburger	19,440	486	0	0	209	105	546,331	10,000
1789	SPRABERRY TREND AREA (DEVONIAN); Midland	1957	11,185		Devonian							43	12,063	Ellenburger	40	1	0	0	1	0	3,430	13
1790	SPRABERRY TREND AREA SOUTH; Upton	1955	6,730	10	Clearfork, Permian		DO	P	10	SGD		35	7,152	Spraberry	80	2	Combined with Spraberry trend Clearfork 1956.					
1791	SPRABERRY TREND AREA WEST; Upton	1955	6,834	12	Clearfork, Permian		DO	P	10	SGD		35	7,271	Spraberry	40	1	Combined with Spraberry trend Clearfork 1956.					
1792	SPUR (CANYON); Garza	1951	6,855		Canyon Pennsylvanian		LM					33					Inactive at end of 1952				0	3
1793	STATEX; Terry	1952	9,988	41	Cisco, Pennsylvanian		LM		5			44	10,086	Cisco Lime Pennsylvanian	640	16	0	0	0	9	98,299	1,702
1794	STEEN; Sutton	1954	4,185																			

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-31

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY, API, AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1801	STRINGER (SAN ANGELO); Sterling	1956	1,423	13	San Angelo, Permian							29	7,700	Ellenburger	80	2	0	0	0	2	2,038	14
1802	SUBISE (FRY); Runnels	1952	4,357	3	Fry, Pennsylvanian		SS	134	19	SGD		44			1,800	45	1	0	7	35	117,333	1,609
1803	SUGG (CLEARFORK); Irion	1955	4,535	56	Clearfork, Permian	ML	DO					38	4,900	Clearfork	560	14	0	0	2	8	17,765	147
1804	SUGG (WOLFCAMP); Reagan	1951			(See Seven "D" Wolfcamp Field).																	
1805	SUGG NORTH (CLEARFORK); Irion	1956	4,349	37	Clearfork, Permian		SS	14	15	SGD		39	4,700	Clearfork	200	5	0	0	0	5	12,123	71
1806	SUGG NORTH (SAN ANDRES); Irion	1956	1,890	10	San Andres, Permian							29	4,890	Clearfork	80	2	0	0	0	1	2,756	21
1807	SUGG NORTH (SPRABERRY); Irion	1956	4,682	8	Spraberry, Permian				10			31	4,734	Spraberry	80	2	0	0	0	1	2,323	10
1808	SULLIVAN (DELAWARE); Reeves	1957	2,664	19	Delaware Sand, Permian	ML	SS	25	19			41	2,670	Delaware Sand	1,040	32	10	0	21	11	157,602	274
1809	SUNFLOWER; Mitchell	1951	6	5	Sunflower, Quaternary		SS					52			320	8	0	0	0	2	1,463	7
1810	SUNILAND (GLORIETA); Lynn	1956	4,299	97	Glorieta, Permian		DO	11	9			37	4,551	Clearfork	280	7	0	0	0	7	72,801	313
1811	SUNILAND (SAN ANDRES); Lynn	1955	3,803	7	San Andres, Permian	AM	DO	16	13			36	4,164	San Andres	960	24	5	0	0	24	165,316	426
1812	SUNILAND (LOWER SAN ANDRES); Lynn	1956	3,985	55	San Andres, Permian	AM	DO	17	13	SGD		37	4,164	San Andres	960	24	4	0	0	18	124,191	386
1813	SUSAN PEAK; Tom Green	1948	4,724	60	Main Strawn, Pennsylvanian	AF	LM	294	13	WD	0.36	36	8,297	Ellenburger	2,360	59	0	0	38	9	357,933	8,014
1814	SUSAN PEAK (CISCO CANYON); Tom Green	1950	4,572	25	Cisco Canyon, Pennsylvanian	AC	LM	7	14	WD	0.10	44	8,297	Ellenburger	880	22	0	0	11	3	110,942	699
1815	SUSAN PEAK (UPPER STRAWN); Tom Green	1950	4,724	20	Strawn, Pennsylvanian	AC	LM		.5	WD	0.30	39	8,297	Ellenburger	240	6	0	0	1	3	9,938	215
1816	SUSAN PEAK NORTH; Tom Green	1953	4,265	2	Strawn Sand, Pennsylvanian		SS					40	4,755	Strawn Lime	40	1	Abandoned	August 1953		0	.5	
1817	SUSAN PEAK NORTH (CANYON); Tom Green	1958	4,231	9	Canyon Sand, Pennsylvanian		SS					41	4,240	Canyon	240	6	1	0	3	3	70,228	88
1818	SUSAN PEAK SOUTH; Tom Green	1949	4,835	40	Strawn, Pennsylvanian		LM				0.30	47	8,297	Ellenburger	160	4	0	0	1	1	3,348	65
1819	SWEETIE PECK (DEVONIAN); Midland	1950	12,215	182	Devonian	AC	DO		3	SGD	0.05	48	13,397	Ellenburger	200	5	2	0	5	0	33,307	126
1820	SWEETIE PECK (ELLENBURGER); Midland	1950	13,128	122	Ellenburger, Ordovician	AC	DO		F	WD	0.45	51	13,397	Ellenburger	800	20	1	0	8	12	388,184	5,282
1821	SWEETIE PECK (FUSSELMAN); Midland	1950	12,555		Silurian	AC	LM				0.04	51	13,397	Ellenburger	80	2	0	0	0	0	867	122
1822	SWEETIE PECK (PENNSYLVANIAN); Midland	1950	10,342	115	Pennsylvanian Sand	AC	LM	11	17	SGD	0.06	45	13,397	Ellenburger	960	24	0	0	6	1	23,716	1,558
1823	SWEETIE PECK (SAN ANDRES); Midland	1956	5,760	10	San Andres, Permian	AC	LM					34	13,341	Ellenburger	120	3	0	0	0	3	13,257	53
1824	SWEETIE PECK (WOLFCAMP LOWER); Midland	1950	9,848	164	Wolfcamp, Permian	AC	LM				0.02	58	13,397	Ellenburger	120	3	0	0	0	1	1,791	75
1825	SYKES (MORRIS SAND); Runnels	1950	3,706	10	Morris Sand, Pennsylvanian		SS	100	16	WF		41	4,060	Gray	480	24	4	0	6	12	13,424	444
1826	SYKES WEST (MORRIS); Runnels	1953	3,666		Morris Sand, Pennsylvanian		SS					39	4,354	Strawn	100	5	Abandoned	October 1959			2,196	71
1827	T. C. I. (GRAYBURG); Pecos	1950	2,198	1	Grayburg, Permian	AC	SS					28	6,603	Ellenburger	120	3	0	0	1	1	720	10
1828	T. C. I. (SAN ANDRES); Pecos	1949	2,220	80	San Andres, Permian	AC	DO	M	9	WD		35	6,603	Ellenburger	200	5	0	0	0	2	2,114	301
1829	T. C. I. (WADDELL); Pecos	1949	6,600	10	Waddell, Ordovician	AC	SS					42	6,603	Ellenburger	40	1	Abandoned	1950		0	3	
1830	T. E. BAR (SAN ANDRES); Crane	1956	2,570	5	San Andres, Permian	AC	DO					35	2,575	San Andres	280	7	0	0	0	6	9,957	51
1831	T. E. BAR (1600' SEVEN RIVERS); Crane	1956	1,619	16	Seven Rivers, Permian							36	2,614	San Andres	40	1	Inactive at end of 1956.			0	.3	
1832	TXL (UPPER CLEARFORK); Ector	1946	5,615	80	Clearfork, Permian	AC	LM	28	15	SGD		36	11,506	Clearfork	4,000	100	Combined with Goldsmith	6600', 1958.		3,107		
1833	TXL (DEVONIAN); Ector	1945	8,000	175	Devonian	AC	LM	50	20	GS	0.57	38	11,506	Ellenburger	5,800	145	1	0	30	88	811,620	42,365
1834	TXL (ELLENBURGER); Ector	1947	9,600		Ellenburger, Ordovician	AC	DO	7	5	WD	0.17	44	11,506	Ellenburger	7,080	177	0	0	76	21	2,359,713	94,447
1835	TXL (MCKEE); Ector	1957	9,098	69	McKee, Ordovician								11,506	Ellenburger	200	5	4	0	3	2	15,210	35
1836	TXL (PENNSYLVANIAN); Ector	1956	8,450	22	Pennsylvanian	AC	LM	70	12	SGD		41	12,055	Ellenburger	200	5	0	0	4	0	64,962	347
1837	TXL (SAN ANDRES); Ector	1952	4,380	50	San Andres, Permian	AC	DO	6	9	SGD		36	6,600	Lime	1,560	48	18	0	36	12	318,844	575
1838	TXL (SILURIAN); Ector	1946	8,465	50	Fusselman, Silurian	AC	LM		9	SGD		38	11,506	Ellenburger	1,120	28	0	0	7	14	260,178	3,638
1839	TXL (TUBB); Ector	1950	6,158	127	Tubb, Permian	AC	SS	1	6	SGD		40	8,440	Devonian	10,840	310	81	0	158	152	2,853,198	7,005
1840	TXL (WADDELL); Ector	1953	9,510	85	Waddell Sand, Ordovician	AC	SS					44	9,827	Ellenburger	160	4	0	0	3	1	25,169	70
1841	TXL (WOLFCAMP); Ector	1946	7,545	70	Wolfcamp, Permian	AC	DO					40	11,506	Ellenburger	80	2	Abandoned			0	8	
1842	TXL NORTH (WOLFCAMP); Ector	1959	7,535	212	Wolfcamp, Permian								7,804	Wolfcamp	40	1	1	0	1	0	1,001	1
1843	TXL NORTHWEST (SAN ANDRES); Ector	1956	4,525	37	San Andres, Permian							34	8,090	Devonian	120	3	0	0	1	1	1,947	5
1844	TAHOKA; Lynn	1953	9,803	16	Strawn Reef Lime, Pennsylvanian		LM				0.22	45	9,909	Strawn Lime	120	3	0	0	0	3	27,574	345
1845	TAMARA (SAN ANDRES); Yoakum	1957	4,568	20	San Andres, Permian							32	5,372	San Andres	80	2	0	0	0	0	1,002	6
1846	TANKERSLEY; Irion	1945	7,195	5	Des Moines, Pennsylvanian	MC	LM				0.10	47	8,357	Ellenburger	80	2	No Production since 1954.			0	135	
1847	TANKERSLEY (CLEARFORK); Schleicher	1950	4,288	17	Clearfork, Permian	AC	DO					34	7,341	Des Moines	40	1	Abandoned 1955			0	24	
1848	TANKERSLEY (WOLFCAMP); Irion	1951	5,464	30	Wolfcamp, Permian	AC	LM		5			39	7,397	Ellenburger	40	1	Abandoned 1955			0	47	
1849	TAP (PENNSYLVANIAN); King	1953	5,520	20	Strawn Reef, Pennsylvanian	SL	SS					39	6,439	Dolomite	40	3	0	0	0	3	37,460	353
1850	TAYLOR-LINK; Pecos	1929	990	30	Permian	AC	SS		17		1.30	30	1,957	San Andres	7,480	187	0	0	0	149	139,103	12,717
1851	TEAS (ELLENBURGER); Garza	1958	8,396	10	Ellenburger, Ordovician	AC	DO	20	4	WD		40	8,406	Ellenburger	280	7	2	0	3	4	193,864	369
1852	TEAS (PENNSYLVANIAN LIME); Garza	1958	8,168	14	Pennsylvanian	AC	LM	28	9			40	8,500	Ellenburger	160	4	2	0	1	3	134,728	148
1853	TEAS (SPRABERRY); Garza	1957	5,47,																			

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-32

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVE. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	ABANDONED	FLOWING	ARTIFICIAL LIFT			
1861	TEXEL (ELLENBURGER); Upton	1954	12,245	85	Ellenburger, Ordovician	AC	DO		F			52	12,501	Ellenburger	120	3	0	0	0	3	24,832	267
1862	TEXEL (PENNSYLVANIAN); Upton	1954	9,143	52	Pennsylvanian	AC	DO		9	SGD		46	12,505	Ellenburger	240	6	1	0	5	1	60,310	415
1863	TEX-HARVEY; Midland and Glasscock	1949	7,300	205	Floyd Sand, Permian							40	12,055	Ellenburger	22,800	570	Combined with Spraberry Trend March 1953.					13,443
1864	TEX-HARVEY (GRAYBURG); Midland	1955	3,684	16	Grayburg, Permian							28	7,280	Spraberry	40	1	Inactive at end of 1958.					6
1865	TEX-HARVEY (STRAWN); Midland	1959	10,267	172	Strawn, Pennsylvanian								10,439	Strawn	40	1	1	0	0	1	6,491	6
1866	TEX-MEX; Gaines	1951	4,305	13	San Andres, Permian		DO		15			31	4,328	San Andres	560	14	0	0	8	3	17,007	282
1867	TEX-PAC (CLEARFORK); Gaines	1956	8,290	30	Clearfork, Permian	Reef	DO	.6	3	SGD		36	12,963	Devonian	520	13	11	0	4	9	90,299	132
1868	THIRTY-THIRTY (ELLENBURGER); Borden	1958	8,740	25	Ellenburger, Ordovician							43	8,765	Ellenburger	80	2	0	0	2	0	47,643	58
1869	THIRTY-THIRTY (STRAWN); Borden	1958	8,412	8	Strawn, Pennsylvanian							39	8,765	Ellenburger	40	1	0	0	0	0	3,969	7
1870	THOMAND; Irion	1952	432	20	San Andres, Permian	AC	DO					27	772	Clearfork	40	1	Abandoned 1953.					.3
1871	THREE BAR; Andrews	1945	8,300	55	Devonian	MU/F	DO	54	19	SGD	0.43	42	10,466	Ellenburger	2,680	67	0	0	49	9	765,219	14,619
1872	THREEMAY (GLORIETA); Garza	1959	4,029	32	Glorieta, Permian								4,145	Glorieta	120	3	3	0	0	3	43,437	44
1873	THREEMAY (SAN ANDRES); Garza	1958	3,471	21	San Andres, Permian							37	4,200		200	5	4	0	0	5	66,780	70
1874	TILLERY (PENNSYLVANIAN); Schleicher	1953	3,570	16	Canyon Sand, Pennsylvanian	ML	SS	136	18	SGD		37	4,800	Ellenburger	800	20	0	0	11	9	90,158	801
1875	TIPPETT; Crockett	1947	6,306	56	Wolfcamp, Permian	AC	LM		6	GCD	0.57	42	7,796	Ellenburger	720	18	0	0	17	1	186,751	2,255
1876	TIPPETT (LOWER CLEARFORK); Crockett	1954	4,505	21	Lower Clearfork, Permian	AC	DO					36	6,174	Wolfcamp	160	4	0	0	2	0	3,492	32
1877	TIPPETT (SAN ANDRES); Crockett	1956	2,854		San Andres, Permian							26					Inactive at end of 1956.					.9
1878	TIPPETT (LOWER TUBB); Crockett	1956	3,843	27	Lower Tubb, Permian							34	6,517	Montoya	80	2	0	0	0	1	443	16
1879	TIPPETT (LOWER WOLF CAMP); Crockett	1954	6,296	38	Lower Wolfcamp, Permian	AC	CG		9			37	6,517	Montoya	80	2	Abandoned 1955.					43
1880	TIPPETT (UPPER WOLF CAMP); Crockett	1954	5,950	30	Upper Wolfcamp, Permian	AC	CG		9			37	6,246	Wolfcamp	120	3	0	0	1	2	14,690	209
1881	TIPPETT EAST; Crockett	1955	6,170	16	Wolfcamp, Permian	AC	CG	700	10	SGD		40	6,582	Devonian	40	1	0	0	0	1	9,152	107
1882	TIPPETT SOUTH (UPPER WOLF CAMP); Pecos	1958	5,804	42	Wolfcamp, Permian							40	6,510	McKee	240	6	4	0	3	3	65,826	75
1883	TOBE (STRAWN); Garza	1951	7,449	4	Strawn, Pennsylvanian		LM		8		0.49	39	7,834	Mississippian	320	8	0	0	0	6	23,806	578
1884	TOBE (WOLF CAMP); Garza	1951	4,660	50	Wolfcamp, Permian		LM		5			26	7,513	Strawn	40	1	0	0	0	1	2,094	16
1885	TOBOG; Pecos	1928	200	10	Trinity, Cretaceous	AC	SS		30	GS	1.90	19	680	Trinity	40,920	1,023	1	0	39	553	735,969	29,467
1886	TOBY-JO; Gaines	1954	9,242	10	Wolfcamp, Permian		LM					31	13,010	Ellenburger	200	5	0	0	4	0	67,299	437
1887	TODD (DEEP); Crockett	1940	5,691			AC	LM	13	11	SGD	0.14	40					Divided into various fields 1947					3,680
1888	TODD (DEEP CRINOIDAL); Crockett	1940	5,950	50	Strawn, Pennsylvanian	AC	LM	13	11	SGD	0.14	40	7,143	Ellenburger	1,320	33	0	0	15	12	568,882	8,458
1889	TODD (DEEP ELLENBURGER); Crockett	1945	6,232	88	Ellenburger, Ordovician	AC	DO	4	8	WD		42	7,143	Ellenburger	2,600	65	0	0	7	50	885,554	29,991
1890	TODD (GRAYBURG); Crockett	1954	1,580	39	Grayburg, Permian	AC	LM					33	1,619	Grayburg	80	2	0	0	0	1	1,959	18
1891	TODD (SAN ANDRES); Crockett	1951	1,800	20	San Andres, Permian	AC	DO					30	7,550	Ellenburger	240	6	0	0	0	6	19,433	154
1892	TODD (SHALLOW); Crockett	1951	1,559	5	San Andres, Permian	AC						26			40	1	Abandoned 1952					.5
1893	TODD EAST; Crockett	1954	6,930	20	Ellenburger, Ordovician	AC	DO	5	7	WD		37	6,970	Ellenburger	80	2	0	0	0	1	2,273	36
1894	TODD NORTH (SAN ANDRES); Crockett	1953	1,832	8	San Andres, Permian	AC	DO					30	1,842	San Andres	400	10	0	0	0	6	14,464	104
1895	TODD NORTHWEST (GRAYBURG); Crockett	1957	1,440	40	Grayburg, Permian							34	1,750	San Andres	80	2	0	0	0	2	1,734	6
1896	TOE NAIL (STRAWN); Schleicher	1953	5,288	9	Strawn Lime, Pennsylvanian	LM		60	9	WD		39	5,754	Cambrian Sand	1,120	28	1	0	21	7	159,732	1,025
1897	TOKIO SOUTH; Yoakum	1953	9,894	30	Wolfcamp Lime, Permian	LM		26	6			36	11,747	Strawn Lime	320	8	0	0	0	7	101,028	1,033
1898	TOKIO SOUTH (CLEARFORK); Terry	1959	8,084	27	Clearfork, Permian								13,440	Devonian	40	1	1	0	0	1	3,683	4
1899	TOM "B" (BUNGER); King	1952	4,082		Bunger, Pennsylvanian	EL	SS					37	4,439		160	4	0	0	0	4	19,985	294
1900	TOM "B" (UPPER CANYON LIME); King	1952	4,364	2	Canyon, Pennsylvanian	ML	LM					37	4,366	Canyon	40	1	Abandoned 1953					10
1901	TOM-BOB (CROSS CUT); Runnels	1954	4,282	5	Cross Cut Sand, Pennsylvanian								5,288	Ordovician	120	3	Abandoned November 1956					16
1902	TOM ROBERTS (CLEARFORK); Ector	1955	5,570	210	Clearfork, Permian	AC	DO					37	12,630	Ellenburger	120	3	0	0	0	3	8,677	52
1903	TOMTO (CANYON SAND); Scurry	1955	6,690	52	Canyon, Pennsylvanian		SS	1	15	SGD		42	7,073	Pennsylvanian	1,320	33	9	0	0	33	331,204	613
1904	TOMTO (STRAWN); Scurry	1958	7,014	6	Strawn, Pennsylvanian							38	7,505	Mississippian	40	1	0	0	0	1	190	4
1905	TOWLE (CANYON); Scurry	1957	7,116	28	Canyon Reef, Pennsylvanian							40	7,671	Pennsylvanian	160	4	1	0	0	4	44,547	87
1906	TRIPLE "D" (PENNSYLVANIAN REEF); Dawson	1958	8,491	6	Wolfcamp Reef, Permian							42	8,520	Wolfcamp	200	5	1	0	0	5	156,221	229
1907	TRIPLE "N" (DEVONIAN); Andrews	1957	10,600	135	Devonian	AC	LM	P	4			49	12,496	Ellenburger	480	12	5	0	0	12	150,604	230
1908	TRIPLE "N" (ELLENBURGER); Andrews	1952	12,520	55	Ellenburger, Ordovician	AC	DO	83	3	WD	0.30	49	12,628	Ellenburger	1,280	33	Combined with Emma Ellenburger August 1959.					6,908
1909	TRIPLE "N" (McKNIGHT); Andrews	1953	5,490	35	McKnight, Permian	AC	DO					30	5,550	Permian Lime	160	4	0	0	0	3	12,030	191
1910	TRIPLE "N" (LOWER PENNSYLVANIAN); Andrews	1959	12,482	10	Pennsylvanian								12,500	Ellenburger	520	13	8	0	9	4	108,411	111
1911	TRIPLE "N" (UPPER PENNSYLVANIAN); Andrews	1958	8,912	64	Wolfcamp, Permian	AC	LM	6	5			40	12,483	Ellenburger	2,040	51	38	0	43	8	617,782	779
1912	TRIPLE "N" (SILURIAN); Andrews	1957	11,588	34	Silurian	AC	LM	P	2		0.08	45	12,510	Ellenburger	400	10	6	0	2	8	105,269	174
1913	TRIPLE "N" (WOLF CAMP); Andrews	1955	8,518	45	Wolfcamp, Permian	AC	D					38	12,924	Ellenburger	40	1	Combined with University Wolfcamp Field 1953, 924					32
1914	TRI-RUE (REEF); Scurry	1956	6,872	15	Strawn, Pennsylvanian		LM					44	6,890	Strawn	520	13	0	0	6	7	153,924	451
1915	TRI-WE (REEF); Scurry	1958	6,942	14	Pennsylvanian Reef							41	6,960	Pennsylvanian	120	3	1	0	2	1	66,109	69
1916	TROPORO (DEVONIAN); Pecos	1957	5,576	50	Devonian	MU/F	Cht	P														

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-33

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION				RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS				WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. FEET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, md	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY, A.P.I. AVG.	DEPTH OF HOLE, FEET	GEOLOGICAL FORMATION	COMPLETED TO END OF 1959		1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS		
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT				
1921	TUNSTALL; Reeves	1947	3,268	60	Delaware, Permian	ML	SS		20	SGD		31	3,478	Delaware	6,880	172	0	0	23	133	159,614	8,051		
1922	TUNSTALL EAST; Loving	1959	3,652	16	Delaware, Permian								3,744	Delaware	200	5	5	0	4	1	22,462	22		
1923	TURNER-GREGORY; Mitchell	1956	2,666	20	Clearfork, Permian		DO					25	3,506	Clearfork	880	22	10	0	0	22	62,307	159		
1924	TURNER-GREGORY (SAN ANDRES); Mitchell	1959	1,806	101	San Andres, Permian								2,890	Clearfork	80	2	2	0	0	2	2,951	3		
1925	TWOFREDS (DELAWARE SAND); Loving-Ward	1957	4,884		Delaware Sand, Permian	MC	SS	36	20	SGD		37	5,108	Delaware Sand	3,040	76	11	0	49	27	681,443	1,514		
1926	TWOFREDS NORTHEAST; Loving	1959	4,929		Bell Canyon, Permian								5,045	Canyon	40	1	1	0	0	1	3,916	4		
1927	TWO STATES; Cochran	1953	4,920	20	Lower San Andres, Permian		DO					30	4,940	San Andres	40	1	0	0	1	0	228	4		
1928	TYREE; Runnels	1951	4,206	4	Goen Lime, Pennsylvanian	Nose	LM		10			50	5,281	Ellenburger	80	2	0	0	0	1	5,560	43		
1929	TYREE (PALO PINTO); Runnels	1952	3,833	12	Palo Pinto, Pennsylvanian	Nose	LM		10			50	4,232	Strawn	20	1	Abandoned				0	6		
1930	U-LAZY-S (ELLENBURGER); Borden	1957	8,633	9	Ellenburger, Ordovician	D	DO		4	WD		40	8,645	Ellenburger	360	9	4	0	9	0	176,091	431		
1931	U-LAZY-S (PENNSYLVANIAN); Borden	1958	8,164	36	Pennsylvanian	D	LM		9			40	8,690	Ellenburger	320	8	3	0	8	0	176,619	379		
1932	UNION; Andrews	1943	7,400	150	Wichita, Permian	AC	DO	1	11	SGD		40	8,545	Ellenburger	4,640	116	34	0	53	63	1,106,913	7,112		
1933	UNIVERSITY BLOCK # 3 (SPRABERRY); Andrews	1957	8,900	56	Lower Spraberry, Permian							36	14,130	Ellenburger	120	3	0	0	0	2	9,053	62		
1934	UNIVERSITY BLOCK # 9 (DEVONIAN); Andrews	1954	10,350	100	Devonian	D	DO	1	5	WD	0.16	45	12,735	Ellenburger	2,080	52	0	0	12	37	1,208,438	6,347		
1935	UNIVERSITY BLOCK # 9 (PENNSYLVANIAN); Andrews	1954	8,924	50	Pennsylvanian	AC	LM	6	11	SGD	0.17	43	12,735	Ellenburger	1,800	45	4	0	12	33	670,684	3,068		
1936	UNIVERSITY BLOCK # 9 (WOLF CAMP); Andrews	1953	8,430	18	Wolfcamp Lime, Permian	D	LM	14	10	SGD	0.58	36	8,950	Wolfcamp	2,240	56	11	0	7	49	970,037	4,222		
1937	UNIVERSITY BLOCK # 21 (DELAWARE); Winkler	1954	6,387	43	Delaware Sand, Permian	ML					0.20	39	7,505	Delaware Sand	80	2	0	0	0	2	10,599	110		
1938	UNIVERSITY BLOCK # 31 (DEVONIAN); Crane	1945	10,458		Devonian														Combined with Block # 31	Devonian	1946	12		
1939	UNIVERSITY BLOCK # 31 (ELLENBURGER); Crane	1935	10,458		Ellenburger, Ordovician														Combined with Block # 31	Ellenburger		12		
1940	UNIVERSITY BLOCK # 39; Crockett	1947	8,044	26	Ellenburger, Ordovician	AC	DO					43	9,000	Ellenburger	80	2	Abandoned				0	10		
1941	UNIVERSITY BLOCK # 101; Schleicher	1953	7,910	135	Ellenburger Lime, Ordovician	AC	DO		12			41	8,045	Ellenburger	80	2	0	0	1	1	9,492	120		
1942	UNIVERSITY WADDELL (DEVONIAN); Crane	1949	9,040	210	Devonian	AC/F	CH		14	SGD	0.14	45	11,080	Ellenburger	2,600	65	1	0	55	10	781,889	3,150		
1943	UNIVERSITY WADDELL (ELLENBURGER); Crane	1947	10,620	300	Ellenburger, Ordovician	AC/F	DO		2	WD	0.06	46	10,920	Ellenburger	760	19	0	0	4	14	231,404	6,831		
1944	UNIVERSITY WADDELL (McKEE); Crane	1954	10,120	85	McKee, Ordovician	AC	SS		10	SGD	0.10	42	10,660	Ellenburger	120	3	0	0	0	1	5,999	94		
1945	UNIVERSITY WADDELL (PENNSYLVANIAN); Crane	1958	7,556	62	Pennsylvanian	AC	LM	P	3	SGD		43	9,505		160	4	3	0	0	4	47,814	49		
1946	UNIVERSITY WADDELL (WADDELL); Crane	1954	10,517	31	Waddell, Ordovician	AC	SS			SGD	0.12	47	10,765	Ellenburger	80	2	0	0	0	1	10,275	183		
1947	UPLAND; Upton	1945	9,100		Pennsylvanian	AC	LS					42	10,745	Devonian	40	1	Abandoned	May 1947			0	1		
1948	UPTON RANCH (CANYON); Schleicher	1957	4,366	6	Canyon Sand, Pennsylvanian							39	5,560	Ellenburger	40	1	0	0	0	1	870	5		
1949	URBAN-MILES; Runnels	1957	4,250	5	Capps Lime, Pennsylvanian								4,925	Ellenburger	160	4	0	0	3	1	11,020	29		
1950	VHZ (DEVONIAN); Ector	1956	11,989	62	Devonian							47	13,454	Ellenburger	40	1	Inactive at end of				0	14		
1951	V-BAR (SAN ANDRES); Reagan	1955	2,516	20	San Andres, Permian	AC	DO		11			31	2,624	San Andres	360	9	1	0	0	6	6,169	51		
1952	VALLEY CREEK (CADDO LIME); Runnels	1952	4,524	21	Caddo Lime, Pennsylvanian		LM		10			38	4,810	Ellenburger	40	1	Abandoned	October 1956.			0	6		
1953	VANDERLAAN-FREEDMAN; Runnels	1951	3,906	6	Gardner Sand, Pennsylvanian		LM		10			45	3,971	Strawn	80	4	Abandoned	September 1957			0	42		
1954	VAN GRIS; Howard	1954	6,675	27	Wolfcamp, Permian		LM					37	6,702	Wolfcamp	40	1	0	0	1	0	646	89		
1955	VAREL (GLORIETA); Scurry	1955	2,684	70	Glorieta, Permian		DO					33	2,900	Clearfork	800	20	2	0	0	17	100,309	275		
1956	VAREL (SAN ANDRES); Howard	1955	3,088	12	San Andres, Permian	Nose	DO		15			30	3,202	San Andres	4,800	120	2	0	0	118	433,325	2,350		
1957	VAUGHN; Crockett	1947	1,500	1	Grayburg-San Andres, Permian	AC	SS		10	SGD	3.32	19	1,501	San Andres	10,280	257	0	0	0	234	332,767	8,427		
1958	VAUGHN (ELLENBURGER); Crockett	1954	7,584	94	Ellenburger, Ordovician	AC	DO					42	7,850	Ellenburger	240	6	0	0	0	1	1,652	86		
1959	VEALMOOR; Howard	1948	7,934	75	Pennsylvanian	Reef	LM	39	10	WD		43	8,050	Canyon	3,280	82	0	0	45	30	938,141	15,493		
1960	VEALMOOR (CENTRAL); Howard	1953	7,773	23	Canyon Reef Lime, Pennsylvanian		LM	31	10	WD		43	7,851	Canyon Reef Lime	40	1	Abandoned	Prior to 1956			0	6		
1961	VEALMOOR (CISCO); Howard	1952	7,500	75	Cisco, Pennsylvanian		LM					39	7,950	Lime	40	1	0	0	0	1	2,319	40		
1962	VEALMOOR EAST; Borden-Howard	1950	7,414	38	Canyon Reef, Pennsylvanian		LM	26	14	WD	0.15	47	7,518	Canyon	4,080	102	0	0	65	21	1,127,102	17,851		
1963	VEALMOOR EAST (WOLF CAMP); Howard	1950	6,910	50	Wolfcamp, Permian		DO					40	7,476	Wolfcamp	40	1	Abandoned	1951			0	2		
1964	VEALMOOR NORTH; Howard	1950	8,175	10	Strawn, Pennsylvanian		LM		8		1.02	44	8,225	Reef	40	1	Abandoned	1955			0	46		
1965	VEALMOOR-READ; Howard	1954	7,713	10	Canyon, Pennsylvanian		LM		14			48	7,723	Canyon	80	2	0	0	1	0	677	26		
1966	VEM (GRAYBURG); Ector	1955	3,970	198	Grayburg, Permian	AC	DO					34	13,773	Ellenburger	200	5	0	0	0	5	3,175	28		
1967	VENIS; Yoakum	1954	9,960	60	Wolfcamp, Permian		DO					34	13,315	Ellenburger	40	1	Abandoned	1957			0	7		
1968	VERHALEN; Reeves	1947	9,917	120	Wolfcamp, Permian	MC	DO					43	14,073	Pennsylvanian	40	1	Abandoned				0	4		
1969	VERIBEST SOUTH; Tom Green	1953	5,240	15	Ellenburger Lime, Ordovician	AC	DO					38	5,410	Ellenburger Lime	40	1	Abandoned	1953			0	1		
1970	VER-JO (DELAWARE); Loving	1958	4,138	8	Delaware Sand, Permian							37	4,424	Delaware	40	1	0	0	0	1	9,036	10		
1971	VERNON COX; Scurry	1951	7,120	14	Canyon Reef, Pennsylvanian		LM					44	7,154	Reef	40	1	Abandoned	1956			0	34		
1972	VINCENT; Howard	1943	4,038	20	Clearfork, Permian	AC						27	6,172	Wichita Albany	120	3	Abandoned	1949			0	27		
1973	VINCENT (LOWER CANYON); Howard	1950	7,703	20	Canyon, Pennsylvanian		LM				0.06	46	8,453	Ellenburger	40	1	0	0	0	1	1,886	44		
1974	VINCENT (UPPER CANYON); Howard	1953	7,453	7	Canyon Reef, Pennsylvanian		LM					46	7,731	Canyon Reef	40</									

OIL PRODUCTION DATA FOR THE PERMAN BASIN

TABLE NO. T-34

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS										CHARACTER OF OIL			DEEPEST ZONE TESTED TO END OF 1959				WELLS PRODUCING DEC 1959				OIL PRODUCTION	
			ESTIMATE PROD. THICK. AVG. FT. NET	FT. TOP	AVG.	STRUCTURE	CHARACTER	REMARKS, BUTTY, and	POROSITY PER CENT ESTIMATED	PRODUCTION MECHANISM	SUBSURF. PER. GEN.	GRAVITY A.P. 2100	DEPTH OF HOLE, FEET	GEOLOGICAL FORMATION	PROVED ACRES	COMPLETED TO END OF 1959	NUMBER OF WELLS				DURING 1959	THOUSANDS OF BARRELS	TOTAL					
																	1959											
																	COMP. LEFT	COMP. A.A.N.	DONED	FLOW								
OIL		ARTIFICIAL LIFT	ING DEC 1959	OIL PRODUCTION		OIL PRODUCTION		OIL PRODUCTION		OIL PRODUCTION		OIL PRODUCTION		OIL PRODUCTION		OIL PRODUCTION		OIL PRODUCTION		OIL PRODUCTION		OIL PRODUCTION						

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-36

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY PER CENT. ESTIMATED	PRODUCTION MECHANISM	SULFUR PER CENT.	GRAVITY A.P. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMP. LETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
2101	WINTERS (GOEN); Runnels	1954	3,962	6	Goen Lime, Pennsylvanian	LM					42	4,500	Pennsylvanian	80	4	0	0	0	2	3,131	118	
2102	WINTERS (JENNINGS); Runnels	1950	4,162		Jennings Sand, Pennsylvanian	SS		10			46			400	10	0	0	1	6	14,433	410	
2103	WINTERS (PALO PINTO); Runnels	1953	3,668		Palo Pinto, Pennsylvanian	LM					42			100	5	0	0	0	3	3,029	70	
2104	WINTERS (SERRATT); Runnels	1950	2,538		Serratt, Pennsylvanian	SS		15			42			60	3	0	0	0	2	1,757	196	
2105	WINTERS (STRAWN); Runnels	1949	3,920		Strawn, Pennsylvanian	AC	LM		5	0.20	46			260	13	0	0	0	3	10,462	558	
2106	WINTERS NORTH; Runnels	1949	2,810	14	Cisco, Pennsylvanian				18	0.30	42	5,195	Ellenburger	340	17	0	0	0	15	37,904	748	
2107	WINTERS NORTH (GARDNER); Runnels	1954	4,550	10	Gardner Lime, Pennsylvanian	LM					42	4,560	Pennsylvanian	200	5	0	0	0	3	3,412	304	
2108	WINTERS NORTH (GOEN); Runnels	1954	4,340	6	Goen Lime, Pennsylvanian	LM					46	4,930	Pennsylvanian	120	3	0	0	3	0	25,586	275	
2109	WINTERS SOUTH (McMILLIAN); Runnels	1954	2,754		McMillian, Pennsylvanian	SS					45			40	2	Abandoned	June 1956		0	20		
2110	WINTERS SOUTH (PALO PINTO); Runnels	1955	3,508	10	Palo Pinto, Pennsylvanian							3,936	Capps	80	2	0	0	0	2	609	13	
2111	WINTERS SOUTH (SPECK MOUNTAIN); Runnels	1954	2,446		Speck Mountain, Pennsylvanian	SS					43			20	1	Abandoned	May 1956		0	3		
2112	WINTERS SOUTHWEST (CAPPS); Runnels	1958	4,006	4	Capps Lime, Pennsylvanian							4,552	Gray	40	1	0	0	0	1	2,069	4	
2113	WINTERS SOUTHWEST (JENNINGS LIME); Runnels	1957	4,311	4	Jennings Lime, Pennsylvanian							4,670	Caddo	40	1	Abandoned	September 1955		1,375	9		
2114	WINTERS SOUTHWEST (PALO PINTO LIME); Runnels	1957	3,727	6	Palo Pinto, Pennsylvanian							4,550	Caddo	40	2	1	0	0	2	2,197	6	
2115	WINTERS WEST (CANYON); Runnels	1950	3,494	16	Canyon, Pennsylvanian							4,728	Caddo	220	11	0	0	1	9	33,695	464	
2116	WINTERS WEST (KING); Runnels	1958	2,828	8	King Sand, Pennsylvanian	SS		255	19	SGD		41	2,885	King Sand	240	12	8	0	1	11	66,629	99
2117	WINTHROP (SAN ANDRES); Cochran	1957	5,084	40	San Andres, Permian						38	5,125	San Andres	80	2	0	0	0	2	4,309	10	
2118	WOLCOTT (WOLFCAMP); Martin	1959	9,128	18	Wolfcamp, Permian							12,148	Devonian	40	1	1	0	0	1	7,061	7	
2119	WOLTERS; Reagan	1953	2,342	88	San Andres, Permian	AC	LM				30	2,434	San Andres	40	1	Abandoned	February 1954		0	.3		
2120	WOLTERS (GRAYBURG); Reagan	1956	2,250	100	Grayburg, Permian						30	2,600	San Andres	80	2	Inactive at end of 1958			0	7		
2121	WORLD; Crockett	1925	2,450	50	Grayburg, Permian	AC	DO		15	WD	0.70	29	3,695	San Andres	9,160	229	0	0	0	170	1,033,684	25,592
2122	WORLD (STRAWN); Crockett	1951	8,088	24	Strawn, Pennsylvanian	LM					41	8,288	Ellenburger	40	1	Abandoned	1953		0	9		
2123	WORLD WEST; Crockett	1954	8,190	41	Strawn, Pennsylvanian	Reef	LM	87	17		46	8,244	Strawn	1,640	42	1	0	37	2	760,778	3,655	
2124	WEATHER; Ector	1952	9,830	113	Fusselman, Silurian	AC	DO				44	11,099	Ellenburger	40	1	0	0	0	1	6,255	66	
2125	WEATHER (PENNSYLVANIAN); Ector	1958	7,938	20	Pennsylvanian						41	11,213	Ellenburger	40	1	0	0	0	1	5,011	7	
2126	WRIGHT-FEATHERS; Irion	1959	817	5	San Angelo, Permian							822	San Angelo	40	1	1	0	0	1	170	.2	
2127	WYATT; Crockett	1932	1,224	20	San Andres, Permian	AC	DO			0.70	34	7,143	Strawn	520	13	0	0	0	8	16,280	263	
2128	WYATT (ELLENBURGER); Crockett	1952	2,380	33	Ellenburger, Ordovician	AC	DO			SGD	38	7,708	Ellenburger	40	1	0	0	1	0	3,184	34	
2129	"Z" SOUTH (TUBB); Crane	1952	4,090	34	Tubb, Permian	AC	SS				35	4,165	Tubb	40	1	0	0	1	0	1,312	22	
2130	Y. W. O. (GLORIETA); Lynn	1959	4,476	31	Glorieta, Permian							4,580	Glorieta	80	2	2	0	0	2	33,326	33	
2131	Y. W. O. (SAN ANDRES); Lynn	1959	4,043	6	San Andres, Permian							4,600	Glorieta	40	1	1	0	0	1	9,081	9	
2132	YAN-KEE (CANYON); Tom Green	1955	3,867	8	Canyon, Pennsylvanian	MC	SS	24	13	SGD	40	4,954	Ellenburger	1,960	49	0	0	0	48	71,321	874	
2133	YAN-KEE (ELLENBURGER); Tom Green	1956	4,704	4	Ellenburger, Ordovician						42	4,726	Ellenburger	40	1	Abandoned	1956		0	1		
2134	YARBOROUGH & ALLEN (DEVONIAN); Ector	1954	8,450	55	Devonian	AC	DO			0.98	38	10,800	Ellenburger	720	18	0	0	6	12	126,390	914	
2135	YARBOROUGH & ALLEN (ELLENBURGER); Ector	1947	10,596	24	Ellenburger, Ordovician	AC	DO	28	1	WD	0.07	41	10,620	Ellenburger	2,480	62	0	0	41	15	1,165,391	19,077
2136	YARBOROUGH & ALLEN (WADDELL); Ector	1950	10,110	20	Waddell, Ordovician	AC	SS			0.13	39	10,900	Ellenburger	120	3	1	0	0	2	8,988	155	
2137	YARBOROUGH & ALLEN (WOLFCAMP); Ector	1954	7,470	30	Wolfcamp, Permian	AC	LM				31	10,866	Ellenburger	40	1	0	0	0	1	1,210	10	
2138	YATES; Pecos	1926	1,150	220	Grayburg-San Andres, Permian		LM			P WD	1.60	29	9,114	Ellenburger	25,160	629	0	0	482	115	6,143,231	459,695
2139	YATES (SMITH); Pecos	1933	990	40	Yates, Permian	ML	SS		21	WF	1.50	30	9,114	Ellenburger	1,680	42	0	0	0	37	201,053	2,860
2140	YELLOWHOUSE; Hockley	1944	4,596	15	San Andres, Permian	AC	LM		12		0.20	32	6,467	Lower Clearfork	2,840	71	0	0	0	67	363,303	3,709
2141	YELLOWHOUSE SOUTH (SAN ANDRES); Hockley	1957	4,610	108	San Andres, Permian	ML				SGD	30	4,718	San Andres	400	10	0	0	0	10	57,915	98	
2142	YORK (ELLENBURGER); Ector	1955	12,395	35	Ellenburger, Ordovician	AC	DO	10	1	WD	49	12,430	Ellenburger	200	5	0	0	3	2	134,684	794	
2143	YORK NORTHWEST (CONNELL); Ector	1956	12,054	16	Connell, Ordovician						46	12,331	Ellenburger	40	1	Abandoned	1956		0	5		
2144	YADA (UPPER STRAWN); Tom Green	1954	3,871		Upper Strawn, Pennsylvanian	SS					26			40	1	Abandoned	1956		0	4		
2145	YUELLETTE (ELLENBURGER); Reagan	1959	10,417	45	Ellenburger, Ordovician							10,462	Ellenburger	40	1	1	0	1	0	3,755	4	
TOTAL TEXAS																			426,361,748	6,717,520		

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. NM-1

WELL NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG. TOP FT.	ESTIMATED PROD. THICK. PROD. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT.	ESTIMATED PRODUCTION MECHANISM	SULPHUR PER CENT.	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMP. LETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
1	ACME; Chaves	1950	1,975	5	San Andres, Permian		DO	P	7	SGD		24	1,998	San Andres	160	4	2	0	0	4	10,609	14
2	AID; Eddy	1941	850	5	Yates-Seven Rivers, Permian	H	DO	P	Por	SGD		39	2,840	San Andres	480	12	0	0	0	11	8,158	86
3	ALLISON (PENNSYLVANIAN); Lea	1954	9,670	30	Bough, Pennsylvanian	ML	DO	280	7	WD		49	9,855	Bough	600	15	4	0	9	6	632,858	2,384
4	ALLISON NORTH (PENNSYLVANIAN); Roosevelt	1957	9,652	12	Pennsylvanian	ML	DO	280	7	WD		49	9,750	Pennsylvanian	200	5	4	0	5	0	57,313	116
5	ANDERSON; Eddy	1940	2,520	15	Grayburg-San Andres, Permian	MC	SS	P	5	SGD	0.9	36	3,689	San Andres	2,680	67	Combined with Square Lake				Feb. 1958	1,270
6	ANDERSON RANCH (DEVONIAN); Lea	1953	13,374	64	Devonian	AC	DO	61	5	WD		54	13,775	Devonian	920	12	1	0	7	4	833,704	4,906
7	ANDERSON RANCH (PENNSYLVANIAN); Lea	1954	12,362	10	Pennsylvanian	AC	LM						13,689	Devonian	40	1	Abandoned	1954			0	.2
8	ANDERSON RANCH (WOLFCAMP); Lea	1953	9,664	47	Wolfcamp, Permian	AC	LM	80	10	SGD		42	13,775	Devonian	1,120	15	0	0	5	9	292,144	1,836
9	ANDERSON RANCH EAST (PENNSYLVANIAN); Lea	1957	10,960	24	Pennsylvanian	AC	LM						13,642	Mississippian	400	2	Plugged & Abandoned 11-13-57					10
10	ANGELL (SEVEN RIVERS); Eddy	1954	1,114	11	Seven Rivers, Permian	ML	OL	P	10	SGD		30	4,081	Delaware Mountain	40	1	0	0	0	1	184	1
11	APACHE SPRING (WOLFCAMP); Chaves	1955	7,929	7	Wolfcamp, Permian		LM	P	Por	SGD		42	10,775	Devonian	40	1	Plugged & Abandoned June 1956				0	5
12	ARKANSAS JUNCTION (DEVONIAN); Lea	1958	12,140	24	Devonian	AC	DO	P	4	WD		42	12,245	Devonian	40	1	0	0	0	1	4,490	14
13	ARROW; Lea	1929	2,910 - 3,580		Queen-Yates-Seven Rivers, Permian								4,350	San Andres	1,120	8	Combined with Eumont Gas Pool 1956					39
14	ARROWHEAD (DRINKARD); Lea	1957	6,555	33	Drinkard, Permian	AC	DO	P	8	SGD		35	9,930	Ellenburger	40	1	0	0	0	1	8,246	32
15	ARROWHEAD (GRAYBURG); Lea	1938	3,650	50	Grayburg, Permian	AC	SS	P	12	SGD	1.3	34	4,350	San Andres	5,400	135	0	0	30	69	485,793	22,624
16	ARTESIA; Eddy	1923	1,875 - 2,500 - 950	25	Grayburg and San Andres, Permian	MC	DO	90	21	SGD	1.0	36	13,260	Ellenburger	17,760	469	24	0	126	264	908,733	11,057
17	ATOKA (GRAYBURG); Eddy	1956		5	Grayburg, Permian		SS	P	8	WD		40	10,546	Montoya	160	9	0	0	4	0	36,471	115
18	ATOKA (SAN ANDRES); Eddy	1941	1,710	10	San Andres, Permian	MC	DO	1	9	SGD		37	10,546	Montoya	2,640	67	1	0	15	51	261,245	1,032
19	BAGLEY (PENNSYLVANIAN); Lea	1949	9,001	25	Pennsylvanian	AC	LS	P	6	SGD		46	11,766	Pre-Cambrian	1,000	25	1	0	5	7	528,185	3,382
20	BAGLEY (SILURO-DEVONIAN); Lea	1949	10,790	175	Siluro-Devonian	AC	DO	3	4	WD	0.3	44	11,766	Pre-Cambrian	920	23	0	0	3	18	1,071,012	13,302
21	BAGLEY EAST (WOLFCAMP); Lea	1955	9,994	12	Wolfcamp, Permian	AC	LS	P	8	SGD		43	13,150	Devonian	40	1	Abandoned	1958			0	19
22	BAGLEY NORTH (PENNSYLVANIAN); Lea	1957	10,058	18	Pennsylvanian	AC	LM	P	5	SGD		52	11,750	Devonian	80	2	0	0	2	0	8,822	61
23	BAISH; Lea	1935	2,362	6	Yates, Permian	MC	SS	60	23	SGD		41	13,573	Devonian	400	10	0	0	0	5	8,551	462
24	BARBER; Eddy	1937	1,400	5	Yates, Permian	AC	DO	M	15	WD		20	1,860	Queen	600	15	0	0	0	9	40,462	990
25	BAUM (WOLFCAMP); Lea	1955	9,940	11	Wolfcamp, Permian	Nose	LS	P	8	SGD		42	9,951	Wolfcamp	80	2	0	0	0	2	9,341	80
26	BELL LAKE (BONE SPRING); Lea	1955	8,670	24	Bone Spring, Permian	MC	LS	M	Por	SGD		43	15,566	Devonian	40	1	0	0	1	0	10,174	40
27	BENSON; Eddy	1943	1,725	8	Yates, Permian	MC	LS	M	17	SGD		26	2,980	San Andres	350	9	0	0	0	4	1,793	244
28	BENSON NORTH (QUEEN); Eddy	1954	2,844	10	Queen, Permian	MC	SS	P	15	SGD		34	3,556	Grayburg	80	2	0	0	0	2	2,554	26
29	BISHOP CANYON (QUEEN); Lea	1956	4,108	8	Queen, Permian		SS	M	15	SGD			6,480	Glorieta	40	1	0	0	1	0	10,980	37
30	BISHOP CANYON (SAN ANDRES); Lea	1959	4,884	6	San Andres, Permian								5,112	San Andres	120	3	3	0	3	0	9,522	10
31	BITTER LAKE; Chaves	1946	1,247	5	San Andres, Permian								5,650	Pre-Cambrian	40	1	Abandoned	1951			0	.09
32	BLACK RIVER; Eddy	1937	1,943	10	Delaware, Permian	Terr	SS	M	24	SGD		42	2,235	Delaware	400	10	0	0	0	3	2,365	51
33	BLINEBRY; Lea	1945	5,560	60	Yeso, Permian	AC	LS	5	8	GCD		41	7,597	Pre-Cambrian	1,240	31	1	0	16	9	137,670	749
34	BLUITT (PENNSYLVANIAN); Roosevelt	1959	9,490	20	Bough C, Pennsylvanian								12,125	Devonian	160	4	4	0	4	0	137,656	138
35	BLUITT (SAN ANDRES); Roosevelt	1952	4,610	50	San Andres, Permian	AC	DO	P	8	SGD			4,867	San Andres	40	1	Abandoned	February 1954			0	8
36	BOUGH; Lea	1949	9,615	20	Permo-Pennsylvanian	AC	LS	76	13	WD	0.2	50	12,574	Devonian	880	22	0	5	5	2	138,920	4,398
37	BOUGH EAST; Lea	1950	9,715	14	Permo-Pennsylvanian	AC	LS	76	13	WD	0.2	50	9,729	Permo-Pennsylvanian	40		Combined with Bough 1951				0	57
38	BOWERS; Lea	1946	3,150	20	Seven Rivers, Permian	AC	SS	30	10	SGD		42	8,160	Pre-Cambrian	3,440	86	0	0	3	47	107,057	3,051
39	BRADLEY; Lea	1958	5,302	6	Delaware Sand, Permian		SS	M	24	SGD		39	5,370	Delaware Sand	40	1	0	0	0	0	5,285	6
40	BRONCO (MISSISSIPPIAN); Lea	1959			Mississippian											2	2	0	1	0	32,623	33
41	BRONCO (SILURO-DEVONIAN); Lea	1952	11,592	103	Devonian	AC	DO	P	4	WD		44	12,548	Pre-Cambrian	440	11	0	0	5	6	690,077	4,216
42	BRONCO (WOLFCAMP); Lea	1954	9,600	35	Wolfcamp, Permian	AC	LS	45	13	WD		44	12,548	Pre-Cambrian	200	5	0	0	0	2	97,983	368
43	BROWN; Chaves	1942	765	5	Queen, Permian	MC	SS	P	15			37	1,700	San Andres	360	9	2	0	0	8	2,034	12
44	BRUNSON; Lea	1945	8,059	70	Ellenburger	MU	DO	P	3	SGD		42	8,370	Pre-Cambrian	6,160	154	0	0	40	59	507,790	25,957
45	BRUNSON NORTH; Lea	1950	7,760	75	Ellenburger	MU	DO	P	3	SGD		42	7,906	Pre-Cambrian	160	4	Combined with Brunson 1951					18
46	BRUSHY DRAW; Eddy	1958	3,210	6	Delaware Sand, Permian		SS	M	24	SGD		38	3,266	Delaware Sand	80	2	1	0	2	0	4,387	5
47	BUFFALO (WOLFCAMP); Lea	1954	10,597	12	Wolfcamp, Permian	AC	LM	P	8	SGD		38	14,916	Devonian	40	1	0	0	0	1	4,063	40
48	BURTON; Eddy	1934	1,160	15	Yates, Permian								1,597	Yates	40	1	Temporarily Abandoned 2-1-53.				0	2
49	CANYON (WOLFCAMP); Eddy	1959	5,741	12	Wolfcamp, Permian								6,100	Wolfcamp	40	1	1	0	1	0	6,114	6
50	CAPROCK (QUEEN); Chaves-Lea	1940	2,871 - 3,023	12	Queen, Permian	MC	SS	250	21	SGD	1.07	38	4,385	San Andres	28,680	717	41	0	4	37	5,176,121	27,061
51	CAPROCK EAST (DEVONIAN); Lea	1951	11,240	30	Devonian	AC	DO	M	4	WD		43	11,336	Devonian	960	24	0	0	7	16	1,338,517	11,783
52	CAPROCK EAST (PENNSYLVANIAN); Lea	1952	10,000	25	Pennsylvanian	AC	LM	P	8	SGD		48	10,690	Pennsylvanian	40	1	Abandoned	1956			0	23
53	CAPROCK EAST (WOLFCAMP); Lea	1953	8,400	18	Wolfcamp, Permian	AC	LM	P	8	SGD		44	11,385	Devonian	200	5	0	2	1	1	7,316	237
54	CAPROCK NORTH (QUEEN); Lea	1954	3,000	30	Queen,																	

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. NM-2

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUC- ING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT	ESTIMATED PROD. THICK- NESS, FT NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERME- ABILITY, md	POROSITY, PER CENT	ESTIMATED PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMP- LETED	ABAN- DONED	FLOW- ING	ARTIFICI- AL LIFT		
61	CAUDILL (PENNSYLVANIAN); Lea	1951	11,440	62	Pennsylvanian	AC	LM	P	8	SGD			11,503	Pennsylvanian	40	1	Abandoned		July 1952		0	2
62	CUADILL (WOLFCAMP); Lea	1956	10,292	22	Wolfcamp, Permian	AC	LM	P	8	SGD		42	13,763	Devonian	160	4	0	0	0	0	31,530	127
63	CAVE; Eddy	1941	2,400	5	Grayburg, Permian		SS	P	10	SGD		38	3,080	San Andres	2,760	69	1	0	30	19	125,047	740
64	CAVE WEST (SAN ANDRES); Eddy	1955	2,435	10	San Andres, Permian		DO	P	8	SGD		34	2,503	San Andres	80	2	1	0	0	2	1,247	6
65	CEDAR HILLS (YATES); Eddy	1951	542	3	Yates, Permian	AC	SS	M	15	SGD		21	600	Yates	360	9	0	0	0	3	10,073	178
66	CEDAR POINT (QUEEN); Chaves	1956	2,770	7	Queen, Permian		SS	P	15	SGD		29	4,190	San Andres	40	1	0	0	0	1	616	6
67	CHAMBERS (WOLFCAMP); Lea	1955	10,581	15	Wolfcamp, Permian	AC	LM	36	4	SGD		44	14,015	Devonian	80	2	1	0	2	0	15,387	89
68	CHISUM; Chaves	1950	6,490	35	Siluro-Devonian	AC	DO	150	8	WD		40	6,933	Pre-Cambrian	80	2	0	0	0	2	16,414	364
69	CHISUM (SAN ANDRES); Chaves	1951	2,028	5	San Andres, Permian	AC	DO	3	7	SGD		20	7,315	Pre-Cambrian	80	2	0	0	0	2	2,606	31
70	CLINE (DEVONIAN); Lea	1955	7,963		Devonian	AC	DO	P	4	WD			10,325	Simpson	40	1	Abandoned		March 1956		0	.2
71	COMANCHE; Chaves	1936	1,254	10	San Andres, Permian		DO	P	8	SGD			6,630	Pre-Cambrian	160	4	Abandoned		1948		0	15
72	COOPER-JAL; Lea	1927	3,300	40	Yates-Seven Rivers, Permian								7,171	Leonard	11,720	293	Combined with Jalandar and Langlie-Mattix Fields 1955.					31,593
73	CORBIN; Lea	1938	3,745	29	Queen, Permian	MC	SS	P	15	SGD		36	5,370	San Andres	1,160	29	0	0	0	22	62,434	857
74	CORBIN (YATES); Lea	1952	3,443	10	Yates, Permian	MC	SS	P	15	SGD		36	4,350	Queen	120	3	0	0	0	2	2,451	26
75	CORBIN (SOUTH QUEEN); Lea	1956	4,379	120	Queen, Permian	MC	SS	P	15	SGD		36	4,499	Queen	80	2	0	0	0	2	4,181	21
76	COTTON DRAW (BRUSHY CANYON); Eddy	1959	7,184	16	Brushy Canyon, Permian								8,545	Brushy Canyon	40	1	1	0	0	1	2,166	2
77	COYOTE (QUEEN); Chaves	1958	835	25	Queen, Permian								943	Penrose	960	24	23	0	0	24	16,859	17
78	CROSSROADS (MISSISSIPPIAN); Lea	1949	12,384	16	Mississippian		LM	P	Por	SGD			12,750	Mississippian	40	1	Abandoned		1949		0	2
79	CROSSROADS (PENNSYLVANIAN); Lea	1949	9,750	15	Pennsylvanian	AC	LM	P	7	SGD		49	12,657	Devonian	600	15	2	0	0	8	20,869	1,940
80	CROSSROADS (SILURO-DEVONIAN); Lea	1948	12,106	100	Siluro-Devonian	AC/F	DO	M	5	WD		42	12,750	Devonian	1,720	25	2	0	13	8	1,417,265	9,773
81	CROSSROADS EAST (DEVONIAN); Lea	1956	12,173	10	Devonian	MC	DO	M	5	WD		42	12,574	Devonian	280	5	1	0	4	1	245,044	637
82	CROSSROADS SOUTH (DEVONIAN); Lea	1954	12,433	18	Devonian	MC	DO	21	6	WD		42	12,514	Devonian	80	2	0	0	1	0	77,106	343
83	CROSSROADS (DEVONIAN) WEST; Lea	1959	12,003	20	Devonian								12,031	Devonian	40	1	1	0	1	0	11,783	12
84	CROSSROADS WEST (SAN ANDRES); Lea	1958	4,804	44	San Andres, Permian	AC	DO	P	Por			32	4,946	San Andres	40	1	Abandoned		1958		0	.8
85	CROSSROADS-SLAUGHTER; Lea	1948	4,863	10	San Andres, Permian		DO	P	Por	SGD			9,790	Pennsylvanian	160	4	0	0	0	2	3,000	17
86	CULWIN; Eddy	1942	3,325	10	Queen, Permian		SS	P	Por	SGD			3,573	Queen	40	9	0	0	4	3	48,758	61
87	CUSTER (TANSILL); Lea	1959	3,608	18	Yates, Permian								4,050	Yates	40	1	1	0	1	0	2,066	2
88	E-K (ABO); Lea	1954	7,248	25	Abo, Permian	AC	LM	P	8	SGD		39	9,680	Pre-Cambrian	120	3	0	0	3	0	12,190	73
89	E-K (DRINKARD); Lea	1955	6,990	104	Drinkard, Permian	AC	DO	P	8	SGD		37	9,681	Pre-Cambrian	120	3	1	0	1	1	16,121	47
90	DARK CANYON; Eddy	1952	1,876	5	Delaware, Permian	ML	SS	M	24	SGD		38	1,912	Delaware	40	1	0	0	0	1	3,992	51
91	DAUGHERITY; Eddy	1938	2,014	10	San Andres, Permian	AC	LM			SGD		29	3,030	Glorieta	120	3	0	0	0	2	814	35
92	DAYTON (ABO); Eddy	1958	5,280	346	Abo, Permian		LM	P	8	SGD		40	5,637	Abo	200	7	5	0	6	1	17,394	22
93	DAYTON (GRAYBURG); Eddy	1940	1,000	20	Grayburg, Permian	MC	SS	4	9	SGD	0.9	36	2,545	San Andres	800	20	0	0	0	10	2,262	172
94	DAYTON (SAN ANDRES); Eddy	1956	1,786	20	San Andres, Permian	MC	DO	P	9	SGD		36	1,981	San Andres	80	2	0	0	0	1	265	1
95	DAYTON EAST; Eddy	1944	1,395	5	Grayburg, Permian		SS	P	Por	SGD			3,659	Glorieta	40	1	Abandoned		1945		0	.2
96	DEAN (DEVONIAN); Lea	1955	13,600	84	Devonian	AC	DO	100	7	WD		45	13,910	Devonian	320	8	0	0	0	6	215,655	1,601
97	DEAN (PERMO-PENNSYLVANIAN); Lea	1955	11,560	20	Strawn, Pennsylvanian	AC	LM	3	5	SGD		45	13,868	Devonian	960	24	0	0	16	8	493,307	3,553
98	DENTON; Lea	1949	11,267	200	Devonian	AC/F	DO	10	8	WD	0.05	45	13,983	Pre-Cambrian	4,560	114	0	0	66	0	5,541,802	51,660
99	DENTON (MISSISSIPPIAN); Lea	1949	11,240	35	Mississippian	AC	LM	P	Por	SGD			11,325	Mississippian	40	1	Abandoned		1951		0	5
100	DENTON (WOLFCAMP); Lea	1950	9,395	20	Wolfcamp, Permian	AC	LM	13	10	SGD		45	13,983	Pre-Cambrian	4,140	104	6	0	0	99	1,567,112	18,165
101	DENTON NORTH; Lea	1950				AC	DO	10	8	WD		45	12,385	Devonian	40	1	Combined with Denton 1951					
102	DENTON SOUTH (DEVONIAN); Lea	1955	13,034	99	Devonian	AC	DO	P	8	WD		50	13,254	Devonian	280	7	0	0	4	3	360,863	1,859
103	DEXTER (SAN ANDRES); Chaves	1955	1,338	10	San Andres, Permian		DO	P	9	SGD		34	6,811	Ellenburger	40	1	Abandoned		1958		0	3
104	DICKINSON; Lea	1958	12,315	8	Devonian	AC	DO	P	4	WD		50	13,348	Granite Wash	40	1	0	0	1	0	37,389	80
105	DOLLARHIDE (DEVONIAN); Lea	1952	8,177	33	Devonian	AC	DO	10	9	WD		40	10,615	Ellenburger	720	18	2	0	11	7	202,945	2,346
106	DOLLARHIDE (DRINKARD); Lea	1951	6,616	30	Lower Leonard, Permian	AC	DO	10	8	SGD		40	10,615	Ellenburger	3,480	87	0	0	24	63	1,009,889	9,181
107	DOLLARHIDE (ELLENBURGER); Lea	1951	10,135	75	Ellenburger	AC	DO	P	3	WD		42	10,615	Ellenburger	320	8	0	0	0	5	217,511	3,162
108	DOLLARHIDE (FUSSELMAN); Lea	1952	8,710	31	Fusselman, Silurian	AC	DO	P	4	WD		38	10,615	Ellenburger	400	10	0	0	0	9	257,403	1,948
109	DOLLARHIDE (QUEEN); Lea	1952	3,670	29	Queen, Permian	AC	SS	P	18	SGD		34	10,615	Ellenburger	2,560	64	0	0	4	55	153,012	2,717
110	DOS HERMANOS (YATES-SEVEN RIVERS); Eddy	1955	1,631	5	Yates-Seven Rivers, Permian	AC	DO	P	10	SGD		27	1,802	Seven Rivers	1,520	25	0	0	0	16	140,865	533
111	DRICKEY (QUEEN); Chaves	1953	2,871	19	Queen, Permian								4,139	San Andres	2,800	70	Combined with Caprock Queen 1955					322
112	DRICKEY SOUTH; Chaves	1954	3,132		Queen, Permian												Combined with Caprock Queen 1955					
113	DRINKARD; Lea	1944	6,375	50	Yeso, Permian	AC	DO	6	11	SGD	0.1	40	8,590	Pre-Cambrian	20,560	514	7	0	394	74	1,584,837	48,039
114	DRINKARD NORTH; Lea	1948	6,625	50	Leonard, Permian																	

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. NM-3

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVE. FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, MD	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 HOURS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
121	EAGLE CREEK (SAN ANDRES); Eddy	1959	1,284	31	San Andres, Permian								1,326	San Andres	40	1	1	0	0	1	1,229	1
122	EAVES; Lea	1929	3,150	60	Yates-Seven Rivers, Permian		SS	M	15	SGD			3,542	Seven Rivers	1,520	38	Combined with Jallat and Langlie-Mattie Fields				314,843	6,706
123	ECHOL (DEVONIAN); Lea	1951	11,500	50	Devonian	AC	DO	34	4	WD		42	11,875	Devonian	320	8	0	2	1			3,162
124	ECHOL EAST (DEVONIAN); Lea	1957	12,021	75	Devonian	AC	DO	P	4	WD		40	12,326	Devonian	240	6	0	0	2	3	130,663	407
125	ECHOL NORTH (DEVONIAN); Lea	1952	12,057	20	Devonian	AC/F	DO	P	4	WD		40	12,140	Devonian	160	4	0	0	0	3	99,412	987
126	EIDSON (PENNSYLVANIAN); Lea	1953	10,705	18	Pennsylvanian	MC	LM	20	9	SGD		41	11,450	Pennsylvanian	560	14	0	0	3	8	77,488	2,067
127	ELLIOTT; Lea	1949	7,412	20	Leonard, Permian			P	Por	SGD			9,954	Pre-Cambrian	40	1	Combined with Elliott (Abo) Field November 1951.					8
128	ELLIOTT (ABO); Lea	1955	7,320	70	Abo, Permian	AM	DO	P	8	SGD		38	7,466	Abo	80	2	0	0	0	2	10,459	72
129	EL MAR (DELAWARE); Lea	1959	4,609	8	Delaware Sand, Permian								4,689	Delaware	1,160	29	29	0	27	2	61,418	61
130	EMPIRE; Eddy	1924	350	10	Yates-Seven Rivers, Permian	MC	DO	M	15	SGD		32	12,431	Ellenburger	7,200	180	1	0	0	1	23,569	871
131	EMPIRE (ABO); Eddy	1957	6,014	16	Abo, Permian	AC	DO	M	8	SGD			6,315	Abo	2,840	71	59	0	70	1	799,586	884
132	EMPIRE (WOLFCAMP); Eddy	1954	7,390	40	Wolfcamp, Permian		LM	P	8	SGD		41	10,983	Devonian	80	3	0	0	0	2	4,846	853
133	EUMONT; Lea	1953	2,710		Yates-Grayburg, Permian	AC	SS	30	12	GCD		34	11,019	Pre-Cambrian	62,118	691	15	0	338	276	2,767,830	46,970
134	EUNICE-MONUMENT; Lea	1929	3,650	50	Seven Rivers to San Andres, Permian	AC	SS	M	10	SGD	1.37	32	11,019	Pre-Cambrian	37,480	1,110	11	0	304	449	5,640,970	269,974
135	EUNICE SOUTH; Lea	1930	3,720	50	Seven Rivers	AC	SS	M	10	WD	1.0	32	11,030	Mississippian	10,280	257	7	0	158	58	1,348,296	15,079
136	EUNICE WEST; Lea	1928															Renamed Willson 1948					
137	FENTON; Eddy	1943	2,638	6	Delaware, Permian		SS	M	24	SGD			3,525	Delaware	40	1	Abandoned October 1945				0	1
138	FIELD RANCH (WOLFCAMP); Lea	1956	9,466	14	Pennsylvanian		LM	P	7	SGD			12,218	Devonian	40	1	0	0	0	1	6,813	48
139	FOREST; Eddy	1945	2,632	27	San Andres, Permian	MC	DO	P	8	SGD		34	3,243	San Andres	880	22	0	0	15	2	7,783	439
140	FOSTER (SAN ANDRES); Lea	1957	4,460	11	San Andres, Permian		DO	P	8	SGD			4,615	San Andres	40	1	0	0	0	1	4,325	11
141	FOUR LAKES (DEVONIAN); Lea	1956	12,505	300	Devonian	AC	DO	P	6	WD		54	13,010	Devonian	240	3	0	0	3	0	36,155	249
142	FOUR LAKES (PENNSYLVANIAN); Lea	1956	10,277	40	Pennsylvanian	AC	LM	P	14	SGD		43	13,010	Devonian	240	3	1	0	3	0	105,834	318
143	FOUR MILE DRAW (SAN ANDRES); Eddy	1957	1,214	16	San Andres, Permian								2,617	Glorieta	80	2	1	0	0	2	217	2
144	FOWLER; Lea	1949	9,505	175	Ellenburger	AC	DO	P	3	SGD		45	11,198	Ellenburger	1,120	14	0	0	4	8	619,621	6,029
145	FOWLER (BLINEBRY); Lea	1950	5,705	15	Clearfork, Permian	AC	DO	P	8	SGD		38	10,650	Ellenburger	80	2	0	0	1	0	2,553	16
146	FOWLER (CONNELL); Lea	1957	9,711	10	Connell, Ordovician	AC/F	DO	M	10	SGD		40	11,198	Ellenburger	40	1	Recompleted to Fowler-Fusselman 1957					2
147	FOWLER (DEVONIAN); Lea	1955	7,580	22	Devonian	MC	DO	P	5	SGD		45	10,568	Ellenburger	160	6	0	0	4	0	40,485	198
148	FOWLER (DRINKARD); Lea	1953	6,210	35	Leonard, Permian	AC	DO	P	8	SGD		42	8,391	Fusselman	40	1	0	0	0	1	4,510	34
149	FOWLER (FUSSELMAN); Lea	1953	7,410	85	Silurian	AC/F	DO	P	6	SGD		40	11,198	Ellenburger	200	5	0	0	1	4	42,318	515
150	FREN; Eddy	1936	1,925	10	Seven Rivers, Permian	Nose	DO	P	15	SGD		36	4,383	San Andres	5,120	126	0	0	12	82	112,299	3,215
151	GARRETT; Lea	1947	5,541	20	San Andres, Permian	AC	DO	P	Por	SGD		29	10,085	Abo	120	3	0	0	0	1	1,320	26
152	GEM (YATES); Lea	1954	3,243	13	Yates, Permian	AC	DO	30	12	WD		31	3,523	Seven Rivers	40	1	Inactive at end of 1958				0	20
153	GETTY; Eddy	1927	1,365	10	Yates, Permian	AC	DO	P	Por	WD	0.9	24	6,683	Bone Spring	440	11	0	0	0	7	46,476	1,648
154	GLADIOLA; Lea	1950	11,790	50	Devonian	AC	DO	76	4	WD		47	12,192	Devonian	3,880	97	0	0	78	17	6,798,973	23,404
155	GLADIOLA (WOLFCAMP); Lea	1951	9,555	20	Wolfcamp, Permian	AC	LM	P	8	SGD		42	12,288	Devonian	880	22	0	0	3	18	126,911	2,784
156	GLADIOLA NORTH (DEVONIAN); Lea	1956	12,010	100	Devonian	AC	DO	76	4	WD		47	12,116	Devonian	440	11	Combined with Gladiola Field 1957					250
157	GLADIOLA SOUTH (WOLFCAMP); Lea	1955	9,688	18	Wolfcamp, Permian	AC	LM	P	8	SGD		38	12,320	Devonian	40	1	0	0	1	0	6,470	95
158	GLENN (CASTILE); Eddy	1952	878	5	Castile, Permian	ML	DO	P	Por	SGD		22	2,066	Delaware	40	1	Abandoned 1956				0	2
159	GRAYBURG-JACKSON; Eddy	1929	2,000		Queen, Seven Rivers, Grayburg, Permian	ML				SGD	1.2	36	13,341	Ellenburger	36,320	593	32	0	131	281	1,757,660	40,059
160	GRAYBURG-KEELY; Eddy	1948	3,288	20	San Andres, Permian	MC	DO	5	6	SGD		37	3,407	San Andres	1,560	39	Combined with Grayburg-Jackson October 1959					992
161	GRAYBURG (PADDOCK); Eddy	1957	4,223	17	Paddock, Permian	ML	SS	P	8	SGD			11,422	Pennsylvanian	80	2	0	0	1	1	2,343	10
162	GROSS (DEVONIAN); Lea	1956	12,338	6	Devonian	AC	DO	P	Por	WD		48	12,359	Devonian	40	1	Plugged & Abandoned 9-19-56.				0	4
163	HACKBERRY (YATES); Eddy	1953	2,047	6	Yates, Permian	Terr	DO	P	Por	SGD		22	2,110	Yates	80	2	0	0	0	0	798	15
164	HALFWAY; Lea	1939	2,495	3	Yates, Permian	AC	DO	M	15	SGD	0.9	26	3,763	Queen	560	14	0	0	0	3	7,041	790
165	HARDY; Lea	1936	3,710	25	Grayburg, Permian	ML	SS			SGD		35	10,018	Simpson	2,040	51	Combined with Eumont 1957.					2,622
166	HARE; Lea	1947	7,780	50	Simpson, Ordovician	MU	SS	M	13	SGD		40	8,700	Simpson	3,600	89	0	0	37	49	625,138	12,678
167	HARE SOUTH; Lea	1947	7,360	90	Simpson, Ordovician	MU	SS	M	13	SGD		40	7,651	Pre-Cambrian	120	3	0	0	0	1	6,081	181
168	HARRISON; Lea	1949	5,015	25	Yeso, Permian		DO	P	Por	SGD			5,075	Glorieta	40	1	Abandoned July 1949				0	10
169	HENSHAW; Eddy	1940	3,150	10	San Andres, Permian	Nose	DO	P	10	SGD		36	3,850	San Andres	4,320	3	1	0	1	2	9,876	23
170	HENSHAW (WEST GRAYBURG); Eddy	1956	2,745	189	Grayburg, Permian	Nose	SS	P	Por	SGD		36	3,623	San Andres	1,560	39	0	0	30	9	409,982	904
171	HIGH LONESOME; Eddy	1939	1,775	10	Queen, Permian	ML	SS	14	12	SGD		34	3,105	San Andres	2,120	53	27	0	20	32	239,226	559
172	HIGH LONESOME (SEVEN RIVERS); Eddy	1956	1,219	31	Seven Rivers, Permian	ML	SS	P	10	SGD			1,904	Seven Rivers	40	1	Inactive at end of 1958				0	.6
173	HIGH LONESOME SOUTH; Eddy	1940	2,120	10	Grayburg, Permian		DO	P	Por	SGD			2,845	San Andres	160	4	Combined with High Lonesome					12
174	HIGHTOWER; Lea	1949	10,100	75	Siluro-Devonian	AC	DO	M	4	WD		59	11,199	Pre-Cambrian	80	2	0	0	1	0	59,333	

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. NM-4

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS						CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUC- ING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK- NESS, FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERME- ABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION	COMPLETED TO END OF 1959		1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS	
																	COMPLETED	ABANDONED	FLOW- ING	ARTIFICI- AL LIFT			
181	HOBBES EAST (SAN ANDRES); Lea	1951	4,449	15	San Andres, Permian	AC	DO	300	25	WD	1.0	34	6,433	Leonard	1,040	26	1	0	1	23	253,555	1,924	
182	HOBBES EAST (SEVEN RIVERS); Lea	1953	3,858	14	Seven Rivers, Permian	MC	SS	P	Por	SGD		32	4,505	San Andres	40	1	0	0	0	1	508	16	
183	HOUSE; Lea	1949	7,010	50	Leonard, Permian	ML	DO	P	Por	SGD	0	39	10,014	Pre-Cambrian	520	13	0	0	5	7	88,096	1,045	
184	HOUSE (SAN ANDRES); Lea	1950	4,276	20	San Andres, Permian	MC	DO	P	Por	SGD	1.86	34	10,014	Pre-Cambrian	440	10	0	0	3	5	12,217	232	
185	HUME (QUEEN); Lea	1956	3,950	21	Queen, Permian	MC	SS	P	15	SGD			14,093	Devonian	480	12	2	0	1	9	84,549	157	
186	JALMAT; Lea	1928	2,895 - 3,300 4,846		Yates, Seven Rivers, Permian	MC	SS	49	17	SGD	1.5	29	7,171	Leonard	23,162	579	20	0	212	203	2,108,605	51,457	
187	JENKINS (SAN ANDRES); Lea	1959		20	San Andres, Permian								10,025	Pennsylvanian	40	1	1	0	0	1	1,016	1	
188	JENNINGS (DELAWARE); Lea	1956	4,621	3	Delaware Sand, Permian	ML	SS	M	24	SGD		41	4,658	Delaware Sand	40	1	Plugged and Abandoned				5-7-57	2	
189	JUSTIS (BLINEBRY); Lea	1958	5,158	16	Blinebry, Permian	AC	LM	P	4	SGD		38	7,600	McKee	640	16	14	0	16	0	140,745	155	
190	JUSTIS (DRINKARD); Lea	1957	5,930	20	Drinkard, Permian	AC	DO	P	8	SGD	0.1	38	7,520	McKee	960	26	13	0	24	2	376,882	482	
191	JUSTIS (ELLENBURGER); Lea	1957	8,115	41	Ellenburger, Ordovic- ian	AC	DO	P	4	WD		41	8,235	Ellenburger	960	24	8	0	20	0	614,602	1,013	
192	JUSTIS (FUSSELMAN); Lea	1958	7,004	44	Fusselman, Silurian	AC	DO	M	4	WD		38	8,635	Ellenburger	680	17	6	0	17	0	534,813	709	
193	JUSTIS (McKEE); Lea	1957	7,325		McKee, Ordovician								7,500	McKee	480	12	7	0	12	0	212,882	271	
194	JUSTIS (MONTOKA); Lea	1958	7,002	15	Montoya, Ordovician	AC		M	4	WD			8,210	Ellenburger	320	8	4	0	8	0	234,464	281	
195	JUSTIS (PADDOCK); Lea	1959			Paddock, Permian										40	1	1	0	1	0	3,376	3	
196	JUSTIS (TUBB); Lea	1959			Tubb, Permian										160	4	4	0	4	0	12,023	12	
197	KEMNITZ (CISCO); Lea	1957	11,446	30	Cisco, Pennsylvanian	AC	LM	P	8	SGD			11,596	Pennsylvanian	160	2	0	0	2	0	61,940	186	
198	KEMNITZ (PENNSYLVANIAN); Lea	1956	11,219	46	Pennsylvanian	AC	LM	P	8	SGD			14,797	Devonian	80	2	0	0	1	0	1,609	123	
199	KEMNITZ (WOLF CAMP); Lea	1956	10,742	38	Wolfcamp, Permian	AC	LM	P	8	SGD		39	13,000	Pennsylvanian	1,320	33	3	0	2	6	1,794,417	4,063	
200	KING (DEVONIAN); Lea	1956	12,439	300	Devonian	AC	DO	M	4	WD		46	12,850	Devonian	560	14	0	0	11	1	596,848	2,280	
201	KING (WOLF CAMP); Lea	1951	10,126	30	Wolfcamp, Permian	AC	LM	P	8	SGD		38	13,145	Devonian	160	4	0	0	2	2	101,455	359	
202	KING CAMP (DEVONIAN); Chaves	1959	10,222	20	Devonian								10,360	Devonian	40	1	1	0	1	0	6,313	6	
203	KNOWLES; Lea	1949	12,446	150	Devonian	AC/F	DO	23	6	WD	0.2	47	12,656	Devonian	280	7	0	0	1	6	178,040	2,968	
204	KNOWLES SOUTH (DEVONIAN); Lea	1954	12,140	40	Devonian	AC	DO	26	4	WD	0.2	47	12,656	Devonian	1,120	14	0	0	7	6	439,954	2,810	
205	LAKEWOOD (SAN ANDRES); Eddy	1956	1,376	24	San Andres, Permian		DO	P	Por	SGD			2,478	Clorieta	40	1	Inactive at end of 1957				0	.7	
206	LANE (PENNSYLVANIAN); Lea	1956	9,802	8	Pennsylvanian	AC	LM	P	5	SGD		49	9,865	Pennsylvanian	80	2	0	0	1	1	61,851	325	
207	LANE (WOLF CAMP); Lea	1955	9,648	14	Wolfcamp, Permian	AC	LM	100	10	SGD		46	12,637	Devonian	360	9	0	0	3	5	173,397	987	
208	LANGLIE-MATTIX; Lea	1929	3,350 - 3,500 9,580		Seven Rivers-Queen, Permian	AC	SS	M	15	SGD	0.9	35	11,198	Ellenburger	42,080	1,052	105	0	440	455	847,616	50,857	
209	LAZY "J"; Lea	1952		20	Permo-Pennsylvanian	Nose	LM	8	6	SGD		43	13,440	Devonian	1,440	36	0	0	2	15	151,959	2,715	
210	LEA; Lea	1929	3,570	15	Yates, Permian	ML	SD	P	Por	SGD		29	3,768	Seven Rivers	80	2	0	0	1	0	1,354	73	
211	LEAMEX (PENNSYLVANIAN); Lea	1956	11,316	36	Pennsylvanian	AC	LM	P	Por	SGD		37	16,842	Granite	120	3	1	0	2	0	109,782	270	
212	LEAMEX (WOLF CAMP); Lea	1958	10,656		Wolfcamp, Permian										40	1	0	0	0	1	4,684	5	
213	LEO; Eddy	1939	3,250	10	Grayburg, Permian	ML	SS	P	12	SGD		35	3,860	San Andres	400	10	0	0	5	5	7,383	241	
214	LEO EAST (GRAYBURG); Eddy	1958	3,666	24	Grayburg, Permian	ML	SS	P	12	SGD		32	3,750	Grayburg	40	1	Combined with Shugart North Queen Grayburg April 1, 1959.					2	
215	LEO SOUTH; Eddy	1958	2,846	14	Grayburg, Permian	ML	SS	P	12	SGD		35	4,497	Delaware Sand	160	4	1	0	2	2	6,369	14	
216	LEONARD; Lea	1948	3,430	10	Seven Rivers, Permian	AC	SS	P	15	SGD		40	3,511	Queen	80	2	0	0	0	0	1,437	38	
217	LEONARD SOUTH; Lea	1950	3,438	2	Queen, Permian	AC	SS	P	Por	SGD		40	3,500	Queen	600	15	0	0	6	5	13,648	459	
218	LIGHTCAP; Chaves	1950	7,955	20	Siluro-Devonian	AC	DO	37	10	WD	0.08	52	8,326	Pre-Cambrian	80	2	0	0	2	0	7,471	87	
219	LITTLE LUCKY LAKE (DEVONIAN) Chaves	1958	11,050	84	Devonian	AC	DO	M	6	WD		55	12,298	Ellenburger	200	5	4	0	5	0	113,987	129	
220	LITTMAN (SAN ANDRES); Lea	1951	4,321	20	San Andres, Permian	Nose	DO	P	8	SGD		31	4,394	San Andres	360	9	0	0	4	4	23,271	226	
221	LOCO HILLS; Eddy	1939	2,430	20	Grayburg & San Andres, Permian	ML	SS	50	20	SGD		36	3,750	San Andres	11,960	299	2	0	25	186	386,470	17,598	
222	LOCO HILLS (QUEEN); Eddy	1949	2,200	15	Queen, Permian	ML	SS	P	Por	SGD		36	3,100	Grayburg	120	2	0	0	0	1	1,170	18	
223	LOCO HILLS SOUTH; Eddy	1958	3,834	36	San Andres, Permian	ML	DO	P	8	SGD		36	4,520	Delaware Sand	40	1	0	0	0	1	2,357	2	
224	LOGAN DRAW; Eddy	1946	1,709	20	San Andres, Permian		DO	P	Por	SGD			2,056	San Andres	40	1	Abandoned June 1951				0	.1	
225	LONE (WOLF CAMP); Chaves	1953	7,774	38	Wolfcamp, Permian	MC	LM	P	Por	SGD		42	9,298	Pre-Cambrian	40	1	0	0	0	1	5,340	102	
226	LOVING (DELAWARE); Eddy	1958	2,444	10	Delaware Sand, Permian								2,455	Delaware Sand	80	2	Abandoned 1959				38	.3	
227	LOVINGTON; Lea	1938	4,600	50	San Andres, Permian	AC	DO	P	4	SGD	1.0	33	14,153	Pre-Cambrian	2,360	59	0	0	0	49	132,343	8,084	
228	LOVINGTON (ABO); Lea	1951	8,117	125	Abo, Permian	AC	DO	M	8	WD		39	14,153	Pre-Cambrian	1,880	47	0	0	28	14	1,356,348	11,109	
229	LOVINGTON (PADDOCK); Lea	1952	6,156	25	Clorieta, Permian	AC	DO	P	8	SGD		33	14,153	Pre-Cambrian	3,760	93	0	0	4	87	584,989	6,059	
230	LOVINGTON (TUBB); Lea	1952	7,840	15	Leonard, Permian	AC	DO	P	Por	SGD		40	11,254	Pennsylvanian	40	1	Abandoned February 1953.				0	2	
231	LOVINGTON (WOLF CAMP); Lea	1952	10,148	15	Wolfcamp, Permian	AC	LM	P	Por	SGD		40	12,751	Devonian	40	1	0	0	0	1	4,016	80	
232	LOVINGTON (EAST PENNSYLVAN- IAN); Lea	1951	11,080	60																			

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. NM-5

LINE NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS						CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959				OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION	COMPLETED TO END OF 1959		1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS			
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT					
241	LYNCH (MIDDLE YATES); Lea	1957	3,513	15	Yates, Permian	MC	DO	P	C	SGD	1.0	30	3,691	Seven Rivers	40	1	0	0	0	1	3,654	13			
242	LYNCH NORTH; Lea	1929	3,660	15	Yates, Permian	MC	DO	M	C	WD	1.0	30	4,769	Grayburg	80	2	0	0	0	2	11,621	204			
243	MAGRUDER (YATES); Eddy	1953	570	2	Yates, Permian	AC	SS	P	Por	WD		16	626	Yates	360	9	Inactive at end of 1958.				0	11			
244	MALAGA; Eddy	1951	2,774	14	Delaware, Permian	AC	SS	55	24	SGD		42	2,914	Delaware	960	24	0	0	1	19	29,494	514			
245	MALAGA WEST; Eddy	1952	2,300	5	Delaware, Permian	AC	SS	M	24	SGD		42	2,311	Delaware	40	1	Abandoned 1953				0	.4			
246	MALJAMAR; Eddy-Lea	1926	3,600	50	Grayburg-San Andres, Permian	AC	SS	47	11	SGD	1.0	37	13,573	Devonian	16,920	423	43	0	231	9	980,290	37,001			
247	MALJAMAR (ABO); Lea	1954	4,050	8	Abo, Permian	AC	DO	M	8	WD			13,936	Devonian	40	Abandoned 1954				0	1				
248	MALJAMAR (DEVONIAN); Lea	1952	13,548	25	Devonian	AC	DO	P	Por	WD		48	13,936	Devonian	80	2	1	0	0	2	32,755	280			
249	MALJAMAR (PADDOCK); Lea	1950	5,271	15	Leonard, Permian	AC	DO	13	11	SGD	0.55	39	5,441	Leonard	160	4	0	0	1	1	20,855	301			
250	MALJAMAR (STRAWN); Lea	1954	11,616	6	Strawn, Pennsylvanian			P	Por	SGD			13,936	Devonian	40	1	Re-Completed in Maljamar (Abo)				8				
251	MALJAMAR (YATES); Lea	1959			Yates, Permian										40	1	0	0	0	1	684	.7			
252	MALJAMAR EAST; Lea	1949	4,340	30	Grayburg-San Andres, Permian	AC	SS	M	10	SGD		37	4,574	San Andres	40	1	Combined with Maljamar 1956.				20				
253	MALJAMAR NORTH; Lea	1939	3,880	10	Grayburg, Permian	MC	SS	P	Por	SGD	1.0	35	4,097	Grayburg	200	5	0	0	0	3	3,263	195			
254	MALJAMAR SOUTH; Lea	1939	4,645	10	Grayburg, Permian	MC	SS	P	Por	SGD	1.0	32	4,840	Grayburg	80	2	0	0	0	1	1,959	65			
255	MALJAMAR SOUTH (YATES); Lea	1957	3,212	17	Yates, Permian	MC	SS	P	Por	SGD			4,848	Queen	40	1	0	0	0	1	225	.9			
256	MASON NORTH (DELAWARE); Eddy	1954	4,115	10	Delaware, Permian	MC	SS	24	25	SGD		42	4,403	Delaware Sand	1,600	40	1	0	15	23	258,637	1,509			
257	McCORMACK; Lea	1947	7,146	15	Silurian	MU	DO	P	Por	WD	0.7	43	8,318	Pre-Cambrian	120	3	0	0	0	2	36,092	463			
258	McMILLIAN; Eddy	1938	826	5	Queen, Permian	MC	SS	P	Por	SGD		29	3,305	San Andres	640	16	0	0	0	9	9,981	226			
259	McMILLIAN (SEVEN RIVERS); Eddy	1950	350	7	Seven Rivers, Permian	MC	DO	P	Por	SGD		34	361	Seven Rivers	160	4	0	0	0	2	256	13			
260	MESCALERO (DEVONIAN); Lea	1952	9,808	30	Devonian	AC	DO	36	8	WD		44	10,491	Devonian	240	6	0	0	5	1	267,270	1,666			
261	MESCALERO (PENNSYLVANIAN); Lea	1952	8,390	15	Pennsylvanian	AC	LM	18	8	SGD		46	10,189	Devonian	240	6	0	0	0	6	29,674	548			
262	MILLMAN; Eddy	1951	1,883	6	Grayburg, Permian	MC	SS	P	Por	SGD			2,733	San Andres	480	12	2	0	6	3	27,782	132			
263	MILLMAN EAST (QUEEN-GRAYBURG); Eddy	1958	1,760	5	Queen, Permian	MC	SS	P	Por	SGD		36	1,765	Queen	1,420	38	27	0	35	3	318,187	342			
264	MILLMAN EAST (SAN ANDRES); Eddy	1959	2,413	17	San Andres, Permian								2,663	San Andres	40	1	1	0	1	0	4,342	4			
265	MILNESAND (PENNSYLVANIAN); Roosevelt	1956	9,202	8	Pennsylvanian	AC	LM	P	4	SGD		46	11,907	Granite	520	13	1	0	11	2	209,076	684			
266	MILNESAND (SAN ANDRES); Roosevelt	1958	4,554	48	San Andres, Permian	AC	DO	P	8	WD		28	11,907	Cranite	120	3	1	0	1	2	8,034	13			
267	MILNESAND EAST (PENNSYLVANIAN); Roosevelt	1958	9,282	76	Pennsylvanian	AC	LM	P	4	SGD		42	9,809	Pennsylvanian	40	1	Combined with Milnesand Pennsylvanian 1				1				
268	MONUMENT (ABO); Lea	1948	7,160	30	Lower Leonard, Permian	AC	DO	P	Por	SGD		41	9,953	Pre-Cambrian	200	5	0	0	0	1	1,740	111			
269	MONUMENT (BLINEBRY); Lea	1948	5,695	20	Yeso, Permian	AC	DO	M	8	WD		39	9,953	Pre-Cambrian	1,840	46	1	0	14	24	450,961	4,319			
270	MONUMENT (McKEE); Lea	1948	9,890	40	Simpson, Ordovician	AC	SS	M	15	SGD		67	10,235	Pre-Cambrian	320	2	Abandoned as Oil Field				0	14			
271	MONUMENT (PADDOCK); Lea	1948	5,180	20	Leonard, Permian	AC	DO	P	8	SGD		40	9,953	Pre-Cambrian	1,360	34	0	0	23	7	435,174	3,084			
272	MONUMENT (TUBB); Lea	1959	6,455	34	Tubb, Permian								6,938	Drinkard	40	1	1	0	1	0	4,596	5			
273	MOORE (DEVONIAN); Lea	1952	10,375	73	Devonian	AC	DO	M	4	WD		45	10,946	Devonian	760	19	0	0	12	7	1,016,990	7,920			
274	MOORE (PENNSYLVANIAN); Lea	1952	9,654	15	Pennsylvanian	AC	LM	P	7	SGD		48	10,232	Mississippian	120	3	0	0	1	0	1,587	26			
275	NADINE; Lea	1950	7,363	15	Lower Leonard, Permian	H	DO	P	Por	SGD	0.4	34	8,021	Devonian	120	3	0	0	0	3	9,014	120			
276	NEW HOPE; Roosevelt	1951	8,131	11	Pennsylvanian		LM	P	Por	SGD			9,067	Pre-Cambrian	40	1	Abandoned 1953				0	7			
277	NICHOLS; Eddy	1948	2,919	19	San Andres, Permian		SS	P	9	SGD			3,049	San Andres	520	13	Combined with Artesia 1955.				0	183			
278	PADDOCK; Lea	1945	5,170	50	Glorieta, Permian	MC	DO	4	11	SGD	1.0	37	8,370	Pre-Cambrian	4,560	114	1	0	51	53	443,349	12,384			
279	PADDOCK NORTH; Lea	1959													40	1	1	0	0	1	841	.8			
280	PADDOCK SOUTH; Lea	1958	5,164	52	Glorieta, Permian	MC	DO	P	8	SGD		36	7,100	Drinkard	120	3	0	0	1	2	45,982	72			
281	PAIMILLO; Eddy	1925	1,495	10	Seven Rivers, Permian		SS	P	Por				2,561	Grayburg	40	1	Abandoned 1948				0	.2			
282	PARALLEL (TANSILL); Eddy	1959	2,358	3	Tansill, Permian								7,505	Bone Spring	40	1	1	0	0	1	1,118	1			
283	PCA; Eddy	1939	1,500	10	Yates, Permian	AC	LM	P	Por	WD		20	1,956	Yates	480	12	0	0	0	6	12,552	668			
284	PEARL (BONE SPRING); Lea	1955	8,198	30	Bone Spring, Pennsylvanian	AC	LM	P	Por	SGD		49	13,950	Devonian	40	1	Combined with Pearl Queen 1956.				4				
285	PEARL (QUEEN); Lea	1956	4,806	28	Queen, Permian	AC	SS	M	12	SGD			13,950	Devonian	2,680	67	27	0	23	44	611,494	976			
286	PEARL (SEVEN RIVERS); Lea	1958	4,084	13	Seven Rivers, Permian	AC	SS	M	12	SGD			13,950	Devonian	40	1	0	0	0	1	2,618	3			
287	PEARSALL; Lea	1940	3,800	10	Queen, Permian	MC	SS	21	25	SGD	1.0	37	4,274	San Andres	1,160	29	0	0	2	22	67,995	1,359			
288	PENROSE-SKELLY; Lea	1936	3,500	50	Queen-Grayburg, Permian	AC	SS	P	6	SGD	1.0	36	8,370	Pre-Cambrian	8,800	220	1	0	57	82	300,652	12,527			
289	PRAIRIE (SAN ANDRES); Roosevelt	1959	4,858	32	San Andres, Permian								10,000	Pennsylvanian	40	1	1	0	0	1	111	.1			
290	PREMIER; Eddy	1936	3,090	20	Grayburg, Permian	MC	SS	P	Por	SGD		36	3,500	San Andres	3,120	78	Combined with Grayburg Jackson 1957.				3,387				
291	QUERRECHO PLAINS (BONE SPRING); Lea	1958	11,922	13	Pennsylvanian								14,230	Devonian	40	1	0	0	1	0	1,634	3			
292	QUERRECHO PLAINS (DELAWARE); Lea	1959	6,860	11	Delaware Sand, Permian								9,593	Bone Springs	40	1	1	0	1	0	3,640	4			
293	QUERRECHO PLAINS (PENNSYLVANIAN); Lea	1957	11,595	50	Pennsylvanian		LM	P	Por	SGD			14,217	Devonian	520	13	12	0	12	1	58,432	205			
294	RANGER LAKE (PENNSYLVANIAN); Lea	1956	10,312	33	Pennsylvanian	AC	LM	P	8	SGD		41	12,977	Devonian	680	17	12	0	15	1	485,777	870			
295	RED HILLS; Eddy	1956	1,630	44	Yates, Permian		SS	M	15	SGD		29	1,832	Yates	160	4	0	0	0	3	3,676	22			
296	RED LAKE; Eddy	1924	1,725		Grayburg and San Andres, Permian	MC	SS	2	10	SGD	0.9	29	12,431	Ellen											

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

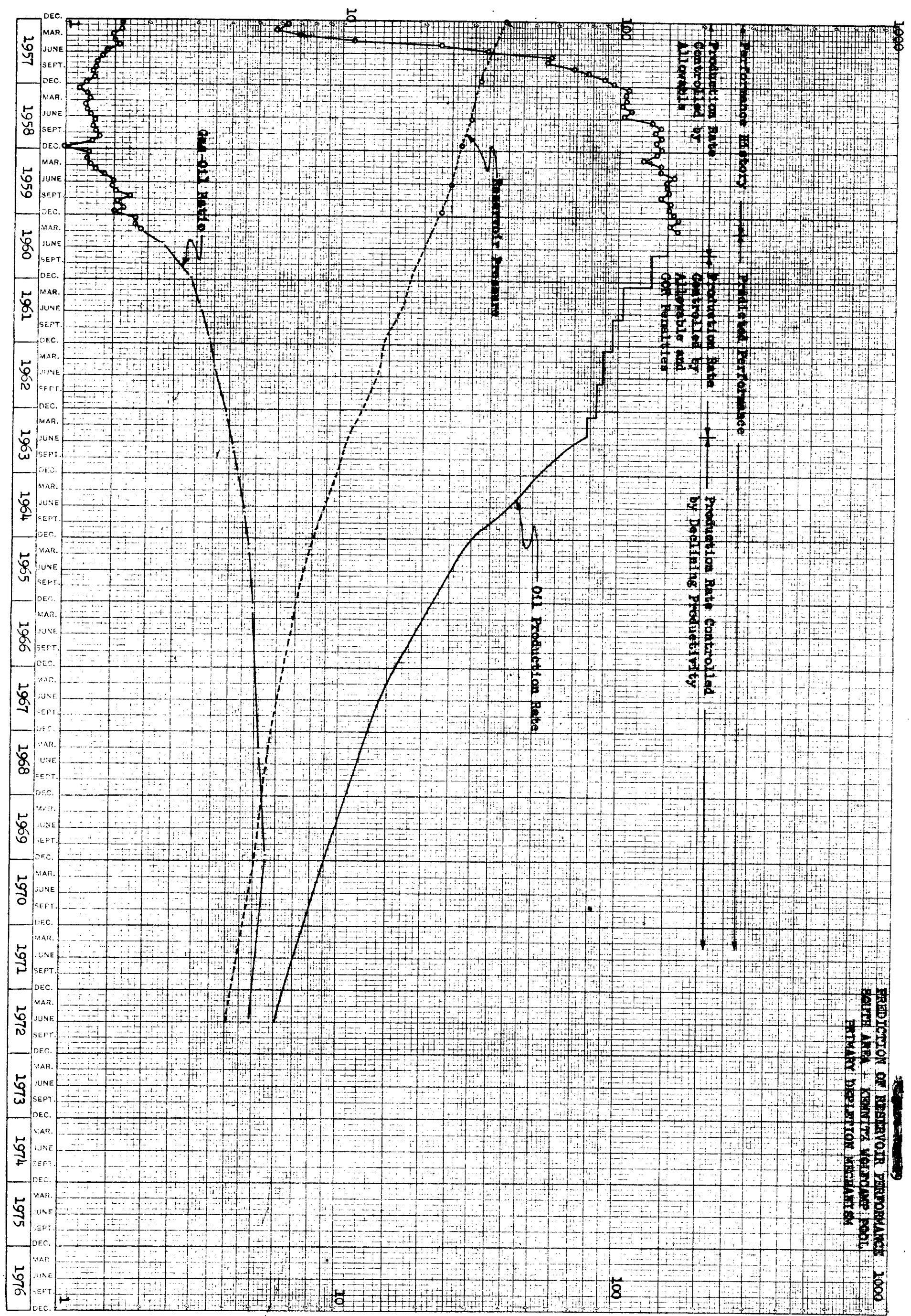
TABLE NO. NM-6

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION				
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS			
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT					
301	RHODES; Lea	1929	3,000	25	Yates-Seven Rivers, Permian	MC	SS	M	15	SGD	1.0	36	4,110	San Andres	2,280	57	0	0	25	13	115,667	5,198			
302	ROBERTS; Lea	1943	4,195	15	Grayburg, Permian	AC	SS	9	11	SGD	1.0	34	4,660	San Andres	9,760	78	17	0	25	39	188,584	1,856			
303	ROBERTS WEST; Lea	1945	4,192	15	Grayburg, Permian	AC	SS	P	11	SGD	1.0	34	4,660	San Andres	Combined with Roberts 1947										
304	ROBINSON; Eddy-Lea	1926	3,550	20	Grayburg, San Andres, Permian	MC	SS	P	Por	SGD	0.9	34	4,483	San Andres	1,560	38	11	0	11	22	75,834	960			
305	RUSSELL; Eddy	1942	3,919	10	Yates, Permian	AM	SS	30	19	SGD	0.8	38	2,500	Devonian	2,360	59	0	0	0	26	144,595	1,520			
306	SALADAR; Eddy	1956	650	20	Yates, Permian		SS	M	15	SGD		34	816	Yates	240	6	0	0	0	4	10,404	53			
307	SLAT LAKE; Lea	1941	2,990	10	Yates-Seven Rivers, Permian		SS	P	Por	SGD			4,003	Seven Rivers	440	11	Abandoned December 1948				0	295			
308	SAND HILLS; Lea	1952	4,292	10	Grayburg, Permian		SS	P	Por				8,722	Montoya	40	1	Abandoned January 1953				0	.8			
309	SAND SPRINGS (DEVONIAN); Lea	1957	13,115	38	Devonian	AC	DO	P	5	WD			13,206	Devonian	40	1	Abandoned February 1959				279	16			
310	SANMAL (PENNSYLVANIAN); Lea	1957	11,708	14	Pennsylvanian	MC	LM	P	Por	SGD			11,842	Pennsylvanian	40	1	Shut-in February 1958				0	10			
311	SANMAL (SAN ANDRES); Lea	1955	4,571	10	San Andres, Permian	MC	SS	P	Por	SGD		35	4,711	San Andres	80	2	0	0	1	1	7,443	49			
312	SAN MIGUEL (YATES-SEVEN RIVERS); Lea	1959	3,613	17	Seven Rivers, Permian								3,630	Seven Rivers	40	1	1	0	0	1	4,787	5			
313	SAN SIMON; Lea	1943	3,935	20	Yates, Permian	AC	SS	5	20	SGD	1.0	34	4,183	Yates	280	7	1	0	2	2	20,579	132			
314	SANTO NINO; Eddy	1951	3,960	10	Delaware, Permian		SS	M	24	SGD			4,351	Delaware	120	3	Abandoned 1956				0	10			
315	SAUNDERS; Lea	1950	9,831	50	Wolfcamp, Permian	AC	LM	P	7	SGD		42	14,809	Pre-Cambrian	4,120	103	19	0	35	62	2,423,124	16,084			
316	SAUNDERS NORTH; Lea	1951	9,775	30	Permo-Pennsylvanian	AC	LM	P	7	SGD		42					Combined with Saunders 1951								
317	SAUNDERS SOUTH; Lea	1951	10,587	20	Pennsylvanian		LM	P	8	SGD		36	10,621	Pennsylvanian	240	3	0	0	0	1	12,834	94			
318	SAWYER (DEVONIAN); Lea	1955	11,618	50	Devonian	AC/F	DO	P	5	WD		42	12,097	Devonian	80	1	0	0	0	1	13,584	171			
319	SAWYER (SAN ANDRES); Lea	1947	4,926	25	San Andres, Permian	MC	DO	2	10	SGD		25	12,097	Devonian	280	7	2	0	4	1	7,696	63			
320	SAWYER SOUTH (SAN ANDRES); Lea	1958	4,950	28	San Andres, Permian	AC	DO	8	8	SGD		28	5,032	San Andres	80	2	0	0	0	2	8,042	16			
321	SEVEN RIVERS; Lea	1954															Combined with E K Queen								
322	SHOE BAR (DEVONIAN); Lea	1953	12,482	76	Devonian	AC	DO	P	6	WD		57	12,780	Devonian	200	5	0	0	0	5	93,133	852			
323	SHOE BAR (PENNSYLVANIAN); Lea	1954	10,440	55	Pennsylvanian	MC	LM	P	Por	SGD		58	12,978	Devonian	80	2	1	0	1	1	4,414	29			
324	SHOE BAR (DEVONIAN) NORTH; Lea	1956	12,638	100	Devonian	AC	DO	P	6	WD		60	12,978	Devonian	80	2	0	0	0	1	8,498	124			
325	SHOE BAR NORTH (PENNSYLVANIAN); Lea	1958	10,954	26	Pennsylvanian	MC	LM	P	Por	SGD		43	12,978	Devonian	40	1	0	0	1	0	4,014	19			
326	SHUGART; Eddy	1937	2,600	15	Yates, Permian	MC	SS	P	Por	SGD	0.9	38	13,446	Montoya	1,920	50	16	0	6	35	256,140	1,453			
327	SHUGART (DELAWARE); Eddy	1958	4,970	24	Delaware Sand, Permian		SS	M	24	SGD		38	13,446	Montoya	40	1	0	0	1	0	19,041	20			
328	SHUGART NORTH (GRAYBURG); Eddy	1956	3,957	31	Grayburg, Permian	ML	SS	P	Por	SGD		32	4,785	Delaware Sand	200	Combined with Shugart North Queen								0	22
329	SHUGART NORTH (QUEEN-GRAYBURG); Eddy	1938	3,350		Queen-Grayburg, Permian	ML	SS	P	Por	SGD		33	4,890	San Andres	3,120	88	4	0	15	41	141,951	2,136			
330	SKAGGS; Lea	1937	3,800	50	Grayburg, Permian	AM	SS	7	3	SGD		36	9,475	Ellenburger	3,400	85	1	0	33	48	349,268	4,737			
331	SKAGGS (DRINKARD); Lea	1953	6,856	30	Leonard, Permian	AM	DO	P	Por	SGD		37	9,671	Simpson	160	4	0	0	3	1	36,111	214			
332	SKAGGS (GLORIETA); Lea	1958	5,266	36	Glorieta, Permian	AM		P	Por	SGD		33	9,671	McKee	80	2	0	0	1	1	35,838	50			
333	SPENCER (DEVONIAN); Lea	1956	11,034	12	Devonian	AC	DO	P	4	WD			11,046	Devonian	40	1	Abandoned 1956.				0	2			
334	SQUARE LAKE; Eddy	1941	2,700	15	Grayburg, San Andres, Permian	MC	SS	110	21	SGD	0.9	38	6,587	Abo	12,880	322	33	0	76	192	528,440	8,986			
335	SQUIRES (DEVONIAN); Roosevelt	1954	9,225	40	Devonian	AC/F	DO	200	8	WD		45	9,637	Devonian	40	1	Abandoned 1955				0	8			
336	SRR (DEVONIAN); Lea	1955	11,103	50	Devonian	AC	DO	M	4	WD		40	11,360	Devonian	120	3	0	0	0	2	51,567	315			
337	SRR (PENNSYLVANIAN); Lea	1955	9,208	10	Pennsylvanian	AC	LM	P	Por	SGD		49	11,360	Devonian	80	2	Abandoned May 1959				403	47			
338	TATUM (WOLFCAMP); Lea	1957	10,285	31	Wolfcamp, Permian	AC	LM	6	7	SGD		43	14,393	Devonian	120	3	0	0	3	0	76,775	183			
339	TEAGUE; Lea	1948	9,340	50	Simpson, Ordovician	AC	SS	M	Por	SGD		41	10,218	Pre-Cambrian	640	16	0	0	0	14	53,438	1,890			
340	TEAGUE (DEVONIAN); Lea	1952	7,150	25	Devonian	AC	DO	P	Por	SGD		41	10,165	Pre-Cambrian	160	4	0	0	0	0	19,663	346			
341	TEAGUE (ELLENBURGER); Lea	1950	9,700	50	Ellenburger, Ordovician	AC	DO	M	3	WD		45	10,165	Pre-Cambrian	400	10	0	0	0	8	70,861	2,020			
342	TEAGUE (GRAYBURG); Lea	1957	3,685	4	Grayburg, Permian	AC	SS	P	10	SGD			10,165	Pre-Cambrian	80	2	0	0	2	0	4,453	18			
343	TEAS; Lea	1951	3,285	5	Yates, Permian	AC	SS	P	Por	SGD		34	3,750	Seven Rivers	840	21	2	0	0	18	80,896	598			
344	TECOLOTE PEAK (DELAWARE); Eddy	1959	2,512	2	Delaware Sand, Permian								2,514	Delaware	40	1	1	0	0	1	1,272	1			
345	TERRY (BLINEBRY); Lea	1952	5,840	20	Yeso, Permian	AC	DO	20	7	SGD		42	9,150	Pre-Cambrian	4,280	107	0	0	77	29	862,374	3,441			
346	TOMCO; Lea	1944	3,565	8	Seven Rivers, Permian	MC	DO	20	8	WD	1.0	35	3,648	Seven Rivers	120	3	0	0	0	2	14,637	215			
347	TOMCO (DEEP WOLFCAMP); Lea	1959			Wolfcamp, Permian										40	1	1	0	1	0	1,187	1			
348	TOWNSEND (PENNSYLVANIAN); Lea	1956	11,040	40	Pennsylvanian	AC	LM	P	7	SGD		41			40	1	Combined with Townsend Wolfcamp								
349	TOWNSEND (WOLFCAMP); Lea	1952	10,410	29	Wolfcamp, Permian	MC	LM	38	8	SGD		40	13,803	Devonian	4,800	105	0	0	77	25	1,205,359	12,593			
350	TUBB (OIL); Lea	1956	6,105	72	Tubb, Permian	MC	DO	5	19	SGD		38	8,370	Pre-Cambrian	640	16	3	0	13	3	77,806	197			
351	TULK (WOLFCAMP); Lea	1951	9,700	25	Wolfcamp, Permian	AM	LM	P	8	SGD		41	13,100	Pennsylvanian	480	12	0	0	0	7	53,011	1,130			
352	TULK NORTH (WOLFCAMP); Lea	1952	9,564	34	Wolfcamp, Permian	AM	LM	P	Por	SGD		41	10,294	Pennsylvanian	40	1	Abandoned December 1952				0	5			
353	TURKEY TRACK; Eddy	1943	2,050	10	Grayburg, Queen, Permian	Terr	SS	P	Por	SGD		38	3,896	Grayburg	1,160	29	2	0	0	28	45,243	472			
354	TURKEY TRACK (SEVEN RIVERS); Eddy	1949	2,575	10	Seven Rivers, Permian	Terr	SS	P	Por	SGD		34	3,896	Delaware	320	8	0	0	0	6	4,653	139			
355	TURKEY TRACK EAST; Eddy	1950	2,235	9	Queen, Permian	Terr	SS	P	Por	SGD		34	4,371	Delaware	200	5									

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

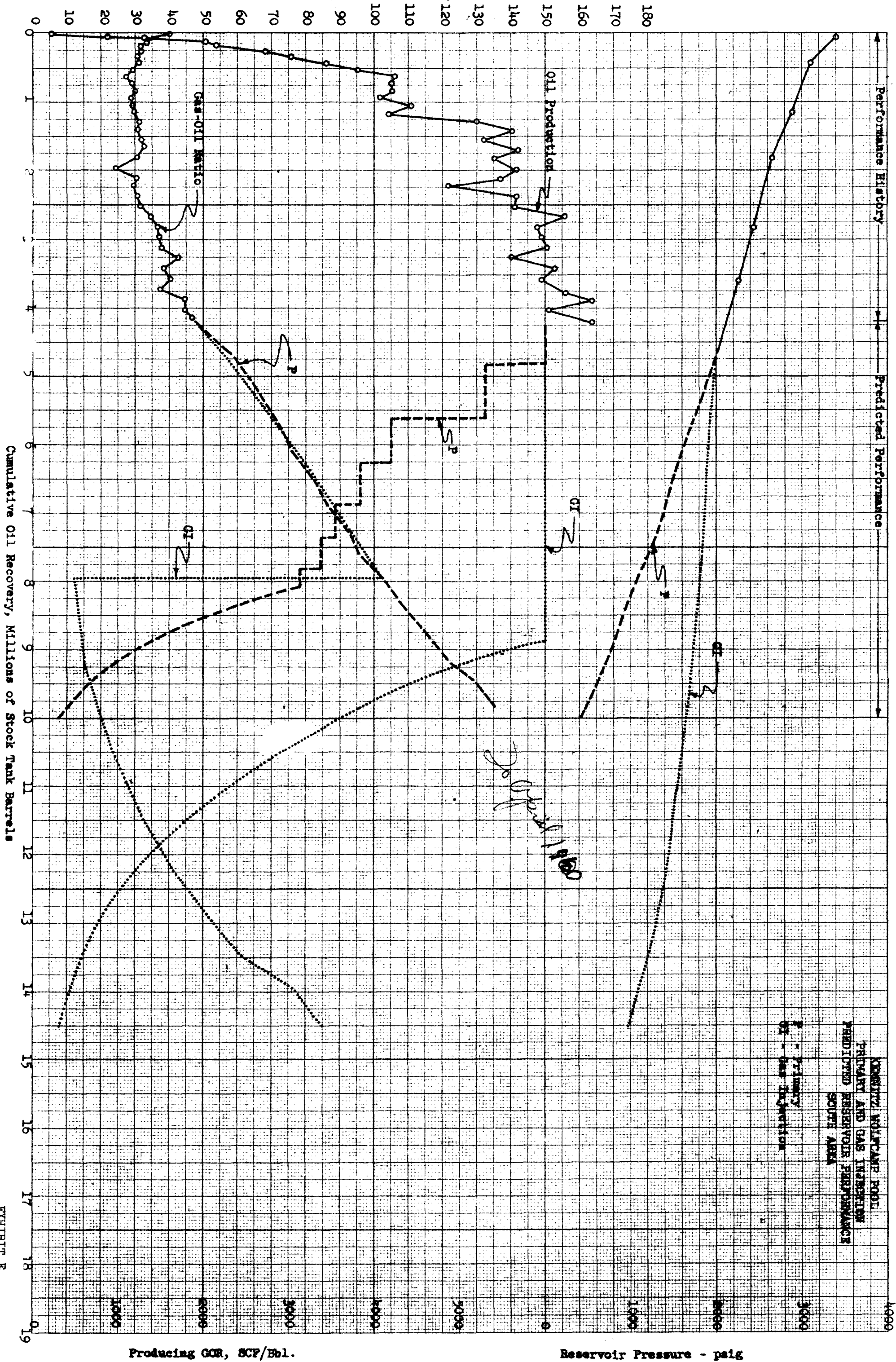


Oil Production Rate - Thousands of Stock Tank Barrels Per Month
Reservoir Pressure - Hundreds of Pounds Per Square Inch
Gas-Oil Ratio - Thousands of Standard Cubic Feet Per Stock Tank Barrel



Oil Production Rate - Thousands of Stock Tank Barrels Per Month
Reservoir Pressure - Hundreds of Pounds Per Square Inch
Gas-Oil Ratio - Thousands of Standard Cubic Feet Per Stock Tank Barrel

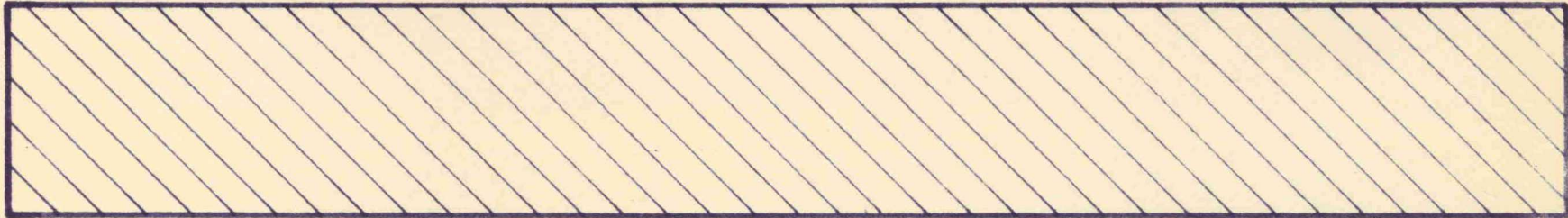
Monthly Oil Production, Thousands of Barrels



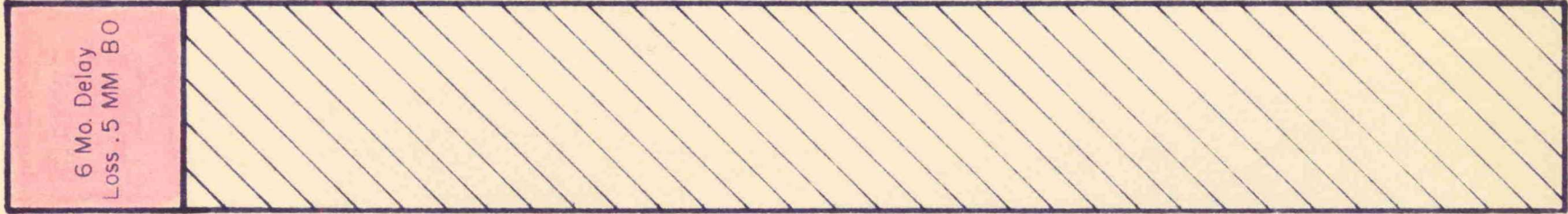
LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

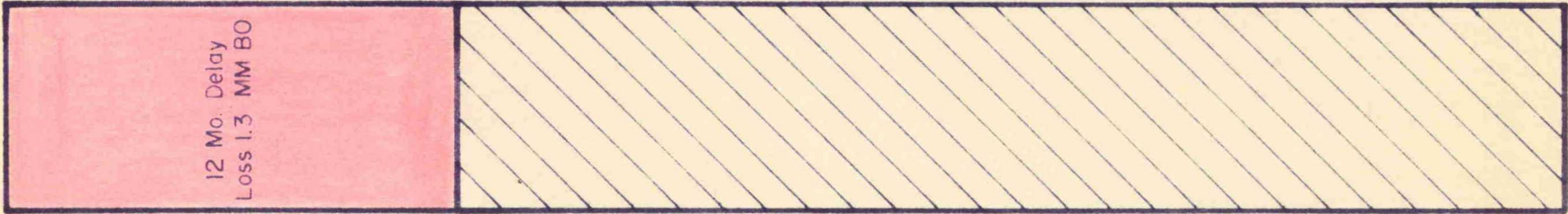
-4.5 MM BO
Beginning G.I., 9/1/60
Est. BHP 2000 psi



6 Mo. Delay
Loss .5 MM BO

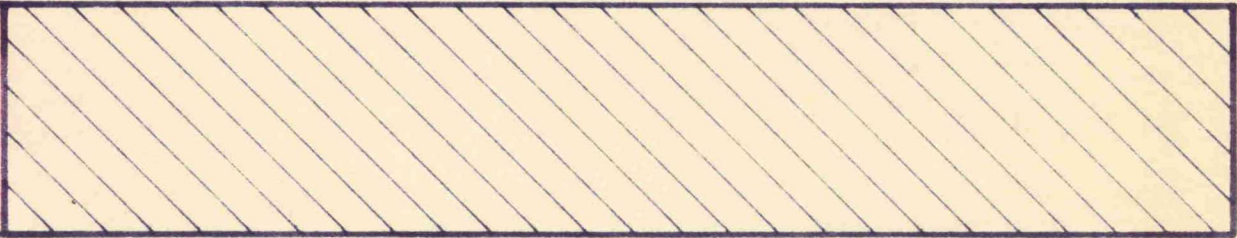


-4.0 MM BO
Beginning G.I., 3/1/61
Est. BHP 1800 psi



12 Mo. Delay
Loss 1.3 MM BO

-3.2 MM BO
Beginning G.I., 9/1/61
Est. BHP 1600 psi



TENNESSEE GAS AND OIL COMPANY
DIVISION OF TENNESSEE GAS TRANSMISSION COMPANY

SOUTH AREA
KEMNITZ WOLFCAMP POOL

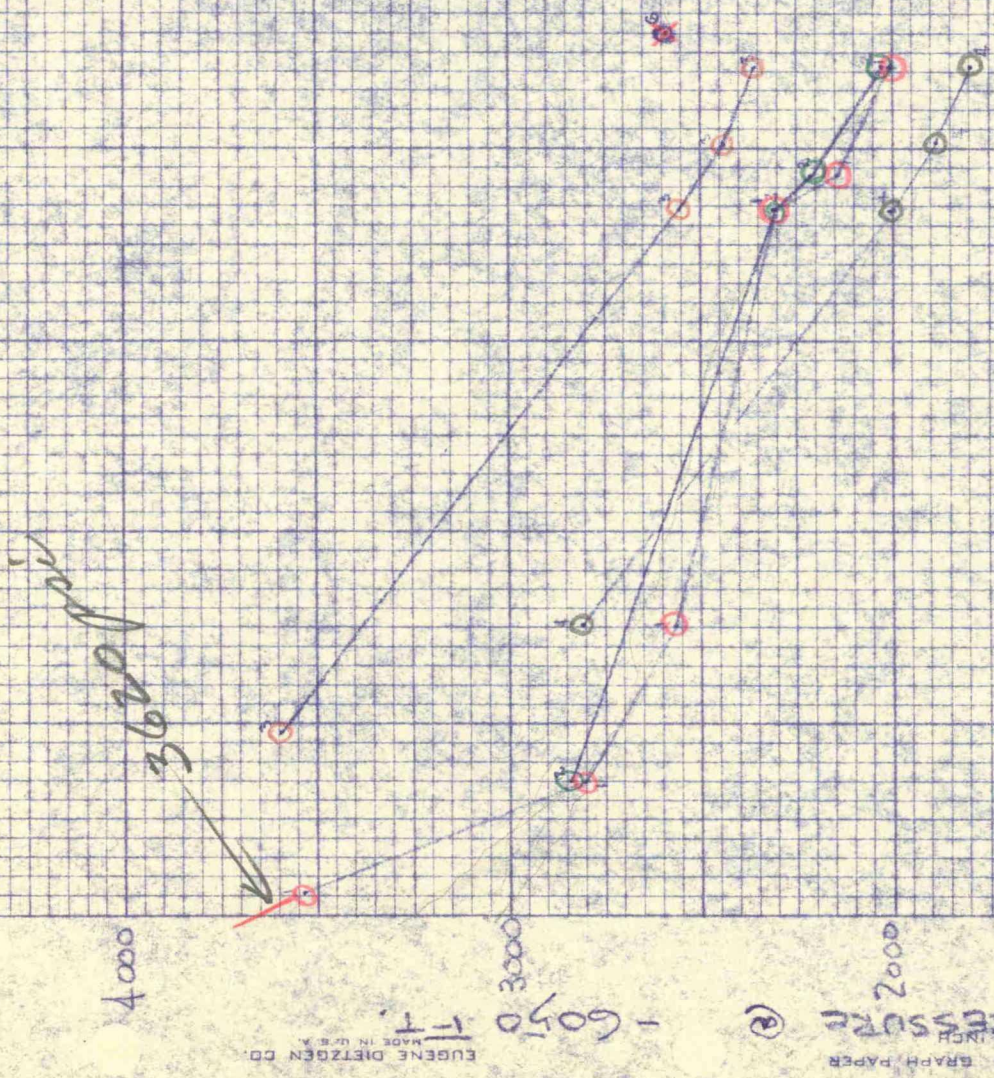
PREDICTED LOSS IN RECOVERY BY DELAY
OF
GAS INJECTION OPERATIONS

SCALE 2" = 1.0 MM BO

EXHIBIT F

RANGER LEASE - RANGER LAKE PENNSYLVANIAN FIELD

PRESSURE - PRODUCTION
DATA.

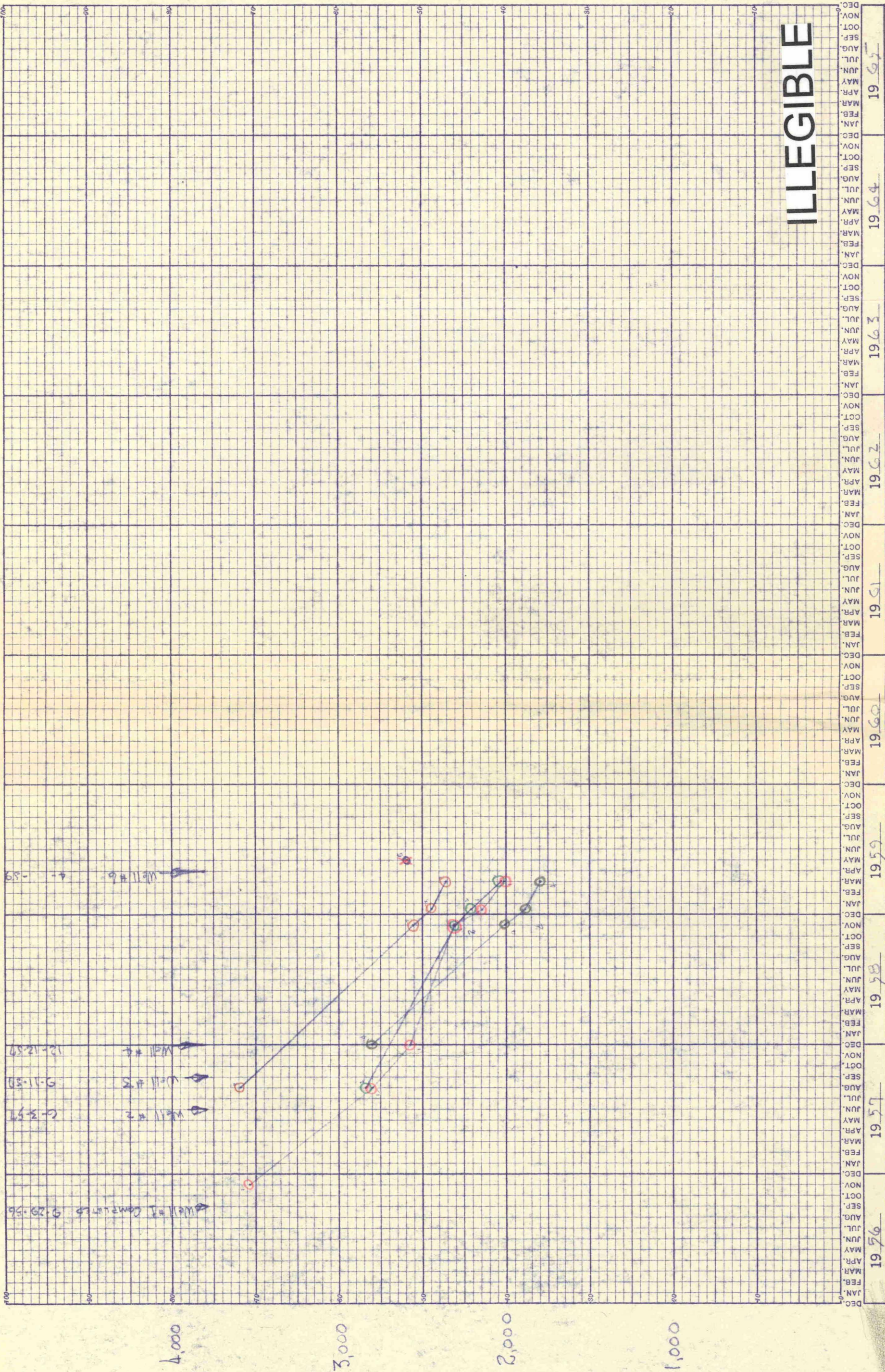


ILLEGIBLE



B.H. Pressure - 6050

ILLEGIBLE



RAUGER LAKE PENNSYLVANIAN FIELD
RANGER LEASE - PRESSURE
HISTORY

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

RANGER LEASE - RANGER LAKE PENNSYLVANIAN FIELD

PRESSURE - PRODUCTION
DATA.

4000

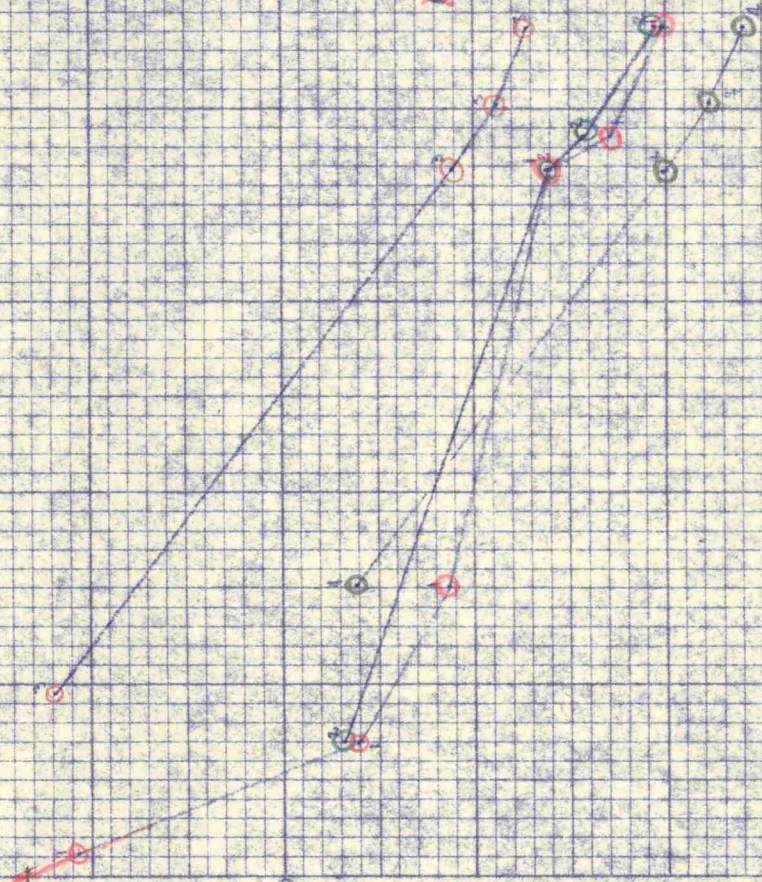
EUGENE DIETZGEN CO.
MADE IN U.S.A.

6050 - 1

D. 8408R-10 DIETZGEN GRAPH PAPER
BOX 10 BEECHER

2000

0000



+ 3225 #

+ 27000 #

BEFORE THE
COMMISSION
NEW MEXICO
PH. 11.12.19
EXHIBIT No. 9
1668

ILLEGIBLE

1400,000

1,200,000

1,000,000

800,000

600,000

400,000

200,000

0

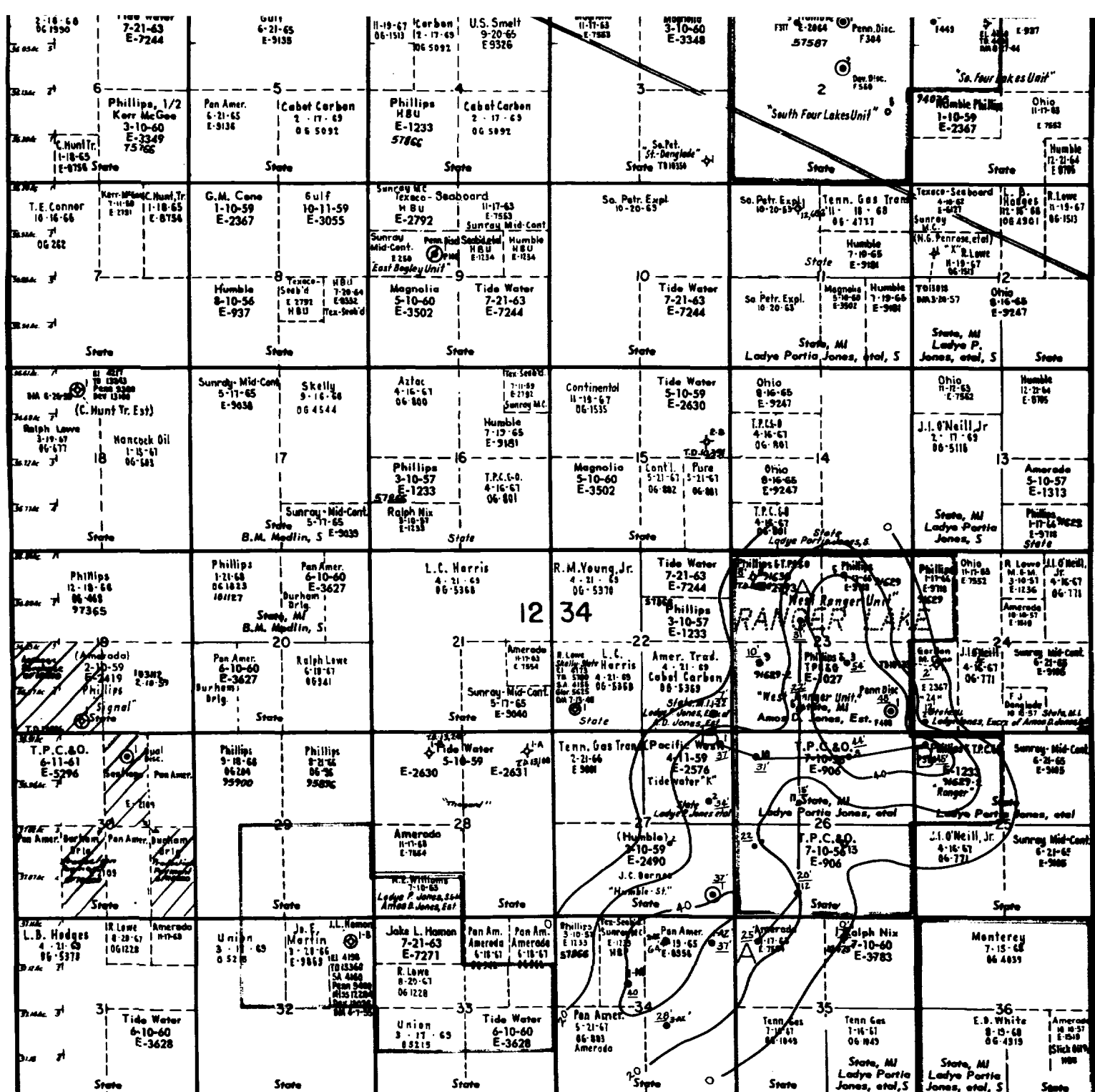
100,000

200,000

300,000

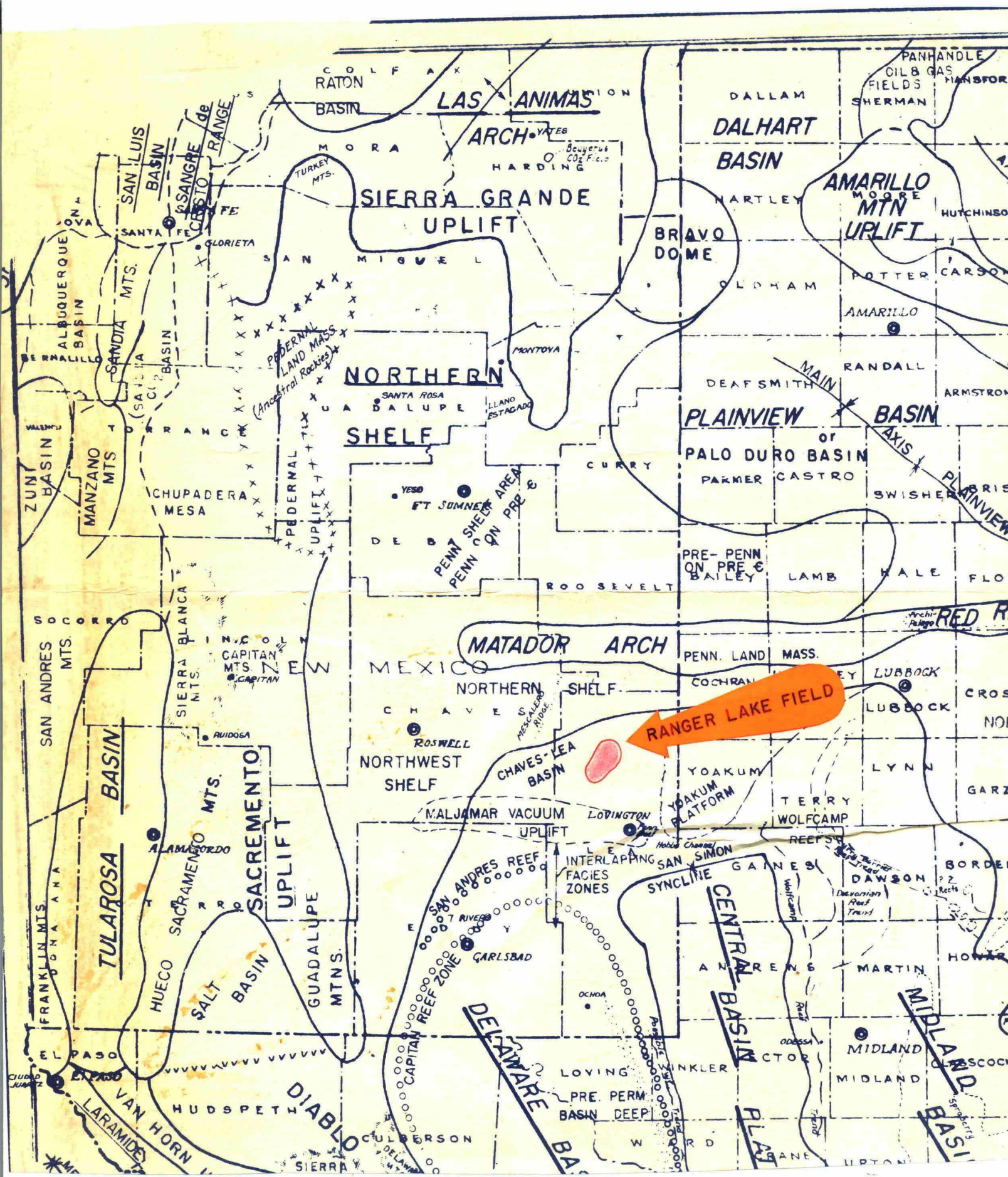
400,000

500,000



PHILLIPS PETROLEUM COMPANY
LAND & GEOLOGICAL DEPARTMENT
MIDLAND, TEXAS
WEST RANGER PENN
LEA COUNTY, NEW MEXICO
SCALE 1"=2000'
CONTOURED ON: ISOPACH: NET PAY
CONTOUR INT. 20'
TYPE INFO. SUBSURFACE
GEOLOGY BY: C. F. LAWRENCE
DATE 8-8-60 REVISED

NET PAY DATA BASED ON: 4 % POROSITY
35% BASE SHALE



LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-12

WELL NO.	WELL NAME	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL ACRES	NUMBER OF WELLS				WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. PER ACRE (FT. NET)	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, MD.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS	
																	COMP. LETED	ABANDONED	FLOWING	ARTIFICIAL LIFT			
1	EMPEROR; Winkler	1936	2,893	50	Yates Seven Rivers, Permian	AC	SS	6	18	SGD	0.55	33	11,600	Ellenburger	7,320	183	1	5	14	140	1,388,590	12,631	
2	EMPEROR (DEEP); Winkler	1934	3,014	50	Seven Rivers-Queen, Permian	DO			11		1.30	33	11,600	Ellenburger	3,320	83	0	1	4	50	97,096	1,863	
3	EMPEROR (ELLENBURGER OIL); Winkler	1958	11,452	35	Ellenburger, Ordovician	AC	DO	12	2			35	11,544	Ellenburger	40	1	0	0	1	0	4,871	7	
4	EMPEROR (HOLT); Winkler	1946	4,765	85	San Angelo, Permian	AC	DO	7	15	SGD	0.4	40	11,600	Ellenburger	1,800	45	0	0	37	8	156,463	2,996	
5	EMCOCK JOHNSON (MORRIS); Runnels	1953	3,604	6	Morris Sand, Pennsylvanian	Nose	SS		13	WF		42	4,310	Strawn	260	13	0	0	0	12	4,675	159	
6	EMPERNAUER; Crane	1951	3,082	233	Clear Fork, Permian		DO					41	3,315	Clear Fork	40	1	Abandoned	1954			0	7	
7	EMPERNAUER (DEVONIAN); Crane	1951	5,207	111	Devonian		LM					40	5,395	Devonian	40	1	Abandoned	1954			0	5	
8	EMPERNAUER (SAN ANDRES);Crane	1951	2,710	20	San Andres, Permian	MC	DO					38	3,001	Clear Fork	40	1	Abandoned	1954			0	18	
9	ENTER BLOCK B-19 (PENNSYLVANIAN); Ward	1959	7,880	60	Pennsylvanian								12,980	Ellenburger	40	1	1	0	1	0	23,494	23	
10	ENTER BLOCK 34 (PENNSYLVANIAN); Ward	1957	8,150	130	Pennsylvanian	D	CG			SGD		36	14,100	Ellenburger	40	1	0	0	0	1	7,618	31	
11	EBERTT & GLASS (PENNSYLVANIAN);Crane	1954	9,042	70	Pennsylvanian							40	12,690	Ellenburger	40	1	Inactive at end of	1958			0	13	
12	E & H (CISCO); Schleicher	1958	2,614	6	Cisco, Pennsylvanian			165	19	WD		40	6,065	Granite	240	6	3	0	2	4	58,310	97	
13	ELUMVIEW; Howard	1945	3,151									28			40	1						363	
14	ELMER (SAN ANDRES); Crockett	1953	2,236	124	San Andres Lime, Permian	AC	DO	50	11	SGD		30	2,500	San Andres Lime	10,440	261	1	1	5	138	385,437	2,746	
15	ELSKEN; Andrews	1949	475	110	Permian		DO					31	4,909	Grayburg	120	3	0	0	0	2	13,113	108	
16	ELSKEN (ELLENBURGER); Andrews	1953	12,614	24	Ellenburger Lime, Ordovician	AC	DO					52	12,690	Ellenburger Lime	360	9	0	0	8	1	352,396	1,062	
17	ELSKEN (PENNSYLVANIAN);Ector	1956	10,158	26	Pennsylvanian								13,228	Ellenburger	40	1	0	0	1	0	22,882	115	
18	ELSKEN (8800' PENNSYLVANIAN); Andrews	1956	8,776	67	Pennsylvanian								9,199	Devonian	240	6	1	0	1	4	38,801	153	
19	ELSKEN (WOLFCAAMP); Andrews	1952	8,430	20	Wolfcamp, Permian	AC	LM	35	5	SGD	0.15	40	9,143	Wolfcamp	1,080	27	6	0	16	11	264,781	693	
20	ELSKEN NORTH (WOLFCAAMP); Ector	1956	8,290	120	Wolfcamp, Permian							39	13,228	Ellenburger	40	1	0	0	0	1	4,305	24	
21	ELSKEN SOUTH (DEVONIAN); Ector	1957	11,264	50	Devonian							45	13,142	Ellenburger	40	1	0	0	0	1	10,048	39	
22	ELSKEN SOUTH (FUSSELMAN); Ector	1957	12,350	50	Fusselman, Silurian							54	13,142	Ellenburger	40	1	0	0	0	1	10,048	31	
23	ELSKEN SOUTH (GRAYBURG); Ector	1958	4,777	10	Grayburg, Permian		DO					32	13,182	Ellenburger	40	1	0	0	0	1	3,669	7	
24	ELSKEN (SPRABERRY); Dawson	1956	7,490	12	Spraberry, Permian	AC	SS	15	17	SGD		39	8,654	Pennsylvanian	120	3	1	0	0	2	19,802	99	
25	ELSKEN (UPPER SPRABERRY); Dawson	1956	6,812	18	Upper Spraberry, Permian	AC	SS	75	19	SGD			7,626	Lower Spraberry	80	2	0	0	0	2	19,183	76	
26	ELSKEN (6900' SAND); Dawson	1956	6,902	20	Upper Spraberry, Permian		SS	2	16			39	7,600	Spraberry	120	3	0	0	0	3	17,230	77	
27	ELMAC (MISSISSIPPIAN); Gaines	1955	13,020	38	Mississippian							32	14,319	Granite	80	2	0	1	0	1	10,803	161	
28	ELMELL (BRICKENRIDGE); Runnels	1955	2,676	20	Breckenridge Lime, Pennsylvanian	AC	LM		4			41	2,986	Cisco	260	13	0	0	2	11	84,742	387	
29	ELMELL (CISCO REEF);Runnels	1955	2,929	20	Cisco Reef, Pennsylvanian	Reef	LM	8	5	SGD		44	2,986	Cisco	240	12	0	0	2	10	72,482	346	
30	ELMELL (GOEN); Runnels	1956	4,406	8	Goen Lime, Pennsylvanian								4,808	Strawn	160	4	0	0	1	2	9,067	88	
31	ELMELL (DUNSTON LIME); Runnels	1957	2,346		Dunston, Pennsylvanian										40	1	0	0	0	1	6,780	40	
32	ELMELL (KING SAND); Runnels	1955	2,764	10	King Sand, Pennsylvanian	AM	SS		18			44	2,986	Cisco	420	21	0	0	12	9	132,960	519	
33	ELMELL (STRAY SAND);Runnels	1957	2,709	6	Cisco Sand, Pennsylvanian								4,414	Canyon Lime	40	1	0	0	1	0	2,899	12	
34	ELMELL NORTH (CISCO REEF); Runnels	1956	2,924	14	Cisco Reef, Pennsylvanian	Reef	LM		10			44	4,892	Caddo	20	1	0	0	0	1	6,151	43	
35	ELMELLE (DEVONIAN); Yoakum	1954	12,040	20	Devonian	AC	DO	67	2	WD	0.30	44	12,107	Devonian	480	12	2	2	2	6	207,234	2,047	
36	ELMELLE SOUTH (DEVONIAN); Yoakum	1956	12,045	35	Devonian							45	12,273	Devonian	40	1	0	0	0	1	3,091	25	
37	ELMELLE (WOLFCAAMP); Yoakum	1959	9,262	16	Wolfcamp, Permian								12,670	Devonian	40	1	1	0	0	1	17,992	18	
38	ELMAGAN (CLEAR FORK);Gaines	1949	7,153	55	Clear Fork, Permian	AC	DO	12	8	SGD	0.60	39	10,531	Devonian	1,200	30	0	0	0	24	202,986	2,409	
39	ELMAGAN (UPPER CLEAR FORK); Gaines	1950	6,455		Clear Fork, Permian	AC	LM	5	7	SGD		30	10,531	Devonian	3,280	82	0	0	0	81	633,309	2,644	
40	ELMAGAN (DEVONIAN); Gaines	1949	10,345	37	Devonian		DO				0.88	34	12,255	Ellenburger	80	2	0	0	1	1	45,600	812	
41	ELMAGAN (ELLENBURGER); Gaines	1949	12,174	132	Ellenburger, Ordovician		DO				0.19	41	12,158	Ellenburger	40	1	0	0	0	1	11,904	355	
42	ELAT ROCK (ELLENBURGER); Upton	1951	10,811	30	Ellenburger, Ordovician		DO				0.23	58	11,281	Ellenburger	160	4	0	2	1	1	14,691	508	
43	ELAT ROCK (SPRABERRY); Upton	1951	7,180	12	Spraberry, Permian		SS				0.15	37	11,281	Ellenburger	400	10	3	0	7	3	44,015	477	
44	ELKENCE; Runnels	1949	2,369	27	Serratt, Pennsylvanian		SS		21		0.11	45	4,151	Strawn	200	10	1	0	0	7	9,360	459	
45	ELORRY; Gaines	1950	12,100	135	Mississippian	AC	LM				0.10	41	14,150	Ellenburger	40	1	Abandoned	1954			0	5	
46	ELMELY (SAN ANDRES); Gaines	1953	5,150	52	San Andres, Permian		DO					26	12,805	Devonian	40	1	Abandoned	1953			0	.3	
47	ELMOCADA (PENNSYLVANIAN); Floyd	1952	7,600		Canyon, Pennsylvanian							39	7,784	Pennsylvanian	40	1	Abandoned	11-17-57			0	30	
48	ELMOC G. MILLER; Tom Green	1953	3,300	10	Cisco Lime, Pennsylvanian							32	6,200	Hickory Sand	120	3	0	0	0	3	9,931	53	
49	ELMUNIA; Borden	1951	8,173	22																			

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-13

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION		
			AVG TOP FT.	ESTIMATED PROD. THICK. FT.	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY API AVG	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
721	FORD (DELAWARE SAND); Reeves	1956	2,630	13	Delaware Sand, Permian	MC	SS	46	22	SGD		42	2,643	Delaware Sand	3,320	83	2	0	66	17	423,136	841
722	FORD CHADBOURNE; Coke-Runnels	1949	5,350	40	Strawn, Pennsylvanian	MC	LM	20	4	PMWI	0.04	45	5,812	Ellenburger	12,520	313	0	0	49	49	3,211,900	33,131
723	FORD CHADBOURNE (GARDNER); Coke	1954	5,315	22	Gardner, Pennsylvanian	AC	LM	6	5	WD		45	5,812	Ellenburger	80	2	1	0	0	2	10,353	119
724	FORD CHADBOURNE (GRAY); Runnels	1950	5,130		Strawn, Pennsylvanian	H	SS	78	9	SGD	0.23	38	5,452	Ellenburger	640	16	0	1	1	11	20,422	363
725	FORD CHADBOURNE (MORRIS SAND); Taylor	1956	4,570		Morris Sand, Pennsylvanian							39			120	3	0	0	0	3	31,871	137
726	FORD CHADBOURNE NORTHEAST; Coke	1952	5,258		Strawn, Pennsylvanian					Transferred from Ford Chadbourne Field					40	1	0	0	0	1	527	6
727	FORD CHADBOURNE NORTHWEST; Coke	1955	5,540	31	Pennsylvanian							43	5,925	Cambrian	80	2	Inactive at end of 1956			0	11	
728	FORD CHADBOURNE WEST; Coke	1949	5,358	7	Strawn, Pennsylvanian	AC	SS	78	12	SGD			5,480	Ellenburger	680	17	0	0	10	7	74,733	986
729	FORD CHADBOURNE WEST (CAMBRIAN); Coke	1954	5,722	5	Cambrian		SS		11		0.16	45	5,727	Strawn	40	1	Inactive at end of 1955			0	3	
730	FORD CHADBOURNE WEST (ELLENBURGER); Coke	1955	5,709	9	Ellenburger, Ordovician		DO					45	5,775	Ellenburger	40	1	0	0	0	1	1,487	11
731	FORD CHADBOURNE WEST (GARDNER); Coke	1954	5,328	25	Gardner Sand, Pennsylvanian	AC	LM		8	SGD		44	5,823	Ellenburger	160	1	0	0	0	1	166	20
732	FORD CHADBOURNE WEST (GARDNER); Coke	1954	5,429	24	Gardner, Pennsylvanian							44	6,352	Ellenburger	120	4	0	1	2	1	18,509	121
733	FORD CHADBOURNE WEST (GOEN-LIME); Coke	1951	(Renamed Goen May 1954)			AC	LM	200	10	WD												
734	FORD McAVITT (4270' LIME); Schleicher	1959	4,271	4	Strawn, Pennsylvanian								5,206	Pennsylvanian	120	3	3	0	2	1	31,546	32
735	FORD STOCKTON; Pecos	1944	2,840	55	Yates-Seven Rivers, Permian	AC	SS	82	18	SGD		36	4,903	Delaware	12,760	319	0	6	93	216	1,115,129	11,575
736	FORD STOCKTON (SEVEN RIVERS); Pecos	1957	2,968	93	Seven Rivers, Permian								4,903	Delaware	160	4	0	0	1	0	5,871	36
737	FORD STOCKTON (TANSILL); Pecos	1948	2,470	40	Tansill, Permian							32	4,903	Permian	80	2	0	0	0	2	3,757	146
738	FORD STOCKTON (LOWER YATES); Pecos	1953	3,072	6	Lower Yates Sand, Permian		SS					34	3,098	Yates Sand	40	1	0	0	0	1	4,741	45
739	FORD TERRETT RANCH (STRAWN); Sutton	1959	2,770	16	Strawn, Pennsylvanian								2,835	Strawn	40	1	1	0	1	0	6,608	7
740	FOSTER; Ector	1932	4,106	110	Grayburg, Permian	AC	DO	1007	12	SGD	1.1	36	5,575	Clear Fork	28,360	709	0	29	8	645	3,061,558	101,683
741	FOWEL (LOWER SPRABERRY); Dawson	1955	7,239	83	Lower Spraberry, Permian							39	7,627	Spraberry	80	2	Combined with Jo-hill Spraberry Feb. 1957					
742	FRADAN (ELLENBURGER); Upton	1959	10,145	35	Ellenburger, Ordovician								10,186	Ellenburger	40	1	1	0	1	0	17,690	18
743	FRAN-GLASS (PENNSYLVANIAN); Martin	1954	10,474	78	Pennsylvanian Lime		LM					49	10,612	Pennsylvanian	80	2	0	0	0	1	10,822	36
744	FREEMAN; Runnels	1948	3,358	70	Palo Pinto, Pennsylvanian		LM						4,259	Caddo	40	1	Abandoned 1949			0	6	
745	FREUND; Andrews	1946	10,446	69	Ellenburger, Ordovician								10,535	Ellenburger	40	1	Combined with Nelson Ellenburger 1947			6		
746	FROME; Pecos	1939	1,450	50	Queen-Grayburg, Permian		SS	35	19	WF		32	1,750	Grayburg	600	22	0	3	10	2	7,193	305
747	FUHRMAN (GLORIETA); Andrews	1950	5,592	20	Glorieta, Permian	AC	DO	45	9	SGD		29	5,622	Glorieta	1,920	48	0	1	0	47	247,605	2,103
748	FUHRMAN NORTHWEST (GLORIETA); Andrews	1954	5,586	260	Glorieta, Permian		DO		10			29	6,003	Glorieta	200	5	0	1	0	4	36,234	211
749	FUHRMAN WEST; Andrews	1941	4,458		Permian		DO					30			40	1	Combined with Fuhrman March 1943			57		
750	FUHRMAN-MASCHO; Andrews	1930	4,288	60	Grayburg-San Andres, Permian	AC	LM		10	SGD	0.42	30	11,960	Ellenburger	28,320	708	46	0	154	554	3,904,358	36,104
751	FUHRMAN-MASCHO (DEVONIAN); Andrews	1956	10,000	20	Devonian	AC	LM	1	9	SGD		44	12,650	Ellenburger	320	8	1	0	1	7	115,946	513
752	FUHRMAN MASCHO (ELLENBURGER); Andrews	1946	11,941	25	Ellenburger		DO					40	11,960	Ellenburger	40	1	Abandoned September 1948			0	4	
753	FULLER; Scurry	1951	5,149	20	Strawn, Pennsylvanian	AM		500	20	SGD		44	7,969	Ellenburger	600	15	0	0	10	5	146,762	1,728
754	FULLER (STRAWN B); Scurry-Kent	1951	7,211	4	Strawn, Pennsylvanian		SS		11			31	7,918	Ellenburger	40	1	0	0	0	1	1,724	18
755	FULLER SOUTHEAST (FULLER); Scurry	1957	5,031	4	Wolfcamp, Permian							39	5,037	Cisco Sand	160	4	1	0	2	2	31,659	113
756	FULLER SOUTHEAST (STRAWN C); Scurry	1955	7,372	12	Strawn C, Pennsylvanian							36	7,969	Pennsylvanian	40	1	0	0	0	1	5,235	29
757	FULLER SOUTHEAST (7100'-STRAWN); Scurry	1952	7,110	10	Strawn, Pennsylvanian		SS		11			34	7,967	Ellenburger	40	1	Inactive at end of 1958			0	20	
758	FULLER-COKE (STRAWN); Coke	1953	6,652	130	Strawn, Pennsylvanian		SS		11			43	6,825	Strawn	1,440	36	Combined with Jameson Strawn 1956			604		
759	FULLER-COKE NORTH; Coke	1954	7,088	17	Strawn, Pennsylvanian		SS		11			41	8,331	Ellenburger	40	1	Combined with Jameson Strawn April 1955			1		
760	FULLER-COKE SOUTH; Coke	1954	7,004	72	Strawn, Pennsylvanian		SS		11			44	8,113	Ellenburger	200	5	Combined with Jameson Strawn April 1955			52		
761	FULLER-COKE SOUTHEAST; Coke	1954	6,756	64	Strawn, Pennsylvanian		SS		11			45	7,110		40	1	Combined with Jameson Strawn April 1955			55		
762	FULLERTON; Andrews	1942	6,960	245	Permian	AC	DO	9	10	GI		40	10,828	Granite Wash	28,880	722	39	0	566	154	4,756,076	104,742
763	FULLERTON (UPPER CLEAR FORK); Andrews	1957	6,080	20	Clear Fork, Permian		DO		5			32	10,828	Granite Wash	880	22	8	0	0	22	147,253	236
764	FULLERTON (CONNELL); Andrews	1954	10,790	20	Connell, Ordovician		SS				0.21	36	11,105		40	1	Inactive at end of 1955			0	6	
765	FULLERTON (ELLENBURGER); Andrews	1945	9,867	78	Ellenburger, Ordovician		DO			WD	0.4	41	10,828	Granite Wash	320	8	0	0	0	2	37,199	1,405
766	FULLERTON (SAN ANDRES OIL); Andrews	1945	4,580	205	San Andres, Permian		DO		16		2.0	35	10,828	Granite Wash	680	17	3	0	3	14	108,371	212
767	FULLERTON (WICHITA ALBANY); Andrews	1948	7,890	35	Permian		DO					44	10,828	Granite Wash	160	4	Abandoned 12-21-57			0	89	
768	FULLERTON (WOLF CAMP); Andrews	1947	7,970	30	Wolfcamp, Permian	AC	LM				0.5	40	10,828	Granite Wash	160	4	0	0	1	1	15,052	175
769	FULLERTON (8500'); Andrews	1944	8,470	125	Devonian	AC	DO		8	WD	0.32	43	10,828	Granite Wash	3,320	83						

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-14

WELL NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. INT.	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SOLUTION VISC. (CENT.)	GRAVITY API, AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 '000 BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
761	G & W (DEVONIAN); Ector	1958	7,940	112	Devonian								10,085	Ellenburger	240	6	4	0	5	1	75,892	84
762	G & W (WICHITA ALBANY); Ector	1959	6,900	259	Wichita Albany, Permian								8,130	Devonian	80	2	2	0	1	1	4,458	4
763	GAIL NORTH (SPRABERRY); Borden	1957	5,974		Upper & Lower Spraberry, Permian	LM						41	9,842	Ellenburger	80	2	0	0	0	1	1,490	5
764	GAIL NORTH (WOLF CAMP); Borden	1949	5,730	15	Wolfcamp, Permian								8,231	Pennsylvanian	40	1	Abandoned	April 1953			0	3
765	GAIL SOUTH; Borden	1949	6,490	30	Wolfcamp, Permian	SS					0.22	35	8,015	Pennsylvanian	120	3	0	0	0	1	3,310	74
766	GAIL SOUTHWEST; Borden	1954	8,236	16	Canyon Reef, Pennsylvanian	Reef LM						44	8,236	Canyon Reef	40	1	Combined with Good Northeast Canyon Reef August 1954					3
767	GARDEN CITY (CLEAR FORK); Borden	1951	4,242		Clear Fork, Permian	DO						27			40	1	Transferred to Garner (Clear Fork) Field 4					
768	GARDEN CITY (FUSSELMAN); Glasscock	1946	9,740	12	Fusselman, Silurian								10,970	Granite	120	3	1	1	2	0	14,658	176
769	GARDEN CITY (PENNSYLVANIAN); Glasscock	1958	8,236	37	Pennsylvanian								9,859	Fusselman	40	1	0	0	1	0	1,894	9
770	GARDEN CITY SOUTHEAST; Glasscock	1952	6,131	80	Leonard, Permian	AC DO						39	6,211	Leonard	40	1	0	0	1	0	471	22
771	GARDEN CITY WEST (SPRAYBERRY); Glasscock	1959	6,550	60	Spraberry, Permian								10,890	Ellenburger	40	1	1	0	0	1	4,515	5
772	GARNER; Borden	1951	4,242	30	Clear Fork, Permian	DO						27	7,520	Pennsylvanian	40	1	Abandoned	1952			0	4
773	GARTHER; Howard	1949	8,190	40	Pennsylvanian-Mississippian	AC						41	8,542	Ellenburger	40	1	Abandoned	January 1953			0	3
774	GARZA; Garza	1938	2,804	50	San Andres-Permian	AC DO	27	25	SGD	0.51	38	3,608	San Andres	19,840	496	2	0	0	488	1,888,367	35,900	
775	GARZA (GLORIETA); Garza	1956	3,758	60	Glorieta, Permian	AC DO			9			38	3,834	Glorieta	840	21	1	0	2	18	164,388	555
776	GEORGE ALLEN (SAN ANDRES); Gaines	1956	4,934	32	San Andres, Permian								8,086	Tubb	80	2	0	0	0	2	11,691	41
777	GEORGE PARKS; Scurry	1951	6,130		Cisco Pennsylvanian												Combined with Kelly Snyder Cisco					151
778	GERALDINE FORD (OIL); Culberson	1957	2,556	6	Delaware Sand, Permian	MC SS	46	22	SGD		42	2,558	Delaware Sand	8,120	203	11	0	186	17	1,736,382	2,230	
779	GERMANIA; Midland	1950	7,121	115	Spraberry, Permian								7,460	Pennsylvanian	3,160	79	Combined with Spraberry Trend 5-53					1,791
780	GERMANIA (DEVONIAN); Midland	1958	11,294	116	Devonian	DO						47	11,639	Devonian	40	1	0	0	1	0	5,287	15
781	GERMANIA (GRAYBURG); Midland	1952	3,940	20	Grayburg, Permian	MC SS		22		1.9	34	7,252	Spraberry	920	23	0	0	0	22	155,846	842	
782	GERMANIA WEST; Midland	1953	10,239		Strawn Lime, Pennsylvanian	AC						44	10,589	Strawn Lime	40	1	Abandoned	1954			0	3
783	GERMIDE WOOD (GLORIETA); Crosby	1956	3,989	13	Glorieta, Permian							33	4,213	Clear Fork	40	1	0	0	0	1	3,126	19
784	GIBB; Crane	1948	2,735	40	Permian	AC DO		15				29	8,575	Devonian	240	6	0	0	0	5	5,578	136
785	GIBBECKE; Runnels	1949	1,780	22	Bunger, Pennsylvanian							35	3,647	Ellenburger	20	1	Abandoned	October 1953			0	2
786	GIRARD (TANNEHILL); Dickens	1953	4,414	10	Tannehill Sand, Permian	MC SS						36	4,535	Tannehill Sand	160	5	0	2	0	2	10,771	136
787	GIRVIN; Pecos	1949	4,753	24	Simpson, Ordovician	AC					0.20	46	5,100	Ellenburger	40	1	Inactive at end of	1958			0	14
788	GIRVIN (CLEAR FORK); Pecos	1950	3,085	36	Clear Fork, Permian								4,632	Ellenburger	40	1	Abandoned	1953			0	.6
789	GIRVIN SOUTH (TUBB); Pecos	1953	2,840	93	Tubb, Permian	AC SS						32	2,933	Clear Fork Lime	160	4	0	1	0	3	5,552	50
790	GIRVINTEX (TUBB); Pecos	1955	2,972	60	Tubb, Permian	AC						29	3,033	Tubb	40	1	0	0	0	1	1,734	10
791	GLADES COWDEN (STRAWN); Martin	1956	10,455	31	Strawn, Pennsylvanian								10,816	Pennsylvanian	40	1	0	0	0	1	4,903	22
792	GLASCO (DEVONIAN); Andrews-Gaines	1953	12,543	20	Devonian Lime	AC DO	200	14	WD	0.52	39	12,563	Devonian Lime	960	24	0	2	9	13	655,071	3,777	
793	GLASCO (STRAWN); Gaines	1959	11,140	48	Strawn, Pennsylvanian								12,690	Devonian	40	1	1	0	0	1	1,788	2
794	GLASCO NORTH (DEVONIAN); Gaines	1955	12,614	20	Devonian	AC DO						37	12,637	Devonian	80	2	0	0	1	0	16,438	152
795	GLASS (GRAYBURG); Martin	1952	4,260	70	Grayburg, Permian	AC						27	4,330	San Andres	40	1	Abandoned	1953			0	.2
796	GLASS (PENNSYLVANIAN); Martin	1951	10,450	80	Pennsylvanian	AC LM					0.04	46	12,661	Ellenburger	80	2	0	1	0	1	5,177	182
797	GLASS (SPRABERRY); Martin	1951	8,720	60	Spraberry, Permian	AC SS		10			0.09	38	12,915	Ellenburger	240	6	1	0	0	6	39,078	280
798	GLASS NORTH (WOLF CAMP); Martin	1953	9,000	20	Wolfcamp Lime-Sand, Permian	AC LM					0.09	39	13,140	Ellenburger	40	1	0	0	0	1	2,833	27
799	GOEN (LIME); Coke	1951	4,974		Goen Lime Pennsylvanian	LM					0.23	45			80	2	0	0	2	0	17,929	198
800	GOLDSMITH; Ector	1935	4,100	120	San Andres, Permian	AC DO	24	10	SGD	1.90	36	9,811	Ellenburger	44,560	1,114	2	0	668	358	6,532,697	157,837	
801	GOLDSMITH (CLEAR FORK); Ector-Andrews	1946	6,090	110	Clear Fork, Permian	AC DO	.81	11	SGD	0.47	41	9,811	Ellenburger	18,840	471	17	0	380	91	2,190,864	27,794	
802	GOLDSMITH (DEVONIAN); Ector	1947	7,980	60	Devonian	AC/F Cht		15	SGD	0.15	41	9,811	Ellenburger	1,480	38	1	0	30	8	527,555	2,318	
803	GOLDSMITH (ELLENBURGER); Ector	1947	9,495	70	Ellenburger, Ordovician	AC/F DO				0.20	47	9,811	Ellenburger	160	4	1	0	4	0	36,735	843	
804	GOLDSMITH (FIGURE 5 DEVONIAN); Ector	1956	7,760		Devonian	AC/F Cht		7	SGD	0.24	42	9,852	Ellenburger	840	21	Combined with Goldsmith Devonian 5-55					457	
805	GOLDSMITH (FUSSELMAN); Ector	1954	7,763	33	Fusselman, Silurian	AC LM	28	10				44	8,928	Ellenburger	1,080	27	3	0	17	10	273,597	1,836
806	GOLDSMITH (HOLT); Ector	1952	5,106	14	San Angelo, Permian	AC DO	P	11	SGD	0.75	38	6,320	Lime	1,160	29	0	0	3	22	70,822	1,310	
807	GOLDSMITH (PENNSYLVANIAN); Ector	1956	8,405	50	Pennsylvanian	AC LM	P	1	SGD		40	11,680	Ellenburger	40	1	0	1	0	0	0	8	
808	GOLDSMITH (5600'); Ector-Andrews	1947	5,600	100	Clear Fork, Permian	AC DO	28	15	SGD	0.47	41	9,811	Ellenburger	59,080	1,477	97	0	863	614	10,142,729	78,945	
809	GOLDSMITH EAST (GLORIETA); Ector	1955	5,136	7	Glorieta, Permian	AC						41	5,500	Glorieta	160	4	0	0	2	1	22,541	228
810	GOLDSMITH EAST (HOLT); Ector	1954	4,988	97	Holt, Permian	AC LM	12	5	SGD		38	5,085	Holt	200	45							

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-15

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL ACRES	NUMBER OF WELLS				WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. (AVG. FT. NET)	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT. ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT.	GRAVITY API AVE.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OH.		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS	
																	ABANDONED	FLOWING	ARTIFICIAL LIFT				
8-1	GOLDSMITH WEST (ELLENBURGER); Ector	1954	9,428	81	Ellenburger, Ordovician	AC	DO		4			44	9,509	Ellenburger	480	13	0	0	10	2	227,587	1,152	
8-2	GOLDSMITH WEST (FUSSELMAN); Ector	1954	8,294	32	Fusselman, Silurian	AC		34	14	WD		39	9,509	Ellenburger	600	15	1	0	11	4	215,131	997	
8-3	GOLDSMITH WEST (SAN ANDRES); Ector	1956	4,280	100	San Andres, Permian	AC	DO	3	6	SGD		36	5,800	Clear Fork	2,640	66	10	0	45	21	353,066	842	
8-4	GOLDSMITH WEST (WADDELL); Ector	1955	9,146	36	Waddell, Ordovician	AC						46	9,473	Ellenburger	80	2	1	0	2	0	9,482	56	
8-5	GOOD; Borden	1949	7,905	100	Pennsylvanian	REEF	LM	52	8	WD	0.25	43	8,010	Pennsylvanian	1,960	49	0	0	34	15	821,222	13,794	
8-6	GOOD NORTHEAST (CANYON REEF); Borden	1953	8,115	20	Canyon Reef, Pennsylvanian	REEF	LM		8	WD		43	8,236	Reef	360	9	1	0	5	4	106,977	794	
8-7	GOOD SOUTHEAST (CANYON REEF); Borden	1959	8,115	13	Canyon Reef, Pennsylvanian								9,736	Fusselman	120	3	3	0	3	0	58,503	59	
8-8	GOOD SOUTHEAST (FUSSELMAN); Borden	1958	9,716	20	Fusselman, Silurian		LM	84	5			43	9,919	Ellenburger	640	16	12	0	16	0	324,460	379	
8-9	GORDON STREET (WOLF CAMP); Martin	1959	9,292	5	Wolfcamp, Permian								11,195	Ellenburger	40	1	1	0	0	1	13,550	14	
8-10	GRASSROOTS; Pecos	1941	198	3	Recent-Upper, Permian							32	215	River Sand	240	6	2	0	0	6	45	2	
9-1	GRAYSON; Reagan	1928	3,000	25	San Andres, Permian	AC	DO			WD		32	9,967	Devonian	280	7	0	0	0	4	10,813	1,111	
9-2	GRACE (DELAWARE); Loving	1956	4,510	10	Delaware, Permian	ML	SS	M	24	SGD		41	4,520	Delaware Sand	2,200	55	17	0	46	9	495,775	802	
9-3	GRIMES SPRING (STRAWN); Reagan	1955	8,866	71	Strawn, Pennsylvanian							45	9,990	Ellenburger	40	1	0	0	0	1	273	3	
9-4	GULF McELROY; Crane		2,800												Combined with McElroy March 1941				0	4,829			
9-5	GULF McELROY; Crane	1953	3,960																				
9-6	GULF McELROY; Crane	1953	11,890	45	Ellenburger, Ordovician	AC	DO					48	12,012	Ellenburger	40	1	0	0	0	1	1,180	58	
9-7	H. A. T.; Schleicher	1953	3,406	4	Wolfcamp Lime, Permian		LM					31	7,155	Ellenburger	40	1	Abandoned				0	8	
9-8	H. E. A. (WOLF CAMP); Crane	1954	7,890	100	Wolfcamp, Permian	AC	LM		10			38	12,013	Ellenburger	40	1	Inactive at end of 1958				0	11	
9-9	H. E. A. (STRAWN); Tom Green	1954	5,502	10	Strawn, Pennsylvanian	AC	LM	139	9	WD		41	5,539	Strawn	1,040	26	0	0	20	5	388,462	2,450	
9-10	H. E. A. (6100' STRAWN); Tom Green	1954	6,122	6	Strawn, Pennsylvanian							36	7,071	Ellenburger	40	1	Abandoned March 1955				0	.8	
9-11	H. E. A. EAST (STRAWN REEF); Tom Green	1956	5,640	23	Strawn, Pennsylvanian							25	6,303	Detrital	40	1	0	0	0	1	107	9	
9-12	H. E. A. (GLORIETA); Scurry	1955	2,786	5	Glorieta, Permian								2,811	Glorieta	40	1	Renamed Berilo Glorieta			September 1956	2		
9-13	H. E. A. (LOWER O'BRIEN); Ward	1953	2,917	193	Lower O'Brien Sand, Permian	AC	SS	P-M	17	SGD	1.60	35	3,270	San Andres Lime	520	13	4	0	0	13	63,005	549	
9-14	H. E. A. NORTH (UPPER O'BRIEN); Ward	1955	2,370	128	O'Brien, Permian	AC	SS	P	12	SGD		37	2,533	San Andres	160	4	0	0	3	0	4,170	21	
9-15	HACKBERRY (GLORIETA); Garza	1958	4,235	10	Glorieta, Permian								4,298	Glorieta	40	1	0	0	0	1	3,675	8	
9-16	HACKBERRY (SAN ANDRES LOWER); Garza	1957	2,964	146	San Andres, Permian								4,760	Clear Fork	120	3	0	0	0	3	25,065	86	
9-17	HACKBERRY (SAN ANDRES UPPER); Garza	1957	3,658	10	San Andres, Permian								4,760	Clear Fork	40	1	0	0	0	1	7,750	16	
9-18	H. A. G. (SERRATT); Runnels	1955	2,210	4	Serratt Sand, Pennsylvanian		SS					47	2,214	Cisco	20	1	Abandoned March 1958				0	6	
9-19	HALL (CANYON); Runnels	1956	4,012	9	Canyon Sand, Pennsylvanian		SS					39	4,839	Ordovician	40	1	0	0	0	1	5,429	13	
9-20	HALL (CLEAR FORK); Irion	1959	818	12	Clear Fork, Permian								900	San Angelo	40	1	1	0	0	1	189	.2	
9-21	HALL; Crockett	1951	1,679	50	Queen, Permian	AC	DO					32	1,520	Grayburg	2,360	59	21	0	20	39	166,900	314	
9-22	HALL (1400'); Crockett	1952	1,394	17	Yates, Permian	AM	LS					30	1,411	Yates	80	2		Abandoned 1955			0	3	
9-23	HALL (UPPER GARDNER); Runnels	1953	3,843	5	Upper Gardner Sand, Pennsylvanian		SS					42	4,793	Ellenburger	200	5	0	0	1	4	4,778	123	
9-24	HALL (SAN ANDRES); Tom Green	1952	1,046	24	San Andres, Permian	AC	DO					34	1,150	San Andres	100	5	0	0	0	1	87	13	
9-25	HALLANAN (STRAWN); Midland	1952	10,570	81	Strawn, Pennsylvanian	AC	LM	12	7	SGD	0.07	49	11,223	Bend	1,360	34	3	0	25	9	409,990	2,250	
9-26	HALL; Winkler	1934	2,750	100	Yates-Seven Rivers, Permian	AC	DO	7	16	SGD		31	12,220	Ellenburger	3,760	94	0	10	26	58	298,941	4,345	
9-27	HALL (DEVONIAN); Winkler	1956	9,884	16	Devonian								12,220	Ellenburger	640	17	2	0	17	0	283,363	719	
9-28	HALL (ELLENBURGER); Winkler	1957	12,975	12	Ellenburger, Ordovician								12,220	Ellenburger	80	2	0	0	0	1	17,414	127	
9-29	HALL (ELLENBURGER) WEST; Winkler	1958	12,100	20	Ellenburger, Ordovician								12,120	Ellenburger	40	1	0	0	1	0	44,405	56	
9-30	HALL (GLORIETA); Winkler	1957	4,919	42	Glorieta, Permian	MC	DO	12	11	SGD		38	12,220	Ellenburger	600	15	0	0	13	2	168,295	388	
9-31	HALL (MONTOKA); Winkler	1956	10,350	50	Montoya, Ordovician								12,401	Ellenburger	560	14	3	3	11	0	135,984	735	
9-32	HALL EXTEN; Winkler	1943	3,150		Yates-Seven Rivers, Permian	AC	DO					31					Combined with Hallley Field 1944.						
9-33	H. A. P. (DEVONIAN); Gaines	1955	12,356	20	Devonian	AC						41	13,401	Ellenburger	80	2	0	0	2	0	34,218	220	
9-34	HAPPY (ELLENBURGER); Garza	1958	8,259	52	Ellenburger, Ordovician	AC	DO	24	4	WD		40	8,323	Ellenburger	200	5	1	0	4	1	332,772	399	
9-35	HAPPY (STRAWN); Garza	1958	7,951	14	Strawn, Pennsylvanian	AC		20	9			40	8,337	Ellenburger	160	4	7	0	0	4	138,807	200	
9-36	HAWAII (CLEAR FORK); Crosby	1957	4,375	18	Clear Fork, Permian								4,504	Clear Fork	80	2	Inactive at end of 1958				0	5	
9-37	HARKINS (GARDNER SAND); Runnels	1957	5,054	10	Gardner Sand, Pennsylvanian								5,287	Caddo	160	4	2	0	1	3	22,798	63	
9-38	HARPER; Ector	1934	4,100	75	Permian	AC	DO		10	SGD	1.2	35	4,518	San Andres	19,880	497	22	0	97	400	1,952,237	72,366	
9-39	HARPER WEST (PENNSYLVANIAN); Ector	1956	9,076	12	Pennsylvanian								12,584	Ellenburger	40	1	0	0	0	1	2,535	15	

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-8

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		FLOWING	ARTIFICIAL LIFT	DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED				
421	CLARK (GLORIETA); Sterling	1959	1,305	4	Glorieta, Permian							1,309	Glorieta	120	3	3	0	0	3	9,362	9	
422	CLARK (SAN ANDRES); Sterling	1949	890	8	San Andres, Permian	DO						36	1,400	Clear Fork	1,360	34	0	0	0	29	32,047	506
423	CLARKIRK (CROSS CUT);Runnels	1958	3,527	10	Cross Cut Sand, Pennsylvanian	AC	SS		13			40	4,015	Gardner	240	12	9	0	2	10	55,448	69
424	CLAUENE (CLEAR FORK);Hockley	1953	6,372	42	Clear Fork Lime, Permian	MC	LM					29	7,572	Spraberry Sand	40	1	0	0	0	1	6,242	8
425	CLAUENE (SAN ANDRES);Hockley	1953	5,093	53	San Andres, Permian	MC	DO	.16	9	SGD	2.18	31	7,572	Spraberry Sand	120	3	0	0	0	1	1,020	24
426	CLAYTON; Runnels	1948	3,750	6	Gardner Sand, Pennsylvanian		SS					37	3,781	Strawn	60	3	Abandoned	June 1954			0	14
427	CLYDE REYNOLDS; Glasscock	1959	1,883	8	Queen Sand, Permian								3,000	Glorieta	40	1	1	0	0	1	540	.5
428	COBB; Yoakum	1950	6,035	165	San Angelo, Permian	AC	DO					23	11,662	Ellenburger			Consolidated with Prentice Field 5-1-56					0
429	COBB (6700'); Yoakum	1950	6,626	129	Clear Fork, Permian								6,770	Clear Fork	280	7	Combined with Prentice 6700' November 1952					
430	COBLE; Hockley	1945	4,798	32	Permian								4,830	San Andres			Combined with Levelland 1947					
431	COCHRAN (DEVONIAN); Cochran	1954	11,861	9	Devonian		DO					37	12,742	Granite	40	1	Abandoned	5-6-57			0	20
432	COCHRAN (SAN ANDRES); Cochran	1954	5,008	46	San Andres, Permian		DO					31	5,054	San Andres	80	2	Abandoned	1955			0	3
433	COGDELL AREA; Kent-Scurry	1949	6,796	61	Pennsylvanian	Reef	LM	17	10	SGD	0.4	40	7,983	Canyon	11,960	420	0	24	96	182	5,944,066	62,436
434	COGDELL (FULLER SAND); Kent	1950	4,985	45	Wolfcamp, Permian	ML	SS		por			44	6,870	Pennsylvanian	480	12	0	0	0	6	39,798	771
435	COGDELL (SAN ANDRES); Kent	1951	1,475	95	San Andres, Permian		DO		14			36	7,687	Strawn	1,960	49	0	0	0	49	36,296	330
436	COGDELL (STRAWN); Kent	1951	7,323	7	Strawn, Pennsylvanian		LM					35	8,092	Ellenburger	120	3	0	0	0	2	6,613	160
437	COGDELL (WOLF CAMP); Scurry	1954	5,304	10	Wolfcamp, Permian		LM					42	5,314	Wolfcamp	40	1	0	0	0	1	7,804	47
438	COGDELL (4900'); Kent	1950	4,910	40	Wolfcamp, Permian	AC	LM		por		0.21	42	4,970	Cisco	360	9	0	0	0	8	11,931	731
439	COGDELL EAST (CANYON); Kent	1958	6,838	10	Strawn Reef, Pennsylvanian	ML	SS		por			44	6,912	Strawn	440	11	7	0	6	5	153,563	168
440	COGDELL EAST (COGDELL SAND); Kent	1952	4,537	35	Wolfcamp, Permian		SS					39	7,633	Ellenburger	320	8	0	5	0	3	7,716	193
441	COGDELL WEST (STRAWN);Scurry	1952	7,406	24	Strawn, Pennsylvanian		LM					42	7,550	Strawn	80	2	Abandoned	1955			0	7
442	COHN; McCulloch	1951			Strawn, Pennsylvanian		ML								20		Abandoned	1951			0	.08
443	COLEMAN RANCH; Mitchell	1946	2,560	60	Permian	AC	DO		25	GCD	2.8	24	2,770	Clear Fork	2,120	53	0	1	0	49	61,340	1,433
444	COLEMAN RANCH NORTH (CLEAR FORK); Mitchell	1953	3,050	16	Clear Fork Lime, Permian		DO	3	7	SGD		27	3,135	Clear Fork Lime	1,080	28	0	2	2	17	38,712	332
445	COLLINS; Scurry	1949	7,319		Strawn, Pennsylvanian		LM					41			40	1	Combined with Early Strawn 2-1954					7
446	CONCHO BLUFF; Crane	1956	4,386	8	Grayburg, Permian								4,440	Queen	40	1	Inactive at end of	1956			0	.3
447	CONCHO BLUFF (QUEEN); Crane	1956	4,130	20	Queen, Permian	AC	SS	35	16	SGD		31	14,435	Ellenburger	560	14	3	0	0	14	112,429	305
448	CONCHO BLUFF NORTH (QUEEN); Ector-Upton	1956	4,490	35	Queen, Permian	MC	SS	54	17	SGD		30	14,435	Ellenburger	1,560	39	8	0	0	39	237,261	482
449	CONDELL; Kent	1950	2,340	10	Clear Fork, Permian		DO					33	7,931	Ellenburger	80	2	Abandoned	1952			0	3
450	CONRAD (SAN ANDRES); Yoakum	1958	5,304	22	San Andres, Permian		DO					33	11,483	Devonian	40	1	0	0	0	1	787	2
451	COPE; Irion-Sterling	1952	5,065	56	Upper Spraberry, Permian		SS	24	14	SGD	0.16	39	5,185	Spraberry	1,720	43	0	10	13	20	183,213	2,520
452	CORAZON (SAN ANDRES); Scurry	1953	2,139	51	San Andres, Permian	AC	DO	P	17			33	8,307	Ellenburger	1,880	47	7	0	1	46	167,571	673
453	CORBERT (CLEAR FORK); Upton	1952	6,130	30	Clear Fork, Permian		DO				0.89	32	10,897	Ellenburger	40	1	0	0	0	1	1,814	48
454	CORBERT (ELLENBURGER); Upton	1957	10,502	8	Ellenburger, Ordovician	AC	DO	82		WD		43	10,550	Ellenburger	40	1	0	0	0	1	21,577	72
455	CORBERT SOUTH; Upton	1954	6,363	5	Wolfcamp, Permian		DO					45	6,855	Ellenburger	40	1	Inactive at end of	1954			0	1
456	CORDONA LAKE; Crane	1949	5,470	40	Devonian	AC	LM	15	17	SGD	0.4	40	5,768	Devonian	1,880	47	0	0	26	21	416,380	4,060
457	CORDONA LAKE (TUBB); Crane	1950	4,010	107	Tubb, Permian		LM			SGD		34	5,570	Tubb	40	1	Abandoned	1953			0	4
458	COROCO (CLEAR FORK); Terry	1952	8,304	32	Leonard, Permian		DO					29	13,245	Granite	80	2	0	0	0	1	10,751	52
459	COROCO (DEVONIAN); Terry	1954	12,685	9	Devonian							35	13,245	Granite	40	1	Abandoned	1955			0	3
460	COROCO (WOLF CAMP); Terry	1957	9,780	20	Wolfcamp, Permian								12,705	Devonian	40	1	Inactive at end of	1957			0	16
461	COROCO SOUTHEAST (SILURO-DEVONIAN); Terry	1955	12,742	10	Devonian		LM					34	12,802	Devonian	160	4	0	0	1	2	32,334	157
462	CORONET (SPRABERRY); Howard	1957	4,785	63	Lower Spraberry, Permian								5,690	Dean	40	1	Inactive at end of	1958			0	4
463	CORONET (2900'); Howard	1952	2,893	15	Glorieta, Permian		DO					19	7,769	Strawn	620	31	0	3	0	9	11,912	495
464	CORRIGAN; Terry	1950	11,475	67	Fusselman, Silurian	AC	LM	45	4	WD		35	12,094	Ellenburger	200	5	0	2	0	3	89,790	1,629
465	CORRIGAN (EAST FUSSELMAN); Terry	1953	11,622	18	Fusselman Lime, Silurian		LM					39	12,140	Ellenburger	120	3	1	0	0	3	66,169	594
466	CORRIGAN NORTH (PENNSYLVANIAN); Terry	1955	9,446	8	Pennsylvanian		LM					36	11,694	Siluro-Devonian	80	2	0	0	0	1	3,409	23
467	COTTON (SAN ANGELO); Irion	1959	1,254	3	San Angelo, Permian								1,333	San Angelo	40	1	1	0	0	1	2,090	2
468	COVINGTON (SAN ANDRES);Terry	1956	5,020	50	San Andres, Permian								5,070	San Andres	120	3	0	0	0	3	18,918	61
469	COWDEN (CISCO); Ector	1955	8,846	12	Cisco, Pennsylvanian		LM					41	9,570	Strawn	40	1	0	0	1	0	8,082	131
470	COWDEN NORTH; Ector	1930	4,150	200	Permian							33	10,829	Pennsylvanian	29,520	765	27	0	278	453	5,904,655	129,861
471	COWDEN NORTH (DEEP); Ector	1939	5,100	60	Permian	AC	DO	3	7		1.0	34	10,									

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-9

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVE. FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMP. LETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
481	C-RANCH (DEVONIAN); Andrews	1953	12,738	11	Devonian	AC	DO				56	12,883	Devonian	40	1	Abandoned	1955		0	14		
482	C-RANCH (WOLFCAMP); Andrews	1954	10,008	30	Wolfcamp, Permian	AC	LM			0.22	43	12,283	Ellenburger	40	1	Abandoned	1955		0	3		
483	CRANDELL; Pecos	1950	1,077	36	Yates, Permian	AC	DO		P		28	2,699	Queen	40	1	0	0	0	1	407	15	
484	CRANDELL (SAN ANGELO); Sterling	1953	1,469	4	San Angelo Lime, Permian		DO				32	1,533	Clear Fork, Lime	40	1	Abandoned	May 1953		0	.2		
485	CRANDELL (1450' SAN ANGELO); Sterling	1954	1,452	8	San Angelo, Permian							1,460	Glorieta	80	2	0	1	0	0	380	10	
486	CRANE-COWDEN; Crane-Upton	1926	2,000	60	Permian							3,000	San Andres	6,160	154	0	1	2	70	89,807	7,172	
487	CRANE DEVONIAN; Crane	1951	8,606	40	Devonian	AC	LM			SGD	0.10	44	8,706	Silurian	80	2	0	0	0	2	7,912	112
488	CRANE SOUTH (GRAYBURG); Crane	1955	2,400	18	Grayburg, Permian		DO				29	2,578	Grayburg	80	2	0	1	0	0	0	2	
489	CRANE SOUTH (PENNSYLVANIAN); Crane	1948	2,705	80	Pennsylvanian		DO				31	3,179	Pennsylvanian	40	Abandoned	1950			0	2		
490	CRANE SOUTHEAST (DEVONIAN); Crane	1957	5,600	22	Devonian							6,200	Fusselman	40	Abandoned	August 12, 1957.			0	2		
491	CRAVENS; Lubbock	1944	6,050	30	Permian		DO				29	8,800	Permian	120	3	Abandoned	December 1952.		0	32		
492	CRAWAR (DEVONIAN); Crane	1955	6,196	30	Devonian	D	CHT					6,541	Devonian	40	1	0	0	1	0	5,004	24	
493	CRAWAR (ELLENBURGER); Ward	1954	8,236	24	Ellenburger, Ordovician	AC	DO		2	WD	0.20	49	8,390	Ellenburger	440	11	0	5	4	0	26,907	388
494	CRAWAR (GLORIETA); Crane	1954	4,057	16	Glorieta, Permian		DO		8			34	4,150	Glorieta	80	2	0	0	1	1	4,930	45
495	CRAWAR (SAN ANDRES); Ward	1955	3,510	14	San Andres, Permian		DO					32	4,130	Glorieta	40	1	Inactive	at end of 1957		0	5	
496	CRAWAR (TUBB); Ward	1955	4,650	56	Tubb, Permian							39	8,300	Ellenburger	40	1	Inactive	at end of 1958		0	14	
497	CRAWAR (WADDELL); Ward	1955	7,645	55	Waddell, Ordovician			42	8	SGD		43	8,273	Ellenburger	280	7	0	0	4	3	86,886	441
498	CRAWAR EAST (TUBB); Crane	1958	4,790	35	Tubb, Permian							36	8,640	Ellenburger	40	1	0	1	0	0	2,253	14
499	CRAWAR NORTH (DEVONIAN); Ward	1958	6,450	30	Devonian	AC	DO		20			34	6,936	Devonian	200	5	3	0	4	1	76,145	95
500	CREE-SYKES (LOWER GARDNER); Runnels	1950	3,934		Lower Gardner, Pennsylvanian							4,850	Strawn	420	21	Combined	with Cree-Sykes Upper Gardner June 1956..			1,829		
501	CREE-SYKES (UPPER GARDNER); Runnels	1950	3,908		Upper Gardner, Pennsylvanian	MC	SS		15	WF	0.23	42		4,160	190	0	1	4	92	736,320	10,853	
502	CREE-SYKES (MORRIS); Runnels	1953	3,708		Morris, Pennsylvanian		SS					43		40	2	0	0	0	2	696	21	
503	CREE-SYKES EAST; Runnels	1950	3,855	14	Gardner Sand, Pennsylvanian		SS					39	4,367	Strawn	580	29	Combined	with Cree-Sykes Upper Gardner 1953			303	
504	CREE-SYKES EAST (FRY); Runnels	1953	3,707	4	Lower Fry Sand, Pennsylvanian		SS					39	3,890	Strawn	20	2	Abandoned	January 1955		0	1	
505	CREE-SYKES EAST (MORRIS); Runnels	1953	3,406		Morris, Pennsylvanian		SS					43		20	1	Abandoned	January 1956		0	12		
506	CREWS; Runnels	1946	3,904		Pennsylvanian							42		20	1	Abandoned	1952		0	1		
507	CREWS SOUTH (DOG BEND LIME); Runnels	1956	3,349	9	Dog Bend Lime, Pennsylvanian		LM						3,840	Strawn	20	1	0	0	0	1	1,822	5
508	CREWS SOUTH (DOG CREEK LIME); Runnels	1954	3,394	6	Dog Bend Lime, Pennsylvanian		LM					42	3,650	Pennsylvanian	20	1	0	0	0	1	852	6
509	CREWS SOUTH (LOWER FRY); Runnels	1952	3,656	8	Lower Fry, Pennsylvanian					WF			4,239	Strawn	560	28	0	0	0	19	89,986	1,159
510	CREWS SOUTH (UPPER GARDNER); Runnels	1952	3,843	4	Upper Gardner, Pennsylvanian	MC	SS	100	15	PM		42	4,205	Strawn	1,140	57	0	2	0	47	132,795	1,946
511	CREWS SOUTH (JENNINGS SAND); Runnels	1953	3,715	4	Jennings Sand, Pennsylvanian		SS					40		60	3	0	0	0	2	3,148	42	
512	CREWS SOUTH (KING SAND); Runnels	1954	2,166		King, Pennsylvanian		SS					43		60	3	Abandoned	January 1959		0	18		
513	CREWS SOUTHWEST (LOWER FRY); Runnels	1955	3,624	6	Lower Fry Sand, Pennsylvanian	ML	SS		16			44	3,895	Strawn	40	2	Inactive	at end of 1956		0	11	
514	CREWS WEST; Runnels	1951	3,754	7	Jennings Sand, Pennsylvanian		SS					41	4,258	Caddo	40	2	0	1	1	0	706	75
515	CREWS WEST (UPPER GARDNER); Runnels	1952	3,980	14	Upper Gardner, Pennsylvanian		SS		15			44	3,994	Gardner	120	6	Combined	with Crews South Upper Gardner March 1953			64	
516	CREWS WEST (KING SAND); Runnels	1952	2,260	14	King Sand, Pennsylvanian		SS	247	17			42	2,498	Sand	20	2	Abandoned	April 1956		0	24	
517	CROCKETT; Crockett-Upton	1938	1,370	80	Grayburg, Permian		DO			SGD		31	1,635	San Andres	4,240	106	0	1	0	90	82,030	2,391
518	CROCKETT EAST; Upton	1953	5,836	13	Wolfcamp Lime, Permian		LM					33	6,882	Ellenburger	40	1	Abandoned	1953		0	1	
519	CROSS (GLORIETA); Garza	1956	3,143	15	Glorieta, Permian								3,807	Clear Fork	40	1	Inactive	at end of 1957		0	1	
520	CROSSETT (DEVONIAN); Crane-Upton	1944	5,330	60	Devonian	MJ	LM	.2	21	SGD	0.12	45	6,710	Ellenburger	1,080	27	0	0	23	3	259,894	2,572
521	CROSSETT (PERMIAN LOWER); Crane	1950	5,085	25	Wolfcamp, Permian		LM					44	5,550	Devonian	40	1	Abandoned	1953		0	5	
522	CROSSETT 3000' (CLEAR FORK); Crane	1952	2,960	50	Clearfork, Permian		DO					41	5,502	Lime	120	3	0	0	1	1	13,379	161
523	CROSSETT (3200'); Crane	1944	3,190	45	Permian	MC	DO				0.45	45	6,710	Ellenburger	360	9	0	0	0	1	2,473	61
524	CROSSETT (3400'); Crane	1950	3,419	15	San Andres, Permian	MC	LM					51		40	1	Abandoned	March 1952		0	2		
525	CROSSETT SOUTH (DEVONIAN); Upton	1956	5,290	10	Devonian	AC		2	14	SGD		45	5,624	Devonian	680	17	5	0	15	2	139,995	239
526	CROTON CREEK (TANNEHILL); Dickens	1958	4,660	4	Tannehill, Permian		SS					36	6,625	Strawn	80	2	0	0	0	2	18,592	55
527	CULP (DEVONIAN); Cochran	1955	11,889	5	Devonian								11,902	Devonian	40	1	0	0	0	1	13,799	117
528	CURT-ROY (LOWER SAN ANDRES); Garza	1955	2,393	15	San Andres, Permian		DO					36	2,421	San Andres	80	2	0	0	0	2	5,084	37
529	CUTTY SARK (GARDNER); Runnels	1957	4,328	5	Gardner Sand, Pennsylvanian		SS					43	4,610	Caddo	40	1	0	0	0	1	5,724	12
530	C W (GLORIETA); Scurry	1956	2,756	6	Glorieta, Permian								2,820	Glorieta		Combined	with Revilo-Glorieta 9-1-56.				54	
531	D-L-S (CLEARFORK); Hockley	1954	6,550	28	Clearfork, Permian		DO					28	11,010	Bend	40	1	0	0	0	1	1,552	37
532	D-L-S (WOLFCAMP); Hockley	1953	8,495	12	Wolfcamp Lime, Permian		DO					29	11,010	Bend Lime	40	1	Abandoned	1955		0	11	
533	DALTON (PENNSYLVANIAN); Borden	1958	8,356	8	Pennsylvanian							38	8,741	Ellenburger	80	2	0	1	0	1	18,722	40
534	DAVENPORT; Coke	1949	5,369																			

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO.T-10

WELL NO.	FIELD, COUNTY	YEAR DISCOVERED	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL MOVEMENT, ACFT	NUMBER OF WELLS		WELLS PRODUCING DEC 1959		OIL PRODUCTION		
			AVG TOP FT.	ESTIMATED PRODUCTION, BBL/DAY	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, MD	POROSITY, PER CENT	ESTIMATED PRODUCTIVE MECHANISM	SULPHUR, PER CENT	GRAVITY, API	DEPTH OF HOLE, FEET	GEOLOGICAL FORMATION		COMPLETION TO END OF 1959	PERMITS		FLOWING	ARTIFICIAL LIFT	DURING 1959, BARRELS	TOTAL, BARRELS
																	CONFINED	UNCONFINED				
1	STANTON (DEVONIAN); Crane	1955	5,168	80	Devonian	AC	DO		3		0.09	40	6,722	Ellenburger	440	11	0	0	7	4	99,277	47
2	STANTON; Cochran	1937	4,990	40	Permian							30	6,621	Clear Fork			Combined with Slaughter 1947					
3	STANTON ROCK; Andrews	1930	4,400	100	Permian	AC	DO		4		0.55	44	7,626	Wichita-Albany	950	30	Transferred to Burkman Mascho-Mix 4400-Shafter Lake 1957				1,016	
4	STANTON ROCK (ELLENBURGER); Andrews	1954	12,252	26	Ellenburger, Ordovician	AC	DO	1	4	WD	0.55	44	12,394	Ellenburger		28	0	1	19	8	706,495	7,300
5	STANTON ROCK (GLORIETA); Andrews	1948	5,715	95	Permian	AC	LM		20			37	7,520	Permian	280	7	0	0	0	4	24,709	192
6	STANTON ROCK (5950' GLORIETA); Andrews	1954	5,940	50	Glorieta, Permian	AC	DO					36	6,034		600	15	2	0	0	15	161,184	900
7	STANTON ROCK (WOLF CAMP); Andrews	1957	8,620	26	Wolfcamp, Permian								13,320	Ellenburger	30	2	0	0	0	2	13,788	46
8	STANTON (TUBB); Crane	1956	4,400	75	Tubb, Permian		EO	2		SGD		35	7,530	Ellenburger	40	1	Inactive at end of 1958				0	4
9	STANTON (BRUSHY CANYON); Ward	1952	7,675	6	Brushy Canyon, Permian							33	7,709	Brushy Canyon	160	4	2	0	0	4	37,050	45
510	STANTON CREEK (SAN ANDRES); Gaines	1955	4,320	16	San Andres, Permian								4,640	San Andres	40	1	Plugged 1956				0	0
10	STANTON; Scurry	1949	3,200	40	Ellenburger, Ordovician		DO				0.2-	45	8,405	Ellenburger	40	1	Inactive at end of 1955				0	1-
11	STANTON COURTHOUSE (CISCO); Tom Green	1955	3,854	14	Cisco, Pennsylvanian	H	SS	F-IX	20			42	4,154	Swastika	30	2	0	0	0	2	17,153	108
12	STANTON "M" (CANYON); Scurry	1949	6,569	45	Pennsylvanian	Reef	LM	15	5	SGD	0.2	44	6,998	Canyon	18,840	171	0	201	141	125	7,117,318	11,322
13	STANTON "M" (CLEAR FORK); Scurry	1949	3,170	55	Clear Fork, Permian		DO		6		1.6	32	6,998	Canyon	3,000	75	1	0	0	75	149,238	1,400
14	STANTON "M" (SAN ANDRES); Scurry	1950	2,430	27	San Andres, Permian	MC	LM		P	SS		35	6,998	Canyon	2,440	61	2	0	0	61	192,274	334
15	STANTON "M" (WOLF CAMP); Scurry	1952	5,310	25	Wolfcamp, Permian	AC	LM	378	8	SGD	0.32	44	6,832	Canyon	600	16	0	2	5	7	129,427	1,946
16	STANTON (STRAWN SAND); Mculloch	1957	1,810	8	Strawn Sand, Pennsylvanian								1,853	Strawn Sand	80	1	0	0	0	4	5,449	33
17	STANTON (DELAWARE); Loving	1957	4,602	13	Delaware Sand, Permian	Hose	SS	P	22			38	4,613	Delaware Sand	230	7	4	0	3	4	25,901	35
18	STANTON; Reeves	1948	3,835	70	Permian	Ferr	SS				0.2	35	4,002	Delaware Sand	560	14	0	0	1	3	13,503	461
19	STANTON (STRAWN); Mitchell	1953	6,234	20	Strawn Reef Sand, Pennsylvanian		LM					41	6,400	Strawn	80	2	0	1	0	0	315	45
20	STANTON; Ward	1936	2,536	25	Permian		SS					37	2,600	Whitehorse	40	1	Transferred to Ward (South) Field 7-9-57				0	57
21	STANTON; Mitchell	1949	7,984	5	Ellenburger, Ordovician	DO					0.21	45	8,004	Ellenburger	50	2	Plugged and Abandoned 7-9-57				0	55
22	STANTON (CLEAR FORK); Mitchell	1955	2,975	35	Clear Fork, Permian	DO						39	3,010	Clear Fork	280	7	1	1	0	6	6,136	53
23	STANTON; Concho	1940	3,720	13	Strawn Lime, Pennsylvanian	LS			10			44	3,733	Strawn	40	1	Inactive at end of 1957				0	7
24	STANTON (CLEAR FORK); Andrews	1949	6,545	105	Clear Fork, Permian	AC	DO	9	10	SGD	0.4	39	8,792	Devonian	3,960	99	0	1	50	45	848,206	11,440
25	STANTON (DEVONIAN); Andrews	1945	7,900	120	Devonian	AC/F	LM	39	12	SS	0.6	38	10,245	Ellenburger	5,440	136	0	1	100	27	861,950	11,571
26	STANTON (ELLENBURGER); Andrews	1947	9,975	200	Ellenburger, Ordovician	AC	DO	4	2	WD	0.15	43	10,425	Ellenburger	1,920	48	0	2	17	22	447,264	12,318
27	STANTON (SILURIAN); Andrews	1947	8,320	100	Silurian	AC/F	DO	8	5	WD	0.36	42	10,425	Ellenburger	2,480	62	0	0	19	35	780,660	14,357
28	STANTON EAST (DEVONIAN); Andrews	1949	10,186	15	Devonian	DE			4		0.3	39	11,244	Fusselman	160	4	0	0	3	0	45,833	373
29	STANTON EAST (ELLENBURGER); Andrews	1959	12,583	27	Ellenburger, Ordovician								12,332	Ellenburger	240	6	6	0	6	0	200,770	501
30	STANTON EAST (SILURIAN); Andrews	1949	11,000	28	Silurian	DO			2		0.3	41	11,244	Fusselman	120	3	1	0	3	0	33,238	151
31	STANTON EAST (WOLF CAMP); Andrews	1956	8,350	25	Wolfcamp, Permian								11,200	Devonian	40	1	Inactive at end of 1956				0	1
32	STANTON (FRY); Runnels	1954	3,595	8	Fry Sand, Pennsylvanian	SS						41	3,920	Pennsylvanian Sand	20	1	Abandoned January 1956				0	1
33	STANTON (CISCO); Ector	1955	8,445	41	Cisco, Pennsylvanian							39	12,838	Ellenburger	50	2	0	1	0	1	9,947	125
34	STANTON (GRAYBURG); Ector	1950	4,020		Grayburg, Permian	DO						33			40	1	0	0	0	0	0	2
35	STANTON (GLI); Ector	1950	5,380	110	San Angelo, Permian	AC	DO					30	12,838	Ellenburger	440	11	2	0	4	7	88,954	235
36	STANTON (SAN ANDRES); Ector	1950	4,389	50	San Andres, Permian	AC	DO	15	13	SGD		36	5,825	San Andres	2,400	61	9	0	14	46	309,569	1,759
37	STANTON (GRAYBURG); Ector	1956	4,060	105	Grayburg, Permian		DO					33	4,430	Grayburg	80	2	0	1	0	1	5,733	30
38	STANTON (DEVONIAN); Midland-Ector	1955	12,010	280	Devonian	AC/F	LM		6	SGD		47	12,861	Ellenburger	960	24	1	2	18	0	222,518	284
39	STANTON (ELLENBURGER); Midland-Ector	1954	12,835	177	Ellenburger	AC/F	DF	630	3	SGD	0.07	52	13,012	Ellenburger	2,000	50	0	0	41	9	1,960,550	9,396
40	STANTON (PENNSYLVANIAN); Midland	1955	10,116	121	Pennsylvanian	AC	LM	5	9			43	13,035	Ellenburger	640	16	0	4	10	0	37,755	254
41	STANTON (STRAWN); Midland	1955	9,769	50	Strawn, Pennsylvanian	AC	LM			SGD		50	11,634	Devonian	120	3	0	0	1	0	7,164	174
42	STANTON (SHALLOW); Kimble	1954	1,072										1,127	Pennsylvanian		Inactive at end of 1955				0	2	
43	STANTON (QUEEN SAND); Ward	1955	2,287	4	Queen, Permian		SS					36	2,291	Queen	240	6	0	0	0	6	10,741	63
44	STANTON (GLORIETA); Garza-Scurry	1950	2,530	15	Glorieta, Permian	AC							2,646	Glorieta	6,640	166	0	0	0	166	584,897	4,732
45	STANTON (SAN ANDRES); Garza-Scurry	1956	1,904	9	San Andres, Permian	AC	SS	10	15	SGD			2,646	Glorieta	1,920	48	1	3	0	45	91,094	323
46	STANTON (CANYON); Gaines	1949	8,850	100	Canyon, Pennsylvanian	AC	LM	.5	10	SGD	0.19	46	11,881	McKee	400	10	0	1	0	7	39,266	1,377
47	STANTON (CLEAR FORK); Gaines	1944	7,030	50	Clear Fork, Permian	D	DO	.1	5	SGD		34	10,255	Wolfcamp	2,120	53	Combined with Robertson Lower Clearfork 1956				3,437	
48	STANTON (GRAYBURG); Ector	1955	4,481	32	Grayburg, Permian	MC	DO	27		SGD		33	4,517	Grayburg	2,000	50						

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-II

No.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVE. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY PER CENT. ESTIMATED	PRODUCTION MECHANISM	SULPHUR FT. CNT.	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		FLOWING	ARTIFICIAL LIFT	DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED				
601	DUNE; Crane	1938	3,130	170	San Andres, Permian	AC	DO	7	13	SGD	1.48	32	11,400	Ellenburger	25,960	649	13	0	265	384	4,219,493	15,179
602	DUNE (WADDELL); Crane	1959	11,680	50	Waddell, Ordovician								11,969	Waddell	40	1	1	0	0	1	924	.9
603	DUNE (WOLFCAMP); Crane	1957	7,710	50	Wolfcamp, Permian	MC	LM	EX	9	SGD		41	11,350	Ellenburger	720	18	3	0	5	13	355,026	607
604	DUNE EAST; Crane	1952	8,352	11	Cisco, Pennsylvanian		LM					42	9,510	Bend	40	1	Abandoned	December	1955		0	19
605	DUNE EAST (WOLFCAMP); Crane	1956	8,278	10	Wolfcamp, Permian								9,510	Canyon	40	1	Abandoned	August	1956		0	2
606	DUNE SOUTHEAST; Crane	1954	3,520	273	San Andres, Permian	MC	DO	7	13			32	12,158	Ellenburger	880	22	0	0	0	21	60,465	502
607	DUNIGAN (ELLENBURGER); Borden	1958	8,737	13	Ellenburger, Ordovician	AC	DO					41	8,750	Ellenburger	200	5	2	0	2	3	191,471	251
608	DUNIGAN (STRAWN); Borden	1958	8,442	5	Strawn, Pennsylvanian	AC	LM	18	14			40	8,750	Ellenburger	120	3	1	0	2	1	144,840	203
609	DUNE; Mitchell	1949	7,565	20	Pennsylvanian						0.1	47	8,325	Ellenburger	40	1	Abandoned	February	1953		0	11
610	DURHAM; Sterling	1950	1,404	16	San Andres, Permian	AC	LM					33	1,500	San Andres	1,160	29	1	1	0	26	18,278	218
611	DURHAM (YATES); Sterling	1955	627	10	Yates, Permian			4	20			33	1,500	San Andres	160	4	2	0	0	4	1,207	4
612	DURHAM WEST; Sterling	1953	1,452	4	San Andres Lime, Permian		DO					33	1,477	San Andres Lime	40	1	Combined with Durham April 1954				.09	
613	DUSEK (CANYON SAND); Tom Green	1956	4,012	6	Canyon Sand, Pennsylvanian								5,028	Ellenburger	200	4	0	1	2	1	5,937	60
614	EARLY (STRAWN); Scurry	1949	7,520	25	Des Moines, Pennsylvanian		LM				0.40	36	7,548	Strawn	120	3	0	0	0	1	17,288	185
615	EARNEST (6500' SAND); Scurry	1956	6,478	10	Canyon, Pennsylvanian								7,045	Strawn	280	7	0	1	0	6	21,973	63
616	FAVES; Winkler	1937	2,967	30	Yates-Seven Rivers, Permian		SS			WD		28	3,185	Whitehorse	450	28	0	1	1	8	26,297	4,314
617	FLEM; Concho	1945	4,216	20	Pennsylvanian								5,010	Ellenburger	160		Abandoned 1957				0	22
618	FLOTTA (CANYON); Coke	1958	6,219	6	Canyon, Pennsylvanian							40	6,522	Strawn	40	1	0	0	1	0	4,302	10
619	FMISSION (CLEAR FORK); Lubbock	1957	5,070	76	Clear Fork, Permian								11,202	Ellenburger	120	3	1	0	0	3	6,736	17
620	EDWARDS; Crane-Ector	1936	3,400	40	San Andres, Permian	AC	DO	3	5	SGD		32	12,516	Ellenburger	5,160	129	5	0	41	68	643,538	3,142
621	EDWARDS (ATOKA); Crane	1957	9,153	54	Atoka Lime, Pennsylvanian								12,516	Ellenburger	40	1	0	0	0	1	7,242	30
622	EDWARDS O4 (CONNELL SAND); Crane	1956	11,785	40	Connell, Ordovician	AC	SS					47	12,070	Ellenburger	120	3	0	1	0	2	21,537	179
623	EDWARDS O4 (ELLENBURGER); Crane	1957	11,845	50	Ellenburger, Ordovician	AC	DO					49	12,070	Ellenburger	40	1	0	0	1	0	15,192	54
624	EDWARDS O4 (WADDELL); Crane	1959	11,710	36	Waddell, Ordovician								11,975	Ellenburger	40	1	1	0	0	1	4,773	5
625	EDWARDS NORTH (SAN ANDRES); Ector	1955	4,284	36	San Andres, Permian	MC	DO		7	SGD		34	4,385	San Andres	480	13	Combined with Double E Grayburg 1959				77	
626	EDWARDS RANCH (CLEAR FORK); Crane	1952	4,850	130	Lower Clear Fork, Permian		SS					36	4,774	Ellenburger	40	1	0	0	0	1	4,637	22
627	ED WILLOUGHBY (700'); Schleicher	1954	712	7	San Angelo Sand, Permian							33	775	San Angelo	40	1	Abandoned 1954				0	.2
628	EIDELRACK (ELLENBURGER); Tom Green	1955	6,603	14	Ellenburger, Ordovician		DO					48	6,617	Ellenburger	40	1	Abandoned 1957				0	10
629	EILAND; Scurry	1950	8,182	8	Ellenburger, Ordovician		LM			DF	0.5	41	8,230	Ellenburger	40	1	Abandoned May 1951				0	2
630	EITHERWAY (DELAWARE); Culberson	1959	2,442	28	Delaware, Permian								2,563	Delaware	40	1	1	0	0	1	1,233	1
631	ELDORADO; Schleicher	1948	4,072	20	Wolfcamp, Permian		LM				0.45	35	7,212	Ellenburger	200	5	0	2	0	3	4,976	157
632	ELIZA BAKER (STRAWN); Tom Green	1955	6,398	10	Strawn, Pennsylvanian							48	6,703	Ellenburger	40	1	0	0	1	0	5,529	46
633	ELIZA BAKER NORTH (CADD0); Tom Green	1958	6,389	72	Caddo, Pennsylvanian							47	6,680	Ellenburger	40	1	0	0	1	0	13,865	20
634	ELKHORN (ELLENBURGER); Crockett	1951	7,186	50	Ellenburger, Ordovician	AC/F	DO	22	2	WD		40	7,236	Ellenburger	2,040	1	0	0	3	46	413,609	7,734
635	EL MAR (DELAWARE); Loving	1959	4,540	6	Delaware, Permian								4,674	Delaware	2,560	64	64	0	64	0	211,440	211
636	ELLWOOD (MISSISSIPPIAN); Mitchell	1955	7,775	20	Mississippian	AC	CH			SGD		42	7,898	Ellenburger	40	1	0	0	0	1	2,368	18
637	ELM CREEK (FRY); Runnels	1950	3,695		Fry, Pennsylvanian		SS		por			44	4,612	Ellenburger	10	1	Abandoned August 1953				0	11
638	ELM CREEK (GRAY); Runnels	1950	3,958	10	Gray Sand, Pennsylvanian		SS		por	WF	0.23	41	4,612	Ellenburger	320	16	0	0	0	1	2,573	267
639	ELM CREEK (JENNINGS); Runnels	1958	4,001	6	Jennings Sand, Pennsylvanian		SS					45	4,108	Gardner	40	1	0	0	1	0	6,668	14
640	ELM CREEK (PALO PINTO); Runnels	1952	3,348	14	Palo Pinto, Pennsylvanian		LM					42	4,041	Shale	40	2	0	0	0	0	0	18
641	ELM CREEK (SERRATT); Runnels	1954	2,448		Serratt, Pennsylvanian		SS					42			20	1	0	0	1	0	1,760	3
642	ELM CREEK (FRY) NORTH; Runnels	1955	3,737	4	Fry Sand, Pennsylvanian		SS					42	4,033	Strawn	20	1	0	0	0	1	3,627	34
643	ELM CREEK SOUTH (McMILLIAN); Runnels	1953	2,601	4	McMillian Sand, Pennsylvanian		SS					40	2,605	Cisco	100	5	3	0	1	4	12,272	34
644	ELM CREEK SOUTH (SERRATT); Runnels	1959	2,414	5	Serratt Sand, Pennsylvanian								2,622	McMillian	40	2	2	0	0	2	7,162	7
645	ELIZON (REEF); Kent	1958	6,800	18	Pennsylvanian, Reef		LM					41	7,200	Mississippian	40	1	0	0	1	0	2,399	6
646	EMBAR (DEVONIAN); Andrews	1954	9,346	24	Devonian		LM		9	SGD		46	9,860		160	4	0	0	3	1	64,912	498
647	EMBAR (ELLENBURGER); Andrews	1942	7,850	85	Ellenburger, Ordovician	AC	DO	1000	4	WD	0.20	46	8,374	Pre-Cambrian	960	24	0	0	0	24	600,675	17,883
648	EMBAR (FUSSELMAN); Andrews	1956	8,204	34	Fusselman, Silurian							40	9,417	Ellenburger	40	1	0	0	0	1	4,941	24
649	EMBAR (GRAYBURG); Andrews	1956	4,180	64	Grayburg, Permian							34	10,500	Ellenburger	80	2	Inactive at end of 1958				0	6
650	EMBAR (PERMIAN); Andrews	1942	6,225	85	Clear Fork, Permian			25	8			42	8,374	Pre-Cambrian	2,520	63	1	0	44	19		

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-1

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS						CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS COMPLETED TO END OF 1959	WELLS PRODUC- ING DEC. 1959		OIL PRODUCTION		
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEA- BILITY, md.	POROSITY, PER CENT.	ESTIMATED PRODUCTION MECHANISM	SULPHUR PER CENT.	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION	1959			OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS	
															COM- PLET- ED			ABAN- DONED	FLOW- ING			ARTIFI- CIAL LIFT
1	AAKER (CONNELL); Crane	1957	9,747	47	Connell, Ordovician							47	9,905	Ellenburger	40	1	Abandoned	1958		0	3	
2	ABELL; Pecos	1940	5,357	40	Simpson, Ordovician	AC/F	DO		3	SGD	0.40	42	6,610	Ellenburger	4,280	108	0	3	11	41	197,711	10,366
3	ABELL (BYERLY); Pecos	1950	4,915	25	Permian	AC	LM					41	5,814	Ellenburger	80	2	0	0	0	1	476	24
4	ABELL (CLEAR FORK); Pecos	1950	3,365		Clear Fork, Permian	AC	DO		3			35	3,850	Clear Fork	320	8	0	1	4	3	23,920	69
5	ABELL (CONNELL); Crane	1954	5,670	95	Connell, Ordovician	AC/F	SS					41	5,897	Ellenburger	80	2	1	1	0	1	5,540	15
6	ABELL (DEVONIAN); Crane	1953	5,245		Devonian	MU	CHT	P	22	SGD		41	6,780	Ellenburger	680	17	0	0	15	2	194,718	1,302
7	ABELL (McKEE UPPER); Pecos	1949	5,470 4,944	10	McKee, Ordovician	AC/F	SS		10		0.56	39	5,940	Simpson	40	1	Abandoned	1955		0	4	
8	ABELL (PERMIAN UPPER); Pecos	1947	3,155	10	Permian	AC	DO				1.5	34	5,884	Ellenburger	80	2	0	0	1	0	812	10
9	ABELL (SILURIAN-MONTOYA); Pecos	1948	4,936	10	Fusselman, Silurian	AC/F	DO	100	9	SG	0.60	40	5,790	Silurian	1,640	47	0	1	30	10	469,759	6,895
10	ABELL (2200 PERMIAN); Pecos	1941	2,200	50	Permian	AC	DO				0.60	35	6,483	Ellenburger	1,640	34	0	0	0	10	25,272	1,143
11	ABELL (3200); Crane	1958	3,208	8	Glorieta, Permian	AC	DO					34	5,146	Montoya	120	3	0	0	1	2	26,094	47
12	ABELL (3800) PERMIAN; Pecos	1941	3,909	50	San Andres, Permian	AC	DO				0.40	34	5,745	Pre-Cam	440	11	0	0	4	5	18,750	302
13	ABELL EAST (CLEAR FORK); Pecos	1959	3,354	28	Clear Fork, Permian								6,040	McKee	80	2	2	0	2	0	5,882	6
14	ABELL EAST (McKEE); Pecos	1956	5,415	23	McKee, Ordovician			EX	16	SGD		42	6,610	Ellenburger	600	15	2	0	13	2	149,404	411
15	ABELL EAST (WADDELL); Pecos	1950	6,029		Waddell Sand, Ordovician	AC/F	SS	169	9	SGD	0.11	44	6,030	Waddell	520	13	0	0	5	5	12,121	262
16	ABELL EAST (WADDELL W. SEG.); Pecos	1957	6,049	51	Waddell, Ordovician								6,610	Ellenburger	1,200	30	4	0	22	8	233,669	575
17	ABELL NORTH (SAN ANDRES); Pecos	1950	2,426	15	San Andres, Permian	AC	DO		15			36	2,433	San Andres	320	8	0	0	0	6	18,725	284
18	ABELL NORTHEAST (CLEAR FORK); Crane	1955	3,941	74	Clear Fork, Permian								6,665	Ellenburger	200	5	1	0	1	4	9,990	69
19	ABELL NORTHWEST (McKEE); Pecos	1949	5,482	6	Simpson, Ordovician	AC/F	SS		10		0.35	42	6,010	Simpson	720	18	0	1	9	8	63,265	1,097
20	ABELL NORTHWEST (SAN ANDRES); Crane	1955	2,402	43	San Andres, Permian	AC							6,010	McKee	80	2	0	0	0	1	4,422	29
21	ABELL SOUTH (ELLENBURGER); Pecos	1951	5,837	145	Ellenburger, Ordovician	AC/F	DO					42	6,076	Ellenburger	80	2	0	0	0	1	2,085	44
22	ABELL SOUTH (SAN ANDRES); Pecos	1950	2,438		San Andres, Permian	AC	DO					32	6,076	Ellenburger	120	3	0	1	0	1	2,358	63
23	ABELL SOUTHEAST (CLEAR FORK); Pecos	1951	3,850	47	Clear Fork, Permian	AC	DO					38	6,076	Ellenburger	400	10	1	0	4	6	27,760	159
24	ABELL SOUTHEAST (McKEE); Pecos	1951	5,175	8	McKee, Ordovician	AC/F	SS				0.28	42	6,076	Ellenburger	200	5	0	0	0	1	2,824	362
25	ABELL WEST (ELLENBURGER); Pecos	1957	6,227	15	Ellenburger, Ordovician								6,282	Ellenburger	40	1	0	0	0	1	221	3
26	ACKERLY (DEAN SAND); Dawson	1954	9,281	19	Dean, Permian	H	SS		8			38	9,348	Dean	560	14	0	2	0	12	106,346	465
27	ACKERLY (PENNSYLVANIAN); Martin	1953	9,486	17	Pennsylvanian								9,562	Pennsylvanian	120	3	Abandoned	1956		0	28	
28	ACKERLY EAST (PENNSYLVANIAN); Borden	1955	9,027	18	Pennsylvanian								9,216	Pennsylvanian	40	1	Abandoned	1955		0	5	
29	ACKERLY NORTH (CANYON REEF); Dawson	1958	9,175	3	Canyon, Pennsylvanian	MC	LM					40	9,250	Pennsylvanian	40	1	0	0	0	1	9,490	19
30	ACKERLY NORTH (DEAN SAND); Dawson	1957	8,200	112	Dean, Permian								9,200	Reef	80	2	0	0	0	2	8,934	37
31	ACKERLY NORTH (PENNSYLVANIAN); Dawson	1958	9,276	6	Pennsylvanian Reef							38	9,300	Pennsylvanian	40	1	0	0	0	1	23,619	50
32	ACKERLY SOUTH (DEAN); Martin	1954	8,230	66	Dean, Permian	H	SS					38	9,562	Pennsylvanian	40	1	Abandoned	1954		0	1	
33	ACKERLY SOUTHEAST (DEAN SAND); Borden	1955	8,215	37	Dean, Permian							38	9,216	Pennsylvanian	240	6	0	0	0	3	12,018	72
34	ADAIR; Gaines-Terry	1947	4,870	60	San Andres, Permian	AM	LM		11			33	4,955	San Andres	4,703	118	1	0	0	108	530,556	9,381
35	ADAIR (WOLFCAMP); Terry	1950	8,500	60	Wolfcamp, Permian	Reef	DO	28	12	PM	0.40	44	12,465	Devonian	2,430	63	0	0	0	57	1,301,673	13,057
36	ADAIR NORTHEAST (WOLFCAMP); Terry	1954	8,846	18	Wolfcamp, Permian		LM	20	11	SGD		44	8,940	Wolfcamp	320	8	0	0	0	6	90,324	702
37	ADAMC (DEVONIAN); Upton	1953	10,490	40	Devonian	AC	DO		12	SGD	0.10	47	12,762	Ellenburger	600	15	0	0	14	1	276,291	1,498
38	ADAMC (ELLENBURGER); Upton	1953	11,575	100	Ellenburger, Ordovician	AC/F	DO				0.07	43	12,017	Ellenburger	80	2	0	0	2	0	53,288	588
39	ADAMC (SILURIAN); Upton	1953	10,643	10	Silurian Lime	AC/F	DO		9		0.08	43	12,017	Ellenburger	120	3	0	0	2	0	44,931	317
40	ADCOCK; Dawson	1951	10,605	10	Siluro-Devonian		DO		3			41	10,888	Ellenburger	80	2	0	1	0	1	15,477	200
41	ADDIS (DEEP); Ector	1947	8,495	78	Pennsylvanian								13,620	Ellenburger	40	1	0	1	0	0	0	36
42	ADDIS (SAN ANDRES); Ector	1953	4,264	76	San Andres Lime, Permian	AC	DO					34	4,340	San Andres	1,040	28	0	0	0	26	128,054	429
43	ADDIS (STRAWN); Ector	1948	9,205	20	Pennsylvanian	AC	LM				0.25	38	9,235	Pennsylvanian	120	3	0	0	0	2	12,034	319
44	ADDIS (WOLFCAMP); Ector	1953	8,725	17	Wolfcamp Lime, Permian	AC	LM					34	12,015	Silurian Sand	80	2	0	0	0	2	8,047	74
45	ALBAUGH (FUSSELMAN); Mitchell	1954	8,465	5	Fusselman, Silurian	MU	LM					41	8,797	Ellenburger	120	3	0	0	1	1	1,669	83
46	ALBAUGH (PENNSYLVANIAN); Mitchell	1953	6,520	25	Canyon Lime, Pennsylvanian		LM					40	8,542	Ellenburger	40	1	Abandoned	1956		0	2	
47	ALBAUGH (YATES SAND); Mitchell	1956	1,195	12	Yates, Permian				18			32	8,542	Ellenburger	440	11	Combined with Howard-Glasscock		1958		7	
48	ALDRIDGE; Runnels	1949	3,901	10	Gardner, Pennsylvanian								4,651	Ellenburger	380	19	Combined with Goldsboro		Gardner-Coleman Co. 1955		284	
49	ALDRIDGE (JENNINGS); Runnels	1953	3,876	16	Jennings, Pennsylvanian										</							

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-2

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG TOP FT	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY API AVG	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		FLOWING	ARTIFICIAL LIFT	DURING 1959 BARRELS	TO END OF '59 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED				
61	AMACKER-TIPPETT (DETRITAL); Upton	1959	9,586	63	Cisco, Pennsylvanian								10,200	Bend	40	1	1	0	1	0	3,647	4
62	AMACKER-TIPPETT (ELLENBURGER); Upton	1953	12,000	127	Ellenburger, Ordovician	AC	DO		2		0.14	43	12,127	Ellenburger	840	21	0	0	20	1	711,158	4,348
63	AMACKER-TIPPETT (FUSSELMAN); Upton	1956	11,474	74	Fusselman, Silurian	AC	LM						12,364	Ellenburger	40	1	0	0	1	0	14,719	90
64	AMACKER-TIPPETT (STRAWN); Upton	1954	9,708	72	Strawn, Pennsylvanian	AC/F	DO		5	SGD	0.09	43	12,650	Ellenburger	280	7	1	0	6	1	67,922	408
65	AMACKER-TIPPETT (WOLFCAMP); Upton	1954	8,960	58	Wolfcamp, Permian	AC	LM	1	2			43	9,025	Wolfcamp	400	10	2	0	7	3	110,193	163
66	AMACKER-TIPPETT EAST (STRAWN A); Upton	1958	10,012	5	Strawn, Pennsylvanian	AC	LM		12			47	10,850	Bend Shale	40	1	0	1	0	1	87	1
67	AMACKER-TIPPETT SOUTH (WOLFCAMP); Upton	1958	8,507	8	Wolfcamp, Permian	AC	LM		12			42	13,050	Ellenburger	40	1	0	0	0	1	12,115	32
68	A M I (JENNINGS); Runnels	1954	3,666	3	Jennings Sand, Pennsylvanian		SS					40	3,898	Pennsylvanian Sand	40	1	0	0	0	1	1,969	28
69	AMIGO (SAN ANDRES); Crockett	1955	2,550	48	San Andres, Permian	AC	DO		12			32	2,730	San Andres	1,200	36	0	1	0	29	65,603	460
70	AMROW (DEVONIAN); Gaines	1954	12,674	54	Devonian	AC	DO	32	7	WD	0.77	35	12,796	Devonian	840	21	0	0	4	15	641,297	4,470
71	AMROW NORTH (STRAWN); Gaines	1958	11,310	26	Strawn, Pennsylvanian	AC	LM			SGD	0.5	46	12,889	Dean	80	2	0	0	0	2	53,267	97
72	ANDECTOR (CLEAR FORK); Ector	1947	6,200	85	Permian	AC	DO					42	8,600	Ellenburger	440	11	Combined with Goldsmith Clear Fork 1949				152	
73	ANDECTOR (ELLENBURGER); Andrews-Ector	1946	8,545	55	Ellenburger, Ordovician	AC/F	DO	EX	4.6	WD	0.23	44	9,170	Pre-Cambrian	4,920	123	0	1	96	15	3,313,898	60,787
74	ANDECTOR (FUSSELMAN); Ector	1956	7,800	35	Fusselman, Silurian							39	8,686	Ellenburger	40	1	0	0	0	0	0	2
75	ANDECTOR (McKEE); Ector	1948	7,635	75	McKee, Ordovician	AC/F	SS	5	6	SGD	0.13	43	8,600	Ellenburger	640	16	2	0	14	2	34,822	534
76	ANDECTOR (TUBB); Andrews	1956	6,052	72	Tubb, Permian	AC/F						36	6,215	Tubb	40	1	0	0	0	0	0	2
77	ANDECTOR (WADDELL); Ector	1948	7,835	35	Waddell, Ordovician	AC/F	SS	4	7	SGD	0.14	43	8,600	Ellenburger	440	11	3	0	7	4	59,923	546
78	ANDECTOR NORTH (McKEE); Ector	1959	7,810	109	McKee, Ordovician								8,558	Ellenburger	80	2	2	0	2	0	5,124	5
79	ANDECTOR NORTH (WADDELL); Ector	1959	8,085	57	Waddell, Ordovician								8,578	Ellenburger	120	3	3	0	2	1	42,582	43
80	ANDECTOR WEST; Ector	1954	7,954	23	Devonian	AC/F	DO					41	8,426	Ellenburger	120	3	0	0	1	2	27,801	234
81	ANDERGRAM (FRY); Runnels	1958	3,764	6	Fry Sand, Pennsylvanian		SS					40	4,140	Gardner	40	2	0	1	1	0	30,106	39
82	ANDERGRAM (GARDNER); Runnels	1958	4,122	3	Gardner Sand, Pennsylvanian		SS						4,400	Caddo	160	4	3	0	3	1	18,062	19
83	ANDERGRAM (UPPER GARDNER); Runnels	1959	4,068	4	Upper Gardner Sand, Pennsylvanian								4,125	Gardner	20	1	1	0	0	1	1,705	2
84	ANDERGRAM (JENNINGS); Runnels	1958	3,915	4	Jennings Sand, Pennsylvanian		SS					41	4,098	Gardner	80	2	0	0	1	1	42,581	63
85	ANDERGRAM (PALO PINTO); Runnels	1958	3,438	13	Palo Pinto, Pennsylvanian		LM					41	4,098	Gardner	20	1	0	0	1	0	5,279	14
86	ANDERGRAM SOUTH (McMILLAN); Runnels	1959	2,604	8	McMillan Sand, Pennsylvanian								4,125	Gardner	60	3	3	0	0	3	8,315	8
87	ANDERSON (FRY); Runnels	1958														Combined with Andergram (Fry) Field.						
88	ANDERSON (GARDNER); Runnels	1958														Changed to Andergram (Gardner) Field						
89	ANDREWS (ELLENBURGER); Andrews	1959	12,770	16	Ellenburger, Ordovician								12,770	Ellenburger	40	1	1	0	1	0	19,042	19
90	ANDREWS (PENNSYLVANIAN); Andrews	1954	9,095	18	Pennsylvanian	AC	LM		5	SGD	0.16	39	9,310	Pennsylvanian	2,680	67	2	0	13	54	944,724	4,718
91	ANDREWS (WOLFCAMP); Andrews	1953	8,596	10	Wolfcamp, Permian	AC	LM	18	9	SGD	0.25	38	8,823	Wolfcamp	3,360	86	2	0	5	79	971,335	5,836
92	ANDREWS NORTH (ELLENBURGER); Andrews	1959	12,349	10	Ellenburger, Ordovician								12,422	Ellenburger	40	1	1	0	0	1	23,107	23
93	ANDREWS NORTH (STRAWN); Andrews	1959	9,351	218	Strawn, Pennsylvanian								12,422	Ellenburger	80	2	2	0	2	0	25,083	25
94	ANDREWS NORTHEAST (DEVONIAN); Andrews	1952	12,490	30	Devonian	AC	DO	83	5	SGD	0.26	42	13,946	Ellenburger	280	7	Combined with Magutex (Devonian) 1955				1,277	
95	ANDREWS NORTHEAST (ELLENBURGER); Andrews	1953	13,848	5	Ellenburger, Ordovician	AC	DO	20	8	WD		45	13,853	Ellenburger	160	4	Transferred to Magutex (Ellenburger);				670	
96	ANDREWS SOUTH (BEND); Andrews	1958	9,860	10	Bend, Pennsylvanian							43	11,500	Devonian	120	3	2	0	3	0	49,547	53
97	ANDREWS SOUTH (DEVONIAN); Andrews	1953	11,035	40	Devonian	AC	DO				0.30	44	12,758	Devonian	2,200	55	6	0	51	4	1,176,701	2,077
98	ANDREWS SOUTH (LEONARD); Andrews	1951	7,082	22	Leonard, Permian							33	11,957	Devonian	40	1	0	0	0	1	2,061	15
99	ANDREWS SOUTH (PENNSYLVANIAN); Andrews	1958	10,000	24	Bend, Pennsylvanian							43	11,153	Mississippian	40	1	0	0	0	1	2,811	9
100	ANDREWS SOUTH (WOLFCAMP); Andrews	1953	9,150	30	Wolfcamp, Permian	AC/F	LM	4	3		0.08	45	9,183	Lower Wolfcamp	1,920	48	1	0	20	28	729,897	2,824
101	ANDREWS WEST; Andrews	1940	4,350	50	Permian								9,160	Ellenburger	920	23	Combined with Martin Field 1946				178	
102	ANTHONY; Reeves	1939	1,680									30				Abandoned 1951				0	3	
103	ANTON (LOWER CLEAR FORK); Hockley	1959	6,502	54	Clear Fork, Permian								11,778	Cambrian	40	1	1	0	0	1	7,520	8
104	ANTON NORTH; Lamb	1954	6,414	77	Clear Fork, Permian							22	6,494	Permian	40	1	1	0	0	1	7,686	43
105	ANTON SOUTH (STRAWN); Hockley	1957	9,862	28	Strawn, Pennsylvanian								10,150	Strawn	40	1	0	0	0	1	7,678	21
106	ANTON WEST; Hockley	1949	6,675	25	Clear Fork, Permian	AC	DO	.1	3			25	11,957	Ellenburger	320	8	0	0	0	7	44,332	765
107	ANTON-IRISH; Hale-Lamb	1944	5,348	325	Clear Fork, Permian	AC	DO	15	10	SGD		29	11,730	Pre-Cambrian	7,000	191	1	0	0	175	2,020,919	29,000
108	A P (ELLENBURGER); Borden	1958	9,048	16	Ellenburger, Ordovician	AC	DO		8			39	9,117	Ellenburger	40	1	0	1	0	0	562	2
109	APCLARK (SPRABERRY LOWER); Borden	1956	6,490	80	Spraberry, Permian								9,255	Ellenburger	160	4	1	0	0	3	6,270	32
110	APCO (1600'); Pecos	1943	1,661			AC/F	DO				0.40	42		Combined with Lehn - Apco (1600') Field 1945							75	
111	APCO-WARNER; Pecos	1939	4,600	100	Ellenburger, Ordovician	MU	DO			WD		39	5,356	Ellenburger	2,360							

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-3

WELL NUMBER	FIELD COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG TOP FT.	ESTIMATED PROD. THICK. FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT. ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER LBS.	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	195		FLOWING	ARTIFICIAL LIFT	DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED				
121	ARMER (GLORIETA); Crane	1957	4,050	10	Glorieta, Permian	MC	SS			SGD		37	7,866	Ellenburger	440	11	4	0	2	9	53,530	139
122	ARMER (TUBB); Crane	1955	4,864	116	Tubb, Permian	AC	DO		13	SGD	1.01	35	7,866	Ellenburger	640	16	0	0	2	14	126,294	524
123	ARMER (WICHITA-ALBANY);Crane	1958	5,534	50	Wichita-Albany, Permian	AC	DO		12	SGD		33	6,560	Devonian	200	5	4	0	3	2	53,306	58
124	ARMER (6350); Crane	1955	6,340	34	Silurian	AC	DO		6		0.65	37	7,866	Ellenburger	880	22	0	0	15	7	182,757	780
125	ARNO (DELAWARE SAND);Reeves	1956	4,114	7	Delaware Sand, Permian		SS	P	20			31	4,188	Delaware Sand	80	2	1	0	1	0	443	1
126	ARTHUR (CANYON REEF);Borden	1954	8,783	15	Canyon Reef, Pennsylvanian	Reef	LM		5			43	8,853	Canyon Reef	40	1	Abandoned	1956			0	14
127	ARTHUR (SPRABERRY); Borden	1954	7,466	94	Spraberry, Permian	MC	SS		14		0	41	8,923	Canyon Reef	3,880	97	7	0	2	95	1,264,956	4,425
128	ARVANNA (SAN ANDRES); Dawson	1953	4,318	4	San Andres Lime, Permian	AC	DO					34	8,960	Strawn Lime	80	2	0	0	0	1	1,064	18
129	ASHTON (DOG BEND); Runnels	1954	3,472		Dog Bend, Pennsylvanian		LM					45			160	4	0	0	0	3	2,806	45
130	ASHTON (LOWER GARDNER); Runnels	1951	3,787	7	Gardner Sand, Pennsylvanian								4,215	Caddo	120	6	0	0	0	1	2,854	51
131	ATAPCO (DEVONIAN); Crane	1958	5,522	28	Devonian	MC	DO	15	23	SGD		32	5,721	Silurian	240	6	1	0	3	3	114,522	167
132	ATAPCO (QUEEN); Crane	1959	2,140	32	Queen, Permian								2,245	Queen	120	3	3	0	3	0	26,506	27
133	ATKINSON; Tom Green	1952	5,552	30	Palo Pinto, Pennsylvanian		SS					43	7,150	Ellenburger	80	2	0	0	0	1	3,603	44
134	ATKINSON NORTHEAST (STRAWN); Tom Green	1959	5,505	101	Strawn, Pennsylvanian								6,243	Strawn	80	2	2	0	1	1	4,243	4
135	ATRICE (HARKEY SAND); Tom Green	1954	4,778	18	Canyon Sand, Pennsylvanian		SS			SGD		40	5,970	Pennsylvanian	80	2	0	0	1	0	1,773	21
136	ATRICE (5150' STRAWN); Tom Green	1955	5,170	10	Strawn, Pennsylvanian								6,056	Ellenburger	40	1	0	0	0	1	2,108	12
137	AYCOCK (GLORIETA); Garza	1955	3,684	30	Glorieta, Permian								4,100	Clear Fork	120	3	0	0	0	3	6,900	29
138	AYLESWORTH; Reeves	1953	3,940	2	Delaware Sand, Permian		SS					34	3,956	Delaware Sand	160	4	1	0	0	4	6,721	28
139	AZALEA (BEND); Midland	1959	10,856	13	Bend, Pennsylvanian								11,454	Devonian	40	1	1	0	1	0	2,275	2
140	AZALEA (DEVONIAN); Midland	1957	11,468	60	Devonian	AC	LM	1	4			56	12,324	Montoya	1,200	Reclassified as gas reservoir 7-1-58					58	
141	B & H (QUEEN); Crockett	1958	1,752	16	Grayburg, Permian							34	2,060	Grayburg	40	1	0	0	1	0	1,049	1
142	B & H; Schleicher	1952	4,413	25	Canyon, Pennsylvanian								5,265	Ellenburger	80	2	1	1	0	0	160	4
143	B & H (SAN ANDRES);Scurry	1952	2,170	25	San Andres, Permian								7,215	Pennsylvanian	40	1	Abandoned	1957				.3
144	BAIN (DEVONIAN); Gaines	1959	11,756	5	Devonian								11,814	Devonian	80	2	2	0	1	1	26,046	26
145	BAKERFIELD (TUBB 3250'); Pecos	1959	3,246	26	Tubb, Permian								4,995	Ellenburger	40	1	1	0	0	1	219	.2
146	BAKKE (CLEAR FORK); Andrews	1958	7,564	15	Clear Fork, Permian	MC	LM		5			34	8,705	Silurian	40	1	0	0	0	1	14,801	71
147	BAKKE (DEVONIAN); Andrews	1952	10,536	18	Devonian	AC	DO	EX	8	WD		47	12,360	Ellenburger	1,520	38	5	0	36	2	837,488	1,830
148	BAKKE (ELLENBURGER); Andrews	1956	12,304	41	Ellenburger, Ordovician	AC/F	DO	47	2	WD		46	12,360	Ellenburger	1,680	42	2	0	40	2	1,144,690	2,476
149	BAKKE (PENNSYLVANIAN); Andrews	1956	8,954	74	Pennsylvanian		LM	24	4	SGD		43	9,300	Pennsylvanian	1,520	39	6	0	32	7	572,007	1,183
150	BAKKE (WOLF CAMP); Andrews	1956	8,514	46	Wolfcamp, Permian	AC	LM	10	3	SGD		45	9,300	Pennsylvanian	1,560	39	8	0	34	5	491,857	1,018
151	BAKKE NORTH (PENNSYLVANIAN); Andrews	1959	9,111	10	Pennsylvanian								13,434	Ellenburger	120	3	3	0	1	2	48,853	49
152	BALLINGER; Runnels	1947	4,095	7	Caddo, Pennsylvanian	Reef	LM		Por		0.23	46	4,431	Ellenburger	320	8	0	1	1	1	1,449	83
153	BALLINGER (LOWER ADAMS BRANCH); Runnels	1959	3,510	12	Lower Adams Branch, Pennsylvanian								3,555	Adams Branch	20	1	1	0	0	1	2,607	3
154	BALLINGER (CANYON SAND); Runnels	1955	2,964	11	Canyon Sand, Pennsylvanian								4,115	Strawn	20	1	Not producing at end of 1956					1
155	BALLINGER (GARDNER); Runnels	1956	4,164	4	Gardner Sand, Pennsylvanian								4,205	Strawn	880	22	0	1	3	12	44,786	270
156	BALLINGER (GRAY SAND); Runnels	1955	4,074	8	Strawn, Pennsylvanian								4,082	Strawn	240	7	0	0	0	5	9,696	103
157	BALLINGER (HOME CREEK); Runnels	1956	3,168	4	Home Creek Lime, Pennsylvanian								4,230	Canyon	40	1	0	0	0	1	1,398	7
158	BALLINGER (PALO PINTO); Runnels	1951	3,424	23	Palo Pinto, Pennsylvanian	MC	LM		5			34	4,461	Ellenburger	980	49	0	3	10	32	63,431	658
159	BALLINGER (SERRATT);Runnels	1953	2,410	7	Serratt Sand, Pennsylvanian	AC	SS					42			280	7	0	0	1	5	27,861	273
160	BALLINGER NORTH (PALO PINTO); Runnels	1955			Palo Pinto, Pennsylvanian										120	6	0	0	0	6	11,617	85
161	BALLINGER NORTHWEST (CAPPS LIME);Runnels	1957	3,844	6	Capps Lime, Pennsylvanian					Por			4,523	Gray Sand	200	5	1	1	0	4	21,406	70
162	BALLINGER WEST (KING); Runnels	1950	3,078	9	King, Pennsylvanian		SS		Por		0.23	43	3,086	King	40	2	0	0	0	1	1,614	53
163	BALLINGER WEST (MORRIS); Runnels	1950	3,720		Morris, Pennsylvanian		SS		Por		0.23	40	4,787	Ellenburger	20	1	0	0	0	0		42
164	BARBASAL (GRAYBURG); Pecos	1958	2,404	3	Grayburg, Permian	AC	DO					27	2,407	Grayburg	40	1	0	1	0	0	700	4
165	BARBEE (WICHITA-ALBANY); Reagan	1958	6,756	24	Wichita-Albany, Permian	MC	Reef		12			39	10,430	Ellenburger	40	1	0	0	1	0	49,119	64
166	BARNHART; Reagan	1941	9,050	275	Ellenburger, Ordovician	AC	DO		4	SGD	0.10	44	9,394	Ellenburger	3,000	81	0	0	43	25	193,413	14,411
167	BARNHART (WOLF CAMP); Reagan	1959	7,458	38	Wolfcamp, Permian								9,264	Ellenburger	40	1	1	0	0	1	4,000	4
168	BARNHART NORTHEAST (FUSSELMAN);Irion	1958	8,946	10	Fusselman, Silurian	AC	DO		3			45	9,035	Ellenburger	40	1	0	0	0	1	1,895	4
169	BARNHART NORTHEAST (GRAYBURG);Reagan	1955	1,912	44	Grayburg, Permian							35	2,258	San Andres	80	2	Abandoned	1956			0	2
170	BARNHART SOUTH (ELLENBURGER); Reagan	1952	9,060	64	Ellenburger, Ordovician	AC	DO	P	7	SGD	0.05	44	9,507	Ellenburger	40	1	0	0	1	0	14,328	177
171																						

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-4

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUC- ING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK. AVG. FT. NET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEA- BILITY, md.	POROSITY, PER CENT ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMP LETED	ABAN- DONED	FLOW- ING	ARTIFICI- AL LIFT		
181	BEDDO (DANKWORTH LIME); Runnels	1949	3,724		Dankworth Lime, Pennsylvanian		LM				0.21	42	4,040	Strawn	100	5	0	0	0	4	7,547	87
182	BEDDO EAST (SERRATT); Runnels	1952	2,246	3	Serratt, Pennsylvanian		SS					46	2,254	Serratt	40	2	0	0	0	1	1,228	8
183	BEDDO NORTH; Runnels	1950	3,976		Strawn, Pennsylvanian									Combined with Elm Creek Gray Sand	21m	October 1950					6	
184	BEDFORD; Andrews	1945	11,469											Combined with Bedford (Devonian) Field and Bedford (Ellenburger) Field	1945							
185	BEDFORD (DEVONIAN); Andrews	1945	8,777	373	Devonian	AC	CHT		6	SGD	0.45	40	11,670	Ellenburger	600	15	7	0	6	9	174,931	3,224
186	BEDFORD (ELLENBURGER); Andrews	1945	11,018	652	Ellenburger, Ordovician	AC	DO			WD	0.11	44	11,670	Ellenburger	360	9	0	0	1	7	192,359	4,016
187	BEDFORD (FUSSELMAN); Andrews	1951	9,702	193	Fusselman, Silurian	AC	DO				0.37	41	9,895	Fusselman	120	3	0	0	1	2	67,240	945
188	BEDFORD (WOLFCAMP); Andrews	1957	7,771	34	Wolfcamp, Permian								7,960	Wolfcamp	40	1	Abandoned	1958			0	2
189	BENEDUM (DEAN); Upton	1955	7,893	14	Dean, Permian								11,502	Ellenburger	40	1	0	0	0	0	0	8
190	BENEDUM (SPRABERRY); Upton-Reagan	1949	7,430	30	Leonard, Permian	AC	SS	Frc	10	SGD		40	12,354	Ellenburger	7,240	200	0	4	60	101	778,565	11,208
191	BENOIT (SERRATT); Runnels	1954	2,329	7	Serratt Sand, Pennsylvanian		SS					36	2,511	Pennsylvanian Sand	40	2	0	0	0	1	2,254	25
192	BENOIT SOUTH (MORRIS SAND); Runnels	1955	3,324	6	Morris Lime, Pennsylvanian		LM						3,986	Strawn	20	1	Abandoned	February 1956			0	2
193	BERNARD (LOWER GARDNER); Runnels	1953	3,805	9	Gardner Sand, Pennsylvanian		SS					40	4,044	Strawn	40	1	0	0	0	1	1,187	13
194	BETTY (GRAYBURG); Crockett	1951	1,462	5	Grayburg, Permian	AC	DO						1,544	Grayburg	80	2	0	0	0	2	1,070	20
195	BETTY (PERMIAN); Crockett	1949	1,392	6	Permian	AC	DO						1,450	San Andres	240	6	Abandoned	1954			0	9
196	BIG CHIEF; McCulloch	1954	951		Strawn, Pennsylvanian										10	1	Abandoned	April 1955			0	.2
197	BIG LAKE; Reagan	1923	2,440		Queen, Permian								9,562	Ellenburger	3,200	281	0	2	2	144	613,009	116,442
198	BIG LAKE (DEAN SAND); Reagan	1956	6,904	80	Dean, Permian							44	8,890	Simpson	40	1	0	0	0	1	2,286	7
199	BIG LAKE (DEEP); Reagan	1928	8,800	175	Ellenburger, Ordovician								9,560	Ellenburger	1,080	27	Combined with Big Lake				31,640	
200	BIG LAKE (ELLENBURGER); Reagan	1953	8,890	50	Ellenburger, Ordovician							42	8,961	Ellenburger	40	1	0	0	0	1	6,834	86
201	BIG LAKE (FUSSELMAN); Reagan	1950	8,940	73	Fusselman, Silurian								8,940	Fusselman	120	3	Abandoned	1956			0	223
202	BIG LAKE (SAN ANDRES); Reagan	1957	2,985	7	San Andres, Permian								8,961	Ellenburger	40	1	0	0	0	1	2,054	7
203	BIG LAKE "N" (FUSSELMAN); Reagan	1956	9,248	44	Fusselman, Silurian								9,670	Ellenburger	40	1	0	0	0	0	0	3
204	BIG LAKE "S" (FUSSELMAN); Reagan	1954	9,273	73	Fusselman, Silurian	AC	DO					44	9,346	Fusselman	80	2	0	0	0	1	1,844	85
205	BIG LAKE "S" (GRAYBURG); Reagan	1955	2,403	12	Grayburg, Permian								9,507	Ellenburger	40	1	Abandoned	1957			0	.9
206	BIG LAKE SOUTHWEST (BEND); Reagan	1954	10,460	30	Bend, Pennsylvanian	MF	DO					54	11,870		40	1	0	0	0	0	60	25
207	BIG LAKE WEST (ELLENBURGER); Reagan	1953	9,410	90	Ellenburger, Ordovician	AC/F	DO					49	9,742	Ellenburger	160	4	0	0	0	2	12,603	280
208	BIG SPRING (CANYON LIME); Howard	1956	8,746	24	Canyon Lime, Pennsylvanian							43	9,575	Fusselman	40	1	0	0	0	1	2,347	4
209	BIG SPRING (FUSSELMAN); Howard	1955	9,592	14	Fusselman, Silurian	MU	DO		11			48	9,930	Ellenburger	760	19	9	0	7	12	280,540	883
210	BIG SPRING (STRAWN OIL); Howard	1959	8,977	1	Strawn, Pennsylvanian								9,700	Fusselman	40	1	1	0	1	0	2,008	2
211	BIHECK (CANYON); Schleicher	1959	4,512	10	Canyon, Pennsylvanian								5,315	Strawn	40	1	1	0	0	1	2,716	3
212	BILES; Andrews	1950	7,390	183	Wichita-Albany, Permian	AC	DO					37	7,573	Wichita-Albany	80	2	0	0	0	1	1,178	37
213	BILLY BRYANT (PENNSYLVANIAN); Midland	1958	11,182	14	Bend, Pennsylvanian	MC	LM		18	SGD		45	12,546	Fusselman	40	1	0	1	0	0	2,552	4
214	BINGHAM (GRAYBURG); Irion	1955	1,772	74	Grayburg, Permian		DO					31	2,205	San Andres	40	1	Abandoned	1956			0	.2
215	BLACKWELL; Coke	1942	3,821	7	Wolfcamp, Permian							42	3,828	Cisco	40	1	Abandoned	1951			0	13
216	BLEDSE; Cochran	1951	4,193		San Andres, Permian		DO					24	11,494	Granite	160	4	0	0	0	2	4,317	73
217	BLEDSE EAST (SAN ANDRES); Cochran	1957	4,006	14	San Andres, Permian								5,000	San Andres	80	2	0	1	0	0	0	5
218	BLOCK A-7 (DEVONIAN); Gaines	1959	11,100	15	Devonian								11,115	Devonian	40	1	1	0	0	1	8,949	9
219	BLOCK A-34 (ELLENBURGER); Andrews	1954	13,240	82	Ellenburger	AC	DO					44	13,560	Ellenburger	240	6	0	0	6	0	234,823	1,723
220	BLOCK A-34 (GLORIETA); Andrews	1955	5,912	50	Glorieta, Permian	AC	DO					30	10,090	Pennsylvanian	160	4	0	1	1	2	23,508	136
221	BLOCK A-34 (STRAWN); Andrews	1954	9,916	34	Strawn, Pennsylvanian	AC	LM					49	14,000	Ellenburger	240	6	0	0	3	2	81,484	691
222	BLOCK A-34 NORTHWEST (GLORIETA); Andrews	1955	5,915	76	Glorieta, Permian	AC	DO		11			34	6,805	Clearfork	480	12	0	0	0	11	74,044	579
223	BLOCK A-41 (ELLENBURGER); Andrews	1959	11,707	50	Ellenburger, Ordovician								11,760	Ellenburger	40	1	1	0	1	0	5,009	5
224	BLOCK A-50 (ELLENBURGER); Andrews	1959	11,195	46	Ellenburger, Ordovician								11,490	Ellenburger	40	1	1	0	1	0	3,339	3
225	BLOCK A-50 (WICHITA); Andrews	1959	7,931	66	Wichita, Permian								11,490	Ellenburger	40	1	1	0	0	1	11,223	11
226	BLOCK B-21 (ELLENBURGER); Crane	1955	6,239	86	Ellenburger, Ordovician	AC/F	DO			WD	0.07	46	6,325	Ellenburger	240	6	0	0	4	0	41,409	273
227	BLOCK B-21 (WADDELL); Crane	1954	6,030	50	Waddell, Ordovician								6,408	Ellenburger	1,360	34	Combined with Running West Waddell	5-1-57			619	
228	BLOCK B-27 (CONNELL); Crane	1956	5,948	7	Connell, Ordovician	MU/F	SS	P	9			38	6,175	Wichita-Albany	120	3	0	0	2	1	16,617	78
229	BLOCK B-27 (ELLENBURGER); Crane	1955	6,190	76	Ellenburger, Ordovician	AC	DO			WD			6,305	Ellenburger	40	1	Abandoned	October 1959			0	2
230	BLOCK B-27 (WADDELL); Crane	1955	6,090	58	Waddell, Ordovician								6,527	Ellenburger	1,280	32	Combined with Running West Waddell	5-1-57			483	
231	BLOCK "D" (DEVONIAN); Yoakum	1957	11,923		Devonian								11,955	Devonian	40	1	0					

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO.T-5

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUC- ING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATED PROD. THICK- NESS, FT.	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERME- ABILITY, MD.	POROSITY, PER CENT	ESTIMATED PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COM- PLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMP. LETED	ABAN- DONED	FLOW- ING	ARTIFI- CIAL LIFT		
241	BLOCK 6 (DEVONIAN); Andrews	1952	12,530	60	Devonian	AC	DO		5		0.25	44	13,725	Ellenburger	240	6	0	0	3	1	143,331	1,043
242	BLOCK 6 (MISSISSIPPIAN); Andrews	1956	12,014	40	Mississippian							42	12,680	Devonian	40	1	0	1	0	0	332	45
243	BLOCK 7 (DEVONIAN); Martin	1950	12,280	15	Devonian	AC	DO		F		0.27	44	13,420	Ellenburger	200	5	0	0	1	3	82,013	779
244	BLOCK 7 (ELLENBURGER);Martin	1950	13,300		Ellenburger, Ordovic- ian	AC	DO					48	13,420	Ellenburger	80	1	Abandoned	September	1950		0	1
245	BLOCK 9 (ELLENBURGER); Andrews	1958	12,508	54	Ellenburger, Ordovic- ian	AC	DO	45	5	WD		52	12,967	Ellenburger	280	7	4	0	7	0	517,643	655
246	BLOCK 9 (FUSSELMAN); Andrews	1958	11,683	27	Fusselman, Silurian	AC	LM	P	7	SGD		47	12,521	Ellenburger	160	4	3	0	4	0	84,957	92
247	BLOCK 9 (SAN ANDRES);Andrews	1944	4,625	71	San Andres, Permian	AC	DO	1	13	SGD	2.42	33	4,717	San Andres	880	22	11	0	1	21	114,912	434
248	BLOCK 10 (SAN ANDRES); Andrews	1952	4,620	60	San Andres, Permian	AC	DO					31	12,340	Ellenburger	40	1	0	0	0	1	1,471	15
249	BLOCK 11 (DEVONIAN); Andrews	1951	8,230		Devonian	AC	CHT	150	20	SGD	0.75	42	8,318	Devonian	640	16	0	0	14	2	148,258	2,216
250	BLOCK 11 (WICHITA); Andrews	1959	6,962	53	Wichita Albany, Perm- ian								10,051	Ellenburger	80	2	2	0	0	2	2,617	3
251	BLOCK 11 SOUTHWEST (DEVONIAN) Andrews-Ector	1952	8,160	60	Devonian	MU	CHT		23			41	8,250	Silurian	1,200	30	0	0	24	6	399,571	2,979
252	BLOCK 11 SOUTHWEST (WOLFCAMP); Andrews	1952	8,020	25	Wolfcamp, Permian	AC						44	10,051	Ellenburger	40	1	0	1	0	0	0	81
253	BLOCK 12; Andrews	1946	7,170	80	Permian	AC	DO	5	10	SGD		34	10,760	Ellenburger	1,520	50	0	5	1	32	71,644	1,788
254	BLOCK 12 (DEVONIAN);Andrews	1947	8,458		Devonian	AC	LM	P	4	SGD		39	10,760	Ellenburger	80	2	0	0	1	1	8,356	72
255	BLOCK 12 (ELLENBURGER) Andrews	1952	10,884	84	Ellenburger, Ordovici- an	AC	DO	2	2	WD		44	11,065	Ellenburger	640	16	0	0	1	12	279,801	3,460
256	BLOCK 12 (WOLFCAMP); Andrews	1955	7,618	43	Wolfcamp, Permian		LM					37	10,230	Ellenburger	80	2	0	1	0	0	531	11
257	BLOCK 12 EAST (ELLENBURGER); Andrews	1953	10,117	30	Ellenburger, Ordovic- ian	AC	CHT	2	3	WD		42	10,272	Ellenburger-	1,030	27	0	2	18	6	624,282	3,681
258	BLOCK 12 EAST (McKEE); Andrews	1956	9,864	33	McKee, Ordovician	AC	SS	49	17	SGD		42	10,297	Ellenburger	240	6	0	0	0	6	61,155	352
259	BLOCK 12 NORTH (DEVONIAN); Andrews	1957	8,084	16	Devonian							46			40	1	0	0	1	0	6,114	37
260	BLOCK 17; Ward	1955	4,977	23	Delaware, Permian		SS	46	22	SGD		35	5,200	Delaware	40	1	0	0	0	0	0	3
261	BLOCK 17 SOUTHEAST (DELAWARE SAND); Ward	1956	5,003	3	Delaware Sand, Permian	AC	SS	46	22	SGD		35	5,088	Delaware Sand	520	13	10	0	8	5	32,036	74
262	BLOCK 18 (DELAWARE); Ward	1955	4,982	22	Delaware, Permian		SS	46	22	SGD		35	5,100	Delaware	40	1	Reclassified as Gas	on 5-29-57			0	5
263	BLOCK 20 (DELAWARE SAND); Winkler	1953	5,099	6	Delaware Sand, Permian		SS						5,105	Delaware Sand	40	1	0	0	0	1	1,035	31
264	BLOCK 31 (CLEAR FORK); Crane	1950	4,275	63	Clear Fork, Permian	AC	DO	P	8	SGD		40	4,343	Clear Fork	40	1	Abandoned	November	1954		0	7
265	BLOCK 31 (CONNELL); Crane	1948	10,170	25	Connell, Ordovician	AC	SS	P	6	SGD		46	12,299	Ellenburger	160	4	Abandoned	August	1953		0	96
266	BLOCK 31 (DEVONIAN); Crane	1945	8,815	175	Devonian	AC	LM	1	15	GI	0.15	44	12,299	Ellenburger	2,960	74	0	1	65	8	5,589,253	49,488
267	BLOCK 31 (ELLENBURGER);Crane	1945	10,485	250	Ellenburger, Ordovici- an	AC	DO	148	4	WD	0.12	46	12,249	Ellenburger	720	18	0	0	7	1	80,754	4,344
268	BLOCK 31 (GRAYBURG); Crane	1956	3,200	20	Grayburg, Permian	AC	DO	96	17	WD	0.5	28	4,337	Clear Fork	320	8	1	0	0	8	118,461	313
269	BLOCK 31 (McKEE); Crane	1948	9,641	40	McKee, Ordovician	AC	SS	360	10	SGD		45	12,299	Ellenburger	80	2	Abandoned				0	55
270	BLOCK 31 NORTHWEST; Crane	1950	11,470	40	Simpson, Ordovician	AC	SS	P	Por	SGD		46	11,915	Pre-Cambrian	40	1	Abandoned	August	1953		0	20
271	BLOCK 31 NORTHWEST (PENNSY- LVANIAN); Crane	1957	8,205	30	Pennsylvanian- Detrital	AC	CHT	P	Por	SGD		36	11,800	Ellenburger	40	1	0	0	0	1	1,552	6
272	BLOCK 39 (CLEAR FORK); Midland	1956	7,255	20	Clear Fork, Permian								8,600	Spraberry	Combined with Spraberry		Trend Clear Fork 1956				137	
273	BLOCK 39 SOUTH (CLEAR FORK); Upton	1956	7,023	89	Clear Fork, Permian								8,430	Dean	Combined with Spraberry		Trend Clear Fork 1956				71	
274	BLOCK 42 (PENNSYLVANIAN); Upton	1956	9,450	50	Pennsylvanian Lime	AC	LM			SGD		41	12,679	Ellenburger	40	1	0	0	1	0	12,401	62
275	BLOCK 44 (ELLENBURGER); Crockett	1956	9,028	50	Ellenburger, Ordovic- ian								9,494	Ellenburger	80	2	0	0	0	1	5,927	60
276	BLOCK 44 (SHALLOW); Crockett	1954	1,729	24	San Andres, Permian	Nose	DO					30	1,753	Permian	360	9	0	0	0	9	11,888	153
277	BLOCK 46 (GRAYBURG);Crockett	1959	1,815	37	Grayburg, Permian								9,930	Ellenburger	40	1	1	0	0	1	345	.3
278	BLOCK 47 (SHALLOW); Crockett	1947	2,110	65	Permian	AC	DO					33	10,232	Ellenburger	390	14	0	1	0	10	8,404	113
279	BLOCK 47 (SILURIAN);Crockett	1948	9,210	90	Silurian	AC	LM					46	10,232	Ellenburger	40	1	Abandoned	October	1948		0	1
280	BLOCK 49 (2450'); Reagan	1955	2,456	36	San Andres, Permian								2,680	San Andres	810	27	0	2	0	24	44,296	317
281	BLOCK 51 (FUSSELMAN); Crockett	1954	9,240	56	Fusselman, Silurian	MU	LM			SGD		45	9,549	Ellenburger	40	1	0	1	0	0	334	15
282	BLOCK 51 (SAN ANDRES); Crockett	1958	2,387	40	San Andres, Permian	AC	DO						2,434	San Andres	40	1	0	0	0	1	623	1
283	BLOCK 56 (ELLENBURGER); Crockett	1954	8,236	20	Ellenburger, Ordovic- ian								8,700	Ellenburger	40	1	Abandoned	1957			0	2
284	BLOODWORTH (5700'); Coke	1951	5,664	5	Strawn, Pennsylvanian		SS				0.12	43	6,660		80	2	0	1	1	0	9,704	88
285	BLUE BONNET (CANYON LIME); Coke	1954	2,946	18	Canyon, Pennsylvanian	REEF	LI					40	6,902	Ellenburger	80	2	0	0	0	2	1,580	12
286	BOLT; Kimble	1939	1,412	15	Pennsylvanian		SS					31	4,171	Pre-Cambrian	160	4	0	3	0			

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-6

WELL NO.	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL		DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS			WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG. TOP FT.	ESTIMATE PROD. THICK. FT.	GEOLOGICAL NAME AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
3-1	BREEDLOVE (STRAWN); Martin	1959	10,800	30	Strawn, Pennsylvanian								11,992	Devonian	40	1	1	0	1	0	18,170	18
3-2	BREEDLOVE NORTH (DEVONIAN); Martin	1955	12,109	9	Devonian	AC	DO					41	12,118	Devonian	80	2	Combined with Breedlove area				294	
3-3	BRENNAND (STRAWN); Gaines	1958	11,210	100	Strawn, Pennsylvanian		LM					40	12,275	Devonian	40	1	0	1	0	0	644	5
3-4	BRILEY (CAPPS LIME); Runnels	1956	3,910	10	Capps Lime, Pennsylvanian								4,425	Strawn	120	3	0	1	0	2	7,887	48
3-5	BRILEY (GARDNER LIME); Runnels	1956	3,914	18	Gardner Lime, Pennsylvanian								4,662	Strawn	40	1	Abandoned June 1956			0	2	
3-6	BRILEY (GARDNER SAND); Runnels	1956	4,375	5	Gardner Sand, Pennsylvanian								4,674	Strawn	520	13	1	1	5	7	65,327	179
3-7	BRILEY (MORRIS); Runnels	1953	3,862	8	Morris Sand, Pennsylvanian		SS					38	4,645	Strawn	20	1	Abandoned March 1955			0	5	
3-8	BRILEY (PALO PINTO); Runnels	1956	3,684	12	Palo Pinto Lime, Pennsylvanian								4,425	Canyon	40	1	0	0	0	1	1,624	8
3-9	BRILEY SOUTHEAST (GARDNER); Runnels	1954					SS					42			20	1	Inactive at end of 1957			0	4	
3-10	BRISTOL; Andrews	1954	7,470	43	Wichita-Albany, Permian	AC	DO				0.52	35	8,606	Devonian	40	1	Abandoned 7-4-57			0	8	
3-11	BRITT (SPRABERRY); Dawson	1957	7,352	14	Spraberry, Permian								10,584	Strawn	80	2	0	1	0	1	12,255	51
3-12	BRO (WOLFCAMP); Gaines	1955	9,758	14	Wolfcamp, Permian								11,344	Wolfcamp	40	1	0	0	0	1	3,188	23
3-13	BROOKO (MISSISSIPPIAN); Yoakum	1958	10,997	21	Mississippian	AC	DO					42	11,043	Mississippian	40	1	0	0	1	0	38,827	50
3-14	BROOKO (SAN ANDRES); Yoakum	1954	5,182	98	San Andres, Permian	AC	DO					31	11,860	Devonian	80	2	1	0	1	1	2,298	5
3-15	BROOKO (SILURO-DEVONIAN); Yoakum	1952	11,692	168	Devonian	AC	DO	148	5	WD	0.30	43	11,860	Devonian	600	15	0	1	7	6	925,783	5,846
3-16	BROOKO (WOLFCAMP); Yoakum	1954	9,438	183	Wolfcamp, Permian	AC	LM		7		0.50	40	12,103	Fusselman	160	4	0	0	0	2	14,481	215
3-17	BROOKO; Coke	1948	4,348	40	Pennsylvanian	Reef	LM	21	3	WD	0.25	46	5,802	Granite Wash	1,880	52	0	3	0	40	126,803	3,447
3-18	BROOKO (CAMBRIAN); Coke	1954	5,333	13	Cambrian	AC/F	SS	202	11	WD		51	5,346	Cambrian	440	11	1	0	5	6	112,424	560
3-19	BROOKO (CAPPS LIME); Coke	1954	4,616	8	Capps Lime, Pennsylvanian	AC	LM		3	WD		46	4,981		520	13	0	1	4	8	130,842	299
3-20	BROOKO (ELLENBURGER); Coke	1953	5,760	7	Ellenburger Lime, Ordovician	AC/F	DO		6	WD		49	5,940	Ellenburger Lime	200	5	0	0	2	2	18,474	234
3-21	BROOKO (GARDNER); Coke	1952	4,968	7	Strawn, Pennsylvanian	AC	LM		4	WD		52	4,981	Strawn	640	4	Oil Production combined with Bronte Capps Lime 1954.			301,300	2,803	
3-22	BROOKO (4800' SAND); Coke	1952	4,838	24	Goen, Pennsylvanian	AC	LM	154	10		0.29	50	4,861	Goen	1,200	30	0	0	19	2		
3-23	BROOKO, NORTH (5300'); Coke	1952	5,298	48	Strawn, Pennsylvanian	AC	LM	34	3	WD			5,820	Granite	120	3	Combined with Rawlings 5300 May 1953				67	
3-24	BROOKO, (CANYON); Irion	1958	5,998		Canyon, Pennsylvanian		SS					36			80	2	1	0	0	2		
3-25	BROOKO (LOWER CANYON); Irion	1959	6,224	26	Lower Canyon, Pennsylvanian								7,410	Ellenburger	40	1	1	0	1	0	8,673	9
3-26	BROOKO (LEONARD); Irion	1956	5,132	10	Leonard, Permian								7,250	Strawn	40	1	0	1	0	0	22	12
3-27	BROOKO (PERMIAN); Irion	1959	4,634	15	Permian								7,140	Strawn	40	1	1	0	0	1	13,729	14
3-28	BROOKO (SAN ANGELO); Irion	1959	1,211	6	San Angelo, Permian								1,217	San Angelo	560	14	14	0	0	14	23,255	23
3-29	BROOKO (STRAWN); Irion	1956	6,495	6	Strawn, Pennsylvanian								7,215	Strawn	120	3	0	0	2	1	5,278	44
3-30	BROOKO; Gaines	1948	6,030	60	Permian		DO		20	SGD		35	7,850	Permian	1,120	29	0	1	0	26	143,699	1,704
3-31	BROWN (CISCO); Scurry	1951	6,181	41	Cisco Sand, Pennsylvanian								6,222	Cisco	480	12	Combined with Kelly Snyder Cisco 5-52			92		
3-32	BROWN & THORP (CLEAR FORK); Pecos	1951	3,028	23	Clear Fork, Permian	AC	DO			SGD	1.32	39	6,287	Cisco	3,520	88	0	0	0	86	306,856	3,528
3-33	BROWN & THORP (UPPER CLEAR FORK); Pecos	1959	2,562	38	Upper Clear Fork, Permian								3,160	Clear Fork	40	1	1	0	0	1	4,830	5
3-34	BROWN & THORP (ELLENBURGER); Pecos	1953	4,018	9	Ellenburger, Ordovician	AC	DO					40	4,324	Ellenburger	120	3	0	0	0	2	1,145	66
3-35	BROWN & THORP (GLORIETA); Pecos	1952	2,337	15	Glorieta, Permian	AC	SS					37	3,017	Lime	40	1	0	0	0	1	1,436	15
3-36	BROWN & THORP NORTH (CLEAR FORK); Pecos	1959	3,154	8	Upper Clear Fork, Permian								3,212	Tubb	160	4	4	0	0	4	28,155	28
3-37	BROWNFIELD SOUTH (CANYON); Terry	1950	9,998	75	Canyon, Pennsylvanian	Reef	LM	110		WD	0.40	44	10,590	Canyon	360	9	0	0	0	9	222,247	2,799
3-38	BURLLEY; Gaines	1953	7,590	55	Wichita-Albany Lime, Permian		DO					27	11,092	Ellenburger	40	1	Abandoned 1955			0	1	
3-39	BUSHY TOP (PERMIAN); Sutton	1950	930	86	Permian	AC	SS				0.24	38	7,441	Ellenburger	120	3	0	0	2	0	4,238	47
3-40	BUSHY TOP EAST; Sutton	1954			(Renamed Blue Bonnett Canyon Lime August 1954)																	
3-41	BURNING (PENNSYLVANIAN); Tom Green	1952	5,440	14	Strawn, Pennsylvanian		LM				0.50	30	5,483	Strawn	40	1	0	0	0	1	7,623	71
3-42	BURNING (ELLENBURGER); Crockett	1955	8,140	22	Ellenburger, Ordovician								8,162	Ellenburger	40	Inactive				0	43	
3-43	BUCKSHOT (4950' SAND); Cochran	1956	4,950	30	San Andres, Permian	MC	DO		7	SGD		29	5,100	San Andres	6,520	163	26	0	59	104	1,329,392	2,373
3-44	BURNING; Garza	1949	3,397	18	San Andres, Permian		DO					36	3,581	San Andres, Permian	880	22	1	0	0	22	53,486	543
3-45	BUFFALO CREEK; Scurry	1952	7,590	16	Ellenburger, Ordovician	AC	DO		3		0.31	41	7,608	Ellenburger	120	3	Abandoned 1955			0	100	
3-46	BUR (WOLFCAMP); Upton	1957	9,597	24	Wolfcamp, Permian	AC	DO			SGD		40	14,388	Ellenburger	40	1	0	0	0	1	11,005	42
3-47	BURNETT RANCH (DES MOINES LIME); King	1955	5,440	28	Des Moines Lime, Permian	AC	LM					37	6,400	Ellenburger	360	5	0	0	0	2	18,982	117
3-48	BURNETT RANCH (Des Moines SAND); King	1955	5,354	10	Pennsylvanian Sand	AC	SS					36	6,015	Mississippian	20	2	0	0	0	2	19,333	113
3-49	BURNETT RANCH (PENNSYLVANIAN LIME); King	1955	5,416		Lime, Pennsylvanian	AC	LM					37				Abandoned 1957			0	15		
3-50	BURNETT RANCH (PENNSYLVANIAN SAND); King	1955	5,354	10	Pennsylvanian Sand	AC	SS					34	6,015	Ellenburger		0	0	0	0	3	30,458	186
3-51	BURT; King	1950	3,360													Combined with Burt-Ogden-Mabee 1950 in Dist. 7-B						
3-52	BURT (GARDNER); King	1951	3,455		Gardner, Pennsylvanian											Combined with Burt-Ogden-Mabee 1950 in Dist. 7-B						
3-53																						

OIL PRODUCTION DATA FOR THE PERMIAN BASIN

TABLE NO. T-7

LINE NUMBER	FIELD, COUNTY	YEAR OF DISCOVERY	PRODUCING FORMATION			RESERVOIR CHARACTERISTICS					CHARACTER OF OIL			DEEPEST ZONE TESTED TO END OF 1959		TOTAL PROVED ACRES	NUMBER OF WELLS		WELLS PRODUCING DEC. 1959		OIL PRODUCTION	
			AVG TOP FT.	ESTIMATED PROD. THICK. FEET	GEOLOGICAL NAME, AGE	STRUCTURE	CHARACTER	PERMEABILITY, md.	POROSITY, PER CENT, ESTIMATED	PRODUCTION MECHANISM	SULPHUR PER CENT	GRAVITY A.P.I. AVG.	DEPTH OF HOLE FEET	GEOLOGICAL FORMATION		COMPLETED TO END OF 1959	1959		OIL		DURING 1959 BARRELS	TO END OF 1959 THOUSANDS OF BARRELS
																	COMPLETED	ABANDONED	FLOWING	ARTIFICIAL LIFT		
361	BYERS (HOME CREEK); Runnels	1958	2,818	4	Home Creek, Pennsylvanian		SS					46	3,844	Gray	20	1	0	0	0	1	2,597	11
362	BYLER (SAN ANGELO); Irion	1957	876	94	San Angelo, Permian								1,295	Clear Fork	80	2	Inactive at end of 1957				0	.7
363	BYRD; Ward	1942	2,600	45	Permian	AC	DO					28	3,200	Permian	440	11	1	0	1	10	17,917	435
364	C-BAR (CONNELL); Crane	1948	9,512	40	Connell, Ordovician	AC	SS		por	SGD	0.20	43	9,940	Ellenburger	40	1	Abandoned 1955				0	37
365	C-BAR (SAN ANDRES); Crane	1949	3,520	29	San Andres, Permian	AC	DO	P	10	SGD	2.50	35	9,940	Ellenburger	5,600	141	1	0	31	107	715,954	4,630
366	C-BAR (SILURIAN); Crane	1948	8,355	50	Silurian	AC	DO				0.48	36	9,940	Ellenburger	80	2	0	0	0	1	13,117	240
367	C-BAR (TUBB); Crane	1957	5,195	60	Tubb, Permian	AC	DO	P	12	SGD		34	9,940	Ellenburger	80	2	0	0	0	2	12,955	59
368	C-BAR WEST (GLORIETA); Crane	1956	4,596	46	Glorieta, Permian	AC						28	9,870	Ellenburger	120	3	Inactive at end of 1958				0	14
369	CABLE; Reeves	1953	10,080		Wolfcamp Lime, Permian		LM					42	11,258	Wolfcamp	40	1	Abandoned 1955				0	2
370	CAIN (SPRABERRY); Garza	1959	4,916	24	Spraberry, Permian								8,319	Ellenburger	40	1	1	0	0	1	23,973	24
371	CAIN (STRAWN); Garza	1959	7,666	14	Ellenburger, Ordovician								8,360	Ellenburger	200	5	5	0	5	0	160,701	161
372	CAMAR (PALO PINTO); Schleicher	1959	3,881	8	Palo Pinto, Pennsylvanian								4,625	Strawn	40	1	1	0	0	0	11,036	11
373	CAMAR (STRAWN LIME OIL); Schleicher	1959	4,340	5	Strawn, Pennsylvanian								4,774	Strawn	80	2	2	0	1	1	11,591	12
374	CAMAR SOUTHWEST (STRAWN); Schleicher	1959	4,445	4	Strawn, Pennsylvanian								4,626	Strawn	80	2	2	0	2	0	9,307	9
375	CAMPBELL; Reeves	1951	1,923	42	Castile Lime, Permian		LM					29	3,186	Delaware	40	1	Abandoned 1953				0	1
376	CAMP SPRINGS (STRAWN REEF); Scurry	1954	6,370	4	Canyon, Pennsylvanian	Reef						44	7,320	Ellenburger	40	1	0	0	0	1	1,655	19
377	CANNON (WOLFCAMP); Borden	1950	5,906	25	Wolfcamp, Permian	AC	LM				0.7	41	6,111	Wolfcamp	40	1	0	0	0	1	12,441	204
378	CANYON; Borden	1953	7,330		Lower Spraberry Sand, Permian								10,514	Ellenburger Lime	40	1	Combined with Jo-Mill Spraberry 1955				43	
379	CANYON (WOLFCAMP); Tom Green	1957	5,684	35	Wolfcamp, Permian								7,865	Ellenburger	40	1	0	0	0	1	4,787	22
380	CARTER; Glasscock	1939	2,650	30	Permian								2,707	Permian	120	3	1	0	0	2	2,004	137
381	CARTER (QUEEN); Glasscock	1959	1,900	200	Queen Sand, Permian								10,261	Ellenburger	40	1	1	0	0	1	1,014	1
382	CARTER (WOLFCAMP); Glasscock	1957	8,554	211	Wolfcamp, Permian								10,621	Ellenburger	40	1	0	1	0	0	2,021	19
383	CARTER-NEW MEXICO (SAN-ANDRES); Gaines	1956	5,137	75	San Andres, Permian		LM	5	11	SGD		31	11,912	Devonian	160	4	0	0	0	4	16,355	80
384	CASEY; Kent	1954	6,020	12	Canyon Sand, Pennsylvanian								7,665	Ellenburger		6	Combined with SMS Canyon Sand 1954				83	
385	CAVE (GOEN LIME); Concho	1959	3,494	11	Goen Lime, Pennsylvanian								3,810	Ellenburger	20	1					0	0
386	CEDAR LAKE; Gaines	1939	4,500	160	Permian	AC	DO	16	12	SGD	2.1	33	13,185	Ellenburger	7,000	185	0	4	0	17	1,070,644	20,751
387	CEDAR LAKE SOUTHEAST (SAN ANDRES); Dawson	1953	4,940	55	San Andres Lime, Permian	AC	DO	12	16	SGD		33	8,575	Wolfcamp Lime	480	12	0	0	0	11	38,429	332
388	CENTRALIA DRAW (DEAN); Reagan	1955	7,846	19	Dean, Permian		SS					41	12,229	Ellenburger	40	1	Inactive at end of 1958				0	11
389	CHAMBERS RANCH (CANYON); Concho	1956	2,696	6	Canyon Reef Lime, Pennsylvanian		LS					32	4,711	Ordovician	40	1	Abandoned January 1959				0	2
390	CHAMBLESS (SAN ANDRES); Yoakum	1955	5,248	61	San Andres, Permian		DO					32	5,312	San Andres	320	8	2	1	0	7	33,407	110
391	CHAMPHON (DEVONIAN); Gaines	1959	12,737	13	Devonian								12,752	Devonian	80	2	2	0	1	1	50,683	51
392	CHANCELLOR; Pecos	1942	5,240	30	Delaware, Permian								6,001	Permian	80	2	Completed in Chancellor Delaware 3-54				136	
393	CHANCELLOR (DELAWARE); Pecos	1942	5,240	30	Delaware, Permian	MC	SS			SGD	0.30	36	6,001	Permian	80	2	0	0	0	1	6,578	49
394	CHAFARRAL (LOWER PENNSYLVANIAN); Kent	1955	6,776	22	Pennsylvanian		LM					36	6,800	Pennsylvanian	40	1	0	0	0	1	8,041	90
395	CHAPMAN; Reeves	1943	2,900	6	Permian		SS				0.3	37	2,906	Permian	1,000	25	0	0	1	24	38,364	762
396	CHARLES; Pecos	1949	1,337	13	Grayburg, Permian		DO					36	1,431	McElroy	160	4	1	0	0	3	4,187	7
397	CHARLES-COPELAND; Coke	1952	6,420	29	Ellenburger, Ordovician		DO					49	6,470	Ellenburger	40	1	0	0	0	1	4,359	44
398	CHARLIEBEN (SERRATT); Runnels	1958	2,064	4	Serratt Sand, Pennsylvanian		SS	300	18	PM		45	2,169	Cisco	100	5	0	0	2	3	45,131	72
399	CHEYENNE; Winkler	1947	3,286	53	Permian								3,339	San Andres	40	1	Renamed Scarborough W				0	
400	CHILDRESS; Crockett	1947	8,092	53	Ellenburger, Ordovician							42	9,270	Cambrian	80	2	Abandoned October 1948				0	7
401	CHILSON (PENNSYLVANIAN); Gaines	1951	11,334	41	Pennsylvanian		LM					38	12,437	Devonian	40	1	0	0	0	1	7,176	88
402	CHRISTOVAL (CANYON); Tom Green		4,640	28	Canyon Sand, Pennsylvanian		SS					47	5,782	Wilberns Sand	120	3	0	1	0	2	2,150	41
403	CHRISTOVAL (5100' STRAWN); Tom Green	1955	5,032	60	Strawn, Pennsylvanian							31	6,128	Cambrian	80	2	0	0	0	2	14,346	36
404	CHRISTOVAL NORTH (CONGLOMERATE); Tom Green	1952	27		Conglomerate, Permian		CG					26	150	Cretaceous Lime	20	1	Inactive at end of May 1963				0	.5
405	CHRISTOVAL SOUTH (STRAWN REEF); Tom Green	1954	5,629	33	Strawn Reef, Pennsylvanian		LM					47	6,550	Ellenburger	80	2	0	0	1	1	13,969	129
406	CHURCH-FIELDS-McELROY; Crane-Upton				(See McElroy)																	
407	CIRCLE 2 (DEVONIAN); Winkler	1956	9,186	12	Devonian	AC	CHT	29	6	SGD		36	11,432	Ellenburger	120	3	0	0	2	1	36,189	209
408	CIRCLE 2 (FUSSELMAN); Winkler	1957	9,709	74	Fusselman, Silurian	AC	LS	31	4	SGD		34	11,380	Ellenburger	120	3	0	0	0	3	38,543	154
409	CLABBERHILL; Andrews	1943	5,600	20	Permian	AC	DO					33	7,500	Permian	80	2	0	0	0	2	5,913	225
410	CLAIREMONT (LOWER PENNSYLVANIAN); Kent	1950	6,742	10	Lower Pennsylvanian	AC	LM			9 WD	0.40	39	6,786	Pennsylvanian	1,480	37	8	0	5	32	417,351	2,581
411	CLAIREMONT (STRAWN); Kent	1958	6,682	6	Strawn, Pennsylvanian		SS					40	6,752	Strawn	120	3	0	0	0	3	35,571	57
412	CLAIREMONT NORTH (LOWER PENNSYLVANIAN); Kent	1958	6,712	14	Strawn, Pennsylvanian			9	6			40	6,731	Strawn	200	5	Combined with Clairemont Lower Pennsylvanian January 1959				40	
413	CLAIREMONT WEST (STRAWN); Kent	1957	6,805	15	Strawn, Pennsylvanian								6,843	Strawn	40	1	0	1	0	0	256	5
414	CLANAHAN (LOWER CLEAR FORK); Yoakum	1956	7,968	63	Clear Fork, Permian								8,331	Lower Clear Fork	40	1	0	0	0	1	10,056	76
415	CLARA COUCH; Crockett	1941	1,950	20	Permian		DO			9 SGD		25	8,264	Ellenburger	2,720	68	1	0	0	53	174,035	3,033
416	CLARA COUCH (CISCO OIL); Crockett	1955	5,545	40	Cisco, Pennsylvanian		LM					37	5,591	Cisco	40	1	0	0	0	1	4,540	49
417	CLARA COUCH (WOLFCAMP); Crockett	1947	5,670	15	Wolfcamp, Permian	AC	LM		15		0.40	40	8,264	Ellenburger	160	4	0	0	0	1	1,802	222
418	CLARA GOOD (FUSSELMAN); Borden	1956	9,806	7	Fusselman, Silurian	MC	LM	28	17			43	9,825	Fusselman	160	4	1	0	3	0	55,027	64
419	CLARENCE SCHARBAUER (SPRABERRY); Midland	1951	7,880	975	Spraberry, Permian		SS					36	8,809	Spraberry	40	1	Abandoned 1953				0	3
420	CLARENCE SCHARBAUER (STRAWN); Midland	1951	10,290	180	Strawn, Pennsylvanian		LM				0.07	56	10,875	Pennsylvanian	200	5	0	0	5	0	15,764	532

A GENERAL REPORT

Covering the

PERMIAN BASIN

WEST TEXAS AND SOUTHEASTERN NEW MEXICO

Prepared by

NORTH BASIN POOLS ENGINEERING COMMITTEE

T. G. Post, Chairman

Midland, Texas
January 1, 1961

C O N T E N T S

	<u>Page</u>
A General Statement - - - - -	1
Location of Gasoline Plants in Permian Basin - - - - -	3
Annual Gasoline Plant Operations - For Year 1960 - - - - -	10
Summary of Gasoline Plant Operations - For Year 1960 - - - - -	28
El Paso Natural Gas Company's Pipe Line System - - - - -	29
Chief Residue Gas Markets - - - - -	30
Daily Average Residue Gas Disposition - - - - -	31
Carbon Black Plants in Permian Basin - - - - -	32
Daily Average Crude Oil Runs to Stills of Refineries West Texas and Southeastern New Mexico - - - - -	33
Sulphur Plants in the Permian Basin - - - - -	34
Water Flood and Gas Injection Projects - - - - -	35
List of Producing Formations - - - - -	49
Oil Production Tables of Permian Basin Area - - - - -	50
Abbreviations Used in A.I.M.E. Tables - - - - -	51
Table Nos. T-1 to T-36, Inclusive - A.I.M.E.'s 1959 Oil Production Data for West Texas - - - - - (Following) - -	53
Table Nos. NM-1 to NM-7, Inclusive - A.I.M.E.'s 1959 Oil Production Data for Southeastern New Mexico - - - - - (Following) - -	

I L L U S T R A T I O N S

<u>Figure</u>	<u>Page</u>
1 - Map Showing Districts of Railroad Commission of Texas Oil and Gas Division - - - - -	2
2 - Chart Showing Sources of Gas Sold and Used by El Paso Natural Gas Company's Pipe Line System - - - - -	29

Illustrations (Cont'd)

<u>Figure</u>	<u>Page</u>
3 - Chart Showing Percentages of Daily Intake Volumes and Residue Gas Disposition of Gasoline Plants for Year 1960 - - - - -	31
4 - Correlation Chart for Producing Formations of the Permian Basin in West Texas and Southeastern New Mexico - - - - -	52
5 - Generalized Section Showing Producing Formations, Lea County, New Mexico - - - - -	53
6 - Oil Field and Pipe Line Map of the Permian Basin, January 1, 1961. (Bound in back of Report).	

COMMITTEE PERSONNEL

The full-time Committee employees who aided in acquiring, assembling and compiling the material contained in this report are listed below as a matter of general record and to give due acknowledgement for work done. The title designations are those used for payroll purposes.

<u>NAME</u>	<u>POSITION</u>	<u>HEADQUARTERS</u>
T. G. Post	Chairman	Midland, Texas
Herman W. Jones	Office Petroleum Engineer	Midland, Texas
Diema Carpenter	Secretary	Midland, Texas
Shirley Henson	Typist - Bookkeeper	Midland, Texas
Rudolph Seljos	Senior Petroleum Engineer	Denver City, Texas
Louis E. McBee	Field Petroleum Engineer	Denver City, Texas
J. R. Slentz	Field Petroleum Engineer	Denver City, Texas
Ray D. Cook	Field Petroleum Engineer	Denver City, Texas

A GENERAL STATEMENT

This is the eighteenth annual report prepared by the North Basin Pools Engineering Committee which covers certain facets of the oil and gas activities in the Permian Basin Area of West Texas and Southeastern New Mexico. It is not the purpose of this report to go into the many different phases of oil and gas conservation practiced in this area. However, a good overall picture may be obtained from the factual data contained herein as to what is being accomplished in this regard. This is especially true with respect to the conservation of casinghead gas produced incident to oil production, a large percentage of which was popped to the air a few years past for lack of marketing facilities. Figures 2 and 3 show graphically a remarkable achievement in gas conservation with the industry working under a minimum of regulatory controls, close at home at the state level.

THE PERMIAN BASIN

There are two types of basins; topographic basins and structural basins. A topographic basin is a depressed area on the surface of the earth. A structural basin is underground. Simply, a structural basin is distinguished by the fact that the formations are inclined inward from all sides.

On the basis of fossils and the superposition of formations, rocks of Permian Age are found in many parts of the World. The Permian System of rocks was first distinguished and named around one hundred years ago in the Russian Province of Perm, later renamed Molotov. The name, Permian, was adopted from this source.

The term "Permian Basin" in the United States is applied to a widespread area underlain by a thick sequence of sedimentary formations of Permian Age. These formations extend from West Texas and Southeastern New Mexico northward through Western Oklahoma, Central Kansas and on up into Nebraska.

We are concerned here with only that part of the basin which lies south of the Matador Arch, a structural uplift which trends roughly east-west through the south boundaries of Lamb, Hale, Floyd and other West Texas counties. Geologically, this is the southern part of the Permian Basin, which is by no means a simple basin. Instead, it contains many complex structural and depositional features. Some of the major features have been outlined on the Oil Field and Pipe Line Map bound in the back of this report as Figure 6.

Geographically, this report covers only the oil and gas producing areas of Southeastern New Mexico and Railroad Commission Districts 7-C and 8 of West Texas. (See Figure 1.) Due to the regional attitude of the Permian formations in these areas, coupled with the fact that the pay zones of the first oil discoveries were in rock of Permian Age, gave rise to the adoption of the name, "The Permian Basin", for this petroliferous province, even though it is only a portion of the basin as a whole, as noted above.

On January 1, 1960, the Permian Basin's cumulative production amounted to 8,138,839,000 barrels. This figure does not include natural gas liquids derived from gasoline plants, which currently amounts to upward of 77 million barrels annually. This oil was produced from 2530 reservoirs, of which 2145 were in Districts 7-C and 8 in West Texas, and 385 in Southeastern New Mexico. This does not include a relatively small number of abandoned fields.

LOCATION OF GASOLINE PLANTS IN THE PERMIAN BASIN

The following outline shows the location of gasoline plants in the Permian Basin Area of West Texas and Southeastern New Mexico on January 1, 1961. On that date there were 104 gasoline plants operating, 3 under construction and 3 proposed. The list of plants has been arranged under two headings: (1) plants in West Texas, and (2) plants in Southeastern New Mexico. The West Texas Area consists of Railroad Commission Districts 7-C and 8. (See Figure 1). The plants located in District 7-C have been characterized by the asterisk (*). In the West Texas Area, 23 plants are located in District 7-C and 57 plants are located in District 8. In Southeastern New Mexico there are 24 plants. This list includes a compressor station and a gas lift plant which are required to file gasoline plant reports.

GASOLINE PLANTS IN WEST TEXAS

PLANT OPERATOR	PLANT NAME	PLANT LOCATION		DAILY CAPACITY MCF	DESCRIPTION OF LOCATION
		FIELD	COUNTY		
Amarillo Oil Company	Shafter Lake	Shafter Lake	Andrews	20000	NW Sec. 8, Blk. 14, University Lands
Amerada Petroleum Corp.	#Adair	Adair	Terry	1500	SE $\frac{1}{2}$ Sec. 5, Blk. C-37, PSL
The Atlantic Refining Co.	Block 31 PM	University Block 31	Crane	44000	SW $\frac{1}{2}$ SE $\frac{1}{2}$ Sec. 33, Blk. 31, University Lands
*Barnhart Hydrocarbon Corp.	Barnhart	Barnhart	Reagan	25000	West Line Survey 5, HE & WT Surveys
Cabot Carbon Company	Estes	North Ward	Ward	30000	S $\frac{1}{2}$ NE $\frac{1}{2}$ Sec. 3, Blk. 16, University Lands
Cabot Carbon Company	Walton Keystone	Kermit Keystone	Winkler Winkler	30000 23000	E $\frac{1}{2}$ SE $\frac{1}{2}$ Sec. 11, Blk. 26, PSL SW $\frac{1}{2}$ SE $\frac{1}{2}$ Sec. 3, Blk. B-3, PSL
Chillgas Corporation	#Wellman	Wellman	Terry	2000	SE Cor. Sec. 12, Blk. C-36, PSL
Cities Service Oil Co.	Lehman	Levelland	Cochran	30000	NW $\frac{1}{2}$ NW $\frac{1}{2}$ Labor 9, Lge. 114, Potter Co. S.L.
*Cities Service Oil Co.	#Page **	Page	Schleicher	5500	Gen. Sec. 32, Blk. L, GH&SA
Cities Service Oil Co.	Roberts Ranch	Dora Roberts	Midland	50000	SE $\frac{1}{2}$ Sec. 16, Blk. 41, T-3-S, T&P RR Sur.

*District 7-C. #Refrigeration Plant. **Formerly T. L. Williams.

Gasoline Plants in West Texas (Cont'd)

- 4 -

PLANT OPERATOR	PLANT NAME	PLANT LOCATION		DAILY CAPACITY MCF	DESCRIPTION OF LOCATION
		FIELD	COUNTY		
Cities Service Oil Co.	W. Seminole	W. Seminole	Gaines	15000	SW $\frac{1}{4}$ Sec. 334, Blk. G, CCSD & RGNG Survey
Continental Oil Company	#Ramsey	Ford-Sullivan	Reeves	5000	NW Sec. 36, Blk. 58, T-1-S, T&P RR Sur.
*Continental Oil Company	Todd Ranch PM	Todd Deep	Crockett	9300	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 28, Blk. WXGC, SFRR Survey
*Dorchester Corporation	#Texon	Big Lake	Reagan	6000	SE $\frac{1}{4}$ Sec. 11, Blk. 2, University Lands
*El Paso Natural Gas Co.	Midkiff	Spraberry	Reagan	169000	NW $\frac{1}{4}$ Sec. 22, Blk. 37, T-5-S, T&P RR Sur.
El Paso Natural Gas Co.	Sealy-Smith	Monahans	Ward	17000	NW $\frac{1}{4}$ Sec. 43, Blk. A, G & MMB & A Survey
General Crude Oil Co.	Salt Creek PM	Salt Creek	Kent	5000	SE $\frac{1}{4}$ Sec. 193, Blk. G, W N RR Survey
Honolulu Oil Corporation	Prentice	Prentice	Yoakum	12860	SW $\frac{1}{4}$ Sec. 20, Blk. K, PSL
Honolulu Oil Corporation	#Ropes	Ropes	Hockley	1700	Labor 12, League 5, Wilbarger School Land
Houston Hydrocarbon Corp.	#Cardona Lake	Juan Cardona Lake	Crane	5000	NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 4, Juan Cardona Survey
*Humble Oil & Ref. Co.	Bronte	Bronte	Coke	3500	Sec. 5, C&M RR Survey
*Hunt Oil Company	Wilshire	Wilshire- Ellen	Upton	16000	NW Sec. 135, Blk. E, CCSD & RGNG Survey
Lion Oil Company	Diamond "M"	Diamond "M"	Scurry	55000	SW 50 Ac., Sec. 182, Blk. 97, H & TC Sur.
*Lone Star Producing Co.	Ft. Chad- bourne PM	Ft. Chad- bourne	Runnels	30000	SE Cor. Odom Lse., Sec. 302, F. Soso Sur.
*Mertzson Corporation	Mertzson	Mertzson	Irion	4000	NL Abs. 592, Tom Green CSL
*Mesquite Gas Prod. Co.	Davis	Davis	Upton	6000	NW NE Sec. 20, Blk. 41, T-5-S, T&P
*Midland Petrochemical Co.	H-J Strawn	H-J Strawn	Tom Green	1250	SE Sur. 1131, Abs. 4407, C&M

*District 7-C. #Refrigeration Plant.

Gasoline Plants in West Texas (Cont'd)

- 5 -

PLANT OPERATOR	PLANT NAME	PLANT LOCATION		DAILY CAPACITY	DESCRIPTION OF LOCATION
		FIELD	COUNTY		
*Midland Petrochemical Co.	Susan Peak	Susan Peak	Tom Green	2500	NE $\frac{1}{4}$ Sec. 193, S P RR Co. District 11
Natural Gas Products Co.	Imperial #1	Abell	Crane	15000	Sec. 21, Blk. 1, H & TC Survey
	Imperial #2	Abell	Pecos	6500	SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 4 $\frac{1}{2}$, Blk. 3, H & TC Survey
Odessa Nat'l Gasoline Co.	Odessa	Foster	Ector	40000	SW $\frac{1}{4}$ Sec. 18, Blk. 42, T-2-S, T&P RR Sur.
	Cowden South	Cowden South	Ector	5000	NE NW $\frac{1}{4}$ Sec. 38, Blk. 43, T-2-S, T&P RR.
Pan American Pet. Corp.	#Anton-Irish	Anton-Irish	Hale	4000	SW Cor. SE $\frac{1}{4}$ Sec. 14, Blk. D-T, HE&WT RR
Pan American Pet. Corp.	North Cowden	North Cowden	Ector	75000	SE $\frac{1}{4}$ Sec. 34, Blk. 43, T-1-N, T&P RR Sur.
Pan American Pet. Corp.	S. Fullerton	Fullerton & Union	Andrews	57500	Center Sec. 8, Blk. A-48, PSL
Pan American Pet. Corp.	**Hendrick GL	Hendrick	Winkler	7000	SE Corner Sec. 33, Blk. 26, PSL
Pan American Pet. Corp.	Levelland	Levelland	Hockley	33300	NW Cor. Labor 7, League 72, Val Verde SL
Pan American Pet. Corp.	Midland Farms	Midland Farms	Andrews	14500	Center N $\frac{1}{2}$ Sec. 8, Blk. 42, T-1-N, G & MMB & A Survey
Pan American Pet. Corp.	#Monahans	N. Monahans	Winkler	5000	SW $\frac{1}{4}$ Sec. 24, Blk. B-10, PSL
Pan American Pet. Corp.	Slaughter	Slaughter	Hockley	110000	Labor 14 and 15, League 49
Pan American Pet. Corp.	Three Bar PM	Three Bar	Andrews	18500	S $\frac{1}{2}$ NW $\frac{1}{4}$ Sec. 9, Blk. 11, University Lands
Pecos Company	Midland	Spraberry	Midland	30000	Cen. E $\frac{1}{2}$ NE $\frac{1}{4}$ Sec. 14, Blk. 37, T-3-S, T&P RR Survey
Pecos Company	Santa Rosa #3	Santa Rosa	Pecos	45000	SE $\frac{1}{4}$ Sec. 105, Blk. 8, H & GN Survey
Phillips Petroleum Co.	Andrews	Andrews	Andrews	108000	NW $\frac{1}{4}$ Sec. 19, Blk. A-46, PSL
*Phillips Petroleum Co.	Benedum	Benedum	Upton	34000	W $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 46, Blk. Y, MK & T Survey

*District 7-C. #Refrigeration Plant. **Gas Lift Compression Plant.

Gasoline Plants in West Texas (Cont'd)

- 6 -

PLANT OPERATOR	PLANT NAME	PLANT LOCATION		DAILY CAPACITY MCF	DESCRIPTION OF LOCATION
		FIELD	COUNTY		
Phillips Petroleum Co.	Crane	McElroy	Crane	55000	NE $\frac{1}{4}$ Sec. 21 $\frac{1}{2}$, Blk. F, CCSD & RGNG Survey
Phillips Petroleum Co.	N. Fullerton	Fullerton	Andrews	72000	Center Sec. 17, Blk. A-32, PSL
Phillips Petroleum Co.	Goldsmith	Goldsmith	Ector	306000	SE $\frac{1}{4}$ Sec. 33, Blk. 44, T-1-N, T&P RR Sur.
Phillips Petroleum Co.	Judkins	Penwell	Crane & Ector	41000	N $\frac{1}{2}$ SW $\frac{1}{4}$ Sec. 1, Blk. 35, University Lands; NW $\frac{1}{4}$ Sec. 27, Blk. 44, T-2-S, T&P RR Sur.
*Phillips Petroleum Co.	Pembroke	Spraberry	Upton	55000	NE $\frac{1}{4}$ Sec. 47, Blk. 38, T-5-S, T&P RR Sur.
Phillips Petroleum Co.	Puckett	Puckett	Pecos	225000	NE Sec. 26, Blk. 101, TCRR Survey
Phillips Petroleum Co.	Seminole	Seminole	Gaines	34000	NE $\frac{1}{4}$ Sec. 229, Blk. G, WTRR Survey
Phillips Petroleum Co.	Spraberry	Spraberry	Midland	25000	SE $\frac{1}{4}$ Sec. 25, Blk. 37, T-3-S, T&P RR Sur.
Phillips Petroleum Co.	**Tunstill	Tunstill	Reeves	13700	NE Sec. 10, Blk. 56, T-2-S, T&P
Phillips Petroleum Co.	#Winkler	Emperor Deep	Winkler	10800	Center N $\frac{1}{2}$ N $\frac{1}{2}$ Sec. 27, Blk. B-5, PSL
The Pure Oil Company	Dollarhide	Dollarhide	Andrews	60000	SE $\frac{1}{4}$ Sec. 25, Blk. A-52, PSL
Reef Corporation	E. Vealmoor	E. Vealmoor	Howard	66800	NE $\frac{1}{4}$ Sec. 20, Blk. 27, H & TC Survey
Sid Richardson Gasoline Co.	Keystone	Keystone	Winkler	95000	Center N $\frac{1}{2}$ Sec. 5, Blk. B-2, PSL
*Runnels Gas Products Co.	Sykes	Cree-Sykes	Runnels	28000	NE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 6, HT & B RR Survey
*Shell Oil Company	#Crossett	Crossett	Upton	3000	NW Sec. 55, Blk. 35, H & TC Survey
Shell Oil Company	TXL	TXL-Wheeler	Ector	112000	N $\frac{1}{2}$ N $\frac{1}{2}$ Sec. 17, Blk. 45, T-1-S, T&P RR Sur.

*District 7-C. #Refrigeration Plant.

**Formerly Pecos Petroleum Company. ##Formerly Rycade Oil Corporation.

PLANT OPERATOR	PLANT LOCATION		DAILY CAPACITY	DESCRIPTION OF LOCATION	
	PLANT NAME	FIELD	COUNTY	MC	
Shell Oil Company	Wasson #1) Wasson #2)	Wasson Wasson	Yoakum Yoakum	152000	NW¼ NE¼ Sec. 892, Blk. D, Gibson Survey) NW¼ Sec. 827, Blk. D, Gibson Survey
*Sinclair Oil & Gas Co.	Hulldale #23	Hulldale	Schleicher	30000	2750' W. of SE Cor. Sec. 81, Blk. TT, GH & SA Survey
*Sinclair Oil & Gas Co.	#Ketchum Mt.	Ketchum Mt.	Irion	1250	SW¼ Sec. 48, Blk. 14, H & TC Survey
Socony Mobil Oil Company	Kermit	Kermit	Winkler	10000	SW¼ Sec. 1, Blk. 26, PSL
*Socony Mobil Oil Company	Parks Booster Parks		Midland	8000	Sec. 15, Blk. 41, T-3-S, T&P RR Survey
*Socony Mobil Oil Company	Pegasus	Pegasus	Midland	60000	Near Center E½ Sec. 30, Blk. 40, T-4-S, T&P RR Survey
Standard Oil Co. of Texas	North Snyder	Kelly-Snyder	Scurry	19000	NW¼ NE¼ Sec. 440, Blk. 97, H & TC Survey
*Sun Oil Company	Jameson	Jameson	Coke	50000	Cen. W¼ Sec. 315, Blk. 1-A, H & TC Survey
Sunray Mid-Continent Oil Company	Snyder	Kelly-Snyder	Scurry	35000	Tract 20, Sec. 40, Kirkland & Fields Sur.
Texaco Inc.	P. L. Fuller	Cogdell	Scurry	25000	SE¼ Sec. 652, Blk. 97, H & TC RR Survey
Texaco-Seaboard, Inc.	Lamesa	Spraberry	Dawson	6000	SW¼ Sec. 36, Blk. 34, T-5-N, T&P
*Texas Gas Products Corp.	Benedum	Benedum- Spraberry	Upton	115000	N¼ W¼ Sec. 3, Chris Bendle Survey
Texas Gulf Prod. Co.	Headlee	Headlee	Ector	30000	SE Cor. NW¼ Sec. 8, Blk. 41, T-2-S T&P RR Survey
*Union Texas Natural	**Perkins #10	Jameson- Strawn	Coke	70000	NE Cor. Sec. 2 & SE Cor. Sec. 1, Blk. 2, H & TC Survey
Warren Petroleum Corp.	Monahans	North Ward- Estes	Ward	25000	SW¼ Sec. 4, Blk. F, G & MMB & A Survey

*District 7-C. #Initial Report - March, 1960. **Operated by Texas Hydrocarbon Co. until June, 1960.

Gasoline Plants in West Texas (Cont'd)

- 8 -

PLANT OPERATOR	PLANT NAME	PLANT LOCATION		DAILY CAPACITY MCF	DESCRIPTION OF LOCATION
		FIELD	COUNTY		
*Warren Petroleum Corp.	Runnels	Sueise	Runnels	5000	E. Cor. Lyle Forsythe Heirs Survey #480
Warren Petroleum Corp.	Waddell	Sand Hills	Crane	44000	SE $\frac{1}{4}$ Sec. 25, Blk. B-26, PSL
Total Daily Capacity - West Texas				3120960	

GASOLINE PLANTS IN SOUTHEASTERN NEW MEXICO

Atlantic Refining Co.	Lovington	Denton	Lea	25000	NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 2, T-15-S, R-37-E
Cabot Carbon Company	King	King-Devonian	Lea	3800	NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 35, T-13-S, R-37-E
Continental Oil Co.	#Maljamar	Maljamar	Lea	7000	E $\frac{1}{2}$ Sec. 21, T-17-S, R-32-E
El Paso Natural Gas Co.	Jal No. 1	Cooper-Jal	Lea	130000	SW Cor. SW $\frac{1}{4}$ Sec. 1, T-26-S, R-36-E
El Paso Natural Gas Co.	**Jal No. 2)	Langlie-Mattix	Lea	136000	NE $\frac{1}{4}$ Sec. 34, T-24-S, R-37-E
	**Jal No. 3)	Langlie-Mattix	Lea	45000	NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 33, T-24-S, R-37-E
	**Jal No. 4)	Langlie-Mattix	Lea	180000	All acreage in S $\frac{1}{2}$ SW $\frac{1}{4}$ W. of RR, Sec. 32, T-23-S, R-37-E
Frontier Nat'l Gas Co.	Grayburg-Jackson PM	Grayburg-Jackson	Eddy	7000	NW Cor. SE $\frac{1}{4}$ Sec. 24, T-17-S, R-29-E
Humble Oil & Ref. Co.	Tatum	South Four Lakes	Lea	5000	Cent. Sec. 2, T-12-S, R-34-E
Northern Nat'l Gas Co.	Hobbs	Near Hobbs	Lea	200000	NE $\frac{1}{4}$ Sec. 6, T-19-S, R-37-E
##Phillips Petroleum Co.	Artesia	Empire	Eddy	18000	SW SE Sec. 7, T-18-S, R-28-E
Phillips Petroleum Co.	Eunice	Eunice	Lea	140000	N $\frac{1}{2}$ NE $\frac{1}{4}$ Sec. 5, T-21-S, R-36-E
Phillips Petroleum Co.	Hobbs	Hobbs	Lea	25000	Center N $\frac{1}{2}$ NW $\frac{1}{4}$ Sec. 4, T-19-S, R-38-E

*District 7-C. #Formerly Maljamar Co-Op Rep. Agmt. **Combined for reporting purposes.

Initial Report August, 1960

Gasoline Plants in Southeastern New Mexico (Cont'd) - 9 -

PLANT OPERATOR	PLANT NAME	PLANT LOCATION		DAILY CAPACITY MCF	DESCRIPTION OF LOCATION
		FIELD	COUNTY		
Phillips Petroleum Co.	Lea	Vacuum	Lea	24000	E. Side on line between Sec. 30 & 31, T-17-S, R-35-E
Sinclair Oil & Gas Co.	Plant #29	Gladiola	Lea	10000	N $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 18, T-12-S, R-38-E
Skelly Oil Company	Eunice #1	Penrose-Skelly	Lea	66000	N $\frac{1}{2}$ SW $\frac{1}{4}$ Sec. 27, T-22-S, R-37-E
Skelly Oil Company	Eunice #2	Drinkard	Lea	57000	S $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 28, T-21-S, R-37-E
Skelly Oil Company	Lovington	Lovington	Lea	10000	SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 31, T-16-S, R-37-E on Skelly "O" Lease
#Skelly Oil Company	Maljamar	Grayburg-Jackson	Eddy	20000	NW $\frac{1}{4}$ Sec. 18, T-17-S, R-31-E
Valley Gas Corporation	Anderson Ranch	Anderson	Lea	5000	NE 40 Ac. of SW 160 Ac., T-16-S, R-32-E
Valley Gas Corporation	Loco Hills PM	Loco Hills	Eddy	6000	W $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 2, T-18-S, R-29-E
Warren Petroleum Corp.	Eunice	Eunice	Lea	57000	NE $\frac{1}{4}$ Sec. 3, T-22-S, R-37-E
Warren Petroleum Corp.	Monument	Monument	Lea	75000	SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 36, T-19-S, R-36-E
Warren Petroleum Corp.	Saunders Area	Saunders	Lea	30000	SW $\frac{1}{4}$ Sec. 34, T-14-S, R-33-E
Total Daily Capacity - Southeastern New Mexico				1281800	
Total Daily Capacity - West Texas				3120960	
Grand Total Daily Capacity - Permian Basin Area				4402760	

#Initial Report - June, 1960.

ANNUAL GASOLINE PLANT OPERATIONS
For Year 1960

On January 1, 1961, there were 104 gasoline plants operating in the Permian Basin Area of West Texas and Southeastern New Mexico, or 7 more than there were for the year 1959.

The tabulations beginning on the next page reflect: (1) the intake volume of gas, (2) the disposition of the gas, and (3) the amount of products recovered from each of these 104 plants operating in the Permian Basin on January 1, 1961. A summary of the gasoline plant operations for the year 1960 is outlined following these tabulations on page 28 herein. A summary for the year 1959 may be noted on page 25 of the January 1, 1960 Annual Report of the Permian Basin in West Texas and Southeastern New Mexico.

In Texas producers are required to report gas volumes using a pressure base of 14.65#/sq.in., while in New Mexico a base of 15.025#/sq.in. is used. The individual plant volumes beginning on the next page are shown as reported in each state; however, for comparison purposes, the volumes shown below and in the summary on page 28 have been converted to a common base of 14.65#/sq.in.

YEAR	*TOTAL WELLS CONNECTED		DAILY AVERAGE GAS INTAKE MCF		DAILY AVERAGE BBLs.		*TOTAL PLANT CAPACITY MCF
	OIL	GAS	CASINGHEAD	GAS WELL	OF PRODUCTS		
1955	30,069	1,043	2,397,786	516,228	164,877		3,677,600
1956	33,350	1,193	2,570,328	643,149	183,999		3,819,300
1957	37,400	1,333	2,715,252	587,003	195,391		3,861,380
1958	40,796	1,594	2,550,420	594,791	188,899		4,070,760
1959	45,085	1,681	2,769,262	621,340	207,897		4,349,110
1960	48,441	1,921	2,767,199	745,333	212,081		4,402,760

*December 31 for each year.

Annual Gasoline Plant Operations (Cont'd)

- 11 -

COMPANY	AMARILLO	AMERADA	ATLANTIC	BARNHART	CABOT CORP.	CABOT CORP.
PLANT - West Texas	SHAFTER LAKE	ADAIR	BLOCK 31 PM	BARNHART	ESTES	WALTON & KEYSTONE
*NUMBER OF WELLS						
Oil	0	122	64	286	470	810
Gas	39	0	0	0	0	21
Total	39	122	64	286	470	831
*DAILY CAPACITY MCF	20,000	1,500	44,000	25,000	30,000	53,000
INTAKE VOLUMES MCF						
Casinghead Gas	0	397,813	10,733,780	5,212,168	9,211,023	9,947,835
Gas Well Gas	1,809,750	0	0	0	0	937,394
Into Gathering System	1,809,750	397,813	10,733,780	5,212,168	9,211,023	10,885,229
From Gathering System	0	0	0	0	0	0
To Plant for Processing	1,809,750	397,813	10,733,780	5,212,168	9,211,023	10,885,229
Intake from Plant Meters	1,809,750	397,813	11,020,567	5,233,172	9,540,255	10,733,160
Loss or Gain (Meters)	0	0	+ 286,787	+ 21,004	+ 329,232	- 152,069
Gas from Other Sources	0	0	12,556,238	0	0	0
Net Gas for Processing	1,809,750	397,813	23,576,805	5,233,172	9,540,255	10,733,160
RESIDUE DISPOSITION MCF						
Ext. Loss & Acid Gas	0	131,212	1,522,658	806,115	385,832	588,261
Plant Fuel	0	78,397	1,180,151	892,534	947,549	1,286,488
Fuel & Lease	0	171,461	184,017	116,482	942,427	294,948
G. L. & P. Maint.	0	0	20,566,087	848,725	271,527	0
Carbon Black Plants	0	0	0	0	2,366,745	8,820,208
Transmission Lines	1,809,750	7,024	0	2,610,987	2,424,844	0
Vented	0	470	123,892	3,816	1,862,131	0
Meter Difference	0	+ 9,249	0	- 45,487	+ 339,200	- 256,745
Total	1,809,750	397,813	23,576,805	5,233,172	9,540,255	10,733,160
PLANT PRODUCTION BBLS.						
Gasoline	#1,245	16,408	**322,909	119,643	210,085	160,571
Butane	0	36,336	301,798	74,260	#68,862	#140,659
Propane	0	41,205	484,554	152,400	32,775	103,105
Total	1,245	93,949	1,109,261	346,303	311,722	404,335

*On January 1, 1961. #Includes condensate. **Includes de-ethanized. #Iso-butane combined.

Annual Gasoline Plant Operations (Cont'd)

- 12 -

COMPANY	CHILLCAS	CITIES SERVICE	CITIES SERVICE	#PAGE	ROBERTS RANCH	CITIES SERVICE	CONTINENTAL
PLANT - West Texas	WELLMAN	LEHMAN				WEST SEMINOLE	RAMSEY #16
*NUMBER OF WELLS							
Oil	0	723	29		152	75	248
Gas	30	0	4		0	0	0
Total	30	723	33		152	75	248
*DAILY CAPACITY MCF	2,000	30,000	5,500		50,000	15,000	5,000
INTAKE VOLUMES MCF							
Casinghead Gas	251,819	4,817,215	1,563,958		5,407,110	2,098,136	1,395,951
Gas Well Gas	0	0	343,474		0	0	0
Into Gathering System	251,819	4,817,215	1,907,432		5,407,110	2,098,136	1,395,951
From Gathering System	0	0	47,655		0	9,841	40,908
To Plant for Processing	251,819	4,817,215	1,859,777		5,407,110	2,088,295	1,355,043
Intake from Plant Meters	249,345	4,931,499	1,859,777		5,231,038	2,094,436	1,325,895
Loss or Gain (Meters)	- 2,474	+ 114,284	0		- 176,072	+ 6,141	- 29,148
Gas from Other Sources	0	2,232,875	0		1,476,232	1,730,933	0
Net Gas for Processing	249,345	7,164,374	1,859,777		6,707,270	3,825,369	1,325,895
RESIDUE DISPOSITION MCF							
Ext. Loss & Acid Gas	62,329	978,865	43,189		758,917	699,087	60,646
Plant Fuel	61,442	1,068,257	53,107		451,218	402,400	111,789
Fuel & Lease	0	0	0		0	0	0
G. L. & P. Maint.	0	0	1,214,315		186,868	55,845	0
Carbon Black Plants	0	0	0		0	0	0
Transmission Lines	115,735	4,477,632	467,359		5,251,875	2,554,765	1,072,577
Vented	6,804	239,604	0		6,452	1,446	0
Meter Difference	+ 3,035	+ 400,016	+ 81,807		+ 51,940	+ 111,826	+ 80,883
Total	249,345	7,164,374	1,859,777		6,707,270	3,825,369	1,325,895
PLANT PRODUCTION BBLs.							
Gasoline	35,571	109,554	##23,694		***532,284	99,749	46,344
Butane	**7,054	109,290	0		0	89,839	9,245
Propane	0	80,973	0		0	164,603	14,451
Total	42,625	299,817	23,694		532,284	354,191	70,040

*On January 1, 1961 #Formerly T I Williams **Butane & Propane mixed ##Condensate ***De-ethanized

Annual Gasoline Plant Operations (Cont'd) - 13 -

COMPANY	CONTINENTAL	DORCHESTER	EL PASO	EL PASO	GENERAL CRUDE	HONOLULU
PLANT - West Texas	TODD RANCH	**TEXON	MIDKIFF	SEALY-SMITH	SALT CREEK PM	PRENTICE
*NUMBER OF WELLS						
Oil	143	12	1,486	166	70	474
Gas	0	3	2	9	0	0
Total	143	15	1,488	175	70	474
*DAILY CAPACITY MCF	9,300	6,000	169,000	17,000	5,000	12,860
INTAKE VOLUMES MCF						
Casinghead Gas	794,393	562,297	59,402,057	2,243,435	1,445,452	3,610,846
Gas Well Gas	0	1,182,728	49,104	2,636,961	0	0
Into Gathering System	794,393	1,745,025	59,451,161	4,880,396	1,445,452	3,610,846
From Gathering System	450	0	4,227,617	11,892	217,442	0
To Plant for Processing	793,943	1,745,025	55,223,544	4,868,504	1,228,010	3,610,846
Intake from Plant Meters	742,178	1,745,025	50,594,695	5,008,055	1,228,010	3,552,700
Loss or Gain (Meters)	- 51,765	0	- 4,628,849	+ 139,551	0	- 58,146
Gas from Other Sources	179,978	0	3,138,561	0	0	0
Net Gas for Processing	922,156	1,745,025	53,733,256	5,008,055	1,228,010	3,552,700
RESIDUE DISPOSITION MCF						
Ext. Loss & Acid Gas	132,030	128,186	5,469,173	310,235	37,690	705,157
Plant Fuel	241,825	207,306	4,805,559	628,811	0	435,225
Fuel & Lease	437,269	278,511	47,056	310,430	0	326,041
G. L. & P. Maint.	63,425	0	8,757,970	0	1,190,320	0
Carbon Black Plants	0	0	0	0	0	0
Transmission Lines	0	1,131,022	35,301,960	3,693,123	0	2,044,411
Vented	11,948	0	0	1,595	0	102,427
Meter Difference	+ 35,659	0	- 648,462	+ 63,861	0	- 60,561
Total	922,156	1,745,025	53,733,256	5,008,055	1,228,010	3,552,700
PLANT PRODUCTION BBLS.						
Gasoline	29,528	#115,833	959,140	71,447	35,895	360,412
Butane	25,110	0	1,479,780	82,232	0	0
Propane	31,139	0	1,866,437	44,111	0	0
Total	85,777	115,833	4,305,357	197,790	35,895	360,412

*On January 1, 1961. #De-ethanized product. **Refrigeration plant.

- 47 -

*On January 1, 1961. #Refrigeration plant. **LPG & propane. ##Includes condensate. ***All products mixed.
###Formerly El Paso Natural Gas Co.

- 15 -
Annual Gasoline Plant Operations (Cont'd)

COMPANY	MERTZON CORP.	MESQUITE	MIDLAND PETROCHEMICAL	MIDLAND PETROCHEMICAL	NATURAL GAS PRODUCTS CO.	ODESSA NAT'L.
PLANT - West Texas	MERTZON	**DAVIS	#H-J STRAWN	SUSAN PEAK	IMPERIAL #1 & #2	ODESSA & SOUTH COWDEN
*NUMBER OF WELLS						
Oil	46	9	27	65	237	1,004
Gas	0	1	0	1	16	0
Total	<u>46</u>	<u>10</u>	<u>27</u>	<u>66</u>	<u>253</u>	<u>1,004</u>
*DAILY CAPACITY MCF	4,000	6,000	1,250	2,500	21,500	45,000
INTAKE VOLUMES MCF						
Casinghead Gas	492,547	187,364	158,093	514,475	6,713,304	9,815,290
Gas Well Gas	0	36,349	0	13,300	2,323,994	0
Into Gathering System	492,547	223,713	158,093	527,775	9,037,298	9,815,290
From Gathering System	5,418	3,687	0	0	2,213,623	0
To Plant for Processing	487,129	220,026	158,093	527,775	6,823,675	9,815,290
Intake from Plant Meters	493,229	220,026	158,093	527,775	6,823,675	9,815,290
Loss or Gain (Meters)	+ 6,100	0	0	0	0	0
Gas from Other Sources	0	0	0	0	254,492	0
Net Gas for Processing	<u>493,229</u>	<u>220,026</u>	<u>158,093</u>	<u>527,775</u>	<u>7,078,167</u>	<u>9,815,290</u>
RESIDUE DISPOSITION MCF						
Ext. Loss & Acid Gas	89,247	42,200	30,580	46,336	383,314	1,256,412
Plant Fuel	91,255	31,347	38,264	91,235	818,799	997,565
Fuel & Lease	436	12,932	33,310	23,013	50,500	352,569
G. L. & P. Maint.	0	0	0	99,960	0	0
Carbon Black Plants	0	0	0	0	0	2,261,772
Transmission Lines	312,218	120,404	50,908	225,458	5,141,644	4,433,139
Vented	0	32,891	5,031	32,705	199,438	0
Meter Difference	+ 73	- 19,748	0	+ 9,068	+ 484,472	+ 513,833
Total	<u>493,229</u>	<u>220,026</u>	<u>158,093</u>	<u>527,775</u>	<u>7,078,167</u>	<u>9,815,290</u>
PLANT PRODUCTION BBLS.						
Gasoline	22,272	39,967	27,878	21,957	304,487	260,087
Butane	#48,338	0	0	***14,321	0	281,969
Propane	0	0	0	0	0	251,492
Total	<u>70,610</u>	<u>39,967</u>	<u>27,878</u>	<u>36,278</u>	<u>304,487</u>	<u>793,548</u>

*On January 1, 1961. #LPG Mix. **Started January 1960. ##Started May 1960. ***Butane-Propane Mix.

Annual Gasoline Plant Operations (Cont'd) - 16 -

COMPANY	PAN AMERICAN	PAN AMERICAN	PAN AMERICAN	PAN AMERICAN	PAN AMERICAN	PAN AMERICAN	PAN AMERICAN	PAN AMERICAN
PLANT - West Texas	ANTON-IRISH	NORTH CONDEN	S. FULLERTON	HENDRICK GL	LEVELLAND	MIDLAND FARMS		
*NUMBER OF WELLS								
Oil	152	991	424	24	1,093	373		
Gas	0	5	0	1	1	0		
Total	<u>152</u>	<u>996</u>	<u>424</u>	<u>25</u>	<u>1,094</u>	<u>373</u>		
*DAILY CAPACITY MCF	4,000	75,000	57,500	7,000	33,300	14,500		
INTAKE VOLUMES MCF								
Casinghead Gas	904,805	25,485,419	19,575,936	1,910,357	6,579,869	3,884,959		
Gas Well Gas	0	140,443	0	471,600	91,825	0		
Into Gathering System	904,805	25,625,862	19,575,936	2,381,957	6,671,694	3,884,959		
From Gathering System	3,659	442,975	0	0	37,846	11,871		
To Plant for Processing	901,146	25,182,887	19,575,936	2,381,957	6,633,848	3,873,088		
Intake from Plant Meters	919,961	24,921,462	18,989,151	2,381,957	6,562,624	3,795,460		
Loss or Gain (Meters)	+ 18,815	- 261,425	- 586,785	0	- 71,224	- 77,628		
Gas from Other Sources	0	0	0	0	0	0		
Net Gas for Processing	<u>919,961</u>	<u>24,921,462</u>	<u>18,989,151</u>	<u>2,381,957</u>	<u>6,562,624</u>	<u>3,795,460</u>		
RESIDUE DISPOSITION MCF								
Ext. Loss & Acid Gas	88,353	1,560,899	1,748,645	1,099	857,821	990,695		
Plant Fuel	8,670	2,869,550	2,587,785	145,705	1,038,507	440,847		
Fuel & Lease	0	807,341	710,727	121,351	1,863	366,059		
G. L. & P. Maint.	818,071	9,518,582	5,896,458	1,895,575	1,860,963	958,447		
Carbon Black Plants	0	0	0	0	0	0		
Transmission Lines	0	10,768,988	8,235,459	110,103	2,729,007	1,255,897		
Vented	3,659	3,532	29,142	5,892	8,748	2,789		
Meter Difference	+ 1,208	- 607,430	- 219,065	+ 102,232	+ 65,715	- 219,274		
Total	<u>919,961</u>	<u>24,921,462</u>	<u>18,989,151</u>	<u>2,381,957</u>	<u>6,562,624</u>	<u>3,795,460</u>		
PLANT PRODUCTION BBLs.								
Gasoline	#73,444	**580,728	295,916	**1,607	184,389	**543,062		
Butane	0	248,418	346,984	0	152,640	0		
Propane	0	466,661	554,737	0	231,845	0		
Total	<u>73,444</u>	<u>1,295,807</u>	<u>1,197,637</u>	<u>1,607</u>	<u>568,874</u>	<u>543,062</u>		

*On January 1, 1961. #Includes condensate. **De-propanized product.

Annual Gasoline Plant Operations (Cont'd)

- 17 -

COMPANY	PAN AMERICAN	PAN AMERICAN	PAN AMERICAN	PAN AMERICAN	**PECOS CO.	PECOS CO.	PHILLIPS
PLANT - West Texas	MONAHANS	SLAUGHTER	THREE BAR PM	MIDLAND	SANTA ROSA	ANDREWS	
*NUMBER OF WELLS							
Oil	52	2,486	56	145	0	2,871	
Gas	0	2	0	0	2	17	
Total	52	2,488	56	145	2	2,888	
*DAILY CAPACITY MCF	5,000	110,000	18,500	30,000	45,000	108,000	
INTAKE VOLUMES MCF							
Casinghead Gas	1,470,449	29,286,649	6,601,646	1,246,611	0	32,534,585	
Gas Well Gas	0	32,118	0	0	81,451	974,163	
Into Gathering System	1,470,449	29,318,767	6,601,646	1,246,611	81,451	33,508,748	
From Gathering System	0	10,517	7,129	547,731	0	131,263	
To Plant for Processing	1,470,449	29,308,250	6,594,517	698,880	81,451	33,377,485	
Intake from Plant Meters	1,463,831	29,835,209	6,686,529	759,095	81,451	32,934,175	
Loss or Gain (Meters)	- 6,618	+ 526,959	+ 92,012	+ 60,215	0	- 443,310	
Gas from Other Sources	0	220,333	0	4,600,678	10,939,237	0	
Net Gas for Processing	1,463,831	30,055,542	6,686,529	5,359,773	11,020,688	32,934,175	
RESIDUE DISPOSITION MCF							
Ext. Loss & Acid Gas	150,983	5,248,646	662,322	132,437	456,533	4,171,780	
Plant Fuel	96,456	4,249,567	832,065	221,441	534,762	1,851,788	
Fuel & Lease	0	1,333,568	1,861	4,375	47,569	1,333,003	
G. L. & P. Maint.	163,680	0	5,232,658	0	0	656,292	
Carbon Black Plants	0	0	0	0	0	0	
Transmission Lines	1,032,279	19,207,562	0	4,856,767	9,755,116	24,720,053	
Vented	11,394	36,281	2,825	0	0	201,259	
Meter Difference	+ 9,039	- 20,082	- 45,202	+ 144,753	+ 226,708	0	
Total	1,463,831	30,055,542	6,686,529	5,359,773	11,020,688	32,934,175	
PLANT PRODUCTION BBLs.							
Gasoline	#113,676	658,426	100,560	22,260	#86,234	2,861,285	
Butane	0	477,046	141,635	24,798	86,747	0	
Propane	0	808,508	256,084	47,917	122,998	0	
Total	113,676	1,943,980	498,279	94,975	295,979	2,861,285	

*On January 1, 1961. #Includes De-ethanized & Condensate. **Plant processed gas through July 1960 but is now being dismantled.

#Includes Condensate.

Annual Gasoline Plant Operations (Cont'd)

- 18 -

COMPANY	PHILLIPS	PHILLIPS	PHILLIPS	PHILLIPS	PHILLIPS	PHILLIPS
PLANT - West Texas	BENEDUM	CRANE	N. FULLERTON	GOLDSMITH	JUDKINS	PHILLIPS
						PEMBROOK
*NUMBER OF WELLS						
Oil	60	1,832	480	3,968	1,725	477
Gas	23	18	2	13	1	45
Total	83	1,850	482	3,981	1,726	522
*DAILY CAPACITY MCF	34,000	55,000	72,000	306,000	41,000	55,000
INTAKE VOLUMES MCF						
Casinghead Gas	#23,453,661	16,296,993	7,471,978	103,212,830	15,242,723	12,646,407
Gas Well Gas	0	552,681	114,568	1,117,610	9,206	1,672,338
Into Gathering System	23,453,661	16,849,674	7,586,546	104,330,440	15,251,929	14,318,745
From Gathering System	0	49,944	9,532	199,627	306,114	3,501,377
To Plant for Processing	23,453,661	16,799,730	7,577,014	104,130,813	14,945,815	10,817,368
Intake from Plant Meters	23,453,661	16,341,964	7,310,105	104,665,200	14,846,917	10,860,442
Loss or Gain (Meters)	0	- 457,766	- 266,909	+ 534,387	- 98,898	+ 43,074
Gas from Other Sources	0	0	17,438,192	11,522,531	0	0
Net Gas for Processing	23,453,661	16,341,964	24,748,297	116,187,731	14,846,917	10,860,442
RESIDUE DISPOSITION MCF						
Ext. Loss & Acid Gas	1,261,422	4,395,077	2,056,015	8,262,395	1,811,662	1,351,777
Plant Fuel	1,348,954	932,342	2,254,361	5,961,404	1,090,723	829,607
Fuel & Lease	129,208	599,388	750,740	1,187,447	554,575	28,826
G. L. & P. Maint.	0	0	5,398,431	16,037,986	0	0
Carbon Black Plants	0	0	0	13,313,937	11,365,235	0
Transmission Lines	20,041,073	10,414,349	14,283,010	70,844,535	0	8,469,001
Vented	9,753	808	5,740	580,027	24,722	8,580
Meter Difference	+ 663,251	0	0	0	0	+ 172,651
Total	23,453,661	16,341,964	24,748,297	116,187,731	14,846,917	10,860,442
PLANT PRODUCTION BBLS.						
Gasoline	922,498	1,718,777	1,506,115	**6,136,239	1,118,107	967,141
Butane	0	0	0	0	0	0
Propane	0	0	0	0	0	0
Total	922,498	1,718,777	1,506,115	6,136,239	1,118,107	967,141

*On January 1, 1961. #Casinghead and gas well gas combined on reports. **Includes condensate.

Annual Gasoline Plant Operations (Cont'd)

COMPANY	PHILLIPS	PHILLIPS	PHILLIPS	PHILLIPS	PHILLIPS	PHILLIPS	PURE OIL CO.
PLANT - West Texas	PUCKETT	SEMINOLE	SPRABERRY	#TUNSTALL	WINKLER	DOLLARHIDE	
*NUMBER OF WELLS							
Oil	0	893	253	475	241	337	337
Gas	23	0	83	1	60	0	0
Total	23	893	336	476	301	337	337
*DAILY CAPACITY MCF	225,000	34,000	25,000	13,700	10,800	60,000	60,000
INTAKE VOLUMES MCF							
Casinghead Gas	0	9,948,491	4,859,862	4,095,423	2,463,826	28,388,299	28,388,299
Gas Well Gas	50,909,878	0	11,924,090	17,872	1,547,394	0	0
Into Gathering System	50,909,878	9,948,491	16,783,952	4,113,295	4,011,220	28,388,299	28,388,299
From Gathering System	0	182,341	122,966	51,913	255,408	0	0
To Plant for Processing	50,909,878	9,766,150	16,660,986	4,061,382	3,755,812	28,388,299	28,388,299
Intake from Plant Meters	50,909,878	9,766,150	15,772,678	4,084,122	3,755,812	27,753,506	27,753,506
Loss or Gain (Meters)	0	0	- 888,308	+ 22,740	0	- 634,793	- 634,793
Gas from Other Sources	0	0	104,458	642,008	0	0	0
Net Gas for Processing	50,909,878	9,766,150	15,877,136	4,726,130	3,755,812	27,753,506	27,753,506
RESIDUE DISPOSITION MCF							
Ext. Loss & Acid Gas	136,896	947,827	1,793,413	459,272	210,549	2,462,606	2,462,606
Plant Fuel	127,162	888,535	813,529	608,702	450,226	2,442,688	2,442,688
Fuel & Lease	0	215,369	244,114	99,694	39,733	380,382	380,382
G. L. & P. Maint.	0	0	0	0	279,614	9,369,543	9,369,543
Carbon Black Plants	0	6,869,039	0	0	0	0	0
Transmission Lines	50,645,820	0	13,025,387	3,404,705	2,444,620	13,168,502	13,168,502
Vented	0	1,277	693	137	33,404	125,392	125,392
Meter Difference	0	+ 844,103	0	+ 153,620	+ 297,666	- 195,607	- 195,607
Total	50,909,878	9,766,150	15,877,136	4,726,130	3,755,812	27,753,506	27,753,506

*On January 1, 1961. #Phillips Petroleum Co. took over operation of this plant February 1, 1960. **LPG. Formerly operated by Pecos Petroleum Co.

Annual Gasoline Plant Operations (Cont'd)

- 20 -

COMPANY	REEF CORP.	RICHARDSON	RUNNELS	SHELL	SHELL	SHELL
PLANT - West Texas	E. VEALMOOR	KEYSTONE	SYKES	CROSSETT	TXL	WASSON #1 & #2
*NUMBER OF WELLS						
Oil	790	471	312	46	1,114	2,194
Gas	0	75	3	0	15	0
Total	<u>790</u>	<u>546</u>	<u>315</u>	<u>46</u>	<u>1,129</u>	<u>2,194</u>
*DAILY CAPACITY MCF	66,800	95,000	28,000	3,000	112,000	152,000
INTAKE VOLUMES MCF						
Casinghead Gas	13,804,495	14,265,875	6,359,108	1,142,566	27,393,534	34,429,491
Gas Well Gas	0	8,101,952	380,982	0	407,463	0
Into Gathering System	13,804,495	22,367,827	6,740,090	1,142,566	27,800,997	34,429,491
From Gathering System	0	104,955	308	0	0	0
To Plant for Processing	13,804,495	22,262,872	6,739,782	1,142,566	27,800,997	34,429,491
Intake from Plant Meters	13,542,067	22,262,872	6,651,708	1,118,394	28,237,310	34,074,055
Loss or Gain (Meters)	- 262,428	0	- 88,074	- 24,172	+ 436,313	- 355,436
Gas from Other Sources	0	12,439,264	0	0	9,186,911	0
Net Gas for Processing	<u>13,542,067</u>	<u>34,702,136</u>	<u>6,651,708</u>	<u>1,118,394</u>	<u>37,424,221</u>	<u>34,074,055</u>
RESIDUE DISPOSITION MCF						
Ext. Loss & Acid Gas	3,247,440	1,469,576	567,619	94,747	3,437,241	3,497,244
Plant Fuel	1,990,614	2,865,896	726,847	71,573	4,122,171	5,067,461
Fuel & Lease	483,936	64,119	382,716	1,926	1,777,273	1,575,096
G. L. & P. Maint.	0	3,852,038	3,424,836	0	3,539,001	332,377
Carbon Black Plants	0	0	0	0	0	4,982,502
Transmission Lines	7,782,631	26,794,313	1,531,753	738,278	24,149,866	18,609,692
Vented	37,446	15,000	1,292	182,958	216,488	79,261
Meter Difference	0	- 358,806	+ 16,645	+ 28,912	+ 182,181	- 69,578
Total	<u>13,542,067</u>	<u>34,702,136</u>	<u>6,651,708</u>	<u>1,118,394</u>	<u>37,424,221</u>	<u>34,074,055</u>
PLANT PRODUCTION BBLS.						
Gasoline	532,727	**438,324	#126,792	45,048	641,375	1,191,890
Butane	#596,382	246,180	159,341	0	***744,487	0
Propane	1,139,729	455,573	168,131	27,277	1,152,088	1,026,899
Total	<u>2,268,838</u>	<u>1,140,077</u>	<u>454,264</u>	<u>72,325</u>	<u>2,537,950</u>	<u>2,218,789</u>

*On January 1, 1961. #Includes Iso-butane. **Includes Gasoline-Butane mix. ##Includes condensate.

***Butane & LPG.

Annual Gasoline Plant Operations (Cont'd)

- 21 -

COMPANY	SINCLAIR	SINCLAIR	SOCONY MOBIL	SOCONY MOBIL	SOCONY MOBIL	STANDARD
PLANT - West Texas	HULLDALE #23	**KETCHUM	KERMIT	PARKS BOOSTER	PEGASUS	NORTH SNYDER
*NUMBER OF WELLS						
Oil	312	17	215	44	314	293
Gas	47	2	4	0	0	0
Total	359	19	219	44	314	293
*DAILY CAPACITY MCF	30,000	1,250	10,000	8,000	60,000	19,000
INTAKE VOLUMES MCF						
Casinghead Gas	9,217,213	197,996	2,487,523	2,870,639	13,317,200	4,026,115
Gas Well Gas	3,996,474	11,167	294,204	0	0	0
Into Gathering System	13,213,687	209,163	2,781,727	2,870,639	13,317,200	4,026,115
From Gathering System	247,186	0	7,704	0	0	0
To Plant for Processing	12,966,501	209,163	2,774,023	2,870,639	13,317,200	4,026,115
Intake from Plant Meters	12,966,501	210,033	2,823,135	2,831,930	13,427,882	4,060,901
Loss or Gain (Meters)	0	870	+ 49,112	- 38,709	+ 110,682	+ 34,786
Gas from Other Sources	0	0	57,139	1,735,738	711,379	0
Net Gas for Processing	12,966,501	210,033	2,880,274	4,567,668	14,139,261	4,060,901
RESIDUE DISPOSITION MCF						
Ext. Loss & Acid Gas	1,063,085	4,745	129,557	64,281	1,494,016	1,329,761
Plant Fuel	672,095	19,977	218,586	233,052	1,423,071	644,184
Fuel & Lease	161,903	0	4,860	309	14,441	590,809
G. L. & P. Maint.	0	0	0	4,412,520	5,775,835	0
Carbon Black Plants	0	0	0	0	0	0
Transmission Lines	11,032,141	185,912	2,426,446	0	5,568,363	1,387,070
Vented	53,106	0	22,077	0	0	460
Meter Difference	- 15,829	- 601	+ 78,748	- 142,494	- 136,465	+ 108,617
Total	12,966,501	210,033	2,880,274	4,567,668	14,139,261	4,060,901

*On January 1, 1961. #Butane & propane mixed. **Initial report - March 1960. #LPG. ***De-ethanized.
##Includes drip. (1) Also Iso-butane.

Annual Gasoline Plant Operations (Cont'd)

- 22 -

COMPANY	SUN OIL CO.		SUNRAY MID-CONTINENT		TEXACO INC. SEABOARD, INC.		TEXAS GAS PROD.	
	JAMESON	SNYDER	P. L. FULLER	LAMESA	BENEDUM			
PLANT - West Texas								
*NUMBER OF WELLS								
Oil	293	1,079	325	104	646			
Gas	0	0	0	0	16			
Total	293	1,079	325	104	662			
*DAILY CAPACITY MCF	50,000	35,000	25,000	6,000	115,000			
INTAKE VOLUMES MCF								
Casinghead Gas	25,707,257	11,576,350	5,981,326	51,569	10,832,653			
Gas Well Gas	0	0	0	0	3,615,563			
Into Gathering System	25,707,257	11,576,350	5,981,326	51,569	14,448,216			
From Gathering System	6,346,372	12,688	0	0	0			
To Plant for Processing	19,360,885	11,563,662	5,981,326	51,569	14,448,216			
Intake from Plant Meters	19,150,323	11,528,138	5,981,326	56,899	14,448,216			
Loss or Gain (Meters)	- 210,562	- 35,524	0	+	0			
Gas from Other Sources	0	0	0	0	2,088,406			
Net Gas for Processing	19,150,323	11,528,138	5,981,326	56,899	16,536,622			
RESIDUE DISPOSITION MCF								
Ext. Loss & Acid Gas	1,201,587	3,877,130	1,107,961	9,924	1,988,863			
Plant Fuel	1,021,317	1,920,846	742,693	4,456	2,361,105			
Fuel & Lease	108,759	971,423	846,193	0	34,145			
G. L. & P. Maint.	3,985,118	0	2,975,839	0	88,490			
Carbon Black Plants	0	0	0	0	0			
Transmission Lines	12,480,364	4,757,463	310,085	0	11,150,249			
Vented	0	1,276	178	42,519	0			
Meter Difference	+ 353,178	0	- 1,623	0	+ 913,770			
Total	19,150,323	11,528,138	5,981,326	56,899	16,536,622			
PLANT PRODUCTION BBLs.								
Gasoline	260,102	674,899	165,178	#5,010	***309,124			
Butane	257,910	#738,268	#250,605	0	357,827			
Propane	376,016	1,433,724	497,280	0	771,384			
Total	894,028	2,846,891	913,063	5,010	1,438,335			

*On January 1, 1961. #Includes Butane and Iso-Butane. **Initial Report - December 1960.

#Includes Gasoline and De-ethanized Mix. ***Includes Condensate.

Annual Gasoline Plant Operations (Cont'd)

- 23 -

COMPANY	TEXAS GULF	#UNION TEXAS	WARREN	WARREN	WARREN
PLANT - West Texas	HEADLEE	PERKINS #10	MONAHAN	RUNNELS	WADDELL
*NUMBER OF WELLS					
Oil	76	752	678	133	2,053
Gas	0	27	0	0	0
Total	<u>76</u>	<u>779</u>	<u>678</u>	<u>133</u>	<u>2,053</u>
*DAILY CAPACITY MCF	30,000	70,000	25,000	5,000	44,000
INTAKE VOLUMES MCF					
Casinghead Gas	8,752,443	18,433,701	7,453,456	982,968	30,977,855
Gas Well Gas	0	5,009,495	0	0	0
Into Gathering System	8,752,443	23,443,196	7,453,456	982,968	30,977,855
From Gathering System	0	1,045,197	0	9,990	127,298
To Plant for Processing	8,752,443	22,397,999	7,453,456	972,978	30,850,557
Intake from Plant Meters	8,682,485	22,397,999	7,476,172	943,915	30,891,890
Loss or Gain (Meters)	- 49,552	0	+ 22,716	- 29,063	+ 41,333
Gas from Other Sources	0	0	1,309,989	0	344,538
Net Gas for Processing	<u>8,682,485</u>	<u>22,397,999</u>	<u>8,786,161</u>	<u>943,915</u>	<u>31,236,428</u>
RESIDUE DISPOSITION MCF					
Ext. Loss & Acid Gas	1,167,551	3,090,241	171,897	112,471	3,635,920
Plant Fuel	628,808	2,150,732	430,466	122,710	1,327,215
Fuel & Lease	129,886	409,000	130,224	0	1,248,739
G. L. & P. Maint.	6,513,534	0	290,385	0	0
Carbon Black Plants	0	0	0	0	0
Transmission Lines	0	17,756,672	7,289,485	649,665	22,483,117
Vented	0	0	205,514	84,166	80,332
Meter Difference	+ 242,706	- 1,008,646	+ 268,190	- 25,097	+ 2,461,105
Total	<u>8,682,485</u>	<u>22,397,999</u>	<u>8,786,161</u>	<u>943,915</u>	<u>31,236,428</u>
PLANT PRODUCTION BBLs.					
Gasoline	859,825	**488,856	160,388	##25,675	***1,278,511
Butane	0	538,861	0	61,694	263,836
Propane	0	1,098,974	0	0	360,524
Total	<u>859,825</u>	<u>2,126,691</u>	<u>160,388</u>	<u>87,369</u>	<u>1,902,871</u>

*On January 1, 1961. #Operated by Texas Hydrocarbon until June 1960. **Includes Condensate & Drip.
 ##All Products Mixed. ***De-ethanized Product.

Annual Gasoline Plant Operations (Cont'd)

- 24 -

COMPANY	ATLANTIC	CABOT CORP.	CONTINENTAL	EL PASO	EL PASO	FRONTIER
PLANT - S. E. New Mexico	LOVINGTON	KING	#MALJAMAR PM	JAL #1	JAL #2, #3 & #4	GRAYBURG- JACKSON
*NUMBER OF WELLS						
Oil	233	16	172	36	1,402	157
Gas	0	0	0	751	35	0
Total	233	16	172	787	1,437	157
*DAILY CAPACITY MCF	25,000	3,800	7,000	130,000	361,000	7,000
INTAKE VOLUMES MCF						
Casinghead Gas	5,805,015	981,185	5,488,228	1,548,675	43,043,004	1,680,090
Gas Well Gas	0	0	0	110,018,341	808,654	0
Into Gathering System	5,805,015	981,185	5,488,228	111,567,016	43,851,658	1,680,090
From Gathering System	0	0	0	0	0	0
To Plant for Processing	5,805,015	981,185	5,488,228	111,567,016	43,851,658	1,680,090
Intake from Plant Meters	5,805,015	981,185	5,488,228	111,567,016	43,851,658	1,680,090
Loss or Gain (Meters)	0	0	0	0	0	0
Gas from Other Sources	0	0	0	217,495	625,170	0
Net Gas for Processing	5,805,015	981,185	5,488,228	111,784,511	44,476,828	1,680,090
RESIDUE DISPOSITION MCF						
Shrinkage	1,208,858	134,444	466,497	4,170,417	8,227,906	344,192
Plant Use	1,141,288	111,770	653,193	4,035,110	2,802,754	383,781
Lease Use	872,449	16,448	0	0	0	0
Returned to Earth	0	0	4,151,684	0	0	0
Carbon Black Plants	0	0	0	0	0	0
Pipeline	2,582,420	718,523	94,849	103,578,984	33,372,252	952,117
Vented	0	0	122,005	0	73,916	0
Meter Difference	0	0	0	0	0	0
Total	5,805,015	981,185	5,488,228	111,784,511	44,476,828	1,680,090
PLANT PRODUCTION BBLs.						
Gasoline	208,276	29,193	90,333	All products	1,250,163	42,274
Butane	288,032	28,798	**66,024	combined with	1,002,786	40,616
Propane	371,179	32,512	136,476	Jal #2, 3 & 4	673,689	78,566
Total	867,487	90,503	292,833		2,926,638	161,456

*On January 1, 1961. #Formerly Maljamar Co-Operative Repressuring Agreement. **Includes Butane-Propane Mix.

Annual Gasoline Plant Operations (Cont'd)

- 25 -

COMPANY	**NORTHERN		#HUMBLE		#PHILLIPS		PHILLIPS		PHILLIPS		PHILLIPS	
	NATURAL		TATUM		HOBBS		ARTESIA		EUNICE		HOBBS	
PLANT - S. E. New Mexico												LEA
*NUMBER OF WELLS												
Oil	4	6					424		816		403	1,313
Gas	3	395					3		8		3	11
Total	<u>7</u>	<u>401</u>					<u>427</u>		<u>824</u>		<u>406</u>	<u>1,324</u>
*DAILY CAPACITY MCF	5,000	200,000					18,000		140,000		25,000	24,000
INTAKE VOLUMES MCF												
Casinghead Gas	293,303	252,556					1,356,554		40,713,103		8,264,112	16,871,088
Gas Well Gas	1,111,001	51,148,669					4,865		234,212		277,358	951,028
Into Gathering System	1,404,304	51,401,225					1,361,419		40,947,315		8,541,470	17,822,116
From Gathering System	0	0					0		0		0	0
To Plant for Processing	1,404,304	51,401,225					1,361,419		40,947,315		8,541,470	17,822,116
Intake from Plant Meters	1,404,304	51,401,225					1,361,419		40,947,315		8,541,470	17,822,116
Loss or Gain (Meters)	0	0					0		0		0	0
Gas from Other Sources	0	1,922,063					0		0		0	0
Net Gas for Processing	<u>1,404,304</u>	<u>53,323,288</u>					<u>1,361,419</u>		<u>40,947,315</u>		<u>8,541,470</u>	<u>17,822,116</u>
RESIDUE DISPOSITION MCF												
Shrinkage	161,885	- 3,758,528					332,553		2,497,579		621,180	1,934,667
Plant Use	54,790	2,809,232					257,972		3,254,146		1,276,899	1,996,331
Lease Use	0	0					0		72,962		331,192	426,259
Returned to Earth	0	0					0		0		0	0
Carbon Black Plants	0	0					0		0		0	0
Pipeline	1,186,071	54,272,584					184,417		33,636,869		6,294,940	12,001,140
Vented	1,558	0					586,477		1,485,759		17,259	1,463,719
Meter Difference	0	0					0		0		0	0
Total	<u>1,404,304</u>	<u>53,323,288</u>					<u>1,361,419</u>		<u>40,947,315</u>		<u>8,541,470</u>	<u>17,822,116</u>
PLANT PRODUCTION BELLS.												
Gasoline	3,375	516,650					121,798		1,583,380		415,258	1,327,011
Butane	0	317,560					0		0		58,450	0
Propane	0	271,051					0		0		0	0
Total	<u>3,375</u>	<u>1,105,261</u>					<u>121,798</u>		<u>1,583,380</u>		<u>473,708</u>	<u>1,327,011</u>

*On January 1, 1961. #Initial Report - January 1960.

**Formerly Permian Basin Pipe Line Co.

**Initial Report - August 1960.

Annual Gasoline Plant Operations (Cont'd)

- 26 -

COMPANY	<u>SINCLAIR</u>	<u>SKELLY</u>	<u>SKELLY</u>	<u>SKELLY</u>	<u>**SKELLY</u>
PLANT - S. E. New Mexico	PLANT #29	EUNICE #1	EUNICE #2	LOVINGTON	MALJAMAR
*NUMBER OF WELLS					
Oil	328	984	Wells com-	172	423
Gas	2	3	bined with	0	2
Total	<u>330</u>	<u>987</u>	Plant #1	<u>172</u>	<u>425</u>
*DAILY CAPACITY MCF	10,000	66,000	57,000	10,000	20,000
INTAKE VOLUMES MCF					
Casinghead Gas	2,442,169	17,400,977	24,305,291	2,464,619	2,708,674
Gas Well Gas	100,893	0	93,314	0	168,590
Into Gathering System	2,543,062	17,400,977	24,398,605	2,464,619	2,877,264
From Gathering System	0	0	0	0	0
To Plant for Processing	2,543,062	17,400,977	24,398,605	2,464,619	2,877,264
Intake from Plant Meters	2,543,062	17,400,977	24,398,605	2,464,619	2,877,264
Loss or Gain (Meters)	0	0	0	0	0
Gas from Other Sources	<u>2,158,942</u>	<u>60,664</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net Gas for Processing	<u>4,702,004</u>	<u>17,461,641</u>	<u>24,398,605</u>	<u>2,464,619</u>	<u>2,877,264</u>
RESIDUE DISPOSITION MCF					
Shrinkage	1,131,919	2,090,327	2,522,130	916,541	535,894
Plant Use	525,657	1,833,445	2,277,443	264,618	283,547
Lease Use	709,040	202,082	98,739	213,429	0
Returned to Earth	0	0	0	0	0
Carbon Black Plants	0	12,687,967	16,292,020	0	0
Pipeline	1,751,067	629,194	3,163,891	1,062,295	1,691,645
Vented	584,321	18,626	44,382	7,736	366,178
Meter Difference	0	0	0	0	0
Total	<u>4,702,004</u>	<u>17,461,641</u>	<u>24,398,605</u>	<u>2,464,619</u>	<u>2,877,264</u>
PLANT PRODUCTION BBLS.					
Gasoline	105,262	702,783	Combined	73,884	100,720
Butane	129,891	364,277	with	81,434	0
Propane	97,129	705,448	Eunice #1	146,721	90,450
Total	<u>332,282</u>	<u>1,772,508</u>		<u>302,039</u>	<u>191,170</u>

*On January 1, 1961. **Initial Report - June 1960.

Annual Gasoline Plant Operations (Cont'd)

COMPANY	VALLEY GAS	VALLEY GAS	WARREN	WARREN	WARREN
PLANT - S. E. New Mexico	ANDERSON	LOCO HILLS	EUNICE	MONUMENT	SAUNDERS
	RANCH	PM			
*NUMBER OF WELLS					
Oil	42	129	482	922	301
Gas	0	0	64	1	4
Total	42	129	546	923	305
*DAILY CAPACITY MCF	5,000	6,000	57,000	75,000	30,000
INTAKE VOLUMES MCF					
Casinghead Gas	1,072,836	859,764	19,076,448	30,268,716	12,191,570
Gas Well Gas	0	0	403,147	96,437	234,893
Into Gathering System	1,072,836	859,764	19,479,595	30,365,153	12,426,463
From Gathering System	0	0	0	0	0
To Plant for Processing	1,072,836	859,764	19,479,595	30,365,153	12,426,463
Intake from Plant Meters	1,072,836	859,764	19,479,595	30,365,153	12,426,463
Loss or Gain (Meters)	0	0	0	0	0
Gas from Other Sources	17,679	540,038	0	0	0
Net Gas for Processing	1,090,515	1,399,802	19,479,595	30,365,153	12,426,463
RESIDUE DISPOSITION MCF					
Shrinkage	361,947	878,361	1,947,818	3,803,772	1,851,968
Plant Use	154,995	360,000	2,848,800	3,241,216	1,476,827
Lease Use	69,226	0	0	336,558	696,853
Returned to Earth	17,679	0	0	0	0
Carbon Black Plants	0	0	0	0	0
Pipeline	485,838	161,441	14,610,164	22,705,836	8,378,658
Vented	830	0	72,813	277,771	22,157
Meter Difference	0	0	0	0	0
Total	1,090,515	1,399,802	19,479,595	30,365,153	12,426,463
PLANT PRODUCTION BBLs.					
Gasoline	185,788	32,687	284,701	374,756	269,653
Butane	0	7,246	845,423	760,465	879,987
Propane	0	59,317	0	0	0
Total	185,788	99,250	1,130,124	1,135,221	1,149,640

*On January 1, 1961.

SUMMARY OF GASOLINE PLANT OPERATIONS
IN PERMIAN BASIN - FOR YEAR 1960

	ANNUAL WEST TEXAS	#ANNUAL S. E. NEW MEXICO	ANNUAL WEST TEXAS & S. E. NEW MEXICO	DAILY WEST TEXAS & S. E. NEW MEXICO	PERCENTAGES
*NUMBER OF WELLS					
Oil	39,676	8,765	48,441	48,441	96.19%
Gas	636	1,285	1,921	1,921	3.81%
Total	40,312	10,050	50,362	50,362	100.00%
*DAILY CAPACITY MCF	3,120,960	1,281,800	4,402,760	4,402,760	--
INTAKE VOLUMES MCF					
Casinghead Gas	767,586,678	245,207,960	1,012,794,638	2,767,199	78.78%
Gas Well Gas	102,900,415	169,891,614	272,792,029	745,333	21.22%
Into Gathering System	870,487,093	415,099,574	1,285,586,667	3,512,532	100.00%
From Gathering System	20,681,168	0	20,681,168	56,506	--
To Plant for Processing	849,805,925	415,099,574	1,264,905,499	3,456,026	--
Intake from Plant Meters	842,914,416	415,099,574	1,258,013,990	3,437,197	--
Loss or Gain (Meters)	- 6,891,509	0	- 6,891,509	- 18,829	--
Gas from Other Sources	94,944,039	5,683,912	100,627,951	274,940	--
Net Gas for Processing	937,858,455	420,783,486	1,358,641,941	3,712,137	--
RESIDUE DISPOSITION MCF					
Ext. Loss & Acid Gas	92,547,866	33,211,224	125,759,090	343,604	9.26%
Plant Fuel	78,738,763	32,864,046	111,602,809	304,926	8.21%
Fuel & Lease	22,367,574	4,148,784	26,516,358	72,449	1.95%
G. L. & P. Maint.	136,018,892	4,276,087	140,294,979	383,320	10.33%
Carbon Black Plants	49,979,438	29,721,793	79,701,231	217,763	5.87%
Transmission Lines	547,649,947	311,284,334	858,934,281	2,346,815	63.22%
Vented	4,968,747	5,277,218	10,245,965	27,994	0.75%
Meter Difference	+ 5,587,228	0	+ 5,587,228	+ 15,266	0.41%
Total	937,858,455	420,783,486	1,358,641,941	3,712,137	100.00%
PLANT PRODUCTION BBLs.					
Gasoline	33,906,319	7,717,945	41,624,264	113,728	53.63%
Butane	10,662,856	4,870,989	15,533,845	42,442	20.01%
Propane	17,800,823	2,662,538	20,463,361	55,911	26.36%
Total	62,369,998	15,251,472	77,621,470	212,081	100.00%

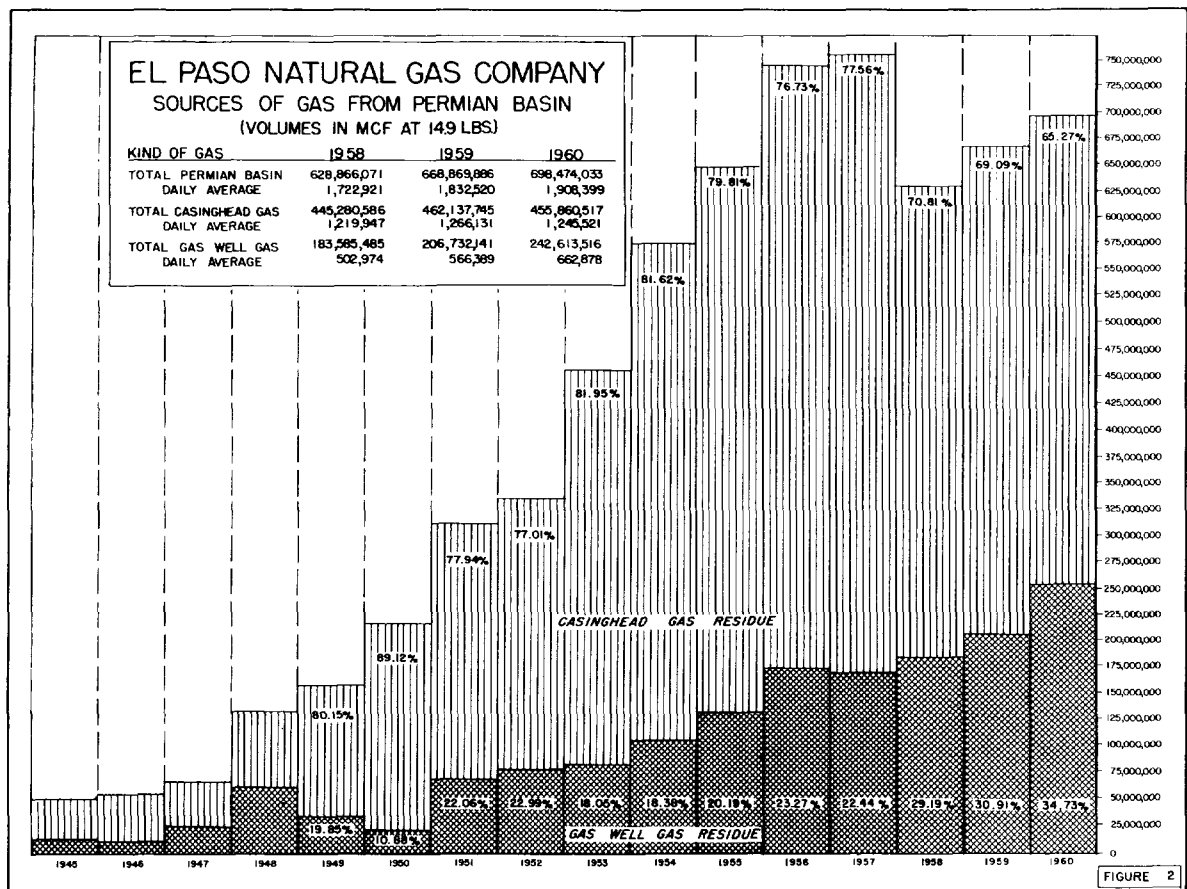
*On January 1, 1961. #Gas Volumes Corrected to Pressure Base of 14.65 #/sq.in.

EL PASO NATURAL GAS COMPANY'S PIPE LINE SYSTEM

A map showing El Paso Natural Gas Company's pipe line system was omitted from this and the six preceding reports. It was designated Figure 8 in the December 1, 1953 Permian Basin Report, to which reference is made. This system derives its gas supply from three sources: (1) the Permian Basin Area, (2) the Texas Panhandle, and (3) the San Juan Basin. The following shows the 1959 and 1960 percentage increase or decrease over each respective preceding year handled by El Paso Natural from these sources. All figures are in MCF @ 14.9 lbs.

SOURCE	VOLUME FOR 1958	VOLUME FOR 1959	1958 1959 INCR. (DECR.)	VOLUME FOR 1960	1959- 1960 INCR. (DECR.)
Permian Basin Total	628,866,071	668,869,886	6.36%	698,474,033	4.43%
*Casinghead Gas	445,280,586	462,137,745	3.79%	455,860,517	(1.36%)
#Gas Well Gas	183,585,485	206,732,141	12.61%	242,613,516	17.36%
Texas Panhandle Gas	66,828,845	100,193,330	49.93%	131,133,954	30.88%
San Juan Basin Gas	231,113,124	286,332,385	23.89%	377,399,283	31.80%
Total All Sources	926,808,040	1,055,395,601	13.87%	1,207,007,270	14.37%

*Casinghead Gas	70.81%	69.09%	65.27%
#Gas Well Gas	29.19%	30.91%	34.73%



This report is concerned primarily with the Permian Basin of West Texas and Southeastern New Mexico. Figure 2 shown on the preceding page is a chart which reflects graphically the operations of the El Paso Natural Gas Company's pipe line system in this area for a 16-year period. The first deliveries of gas to California from this area were in October 1947, at the rate of 50,000 MCF daily. Since that time, over a thirteen-year period, the expansion of this market outlet has been a remarkable achievement.

Figure 2 was prepared in order to focus attention on what is being accomplished towards gas conservation in this area, especially with respect to casinghead gas produced incident to oil production. Gas well gas may be kept stored in the ground until there is a market, which requirement may then be regulated by the turn of the valves to fit fluctuating market conditions, provided the over-all gas volume is sufficient. On the other hand, casinghead gas withdrawals are dependent on the amount of oil production necessary to supply the market demand for petroleum products, which fluctuates seasonally and from month to month. In this area the casinghead gas volume fluctuations are absorbed by a supplemental supply of gas produced from strictly gas wells. This has resulted in there being very little if any preventable waste of gas produced incident to oil production in the Permian Basin. This conservation achievement was made possible only after a market was established for the casinghead gas, and backed up with a sustaining reserve of gas well gas to insure an uninterrupted gas supply to fulfill market requirements as shown on Figure 2.

CHIEF RESIDUE GAS MARKETS

It may be noted from pages 3 and 10 that during the year 1960 a total of 104 gasoline plants were operating in the Permian Basin Area. Page 28 is "A Summary of Gasoline Plant Operations" covering these plants. The following shows the number of wells connected to these plants on January 1, 1961 and the average amount of casinghead gas, gas well gas and total gas processed daily during 1960.

AREA	WELLS CONNECTED		CASINGHEAD GAS MCF	GAS WELL GAS MCF	OTHER SOURCES	TOTAL GAS MCF
	OIL	GAS				
West Texas	39,676	636	2,097,232	281,148	259,410	2,637,790
S. E. New Mexico	8,765	1,285	669,967	464,185	15,530	1,149,682
Total	48,441	1,921	*2,767,199	#745,333	#274,940	3,787,472
			*73.06%	#26.94%		100.00%

The pie chart and gas figures on the following page show the disposition of the residue gas from the 104 gasoline plants operating in the Permian Basin during the year 1960. While this gas was being processed for its liquid hydrocarbon content, a total of nearly 78 million barrels of natural gasoline, butane and propane were manufactured.

It may be noted from Figure 3 that approximately 63.2% of the residue gas is utilized by transmission lines. By far the largest single market for this residue gas is provided for by the El Paso Natural Gas Company's pipe line system which makes deliveries to other pipe line systems serving Los Angeles, San Francisco and other western cities. This company's residue gas gathering lines in the Permian Basin are shown in red on Figure 6 bound in the back of this report.

DAILY AVERAGE RESIDUE GAS DISPOSITION
FROM 104 GASOLINE PLANTS IN PERMIAN BASIN
For Year 1960

RESIDUE GAS DISPOSITION MCF	WEST TEXAS	S. E. NEW MEXICO	WEST TEXAS & S. E. NEW MEXICO	PERCENTAGE
Transmission Lines	1,496,311	850,285	2,346,596	63.22%
G. L. & P. Maintenance	371,636	2,274	373,910	10.33%
Ext. Loss & Acid Gas	252,863	89,927	342,790	9.26%
Plant Fuel	215,133	88,426	303,559	8.21%
Carbon Black Plants	136,556	81,207	217,763	5.87%
Fuel & Lease	61,114	11,335	72,449	1.95%
Vented	13,576	14,156	27,732	0.75%
Meter Difference	+ 15,266	0	+ 15,266	+ 0.41%
Total	2,562,455	1,137,610	3,700,065	100.00%

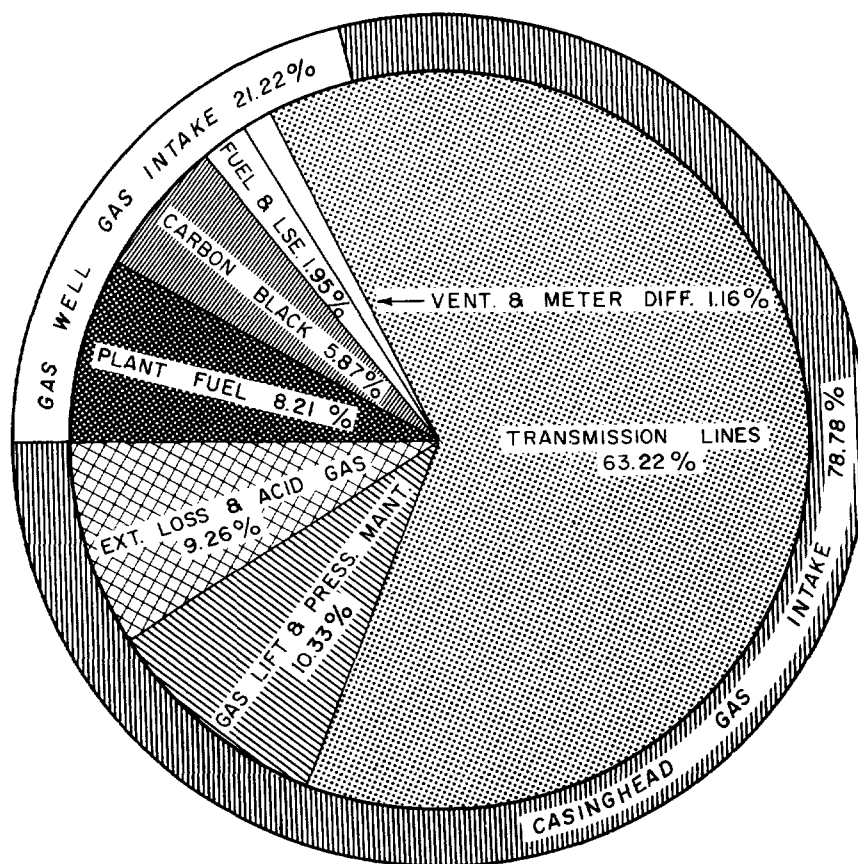


FIGURE 3 - Chart Showing Graphically Percentages of: (1) Intake Gas Volumes (Outer Circle) which does not take into consideration "Gas From Gathering System", "Loss or Gain From Meters" or "Gas From Other Sources", as shown on the Gasoline Plant Summary, page 28, and (2) Residue Gas Disposition (Inner Circle) for the 104 plants operating in the Permian Basin Area during 1960.

CARBON BLACK PLANTS IN PERMIAN BASIN
For Year 1960

The following shows the carbon black production for the nine plants operating in the Permian Basin during the year 1960. All of these plants are of the channel type except the Columbian Carbon Company's Seagraves furnace type plant which utilized gas and some fuel oil, as shown in the footnotes. The location of these plants may be noted from page 51 of the December 1, 1953 Permian Basin Report. The Cabot Corporation has a carbon black plant at Big Spring, Texas. Since it utilized fuel oil exclusively, its production record is not shown.

CARBON BLACK PLANTS IN WEST TEXAS

OPERATOR	PLANT NAME	DAILY CAPACITY MCF	ANNUAL INTAKE VOLUME MCF	ANNUAL PROD. IN POUNDS	POUNDS PER MCF
Cabot Corporation	Kermit	50,000	11,186,953	21,855,880	1.95
*Columbian Carbon Co.	Seagraves #64	16,000	4,894,625 **303,910	70,016,730	14.30
Columbian Carbon Co.	Seminole #66	35,000	11,088,560	22,435,490	2.02
Sid Richardson Carbon Company	Odessa "A", "B" & "C"	<u>100,000</u>	<u>26,923,022</u>	<u>59,678,175</u>	<u>2.22</u>
Total for 1960		201,000	54,093,160 **303,910	173,986,275	3.22

CARBON BLACK PLANTS IN SOUTHEASTERN NEW MEXICO

Columbian Carbon Co.	#58 Eunice	40,000	13,304,461	22,383,245	1.68
Continental Carbon Co.	Eunice	36,000	21,270,809	55,496,950	2.61
United Carbon Company	#2 Eunice	<u>40,000</u>	<u>14,393,068</u>	<u>31,283,375</u>	<u>2.17</u>
Total for 1960		116,000	48,968,338	109,163,570	2.23
GRAND TOTAL		317,000	103,061,498	283,149,845	

*Utilized Gas and Fuel Oil. **Barrels of Fuel Oil.

DAILY AVERAGE CRUDE OIL RUNS TO STILLs OF REFINERIES
WEST TEXAS AND SOUTHEASTERN NEW MEXICO
For Year 1960

The following refineries are located in the Permian Basin Area of West Texas and Southeastern New Mexico. This area is the source of crude oil stock processed. The location of these refineries has been indicated by an appropriate symbol on the accompanying oil field and pipe line map, except for such plants situated beyond the limits of said map. The data is for the year 1960. Capacities are in barrels daily.

WEST TEXAS REFINERIES

REFINERY	LOCATION	TYPE	DAILY CAPACITY	RUNS TO STILLs (BBLs.)	
				YEAR 1960	DAILY AVG.
Col-Tex Refining Co.	Colorado City	Comb.	12,000	2,823,558	7,715
Cosden Petroleum Corp.	Big Spring	Comb.	30,000	10,530,148	28,771
El Paso Natural Gas Products	Odessa	Comb.	13,000	*4,364,972	12,952
Standard of Texas	El Paso	Comb.	50,000	17,691,844	48,338
Texaco Inc.	El Paso	Comb.	15,000	3,889,800	10,628
Wickett Refining Co.	Wickett	Comb.	<u>5,000</u>	<u>905,723</u>	<u>2,474</u>
Total West Texas			125,000	40,206,045	110,878

SOUTHEASTERN NEW MEXICO REFINERIES

Continental Oil Co.	Artesia	Comb.	16,000	5,171,105	14,129
Famarriss Oil & Refining Company	Monument	Skim.	<u>2,500</u>	<u>944,523</u>	<u>2,580</u>
Total Southeastern New Mexico			18,500	6,115,628	16,709
GRAND TOTAL			<u>143,500</u>	<u>46,321,673</u>	<u>127,587</u>

*No runs to stills were made during February 1960.

SULPHUR PLANTS IN THE PERMIAN BASIN
Extraction from Natural Gas

On January 1, 1961 there had been sixteen Sulphur plants in the Permian Basin Area, thirteen being located in West Texas and three in South-eastern New Mexico. These plants are located adjacent to desulphurizing units serving gasoline plants. Sulphur is extracted from the hydrogen sulphide derived from these gas treating plants. Two of the New Mexico plants have been dismantled.

The following outline shows the December 1960 production and cumulative production for each plant to January 1, 1961 in long tons. (A long ton equals 2,240 pounds.)

	<u>DECEMBER 1960 PRODUCTION</u>	<u>CUMULATIVE PRODUCTION</u>
BARNHART HYDROCARBON CORPORATION'S BARNHART PLANT Reagan County, Texas	75	2,480
COLUMBIAN CARBON COMPANY'S SEMINOLE PLANT #67 Gaines County, Texas	368	32,640
EL PASO NATURAL GAS COMPANY'S OIL CENTER PLANT Lea County, New Mexico (Dismantled)	0	16,475
NATIONAL SULPHUR COMPANY'S IMPERIAL PLANT Crane County, Texas	0	16
ODESSA NATURAL GASOLINE COMPANY & SID RICHARDSON'S FOSTER PLANT - Ector County, Texas	327	37,956
PAN AMERICAN PETROLEUM CORPORATION'S NORTH COWDEN PLANT - Ector County, Texas	494 Est.	41,878
PAN AMERICAN PETROLEUM CORPORATION'S EMPIRE ABO PLANT - Lea County, New Mexico	297	1,119
PAN AMERICAN PETROLEUM CORPORATION'S MIDLAND FARMS PLANT - Andrews County, Texas	184 Est.	11,996
PAN AMERICAN PETROLEUM CORPORATION'S SLAUGHTER PLANT Hockley County, Texas	1,131 Est.	105,927
J. L. PARKER'S ANDREWS PLANT Andrews County, Texas	317 Est.	8,407
J. L. PARKER'S PENWELL PLANT Ector County, Texas	584 Est.	29,915
PHILLIPS CHEMICAL COMPANY'S CRANE PLANT Crane County, Texas	4,170	298,999
PHILLIPS CHEMICAL COMPANY'S GOLDSMITH PLANT Ector County, Texas	1,557	175,285
SID W. RICHARDSON'S KERMIT PLANT Winkler County, Texas	0	12,120
WARREN PETROLEUM CORPORATION'S MONUMENT PLANT Lea County, New Mexico (Dismantled)	0	8,916
WARREN PETROLEUM CORPORATION'S WADDELL PLANT Crane County, Texas	<u>1,042</u>	<u>69,129</u>
Totals	<u>10,546</u>	<u>852,158</u>

WATER FLOOD AND GAS INJECTION PROJECTS
Covering Oil Fields Located In
RAILROAD COMMISSION DISTRICTS 7-C AND 8
AND SOUTHEASTERN NEW MEXICO
As of January 1, 1961

The following is a list of active and proposed water flood and gas injection projects in oil fields located in the Permian Basin Area of West Texas and Southeastern New Mexico on January 1, 1961. In the interest of space, the manner of operation as to whether a project is unitized, co-operative or independent, is not generally shown. The total number of projects for 1960, as summarized below, shows a 21.7% increase over the preceding year.

TYPE OF PROJECT	LOCATION	NUMBER	LOCATION	NUMBER	TOTAL
Active Water Flood	West Texas	372	SE New Mexico	30	402
Proposed Water Flood	West Texas	64	SE New Mexico	8	72
Active Gas Injection	West Texas	56	SE New Mexico	6	62
Proposed Gas Injection	West Texas	7	SE New Mexico	0	7
Active Miscible Displacement	West Texas	7	SE New Mexico	0	7
Grand Total		506		44	550

ACTIVE WATER FLOOD PROJECTS - WEST TEXAS

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Abell (Devonian), Crane	Geo. T. Abell & Wm. B. Neely	Devonian
Adair (Wolfcamp), Gaines & Terry	Amerada Petroleum Corp., et al	Wolfcamp
+Andector West (McKee), Ector	Condor Petroleum Co.	McKee
+Andector West (Waddell), Ector	Condor Petroleum Co.	Waddell
+(1)Barnhart, Reagan	Amerada Petroleum Corp.	Ellenburger
Bateman Ranch, King	Humble Oil & Ref. Co.	5100' Canyon
Bronte, Coke	Humble Oil & Ref. Co.	Palo Pinto
++(1)Brown & Thorp (Clearfork), Pecos (Pilot)	La Gloria Oil & Gas Co.	Clearfork
Cedar Lakes, Gaines	Pan American Petroleum Corp.	San Andres
Charlieben (Serratt), Runnels	W. W. West	Serratt Sand
*Cogdell, Scurry	Texaco Inc., et al	Canyon
Cogdell (4900'), Kent	Chapman & McFarlin	Cisco
Cope, Sterling, Reagan & Tom Green	Honolulu Oil Corporation	Spraberry
Cowden, South, Ector	Baker & Reading	Grayburg
Cowden, South, Ector	Forest Oil Corporation	Grayburg
+(1)Crane Cowden, Crane	Helmerich & Payne, Inc.	Grayburg
Diamond "M" (Canyon Lime), Scurry	Monsanto Chemical Company	Canyon
Diamond "M" (Canyon Lime), Scurry & Borden	R. E. Smith	Canyon
+Diamond "M" (5400') (Wolfcamp), Scurry	Humble Oil & Ref. Co.	Wolfcamp
+(1)Dietz (Strawn), McCulloch	Horace E. White	Strawn

+Added since previous report. (1)From Railroad Commission "Special Orders".

*Combined water and gas pressure maintenance. ++Changed from inactive to active.

Active Water Flood - Texas (Cont'd) - 36 -

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Dollarhide (Clearfork), Andrews	Pure Oil Company	Clearfork
*Dollarhide (Devonian), Andrews	Cities Service Petroleum Co.	Devonian
Dollarhide (Devonian), Andrews	Pure Oil Company	Devonian
Dollarhide (Ellenburger), Andrews	Pure Oil Company	Ellenburger
Dollarhide (Silurian), Andrews	Pure Oil Company	Silurian
Dorward, Garza (Pilot)	Humble Oil & Ref. Co.	San Angelo
+(1)Dorward, Garza	W. M. & A. P. Fuller	San Andres
Dune, Crane (Pilot)	Gulf Oil Corporation	Grayburg
Dunman, Coleman	Tennessee Gas Trans. Co.	Morris
+(1)Durham, Sterling	Cosden Petroleum Corp.	San Andres
Emperor, Winkler	Dancoil, Inc.	Yates
Emperor, Winkler	F. W. Estill	Yates
Emperor, Winkler	Hudson & Hudson, Inc.	Yates
Emperor, Winkler	Skelly Oil Company	Yates
Emperor, Winkler	Texas Pacific Coal & Oil Co.	Yates & Seven Rivers
Emperor, Winkler	Roy Westbrook	Yates
Emperor (Deep), Winkler	Bert Fields (Co-Operative)	Queen
Emperor (Deep), Winkler	Rycade Oil Corporation	Queen
++(1)Enoch Johnson (Morris Sand), Runnels	Henson Drilling Company	Morris
Fort Chadbourne, Coke & Runnels	Humble Oil & Ref. Co.	Strawn (Odom)
Foster, Ector	Pan American Petroleum Corp.	Grayburg
Foster, Ector	Shell Oil Company	Grayburg
Foster, Ector	Sunray Mid-Continent Oil Co.	Grayburg
+(1)Foster, Ector	Sunray Mid-Continent Oil Co.	Grayburg
Foster, Ector	Texas Pacific Coal & Oil Co.	Grayburg
+(1)Fromme, Pecos	Burk Royalty Company	Queen
Fullerton, Andrews (Pilot 1)	Monterey Div. of Humble Oil & Refining Company	Clearfork
Garza, Garza (Pilot)	Brown Brothers	San Andres
Germania (Grayburg), Midland (Pilot)	Murphy Corporation	Grayburg
Goldsboro (Gardner), Coleman & Runnels	Bristol Petroleum Co.	Gardner
++(1)Goldsboro (Gardner), Runnels	John H. DeFord	Gardner
Goldsboro (Gardner), Coleman & Runnels	S. C. Herring Drilling Co.	Gardner
Goldsboro (Gardner), Coleman & Runnels	Texas Pacific Coal & Oil Co.	Gardner
Goldsmith (Holt), Ector	Gulf Oil Corporation	Holt
*Goldsmith (So. Dome), Ector	Gulf Oil Corporation	San Andres
+(1)Goldsmith (5600'), Ector	Gulf Oil Corporation	Clearfork
+(1)Halley, Winkler	F. W. Estill	Yates
+(1)Halley, Winkler	Sinclair Oil & Gas Co.	Yates
Halley, Winkler	Skelly Oil Company	Yates
Henderson-Pecos, Pecos	E. H. & Don Cox	Yates
Henderson-Pecos, Pecos	John L. Harlan, Trustee	Yates

+Added since previous report. (1)From Railroad Commission "Special Orders".

*Combined water and gas pressure maintenance. ++Changed from inactive to active.

Active Water Flood - Texas (Cont'd) - 37 -

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
+ (1) Hendrick, Winkler	W. A. & E. R. Hudson	Yates
Howard-Glasscock, Howard (Pilot)	Amerada Petroleum Corp.	Queen
+ (1) Howard-Glasscock, Howard (Pilot)	Amerada Petroleum Corp.	Yates
Howard-Glasscock, Howard	Continental Oil Company	Yates
Howard-Glasscock, Howard	Continental Oil Company	Yates
Howard-Glasscock, Howard	Continental Oil Co., et al	Yates
Howard-Glasscock, Howard & Glasscock	Cosden Petroleum Corporation	Queen
Howard-Glasscock, Howard (Pilot)	Gulf Oil Corporation	Chalk 1800'
Howard-Glasscock, Howard	Humble Oil & Ref. Co.	Yates
Howard-Glasscock, Howard	Mobil Oil Company	Seven Rivers
Howard-Glasscock, Howard	Sunray Mid-Continent Oil Co.	Yates
Iatan-East, Howard	Sinclair Oil & Gas Company	Clearfork
Jameson (Strawn), Coke	Perkins-Prothro Co. and Crescent Oil Company	Strawn Sand
Jameson (Strawn), Coke & Mitchell	Miami Pet. Co., Inc. & Texaco Inc.	Strawn Sand
+ (1) Jameson (Strawn), Coke & Mitchell	Pan American Pet. Corp.	Strawn Sand
Jim Adams (Fry), Runnels	Murray Petroleum	Fry Sand
+ Johnson, Ector	Cities Service Petroleum Co.	San Andres
Kelly-Snyder, Scurry	Sacroc Unit	Canyon-Reef
Kelly-Snyder (Cisco), Scurry	Standard of Texas	Cisco
Kelly-Snyder (Cisco), Scurry	Texaco Inc.	Cisco
Kermit, Winkler	Ambassador Oil Corp.	Yates
Kermit, Winkler	Ambassador Oil Corp.	Yates
Kermit, Winkler	Ambassador Oil Corp.	Yates
Kermit, Winkler	Ambassador Oil Corp.	Yates & Queen
Kermit, Winkler	Amerada Petroleum Corp.	Yates
Kermit, Winkler	The Atlantic Refining Co.	Yates
Kermit, Winkler	Geo. L. Buckles Company	Yates
Kermit, Winkler	D. H. Bolin (6 leases)	Yates
Kermit, Winkler	Gulf Oil Corporation	Yates
Kermit, Winkler	Gulf Oil Corporation	Yates
Kermit, Winkler	Harlan Production Co.	Yates
Kermit, Winkler	Humble Oil & Ref. Co.	Yates & Queen
Kermit, Winkler	Humble Oil & Ref. Co.	Yates
Kermit, Winkler	Humble Oil & Ref. Co.	Yates
Kermit, Winkler	Humble Oil & Ref. Co.	Yates
Kermit, Winkler	Humble Oil & Ref. Co.	Yates
Kermit, Winkler	Humble Oil & Ref. Co.	Yates
+ Kermit, Winkler	Humble Oil & Ref. Co.	Yates
Kermit, Winkler	Kermit Oil Company	Yates
Kermit, Winkler	Maxwell Oil Company	Yates
Kermit, Winkler	Maxwell Oil Company	Yates
Kermit, Winkler	Maxwell Oil Company	Yates
Kermit, Winkler	Maxwell Oil Company	Yates
Kermit, Winkler	Mobil Oil Company	Queen
Kermit, Winkler	Mobil Oil Company	Yates

+Added since previous report.

(1) From Railroad Commission "Special Orders".

Active Water Flood - Texas (Cont'd) - 38 -

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
++(1)Kermit, Winkler	Rodman Oil Company	Yates and Queen
Kermit, Winkler	Shoreline Petroleum Corp.	Yates
Kermit, Winkler	Sinclair Oil & Gas Company	Yates
+Kermit, Winkler	Sinclair Oil & Gas Company	Yates
Kermit, Winkler	Sinclair Oil & Gas Company	Yates
+Kermit, Winkler	Sinclair Oil & Gas Company	Yates
Kermit, Winkler	Skelly Oil Company	Yates
Kermit, Winkler	Sun Oil Company	Yates
Kermit, Winkler	Sunray Mid-Continent Oil Co.	Yates
Kermit, Winkler	Sunray Mid-Continent Oil Co.	Yates
Kermit, Winkler	Sunray Mid-Continent Oil Co.	Yates
Kermit, Winkler	Texas Pacific Coal & Oil Co.	Yates
Kermit, Winkler	Tidewater Oil Company	Yates
Kermit, Winkler	29 Oil Corporation	Yates
Kermit, Winkler	Water Flood Assoc., Inc.	Yates & Seven Rivers
Keystone (Colby Sand), Winkler	Ambassador Oil Corp.	Colby Sand
+Keystone (Colby Sand), Winkler	Perry R. Bass	Colby Sand
+(1)Keystone (Colby Sand), Winkler	Mobil Oil Company	Colby Sand
Keystone (Colby Sand), Winkler	Pan American Petroleum Corp.	Colby Sand
Keystone (Colby Sand), Winkler	Perkins-Prothro Co.	Colby Sand
Keystone (Colby Sand), Winkler	Richardson Oils, Inc.	Colby Sand
Keystone (Colby Sand), Winkler	Skelly Oil Company	Colby Sand
Keystone (Colby Sand), Winkler	Standard of Texas	Colby Sand
Keystone (Colby Sand), Winkler	Texaco Inc.	Colby Sand
Keystone (Colby Sand), Winkler	Tidewater Oil Company	Colby Sand
Leck, Winkler	T. F. Hodge	Yates
+Leck, Winkler	Richardson Oils, Inc.	Yates
Lee Harrison, Lubbock	Great Western Drilling Co.	Clearfork
Lehn-Apco (1600'), Pecos	Burk Royalty Company	Queen
Lehn-Apco, North (1600'), Pecos	Mobil Oil Company	Queen
Lehn-Apco, North (1600'), Pecos	Tekoil Corporation	Queen
Levelland, Cochran	Monsanto Chemical Company	San Andres
+Levelland, Cochran	Water Flood Assoc., Inc.	San Andres
+(1)Lucy (Clearfork), Borden	BTA Oil Producers (Unit)	Clearfork
+(1)Mabee, Andrews & Martin	Texaco Inc.	San Andres
Magnolia Sealy, Ward	Hostetler Engineering	Yates
Magnolia Sealy, Ward	Mobil Oil Company	Yates
Magnolia Sealy, Ward	Sinclair Oil & Gas Co.	Yates
Magnolia Sealy, Ward	Sunray Mid-Continent Oil Co.	Yates
Malicky (Queen Sand), Pecos	Tekoil Corporation	Queen
Malicky (Queen Sand), Pecos	Tekoil Corporation	Queen
Masterson, Pecos	Burk Royalty Company	Queen
Masterson-Lehn, Pecos	Burk Royalty Company	Queen
McCamey, Upton (Pilot)	Continental Oil Company	Grayburg
+McCamey, Upton	Shell Oil Company	Grayburg
McElroy, Crane (Pilot)	Gulf Oil Corporation	Grayburg
McElroy, Crane	Gulf Oil Corporation	Grayburg

+Added since previous report. (1)From Railroad Commission "Special Orders".

++Changed from inactive to active.

Active Water Flood - Texas (Cont'd) - 39 -

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
McElroy, Crane	Gulf Oil Corporation	Grayburg
McFarland (Queen), Andrews (Pilot)	Pan American Petroleum Corp.	Queen
+Means (Queen), Andrews	Humble Oil & Ref. Co.	Queen
Midland Farms, North (Grayburg), Andrews	Pan American Petroleum Corp.	Grayburg
Midway Lane (1300'), Crockett	Gulf Oil Corporation	Queen
Midway Lane (1300'), Crockett	Shell Oil Company	Queen
+(1)Millard (Queen), Pecos	Minerals Search	Queen
Monahans (Clearfork), Ward (Pilot)	Shell Oil Company	Clearfork
Netterville, Pecos	Landa Oil Company	Yates
Netterville, Pecos	Maxwell Oil Company	Yates
Netterville, Pecos	Sunray Mid-Continent Oil Co.	Yates
Noelke, Crockett	Ambassador Oil Corp.	Soma Sand
Noelke, Crockett	Ambassador Oil Corp.	Soma Sand
Noelke, Crockett	Henry Cohen	Soma Sand
Noelke, Crockett	General American Oil Co.	Soma Sand
Noelke, Crockett	J. T. Holmes	Soma Sand
Norton, West (Lower Fry), Runnels	Bert Fields (Unit)	Fry Sand
Orient, Pecos	J. Kirk Cansler	Yates
Pace (Fry Sand), Runnels	G. W. Strake	Fry Sand
Page, Schleicher	Cities Service Petroleum Co.	Strawn
Patsy, Runnels	Louboys Oil Company	Swastika Sand
+(1)Patsy, Runnels	Louboys Oil Company, et al	Serratt
Parks, Midland	Mobil Oil Company	Pennsylvanian
Payton, Ward	Burk Royalty Co. (Unit)	Yates
Payton, Ward	Burk Royalty Co.	Yates
+(1)Payton, Ward	Group of Independents	Yates
Payton, Ward	Luse & Ice	Yates
Payton, Ward	Masterson & Sweet	Yates
Payton, Ward	C. C. Pollard & Son	Yates
Pecos Valley High Gravity, Pecos	Ambassador Oil Corp.	Yates
Pecos Valley High Gravity, Pecos	Ambassador Oil Corp.	Yates
Pecos Valley High Gravity, Pecos	L. D. Crumly, Jr.	Yates
Pecos Valley High Gravity, Pecos	L. D. Crumly, Jr.	Yates
Pecos Valley High Gravity, Pecos	L. D. Crumly, Jr.	Yates
Pecos Valley High Gravity, Pecos	El Paso Water Flood	Yates
Pecos Valley High Gravity, Pecos	Hadlock & MacFulton	Yates
Pecos Valley High Gravity, Pecos	Hadlock & MacFulton	Yates
Pecos Valley High Gravity, Pecos	John L. Harlan, Trustee	Yates

+Added since previous report. (1)From Railroad Commission "Special Orders".

Active Water Flood - Texas (Cont'd) - 40 -

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Pecos Valley High Gravity, Pecos	Hostetler Engineering	Yates
Pecos Valley High Gravity, Pecos	Hostetler Engineering	Yates
Pecos Valley High Gravity Pecos	Hostetler Engineering	Yates
Pecos Valley High Gravity Pecos	Hostetler Engineering	Yates
Pecos Valley High Gravity, Pecos	Hostetler Engineering	Yates
Pecos Valley High Gravity, Pecos	Hostetler Engineering	Yates
Pecos Valley High Gravity, Pecos	Hostetler Engineering	Yates
Pecos Valley High Gravity, Pecos	Kennedy & Hamm	Yates
Pecos Valley High Gravity, Pecos	Marminol Corporation	Yates
Pecos Valley High Gravity, Pecos	Monterey Oil Company	Yates
Pecos Valley High Gravity, Pecos	Murmanill	Yates
Pecos Valley High Gravity, Pecos	W. O. Rehmeier	Yates
Pecos Valley High Gravity, Pecos	R. J. Reischman	Yates
Pecos Valley High Gravity, Ward	Signal Oil & Gas Company	Yates
Pecos Valley High Gravity Pecos	Sun Oil Company	Yates
Pecos Valley High Gravity, Pecos	Texaco Inc.	Yates
Pecos Valley Low Gravity, Pecos	Ambassador Oil Corp.	Yates
Pecos Valley Low Gravity, Pecos	Hostetler Engineering	Yates
++Pecos Valley Low Gravity, Pecos	Hostetler Engineering	Yates
Pecos Valley Low Gravity, Pecos	Hostetler Engineering	Yates
Pecos Valley Low Gravity, Pecos	Monterey Oil Company	Yates
Pecos Valley Low Gravity, Pecos	R. J. Reischman	Yates
Pecos Valley Low Gravity, Pecos	Southern California Pet.	Yates
Pecos Valley Low Gravity, Pecos	Sunray Mid-Continent Oil Co.	Yates
Pecos Valley Low Gravity, Pecos	Sunray Mid-Continent Oil Co.	Yates
#Pegasus (Ellenburger), Midland & Upton	Mobil Oil Co., et al	Ellenburger
#Pegasus (Pennsylvanian), Midland & Upton	Mobil Oil Co., et al	Canyon
+Revilo (Glorieta), Scurry Ropes, Hockley	Sun Oil Company Honolulu Oil Corporation	Glorieta Canyon-Reef
*Salt Creek, Kent	General Crude Oil Co.	Pennsylvanian
Sand Hills (Tubb), Crane (Pilot)	Gulf Oil Corporation	Clearfork

+Added since previous report. *Combined water and gas pressure maintenance.

#Pilot Unitized. ++Changed from inactive to active.

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Sand Hills (Tubb), Crane	Gulf Oil Corporation	Tubb
Scarborough, Winkler	Ambassador Oil Corp.	Yates
Scarborough, Winkler	L. D. Crumly, Jr.	Yates
Scarborough, Winkler	L. D. Crumly, Jr.	Yates
Scarborough, Winkler	L. D. Crumly, Jr.	Yates
Scarborough, Winkler	Gulf Oil Corporation	Yates
Scarborough, Winkler	Hudson & Hudson, Inc.	Yates
Scarborough, Winkler	Mobil Oil Company	Yates
Scarborough, Winkler	Redco Corporation	Yates
Scarborough, Winkler	Richardson Oils, Inc.	Yates
Scarborough, Winkler	Sid W. Richardson, Inc.	Yates
Scarborough, Winkler	Shell & Pure Oil Company	Yates
Scarborough, Winkler	Sinclair Oil & Gas Co.	Yates
+Scarborough, Winkler	Texas Pacific Coal & Oil Co.	Yates
Scarborough, North, Winkler	Rock Island Oil & Ref. Co.	Yates
Shearer, Pecos	Burk Royalty Company	Queen
Shipley, Ward	Luse & Ice	Seven Rivers- Queen
+ (1) Shipley, Ward	Mabee Petroleum Corp.	Queen
Shipley, Ward	Sinclair Oil & Gas Co.	Queen
Shipley, Ward	James H. Snowden, et al	Queen
Shipley, Ward	Tennessee Gas Transmission Co.	Queen
Shipley, Ward	Tidewater Oil Company	Queen
Shipley, Ward	Frank Waters Oil Company	Queen
Slaughter, Cochran	Bogle Oil Company	San Andres
Slaughter, Hockley	Great Western Drilling Co.	San Andres
+Slaughter, Cochran (Pilot)	Gulf Oil Corporation	San Andres
+Slaughter, Hockley	Mobil Oil Company	San Andres
Slaughter, Cochran (Pilot)	Pan American Petroleum Corp.	San Andres
+Slaughter, Cochran & Hockley	Pan American Petroleum Corp.	San Andres
+Slaughter, Cochran (Pilot)	Sunset Int'l. Petroleum Corp.	San Andres
Slaughter, Hockley (Pilot)	Texaco Inc.	San Andres
Spraberry Trend, Midland	Tex Harvey	Spraberry
Spraberry Trend, Midland (Pilot)	Mobil Oil Company	Spraberry
+Spraberry Trend (Clearfork), Upton (Pilot)	J. E. Jones Drlg. Co., et al	Clearfork
+ (1) Spraberry Trend (Clearfork), Upton & Reagan (Pilot)	Miami Pet. Co., Inc., et al	Clearfork
+ (1) Sweetie Peck (Pennsylvanian), Midland (Pilot)	Gulf Oil Corporation	Pennsylvanian
Sykes (Morris Sand), Runnels	Sunray Mid-Continent Oil Co.	Morris Sand
Taylor Link, Pecos	G. Stratton & Bland & Scott	Grayburg
Taylor Link, Pecos	G. Stratton & Bland & Scott	Queen
+Three Bar (Devonian), Andrews	Humble Oil & Ref. Co.	Devonian
Three Bar (Devonian), Andrews (Pilot)	Pan American Petroleum Corp.	Devonian
Toborg, Pecos	Helmerich & Payne, Inc.	Toborg Sand
Toborg, Pecos	Helmerich & Payne, Inc.	Toborg Sand
Toborg, Pecos (Pilot)	Gulf Oil Corporation	Toborg Sand
Toborg, Pecos	Standard of Texas	Toborg Sand

+Added since previous report. (1)From Railroad Commission "Special Orders".

Active Water Flood - Texas (Cont'd) - 42 -

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Todd Crinoidal, Crockett	Continental Oil Company	Pennsylvanian
Tunstill, Loving (Pilot)	McDaniel & Beecherl	Delaware
Tunstill, Reeves	McDaniel & Beecherl	Delaware
+(1)Vaughn, Crockett	Buffalo Petroleum Corp.	San Andres
Vaughn, Crockett	Pure Oil Company	San Andres
Vaughn, Crockett (Pilot)	Terrell Petroleum Co.	San Andres
Vaughn, Crockett (Pilot)	Terrell Petroleum Co.	Queen Sand
Von Roeder, North, Borden	Amerada Pet. Corp., et al	Canyon
Waddell, Crane	Gulf Oil Corporation	San Andres
Walker, Pecos	Ambassador Oil Corp.	Queen 2100'
Walker, Pecos	Childress, Cooper	Grayburg- San Andres
Walker, Pecos	Dr. J. L. Cooper	Queen
Walker, Pecos	Helmerich & Payne, Inc.	Queen 1800'
Ward-Estes, North, Ward	The Atlantic Ref. Co.	Yates
+Ward-Estes, North, Winkler	Perry R. Bass	Queen
Ward-Estes, North, Winkler & Ward	Blue Danube Oil Company	Queen
Ward-Estes, North, Winkler & Ward	Blue Danube Oil Company	Yates
+Ward-Estes, North, Ward	Cities Service Pet. Co.	Yates
Ward-Estes, North, Ward	Gulf Oil Corporation	Yates
Ward-Estes, North, Ward	Harlan Production Co.	Yates
+(1)Ward-Estes, North, Ward	Harlan Production Co.	Yates
Ward-Estes, North, Ward	John L. Harlan, Trustee	Yates
Ward-Estes, North, Ward	Humble Oil & Ref. Co.	Yates
Ward-Estes, North, Ward	Humble Oil & Ref. Co.	Yates
Ward-Estes, North, Ward	Richardson Oils, Inc.	Yates
+Ward-Estes, North, Ward	Richardson Oils, Inc.	Queen
Ward-Estes, North, Ward	Sid W. Richardson, Inc.	Yates
+Ward-Estes, North, Ward	Sid W. Richardson, Inc.	Yates
Ward-Estes, North, Ward	Sid W. Richardson, Inc.	Yates
+Ward-Estes, North, Winkler	Sid W. Richardson, Inc.	Queen
++(1)Ward-Estes, North, Ward	Rodman-Noel Oil Corp.	Yates
Ward-Estes, North, Ward & Winkler	Shell Oil Company	Yates
Ward-Estes, North, Ward	Sinclair Oil & Gas Co.	Yates
+Ward-Estes, North, Ward	Sinclair Oil & Gas Co.	Yates
Ward-Estes, North, Ward	Skelly Oil Company	Yates
+Ward-Estes, North, Ward	Snelson Brothers	Yates
Ward-Estes, North, Ward	Standard of Texas	Yates
Ward-Estes, North, Ward	Standard of Texas	Yates
Ward-Estes, North, Ward	Sunset Int'l. Pet. Corp.	Yates
Ward-Estes, North, Ward	Texfel Petroleum Corporation	Yates
Ward-Estes, North, Ward	Tidewater Oil Company	Yates
Ward, South, Ward	Amerada Pet. Corp., et al	Yates
Ward, South, Ward	The Atlantic Ref. Co.	Yates
Ward, South, Ward	The Atlantic Ref. Co.	Yates
Ward, South, Ward	D. H. Bolin	Yates

+Added since previous report. (1)From Railroad Commission "Special Orders".
++Changed from inactive to active.

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Ward, South, Ward	D. H. Bolin	Yates
Ward, South, Ward	D. H. Bolin	Lower Yates
Ward, South, Ward	Bolin Oil Company	Yates
Ward, South, Ward	C. M. S. Oil Operation	Yates
Ward, South, Ward	Cities Service Petroleum Co.	Yates
Ward, South, Ward	Cities Service Petroleum Co.	Yates
Ward, South, Ward	Forest Oil Corporation	Yates
Ward, South, Ward	Forest Oil Corporation	Yates
Ward, South, Ward	Graridge Corporation	Yates
+(1)Ward, South, Ward	Grover, MacCurdy & Knox	Yates
+(1)Ward, South, Ward	Group of Independents	Yates
Ward, South, Ward	Hamilton Brothers	Yates
Ward, South, Ward	John L. Harlan, Trustee	Yates
Ward, South, Ward	Harlan Production Co.	Yates
Ward, South, Ward	Helmerich & Payne, Inc.	Yates
Ward, South, Ward	Hostetler Engineering	Yates
Ward, South, Ward	Hostetler Engineering	Yates
Ward, South, Ward	Hostetler Engineering	Yates
Ward, South, Ward	Hostetler Engineering	Yates
+(1)Ward, South, Ward	J. K. Oil Company	Yates
Ward, South, Ward	Jocelyn-Varn Oil Co. & Grover-MacCurdy-Knox Oil Co.	Yates
Ward, South, Ward	Kennedy & Hamm	Yates
Ward, South, Ward	Barron Kidd	Yates
+Ward, South, Ward	I. W. Lovelady	Queen
Ward, South, Ward	Maxwell Oil Company	Yates
++Ward, South, Ward	Maxwell Oil Company	Yates
Ward, South, Ward	P. B. S. Oil Company	Yates
Ward, South, Ward	Prince Bros. Drilling Co.	Yates
Ward, South, Ward	Richardson Oils, Inc.	Yates
Ward, South, Ward	Sinclair Oil & Gas Co.	Yates
Ward, South, Ward	Skelly Oil Company	Yates
Ward, South, Ward	Standard of Texas	Yates
Ward, South, Ward	Standard of Texas	Yates
Ward, South, Ward	Sunset Int'l. Petroleum Corp.	Yates
Ward, South, Ward	Tennessee Gas Trans. Co.	Yates
Ward, South, Ward	Tennessee Gas Trans. Co.	Yates
Ward, South, Ward	Tennessee Gas Trans. Co.	Yates
Ward, South, Ward	Texas Pacific Coal & Oil Co.	Yates
Ward, South, Ward	Texas Pacific Coal & Oil Co.	Yates
Ward, South, Ward	Texfel Petroleum Corp.	Yates
Ward, South, Ward	Texfel Petroleum Corp.	Yates
Ward, South, Ward	Texfel Petroleum Corp.	Yates
Ward, South, Ward	Roy A. Westbrook	Yates
Weiner Colby, Winkler	Continental Oil Company	Queen (Colby Sand)
Weiner Colby, Winkler	Bert Fields	Queen
Weiner Colby, Winkler	Rycade Oil Company	Queen
Weiner Colby, Winkler	Sun Oil Co. & White Eagle	Queen

+Added since previous report. (1)From Railroad Commission "Special Orders".

++Changed from inactive to active.

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
+(1)Weiner Colby, Winkler	Texaco Inc.	Colby Sand
Weiner Colby, Winkler	Texfel Petroleum Corp.	Queen
Weiner Colby, Winkler	Westbrook Oil Corporation	Colby Sand
Welch, Dawson	Cities Service Petroleum Co.	San Andres
++Welch, Dawson (Pilot)	Tidewater Oil Company	San Andres
+*White & Baker, Pecos	Helmerich & Payne, Inc.	Queen
+(1)Winters (Palo Pinto), Runnels	Humble Oil & Ref. Co.	Palo Pinto
World, Crockett	Tennessee Gas Trans. Co.	Grayburg
Yankee (Canyon), Tom Green	Hiawatha Oil & Gas Co.	Canyon
Yates Smith Sand, Pecos	E. J. McCurdy, Jr., et al	Yates
Yates Smith Sand, Pecos	The Ohio Oil Company	Yates
Yates Smith Sand, Pecos	Phillips Petroleum Co.	Yates
Yates Smith Sand, Pecos	Standard of Texas	Yates

PROPOSED WATER FLOOD PROJECTS - WEST TEXAS

+(2)Byrd, Ward	Pan American Petroleum Corp.	Yates
+Cardona Lake, Crane	Humble Oil & Ref. Co.	Devonian
+Crane-Cowden, Crane (Pilot)	29 Oil Corporation	Grayburg
+Emperor (Deep), Winkler	Continental Oil Company	Queen (Colby Sand)
+Emperor (Deep), Winkler	Humble Oil & Ref. Co.	Queen
+Fort Stockton, Pecos	Humble Oil & Ref. Co.	Yates
Fullerton, Andrews (Pilot 2)	Monterey Oil Company	Clearfork
Goldsboro (Gardner), Coleman & Runnels	S. C. Herring Drilling Co.	Gardner
Goldsboro (Gardner), Coleman & Runnels	Texas Pacific Coal & Oil Co.	Gardner
+Goldsmith, Ector	Cities Service Petroleum Co.	San Andres
Goldsmith (Holt), Ector	Pan American Petroleum Corp.	Holt
Henderson, Winkler (Pilot)	Beacon Oil & Ref. Co.	Pettit Lime
Howard-Glasscock, Howard	C. A. Jones	Yates
Howard-Glasscock, Howard	Standard Oil Co. of Texas	Queen
Howard-Glasscock, Howard	Standard Oil Co. of Texas	Yates
Howard-Glasscock, Howard	Sunray Mid-Continent Oil Co.	San Andres
Iatan, East Howard, Howard & Mitchell	Standard Oil Co. of Texas	Glorieta-Clearfork
+Jameson (Strawn), Coke & Sterling	**Russell Engr.	Strawn
+Jameson (Strawn), Coke	Mobil Oil Company	Strawn
+Kermit, Winkler	Humble Oil & Ref. Co.	Yates
+Kermit, Winkler	Humble Oil & Ref. Co.	Queen
+Kermit, Winkler	Monsanto Chemical Co.	Yates
+Keystone (Colby Sand), Winkler	Continental Oil Company	Queen (Colby Sand)
+(2)Keystone (Colby Sand), Winkler	Gulf Oil Corporation	Colby Sand
Keystone (Colby Sand), Winkler	Texaco Inc.	Queen (Colby Sand)

+Added since previous report. (1)From Railroad Commission "Special Orders".

*Carbonated Water Flood. **Probable Operator.

(2)From Railroad Commission "Notice of Hearing".

Proposed Water Flood - Texas (Cont'd)

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Lee Harrison, Lubbock	James G. Brown	Clearfork
#Lehn Apco (1600'), Pecos	Harlan Production Co.	Queen
+Lloyd, Runnels	G. W. Strake	Fry Sand
+Levelland, Cochran	Stanton Oil Co., Ltd.	San Andres
Mason, North, Loving	The Ohio Oil Co., et al	Delaware
+(2)McCamey, Upton	Dean & Latch	Grayburg
+(2)McCamey, Upton (Pilot)	Gulf Oil Corporation	Grayburg
+(2)McCamey, Upton	Texaco Inc.	Grayburg
+(2)Means (Queen), Andrews	The Ard Drilling Company	Queen
+Means (Queen), Andrews	Gulf Oil Corporation	Queen
+(2)Means (Queen), Andrews	Shell Oil Company	Queen
+(2)Means (Queen), Andrews	Sinclair Oil & Gas Co.	Queen
Means, North, Andrews	Cities Service Petroleum Co.	Queen
Midland Farms, Andrews (Pilot)	Pan American Petroleum Corp.	Grayburg
+Midland Farms, North (Grayburg)	Pan American Petroleum Corp.	Grayburg
Unit, Andrews		
Midland Farms (Deep), Andrews	Pan American Petroleum Corp.	Wolfcamp
Midway Lane (Permian), Crockett	Sinclair Oil & Gas Co.	Queen
+Mitchell, Runnels	G. W. Strake	Fry Sand
+Nora, Runnels	G. W. Strake	Gardner Sand
Sand Hills McKnight, Crane	Gulf Oil Corporation	?
(Pilot)		
Scarborough, North, Winkler	Ambassador Oil Corp.	Yates
Shipley (Queen), Ward	James H. Snowden, et al	Queen
+Slaughter, Cochran	Honolulu Oil Corporation	San Andres
+Slaughter, Cochran	Pan American Petroleum Corp.	San Andres
+Slaughter, Hockley	Pan American Petroleum Corp.	San Andres
Spraberry Trend, Upton & Reagan	Humble Oil & Ref. Co.	Spraberry
Spraberry Trend, Midland &	Mobil Oil Company	Spraberry
Glasscock		
Spraberry Trend (Aldwell Unit),	Southland Royalty Co.	Spraberry
Reagan		
Spraberry Trend (Midkiff Unit),	Humble Oil & Ref. Co.	Spraberry
Upton & Midland		
Spraberry Trend, Upton & Reagan	Phillips Petroleum Co.	Spraberry
Spraberry Trend, (Driver Unit),	Sohio Petroleum Co.	Spraberry
Upton, Reagan, Midland &		
Glasscock		
+Sueise, Runnels	**Gulf Oil Corporation	Fry Sand
+Ward-Estes, North, Ward	Humble Oil & Ref. Co.	Yates & Queen
Ward-Estes, North, Ward	Texaco Inc.	Yates
+Ward-Estes, North, Ward	Tidewater Oil Company	Queen &
		Grandfalls
Ward, South, Ward	Ambassador Oil Corp.	Yates
Ward, South, Ward	Hostetler Engineering	Yates
Weiner Colby, Winkler	Westbrook Oil Corp.	Queen
Winters, North, Runnels	G. W. Strake	Gunsight

+Added since previous report. (2)From Railroad Commission "Notice of Hearing".

**Probable Operator.

ACTIVE GAS INJECTION PROJECTS - WEST TEXAS

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Anton-Irish, Hale & Lamb	Pan American Petroleum Corp.	Clearfork
Block #31, Crane	The Atlantic Ref. Co.	Devonian
Cedar Lake, Gaines	Pan American Petroleum Corp.	San Andres
Cowden, North, Ector	The Atlantic Ref. Co.	Grayburg
Cowden, North, Ector	Cities Service Pet. Co.	Grayburg
Cowden, North, Ector	Pan American Petroleum Corp.	Grayburg
Cowden, North, Ector	Phillips Petroleum Company	Grayburg
Cowden, North, Ector	Pure Oil Company	Grayburg
Cowden, North, Ector	Sinclair Oil & Gas Co.	Grayburg
Cowden, North, Ector	Sun Oil Company	Grayburg
Cowden, North, Ector	Texaco Inc.	Grayburg
Cowden, North, Ector	Tidewater Oil Company	Grayburg
*Cree-Sykes, Runnels	Kewanee Oil Company	Gardner
Cree-Sykes, Runnels)		
Cree-Sykes, Runnels)	Unit-Kewanee Oil Company	Gardner
Cree-Sykes, Runnels)	Operator	
Dollarhide (Clearfork), Andrews	Cities Service Pet. Co.	Clearfork
Donnelly (San Andres), Ector	Sinclair Oil & Gas Co.	San Andres
Fort Chadbourne, Runnels, Coke	Humble Oil & Ref. Co.	Strawn (Odon)
Fullerton, Andrews	Humble Oil & Ref. Co.	Clearfork
Fullerton, North Dome, Andrews	Monterey Oil Company	Clearfork
Fullerton, South Dome, Andrews	Monterey Oil Company	Clearfork
Goldsmith, Ector	Amerada Petroleum Corp.	San Andres
Goldsmith, Ector	The Atlantic Ref. Co.	San Andres
Goldsmith, Ector	Cities Service Pet. Co.	San Andres
Goldsmith, Ector	Felmont Oil Company	San Andres
Goldsmith, Ector	Gulf Oil Corporation	San Andres
Goldsmith, Ector	Humble Oil & Ref. Co.	San Andres
Goldsmith, Ector	Pan American Petroleum Corp.	San Andres
Goldsmith, Ector	Phillips Petroleum Co.	San Andres
Goldsmith, Ector	Samedan Oil Corporation	San Andres
Goldsmith, Ector	Shell Oil Company	San Andres
Goldsmith, Ector	Sinclair Oil & Gas Co.	San Andres
Goldsmith, Ector	Texas Pacific Coal & Oil Co.	San Andres
Halley (Devonian), Winkler	Sinclair Oil & Gas Co.	Devonian
Halley (Devonian), Winkler	Sunray Mid-Continent Oil Co.	Devonian
Jameson, Coke	Sun Oil Company	Strawn Reef
Keystone (Holt), Winkler	Carter Foundation Prod. Co.	Holt
Keystone (Holt), Winkler	Phillips Petroleum Company	Holt Sand
Keystone (Holt), Winkler	Richardson & Bass	Holt
Levelland, Hockley	Pan American Petroleum Corp.	San Andres
Lloyd, Runnels	G. W. Strake	Fry Sand
Mabee, Midland & Martin	Texaco Inc.	Grayburg
Millican, Coke	Sun Oil Company	Strawn
Pegasus (Pennsylvanian), Midland & Upton	Mobil Oil Company	Pennsylvanian
Ranch (Strawn), Crockett	Continental Oil Company	Strawn

*Gas Injection with Pilot Water Flood.

Active Gas Injection Projects - West Texas (Cont'd)

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
Sheffield (Ellenburger), Winkler	Standard of Texas	Ellenburger
Siler & Johnson (1700'), McCulloch	American-Australian Oil Co.	Upper Strawn
Slaughter, Cochran & Hockley	Cities Service Pet. Co.	San Andres
Slaughter, Cochran & Hockley	Sid W. Richardson, Inc.	San Andres
+Smyer, Hockley	Honolulu Oil Corporation	Clearfork
Spraberry (Deep), Dawson	Seaboard Oil Company	Spraberry
Susan Peak, Tom Green	Plymouth Oil Company	Strawn
Three Bar, Andrews	Pan American Petroleum Corp.	Devonian
Wasson, Yoakum	Cornell Oil Company	San Andres
West World, Crockett	Cities Service Pet. Co.	Strawn
*Dollarhide, Andrews	Pure Oil Company	Clearfork
*Dollarhide, Andrews	Pure Oil Company	Devonian
+(1)Dora Roberts, Ector & Midland (Pilot)	Cities Service Pet. Co.	Devonian
+(2)Halley (Montoya), Winkler	Pan American Petroleum Corp.	Montoya
+(2)Running-W (Waddell), Crane	Gulf Oil Corporation	Waddell
Seminole, West, Gaines	Cities Service Pet. Co.	San Andres
TXL (Devonian), Ector	Shell Oil Company	Devonian

ACTIVE WATER FLOOD PROJECTS - NEW MEXICO

Artesia, Eddy (#1, #2 & #3)	Graridge Corporation	Grayburg- San Andres
Artesia, Eddy	Kersey and Company	Grayburg
Brown, Chaves (Pilot)	J. W. Brown	Queen
Caprock Queen, Lea & Chaves	Ambassador Oil Corporation	Queen
Caprock Queen, Chaves	Cities Service Pet. Co.	Queen
Caprock Queen, Lea & Chaves	Graridge Corporation	Queen
Caprock Queen, Chaves	Great Western Drilling Co.	Queen
Caprock Queen, Chaves	Great Western Drilling Co.	Queen
Caprock Queen, Chaves	Great Western Drilling Co.	Queen
Caprock Queen, Chaves (Pilot)	John H. Trigg	Queen
Cass, Lea	Continental Oil Company	Pennsylvanian
Coyote Queen, Chaves	C. T. Robertson	Queen
Grayburg Jackson, Eddy	General American Oil Co.	Grayburg
High Lonesome, Eddy	Charles A. Steen	?
Langlie-Mattix, Lea	Gulf Coast Western Oil Co.	Queen
Langlie-Mattix, Lea	Humble Oil & Ref. Co.	Queen
Langlie-Mattix, Lea	Skelly Oil Company	Queen
Loco Hills, Eddy	Newmont Oil Company	Grayburg
+Maljamar, Lea	Continental Oil Company	?
North Shugart, Eddy	Maxwell Oil Company	Queen
Penrose-Skelly, Lea	Ambassador, Skelly Oil & Humble Oil & Ref. Co.	Queen
Red Lake, Eddy	Kersey & Co. & Graridge Corp.	Grayburg
Rhodes, Lea	Rock Island Oil & Ref. Co.	Yates

+Added since previous report. (1)From Railroad Commission "Special Orders".

*Combination water & gas pressure maintenance. (2)From Railroad Commission "Notice of Hearing".

Active Water Flood Projects - New Mexico (Cont'd)

FIELD AND COUNTY	COMPANY OR OPERATOR	FORMATION
++Roberts, Lea	Boller & Nichols & Leonard Nichols	Grayburg
Russell, Eddy	Neil H. Wills, et al	Yates
+Skaggs, Lea	Texaco Inc.	?
Square Lake, Eddy (Pilot)	Newmont Oil Company	Grayburg
+Square Lake, Eddy	J. Cleo Thompson	Grayburg
Turkey Track, Eddy (Pilot)	Stanton Oil Company, Ltd.	Queen
Vacuum, Lea (Pilot)	Mobil Oil Company	Grayburg & San Andres

PROPOSED WATER FLOOD PROJECTS - NEW MEXICO

+(1)Caprock Queen, Lea & Chaves	Union Oil Co. of California	Queen
Corbin, Lea	Denius	Queen
Empire, Eddy	Leonard Latch	Seven Rivers
Empire, Eddy	Leonard Latch	Seven Rivers
+(1)Eumont, Lea	Gulf Oil Corporation	Queen
+(1)Eunice, South, Lea	Gulf Oil Corporation	Queen
Grayburg-Jackson, Eddy	Franklin, Aston & Fair, Inc.	Grayburg
+(1)Skaggs, Lea	Continental Oil Company	Grayburg

ACTIVE GAS INJECTION PROJECTS - NEW MEXICO

Grayburg, Eddy	Grayburg Unit Association	Grayburg
Langlie-Mattix, Lea	Langlie Unit, Rep. Proj.	Queen
Loco Hills, Eddy	Coronada Gas Corporation	Grayburg
Loco Hills, Eddy	Newmont Oil Corporation	?
*Maljamar, Lea	Maljamar Co-Operative Repressuring Agreement	Grayburg & San Andres
*Maljamar, Lea	Kewanee Oil Company	Grayburg & San Andres

ACTIVE MISCIBLE DISPLACEMENT PROJECTS - WEST TEXAS

Block #31 (Devonian), Crane	The Atlantic Ref. Co.	Devonian
Bronte, Coke	Humble Oil & Ref. Co.	Goen
++*(1)Midland Farms (Wolfcamp), Andrews	Pan American Petroleum Corp.	Wolfcamp
#Parks (Pennsylvanian), Midland	Mobil Oil Company	Pennsylvanian (Bend)
*Slaughter, Cochran	The Atlantic Ref. Co.	San Andres
+*University Block 9 (Wolfcamp), Andrews	The Atlantic Ref. Co. (Unit)	Wolfcamp
Wasson, Yoakum	Shell Oil Company	San Andres

+Added since previous report. (1)From Railroad Commission "Special Orders".

*Propane, Gas & Water. **Enriched Gas, Dry Gas & Water. #Propane.

++Changed from inactive to active.

LIST OF PRODUCING FORMATIONS

The following outline was tabulated from the enclosed A.I.M.E. Oil Production Tables covering the Permian Basin for the year 1959. A number of fields having multiple reservoirs are reported separately in each producing zone, where such information was available. Thus, the total number of pool designations is different from the total number of producing formations. The following shows the number of times the various formations are reported productive in the A.I.M.E. Tables following page 53.

NAME AND AGE	NUMBER OF POOLS		
	WEST TEXAS	S.E. NEW MEXICO	TOTAL
Recent	1	0	1
Sunflower	2	0	2
Cretaceous	1	0	1
Permian (Undifferentiated)	27	9	36
Rustler, Permian	2	0	2
Castile, Permian	5	1	6
Delaware Mountain, Permian	48	10	58
Tansill, Permian	2	1	3
Yates, Permian	33	38	71
Seven Rivers, Permian	25	22	47
White Horse, Permian	1	0	1
Queen, Permian	50	26	76
Colby Sand, Permian	1	0	1
Grayburg, Permian	73	30	103
San Andres, Permian	197	45	242
Holt, Permian	3	0	3
San Angelo - Glorieta, Permian	87	4	91
Yeso, Permian	0	16	16
Leonard, Permian	6	1	7
Bone Springs, Permian	0	2	2
Clearfork, Permian	144	0	144
Tubb, Permian	20	3	23
Spraberry, Permian	52	0	52
Wichita, Permian	28	0	28
Wolfcamp (Abo), Permian	132	29	161
Dean, Permian	8	0	8
Tannehill, Permian	6	0	6
Pennsylvanian (Undifferentiated)	132	37	169
Cisco, Pennsylvanian	76	1	77
Canyon, Pennsylvanian	142	0	142
Strawn, Pennsylvanian	311	0	311
Bend, Pennsylvanian	11	0	11
Mississippian (Undifferentiated)	22	1	23
Devonian (Undifferentiated)	124	43	167
Silurian (Undifferentiated)	25	5	30
Fusselman, Silurian	48	3	51
Ordovician (Undifferentiated)	12	1	13
McKee, Ordovician	10	1	11
Montoya, Ordovician	1	2	3
Simpson, Ordovician	11	4	15
Waddell, Ordovician	19	0	19
Ellenburger, Ordovician	162	5	167
Cambrian (Undifferentiated)	3	0	3
Total	2,063	340	2,403

NOTE: The following number of formations of Pennsylvanian Age were included under Cisco, Canyon, Strawn and Bend Groups in the count on the preceding page:

Cisco: Serratt, 17; King, 4; McMillan, 4; Breckenridge, 1; Swastika, 1; Bunker, 1.

Canyon: Palo Pinto, 26; Crosscut, 8; Adams Branch, 1; Dog Bend, 1.

Strawn: Capps Lime, 7; Jennings, 10; Gardner, 43; Morris, 17; Fry, 16; Goen Lime, 17; Caddo, 9; Gray, 3; Des Moines, 2; Fuller, 1; Katz Sand, 1.

Bend: Marble Falls, 1; Atoka, 1.

OIL PRODUCTION TABLES OF PERMIAN BASIN AREA

Following page 53 are A.I.M.E. Oil Production Tables for the Permian Basin Area. This area covers the Texas Railroad Commission's Districts 7-C and 8 in West Texas, and Southeastern New Mexico. The Table numbers are T-1 to T-36, inclusive, for Texas, and NM-1 to NM-7, inclusive, for New Mexico, or a total of 43 tables for both areas of the Permian Basin.

The 1959 oil production and related data shown on these tables were acquired from reprints taken from Part 2, Volume 30, "International Oil and Gas Development" and are reproduced here, in part, with the special permission of the International Oil Scouts Association and the Society of Petroleum Engineers - AIME. The data from this source was typed on the accompanying table forms, and double-proofed before being lithographed.

It may be noted that certain adjustments have been made from the original reprint. Fields listed which were lacking in information as to location, year of completion, oil production, etc., have had that data furnished where available, generally from the "Annual Report of Oil and Gas Division", prepared by the Railroad Commission of Texas for 1959. This report was also checked with the view to removing as much duplication as possible, and to bring up to date consolidation of various fields.

Data for the 17 reservoirs covered by the North Basin Pools Engineering Committee in the course of regular annual operations was adjusted to conform with our figures.

ABBREVIATIONS USED IN A.I.M.E. TABLES

The following abbreviations are used in the A.I.M.E. oil field production tables in columns under "Reservoir Characteristics".

COLUMN: STRUCTURE

AC	-	Anticlinal
AC/F	-	Anticlinal with faulting as an important factor
AC/f	-	Anticlinal with faulting as a minor factor
AM	-	Accumulation due to both anticlinal and monocli- nal structure
D	-	Dome
Ds	-	Salt Dome
H	-	Strata horizontal or nearly horizontal
MC	-	Monoclinial with accumula- tion due to change in character of stratum
MF	-	Monocline with fault
MI	-	Monocline with accumula- tion against igneous barrier
ML	-	Monocline lens
MU	-	Monocline unconformity
MP	-	Monocline with accumula- tion due to sealing at outcrop by asphalt
Nose	-	Nose or Nosing
Sync	-	Syncline
SP	-	Serpentine plug
SL	-	Shore line
Terr	-	Terrace
TF	-	Terrace with faulting as an important factor

COLUMN: CHARACTER OF PRODUCING
FORMATION

An	-	Anhydrite
Chk	-	Chalk
Cg	-	Conglomerate
Cht	-	Chert
CR	-	Caprock
Do	-	Dolomite
DA	-	Arkosic Dolomite

COLUMN: CHARACTER OF PRODUCING
FORMATION (Cont'd)

GW	-	Granite Wash
Sh	-	Shale
Lm	-	Limestone
Ls	-	Limestone, sandy
Li	-	Lime
OL	-	Oolitic Limestone
SS	-	Sandstone
Sd	-	Sand
Sdy	-	Sandy

COLUMN: PERMEABILITY

P	-	Poor or pressure
M	-	Middle or medium
Ex	-	Excellent
Frc	-	Fracture
c	-	Cavernous

COLUMN: POROSITY

por	-	Reservoir rock is of porous type but ratio not known by author
c	-	Indicates reservoir rock is of cavernous type
f	-	Fissure type porosity

COLUMN: PRODUCING MECHANISM

SGD	-	Solution gas drive
WD	-	Water drive
GCD	-	Gas cap drive
GS	-	Gravity suggestion
PM	-	Pressure maintenance
GI	-	Gas injection
WI	-	Water injection
WF	-	Water flood
LPG	-	Miscible drive
IC	-	In Situ combustion

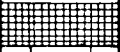
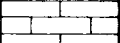
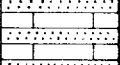
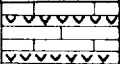
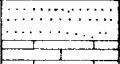
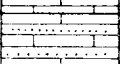
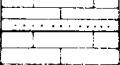
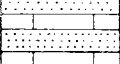
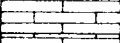
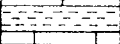
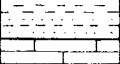
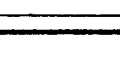
SYSTEM	SERIES	FORMATION OR GROUP
PERMIAN	OCHOA	DEWEY LAKE RUSTLER SALADO CASTILE
	GUADALUPE	TANSILL YATES SEVEN RIVERS QUEEN GRAYBURG SAN ANDRES SAN ANGELO- GLORIETA (DELAWARE MOUNTAIN)
	LEONARD	CLEAR FORK (SPRABERRY) } (YESO) WICHITA
	WOLFCAMP	WOLFCAMP (ABO)
PENNSYLVANIAN		CISCO CANYON STRAWN "BEND"
MISSISSIPPIAN		MISSISSIPPIAN

SYSTEM	FORMATION OR GROUP
DEVONIAN	DEVONIAN
SILURIAN	SILURIAN (FUSSELMAN)
ORDOVICIAN	MONTOKA SIMPSON { McKEE SAND { WADDELL SAND
	ELLENBURGER
CAMBRIAN	UNNAMED CONGLOMERATIC SAND
PRE-CAMBRIAN	PRE-CAMBRIAN

CORRELATION CHART FOR PRODUCING FORMATIONS OF THE PERMIAN BASIN IN WEST TEXAS AND SOUTHEASTERN NEW MEXICO

GENERALIZED SECTION

PRODUCING FORMATIONS LEA COUNTY NEW MEXICO

SYSTEM	SERIES	FORMATION		LEA COUNTY POOLS
PERMIAN	OCHOA	SALADO		2500'± NON PRODUCTIVE BEDS NOT INCLUDED
	GUADALUPE	TANSILL		
		YATES		COOPER-JAL, EAVES, BAISH, LUSK, E. LUSK, HALFWAY, LYNCH, N. LYNCH, RHODES, LEA, SALT LAKE, SAN SIMON, WILSON, W. WILSON
		SEVEN RIVERS		COOPER-JAL, EAVES, S. EUNICE, TONTO, LANGLEIE-MATTIX, BOWERS, WATKINS, LEONARD
		QUEEN		CAPROCK, CORBIN, EUNICE-MONUMENT, PEARSALL, PENROSE-SKELLY, YOUNG, LANGLEIE-MATTIX, LEONARD, S.
		GRAYBURG		ARROWHEAD, EUNICE-MONUMENT, HARDY, MALJAMER, N. MALJAMER, S. MALJAMER, PENROSE-SKELLY, ROBERTS, SKAGGS, WATKINS-GRAYBURG, MALJ.E.
	LEONARD	SAN ANDRES		CROSSROADS-SLAUGHTER, MONUMENT, HOBBS, LOVINGTON, W. LOVINGTON, MALJAMER, B. MALJAMER, ROBINSON, SAWYER, VACUUM, GARRETT, HOUSE-SA
		GLORIETA		HARRISON, JUSTIS (GAS), PADDOCK, MONUMENT-PADDOCK, MALJ-PAD.
		YESO		BLINEBRY, MONUMENT-BLINEBRY, FOWLER BLINEBRY
		DRINKARD		DRINKARD, N. DRINKARD, S. DRINKARD, WEIR, ELLIOTT, HOUSE, NADINE, WARREN
	WOLFCAMP	ABO-HUECO		MONUMENT-ABO, DENTON-WC, GLADILOA-WC, SAUNDERS, BOUGH & E. CASS, BAGLEY-PENN, CROSSROADS-PENN
PENNSYLVANIAN				
MISSISSIPPIAN		MISS. LS.		DENTON-MISS.
		WOODFORD SH.		
DEVONIAN				DUBLIN-DEV, DENTON, HIGHTOWER, KNOWLES, GLADILOA, BAGLEY-S.D., CROSSROADS
SILURIAN		FUSSELMAN		MC CORMICK
ORDOVICIAN	UPPER	MONTOKA		CARY
	MIDDLE	SIMPSON		HARE, S. HARE, MONUMENT-MC KEE, TEAGUE, WARREN
	LOWER	ELLENBURGER		TEAGUE ELLEN, BRUNSON, FOWLER, DUBLIN
PRE-CAMBRIAN				

Courtesy: New Mexico Oil & Gas Engineering Committee

FIGURE 5

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



MICROLATEROLOG

COUNTY LEA FIELD or LOCATION RANGERLAKE RANGER UNIT NO. 6 WELL COMPANY PHILLIPS PETR. CO. & T.P. COAL & OIL CO.	COMPANY PHILLIPS PETR. CO.	Other Surveys
	T.P. COAL & OIL CO.	LL GRN
	WELL RANGER UNIT NO. 6	Location of Well
	FIELD RANGERLAKE	680' From S/L 1070' From W/L
	LOCATION SEC 3-12S-34E	"CONFIDENTIAL"
	COUNTY LEA	Elevation: D.F.: 4157
	STATE NEW MEXICO	JCH K.B.: 4159 or G.L.: 4147

Log Depths Measured From KB 13 Ft. above SCF

RUN No				
Date	4-9-59			
First Reading	10368			
Last Reading	9000			
Feet Measured	1368			
Depth Reached	10369			
Bottom Driller	10369			
Mud Nat	SAL I			
Dens. Visc.	10	42		
Mud Resist.	19	95	F	F
Res. BHT	11	145	F	F
pH	6.5		F	F
Wtr Loss	2.3	CC 30 min	CC 30 min	CC 30 min
Rmf	0.3	145	F	F
Rmc			F	F
Bit Size	7/8"			
Sonde Type	IMP-E			
Pad Type	H-PAD			
Op. Rig Time	3 HOURS			
Truck No.	2527 HOBBS			
Recorded By	WILSON			
Witness	PHILLIPS			

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



SIMULTANEOUS

Gamma Ray-Neutron

COUNTY <u>LEA</u> FIELD or LOCATION <u>RANGER LAKE</u> WELL <u>RANGER UNIT NO. 6</u> COMPANY <u>PHILLIPS PETR. CO. & T.P. COAL & OIL CO.</u>	COMPANY <u>PHILLIPS PETR. CO. & T.P. COAL & OIL CO.</u>	Other Surveys <u>LL MLL</u>
	WELL <u>RANGER UNIT NO. 6</u>	Location of Well <u>910' From S/L</u> <u>1073' From W/L</u>
	FIELD <u>RANGER LAKE</u>	"CONFIDENTIAL"
	LOCATION <u>SEC 23-12S-34E</u>	Elevation: D.F.: <u>4157</u> <u>JL</u> K.B.: <u>4159</u> or G.L.: <u>4147</u>
COUNTY <u>LEA</u>	STATE <u>NEW MEXICO</u>	FILING No. _____

Log Depths Measured From KB 13 Ft. above SCF

RUN NO.	<u>1</u>		
Date	<u>4-9-59</u>		
First Reading	<u>10368</u>		
Last Reading	<u>0</u>		
Footage Measured	<u>10368</u>		
Max. Depth Reached	<u>10369</u>		
Bottom Driller	<u>10369</u>		
Maximum Temp. F.	<u>145</u>		
Fluid Nature	<u>SALT</u>		
Fluid Level			
Casing Size	<u>9 5/8 in.</u>		
Casing Weight	<u>lb.</u>	to	
Casing Size	<u>in.</u>		
Casing Weight	<u>lb.</u>	to	
Bit Size	<u>7 7/8 in. CSG</u>	to	<u>TD</u>
Bit Size	<u>in.</u>	to	
No. Counters Used	<u>ONE</u>		
Type Equipment	<u>GNAM-4</u>		
Type Panel	<u>GNP-G</u>		
Opr. Rig Time	<u>4 HOURS</u>		
Truck No.	<u>2526 HOBBS</u>		
Observer	<u>WILSON</u>		
Witness	<u>PHILLIPS</u>		

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



MICROLATEROLOG

COUNTY <u>Lea</u> FIELD or <u>Wildcat</u> LOCATION <u>Ranger # 2</u> WELL <u>Phillips Petr.</u> COMPANY <u>Co.</u>	COMPANY <u>PHILLIPS PETR.</u>	Location of Well
	COMPANY	330' f W&N/L
	WELL <u>RANGER # 2</u>	GRN(MLL LL)
	FIELD <u>WILDCAT</u>	
	LOCATION SEC. <u>25-12S-34E</u>	
	COUNTY <u>LEA</u>	Elevation: D.F.: <u>4149</u> K.B.: <u>4150</u> S.G.F.: <u>4136</u>
	STATE <u>NEW MEXICO</u>	FILING No. _____

RUN No.	<u>1</u>		
Date	<u>5-6-57</u>		
First Reading	<u>10393</u>		
Last Reading	<u>4225</u>		
Feet Measured	<u>6168</u>		
Csg. Schlum.	<u>4225</u>		
Csg. Driller	<u>4225</u>		
Depth Reached	<u>10394</u>		
Bottom Driller	<u>10392</u>		
Depth Datum	<u>KB 14.25'</u>	<u>ABV. Surf. Csg. Flg.</u>	
Mud Nat.	<u>Salt</u>		
" Density	<u>10.4</u>		
" Viscosity	<u>48</u>		
" Resist.	<u>.06 @ 84 °F</u>	<u>@ °F</u>	
" Res. BHT	<u>.035 @ 148F</u>	<u>@ °F</u>	
" pH	<u>@ °F</u>	<u>@ °F</u>	
" Wtr. Loss	<u>8 CC 30 min.</u>	<u>CC 30 min.</u>	
Max. Temp. °F	<u>148</u>		
Bit Size	<u>7 7/8"</u>		
	<u>9/16X9/16X9/16</u>		
Opr. Rig Time	<u>4 Hrs.</u>		
Truck No.	<u>1758-Hobbs</u>		
Recorded By	<u>Maxwell</u>		
Witness	<u>McGovern</u>		

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



Laterolog

WITH GAMMA RAY

COUNTY LEA
FIELD or LOCATION RANGER LAKE
WELL RANGER UNIT NO. 3
COMPANY PHILLIPS PETR. CO. & T.P. COAL & OIL CO.

COMPANY PHILLIPS PETR. CO.

T.P. COAL & OIL CO

WELL RANGER UNIT NO. 3

FIELD RANGER LAKE

LOCATION SEC 23-12S-34E

COUNTY LEA

STATE NEW MEXICO

Other Surveys

MLL GRN

Location of Well

660' From S/L
1973' From W/L

"CONFIDENTIAL"

Elevation: K.B.: 4159

JCG D.F.: 4157
or G.L.: 4147

Log Depths Measured From KB

13 Ft. above SCF

RUN No.	<u>I</u>		
Date	<u>4-9-59</u>		
First Reading	<u>10325</u>		
Last Reading	<u>4222</u>		
Feet Measured	<u>6139</u>		
Csg. Schlum.	<u>4220</u>		
Csg. Driller	<u>4227</u>		
Depth Reached	<u>10329</u>		
Bottom Driller	<u>10369</u>		
Mud Not.	<u>SALT</u>		
Dens. Visc.	<u>10</u>	<u>42</u>	
Mud Resist.	<u>19</u>	<u>95</u>	F
Res. BHT	<u>13</u>	<u>145</u>	F
pH	<u>6.5</u>		F
Wtr. Loss	<u>6.8</u>	CC 30 min	CC 30 min
Rmf	<u>.08</u>	<u>145</u>	F
Rmc			F
Bit Size	<u>7 7/8"</u>		
Laterolog 3	<u>16"</u>	<u>2 1/2"</u>	
Laterolog 7			
Opr. Rig Time	<u>3 HOURS</u>		
Truck No.	<u>2527 HOBBS</u>		
Recorded By	<u>WILSON</u>		
Witness	<u>PHILLIPS</u>		

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



MICROLATEROLOG

COUNTY <u>Lea</u> FIELD or LOCATION <u>Ranger Lake Penn</u> WELL <u>Ranger #3</u> COMPANY <u>Phillips Petr. Co.</u>	COMPANY <u>PHILLIPS PETR.</u>	Other Surveys <u>LL GRN</u>
	COMPANY	Location of Well
	WELL <u>RANGER # 3</u>	1980' f S/L 660' f W/L
	FIELD <u>RANGER LAKE PENN</u>	
	LOCATION <u>SEC. 23-12S-34E</u>	
	COUNTY <u>LEA</u>	Elevation: D.F. <u>4158.5</u>
	STATE <u>NEW MEXICO</u>	<u>022</u> K.B. <u>4160</u> or G.L.:

Log Depths Measured From KB 14.1 Ft. above CSG. Flange

RUN No.			
Date	<u>8-23-57</u>		
First Reading	<u>10370</u>		
Last Reading	<u>9100</u>		
Feet Measured	<u>1270</u>		
Depth Reached	<u>10371</u>		
Bottom Driller	<u>10372</u>		
Mud Nat.	<u>Salt</u>		
Dens. Visc.	<u>9.8</u>	<u>46</u>	
Mud Resist.	<u>.20</u>	@ <u>67</u> °F	@ °F
" Res. BHT	<u>.075</u>	@ <u>144</u> °F	@ °F
" pH	<u>7</u>	@ °F	@ °F
" Wtr. Loss	<u>13</u>	CC 30 min	CC 30 min
" Rmf	<u>.075</u>	@ <u>94</u> °F	@ °F
" Rmc	<u>.33</u>	@ <u>94</u> °F	@ °F
Bit Size	<u>7 7/8"</u>		
	<u>9/16 X 9/16 X 9/16</u>		
Sonde Type	<u>POWERED</u>		
Pad Type	<u>H - PAD</u>		
Opr. Rig Time	<u>3 Hrs.</u>		
Truck No.	<u>1758 - Hobbs</u>		
Recorded By	<u>Mount</u>		
Witness	<u>Curzon</u>		

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



MICROLATEROLOG

COUNTY <u>LEA</u> FIELD or LOCATION <u>RANGERLAKE</u> WELL <u>RANGER UNIT NO. 6</u> COMPANY <u>PHILLIPS PETR. CO. & T.P. COAL & OIL CO.</u>	COMPANY <u>PHILLIPS PETR. CO.</u>	Other Surveys <u>LL GRN</u>
	<u>T.P. COAL & OIL CO.</u>	Location of Well <u>890' From S/L</u> <u>1070' From W/L</u>
	WELL <u>RANGER UNIT NO. 6</u>	
	FIELD <u>RANGERLAKE</u>	
	LOCATION <u>SEC 3-12S-34E</u>	"CONFIDENTIAL"
	COUNTY <u>LEA</u>	Elevation: D.F. <u>4157</u> JCB K.B. <u>4157</u> or G.L. <u>4147</u>
	STATE <u>NEW MEXICO</u>	

Log Depths Measured From		KB	13	Ft. above	SCF
RUN No.					
Date	4-9-59				
First Reading	10369				
Last Reading	9000				
Feet Measured	1369				
Depth Reached	10369				
Bottom Driller	10369				
Mud Nat	SALT				
Dens Visc.	10	42			
Mud Resist.	19	95	F		F
Res. BHT	11	145	F		F
pH	6.5		F		F
Wtr. Loss	3	CC 30 min		CC 30 min	CC 30 min
Rmf	0.3	145	F		F
Rmc			F		F
Bit Size	7/8"				
Sonde Type	IMP-E				
Pad Type	H-PAD				
Opr. Rig Time	3 HOURS				
Truck No.	2527 HOBBS				
Recorded By	WILSON				
Witness	PHILLIPS				

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

SIMULTANEOUS



Gamma Ray-Neutron

COUNTY Lea
FIELD or LOCATION Ranger Lake
WELL Ranger #4
COMPANY Phillips Petr. Corp.

COMPANY PHILLIPS PETR.

CORP.

WELL RANGER # 4

FIELD RANGER LAKE

LOCATION SEC. 23-12S-34E

COUNTY LEA

STATE NEW MEXICO

Other Surveys
PERF

Location of Well

1980' f N&W/L

Elevation: D.F.: 416

K.B.: 416

or G.L.: _____

FILING No. _____

Log Depths Measured From KB 14.1' Ft. above SCF

RUN NO.			
Date		<u>11-28-57</u>	
First Reading		<u>10358</u>	
Last Reading		<u>0</u>	
Footage Measured		<u>10358</u>	
Max. Depth Reached		<u>10359</u>	
Bottom Driller		<u>10355</u>	
Maximum Temp. °F.			
Fluid Nature		<u>Oil</u>	
Fluid Level		<u>796</u>	
Casing Size	<u>5 1/2 in.</u>		in. }
Casing Weight	<u>17 lb.</u>	<u>0</u> to <u>10370</u>	lb. } to
Casing Size	in. }		in. }
Casing Weight	lb. }	to	lb. }
Bit Size	in. }	to	in. }
Bit Size	in. }	to	in. }
No. Counters Used		<u>1</u>	
Type Equipment		<u>GNAM-4</u>	
Type Panel		<u>GNP-C</u>	
Rig Time		<u>5 Hrs.</u>	
		<u>2704-Hobbs</u>	
		<u>Cathey</u>	
		<u>Curzon</u>	

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

LATEROLOG

COUNTY Lea
FIELD or
LOCATION Ranger Lake Penn
WELL Ranger #3
COMPANY Phillips Petr. Co.

COMPANY PHILLIPS PETR.

COMPANY

WELL RANGER # 3

FIELD RANGER LAKE PENN

LOCATION SEC. 23-12S-34E

COUNTY LEA

STATE NEW MEXICO

Location of Well

1980' f S/L
660' f W/L

Elevation: D.F. 158.5

K.B.: 4160

0.85 or G.L.:

FILING No. _____

RUN No.	1		
Date	8-23-57		
First Reading	10367		
Last Reading	4224		
Feet Measured	6143		
Csg. Schlum.	4224		
Csg. Driller	4224		
Depth Reached	10371		
Bottom Driller	10372		
Depth Datum	KB 14.1'	Abv. Csg.	Flange
Mud Nat.	Salt		
" Density	9.8		
" Viscosity	46		
" Resist.	2.0 @ 67°F	@	°F
" Res. BHT	.075 @ 144°F	@	°F
" pH	7 @ °F	@	°F
" Wtr. Loss	13 CC 30 min.	CC 30 min.	
Max. Temp. °F	144		
Bit Size	7 7/8"		
	16" Laterolog-7		
Opr. Rig Time	3 Hrs.		
Truck No.	1758-Hobbs		
Recorded By	Mount		
Witness	Curzon		

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

SIMULTANEOUS



Gamma Ray-Neutron

COUNTY <u>Lea</u> FIELD or LOCATION <u>Wildcat</u> WELL <u>Ranger #2</u> COMPANY <u>Phillips Petr.</u>	COMPANY <u>PHILLIPS PETR.</u>	Other Surveys LL MLL
	COMPANY	
	WELL <u>RANGER # 2</u>	Location of Well <u>330' f W&N/L</u>
	FIELD <u>WILDCAT</u>	
	LOCATION <u>SEC. 25-12S-34E</u>	
	COUNTY <u>LEA</u>	Elevation: D.F.: <u>4/49</u> K.B.: <u>4/50</u> SCF.: <u>4/36</u>
	STATE <u>NEW MEXICO</u>	FILING No. _____

Log Depths Measured From KB 14.25

Ft. above Surf. Csg. Flg

RUN NO.			
Date		<u>5-6-57</u>	
First Reading		<u>10394</u>	
Last Reading		<u>0</u>	
Footage Measured		<u>10394</u>	
Max. Depth Reached		<u>10395</u>	
Bottom Driller		<u>10392</u>	
Maximum Temp. °F.		<u>148</u>	
Fluid Nature		<u>Salt</u>	
Fluid Level		<u>57'</u>	
Casing Size	<u>85/8 in.</u>		in. }
Casing Weight	lb. }	<u>Surf. to 4225</u>	lb. } to
Casing Size	in. }		in. }
Casing Weight	lb. }	to	lb. } to
Bit Size	<u>7 7/8 in.</u>	Csg. to <u>10330</u>	in. to
Bit Size	<u>7 13/16 in.</u>	<u>10330</u> to ID	in. to
No. Counters Used			
Type Equipment		<u>GNAM-3</u>	
Type Panel		<u>GNP-C</u>	
Opr. Rig Time		<u>4-Hrs</u>	
Truck No.		<u>1758-Hobbs</u>	
Observer		<u>Maxwell</u>	
Witness		<u>McGovern</u>	

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



LATEROLOG

COUNTY <u>Lea</u> FIELD or LOCATION <u>Wildcat</u> WELL <u>Ranger # 2</u> COMPANY <u>Phillips Petr. Co.</u>	COMPANY <u>PHILLIPS PETR.</u>	Location of Well
	COMPANY	330' f W&N/L
	WELL <u>RANGER # 2</u>	GRN(MLL LL)
	FIELD <u>WILDCAT</u>	
	LOCATION <u>SEC. 25-12S-34E</u>	
	COUNTY <u>LEA</u>	Elevation: D.F.: <u>4149</u> K.B.: <u>4150</u> S.C.F.: <u>4136</u>
	STATE <u>NEW MEXICO</u>	FILING No. _____

RUN No.	1		
Date	5-6-57		
First Reading	10391		
Last Reading	4225		
Feet Measured	6166		
Csg. Schlum.	4225		
Csg. Driller	4225		
Depth Reached	10395		
Bottom Driller	10392		
Depth Datum	KB 14.25'	Abv. Surf.	Csg. Flg.
Mud Nat.	Salt		
" Density	10.4		
" Viscosity	48		
" Resist.	.06 @ 84 °F	@ °F	
" Res. BHT	.035 @ 148F	@ °F	
" pH	@ °F	@ °F	
" Wtr. Loss	8 CC 30 min.	CC 30 min.	
Max. Temp. °F	148		
Bit Size	7 7/8"		
	9/16X9/16X9/16		
Opr. Rig Time	4 Hrs.		
Truck No.	1758-Hobbs		
Recorded By	Maxwell		
Witness	McGovern		

Wildcat

COUNTY LEA FIELD or LOCATION WILDOAT WELL WEST RANGER UNIT COMPANY Phillips Petroleum CORPORATION	COMPANY <u>PHILLIPS</u>		Location of Well <u>660' f S&E/L</u> <u>ES(BRM-ML-LL)</u>	
	PETROLEUM COMPANY			
	WELL <u>WEST RANGER UNIT</u>			
	# <u>1</u>			
FIELD <u>WILDOAT</u>				
LOCATION <u>SEC. 23-12S-34E</u>				
COUNTY <u>LEA</u>		Elevation: D.F. <u>4151</u> K.B. _____ or G.L. _____		
STATE <u>NEW MEXICO</u>		FILING No. _____		

RUN No.	1	2				
Date	5-28-56	9-17-56				
First Reading	4199	12973				
Last Reading	352	4204				
Feet Measured	3847	8769				
Csg. Schlum.	352	4204				
Csg. Driller	353	4203				
Depth Reached	4202	12976				
Bottom Driller	4200	12977				
Depth Datum	KB 14.18' Abv.	18 3/8" Flange				
Mud Nat.	Salt	Salt + Gtl				
" Density	10.8	9.4				
" Viscosity	37	43				
" Resist.	.05@ 90°F	@ °F	@ °F	@ °F	@ °F	@ °F
" Res. BHT	.05@ 90°F	.07@ 160°F	@ °F	@ °F	@ °F	@ °F
" pH	6 @ °F	5.5 @ °F	@ °F	@ °F	@ °F	@ °F
" Wtr. Loss	76 CC 30 min.	12 CC 30 min.	CC 30 min.	CC 30 min.	CC 30 min.	CC 30 min.
Max. Temp. °F	90	160				
Bit Size	12 1/4"	8 3/4"				
Specs.—AM	10"	10"				
AO	32" LS	32" LS				
AO	19'	19'				
Opr. Rig Time	2 Hrs.	2 1/2 Hrs.				
Truck No.	1762-Hobbs	1759				
Recorded By	Maloney	Reinders				
Checked By	Spurlock	McGovern				

SCHLUMBERGER WELL SURVEYING CORPORATION

DALLAS, TEXAS

SIMULTANEOUS

Gamma Ray-Neutron



COUNTY Lea
FIELD or LOCATION Wildcat
WELL West Ranger Unit
COMPANY Phillips Petroleum Company

COMPANY PHILLIPS
PETROLEUM COMPANY
WELL WEST RANGER UNIT
1
FIELD WILDCAT
LOCATION SEC. 23-12S-34E
COUNTY LEA
STATE NEW MEXICO

Location of Well
660' f S&E/L
GRN(ES-ML-LL)

Elevation: D.F. 4151
K.B.:
or G.L.:

FILING No. _____

RUN NO.		1	2
Date		5-28-56	9-17-56
Depth Reference		K8 14.18' Abv	13 3/8" Flange
First Reading		4201	12975
Last Reading		100	4000
Footage Measured		4101	8975
Max. Depth Reached		4202	12976
Bottom Driller		4200	12977
Maximum Temp. °F.		90	160
Mud: Nature		Salt	Salt-Gel
" Density		10.8	9.4
" Viscosity		37	43
" Resistivity		.05 @ 90 °F.	@ °F.
Casing Size & Weight	1	13 3/8" to 353	9 5/8" to 4204
Open Hole	2	12 1/4" to TD	8 3/4" to 12976
Fluid Level			Surface
Recording Speed (ft/hr)		2000' & 4000'	2000' & 4000'
Sensitivity Tap	GR)	40 N) 280/400	GR) 150 N) 400
Time Constant		4 1/4	2/1 2/1
Panel		GNP-B # 54	GNP-C # 255
Op. Rig Time		2 Hrs.	5 Hrs.
Sonde Size & Type		3 5/8"	3 5/8"
Truck No.		1762-Hobbs	1758-Hobbs
Observer		Mahoney	Reinders

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

LATEROLOG



COUNTY Lea
FIELD or LOCATION Ranger Lake
WELL Ranger #4
COMPANY Phillips Petr. Co

COMPANY PHILLIPS PETR.

CO.

WELL RANGER # 4

FIELD RANGER LAKE

LOCATION SEC. 23-12S-34E

COUNTY LEA

STATE NEW MEXICO

Location of Well

1980' f N/L
1980' f W/L

Elevation: D.F.: 4 | 61
K.B.: 4 | 63
or G.L.: _____

FILING No. _____

RUN No.			
Date	11-14-57		
First Reading	10362		
Last Reading	4230		
Feet Measured	6132		
Csg. Schlum.	4230		
Csg. Driller	4225		
Depth Reached	10355		
Bottom Driller	10372		
Depth Datum	KB 4	Abv. S.C.	F.
Mud Nat.	Salt		
" Density	9.3		
" Viscosity	45		
" Resist.	.2 @ 70 °F	@ °F	
" Res. BHT	.09 @ 140F	@ °F	
" pH	7 @ °F	@ °F	
" Wtr. Loss	14 CC 30 min.	CC 30 min.	
Max. Temp. °F	140		
Bit Size	7 7/8"		
	16" LL-7		
Opr. Rig Time	3 Hrs.		
Truck No.	1760-Mobbs		
Recorded By	Wilson		
Witness	Phillips		

SCHUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



MICROLOGGING®

COUNTY <u>Lea</u> FIELD or <u>Wildcat</u> LOCATION <u>West Ranger Unit</u> WELL <u>West Ranger Unit</u> COMPANY <u>Phillips Petroleum Company</u>	COMPANY <u>PHILLIPS</u>	Other Surveys <u>ES-GRN-LL</u>
	<u>PETROLEUM COMPANY</u>	
	WELL <u>WEST RANGER UNIT</u>	Location of Well <u>660' f S&E/L</u>
	# <u>1</u>	
	FIELD <u>WILDCAT</u>	Elevation: D.F. <u>4151</u> K.B.: _____ or G.L.: _____
	LOCATION <u>SEC. 23-12S-34E</u>	
	COUNTY <u>LEA</u>	
	STATE <u>NEW MEXICO</u>	FILING No. _____

RUN No.	1	2			
Date	5-28-56	9-17-56			
First Reading	4199	12973			
Last Reading	2600	4204			
Feet Measured	999	8769			
Depth Reached	4202	2976			
Bottom Driller	4200	2977			
Depth Datum	KB 4.18	Aby. 3 3/8" Flange			
Mud Nat.	Salt	Salt-Ge			
Dens. Visc.	10.8 37	9.4 43			
Mud Resist.	.05 @ 90°F	@ °F	@ °F	@ °F	@ °F
Res. BHT	.05 @ 90°F	.07 @ 160°F	@ °F	@ °F	@ °F
pH	6 @ °F	5.5 @ °F	@ °F	@ °F	@ °F
Wtr. Loss	76 CC 30 min	12 CC 30 min	CC 30 min	CC 30 min	CC 30 min
Rmf @ BHT	.03	.04			
Rmc @ BHT	.08				
Mud Log: Rm	.045	.065			
Limit	upper	upper			
Depth	4000	1900			
Bit Size	12 1/4"	8 3/4"			
Sonde Type	WRS-P	WRS-P			
Pad Type	H Pad-Not Centered				
Opr. Rig Time	1 1/2 Hrs.	5 Hrs.			
Truck No.	1762-Hobbs	1759			
Recorded By	Mahoney	Reinders			
Witness	Surgeon	McGovern			

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

SIMULTANEOUS



Gamma Ray-Neutron

COUNTY <u>Lea</u> FIELD or LOCATION <u>Ranger Lake Penn</u> WELL <u>Ranger #3</u> COMPANY <u>Phillips Petr. Co.</u>	COMPANY <u>PHILLIPS PETR.</u>	Other Surveys LL MLL
	COMPANY	Location of Well
	WELL <u>RANGER # 3</u>	1980' f S/L 660' f W/L
	FIELD <u>RANGER LAKE PENN</u>	Elevation: D.F. <u>4158.5</u> K.B.: <u>4160</u> or G.L.:
	LOCATION <u>SEC. 23-12S-34 E</u>	
	COUNTY <u>LEA</u>	
	STATE <u>NEW MEXICO</u>	FILING No. _____

Log Depths Measured From KB 14.1' Ft. above CSG Flange

RUN NO.	<u>1</u>	
Date	<u>8-23-57</u>	
First Reading	<u>10370</u>	
Last Reading	<u>0</u>	
Footage Measured	<u>10370</u>	
Max. Depth Reached	<u>10371</u>	
Bottom Driller	<u>10372</u>	
Maximum Temp. °F.	<u>144</u>	
Fluid Nature	<u>MUD - Salt</u>	
Fluid Level	<u>28'</u>	
Casing Size	<u>8 5/8 in.</u>	in.
Casing Weight	<u>lb.</u> <u>0</u> to <u>4224</u>	lb. to
Casing Size	<u>13 3/8 in.</u>	in.
Casing Weight	<u>lb.</u> <u>0</u> to <u>358</u>	lb. to
Bit Size	<u>7 7/8 in.</u> CSG to TD	in. to
Bit Size	<u>in.</u> to	in. to
No. Counters Used	<u>1</u>	
Type Equipment	<u>GNAM-3</u>	
Type Panel	<u>GNP-C</u>	
Opr. Rig Time	<u>3 Hrs.</u>	
Truck No.	<u>1758 - Hobbs</u>	
Observer	<u>Mount</u>	
Witness	<u>Curzon</u>	