

STATE OF MICHIGAN

FIELD NAME CLEON 13A-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 9-83 VIRGIN PRESSURE 2600 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	START IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. e 4909	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Geniac #5-13	9-83	72	6011	2600	SEPTEMBER 20, 1983 .37*	2600	INITIAL	TEST		

\* = Estimated

STATE OF MICHIGAN

FIELD NAME CLEON 14-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 11/25/73 VIRGIN PRESSURE 2913 NO. PRODUCING WELLS \_\_\_\_\_

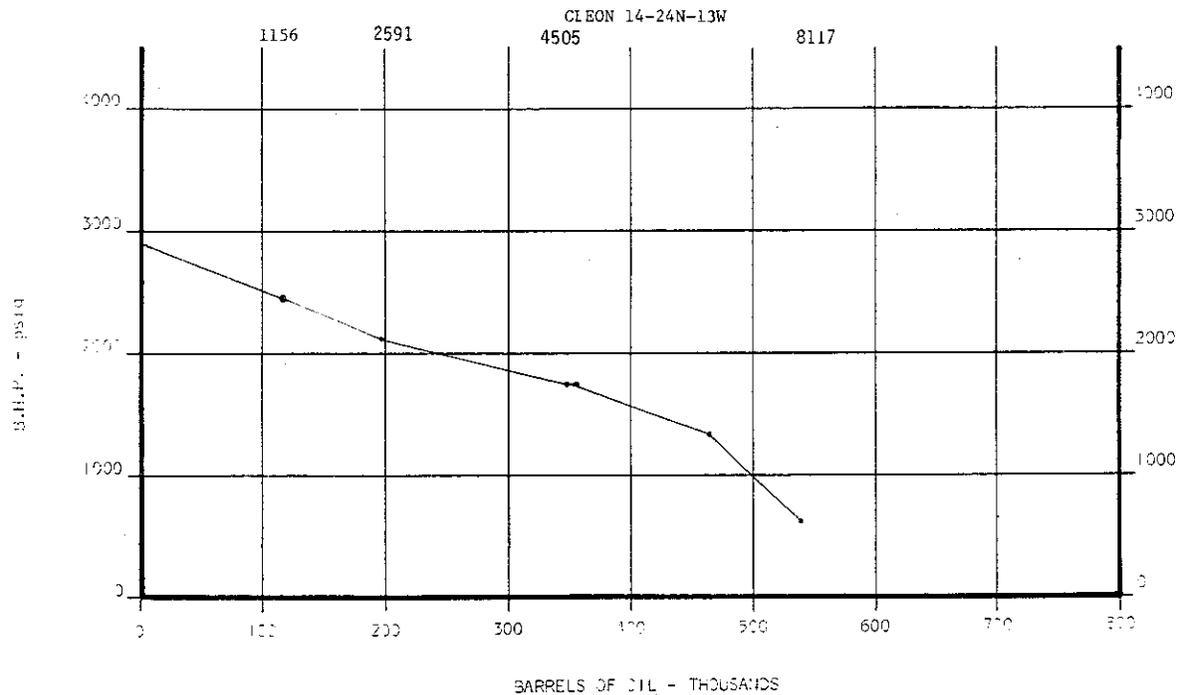
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	START IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. e 4665	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Mlcek-Isaacson 1-14	11-73	69	5689	2913	DECEMBER 13, 1973 .280	2913	Initial test			
Long #3-14A	4-76	N.A.	5708 TVD	2897	APRIL 7, 1976 .299	2879	2913	12-13-73	- 34	1477
Mlcek-Isaacson #1-14	11-73	47	5690	2457	MARCH 7, 1978 .30	2457	2879	4-7-76	- 422	1307 300
Mlcek-Isaacson 1-14	11-73	1274.5	5690	2116	FEBRUARY 24, 1979 .29	2112	2457	3-7-78	- 345	1547
Mlcek-Isaacson 1-14	11-73	92.1	5689	1960	AUGUST 31, 1979 .30	1960	2112	2-24-79	- 152	709
Mlcek-Isaacson 1-14	11-73	49	5708	1755	OCTOBER 28, 1980 31	1745	1960	8-31-79	- 215	1432
Long #3-14A	4-76	168	5709 TVD	1751	JANUARY 6, 1981 .30	1733	1745	10-28-80	- 12	1358

FIELD NAME: CLEON 14-24N-13W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHIFT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERNAL PRESSURE DIFF.	SHIFT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. 4665	FEET	DATE OF PREV. PRESSURE		
St. Cleon #1-15	10-82	63	5748	1346	.496	SEPTEMBER 28, 1982 1310	1733	1-6-81	-423	628
St. Cleon #1-15	10-82	--	5748	610	.080	NOVEMBER 11, 1983 604	1310	9-28-82	-706	518

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION



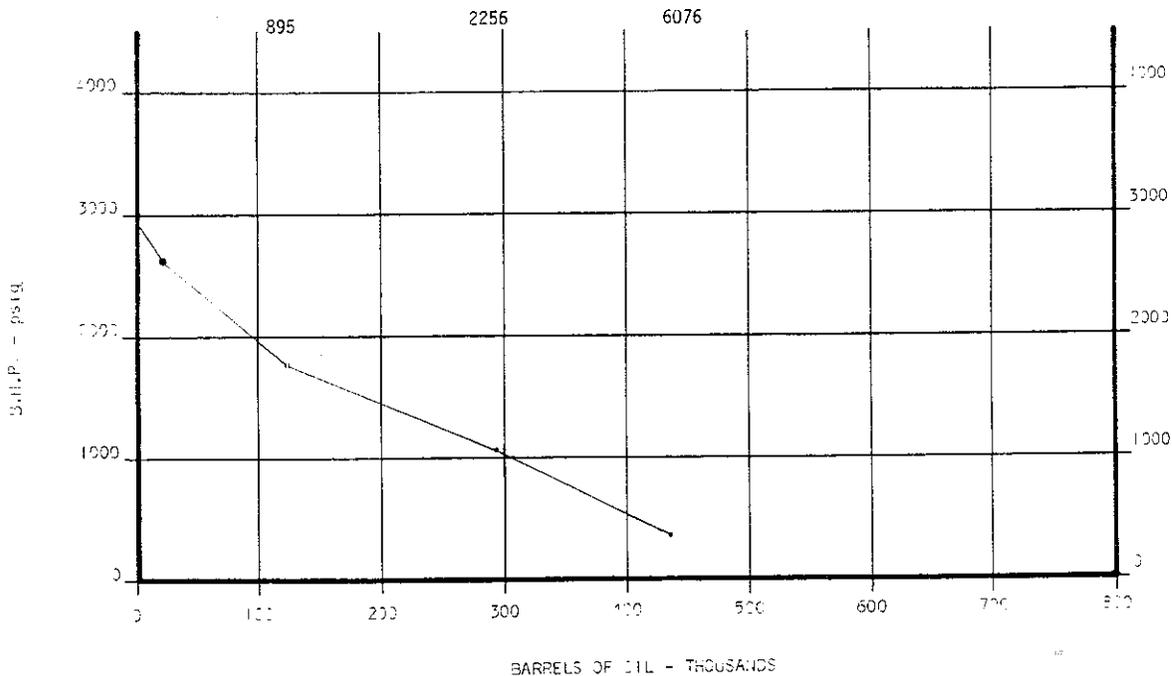
STATE OF MICHIGAN

FIELD NAME CLEON 14A-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-76 VIRGIN PRESSURE 2900\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM		INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4709 FEET	PREVIOUS PRESS		DATE OF PREV. PRESSURE	TUB.
Berry #1-14	5-76	72.3	5700	2547	MAY 22, 1976 .30	2547	NOT USED IN CALCULATIONS		1378	1586
Rudy 5-14A	2-78	64.1	5799 IVD	2664	FEBRUARY 9, 1978 .30	2638	2900	5-76	- 262	1200
Rudy #5-14A	2-78	29	5825 IVD	1835	MARCH 30, 1979 .41	1781	2638	2-9-78	- 857	1151
Rudy #5-14A	2-78	50.5	5799 IVD	1059	OCTOBER 28, 1980 05	1054	1781	3-30-79	- 727	862
Rudy #5-14A	2-78	29	5799 TVD	372	DECEMBER 14, 1983 .06	366	1054	10-28-80	-688	316

\* Estimated

BOTTOM-HOLE PRESSURE DROP VERSUS  
 RESERVOIR CUMULATIVE OIL PRODUCTION  
 CLEON 14a-24N-13W



FIELD NAME CLEON 15-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 11-74 VIRGIN PRESSURE 2895\* NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4552 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Osborne #1-15	11-74	24	5475	358	NOVEMBER 19, 1982 .013	1982 358		INITIAL REPORTED TEST		306	314

\* = Estimated

FIELD NAME CLEON 16-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-80 VIRGIN PRESSURE 2598 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4521 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Rebman #3-16A	2-80	70.8	5399 IVD	2598	FEBRUARY 7, 1980 .078	2598		INITIAL TEST		2094	PKR
Van Horn #2-16	9-80	135.8	5374 IVD	1967	SEPTEMBER 18, 1980 .08	1967				1612	1634
Rebman #3-16A	2-80	76.5	5399 IVD	2156	.098	2156	2598	2-7-80	- 536		
					Average	2062					
Rebman #3-16A	2-80	28.3	5399 IVD	1419	AUGUST 25, 1981 .049	1419	2062	9-18-80	- 643	1192	1226
Van Horn #2-16	9-80	27.3	5374 IVD	774	.020	774		NOT USED IN CALCULATIONS		665	680
Van Horn #2-16	9-80	--	5374 TVD	382	AUGUST 25, 1982 .020	382		NOT USED IN CALCULATIONS		329	339
Rebman #3-16A	2-80	--	5385 TVD	896	.024	896	1419	8-25-81	-523	765	493

FIELD NAME CLEON 17-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS  
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 9-78 VIRGIN PRESSURE 2886 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4576 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Stephens-Merkel #1-17A	9-78	72	5428 TVD	2886	SEPTEMBER 18, 1978 095	2886		INITIAL TEST			2325
Rebman #2-16A	4-79	71.8	5321 TVD	2822	APRIL 30, 1979 .10	2833		INITIAL TEST			2287
Rebman #2-16A	4-79	3607	5321 TVD	2554	SEPTEMBER 24, 1979 .099	2565	2886	9-18-78	- 321		2066
Rebman #2-16A	4-79	1315	5321 TVD	2027	APRIL 19, 1980 .079	2036	2565	9-24-79	- 529		1669
Rebman #2-16A	4-79	75	5321 TVD	1687	SEPTEMBER 18, 1980 .069	1695	2036	4-19-80	- 341		1402 1405
Rebman #2-16A	4-79	--	5321 TVD	348	AUGUST 25, 1982 .040	353	1695	9-18-80	-1342		296 297

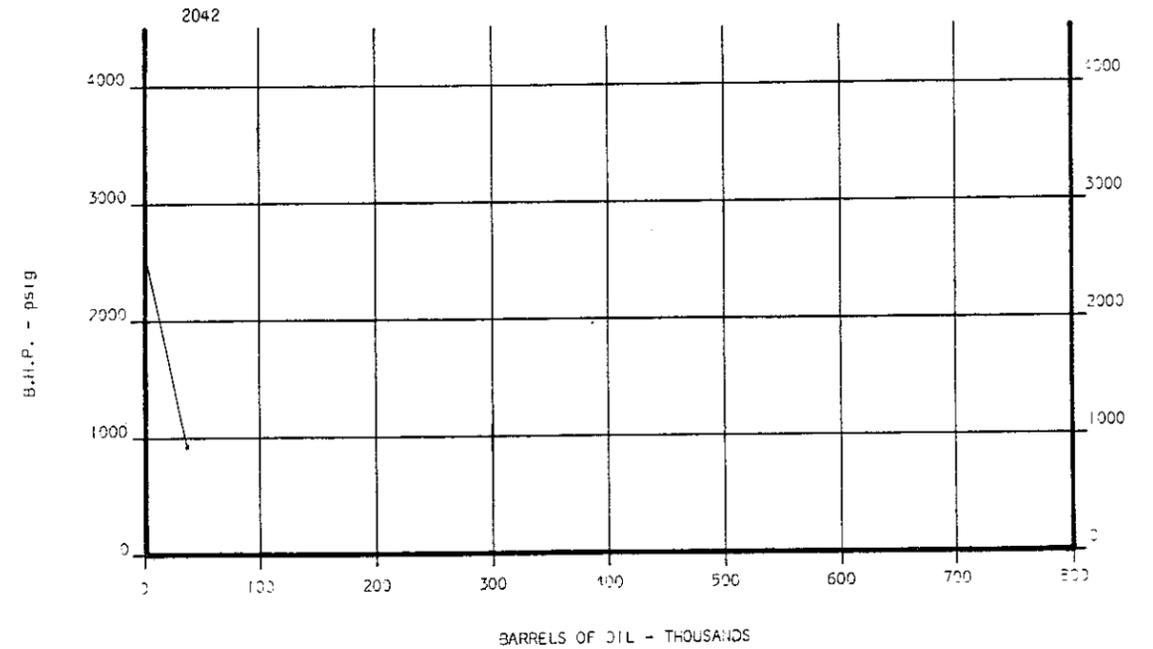
FIELD NAME CLEON 19-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-77 VIRGIN PRESSURE 2812 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4336 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
St. Cleon #1-19	5-77	N.A.	5136	2812	MAY 11, 1977 .294	2812		INITIAL TEST			2266 2400
St. Cleon #1-19	5-77	68	5136	910**	JANUARY 18, 1983 .221	910		NOT USED IN CALCULATIONS			768 773

FIELD NAME CLEON 19a-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-77 VIRGIN PRESSURE 2771 NO PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4215	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Cleon #2-19	8-77	N.A.	5014	2392	.500	AUGUST 2, 1977 2392		INITIAL TEST		1032	2000
St. Cleon #2-19	8-77	27	5037	2771	.432	APRIL 26, 1978 2771		INITIAL TEST		831	1650
St. Cleon #2-19A	10-79	N.A.	5307IVD	2506	.324	JANUARY 10, 1980 2411		INITIAL TEST		852	1750

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 CLEON 19B-24N-13W



FIELD NAME CLEON 19B-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-79 VIRGIN PRESSURE 2500\* NO PRODUCING WELLS \_\_\_\_\_

OPERATOR LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4478	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Cleon #4-19	12-79	N.A.	5272	1897	.294	FEBRUARY 9, 1980 1897	2500*	12-79	- 603	707	1175
St. Cleon #4-19	12-79	40	5275	937		NOVEMBER 28, 1983 935	1897	2-9-80	-962	441	

\*Estimated Virgin Pressure

FIELD NAME CLEON 20-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-75 VIRGIN PRESSURE 2823 NO PRODUCING WELLS \_\_\_\_\_

OPERATOR LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4531	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
Skulina-State 1	5-75	NA	5208	2365*	.078	MAY 14, 1975 2365		INITIAL TEST		1955	PKR
Skulina-State 1	5-75	NA	5214	1529*	.060	APRIL 16, 1978 1528		NOT USED IN CALCULATIONS		1277	826
Skulina-St. Cleon #2-20	3-79	72	5226	2824	.106	MARCH 16, 1979 2823		INITIAL TEST		2770	1505
Skulina-State 1	5-75	93.5	5214	1191*	.04	APRIL 24, 1979 1191		NOT USED IN CALCULATIONS		1004	PKR
St. Cleon #3-20	8-79	4	5406	2801	.292	AUGUST 14, 1979 2706		NOT USED IN CALCULATIONS		2167	2200
Skulina-St. Cleon #2-20	3-79	70	5432	2736	.12	JANUARY 7, 1980 2710	2823	3-16-79	- 115	2188	2298
Skulina-State 1	5-75	265 Days	5214	2423	.10	MARCH 6, 1980 2422	2710	1-7-80	- 288	1962	537
Skulina-St. Cleon #2-20	3-79	28	5438	2349	.08	SEPTEMBER 12-14, 1980 2331	2422	3-6-80	- 91	1900	1902
Skulina-State 1	5-75	28	5214	1518*	.04	1518	NOT USED	IN CALCULATIONS		1275	808

\* Incomplete Pressure Buildup

FIELD NAME: CLEON 20-24N-13W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4331	PREVIOUS PRESSURE	DATE OF PREV PRESSURE			
Skulina-St Cleon #4-20	2-81	68.8	5323	2319	44	2269	2331	9-12-80	- 62	1878 1874	
						FEBRUARY 23, 1981					
Skulina-St Cleon #4-20	2-81	30.5	5331	1881	08	1871	2269	2-23-81	- 398	1579 1636	
						AUGUST 25, 1981					
Skulina-St. Cleon #4-20	2-81	26.5	5331	1451	05	1445				1218 1278	
Skulina-St. Cleon #2-20	3-79	24.5	5426	1474	05	1474				1241 1253	
						APRIL 6, 1982					
						AVG 1460			1871	8-25-81	-412
						OCTOBER 27, 1982					
Skulina-St. Cleon #4-20	2-81	--	5331	1113	03	1079				947 976	
Skulina-St. Cleon #2-20	3-79	--	5426	1187	04	1178				1005 1014	
						MARCH 23, 1983					
						AVG 1129			1460	4-6-82	-331
Skulina-St. Cleon #2-20	3-79	24	5426	987	03	981				842 855	
Skulina-St. Cleon #4-20	2-81	24	5331	943	03	939				802 825	
						AVG 960			1129	10-27-83	-169

\* Incomplete Pressure Buildup

REMARKS:

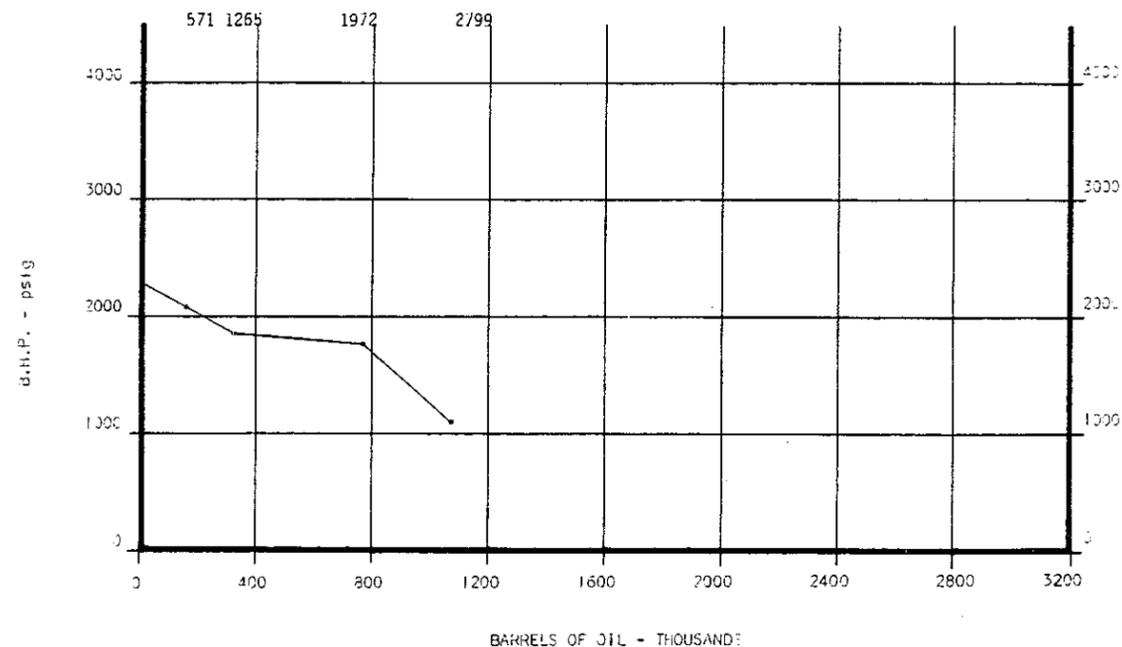
STATE OF MICHIGAN

FIELD NAME CLEON 22-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 10-75 VIRGIN PRESSURE 2896 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4554	PREVIOUS PRESS.	DATE OF PREV PRESSURE		
Thompson #1	10-75	48	5463	2896	OCTOBER 24, 1975 .027	2896				Initial Test
Griner #1-21	11-76	95	5474	2404	NOVEMBER 22, 1976 .090	2404	2896	10-24-75	- 492	1977 1977
Thompson #1	10-75	264	5463*	2176	APRIL 21, 1977 .090*	2176				NOT USED IN CALCULATIONS
Griner #1-21	11-76	N.A.	5474*	2045	MAY 4, 1977 .090*	2045				NOT USED IN CALCULATIONS
Thompson #1	10-75	1 Month	5463*	2183	MAY 11, 1977 .090*	2183	2404	11-22-76	- 221	
Griner #1-21	11-76	N.A.	5474*	2057	MAY 31, 1977 .090*	2057	2183	5-11-77	- 126	
Thompson #1	10-75	N.A.	5473	1679	APRIL 19, 1978 .06	1679	2057	5-31-77	- 378	1387 1412
Griner #1-21	11-76	N.A.	5501	1520	APRIL 16, 1978 .05	1519				NOT USED IN CALCULATIONS
Griner #2-21	7-78	48	5504	1521	SEPTEMBER 3, 1978 .04	1520	1679	4-15-78	- 159	1279 1264

\* Estimated The Thompson #1 and Griner #1-21 may be producing from different reservoirs.

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION MANISTEE 12-22N-16W



BARRELS OF OIL - THOUSANDS

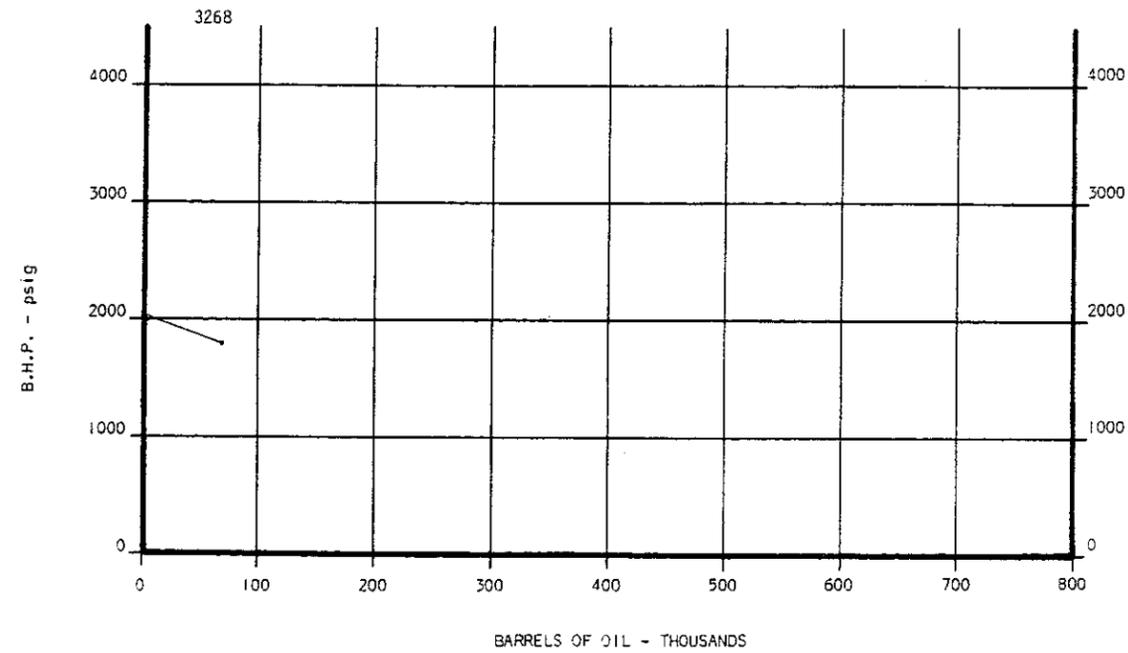
STATE OF MICHIGAN

FIELD NAME MANISTEE 12A-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 3-81 VIRGIN PRESSURE 2025\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3726	PREVIOUS PRESS.	DATE OF PREV PRESSURE		
Thieman-Pearson #1-12	3-81	94.8	4562	1990	OCTOBER 20, 1981 290	1990				Initial Reported Test
						(APPROX. 8700 BBL PRODUCED PRIOR TO TEST)				
Thieman-Pearson #1-12	3-81	70.5	4562	1844	NOVEMBER 18, 1982 274	1844	1990	10-17-81	-146	1487 1500
Thieman-Pearson #1-12	3-81	68	4562	1800	NOVEMBER 3, 1983 310	1800	1844	11-18-82	-44	1279

\* = Estimated

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MANISTEE 12A-22N-16W



FIELD NAME MANISTEE 13-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-76 VIRGIN PRESSURE 2358 NO PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3841 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
O1son #3-15	2-76	64.8	4644	2358	FEBRUARY 27, 1976 N.A.	2358		INITIAL TEST		
O1son #3-13	2-76	2 da	4644	1051	JUNE 2, 1982 .04	1051	2358	2-27-76	-1307	906

FIELD NAME MANISTEE 12B-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 11-83 VIRGIN PRESSURE 2293 NO PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3846 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Pearson-Thieman #1	12A 11-83	67	4646TVD	2293	NOVEMBER 3, 1983 330	2293		INITIAL TEST		1128 --

FIELD NAME MANISTEE 13A-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-76 VIRGIN PRESSURE 2376 NO PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3841 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
O1son #2-13	5-76	63	4612	2415	MAY 4, 1976 .05*	2416		INITIAL TEST		2065
O1son #2-13	5-76	--	4611	1271	FEBRUARY 13, 1982 .04	1272	2416	5-4-76	-1144	1113
O1son #2-13	5-76	--	4612	1178	SEPTEMBER 22, 1982 .04	1179	1272	2-13-82	-93	--

\* Assumed

FIELD NAME MANISTEE 14-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-77 VIRGIN PRESSURE 2270 NO. PRODUCING WELLS \_\_\_\_\_

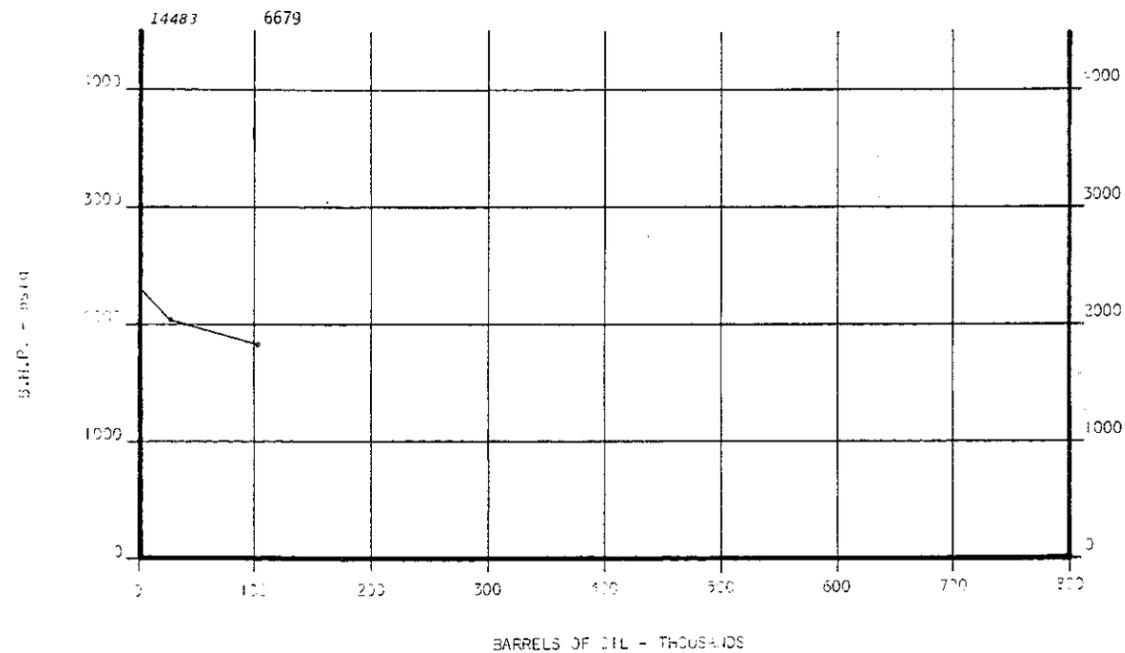
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3650 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Gauthier #1-14	2-77	18	4471	2270	FEBRUARY 19, 1977 N.A.	2270		INITIAL PRESSURE		1916	
McNeil #5-13	10-80	111.7	4604	2261	OCTOBER 10, 1980 .21	2232	2270	2-19-77	- 38	1550	
Gauthier #1-14	2-77	72	4592	2019	NOVEMBER 6, 1981 .07	2011	2232	10-10-80	- 221	1697	
Gauthier #1-14	2-77	73	4592	1820	NOVEMBER 16, 1983 .09	1809	2011	11-6-81	-202		

FIELD NAME MANISTEE 15-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 9-74 VIRGIN PRESSURE 2267 NO. PRODUCING WELLS \_\_\_\_\_

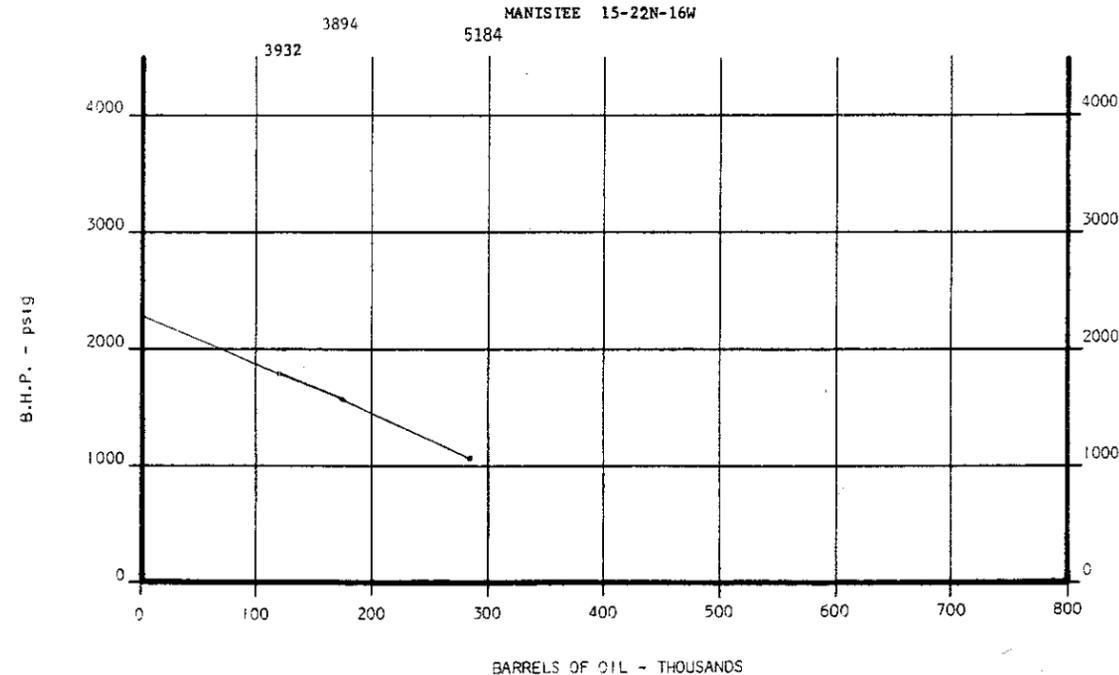
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3588 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Schoedel #1-15	9-74	90	OCTOBER 3, 1974 4475	2250	.260	2250		Initial Test			
Bartosiewicz 2-15	12-74	42.5	DECEMBER 23, 1974 4504	2268	.350	2267		INITIAL TEST			
Bartosiewicz 2-15	12-74	52.5	APRIL 6, 1977 4503	1778	.290	1778	2267	12-23-74	- 489	1484	
Bartosiewicz 2-15	12-74	30	SEPTEMBER 27, 1977 4504	1577	.290	1576	1778	4-6-77	- 202	1188	
Lakeview Orchards #1-10	9-78	72	OCTOBER 8, 1978 4458	1321	.038	1231	1576	9-27-77	- 255	1156	
Bartosiewicz 2-15	12-74	28.5	OCTOBER 9, 1978 4504	1320	.35	1314	1321	10-8-78	- 7	1018	
Lakeview Orchards #1-10	9-78	73.3	JUNE 20-21, 1979 4458	1059	.037	1059				927	923
Schoedel #1-15	9-74	53	4475	1066	.06	1066				940	
			Average	1063		1314		10-9-78	- 252		

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 MANISTEE 14-22N-16W



BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 MANISTEE 15-22N-16W



FIELD NAME MANISTEE 16-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-75 VIRGIN PRESSURE 2175 NO. PRODUCING WELLS

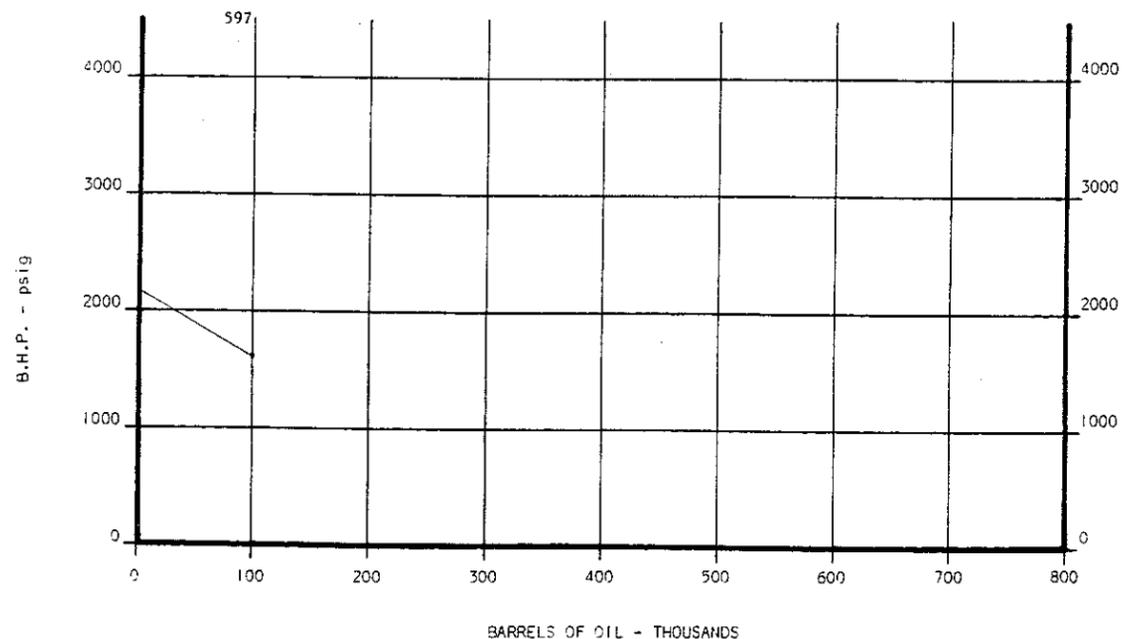
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3393 FEET	CURRENT PRESS.	PREVIOUS PRESSURE		
Modjeski #2-16	6-75	65.7	4066	2175	JUNE 19 1975 .320	2175	INITIAL TEST			1057
Zielinski #3-16	10-75	65.5	4109	2172	OCTOBER 31, 1975 .350	2172	INITIAL TEST			1025
Zielinski #4-16		37.9	4091	1905	MAY 15, 1975 .350*	1920	WELL PLUGGED	AUGUST 6, 1976		
Modjeski #2-16	6-75	54.75	4066	1626	OCTOBER 1, 1976 .33	1622	2175	6-19-75	- 553	1038

\* Assumed

FIELD NAME MANISTEE 17-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-76 VIRGIN PRESSURE 2193 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3424 FEET	CURRENT PRESS.	PREVIOUS PRESSURE		
Kott Diesing #1-17	7-76	N.A.	4030	2193	AUGUST 1, 1976 .354	2193	INITIAL TEST			1078 1096
Kott Diesing #1-17	7-76	25.8	4030	1780	OCTOBER 17, 1977 .467	1780	2193	9-1-76	- 413	934 1443
Kott #1-18	3-77	100	3936 IVD	1592	MAY 16, 1978 .307	1621				727 1260
Kott Diesing #1-17	7-76	101	3762	1567	AVERAGE .309	1650	1780	10-17-77	- 144	452 1400
Kott #1-18	3-77	24	3940 IVD	1466	AUGUST 2, 1978 .425	1504				698 1114
Kott Diesing #1-17	7-76	24	3780	1490	AVERAGE .400	1590	1636	5-16-78	- 89	742 1224
Commerce Investment #2-8	1-79	65.1	3924 IVD	1698	JANUARY 19, 1979 .34	1731	NOT USED IN CALCULATIONS			700
Kott #1-18	3-77	70.8	3940 IVD	1348	MAY 5, 1979 .304	1375				478 1105
Kott Diesing 1-17	7-76	69.3	3975	1414	AVERAGE .309	1446	1547	8-2-78	- 137	819 1126
Kott #1-18	3-77	120	3886 IVD	1214	JANUARY 2, 1980 .183	1240				991 1100
Kott Diesing 1-17	7-76	120	3988	1207	AVERAGE .319	1220	1411	5-5-79	- 181	573 1050

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 MANISTEE 16-22N-16W



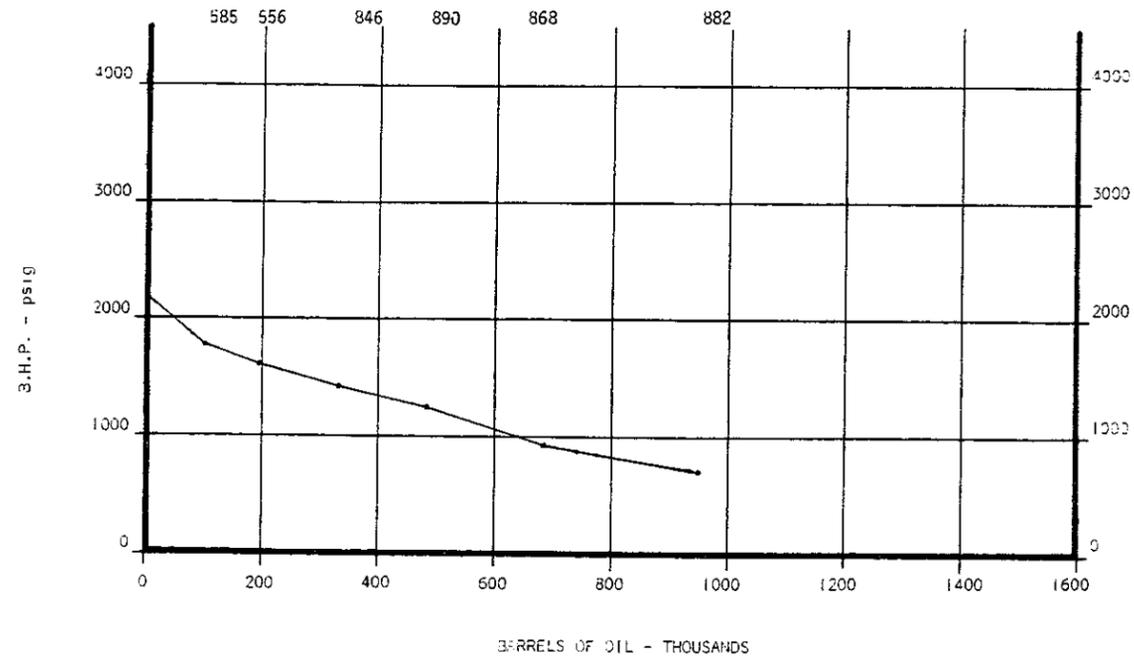
BOTTOM-HOLE PRESSURE TESTS - Page 2

FIELD NAME: MANISTEE 17-22N-16W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3424 FEET	CURRENT PRESS.	PREVIOUS PRESSURE		
Kott #1-18	3-77	23.3	3940 IVD	895	APRIL 23, 1981 .321	924	1230	1-2-80	- 306	991 1100
Kott #1-18	3-77	25	3940 IVD	694	NOVEMBER 30, 1983 .325	723	924	4-23-81	-201	229 624

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MANISTEE 17-22N-16W



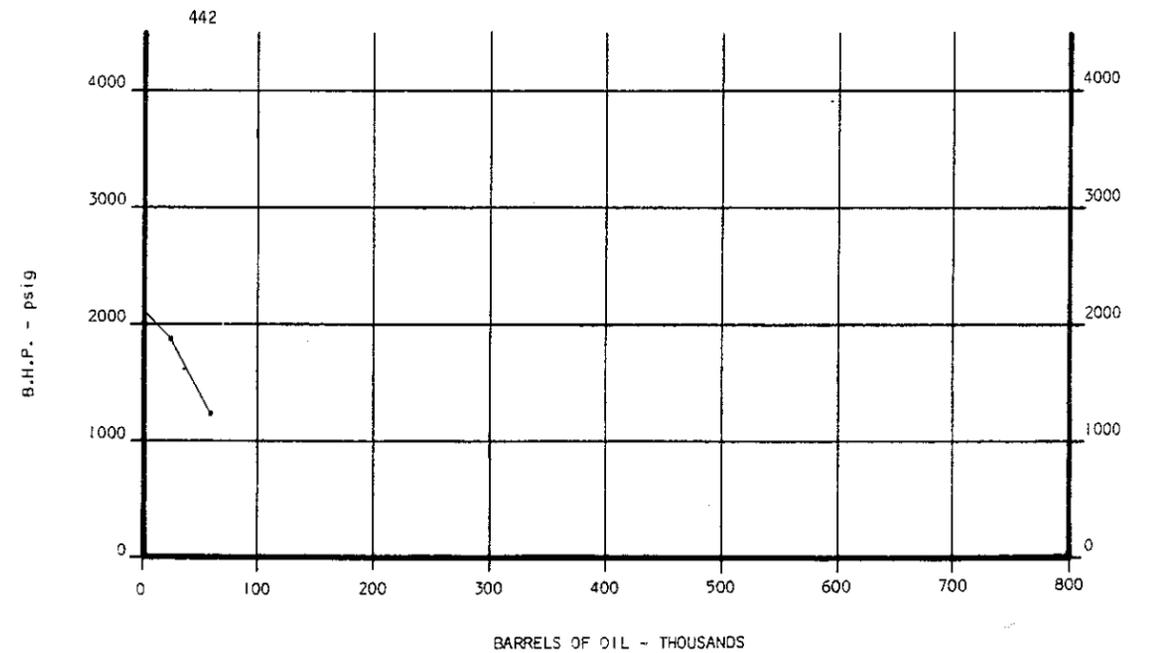
FIELD NAME MANISTEE 17B-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-82 VIRGIN PRESSURE 2077 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 3306	PREVIOUS PRESS	DATE OF PREV PRESSURE			
Commerce Investment #4-17	2-82	8.6	3918 IVD	2077	.30	2077	INITIAL	TEST		1085	
Bartosiewicz #2-9	10-82	48	3982 TVD	1892	.42	1883	2077	2-16-82	-194		
Sharnowski #1-16A	7-83	110.5	3945 TVD	1240	.528	1228	1883	9-21-82	-655	511	511

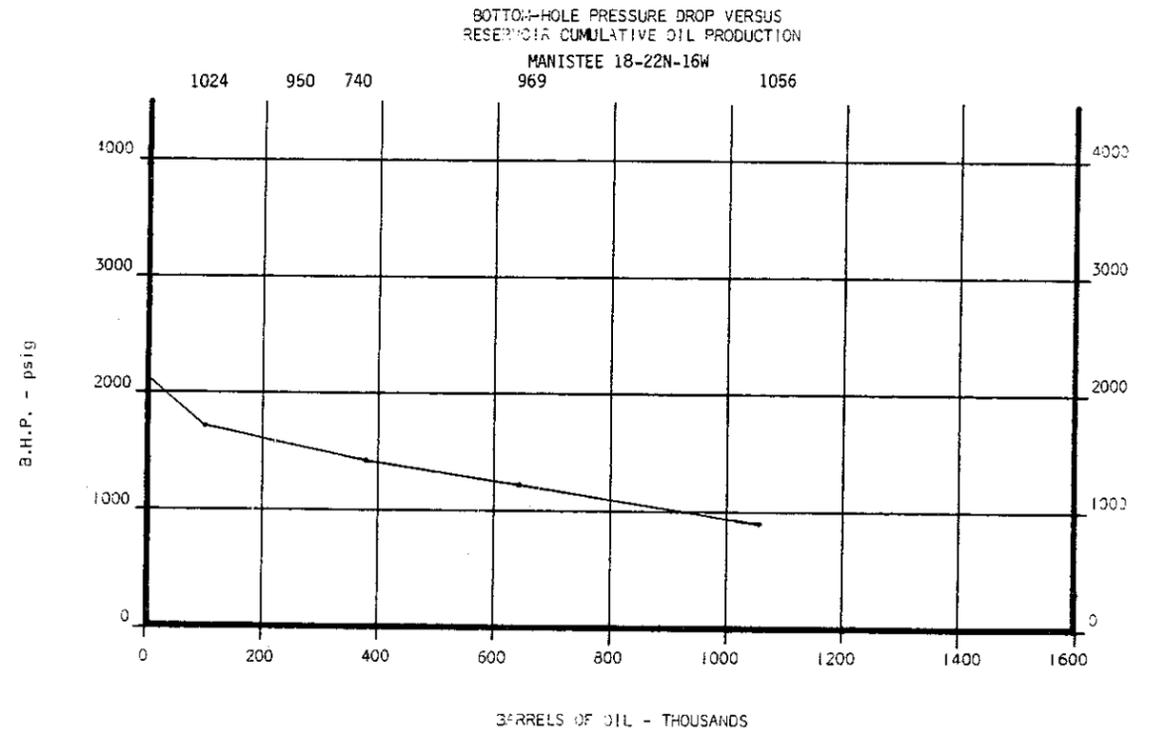
FIELD NAME MANISTEE 17A-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-8-77 VIRGIN PRESSURE 2232 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 3497	PREVIOUS PRESS	DATE OF PREV PRESSURE			
Commerce Investment #1-17	7-77	66	4146	2232	.29	2232	INITIAL	TEST		917	

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MANISTEE 17B-22N-16W



FIELD NAME		COUNTY		TOWNSHIP		DATE OF TESTS					
MANISTEE 18-22N-16W		MANISTEE		MANISTEE							
PRODUCING FORMATION		DISCOVERY DATE		VIRGIN PRESSURE		NO. PRODUCING WELLS					
SAL.-NIAG.		7-77		2104							
OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 3302 FEET	CURRENT PRESS	PREVIOUS PRESSURE		DATE OF PREV. PRESSURE	
B.G.H.I. Investment #2-18	7-77	N.A.	3905	2104	.297	2104					
JULY 16, 1977											
B.G.H.I. Investment #1-18	7-77	N.A.	3932	2095	.302	2087					
AUGUST 8, 1977											
Davis #2-19	7-78	25.5	4055	1756	.380	1702					
JULY 7, 1978											
AUGUST 1-2, 1978											
B.G.H.I. #1-18	7-77	24	3932	1759	.297	1751					
B.G.H.I. #2-18	7-77	24	3905	1773	.310	1774					
B.G.H.I. #4-18	11-77	24	3910TVD	1669	.310	1667					
Davis #2-19	7-78	48	3800	1761	.347	1800					
AVERAGE 1744 2104 7-16-77 - 356											
MAY 5, 1979											
B.G.H.I. #1-18	7-77	71	3932	1642	.297	1634					
B.G.H.I. #2-18	7-77	70.8	3905	1667	.310	1668					
B.G.H.I. #4-18	11-77	71	3910TVD	1516	.294	1514					
AVERAGE 1605 1744 8-2-78 - 139											
JANUARY 7-11, 1980											
B.G.H.I. #1-18	7-77	71	3932	1416	.319	1407					
B.G.H.I. #2-18	7-77	71	3905	1477	.317	1478					
B.G.H.I. #4-18	11-77	4	3910TVD	1311	.316	1309					
AVERAGE 1398 1605 5-5-79 - 207											



BOTTOM-HOLE PRESSURE TESTS - Page 2

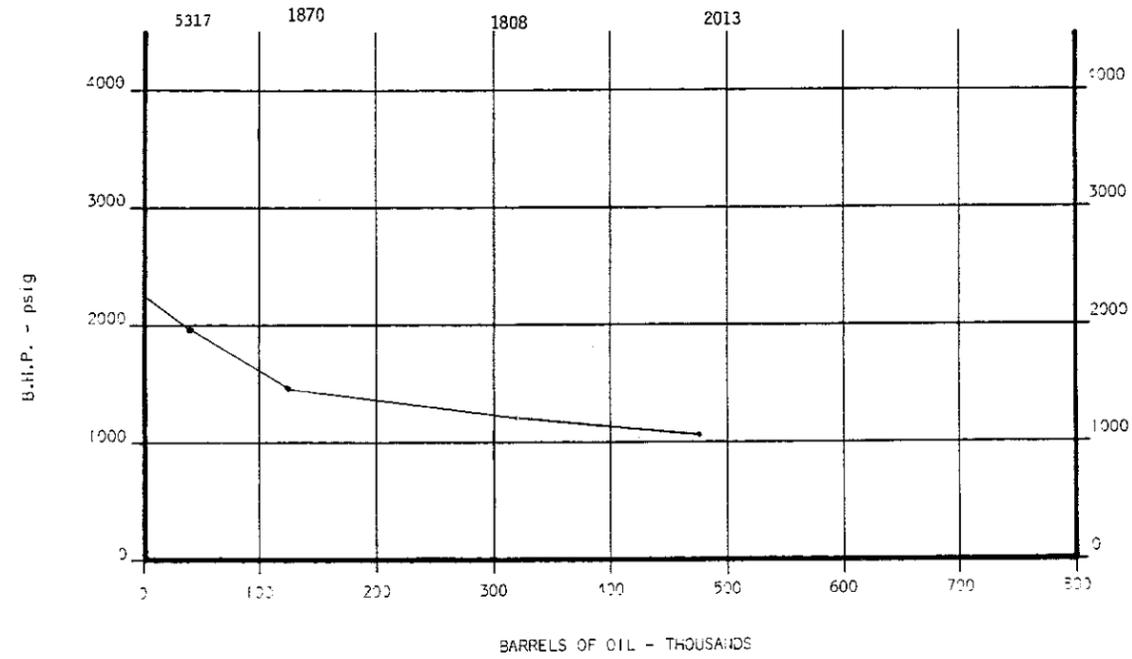
FIELD NAME: MANISTEE 18-22N-16W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 3302 FEET	CURRENT PRESS	PREVIOUS PRESSURE		DATE OF PREV. PRESSURE	
B.G.H.I. #1-18	7-77	23.3	3932	1194	.291	1186	1398				
APRIL 23, 1981											
B.G.H.I. #4-18	11-77	24	3910 TVD	774	.321	772	1186				
NOVEMBER 30, 1983											
1-11-80 - 212 736 1027											
4-23-81 - 414 568 681											

REMARKS:

FIELD NAME		COUNTY		TOWNSHIP		DATE OF TESTS					
MANISTEE 20-22N-16W		MANISTEE		MANISTEE							
PRODUCING FORMATION		DISCOVERY DATE		VIRGIN PRESSURE		NO. PRODUCING WELLS					
SAL.-NIAG.		6-75		2229							
OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 3340 FEET	CURRENT PRESS	PREVIOUS PRESSURE		DATE OF PREV. PRESSURE	
Spolyor #1-20	6-75	65.8	4013	2201	.300	2201					
JUNE 20, 1975											
Suida #2-20	5-75	66.6	4030	2220	.32	2229					
MAY 17, 1976											
Spolyor #1-20	6-75	120	4013	1971	.29	1971	2229				
AUGUST 3, 1977											
Spolyor #1-20	6-75	27	4020	1485	.04	1484	1971				
OCTOBER 9, 1978											
EVEN THOUGH THERE ARE TWO DRY HOLES BETWEEN THESE WELLS, THERE IS 39 FT OF BROWN NIAGARAN PRESENT IN THE SUIDA 3-20A. THIS IS APPROXIMATELY TWICE THE REGIONAL INTER-REEF AVERAGE. ACCORDINGLY, THESE WELLS ARE KEPT TENTATIVELY IN THE SAME RESERVOIR.											
Spolyer #1-20	6-75	168	4013	1200	.09	1200	1484				
APRIL 29, 1980											
Bull #1-20	6-83	--	4130	1055	.545	1002	1200				
JUNE 27, 1983											
10-9-78 - 284 1061											
4-29-80 - 198 420 196											

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MANISTEE 20-22N-16W



STATE OF MICHIGAN

FIELD NAME MANISTEE 23-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-74 VIRGIN PRESSURE 2250 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3606 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Reid #1-23	12-74	12	4358	2250	DECEMBER 10, 1974 .081 2250			INITIAL TEST		1902
Olsen-Webb #2-23	6-75	43.5	4256	2248	JUNE 11, 1975 .08* 2254			INITIAL TEST		1916
Kamaloski 4-23	2-78	68.3	4529	2255	FEBRUARY 2, 1978 .076 2245			INITIAL TEST		1910
St. Manistee #3-27	9-79	60	4393	2163	SEPTEMBER 7, 1979 .079 2155	2250	12-10-74	- 95		1855
Kamaloski #4-23	2-78	48	4521	1488	NOVEMBER 6, 1981 .05 1482	2155	9-7-79	- 673		1271
Kamaloski #4-23	2-78	10 da	4521	1169	FEBRUARY 21, 1983 .04 1164	1482	11-6-81	- 318		1025

STATE OF MICHIGAN

FIELD NAME MANISTEE 23A-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 1-79 VIRGIN PRESSURE 2299 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3632 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Manistee #3-23	1-79	109.4	4438	2299	JANUARY 29, 1979 .076 2299			INITIAL TEST		1952
PCA Gillespie 5-23A	3-80	62.4	4630TVD	2211	MARCH 26, 1980 .077 2190	2299	1-29-79	- 109		1841
St. Manistee 3-23	1-79	194	4438	1353	APRIL 9, 1980 .06 1353			NOT USED IN CALCULATIONS		1080
PCA Gillespie #5-23A	3-80	--	4597 TVD	1951	JANUARY 15, 1982 .16 1913					
St. Manistee #3-23	1-79	3 da	4441	1940	AVG 1927	2190	3-26-80	- 263		
PCA Gillespie #5-23A	3-80	--	4597 TVD	1755	OCTOBER 22, 1982 .06 1741	1927	1-15-82	- 186		--

STATE OF MICHIGAN

FIELD NAME MANISTEE 24-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-74 VIRGIN PRESSURE 2314 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3698 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
State Manistee-Ryder #1-24	12-74	20	4412	2314	DECEMBER 9, 1974 .080 2314			INITIAL TEST		1960
St. Manistee-Ryder #1-24	12-74	2 da	4412	1812	JUNE 28, 1982 .07 1812	2314	12-9-74	- 502		--
St. Manistee-Ryder #1-24	12-74	12 da	4412	1739	NOVEMBER 8, 1982 .08 1739	1812	6-28-82	- 73		--

FIELD NAME MANISTEE 24A-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 4-77 VIRGIN PRESSURE 2357 NO PRODUCING WELLS

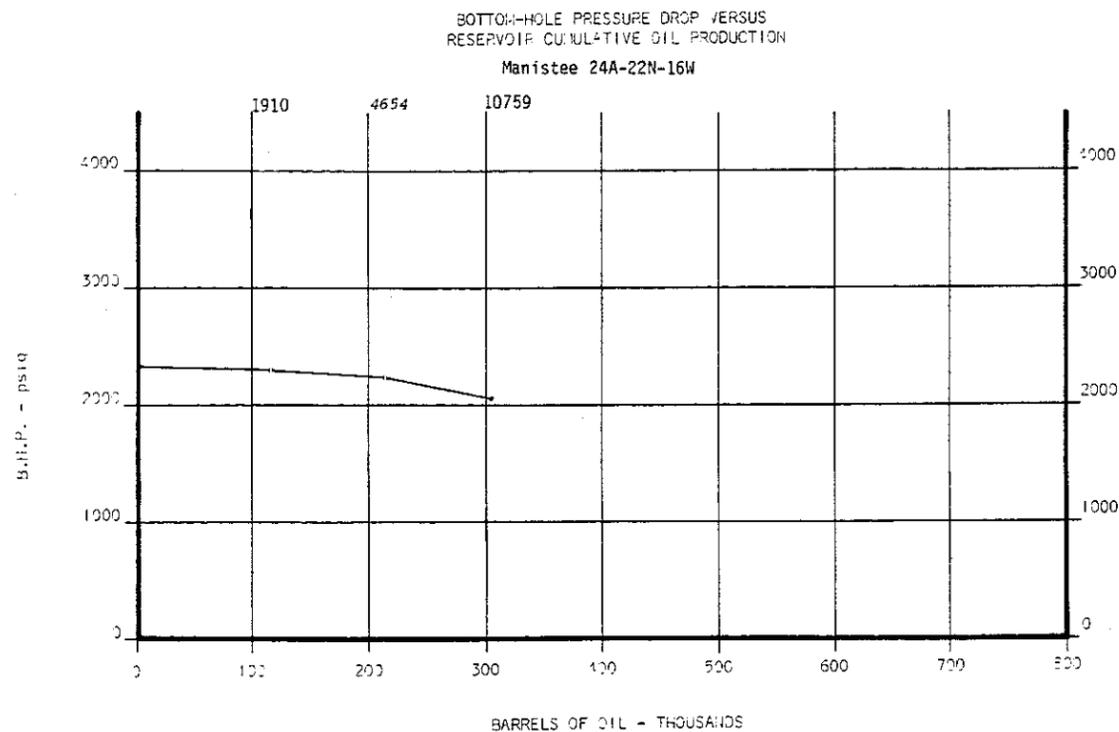
OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3959	FEET	DATE OF PREV. PRESSURE		TUB.	CSG.
Bahr #4-24	4-77	66	4680	2357	.290	2357				1341	
Bahr #5-24	4-78	43.3	4699	2353	.20	2352				1100	
Bahr #5-24	4-78	48	4698	2282	.27	2277	2257	4-16-77	- 80	1089	
Bahr #5-24	4-78	48	4698	2214	.12	2212	2277	10-29-80	- 65	1876	
Bahr #5-24	4-78	46	4698	2068	.07	2068	2212	11-3-81	-144	1748	

FIELD NAME MANISTEE 25-22N-17W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-77 VIRGIN PRESSURE 2163 NO PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3360	FEET	DATE OF PREV. PRESSURE		TUB.	CSG.
Sobota #1-25	11-77	50	4069	2163	.551	2163				834	913
St. Manistee #2-25	2-78	19	4001 TVD	2137	.266	2160				1061	1257
Sobota #1-25	11-77	71	3989	2137	.294	2161				1145	
Coombs #3-30	12-78	45	3963	2147	.313	2163				1103	1323
The Coombs #3-30 may be located in a reef separate from the reef in which the Sobota #1-25 and St. Manistee #2-25 is located.											
Johnson #3-25	8-79	92	3990	2083	.443	2102	2163	12-7-78	- 61	995	1297
St. Manistee 2-25	2-78	N.A.	4001IVD	2060	.286	2084	2102	8-20-79	- 18	1572	1111
Coombs #3-30	12-78	29	3963	1896	.33	1913	2084	11-20-79	-153	1390	1648
St. Manistee 2-25	2-78	36	4002IVD	1941	.341	1949	2084	11-20-79	-153	1425	1665
Average 1931											
Coombs #3-30	12-78	--	3963	1818	.305	1833	1931	10-4-80	-98	1207	1540

BOTTOM-HOLE PRESSURE TESTS - Page 2

FIELD NAME: MANISTEE 25-22N-17W

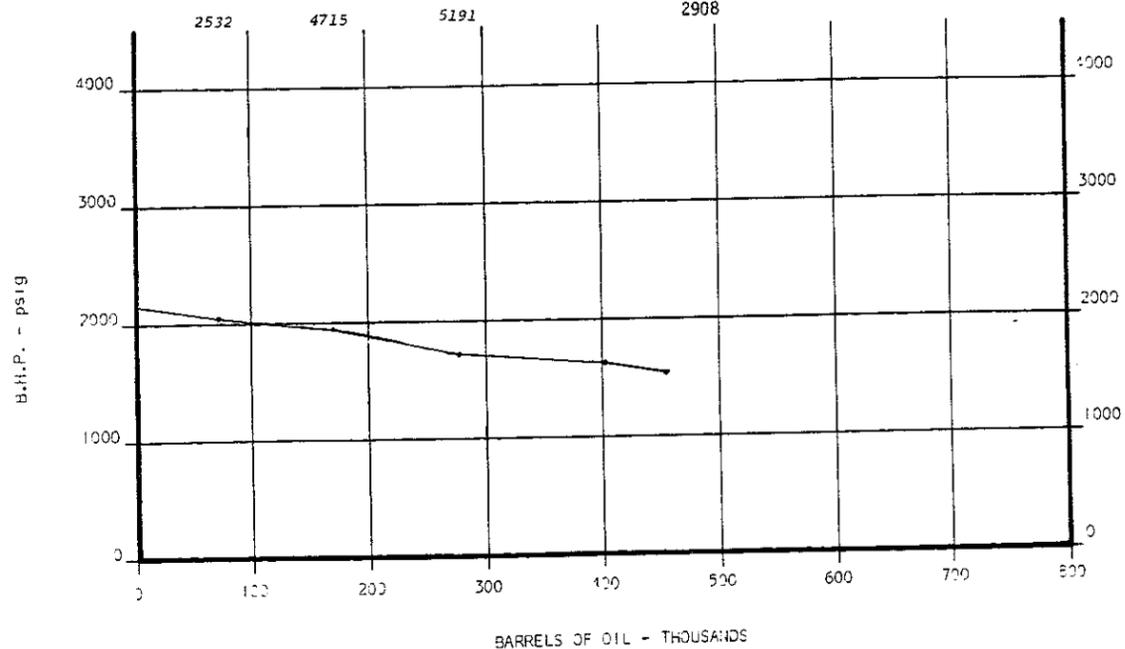


OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3360	FEET	DATE OF PREV. PRESSURE		TUB.	CSG.
Johnson #3-25	8-79	67.5	3990	1755	.308	1768	1833	4-3-81	-65	1452	811
St. Manistee #2-25	2-78	24	4002TVD	1635	.269	1658	1768	10-20-81	-110	1331	1406
Sobota #1-25A	1-83	22	4026TVD	1628	.525	1650	1658	11-19-82	-8	590	--
Frederickson #2-19	5-83	39	3987TVD	1535	.554	1559	1650	1-26-83	-91	453	800

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

MANISTEE 25-22N-17W



FIELD NAME MANISTEE 30-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-76 VIRGIN PRESSURE 1989 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM P.S.I. @ 3352 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Miller #2-30	5-76	43.3	4070	1989	MAY 10, 1976 N.A.	1989	INITIAL TEST		1711	
Miller #2-30	5-76	10 Days	4070	1888	SEPTEMBER 11, 1977 .056	1888	1989	5-10-76	- 101	1665
Miller #2-30	5-76	98	4070	1548	FEBRUARY 27, 1979 .041	1548	1888	9-11-79	- 340	1383

\* Assumed

FIELD NAME MANISTEE 27-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-74 VIRGIN PRESSURE 2223 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM P.S.I. @ 3703 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
State Manistee #1-27	12-74	41	4400	2220	DECEMBER 31, 1974 N.A.	2220	INITIAL TEST (Gas well)		1877	
Lutheran Homes #2-27	9-77	63	4247	2214	SEPTEMBER 27, 1977 .10*	2223	INITIAL TEST		1875	
St. Manistee #1-27	12-74	48	4400	1640	NOVEMBER 3, 1981 .04	1638	2223	9-27-77	- 585	1413
Lutheran Homes #2-27	9-77	2 da	4247	1474	JUNE 28, 1982 06	1480	1638	11-3-81	-158	1285

\* Estimated

FIELD NAME MANISTEE 30a-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 10-76 VIRGIN PRESSURE 1983 NO. PRODUCING WELLS \_\_\_\_\_

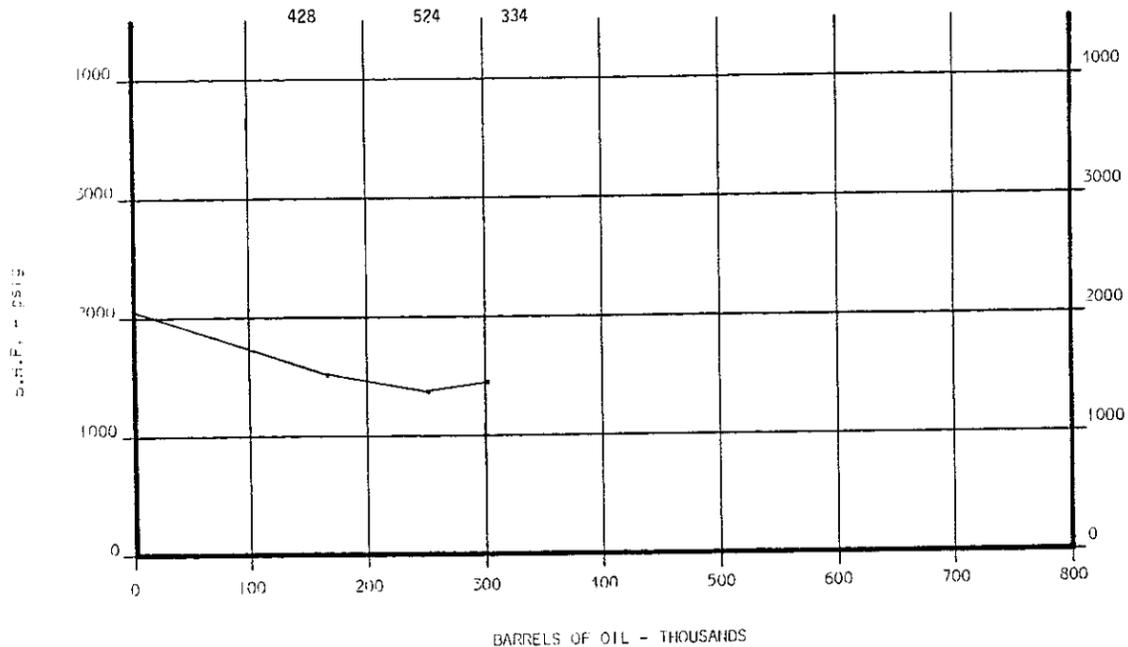
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM P.S.I. @ 3352 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Miller 3-30	10-76	43.7	4170	1991	OCTOBER 20, 1976 .10*	1983	INITIAL TEST		1720	
Miller 3-30	10-76	4 Days	4170	1987	SEPTEMBER 11, 1977 .066	1981	1983	10-20-76	- 2	1696
Kapp 1-31	1-78	57.9	4094	1936	JANUARY 20, 1978 .065	1937	1981	9-11-77	- 44	1671
Kapp 1-31	1-78	144	4094	1741	FEBRUARY 27, 1979 .048	1740			1495	
Miller 3-30	10-76	168	4170	1746	AVERAGE .055	1740	1937	1-20-78	- 196	1522
Kapp 2-31	3-79	625	3973 TVD	1713	APRIL 3, 1979 .056	1712	1740	2-27-79	- 28	1495
Miller #3-30	10-76	30.5	4170	1318	JANUARY 30 (Miller #3-30), FEBRUARY 1 (Kapp #1-31, Kapp #2-31), 1980 .04	1315			1200	
Kapp #1-31	1-78	24	4094	1365	.041	1365			1215	
Kapp #2-31	3-79	24	3978 TVD	1385	.043	1385				
					Average	1355	1712	4-3-79	- 327	
Kaaps #2-31	3-79	180	3973 TVD	822	JANUARY 17, 1984 .04	821	1355	2-1-80	-534	721

FIELD NAME MANISTEE 36-22N-17W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 6-79 VIRGIN PRESSURE \_\_\_\_\_ NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM 455 FEET		INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ CURRENT PRESS.	PREVIOUS PRESS.		DATE OF PREV. PRESSURE	TUB. CSG.
St. Manistee #1-36	6-79	2	3877 TVD	2043	.233	2043	2043	INITIAL TEST	1015	PKR
St. Manistee #1-36	6-79	67.5	3868 TVD	1997	.233	1999	1999	NOT USED IN CALCULATIONS	953	1035
St. Manistee #2-36	6-79	--	3941 TVD	2059	.542	2024	2043	6-7-79	-19	631
St. Manistee #1-36	6-79	--	3868 TVD	1899	.233	1901	2024	11-9-79	-123	970 1010
St. Manistee #1-36	6-79	--	3769 TVD	1507	.295	1539				819 769
St. Manistee #3-36	11-82	--	3828 TVD	1469	.569	1495	1901	4-3-81	-384	179 1017
					AVG	1517				
St. Manistee #2-36	6-79	74	3881 TVD	1417	.488	1415				167 812
St. Manistee #3-36	11-82	89.5	2739 TVD	748	.57*	1397				688
St. Manistee #1-36	6-79	96	3880 TVD	1349	.252	1348				871 838
					AVG	1387	1517	12-17-82	-130	
								WATER INJECTION START OCTOBER, 1983		
St. Manistee #1-36	6-79	92	3880 TVD	1370	.245	1369				628 1012
St. Manistee #3-36	11-82	93	3847 TVD	1505	.556	1522	1387	7-31-83	+59	503 986
					AVG	1446				

\* = Assumed

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 MANISTEE 36-22N-17W



OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM 455 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	
Griner #2-21	7-78	69.8	5503	1227	.04	1226	1520	9-3-78	-294	1029 1020	
Griner #2-21	7-78	72.8	5312	1177	.04	1183	1226	3-2-79	-43	999 1021	

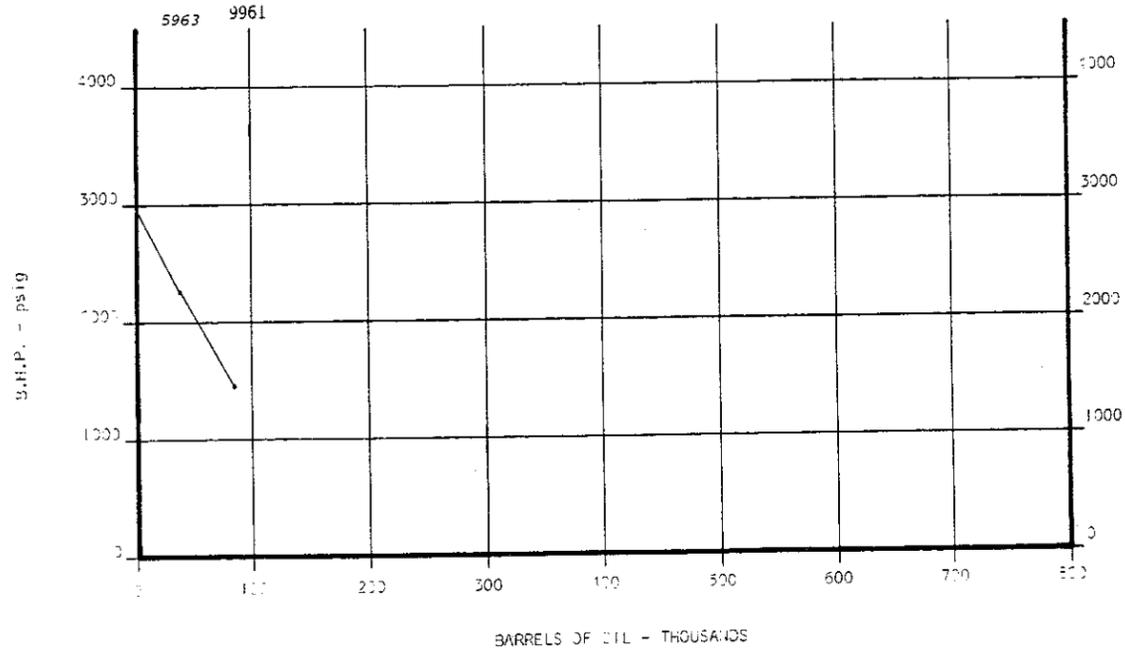
REMARKS:

FIELD NAME CLEON 23-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 5-80 VIRGIN PRESSURE 2993 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM 4746 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	
Drobena #2-23A	5-80	42	5753 TVD	2993	.256	2993		INITIAL TEST		1523	
Drobena #2-23A	5-80	144	5752 TVD	2252	.27	2252	2993	5-30-80	-741	1249	
Drobena #2-23A	5-80	407	5753 TVD	1466	.26	1462	2252	11-3-81	-790	583	

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

CLEON 23-24N-13W



FIELD NAME CLEON 26-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-76 VIRGIN PRESSURE 2967 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4590 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG
P.C.A. "C" 1-26	2-76	3	5567 IVD	2967	FEBRUARY 19, 1976 .1107	2967	INITIAL PRESSURE				
PCA "C" 1-26	2-76	432	5567 IVD	2712	AUGUST 10, 1978 .111	2712	2967	2-19-76	- 255	2143	
PCA "C" #1-26	2-76	45.5	5567 IVD	1164	MARCH 17, 1981 .092	1164	2712	8-10-78	- 1548	978	

STATE OF MICHIGAN

FIELD NAME CLEON 24-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-77 VIRGIN PRESSURE 2997 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4821 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG
St. Cleon #2-24	11-77	94	5894	2997	NOVEMBER 23, 1977 .112	2997	INITIAL TEST			2366	2366
St. Cleon #2-24	11-77	65	5800	2008	JANUARY 10, 1983 .080	2016	2997	11-23-77	-981	1629	1628

STATE OF MICHIGAN

FIELD NAME CLEON 26A-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 3-79 VIRGIN PRESSURE 3002 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4655 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG
Bailey #1-26	3-79	70	5772	3002	MARCH 19, 1979 .132	3002	INITIAL TEST			2342	1678
Miller #1-26	6-79	1	5864	2944	JUNE 15, 1979 .132*	2914	INITIAL TEST			2047	1581

\*Estimated

FIELD NAME CLEON 27-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-76 VIRGIN PRESSURE 2964 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM P.S.I. @ 4672 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Smith Sturt #1-27A	2-76	N.A.	5576	2816	.108	2816				2252
Smith Sturt #1-28A	2-78	42.3	5557IVD	2950	.107	2952				2355
Smith 3-27	5-78	63.6	5533	2960	.110	2964				2358

FIELD NAME CLEON 27A-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS  
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 11-77 VIRGIN PRESSURE 2919 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM P.S.I. @ 4719 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Leik Lyke #2-27	11-77	1	5729	2919	.10*	2919				
Leik Lyke #2-27	11-77	29	5729	2206	.356	2206	2919	11-15-77	- 713	1682

\*Estimated

FIELD NAME CLEON 29-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 11-77 VIRGIN PRESSURE 2897 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 4756 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Federal Land Bank	Marshall 11-77	Enterprise #1-29 64	5659	1829	.27	1829				1703 1716
Abshire St. Cleon	#4-29 1-79	26	5447TVD	2875	10	2897				2313 2315
Federal Land Bank	Marshall 11-77	Enterprise #1-29 NA	5659	2895	.277	2895				2266
Federal Land Bank	#1-29 11-77	--	5548	987	.031	990				851 372
Abshire St. Cleon	#4-29 1-79	72	5424TVD	1258	.042	1268	2897	1-25-79	-1629	1065 1062
Federal Land Bank	#1-29 11-77	24	5548	1000	.303	1034	1268	3-8-82	-234	708 330

FIELD NAME CLEON 29A-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS  
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 3-79 VIRGIN PRESSURE 2863 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM P.S.I. @ 4623 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Cleon #1-29A	3-79	90	5527IVD	2863	.099	2863				2315
St. Cleon 1-29A	3-79	434	5473IVD	2814	.103	2820	2863	3-13-79	- 43	2240
St. Cleon 3-28	8-80	110 8	5270	2710	.101	2735	2820	4-18-80	- 85	2185
St. Cleon #1-29A	3-79	7 da	5528TVD	2081	.10	2081				--
St. Cleon #3-28	8-80	48	5270	1974	.20	2043	2735	8-12-80	-673	--
St. Cleon #1-29A	3-79	7 da	5528 TVD	1741	.10*	1741				--
St. Cleon #3-28	8-80	5 da	5270	1672	.10*	1697	2062	8-12-82	-343	--

\* = Assumed

FIELD NAME CLEON 31-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 11-77 VIRGIN PRESSURE 2901 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4466 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
Drotleff #1-31	11-77	72.4	5280 IVD	2901	.115	NOVEMBER 18, 1977	2901				2295
Drotleff #1-31	11-77	147.5	5280 IVD	2759	.12*	NOVEMBER 2, 1978	2759	2901	11-18-77	- 142	
Drotleff #1-31	11-77	169	5280 IVD	2617	.12*	FEBRUARY 2, 1979	2617	2759	11-2-78	- 142	2105
Kelly Cutler 1-32	2-79	66	5517	2593	.265	FEBRUARY 25, 1979	2548	2617	2-2-79	- 69	1972 1771
Kelly Cutler 1-32	2-79	145	5517	2220	.093	FEBRUARY 10, 1981	2205	2548	2-25-79	- 343	1799 1760
Kelly Cutler 1-32	2-79	144	5517	1906	.077	MARCH 8, 1982	1894	2205	2-10-81	- 311	1561 1573
Kurtyka #1-31	3-82	--	5470	1837	.065	JULY 21, 1982	1824	1894	3-8-82	-70	1525 628
Drotleff #1-31	11-77	--	5281 IVD	1659	.07	DECEMBER 19, 1983	1659	1824	7-21-82	-165	1382

\*Estimated

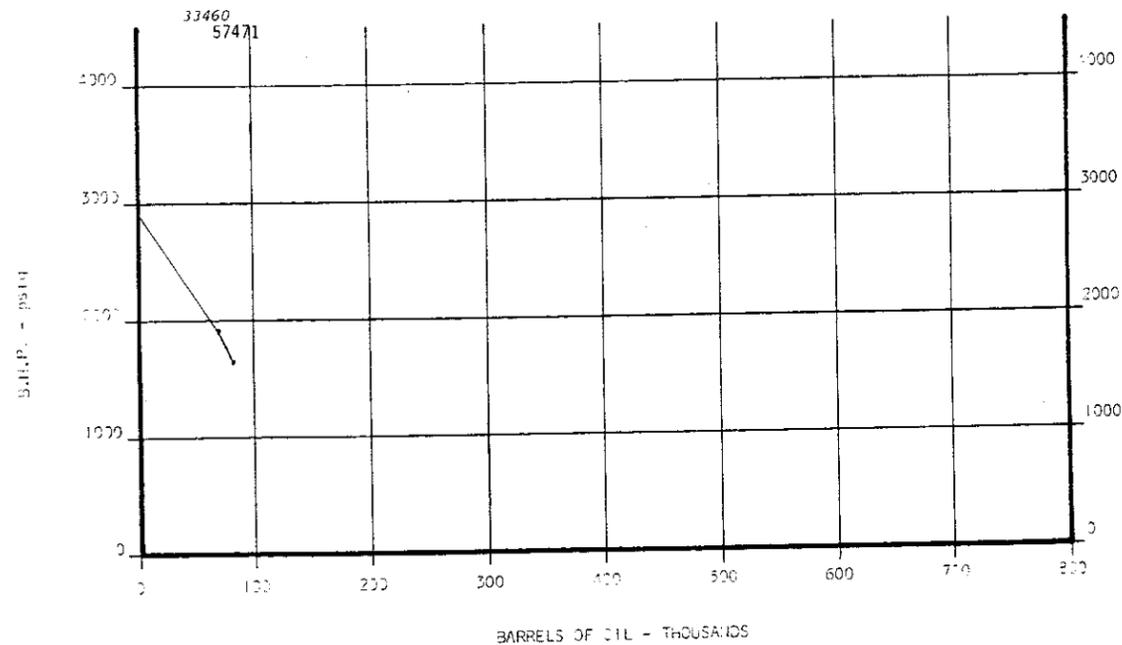
FIELD NAME CLEON 32-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 10-77 VIRGIN PRESSURE 2894 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4561 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Cleon #1-32a	10-77	88	5439 IVD	2894	.10*	OCTOBER 11, 1977	2894				2309
St. Cleon #1-32A	10-77	145	5445 IVD	2228	.075	APRIL 9, 1980	2229	2894	10-11-77	- 655	1810
St. Cleon #1-32A	10-77	72	5445 IVD	1135	.10*	OCTOBER 17, 1983	1136	2229	4-9-80	-1093	980

\* Estimated

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

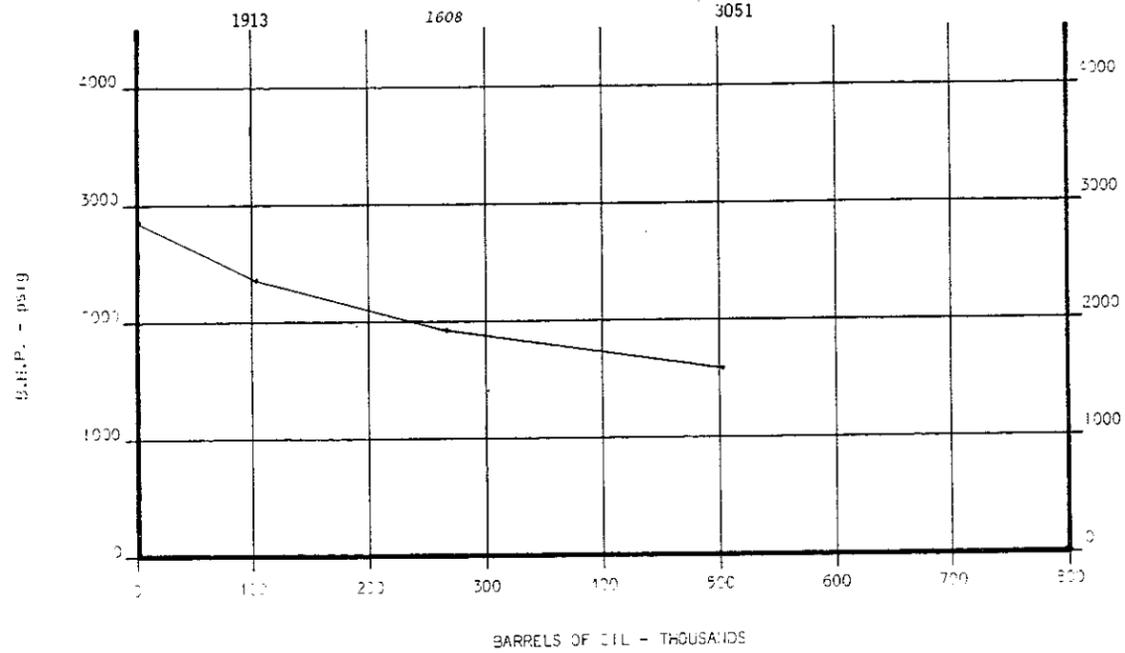
CLEON 31-24N-13W



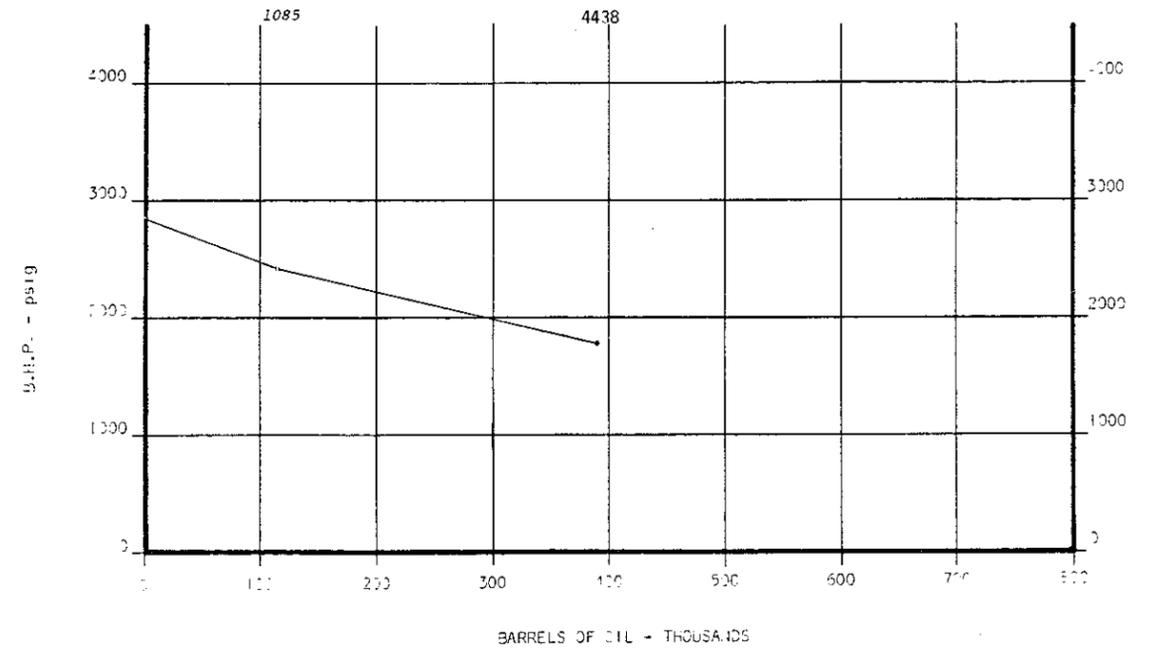
FIELD NAME CLEON 32a-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-78 VIRGIN PRESSURE 2886 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4478 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Cleon 2-32	3-78	43.3	5409	2886	.113	MARCH 10, 1978	2886				2280
Walker #3-32B	5-79	50	5617 IVD	2903	.311	JUNE 8, 1979	2829	2886	3-10-78	- 57	1465 1118
Walker #3-32B	5-79	72	5634 IVD	2411	.289	OCTOBER 4, 1980	2337	2829	6-8-79	- 492	1056 779
PCA-St. Cleon #2-33A	1-82	123	5596 IVD	2026	.31	DECEMBER 21, 1981	1962	2337	10-4-80	- 375	709
St. Cleon #4-32	1-82	64	5630	1643	.28	MARCH 11, 1982	1576		NOT USED IN CALCULATIONS		835
Walker #3-32B	5-79	47	5634 TVD	1848	.308	OCTOBER 14, 1982	1769	1962	12-21-81	-193	885
Walker #3-32B	5-79	62	5663 TVD	1686	.374	AUGUST 15, 1983	1579	1769	10-14-82	-190	582 650

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
Cleon 32A-24N-13W



BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
CIBON 32B-24N-13W



STATE OF MICHIGAN

FIELD NAME CLEON 32B-24N-13W COUNTY MANISTEE TOWNSHIP CLEON DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-80 VIRGIN PRESSURE 2860 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	START IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	START-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. # 4644	FEET	DATE OF PREV. PRESSURE		
Spaulding 1-32	8-80	205.3	5542	2860	AUGUST 30, 1980 .288	2860	INITIAL TEST		1242	1761
Spaulding Ashcraft #2-32	10-80	12	5497	2851	OCTOBER 29, 1980 .299	2844	INITIAL TEST		1429	1441
Spaulding #1-32	8-80	27	5427	2473	OCTOBER 27, 1981 .294	2507	2860	8-30-80	- 353	912 2009
Cutler-Kelly #2-32	2-82	91.3	5520	2412	MARCH 2, 1982 .550	2401	2507	10-27-81	- 106	743 873
Spaulding-Ashcraft #2-32	10-80	--	5497	1794	JANUARY 4, 1984 160	1790	2401	3-2-82	-611	1480

STATE OF MICHIGAN

FIELD NAME FILER 1-21N-17W COUNTY MANISTEE TOWNSHIP FILER DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 12-80 VIRGIN PRESSURE 1885 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	START IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	START-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. # 3252	FEET	DATE OF PREV. PRESSURE		
St Manistee #1-1A	12-80	240	3908 TVD	1885	DECEMBER 30, 1980 .065	1885	INITIAL TEST			1647
St Manistee #1-1A	12-80	73.8	3872 TVD	878	JULY 30, 1983 .290	888	1885	12-30-80	-997	680 172
St. Manistee #1-1A	12-80	90	3872 TVD	819	DECEMBER 27, 1983 .525	838	888	7-30-83	-50	153

FIELD NAME FILER 2-21N-17W COUNTY MANISTEE TOWNSHIP MANISTEE FILER MANISTEE DATE OF TESTS 1960  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 12-78 VIRGIN PRESSURE 1960 NO. PRODUCING WELLS 1

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3219 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Manistee Unit #2-2	2-79	64	3843 TVD	1958	JANUARY 30, 1979 .10*	1956	INITIAL TEST		1703	1703
St. Manistee Unit #1-2	2-79	65	3742 TVD	1952	FEBRUARY 5, 1979 .10*	1960	INITIAL TEST		1699	
St. Manistee #1-2	2-79	NA	3736 TVD	1949	FEBRUARY 25, 1982 .055	1954			1715	1726
St. Manistee #2-2	2-79	NA	3837 TVD	1958	.060 AVG 1956	1957	1960 2-5-79	-4	1712	1701
St. Manistee #1-2	2-79	NA	3736 TVD	1853	NOVEMBER 20, 1982 .060	1858			1630	
St. Manistee #2-2	2-79	NA	3837 TVD	1859	.058 AVG 1858	1858	1956 2-25-82	-98	1631	1629
St. Manistee #1-2	2-79	--	3903 TVD	1777	SEPTEMBER 20, 1983 .099	1769	NOT USED IN CALCULATION		1536	1537
St. Manistee #2-2	2-79	--	3904 TVD	1830	SEPTEMBER 30, 1983 .188	1815	1858 11-20-82	-43	1536	
St. Manistee #1-2	2-79	--	3903 TVD	1741	JANUARY 6, 1984 .098	1733			1506	
St. Manistee #2-2	2-79	--	3904 TVD	1796	.188 AVG 1757	1781	1815 9-30-83	-58	1508	

FIELD NAME FILER 2A-21N-17W COUNTY MANISTEE TOWNSHIP MANISTEE FILER MANISTEE DATE OF TESTS 1891  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 6-79 VIRGIN PRESSURE 1891 NO. PRODUCING WELLS 1

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3219 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Manistee #3-2A	6-79	75 3	3824 TVD	1891	JUNE 7, 1979 .045	1891	INITIAL TEST		1649	671
St. Manistee #3-2A	6-79	NA	3819 TVD	1717	FEBRUARY 25, 1982 .032	1717	1891 6-7-79	-174	1515	917
St. Manistee #3-2A	6-79	NA	3819 TVD	1652	NOVEMBER 12, 1982 .029	1652	1717 2-25-82	-65	1460	1453
St. Manistee #3-2A	6-79	--	3905 TVD	1597	SEPTEMBER 30, 1983 .029	1595	1652 11-12-82	-57	1410	1400
St. Manistee #3-2A	6-79	--	3824 TVD	1583	JANUARY 3, 1984 .031	1583	1595 9-30-82	-12	1400	1406

FIELD NAME MANISTEE 4-21N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS 1925  
 PRODUCING FORMATION SALINA-NIAGARAN DISCOVERY DATE 2-79 VIRGIN PRESSURE 2212 NO. PRODUCING WELLS 1

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 5095 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Phoenix #1-4	2-79	69.6	5702	2212	FEBRUARY 27, 1979 .049	2212	INITIAL TEST			1925
Phoenix #1-4	2-79	2 da	5701	1303	JUNE 28, 1982 .04	1303	2212 2-27-79	-909		1147

FIELD NAME MANISTEE 1-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS 2218  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 4-1-73 VIRGIN PRESSURE 2218 NO. PRODUCING WELLS 1

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3652 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
GREVE #1-1	4-73	22	APRIL 2, 1973 4441	2211	.075	2211	INITIAL TEST			1887 Pkr
Pack Corp. Amer.	#1-6 8-73	21	DECEMBER 3, 1973 4626	2250	.280	2207	INITIAL TEST			
Greve #1-1	4-73	30	JANUARY 30, 1976 4401	2215	.075*	2218	INITIAL TEST			1871
Greve #1-1	4-73	19.54	MAY 17, 1976 4441	2218	.074	2218	INITIAL TEST			1888
Greve #1-1	4-73	24.3	APRIL 16, 1978 4441	2103	.075*	2103	2218 1-30-76	-115		
P.C.A. #1-6	8-73	21.2	MAY 31, 1979 4627	2090	30*	2044	2103 4-16-78	-59		1780
Manistee #4-1	6-83	160	JULY 26, 1983 4568 TVD	1877	.27	1843	2044 5-31-79	-201		1366
Manistee #5-6	7-83	42	AUGUST 15, 1983 4640	1931	.31	1871	1843 7-26-83	+28		1648

REMARKS: \* Assumed

STATE OF MICHIGAN

FIELD NAME MANISTEE 1A-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-75 VIRGIN PRESSURE 2239 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES		
						P.S.I. @ 3739 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG	
Schimke #2-1	7-75	113.5	4472	2196	JULY 14, 1975 .290	1975 2196				INITIAL TEST	1234	
Schimke #2-1	7-75	46.8	4454	2233	OCTOBER 23, 1975 .35	2239				INITIAL TEST FOLLOWING REWORK	1725	
Schimke #5-1	11-75	63.3	4459	2207	NOVEMBER 14, 1975 .501	2207				INITIAL TEST	1177	
Manthey #4-6	1-77	64.4	4534 TVD	2255	JANUARY 14, 1977 .30	2234				THIS WELL MAY IN RESERVOIR SEPARATE FROM THAT OF SCHIMKE #2-1 and SCHIMKE #3-1 WELLS.		
Schimke #2-1	7-75	46	4448	2154	APRIL 10 (#2-1) & 17 (#4-6), 1978 .29	2161					1807	200
Manthey #4-6	1-77	115	4535 TVD	2098	.22	2082	2239	10-23-75	- 118		1781	
					AVERAGE	2122						
Manthey #4-6	1-77	50	4534 TVD	2029	MARCH 30, 1979 .10	2020	2122	4-10-78	- 102		1737	
Schimke #2-1	7-75	29	4448	2096	JUNE 19, 1979 .16	2100				NOT USED IN CALCULATIONS	1780	
Manthey #4-6	1-77	24	4534 TVD	1887	APRIL 14, 1981 .04	1884	2020	6-19-79	- 136		1604	

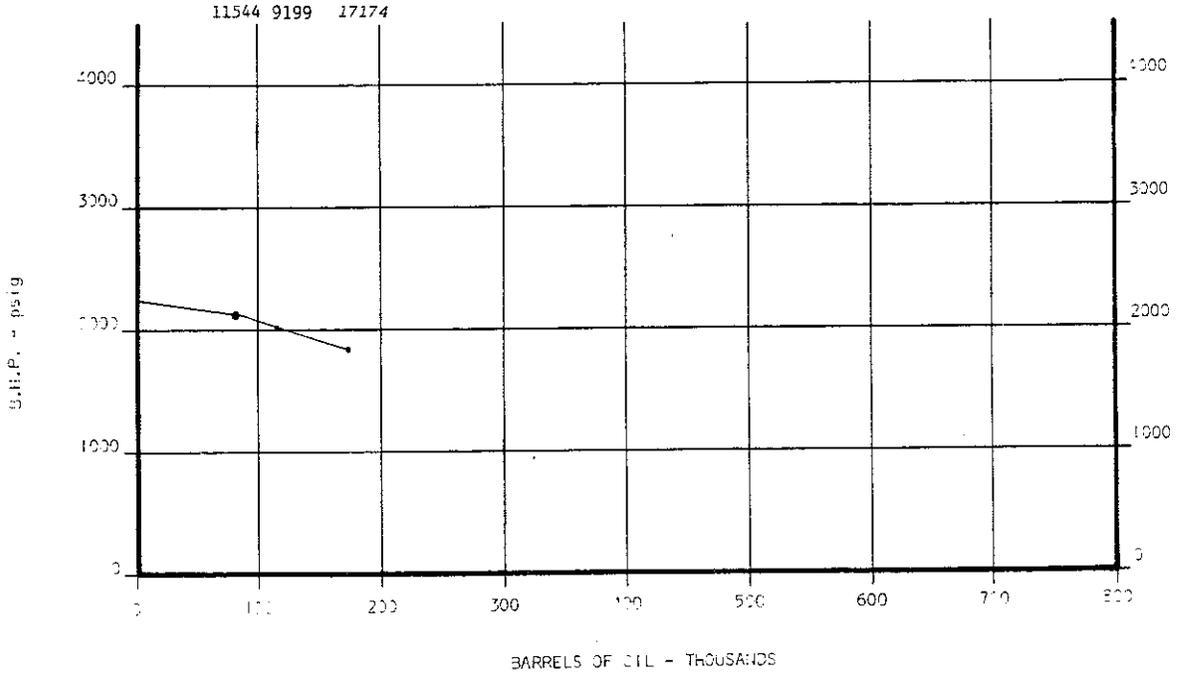
BOTTOM-HOLE PRESSURE TESTS - Page 2

FIELD NAME: MANISTEE 1A-22N-16W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES		
						P.S.I. @ 3739 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		TUB.	CSG	
Schimke #5-1	10-83	93+	4538 TVD	1571	OCTOBER 18, 1983 .20	1562	1884	4-14-81	-322		680	
Schimke #6-1	12-83	69	4474 TVD	1947	DECEMBER 5, 1983 .27	1944	1562	10-18-83	+382		750	

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MANISTEE 1a-22N-16W



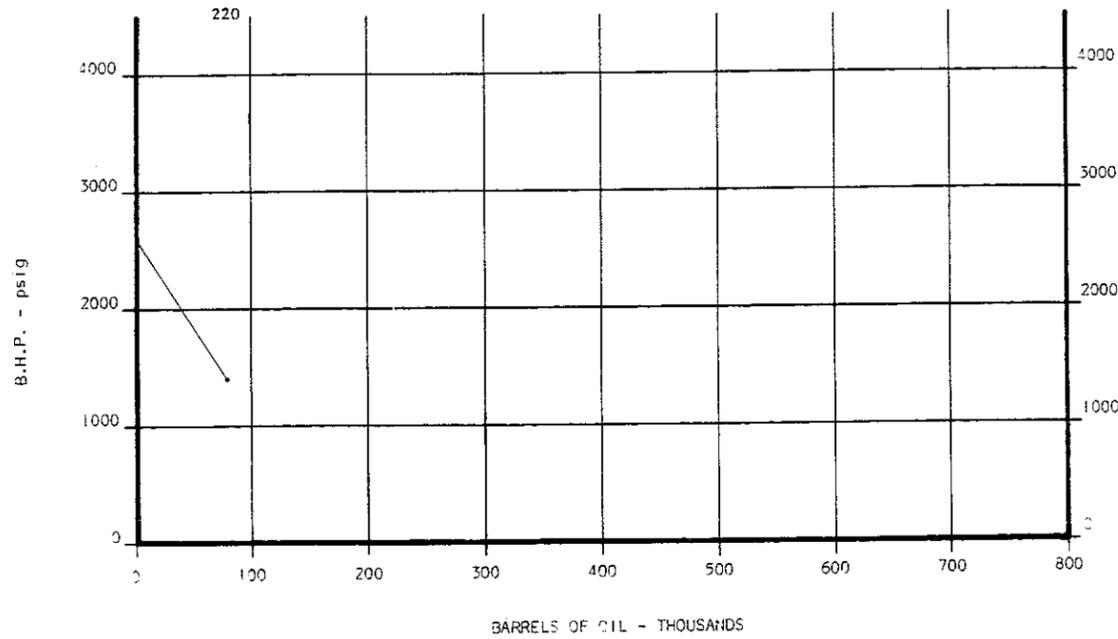
STATE OF MICHIGAN

WELL NAME MANISTEE 2-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-75 VIRGIN PRESSURE 2599 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHIFT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. CURRENT PRESS.	3495 FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG
Hadaway #2-2A	9-75	N.A.	4253	2599	<u>SEPTEMBER, 1975</u> .30	2599		INITIAL TEST			
Hadaway #2-2A	9-75	72	4253	1393	<u>MARCH 28, 1977</u> .325	1393	2599	9-75	- 1206	283	344

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

MANISTEE 2-22N-16W



FIELD NAME MANISTEE 2B-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-80 VIRGIN PRESSURE 2214 NO. PRODUCING WELLS \_\_\_\_\_

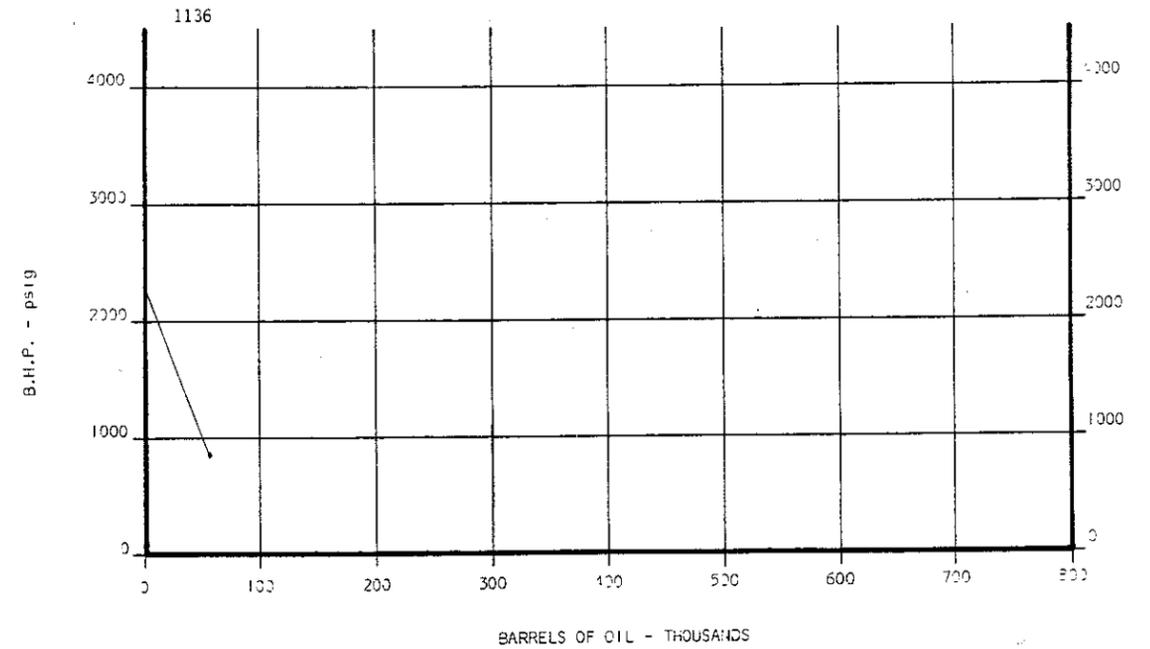
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3573 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Hadaway #5-2	9-80	336	4349	2214	SEPTEMBER 5, 1980 .333	2214	INITIAL TEST			1010	1427
Hadaway #5-2	9-80	62	4319	852	MAY 2, 1983 7031	853	2214	9-5-80	-1361	760	

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

MANISTEE 2B-22N-16W

FIELD NAME MANISTEE 2a-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-78 VIRGIN PRESSURE 2106 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3450 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Anderson 4-2	3-78	50	4180	2106	MARCH 9, 1978 .322	2106	INITIAL TEST			953	



FIELD NAME MANISTEE 2C-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 10-83 VIRGIN PRESSURE 2605 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3437	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Hadaway #1-2	10-83	40	4200	2605	OCTOBER 2, 1983 .315	2605	INITIAL TEST			1324
Hadaway #1-2	10-83	66	4200	2027	NOVEMBER 4, 1983 .330	2605	10-2-83	-578		915

FIELD NAME MANISTEE 36A-22N-17W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS  
 PRODUCING FORMATION SAL NIAG DISCOVERY DATE 3-80 VIRGIN PRESSURE 2158 NO. PRODUCING WELLS

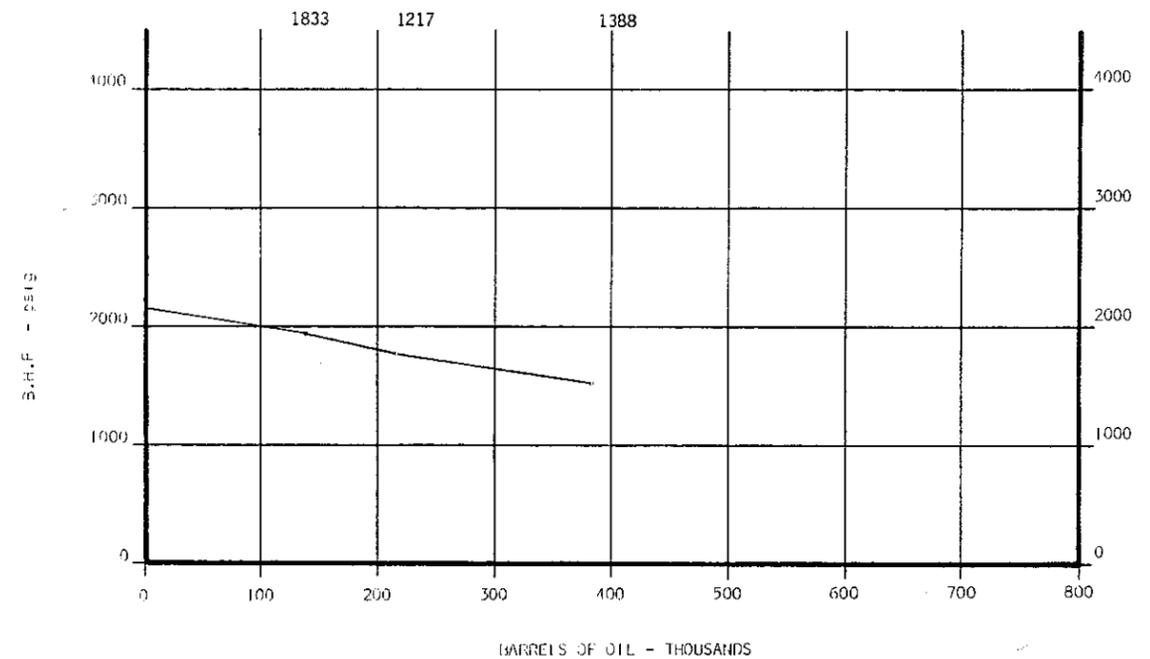
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3580	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Mar-Lawn Hts #3-36	3-80	22.8	4248TVD	2069	.311	2069	INITIAL TEST			997 1033
Fox Brown #2-36	4-80	36.5	3036TVD	2067	.292	2158	INITIAL TEST			937 1216
Fox Brown #2-36	4-80	24	3936TVD	1786	OCTOBER 19, 1981 .460	1930	2158	4-3-80	-228	562 1275
Gillespie #4-36	5-82	48	3900TVD	1669	JUNE 5, 1982 .331	1781	1930	10-19-81	-149	796 775
Fox Brown #2-36	4-80	76.5	3889TVD	1355	JULY 30-31, 1983 .40*	1499				349 1103
Gillespie #4-36	5-82	76.5	3876TVD	1428	.30*	1536				993 623
Mar-Lawn Hts #3-36	3-80	77.5	3885TVD	1443	.291	1549	1781	6-5-82	-253	1059 1244
					AVG	1528				

\* = Estimated

FIELD NAME MANISTEE 12-22N-16W COUNTY MANISTEE TOWNSHIP MANISTEE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-75 VIRGIN PRESSURE 2287 NO. PRODUCING WELLS

OPERATOR LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB.
						P.S.I. @ 3858	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
Hopwood #1-12	3-75	64.7	4709	2280	MARCH 10, 1975 .36	2280	INITIAL TEST			1067
Dascanio #2-7	7-76	60.5	4631	2275	JULY 24, 1976 .287	2287	INITIAL TEST			1046
Dascanio #2-7	7-76	25.5	4659	2075	MAY 16, 1978 .67	2084	2287	7-24-76	-203	862
Hopwood #1-12	3-75	68	4710	1803	FEBRUARY 3, 1979 .16	1803	2084	5-16-78	-281	1557
Hopwood #1-12	3-75	14.5	4709	1726	APRIL 24, 1980 .33	1726	NOT USED IN CALCULATIONS			1460
Harris-Rutherford #1-12	10-80	13	4683	1877	OCTOBER 4, 1980 .350	1876	NOT USED IN CALCULATIONS			642 1414
Harris-Rutherford #1-12	10-80	22.8	4683	1762	OCTOBER 17, 1981 .508	1761	1803	2-3-79	-42	717 1538
Dascanio #2-7	7-76	26	4559	1091	DECEMBER 12, 1983 .05	1096	1761	10-17-81	-665	917

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 MANISTEE 36A-22N-17W



FIELD NAME MAPLE GROVE 1-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-74 VIRGIN PRESSURE 2723 NO PRODUCING WELLS

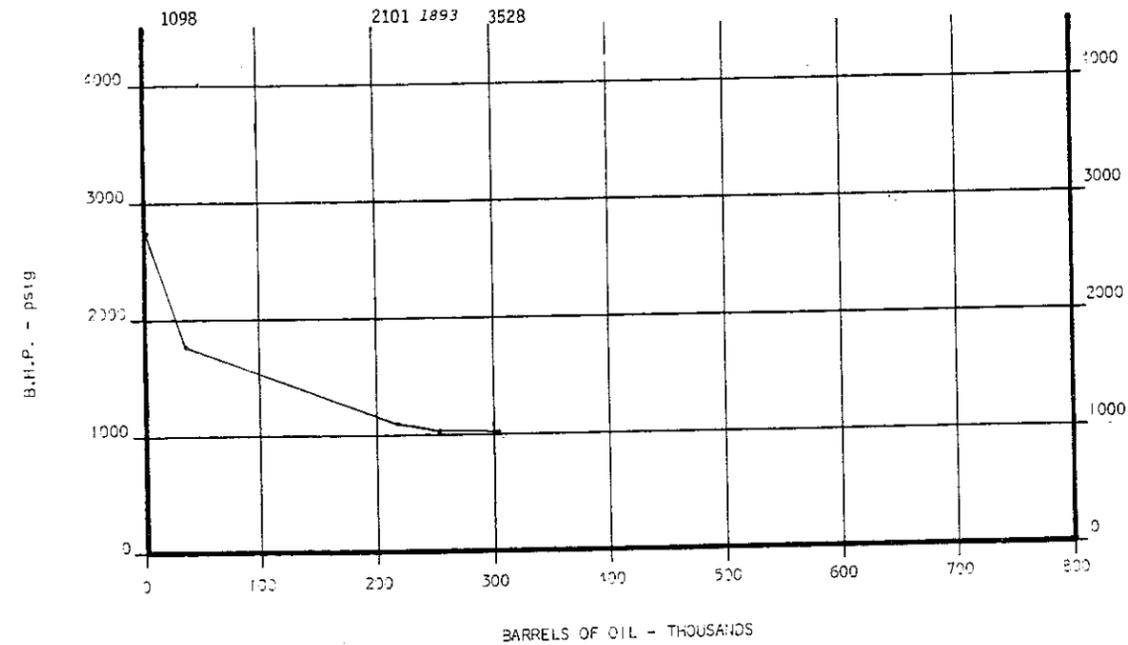
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4682 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Maple Grove 1-1 8-74		227.5	5485	2723						
					AUGUST 30, 1974 .300	2723	INITIAL TEST			
St. Maple Grove 1-1 8-74		42	5485	2384	MAY 24, 1976 .30	2380	2723	8-30-74	- 343	1139
St. Maple Grove 1-1 8-74		76	5485	1768	OCTOBER 29, 1976 .04	1767	2380	5-24-76	- 613	1477
St. Maple Grove 1-1 8-74		69	5485	1100	OCTOBER 27, 1980 .06	1099	1767	10-29-76	- 668	935
St. Maple Grove 1-1 8-74		72	5485	1062	NOVEMBER 5, 1981 .05	1061	1099	10-27-80	- 38	893
St. Maple Grove #1-1 8-74		27	5485	1015	DECEMBER 15, 1983 02	1015	1061	11-5-81	-46	866

FIELD NAME MAPLE GROVE 1A-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 10-81 VIRGIN PRESSURE 2426 NO. PRODUCING WELLS

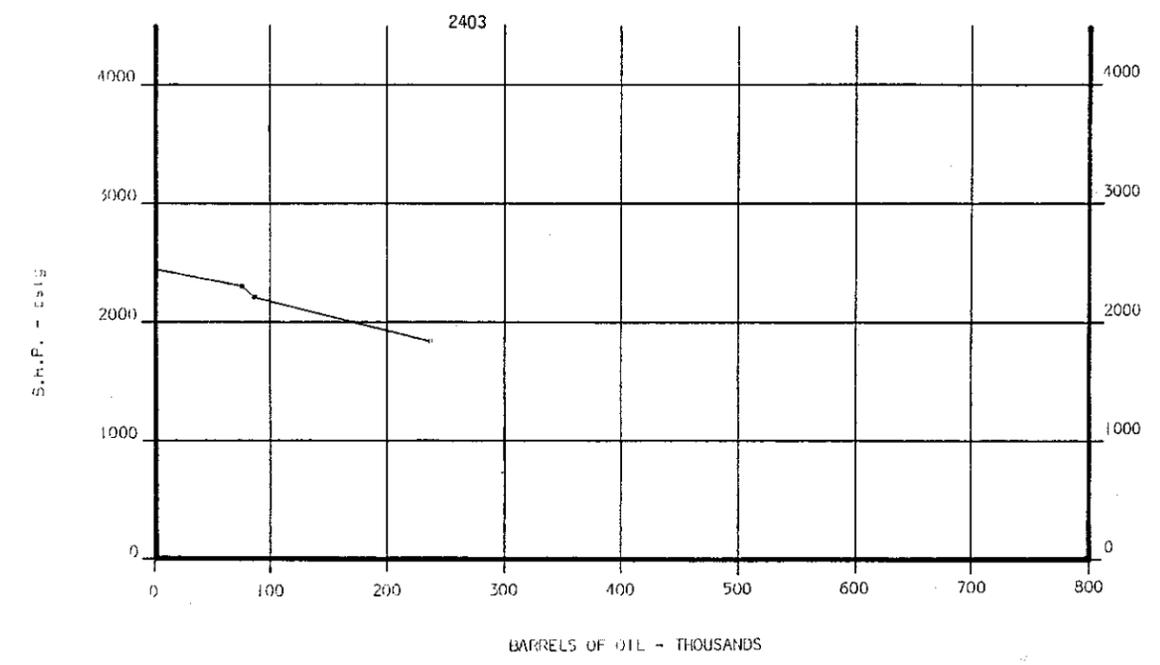
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4736 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Maple Grove #3-1	10-81	16	5539	2426	OCTOBER 26, 1981 .343	2426	INITIAL TEST			1113	1113
Maple Grove #3-1	10-81	19	5774	2327	DECEMBER 12, 1981 .277	2262	NOT USED	IN CALCULATIONS		1160	1225
Maple Grove #3-1A	12-82	84	5442 TVD	2282	DECEMBER 20, 1982 .30*	2311	2426	10-26-81	-115	1168	
Maple Grove #4-1	2-83	36	5445 TVD	2183	MARCH 4, 1983 .31	2212	2311	12-20-82	-99	887	
Maple Grove #3-1A	12-82	216	5442 TVD	1819	NOVEMBER 28, 1983 .28	1842	2212	3-4-83	-370	1490	

\* = Assumed

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 Maple Grove 1-23N-14W



BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 MAPLE GROVE 1A-23N-14W



FIELD NAME MAPLE GROVE 2-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-16-73 VIRGIN PRESSURE 2709 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4199 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Wuori #1-2	2-73	24 +	4993	2709	.090	2709	Initial Test			2235
Wuori #1-2	2-73	23.6	5081	1628	.090*	1636	NOT USED IN CALCULATIONS One point back - pressure test data			1287
Wuori #1-2	2-73	15 Days	5081	1828	.060	1823	2709	2-16-75	- 886	1538
Wuori #1-2	2-73	17 Days	5018	1640	.051	1639	1823	4-14-76	- 184	1380
Wuori #1-2	2-73	110	5081	1654	.12	1643	1639	12-12-77	+ 4	1383

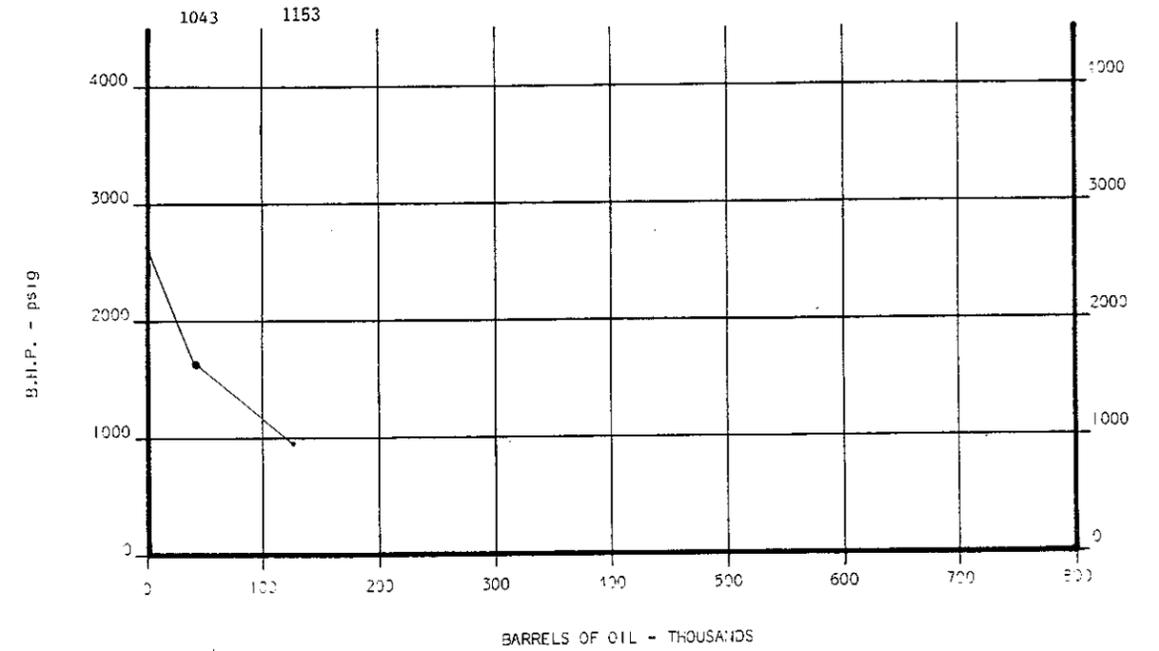
REMARKS: \* Assumed

STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 3-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-76 VIRGIN PRESSURE 2570 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4071 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
State Maple Grove #1-3 9-76	205	4851	2570	30	2570	INITIAL PRESSURE				1150
St. Maple Grove #1-3 9-76	94	4852	1634	32	1634	2750	9-17-76	- 1116		242
St. Maple Grove #1-3 9-76	71	4852	911	30	906	1634	9-25-77	- 728		705

BOTTOM-HOLE PRESSURE DROP VERSUS RESEPOIR CUMULATIVE OIL PRODUCTION  
 MAPLE GROVE 3-23N-14W



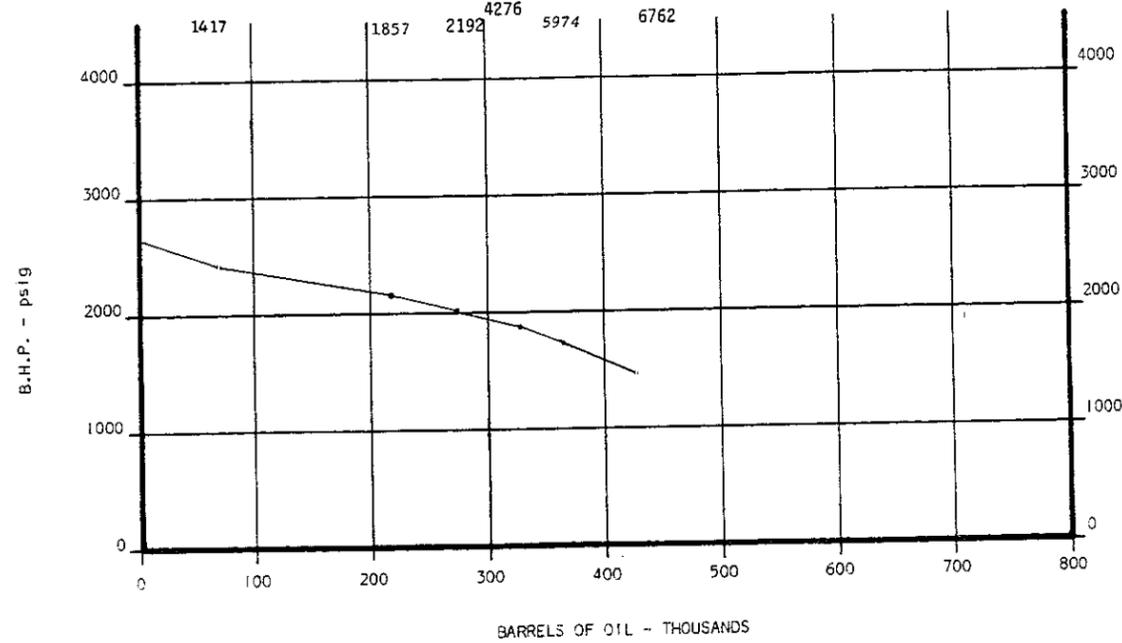
STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 4-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-75 VIRGIN PRESSURE 2650 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4138 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
State Maple Grove #1-4 6-75	42.4	4908	2650	.320	2650	INITIAL TEST				1390
State Maple Grove #1-4 6-75	47	4908	2434	.30	2432	2650	6-6-75	- 218		1668
St. Maple Grove #1-4 6-75	25	4908	2157	.28	2157	2432	10-26-76	- 275		1651
St. Maple Grove #1-14 6-75	24	4908	2016	.27	2016	2157	4-19-78	- 141		1630
St. Maple Grove 1-4 6-75	28.5	4908	1877	.11	1877	2016	4-14-79	- 139		1579
St. Maple Grove 1-4 7-81	60.5	5028	1754		1722	1877	4-24-80	- 155		193
St. Maple Grove #1-4 7-81	219	4927	1459	.05	1458	1722	7-13-81	-264		1234

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

MAPLE GROVE 4-23N-14W



FIELD NAME MAPLE GROVE 6-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-13-73 VIRGIN PRESSURE 2425 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3766 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Girven #1-6	6-73	28	JULY 5, 1973 4517	2411	.320	2411			INITIAL TEST		
Wendholm-McCague #1-31	6-74	64	JUNE 29, 1974 4533	2427	.310	2425			INITIAL TEST		
Pack. Corp. #1-31	10-74	23	OCTOBER 22, 1974 4520	2339	.319	2338			INITIAL TEST		
Sherrill #3-31	9-75	66.9	SEPTEMBER 22, 1975 4519	2416	.320	2415			INITIAL TEST		1082
Pack. Corp. #1-31	10-74	24	APRIL 16, 1976 4400	1889	.306	1928	2425	6-29-74	- 497	516	1522
Sherrill #3-31	9-75	66.2	MAY 10, 1976 4506	1921	.56	1928	1928	4-16-76	+ 0	515	
Pack. Corp. #1-31	10-74	31.5	OCTOBER 27, 1976 4519	1797	.294	1796	1928	5-10-76	- 132	712	
Pack. Corp. #1-31	10-74	26	APRIL 25, 1977 4519	1679	.324	1678	1796	10-27-76	- 118	651	Pkr.

REMARKS:

STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 5-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-75 VIRGIN PRESSURE 2743 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3897 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Mannila-Martella #1-5	8-75	17.5	AUGUST 7, 1975 4660	2743	.3982	2743			INITIAL TEST		890

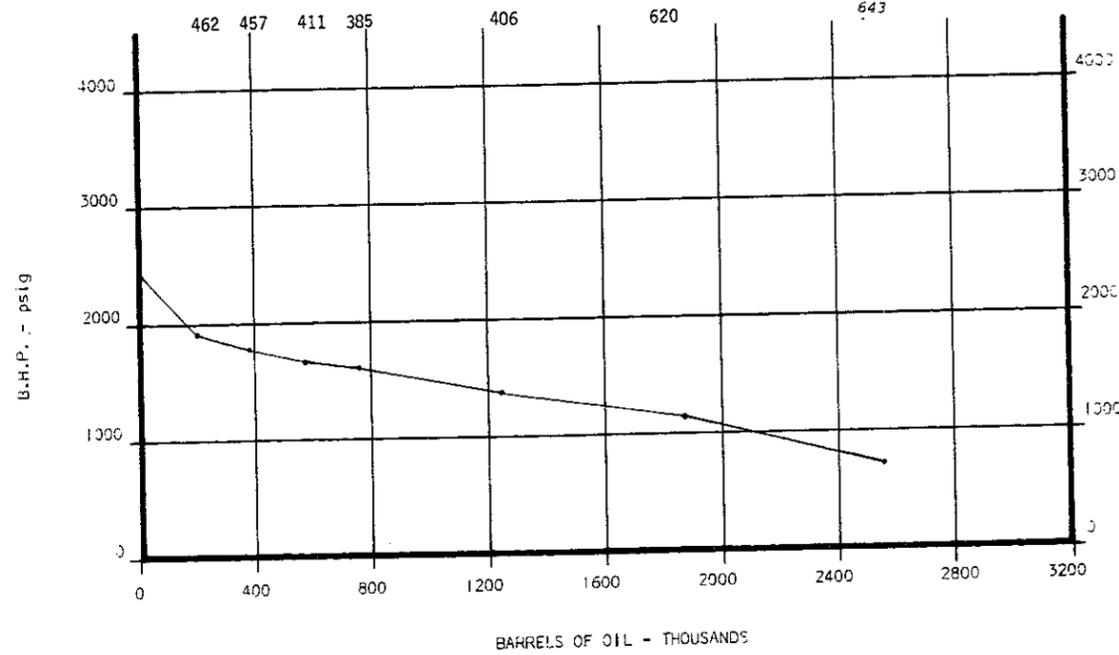
BOTTOM-HOLE PRESSURE TESTS - Page 2

MAPLE GROVE 6-23N-14W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3766 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Girven #1-6	6-73	64	JULY 29, 1977 4528	1643	.310	1644	1678	4-25-77	- 34	490	
Hayes #2-1	10-77	111.5	OCTOBER 18, 1977 4552	1606	.29	1605	1644	7-29-77	- 39		
P.C.A. #1-31	10-74	87	SEPTEMBER 22, 1978 4519	1433	.328	1435	1605	10-18-77	- 170	27	Pkr.
Johnson Bond #2-31	10-78	21	OCTOBER 26, 1978 4509	1378	.350	1382	1435	9-22-78	- 53	354	750
Hayes #2-1	10-77	32	JUNE 19, 1979 4552	1287	.31	1286	1382	10-26-78	- 96	390	
PCA #1-31	10-74	28	OCTOBER 3, 1979 4519	1203	.037	1203	1286	6-19-79	- 83	1050	Pkr.
Johnson #3-31	10-79	11.5	OCTOBER 30, 1979 4484	1198	.326	1212	NOT USED	IN CALCULATIONS		721	0
Girven #1-6	6-73	72	NOVEMBER 6, 1979 4527	1172	.30	1173	1203	10-3-79	- 30	1012	
Girven #1-6	6-73	65.4	FEBRUARY 11, 1980 4528	1146	.26	1147	1173	11-6-79	- 26	640	
PCA-Piesczak #1-31	10-74	22.5	OCTOBER 22, 1981 4518	704	.027	704	1147	2-11-80	- 443	616	

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MAPLE GROVE 6-23N-14W



STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 6a-23N-14W COUNTY MANISIEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 6-74 VIRGIN PRESSURE 2702 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3771 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Bond #2-6	6-74	65	JUNE 21, 1974 4532	2702	320	2702	Initial Test				

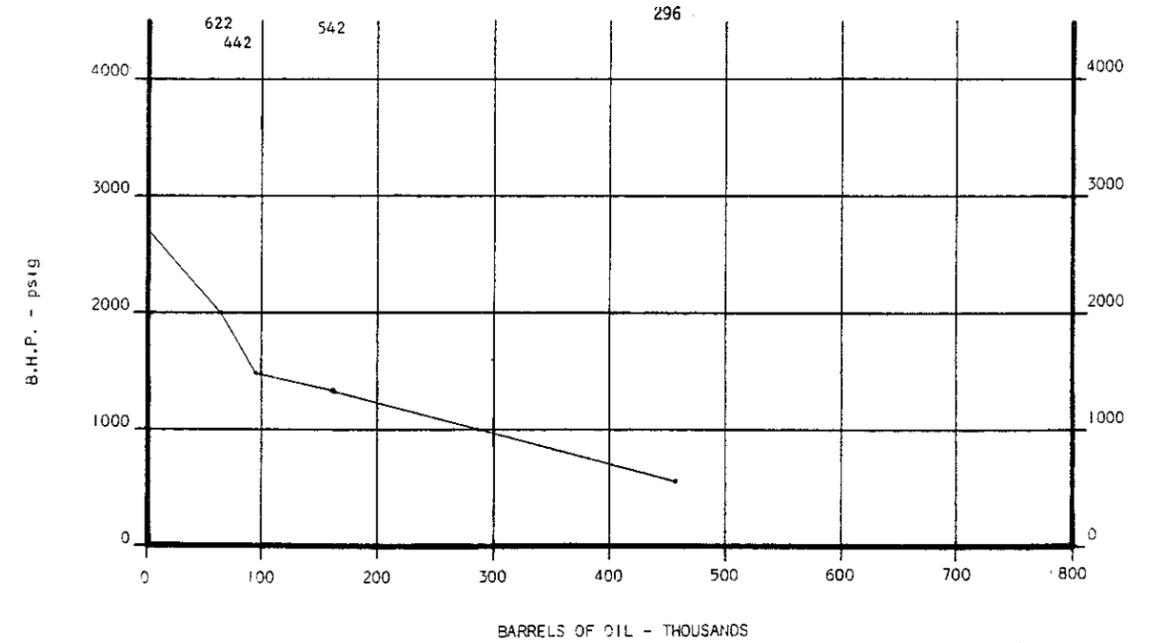
REMARKS:

FIELD NAME MAPLE GROVE 7-23N-14W COUNTY MANISIEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 9-74 VIRGIN PRESSURE 2696 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3742 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Myers #1-7	9-74	112	SEPT 13, 1974 4509 TVD	2696	320	2696	Initial Test				
Love11 #1-12	10-76	72	OCT 23, 1976 4500	2006	32	2009	2696	9-13-74	- 687	977	981
Vredenburg #1	8-75	28.5	APR 11, 1977 4540	1491	313	1481	2009	10-23-76	- 528	568	Pkr
Love11 #1-12	10-76	26	SEPT 27, 1977 4500	1313	333	1315	1481	4-11-77	- 166	668	700
Love11 #2-12	11-82	--	NOV 9, 1982 4436	550	571	591	1315	9-27-77	-724	0	100

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MAPLE GROVE 7-23N-14W



STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 8-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-74 VIRGIN PRESSURE 2602 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4145 FEET	PREVIOUS PRESS	DATE OF PREV PRESSURE		TUB.	CSG
Ledford #1-8	12-74	42.5	4918	2594	DECEMBER 15, 1974 .240	2594					
State Maple Grove #2-9	3-75	62.5	4935	2607	MARCH 18, 1975 .30	2602					1342
State Maple Grove #2-8	12-75	48	4933	2543	DECEMBER 12, 1975 .30*	2539	2602	3-18-75	- 63		1251
Ledford #1-8	12-74	24	4918	2450	APRIL 6, 1976 .27	2446	2539	12-12-75	- 93		1263 Pkr.
Ledford #1-8	12-74	25	4918	2294	MAY 10, 1977 .33	2294	2446	4-6-76	- 152		1089
St. Maple Grove #2-8	12-75	27	4933	2189	APRIL 20, 1978 .32	2185	2294	5-10-77	- 109		1005
St Maple Grove #4-8	3-79	66.1	4937	2074	MARCH 5, 1979 .28	2069	2185	4-20-78	- 116		943
St. Maple Grove #4-8	3-79	52	4937	1919	APRIL 24, 1980 .31	1913	2069	4-5-79	- 156		839
* Assumed											

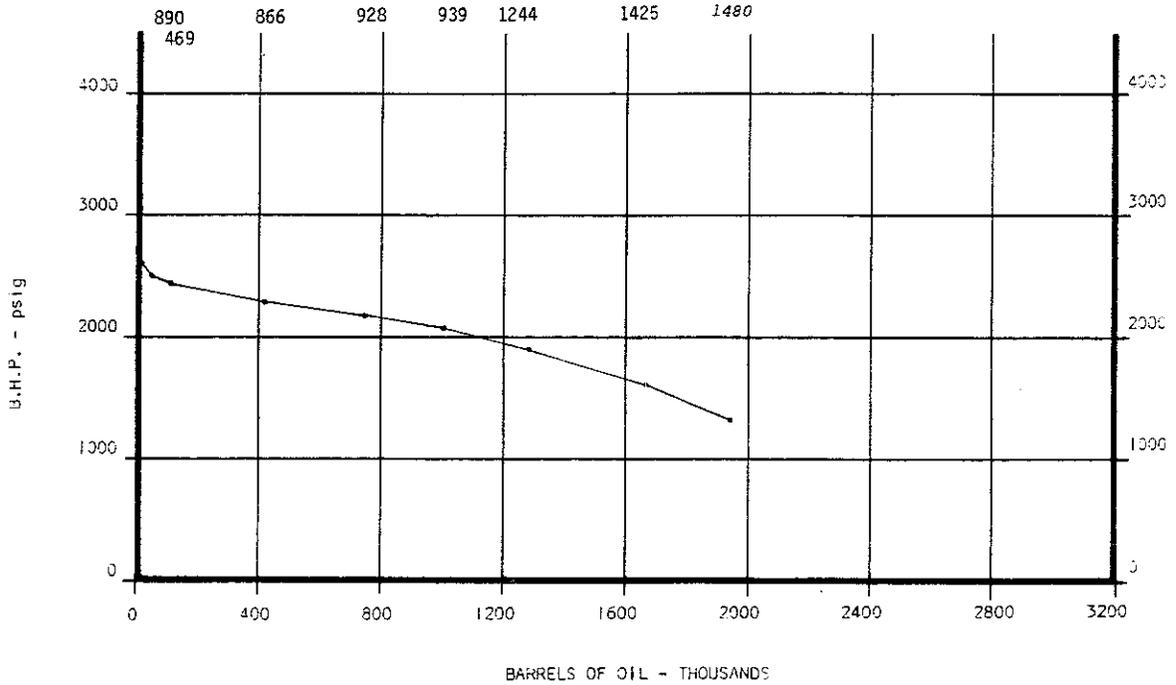
BOTTOM-HOLE PRESSURE TESTS - Page 2

MAPLE GROVE 8-23N-14W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4145 FEET	PREVIOUS PRESS	DATE OF PREV PRESSURE		TUB.	CSG.
Jouppi #1-9	9-80	69.5	4923	1610	OCTOBER 9, 1980 .30	1609	1913	4-24-80	- 304		720 1277
St. Maple Grove #4-9A	9-81	120	4897 TVD	1308	SEPTEMBER 8, 1981 .30	1315	1609	10-9-80	- 294		408

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MAPLE GROVE 8-23N-14W



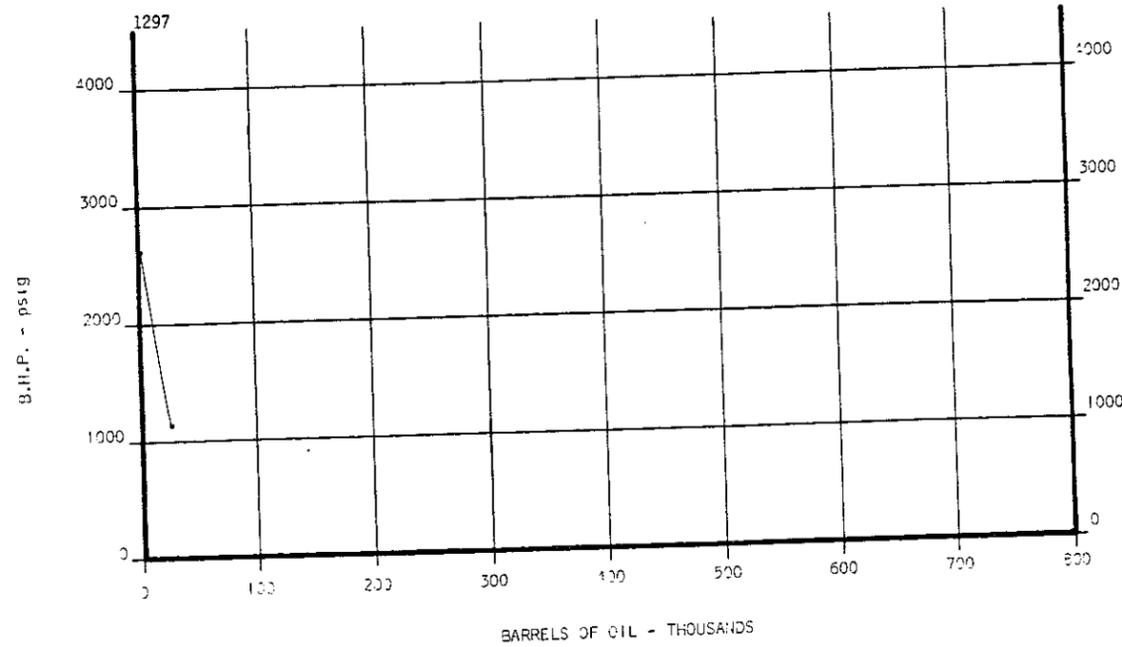
STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 9-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-73 VIRGIN PRESSURE 2600\* NO. PRODUCING WELLS \_\_\_\_\_

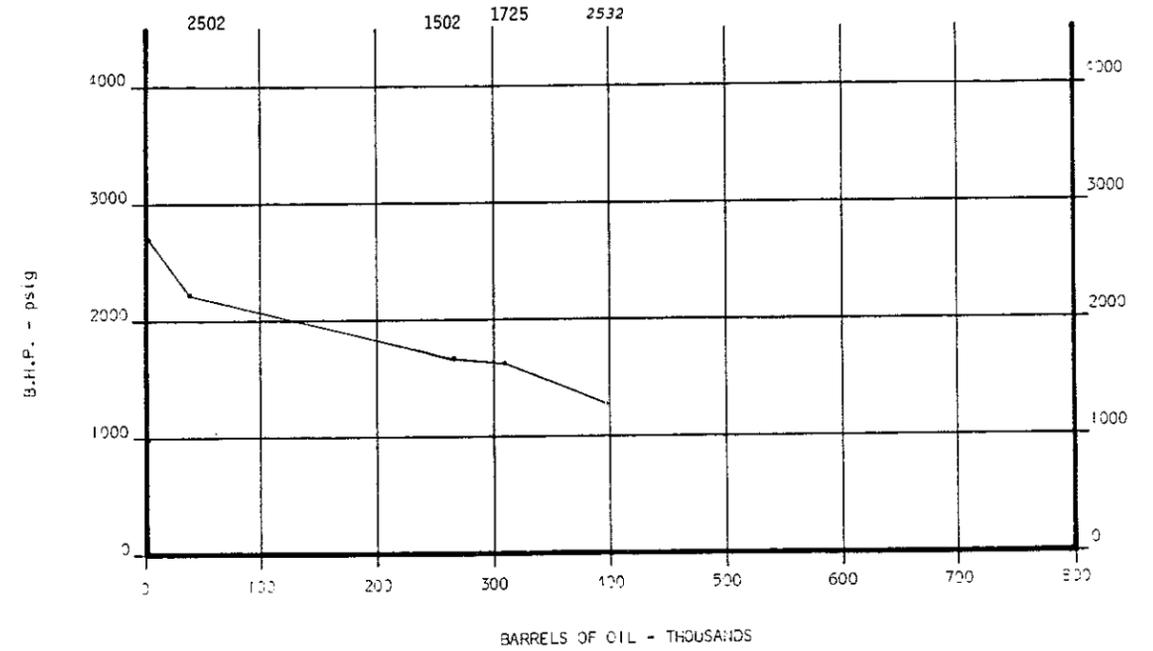
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4224 FEET	PREVIOUS PRESS	DATE OF PREV PRESSURE		
Pahkanen Lowds 1-9	7-73	N.A.	4995	2409	MARCH 19, 1976 N.A.	2600*	7-73	- 191		
Cumulative production through this test: 91 MMcf gas, 3.2 M Bbls. condensate.										
Pahkanen Lowds 1-9	7-73	96	4848	1542	SEPTEMBER 21, 1977 .048	1549	2409	3-19-76	- 860	1320
Pahkanen Lowds 1-9	7-73	56	4815	1130	JUNE 20, 1979 .034	1136	1549	9-21-77	- 413	965
Harju #5-17	12-79	66.9	4993	1186	DECEMBER 7, 1979 .46	1186	NOT USED IN CALCULATIONS			

\*Estimated

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
Maple Grove 9-23N-14W



BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MAPLE GROVE 10-23N-14W



STATE OF MICHIGAN

STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 10-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-10-73 VIRGIN PRESSURE 2700\*\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4320 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Smith Siivon 1-10	6-73	41	5092	2449	JUNE 27, 1973 .100	2449		INITIAL TEST*		2054
Smith Siivon 1-10	6-73	68	5092	2509	JULY 13, 1973 .070	2509*		INITIAL TEST*		2093
Smith #1-11A	9-77	90	5096 TVD	2264	SEPTEMBER 12, 1977 .26	2267	2700	6-27-73	-433	1017
Smith #1-11A	9-77	51.5	5006 TVD	2224	OCTOBER 10, 1978 .33	2252	2267	9-12-77	- 15	1735
Smith #2-2	1-79	65.1	5148	2313	JANUARY 15, 1979 .30	2300		NOT USED IN CALCULATIONS		1102
Smith #1-11A	9-77	194	5020 TVD	1650	APRIL 29, 1980 .11	1659	2252	10-10-78	- 593	1387
Smith #4-10B	8-80	188	5140 TVD	1642	AUGUST 22, 1980 .35	1629	1659	4-29-80	- 30	556
Smith #4-10B	8-80	72	5303 TVD	1356	MAY 4, 1981 .33	1290	1629	8-22-80	- 339	405

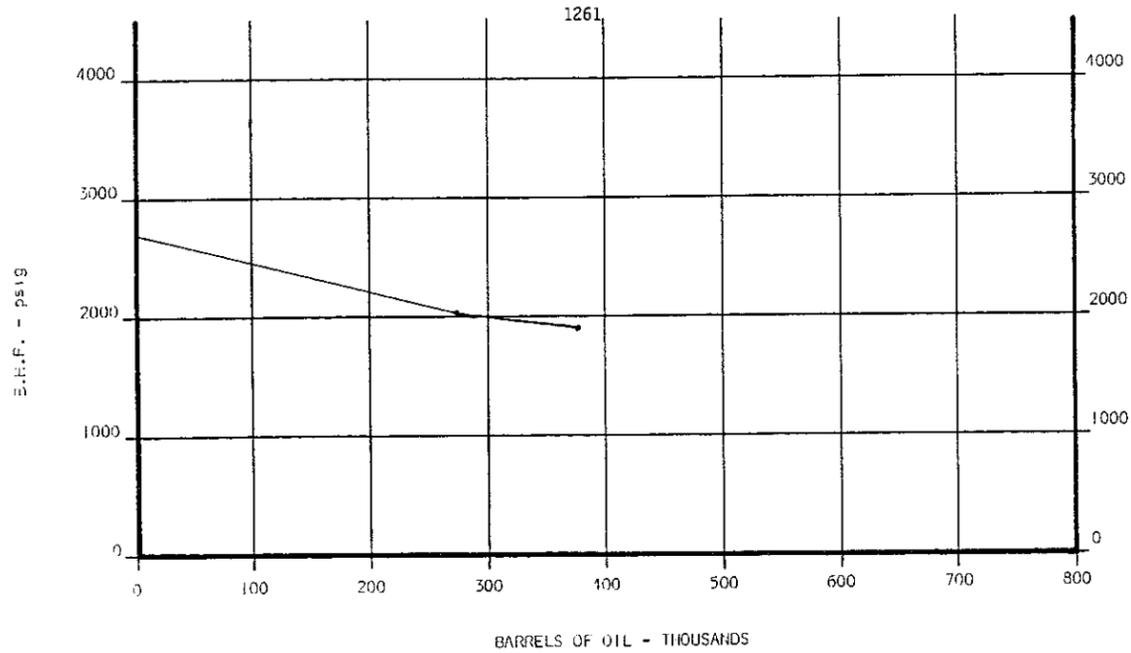
\* Not Built-up  
\*\*Estimated

FIELD NAME MAPLE GROVE 10A-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-74 VIRGIN PRESSURE 2706 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4320 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Salo Smith #2-10	6-74	64	5074	2708	JULY 2, 1974 .300	2706		INITIAL TEST		1389
Salo-Smith #2-10	6-74	73	5074	626	SEPTEMBER 29, 1977 .04	627		NOT USED IN CALCULATION		539
Hill #1-10	5-82	--	5204	2048	MAY 21, 1982 .317	2015	2706	7-2-74	-691	1507 1512
Hill #1-10	5-82	20	5204	1244**	DECEMBER 9, 1982 .327	1210		NOT USED IN CALCULATIONS		838 875
Schrader #1-10	9-83	17	5153	1923	OCTOBER 5, 1983 .314	1905	2015	5-21-82	-110	697

\*\* = Incomplete Pressure Buildup

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MAPLE GROVE 10A-23N-14W



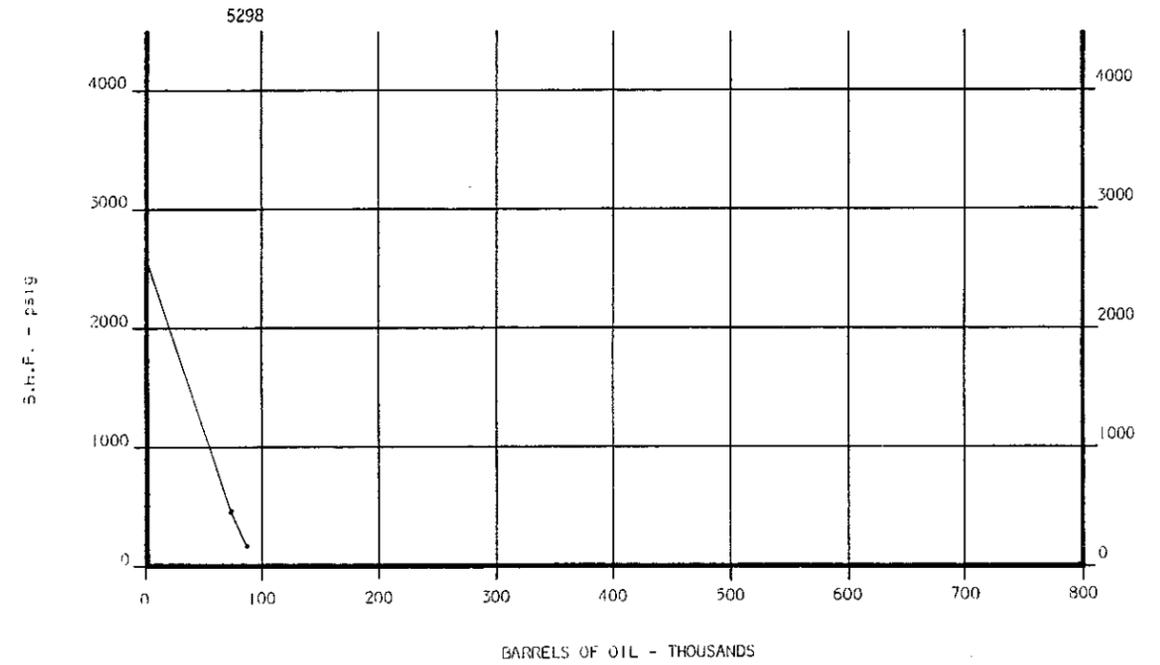
STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 10B-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-80 VIRGIN PRESSURE 2496 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4375 FEET	DATE OF PREV. PRESSURE	PREVIOUS PRESS		DATE OF PREV. PRESSURE	TUB. CSG.
St. Maple Grove 1-10	6-80	N.A.	5145	2496	SEPT. 3, 1980 .317	2496	INITIAL TEST		1233	1581	
PCA #5-10	6-81	24	5229	1270*	JUNE 26, 1981 .402	1238	NOT USED IN CALCULATIONS		746	560	
St. Maple Grove #1-10	6-80	72	5145	416	OCTOBER 4, 1982 .021	416	2496	9-3-80	-2080	359 364	
St. Maple Grove #1-10	6-80	29	5145	130	DECEMBER 8, 1983 .186	130	416	10-4-82	-286	87	

\* = Incomplete pressure build-up

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MAPLE GROVE 10B-23N-14W



STATE OF MICHIGAN

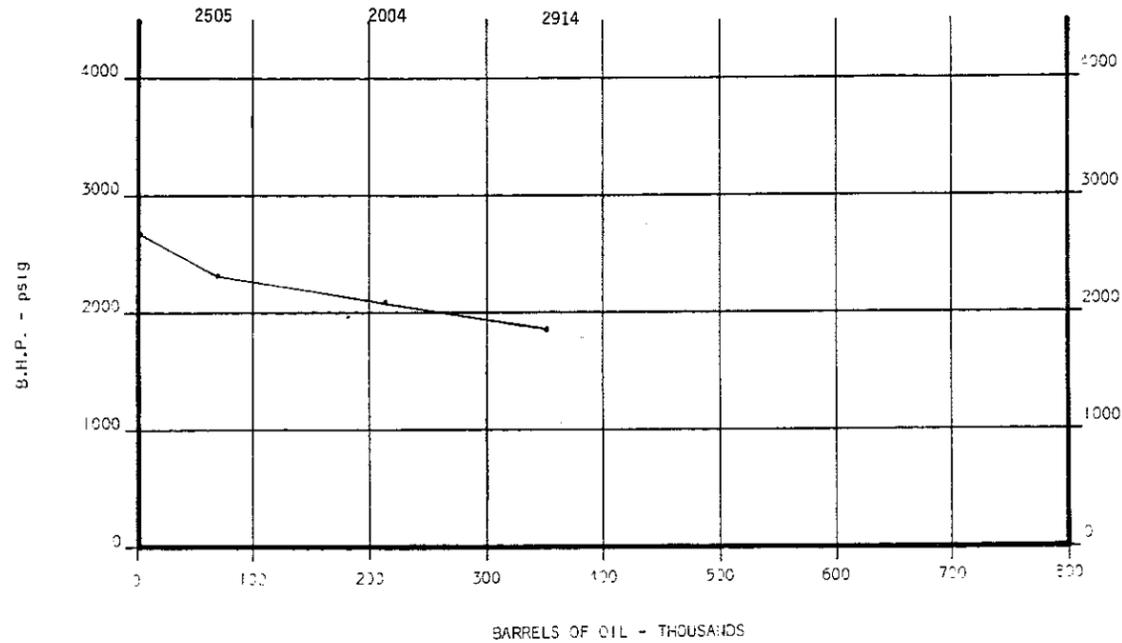
FIELD NAME MAPLE GROVE 12-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-77 VIRGIN PRESSURE 2695\* NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 4682 FEET	DATE OF PREV. PRESSURE	PREVIOUS PRESS		DATE OF PREV. PRESSURE	TUB. CSG.
Tuisku #1-12	7-77	112	5479TVD	2620	AUGUST 8, 1977 .30*	2621	INITIAL TEST		1233	1581	
Incomplete pressure buildup, pressure buildup rate of 36 psig/day in last 24 hours of test. Estimated Initial Pressure of 2695.											
It can be speculated that this well is in weak pressure communication with the State Maple Grove #1-1. However, the clear pressure differences between the Tuisku #1-12 and State Maple Grove #1-1 would seem to indicate reservoir separation.											
Tuisku #1-12	7-77	67	5443TVD	2304	OCTOBER 10, 1978 .16	2308	2695	8-77	-387	1476	
Tuisku #1-12	7-77	75.5	5443TVD	2348	MAY 4, 1979 .25	2354	NOT USED IN CALCULATIONS			1365	
Tuisku #1-12	7-77	67.5	5443TVD	2074	OCTOBER 27, 1980 .23	2080	2308	10-10-78	-228	979	
Tuisku #1-12	7-77	30	5456 TVD	1879	NOVEMBER 9, 1982 .23	1885	2080	10-27-80	-195	1544	

\*Estimated

FIELD NAME: MAPLE GROVE 16-23N-14W

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
Maple Grove 12-23N-14W



STATE OF MICHIGAN

FIELD NAME MAPLE GROVE 16-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TEST \_\_\_\_\_  
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 2-73 VIRGIN PRESSURE 2708 NO. PRODUCING WELLS \_\_\_\_\_

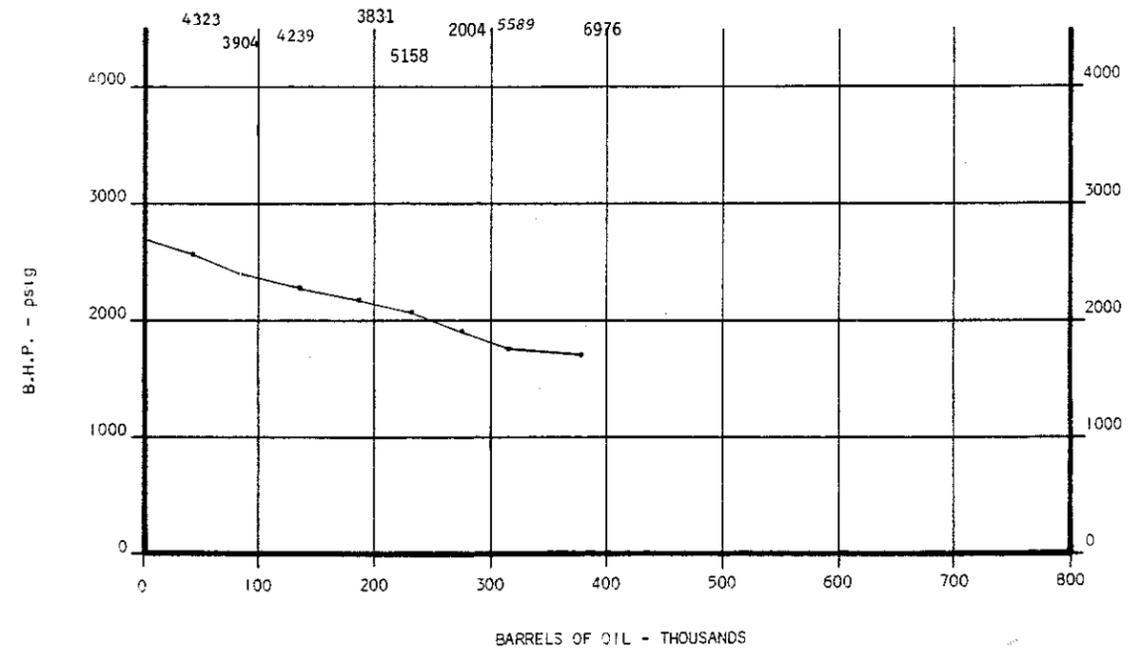
OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4302 FEET	CURRENT PRESS.	PREVIOUS PRESS.		
Johnson #1-16	2-73	16.5	5064	2708	.265	2708	Initial test			
Schmidt #2-16	6-74	367	5066	2679	.290	2678	2708	4-19-73	- 30	
Johnson #1-16	2-73	68.5	5064	2576	.26	2576	2678	6-13-74	- 102	1751
Johnson #1-16	2-73	94	5064	2402	.27	2398	2576	2-2-76	- 173	1785
Johnson #1-16	2-73	48.5	5064	2272	.07	2271	2398	10-27-76	- 127	1869
Johnson #1-16	2-73	29.5	5064	2199	.17	2197	2271	9-26-77	- 74	1770
Johnson #1-16	2-73	24.5	5064	2085	.23	2082	2197	10-10-78	-115	1704
Johnson #1-16	2-73	67	5084	1925	.12	1921	2082	9-25-79	-161	1583

REMARKS:

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERNAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4302 FEET	CURRENT PRESS.	PREVIOUS PRESS.		
Johnson #1-16	2-73	48	5105	1771	NOVEMBER 4, 1981 .058	1768	1921	10-27-80	- 153	1502
Johnson #1-16	2-73	288	5105	1730	NOVEMBER 21, 1983 .11	1724	1768	11-4-81	-44	

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
MAPLE GROVE 16-23N-14W



FIELD NAME MAPLE GROVE 17-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 6-74 VIRGIN PRESSURE 2542 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3924 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Darrow-Zaschak #1-17	6-74	15	4688	2542	.096	2542		Initial Test			2090
Hilliard #2-17	12-75	65.7	4895	2588	.282	2528		INITIAL TEST			1320
Darrow-Zaschak #1-17	6-74	96	4688	2501	.30	2501					2055
Hilliard #2-17	12-75	Since Completion	4895	2567	.29	2507	2542	10-20-74	- 38		1281
Darrow #1-17	6-74	288	4688	2418	.098	2418					1985
Hilliard #2-17	12-75	Since Completion	4895	2555	.282	2495	2504	4-26-76	- 47		1270
Hilliard #2-17	12-75	Since Completion	4895	2558	.29	2498		NOT USED IN CALCULATIONS			1250

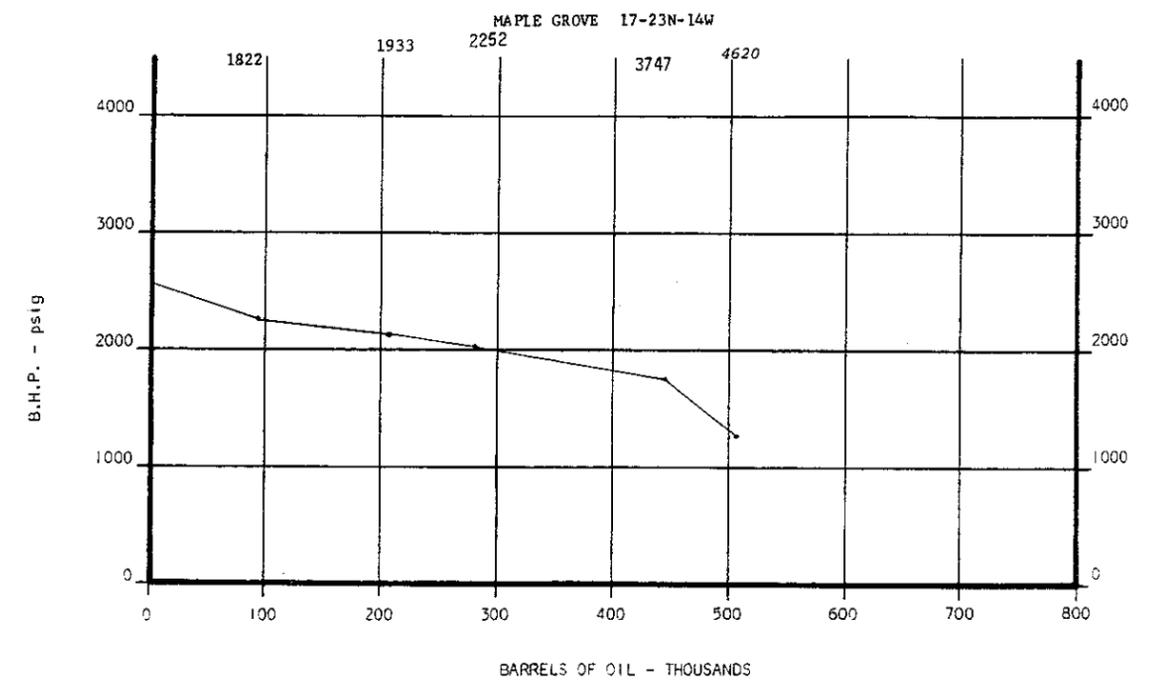
REMARKS:

MAPLE GROVE 17-23N-14W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3924 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Darrow-Zaschak #1-17	6-74	312	4685	2354	.089	2353					1938
Hilliard #2-17	12-75	72	4895	2249	.22	2199	2457	5-28-76	- 181		1174
Hilliard #2-17	12-75	44	4895	2308	.28	2249		APRIL 5, 1977 (#2-17); APRIL 6, 1977 (#1-17)			1078
Darrow Zaschak #1-17	6-74	504	4688	2279	.28	2279	2276	9-2-76	- 12		
Zaschak #4-17	4-78	133.3	4813	2125	.297	2089		NOT USED IN CALCULATIONS			792
Hilliard #2-17	12-75	26.5	4895	2159	.14	2129					
Darrow Zaschak #1-17	6-74	1440	4688	2113	.11	2113	2264	4-5-77	- 143		1863
Hilliard #2-17	12-75	63	4895	2059	.14	2027	2121	4-17-78	- 94		1721
Hilliard #2-17	12-75	49	4895	1844	.29	1778	2027	3-22-79	- 249		1531
Zaschak #4-17	3-78	216	4913	1271	.02	1267	1778	10-27-80	- 511		1094

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION



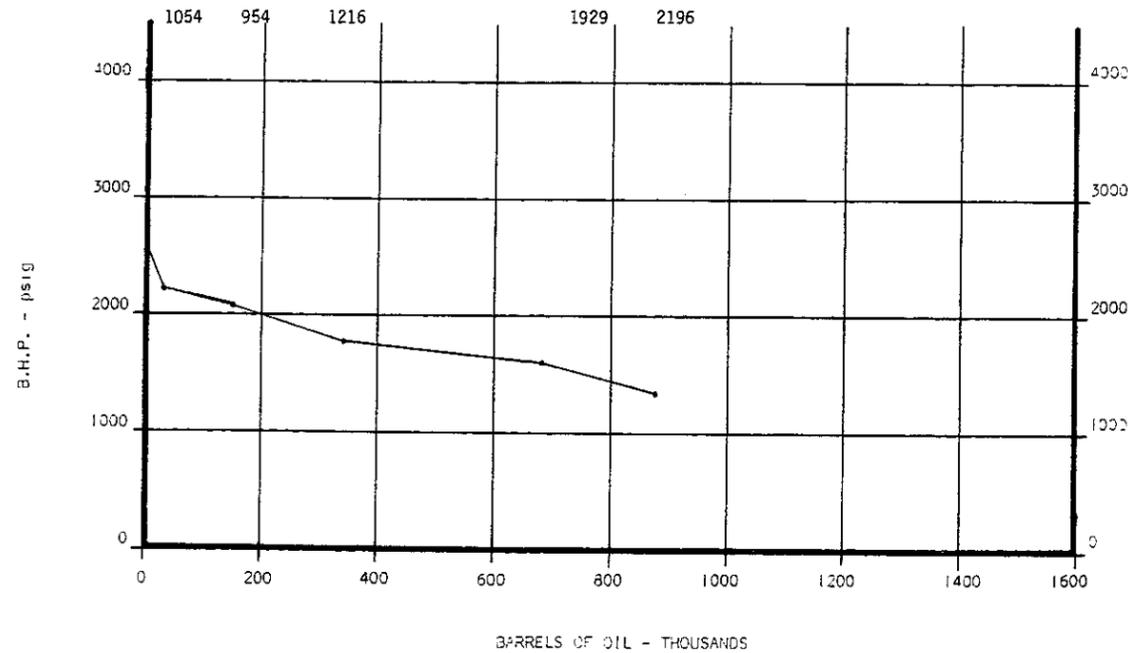
FIELD NAME MAPLE GROVE 17a-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-77 VIRGIN PRESSURE 2535\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3924 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Jouppi #3-17	12-77	45.2	4764	2314	.289	2293	2535*	Unknown	- 242		1136
Jouppi #3-17	12-77	39	4764	2290	.285	2269	2293	12-5-77	- 24		997
Vagi #3-8	7-78	64.7	4934 TVD	2262	.170	2220	2269	3-17-78	- 49		1050
Jouppi #3-17	12-77	40	4764	2126	.28	2101	2220	7-17-78	- 119		980
Jouppi #3-17	12-77	26	4863	1868	.31	1814	2101	3-21-79	- 287		1452
Vagi #3-8A	7-78	NA	4957 TVD	1669	.20+	1615	1814	4-29-80	- 199		
Vagi #3-8A	7-78	72	4934 TVD	1652	.30	1579	1615	4-1-81	- 36		724
Vagi #3-8A	7-78	72	4934 TVD	1581	.28	1512	1579	11-13-81	-67		733
Jouppi #3-17	12-77	120	4918	1402	.28	1334	1512	4-1-82	-178		964

\* Assumed  
 \* Estimated: Initial pressure unknown - Reservoir appears to have pressure draw down at the time of completion of the Jouppi #3-17.

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

MAPLE GROVE 17A-23N-14W



FIELD NAME MAPLE GROVE 19A-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-79 VIRGIN PRESSURE 2587 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4151 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG
Pytkas #1-19	2-79	69	4890	2578	.089	FEBRUARY 16, 1979 2578		INITIAL TEST		2150	2151
Kaanta #2-19	6-79	50.5	4901	2588	.095	JUNE 9, 1979 2587		INITIAL TEST		2134	1838

STATE OF MICHIGAN

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FIELD NAME MAPLE GROVE 19-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-75 VIRGIN PRESSURE 2530 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3940 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG
Mitchell 1-19	6-75	41.9	4687 TVD	2530	N.A.	JUNE 13, 1975 2530		INITIAL TEST		2088	
Mitchell 1-19	6-75	4 Days	4724 TVD	1689	.048	SEPTEMBER 20, 1977 1687	2530	6-13-75	- 843	1469	
Bigelow 4-19	8-78	112.4	4915	2195	.09	AUGUST 9, 1978 2174		NOT USED IN CALCULATIONS		1846	
Mitchell 1-19	6-75	5 Months	4723 TVD	1556	.0512	JANUARY 3, 1979 1554	1687	9-20-77	- 133	1302	
Mitchell 1-19	6-75	55.5	4675 TVD	1357	.041	JUNE 20, 1979 1357	1554	1-3-79	- 197	1170	
Lapelia #1-18	3-81	69	4813	1941	.102	MARCH 10, 1981 1929		NOT USED IN CALCULATIONS		1613	863
Mitchell 1-19	6-75	48	4723 TVD	774	.04	NOVEMBER 4, 1981 773	1357	6-20-79	- 584	663	

FIELD NAME MAPLE GROVE 20-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-76 VIRGIN PRESSURE 2607 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4252 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG
State Maple Grove #1-20	5-76	132.9	4998	2534	.095	MAY 14, 1976 2534		INITIAL TEST			
State Maple Grove #1-20	5-76	Since Completion	4998	2590	.095	JUNE 21, 1976 2590		INITIAL TEST		2130	
St. Maple Grove 1-20	5-76	8 da	4998	2607	.29	JANUARY 14, 1982 2607		NOT USED IN CALCULATIONS		--	
State Maple Grove #2-20	1-82	58.2	5010	2606	.260	FEBRUARY 22, 1982 2602		NOT USED IN CALCULATIONS		1414	
St. Maple Grove #2-20	1-82	45	5010	2521	.25*	OCTOBER 19, 1983 2514	2590	6-21-76	-76		

\* = Assumed

FIELD NAME MAPLE GROVE 20a-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-78 VIRGIN PRESSURE 2492 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4303 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Martella-Pahkanen #1-20 6-78	63	5072	2492	JUNE 19, 1978 .243	2492	INITIAL TEST			1525	1525	
Martella-Pahkanen #1-20 6-78	142.3	5072	2486	DECEMBER 1, 1978 .270	2486	INITIAL TEST			1544		
Pahkanen #1-20A 4-82	42	5144 TVD	2158	APRIL 25, 1982 .411	2128	2486	12-1-78	-358	882		

FIELD NAME MAPLE GROVE 30-23N-14W COUNTY MANISTEE TOWNSHIP MAPLE GROVE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-77 VIRGIN PRESSURE 2592 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3703 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Ziehm 1-30	2-77	65.5	4436	FEBRUARY 6, 1977 .10*	2592	INITIAL TEST			2110		
Ziehm #1-30	2-77	17	4738	MAY 5, 1982 .043	362	2592	2-6-77	-2230	322		

\* Estimated

FIELD NAME MARILLA 5-23N-13W COUNTY MANISTEE TOWNSHIP MARILLA DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 2-83 VIRGIN PRESSURE 2772 NO. PRODUCING WELLS \_\_\_\_\_

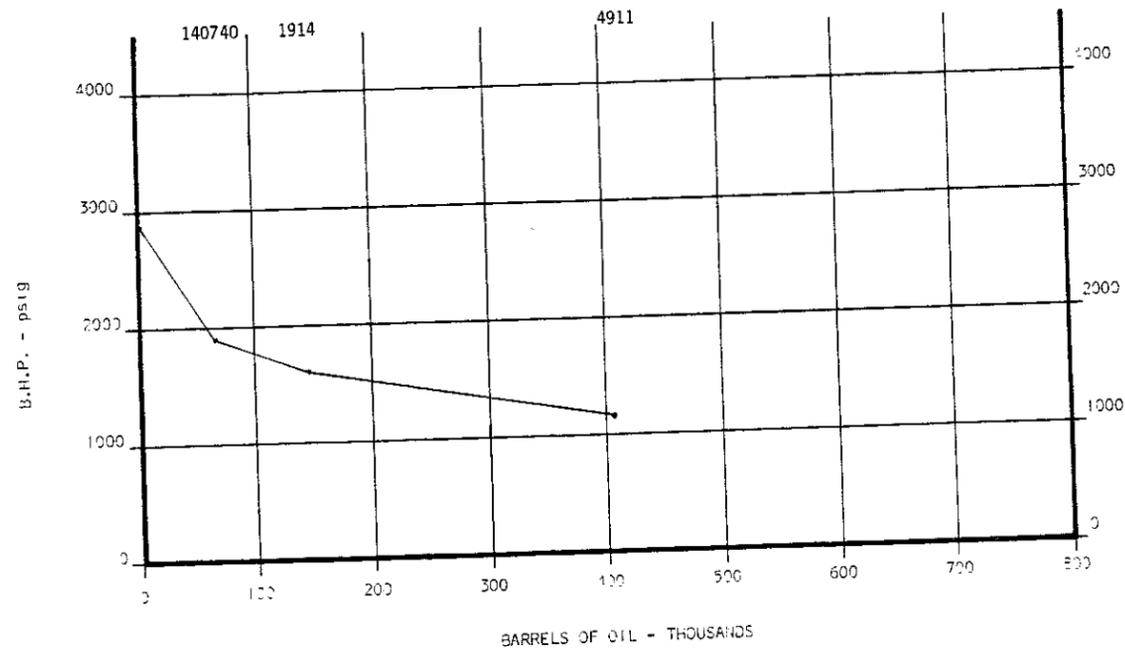
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4697 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Russell #4-5	2-83	66	5558	FEBRUARY 12, 1983 .362	2772	INITIAL TEST			2032	1000	

FIELD NAME MARILLA 6-23N-13W COUNTY MANISTEE TOWNSHIP MARILLA DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-77 VIRGIN PRESSURE 2880 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4349 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
State Marilla #1-6	2-77	66 Hrs.	5161	MARCH 12, 1977 .156	2880	INITIAL TEST			2293	2293	
St. Maple Grove #2-1	7-79	65.2	5376	JULY 26, 1979 .30	1893	2880	3-12-77	- 987	1100		
St. Cleon #1-31	9-79	N.A.	5497	SEPTEMBER 23, 1979 .30	1770	1893	7-26-79	- 123	829		
St. Marilla #1-6	2-77	N.A.	5161	MARCH 1, 1980 .05	1615				1347	1404	
St. Cleon #1-31	9-79	18.8	5497	.05	1595	1770	9-23-79	- 165	1349		
St. Cleon #1-31	9-79	24	5497	Average NOVEMBER 30, 1982 .038	1605	1605	3-1-80	-434	999	1010	

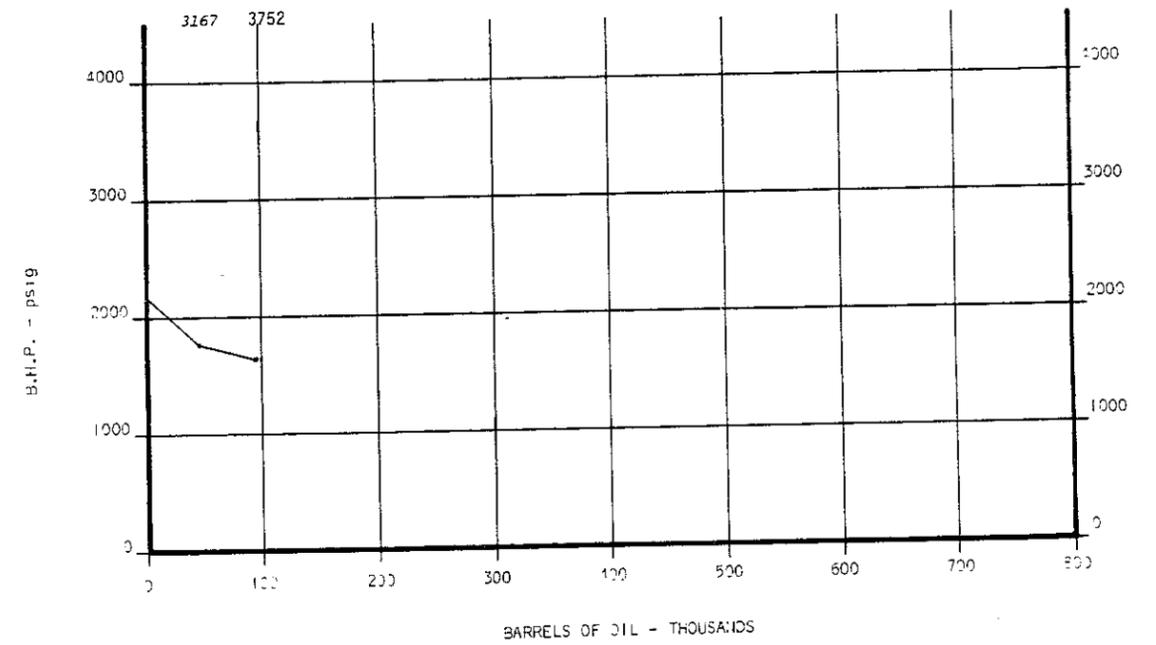
BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

Marilla 6-23N-13W



BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

ONEKAMA 24-23N-16W



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FIELD NAME ONEKAMA 24-23N-16W COUNTY MANISTEE TOWNSHIP ONEKAMA DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-79 VIRGIN PRESSURE 2166 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3477 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	CSG.
Acker #1-24	7-79	N.A.	4289 TVD	2166	.297	2166				1632	1604
Acker #1-24	7-79	23.5	4286 TVD	1830	.059	1753	2166	8-6-79	- 413	1590	1587
Acker #1-24	7-79	23	4240 TVD	1669	.538	1695	1753	4-23-81	- 58	1185	1453
Mummy Joseph #2-24	1-82	72	4251	1853*	.570	1844	NOT USED IN CALCULATIONS			479	1515
Acker #1-24	7-79	70.5	4230 TVD	1615	.048	1618	1695	10-15-81	-77	1415	1396

FIELD NAME ONEKAMA 24A-23N-16W COUNTY MANISTEE TOWNSHIP ONEKAMA DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG DISCOVERY DATE 5-83 VIRGIN PRESSURE 2020 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3477 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	CSG.
Ogders #1-24	5-83	70.5	4310	2020	.306	2020				1417	1415

FIELD NAME Onkama 24B-23N-16W COUNTY Manistee TOWNSHIP Onkama DATE OF TESTS  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 4-83 VIRGIN PRESSURE 2035 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3489 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Kataja #1-24	4-83	11.3	4421	2035	APRIL 27, 1983 .430	2035	INITIAL	TEST		698	705

FIELD NAME PLEASANTON 25-24N-15W COUNTY MANISTEE TOWNSHIP PLEASANTON DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-77 VIRGIN PRESSURE 2324 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3736 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
St. Pleasanton 1-25	6-77	72.5	4504 IVD	2324	JUNE 9, 1977 .555	2324	INITIAL	PRESSURE		915	Pkr

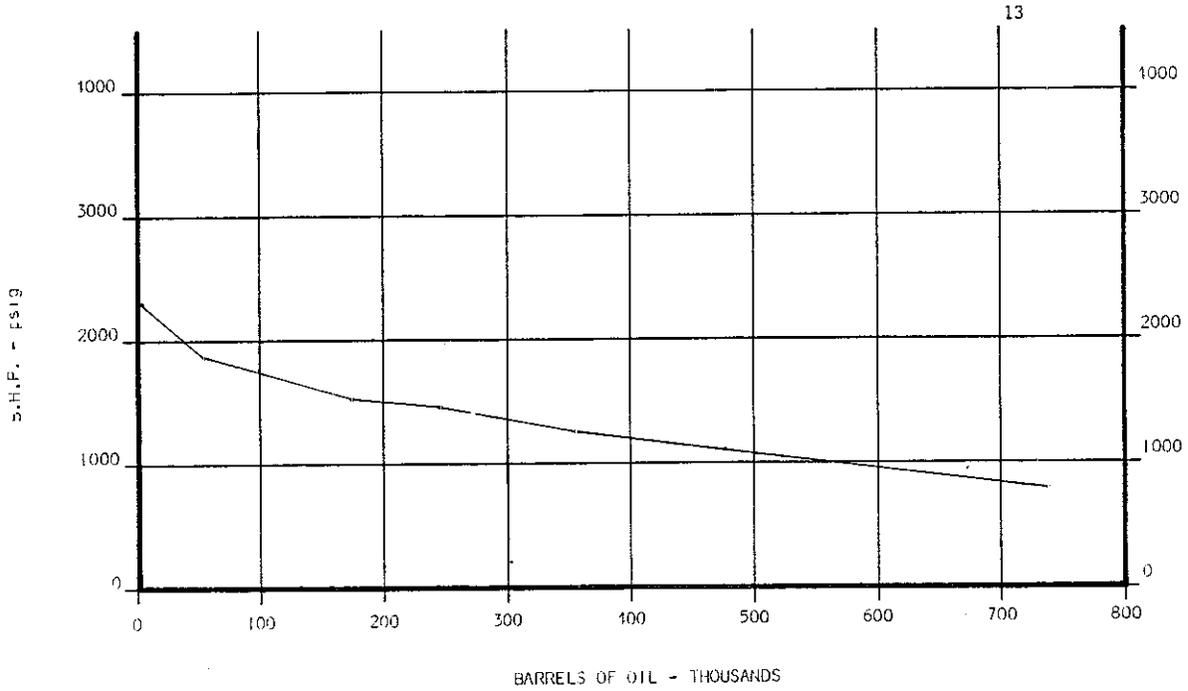
FIELD NAME ONEKAMA 25-23N-16W COUNTY MANISTEE TOWNSHIP ONEKAMA DATE OF TESTS  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 1-83 VIRGIN PRESSURE 2135 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3436 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Krieser #1-25C	1-83	89.3	4099TVD	2135	JANUARY 3, 1983 .563	2135	INITIAL	TEST		539	827

FIELD NAME PLEASANTON 36-24N-15W COUNTY MANISTEE TOWNSHIP PLEASANTON DATE OF TESTS  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 12-74 VIRGIN PRESSURE 2392 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3720 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Adair #1-36	12-74	24	4482	2392	DECEMBER 15, 1974 .335	2392	INITIAL	TEST		1078	1100
Adair #2-36	8-76	4.5	4469	1908	AUGUST 3, 1976 .30*	1914	2392	12-15-74	-478	694	1005
Adair #1-36	12-74	26	4482	1691	OCTOBER 16, 1976 .315	1687	1914	8-3-76	-227	643	
Adair #1-36	12-74	94	4482	1585	APRIL 7, 1977 .306	1583	1687	10-16-76	-104	598	1309
Adair #1-36	12-74	75	4482	1460	SEPTEMBER 29, 1977 .310	1458	1583	4-7-77	-125	512	1238
Adair #1-36	12-74	27.5	4482	1299	SEPTEMBER 26, 1978 .323	1299	1458	9-29-77	-159	45	1100
Adair #1-36	12-74	N.A.	4140	999	JUNE 18, 1979 .314	1106	1299	9-26-78	-193	634	949
Adair #4-36	4-82	43	4535	800	APRIL 24, 1982 .34	783	1106	6-18-79	-323	800	

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
PLEASANTON 36-24N-15W



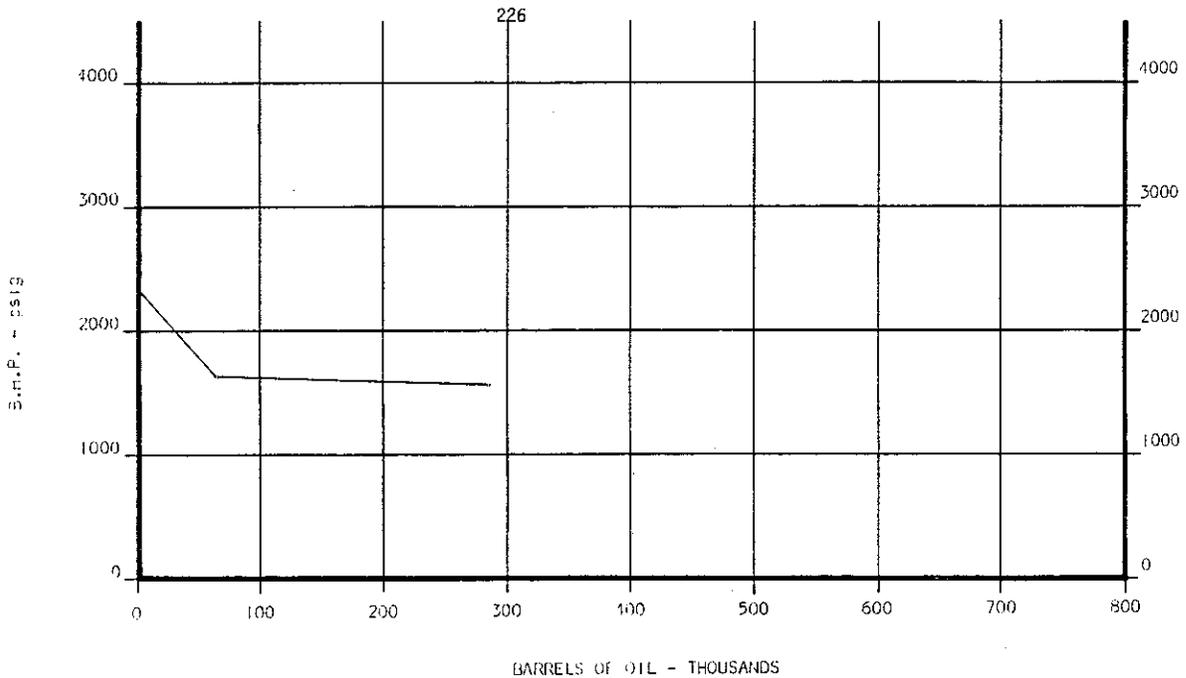
STATE OF MICHIGAN

FIELD NAME Pleasanton 36A-24N-15W COUNTY Manistee TOWNSHIP Pleasanton DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 8-75 VIRGIN PRESSURE 2312 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 3778 FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						CURRENT PRESS.	PREVIOUS PRESS	DATE OF PREV. PRESSURE			
Baugh #1-36	8-75	17 7	4546	2312	AUGUST 28, 1975 .305	2312				1012	1040
Baugh #1-36	8-75	NA	4445	1651	SEPTEMBER 22, 1976 .559	1707	2312	8-28-75	-605		
Baugh #1-36	8-75	72	4490	1586	AUGUST 21, 1980 .30*	1603	1707	9-22-76	-104	85	
Baugh #1-36	8-75	75	4445	1034	OCTOBER 10, 1983 .328	1067	1603	8-21-80	-536	183	314

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

PLEASANTON 36A-24N-15W



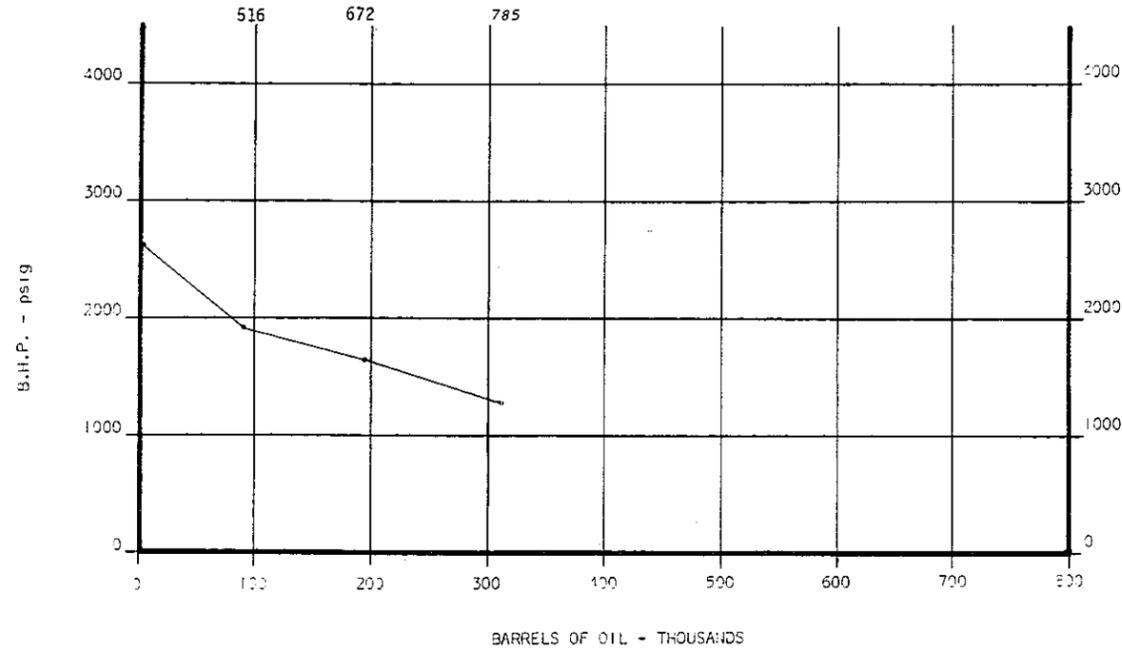
STATE OF MICHIGAN

FIELD NAME SPRINGDALE 20-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS

PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-78 VIRGIN PRESSURE 2624 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ CURRENT PRESS.	3975 FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Springdale 1-20	1-78	113.6	4767	2624	JANUARY 16, 1978 .36	2624		INITIAL TEST		1223
St. Springdale #1-20	1-78	24	4767	1928	MARCH 13, 1979 .30	1924	2624	1-16-78	- 700	692
St. Springdale #1-20	1-78	25.5	4767	1624	MARCH 29, 1980 .35	1624	1924	4-13-79	- 300	481
St Springdale #1-20	1-78	24.0	4767	1283	APRIL 14, 1981 03	1283	1624	3-29-80	- 341	597

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
SPRINGDALE 20-24N-14W



SPRINGDALE 21-24N-14W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4005 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St. Springdale 3-21	9-78	57	4775	937	JUNE 20, 1979 .32	934	1439	4-17-78	- 505	795
St. Springdale 3-21	9-78	67.8	4775	707	.26	705		JUNE 20 (St. Springdale 3-21) - 27 (St. Springdale #1-21), 1980		
St. Springdale 1-21	3-75	71	4795	821	.032	821				601 695
					Average	763	934	6-20-79	- 171	
Lovett 2-21	5-76	72	4841	763	NOVEMBER 6, 1981 .04	761	763	6-27-80	- 2	663

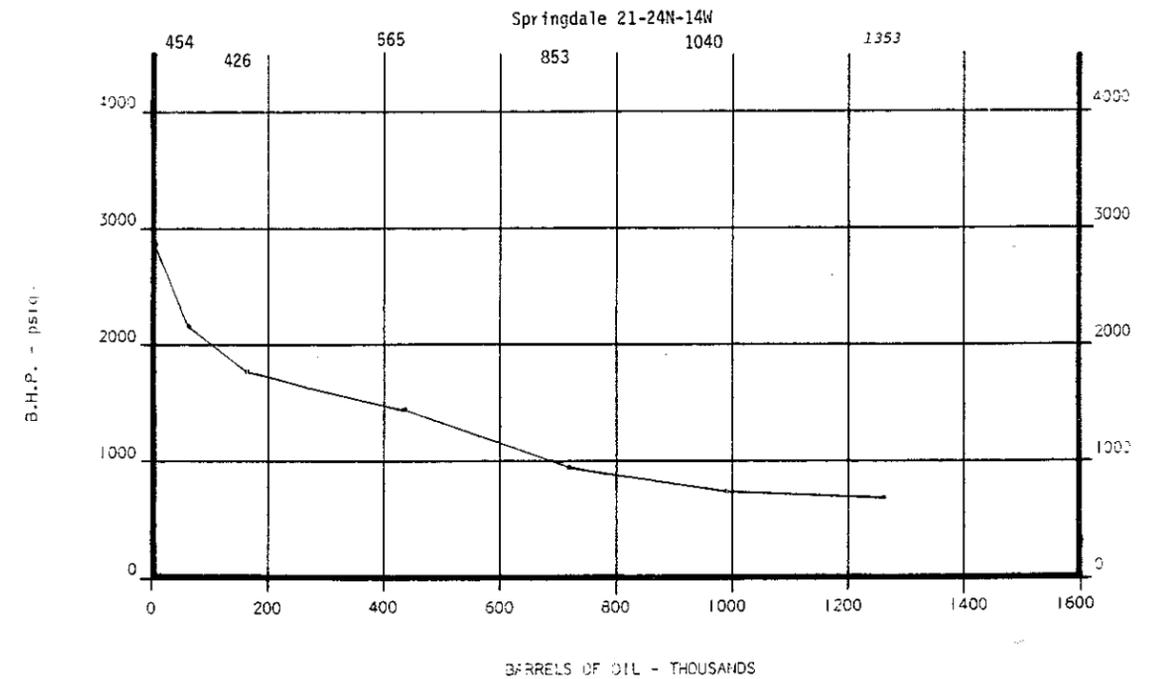
REMARKS:

STATE OF MICHIGAN

FIELD NAME SPRINGDALE 21-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-75 VIRGIN PRESSURE 2883 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4005 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
State Springdale #1-21	3-75	42.2	4795	2883	MARCH 21, 1975 .3129	2883		INITIAL TEST		1383
State Springdale #1-21	3-75	92.5	4795	2127	APRIL 1, 1976 .33	2123	2883	3-21-75	- 760	872 Pkr.
Lovett #2-21	5-76	64.4	4831	2001	MAY 17, 1976 .30	1990	2123	4-1-76	- 133	705
State Springdale #1-21	3-75	74	4795	1747	OCTOBER 27, 1976 .3125	1743	1990	5-17-76	- 247	663 Pkr.
Lovett #2-21	5-76	64.5	4831	1668	APRIL 6, 1977 .34	1655	1743	10-27-76	- 88	616
Lovett #2-21	5-76	51.5	4831	1429	APRIL 17, 1978 .28	1419				1186
St. Springdale #1-21	3-75	52	4795	1458	.32	1458	1655	4-6-77	- 217	478
					AVERAGE	1439				
St. Springdale #3-21	9-78	66.5	4775	1610	SEPTEMBER 5, 1978 .28	1608		NOT USED IN CALCULATIONS		113

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION

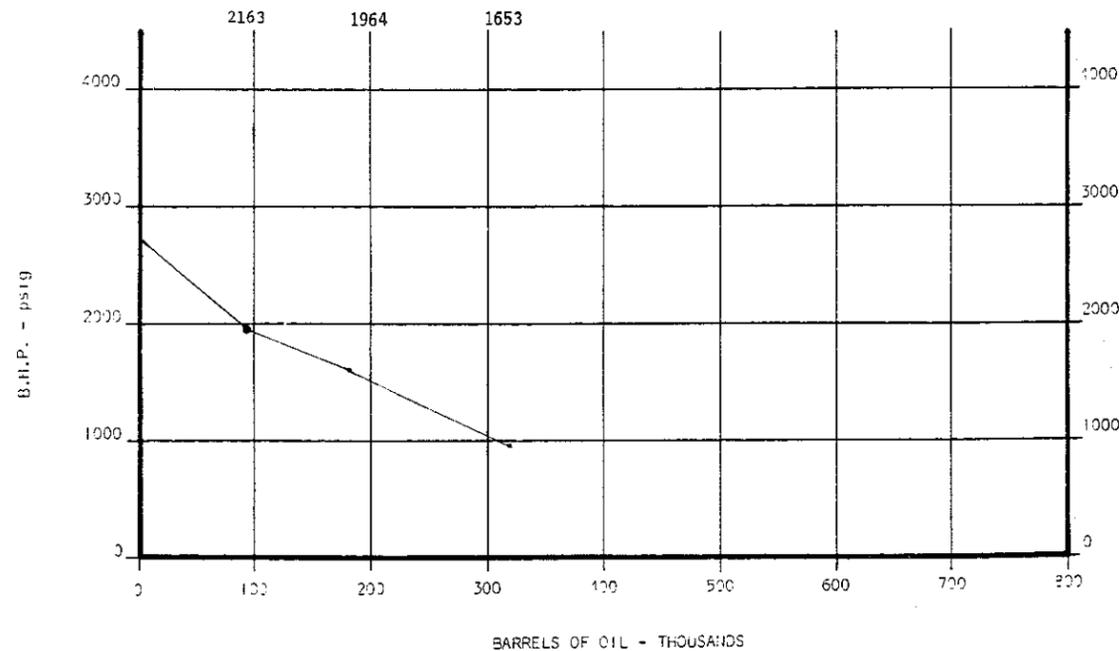


FIELD NAME SPRINGDALE 25-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 12-14-72 VIRGIN PRESSURE 2713 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4239 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Springdale #1-25	12-72	17	5042	2713	.300	2713	Initial test				
St. Springdale #1-25	12-72	73	5042	1981	.124	1981	2713	12-23-72	- 732	1359	
St. Springdale #1-25	12-72	24.5	5042	1611	.25	1607	1981	9-27-77	- 374	1358	
St. Springdale 1-25	12-72	76	5042	1375	.09	1374	1607	10-13-78	- 233	1177	
St. Springdale 1-25	12-72	66.7	5041	980	.03	980	1374	5-4-79	- 394	854	

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 SPRINGDALE 25-24N-14W



FIELD NAME SPRINGDALE 26-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-74 VIRGIN PRESSURE 2725 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4307 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
State Springdale #1-26	12-74	20	5100	2725	.270	2725	INITIAL TEST			1424	1612
State Springdale #1-26	12-74	27.8	5100	2625	.280	2625	2725	3-21-75	- 100	1340	2075
State Springdale #1-26	12-74	27	5100	2560	.250	2560	2625	4-7-76	- 65	1346	1750
State Springdale #1-26	12-74	25	5100	2489	.300	2484	2560	9-23-76	- 76	1390	1925
St. Springdale #1-26	12-74	3.8	5100	2422	.30	2422					
St. Springdale #3-27	2-78	25.25	5089 TVD	2414	.282	2409	2484	4-23-77	- 68	1134	1875
					AVERAGE	2416					

BOTTOM-HOLE PRESSURE TESTS - Page 2

SPRINGDALE 26-24N-14W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4307 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Springdale #2-26	12-78	26	5078	2272	.285	2275	2416	2-5-78	- 141	1029	
St. Springdale #1-26	12-74	24	5100	2214	.283	2214	2275	12-11-78	- 61	963	1700
St. Springdale 3-27	2-78	24	4984 TVD	1945	.282	1974	2214	3-19-79	- 240	1476	1612
St. Springdale #3-27	2-78	--	4984 TVD	1673	.320	1706	1974	4-17-80	-268	1216	1407

REMARKS

STATE OF MICHIGAN

FIELD NAME SPRINGDALE 26-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-74 VIRGIN PRESSURE 2725 NO. PRODUCING WELLS \_\_\_\_\_

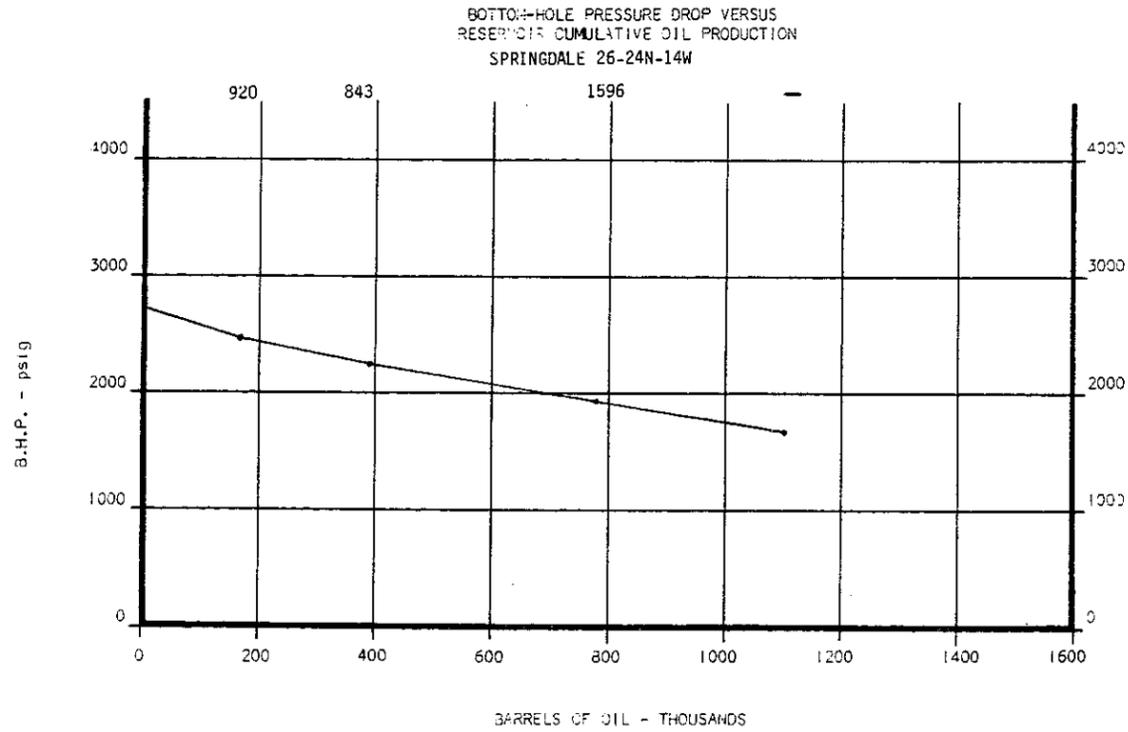
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4307 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG
State Springdale #1-26	12-74	20	5100	2725	.270	2725		INITIAL TEST		1424	1612
State Springdale #1-26	12-74	27.8	5100	2625	.280	2625	2725	3-21-75	- 100	1340	2075
State Springdale #1-26	12-74	27	5100	2560	.250	2560	2625	4-7-76	- 65	1346	1750
State Springdale #1-26	12-74	25	5100	2489	.300	2484	2560	9-23-76	- 76	1390	1925
St. Springdale #1-26	12-74	3.8	5100	2422	30	2422					
			Maximum buildup								
St. Springdale #3-27	2-78	25.25	5089 TVD	2414	.282	2409					
					AVERAGE	2416	2484	4-23-77	- 68	1134	1875

BOTTOM-HOLE PRESSURE TESTS - Page 2

SPRINGDALE 26-24N-14W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4307 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG
St. Springdale #2-26	12-78	26	5078	2272	.285	2275	2416	2-5-78	- 141	1029	
St. Springdale #1-26	12-74	24	5100	2214	.283	2214	2275	12-11-78	- 61	963	1700
St. Springdale 3-27	2-78	24	4984 TVD	1945	.282	1974	2214	3-19-79	- 240	1476	1612
St. Springdale #3-27	2-78	--	4984 TVD	1673	.320	1706	1974	4-17-80	-268	1216	1407

FIELD NAME: SPRINGDALE 28-24N-14W



STATE OF MICHIGAN

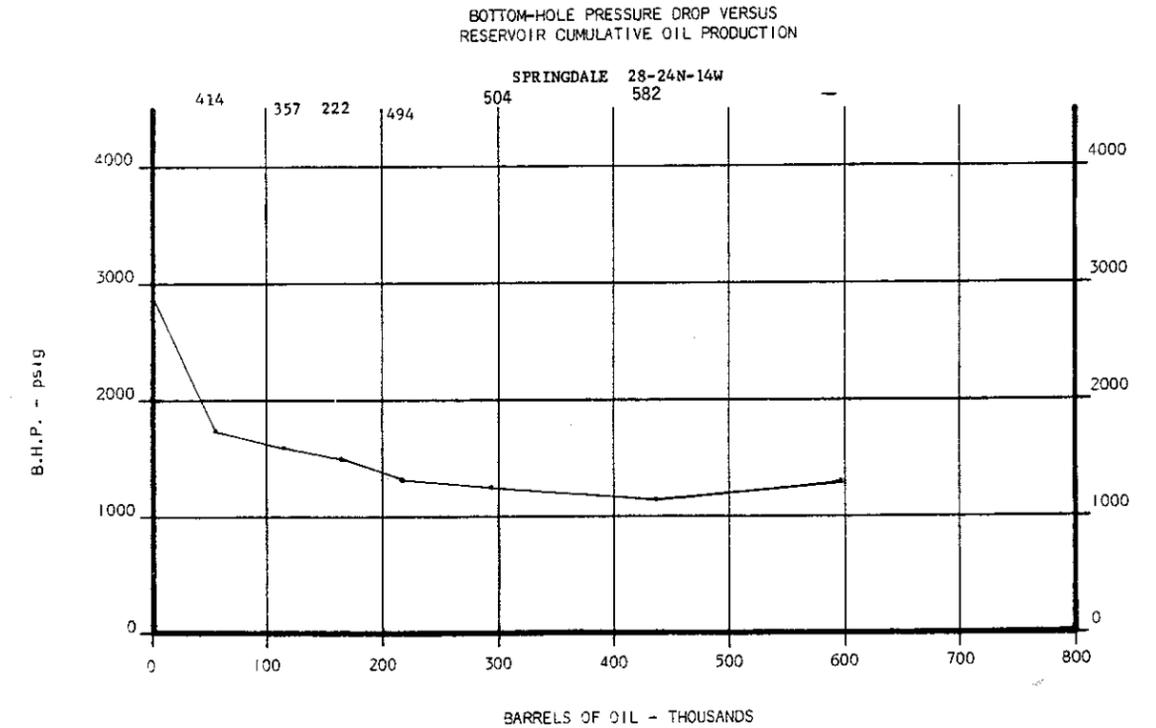
FIELD NAME SPRINGDALE 28-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 4-73 VIRGIN PRESSURE 2877 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3996 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Plagany #1-28	4-73	44	APRIL 27, 1973 4786	2877	.305	2877	Initial test				
Plagany #1-28	4-73	25	APRIL 9, 1976 4752	1745	.31	1750	2877	4-27-73	- 1127	609	
Plagany #1-28	4-73	71	OCTOBER 27, 1976 4786	1600	.33	1595	1750	4-9-76	- 155	549	
Plagany #1-28	4-73	50.5	APRIL 5, 1977 4786	1484	.33	1484	1595	10-27-76	- 111	791	
Plagany #1-28	4-73	45	SEPTEMBER 26, 1977 4786	1308	.310	1308	1484	4-5-77	- 176	470	
Plagany #1-28	4-73	70	JULY 29, 1978 4786	1245	.33	1245	1308	9-26-77	- 63	1056	1030
WATERFLOOD PROJECT BEGUN JUNE, 1979.											
Spoor #1A-28	10-79	94	OCTOBER 12, 1979 4854TVD	1136	.32	1114	1245	7-29-78	- 131	767	257
WATERFLOOD ENDED 1980.											

REMARKS:

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3996 FEET	PREVIOUS PRESSURE	DATE OF PREV. PRESSURE		TUB.	CSG.
Spoor #1A-28	10-79	128	4764 TVD	1391	FEBRUARY 2, 1981 .540	1402	1114	10-12-79	+ 288	241	265
WATERFLOOD REACTIVATED 1984.											

REMARKS:



FIELD NAME SPRINGDALE 29-24N-14W COUNTY Manistee TOWNSHIP Springdale DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 8-76 VIRGIN PRESSURE 2750\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3862 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
St. Springdale #2-29	8-76	1 yr.	4628 TVD	1017	350	1017	2750	8-76	-1733	104
						JUNE 17, 1983				

\* = Estimated

FIELD NAME SPRINGDALE 32-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-74 VIRGIN PRESSURE 2800\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3878 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
St. Springdale #1-32	9-74	60	4633	2728	.571	2728	2800*	8-74	- 72	
						OCTOBER 1, 1974				
						At time of test total cumulative production was 1417 bbls.				
Kuuttila 1-32	5-78	6 Days	4604 TVD	2114	.317	2121	2728	10-1-74	- 607	886 1545
						MAY 24, 1978				
						At time of test total cumulative production from St. Springdale 1-32 was 2973 bbls.				
Kuuttila 1-32	5-78	30	4604 TVD	1664	.559	1685	2121	5-24-78	- 436	791 1190
						JANUARY 26, 1979				
						At time of test total cumulative production for field was 6219 bbls.				

FIELD NAME SPRINGDALE 34-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 9-74 VIRGIN PRESSURE 2646 NO. PRODUCING WELLS \_\_\_\_\_

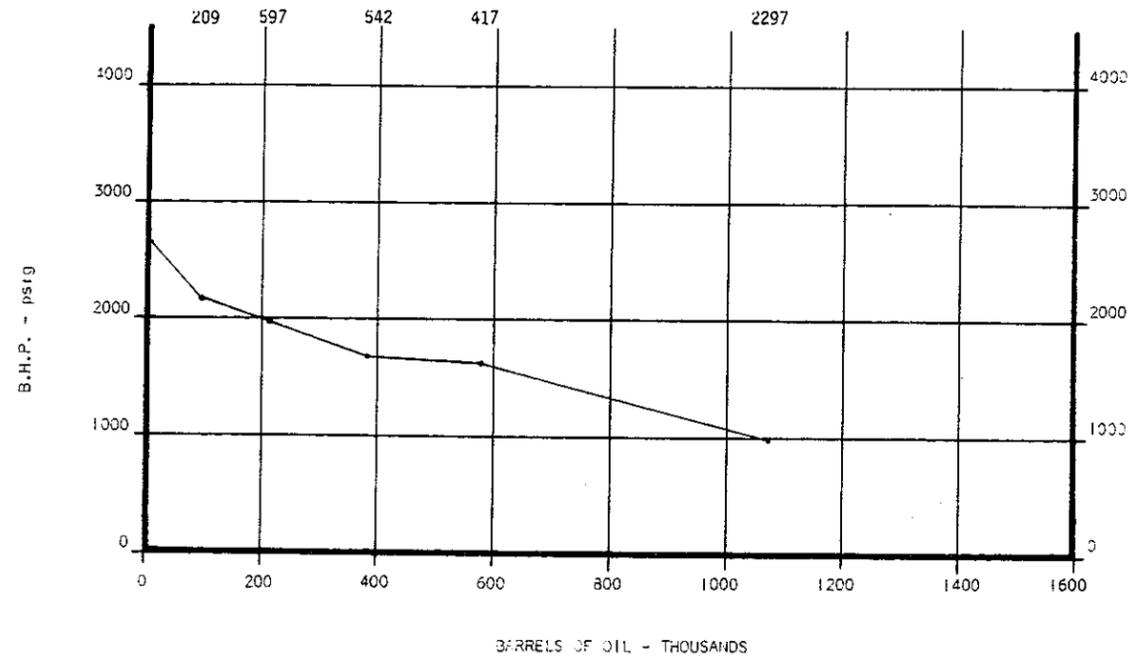
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4068 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
St Springdale #1-34	9-74	185	4848	2609	.120	2609				
						SEPTEMBER 10, 1974				
						Initial Test				
St -Springdale #1-34	9-74	Shut-in since completion	4848	2646	10	2646				2206
						MAY 14, 1975				
						INITIAL TEST				
Prior St. Springdale #1-34	9-74	192	4816	1812	.062	1812				1526
						SEPTEMBER 21, 1977				
						NOT USED IN CALCULATIONS				
Prior St. Springdale #1-34	9-74	33 Days	4848	1894	.06	1894	2646	5-14-75	- 752	1580
						OCTOBER 23, 1978				
						- 752				
St. Springdale #5-34A	2-79	105	4998 TVD	1957	.26	1919				929
						FEBRUARY 8, 1979				
						NOT USED IN CALCULATIONS				

REMARKS:

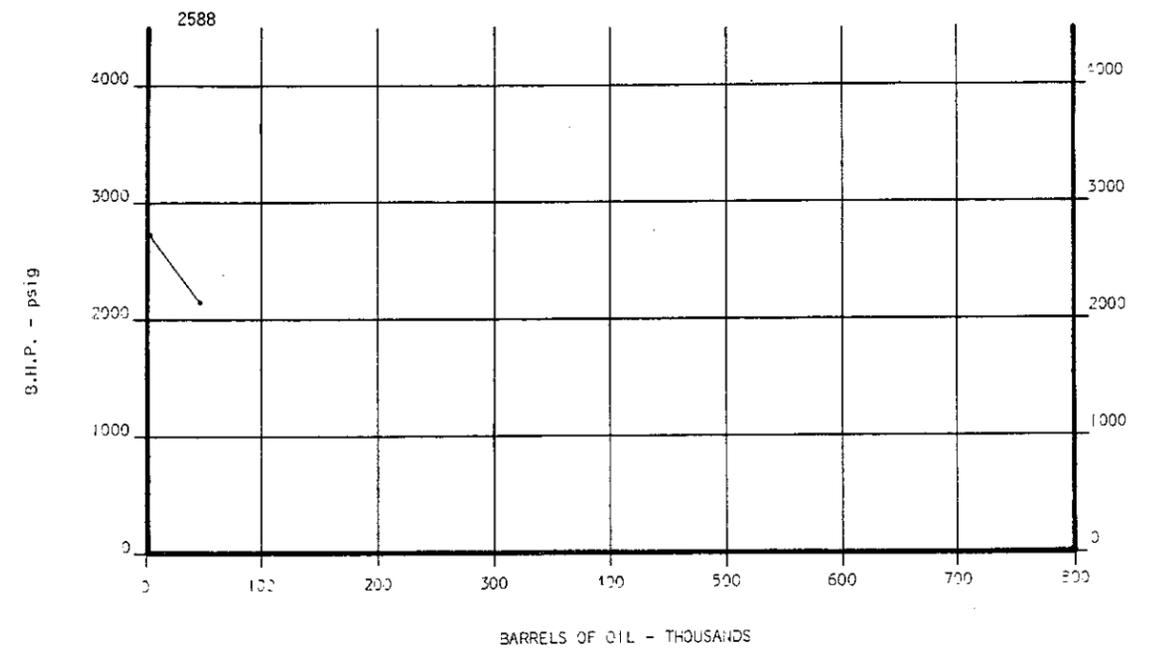
FIELD NAME SPRINGDALE 34A-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-75 VIRGIN PRESSURE 2674 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4217 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		
State Springdale #2-34	5-75	39.5	5004	2674	.32	2674				1291
						MAY 20, 1975				
						INITIAL TEST				
State Springdale #3-34	8-76	60	5031	2345	.38	2336	2674	5-20-75	- 338	980
						AUGUST 24, 1976				
						- 338				
State Springdale #2-34	5-75	42	5004	2205	.30	2201	2336	8-24-76	- 135	928
						OCTOBER 26, 1976				
						- 135				
State Springdale #2-34	5-75	44	5004	1997	.29	1997	2201	10-26-76	- 204	547
						SEPTEMBER 26, 1977				
						- 204				
State Springdale #2-34	5-75	25	5004	1511	.28	1507				654
						OCTOBER 13, 1978				
						NOT USED IN CALCULATIONS				
St. Springdale 2-34	5-75	50.5	5004	1700	.34	1695	1997	9-26-77	- 302	572
						MAY 26, 1979				
						- 302				
St. Springdale 3-34	8-76	16.6	5002	1629	.34	1625	1695	5-26-79	- 70	Vac.
						JANUARY 19, 1980				
						- 70				
St. Springdale 2-34	5-75	70	5004	999	.02	999	1625	1-19-80	-625	871
						NOVEMBER 14, 1983				
						-625				

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
SPRINGDALE 34A-24N-14W



BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
Springdale 35-24N-14W



STATE OF MICHIGAN

FIELD NAME SPRINGDALE 35-24N-14W COUNTY MANISTEE TOWNSHIP SPRINGDALE DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-78 VIRGIN PRESSURE 2748 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ CURRENT PRESS.	4289 FEET PREVIOUS PRESS	DATE OF PREV. PRESSURE		
St. Springdale #2-35a 2-78	42	5086 IVD	2748	22	2748	INITIAL TEST			2215	
St. Springdale 2-35A 2-78	74	5086 IVD	1128	37	1128	2748	2-24-78	- 1620	900	

MASON

STATE OF MICHIGAN

FIELD NAME Amber 6-18N-17W COUNTY Mason TOWNSHIP Amber DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 12-82 VIRGIN PRESSURE 2165 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ CURRENT PRESS.	3499 FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Weinert #1-6	12-82	85	4165	2165	JANUARY 3, 1983 .315	2165	INITIAL	TEST		1788	337

STATE OF MICHIGAN

FIELD NAME HAMLIN 13-19N-18W (North) COUNTY MASON TOWNSHIP HAMLIN DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-11-72 VIRGIN PRESSURE 2070 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ CURRENT PRESS.	3643 FEET PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Malstrom-Williams	1-13 6-72	96	<u>AUGUST 7, 1972</u> 4290	2070	.290	2070	1986	Initial Test			
Malstrom-Williams	1-13 6-72	30	<u>OCTOBER 30, 1972</u> 4290	1986	.290	1986	2070	8-7-72	- 84		
Malstrom-Williams	1-13 6-72	30	<u>NOVEMBER 11, 1974</u> 4290	1770	.314	1770	1986	10-30-72	- 216	1206	1450
Malstrom-Williams #1-13	6-72	24	<u>MARCH 22, 1975</u> 4300	1660	.305	1657	1770	11-11-74	- 113	1139	1224
Malstrom-Williams #1-13	6-72	28.3	<u>OCTOBER 10, 1975</u> 4290	1423	.310	1423	1657	3-22-75	- 234	959	1160
Malstrom-Williams #1-13	6-72	28.8	<u>APRIL 12, 1976</u> 4290	1295	.307	1295	1423	10-10-75	- 128	832	1075

REMARKS:

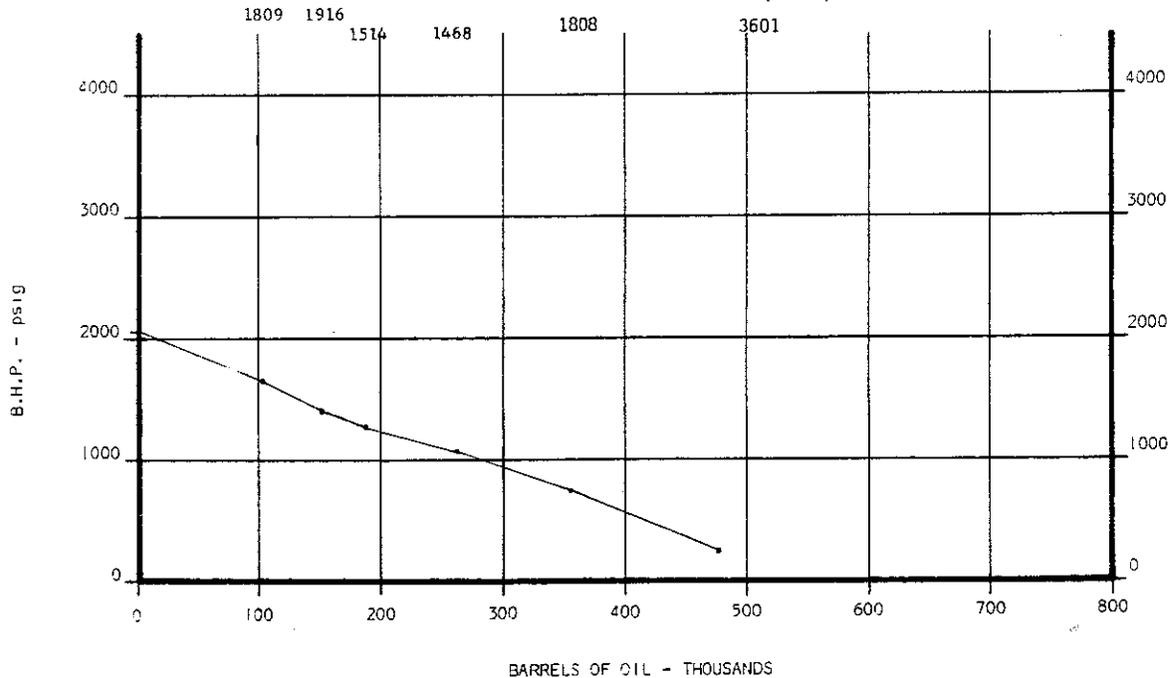
HAMLIN 13-19N-18W (NORTH)

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3643 FEET	PREVIOUS PRESS	DATE OF PREV PRESSURE		TUB.	CSG.
Malstrom-Williams #1-13	6-72	25.4	4290	1151	.313	1147	1295	10-30-76	- 148	669	
Malstrom-Williams #1-13	6-72	26.5	4290	1071	.312	1067	1147	10-30-76	- 80	713	875
Malstrom-Williams #1-13	6-72	336	4016	639	.433	758	1067	4-10-77	- 309		
Malstrom-Williams #1-13	6-72	72	4290	235	.038	235	758	3-7-79	-523	199	205

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

HAMLIN 13-19N-18W (North)



FIELD NAME HAMLIN 13-29N-18W (South) COUNTY MASON TOWNSHIP HAMLIN DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-75 VIRGIN PRESSURE 1923 NO. PRODUCING WELLS

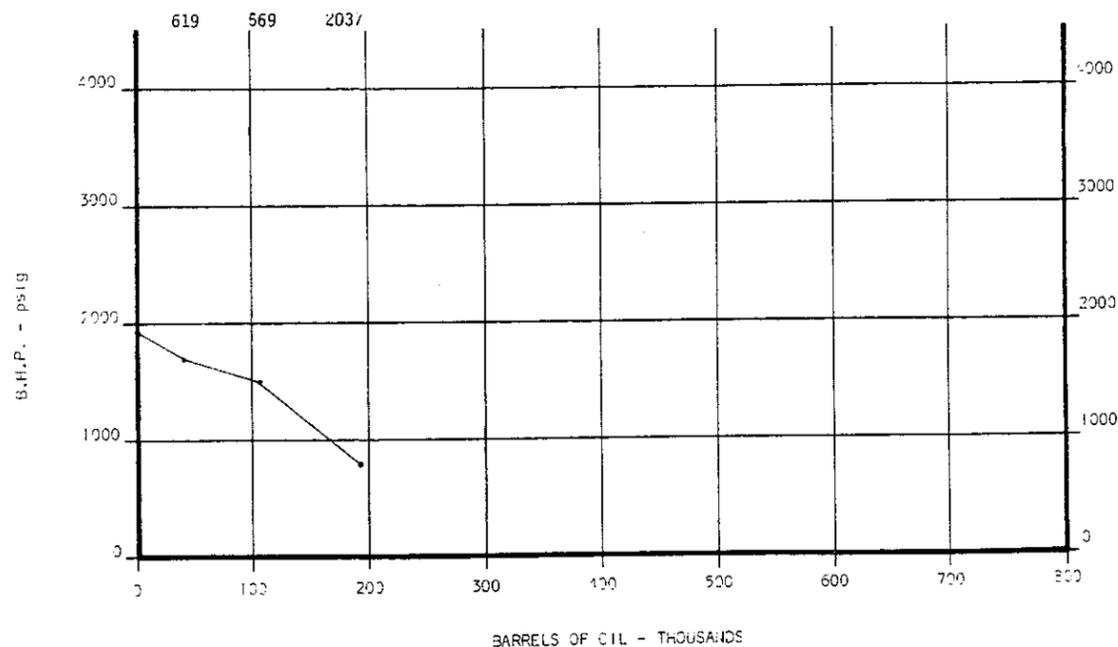
OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3643 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Billow-Wrege #6-13	9-75	1 wk.	4365 TVD	1946	.425	SEPTEMBER 3, 1975				643	820
Billow Wrege #6-13	9-75	25	4135 TVD	1756	.318	1923		9-3-75	- 111	824	1020
Billow Wrege #6-13	9-75	25.5	4367 TVD	1743	.301	1812		9-1-76	- 86	978	1125
Billow Wrege #6-13	9-75	27	4135 TVD	1453	.281	1726		4-11-77	- 223	637	940
Billow-Wrege #6-13	9-75	72	3921 TVD	777	.344	1503		2-5-79	-591	9	792

FIELD NAME HAMLIN 13A-19N-18W COUNTY MASON TOWNSHIP HAMLIN DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 10-72 VIRGIN PRESSURE 2193 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3738 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Miller #2-13	10-72	16	4390	2193	.075	MARCH 10, 1973				1877	1872
Miller #2-13	10-72	22	4395	2113	.075*	2193		3-10-73	- 80		1780
Sadler #1-24	1-74	Since Completion	4090	2042	.064	SEPTEMBER 4, 1974				1785	1789
Miller #2-13	10-72	26	4397	1565	.050	SEPTEMBER 5, 1975				1366	1400
Miller #2-13	10-72	24.5	4395	1093	.03	1565		9-5-75	- 472	967	701
Sadler #1-24	1-74	N.A.	4403	974	.026	SEPTEMBER 8, 1976					
Miller #2-13	10-72	N.A.	4395	960	.035	SEPTEMBER 14, 1976					
Sadler #1-24	1-74	27	4403	393	.013	MARCH 7, 1979				345	350

\* Assumed

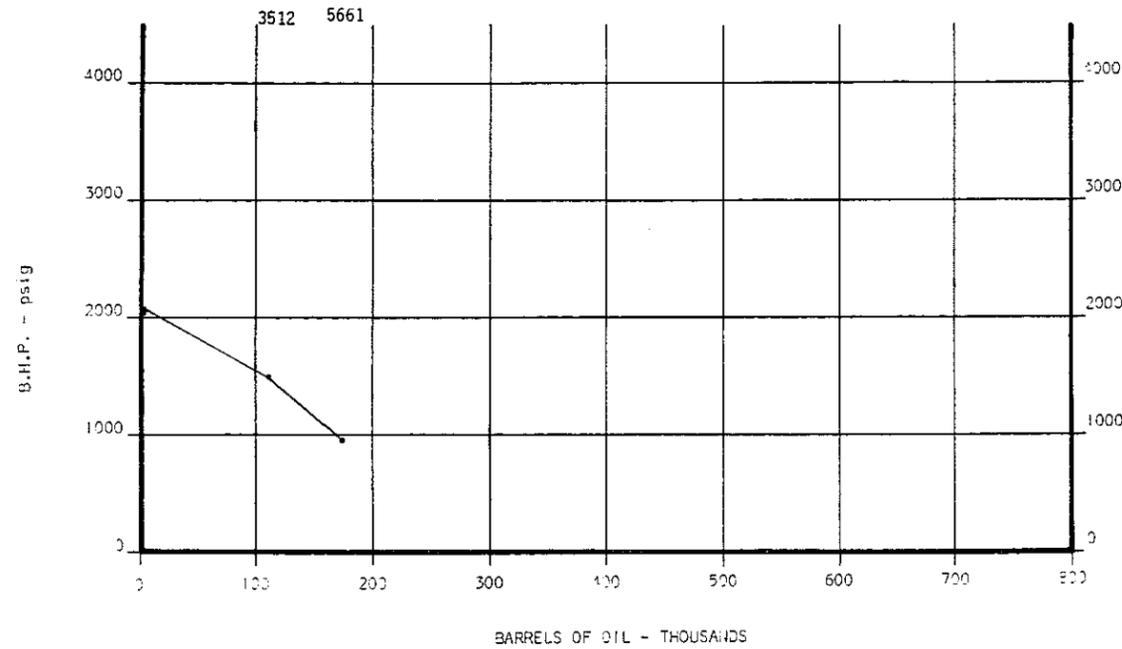
BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION  
 HAMLIN 13-19N-18W, South



FIELD NAME HAMLIN 13B-19N-18W COUNTY MASON TOWNSHIP HAMLIN DATE OF TESTS  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 4-75 VIRGIN PRESSURE 2071 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3689 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Miller #5-13	4-75	15.5	4396 TVD	2071	.555	SEPTEMBER 3, 1975				558	1175
Miller #5-13	4-75	36	1995	1415	.041	2071		9-3-75	- 558		1323
Miller-Wierzbowski #5-13	4-75	26	3401 TVD	927	.110	NOVEMBER 30, 1988					
						(OBSTRUCTION IN TUBING AT 3470' MD.)				-477	837

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
HAMLIN 13B-19N-18W



FIELD NAME Hamlin 23-19N-18W COUNTY Mason TOWNSHIP Hamlin DATE OF TESTS  
PRODUCING FORMATION Sal-Niag DISCOVERY DATE 2-83 VIRGIN PRESSURE 2033 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 3502	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Cartier #4-23A	2-83	40	4167TVD	2033	FEBRUARY 21, 1983 .304	2033	INITIAL	TEST		1129	100

FIELD NAME HAMLIN 13C-19N-18W COUNTY MASON TOWNSHIP HAMLIN DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 3-80 VIRGIN PRESSURE 2050\* NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 3652	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Fugere #8-13	3-80	24	4313	1502	DECEMBER 19, 1980 .549	1502	2050	ESTIMATED	- 548	350	
Fugere #8-13	3-80	61	4239	761	AUGUST 16, 1982 .029	763	1502	12-19-80	-739	668	0

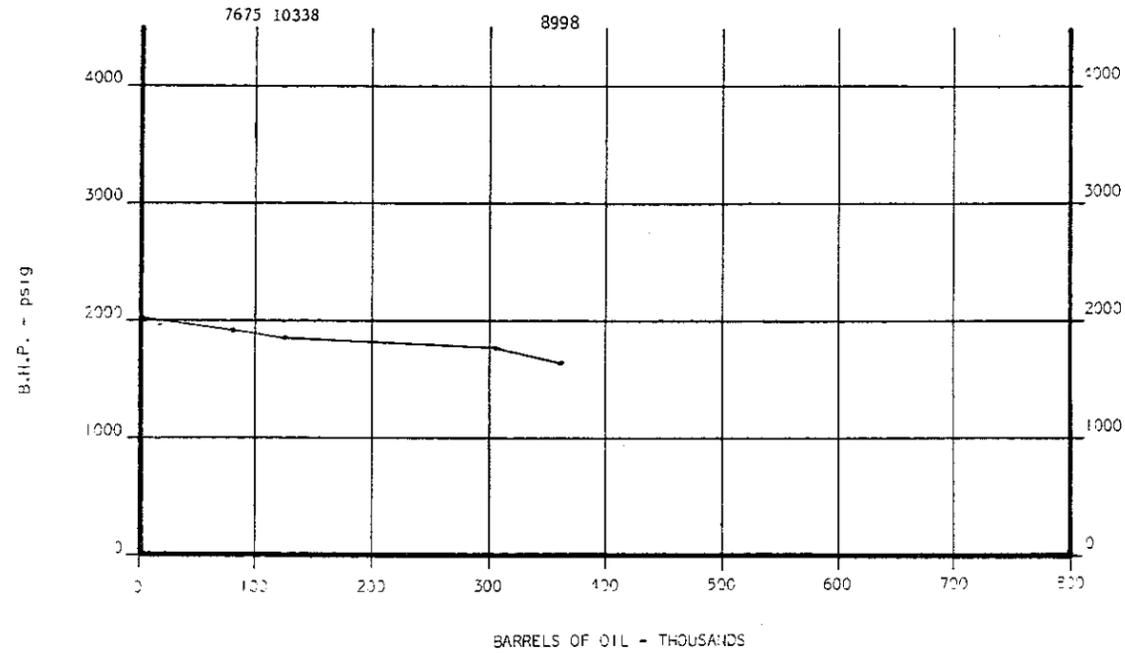
\* Estimated

FIELD NAME HAMLIN 25-19N-18W COUNTY MASON TOWNSHIP HAMLIN DATE OF TESTS  
PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 9-7-72 VIRGIN PRESSURE 2011 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM FEET			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES TUB. CSG.	
						P.S.I. @ 3593	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Stolberg et al	9-72	120	OCTOBER 26, 1972 4258	2011	.275	2011	Initial	Test			
Stolberg #3-25	2-75	68	MARCH 17, 1975 4223	1994	.501	2006	10-26-72	2011	- 5	1492	1492
Stolberg #1-25	9-72	N.A.	NOVEMBER 22, 1976 4258	1970	.285	1970	2011	10-26-72	- 41		
Stolberg #3-25	2-75	N.A.	NOVEMBER 24, 1976 4135	1874	.188	1886	NOT USED IN CALCULATIONS				
Stolberg #1-25	9-72	N.A.	NOVEMBER 3, 1977 4258	1917	.156	1915	1970	11-22-76	- 55	1504	
The three Stolberg wells are likely in three separate reservoirs.											
Stolberg #3-25	2-75	51	MARCH 8, 1979 4135	1827	.278	1858	1915	11-3-77	- 57	1021	1285
Stolberg #2-25	2-74	21	NOVEMBER 17, 1982 4248	1722	.117	1724	1858	3-8-79	-134	1469	PKR
Stolberg #3-25	2-75	26	NOVEMBER 30, 1983 3902	1499	.360	1623	1724	11-17-82	-101	1176	

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS  
RESERVOIR CUMULATIVE OIL PRODUCTION  
HAMLIN 25-19N-18W



FIELD NAME VICTORY 5-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 6-74 VIRGIN PRESSURE 2117 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 36.58 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Thompson #1-5	6-74	63	JULY 16, 1974 4299	2117	.080	2117	Initial Test				
Thompson #1-5	6-74	74	FEBRUARY 24, 1979 4299	1855	.065	1854	2117	7-16-74	- 263	1584	

REMARKS:

FIELD NAME Hamlin 27-19N-18W COUNTY Mason TOWNSHIP Hamlin DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 11-81 VIRGIN PRESSURE 2000\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3580 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Dow #2-27	11-81	69	4230	929	DECEMBER 7, 1981 .039	929	INITIAL	TEST	818	470	

\* = Estimated

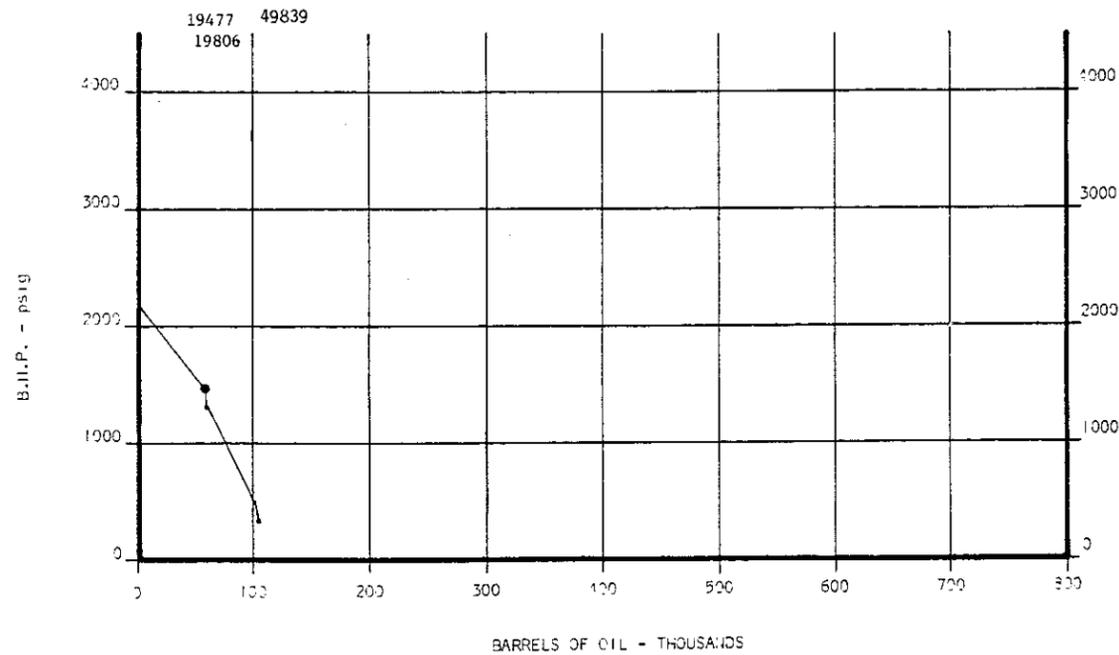
FIELD NAME Victory 5A-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 5-81 VIRGIN PRESSURE 2217 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3817 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Diesing #5-5	6-81	--	4476	2217	JUNE 3, 1981 .08	2217	INITIAL	TEST		1874	1883

FIELD NAME VICTORY 7-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 10-30-73 VIRGIN PRESSURE 2148 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3775 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB.	CSG.
Swanson 1-7	10-73	21	4451	2148	.075	2148					1821
Karboski 2-7	1-75	1 Wk.	4500	2154	.270	2143					980 1019
Swanson 1-7	10-73	N.A.	4256	1994	.06	2007	2148	10-25-73	- 141		1719
Karboski 2-7	1-75	26.8	3931	1911	.061	1943	2007	4-9-76	- 64		1669 1650
Hansen 2-8	11-77	26	4520 IVD	1504	.254	1487	1943	9-1-76	- 456		1138 1170
Karboski #2-7	1-75	32	3945	1276	.055	1304					1124 1130
Swanson #1-7	10-73	29	4306	1286	.058	1295					1124 1150
					AVERAGE	1300	1487	4-21-78	- 187		
Karboski #2-7	1-75	44	3920	470	.014	477	1300	3-7-79	-823		422 420
Swanson #1-7	10-73	1490	4306	302	.010	304	477	8-12-82	-173		270

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION VICTORY 7-19N-17W

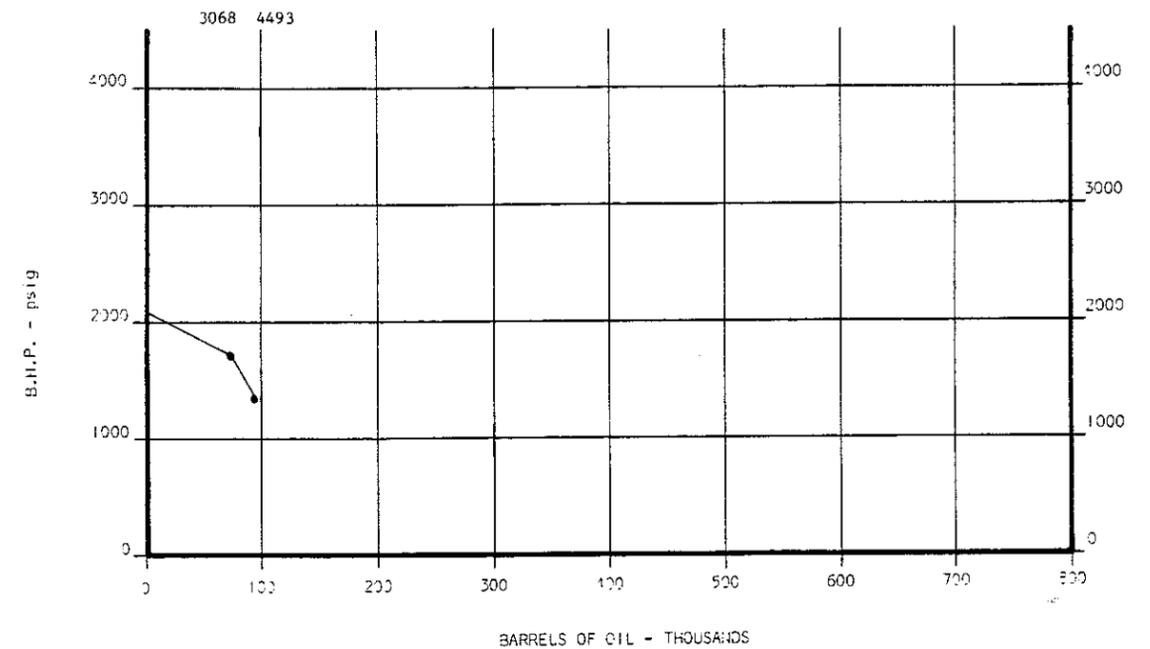


FIELD NAME VICTORY 18-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal.-Niag. DISCOVERY DATE 6-74 VIRGIN PRESSURE 2069 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3667 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Olsen #3-18	6-74	63.5	4360	2069	.280	2069					1201
Fugere #2-18	6-73	30 days	4355	2066	.290	2063	2069	7-20-74	- 6		
Fugere #2-18	6-73	25.5	4348	1894	.561	1892	2061	11-14-74	- 171		924 1340
Fugere #2-18	6-73	N.A.	4264	1673	.530	1716	1892	11-24-75	- 176		16
Olsen #3-18	6-74	25	4343	1346	.30	1351	1716	9-2-76	- 365		957 957

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION VICTORY 18-19N-17W

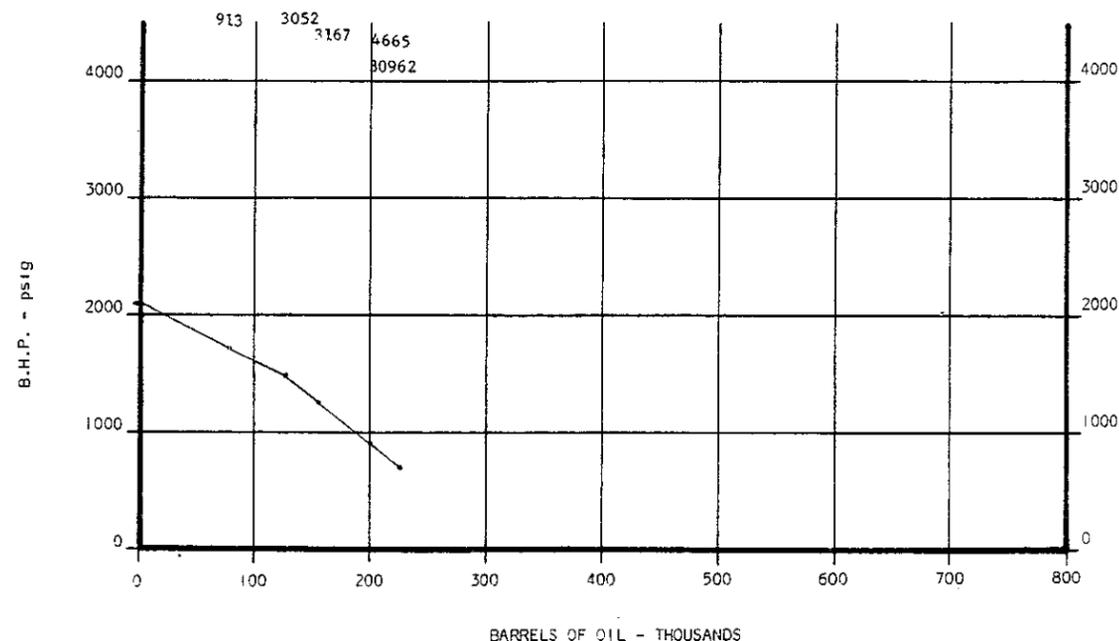


FIELD NAME VICTORY 18A-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-74 VIRGIN PRESSURE 2097 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3766 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
HANSEN #4-18	12-74	23	4470	2097	MARCH 11, 1975 .080	2097	INITIAL TEST			1770	1767
Timpy Brown #5-18	9-76	27.2	4387	1661	AUGUST 27, 1976 .054	1664	2097	3-11-75	- 433	1429	1421
Timpy Brown #5-18	9-76	670	4145	1216	MARCH 7, 1979 .041	1228	1664	8-27-76	- 436	1059	1080

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

VICTORY 19-19N-17W



FIELD NAME VICTORY 19-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 12-8-72 VIRGIN PRESSURE 2070 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3714 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Peterson 1-19	12-72	46	JANUARY 16, 1973 4390	2070	.285	2070	Initial Test				
Peterson #1-19	12-72	31	NOVEMBER 14, 1974 4394	1819	.335	1818	2070	1-16-73	- 252	859	1500
Peterson #1-19	12-72	N.A.	MARCH 22, 1975 4362	1703	.290	1711	1818	11-14-74	- 107	721	1345
Peterson #1-19	12-72	26	OCTOBER 10, 1975 4394	1480	.304	1479	1711	3-22-75	- 232	959	1390
Peterson #1-19	12-72	30.1	APRIL 12, 1976 4394	1271	.046	1271	1479	10-10-75	- 208	1115	1265
Peterson #1-19	12-72	25	OCTOBER 28, 1976 4394	1083	.025	1083	1271	4-12-76	- 188	961	
Peterson #1-19	12-72	25.5	APRIL 12, 1977 4394	900	.025	900	1083	10-28-76	- 183	792	
Sterley #1-18	6-73	120	JANUARY 2, 1978 4390	702	.020	702	900	4-12-77	- 198	675	

REMARKS:

FIELD NAME VICTORY 19A-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 6-74 VIRGIN PRESSURE 2184 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5692 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Diesing 2-19	7-74	26	4365	2184	MARCH 1, 1975 .075	2184	INITIAL TEST			1845	1847
Diesing #2-19	7-74	26.5	4366	1246	APRIL 13, 1977 .045	1246	2184	3-1-75	- 938	1079	1079
Hansen Diesing #2-24	2-79	22	4234	685	FEBRUARY 20, 1979 .034	689	1246	4-13-77	- 557	599	

STATE OF MICHIGAN

FIELD NAME Victory 26-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 7-82 VIRGIN PRESSURE 2320 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 4087 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Hedricks #1-26A	7-82	26	4744TVD	2320	AUGUST 9, 1982 .069	2320	INITIAL	TEST		2006 1100

STATE OF MICHIGAN

FIELD NAME VICTORY 33-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 10-83 VIRGIN PRESSURE 2000\* NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3975 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Ruba #1-33	10-83	17	4657	1512	OCTOBER 19, 1983 .121	1512	INITIAL	TEST		1259

\* = Estimated

STATE OF MICHIGAN

FIELD NAME Victory 31-19N-17W COUNTY MASON TOWNSHIP VICTORY DATE OF TESTS  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 8-83 VIRGIN PRESSURE 2661 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES TUB. CSG.
						P.S.I. @ 3743 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		
Weinert #1-31	8-83	44	4410TVD	2661	AUGUST 27, 1983 .109	2661	INITIAL	TEST		2187

MIDLAND

FIELD NAME EDENVILLE 5-16N-1W COUNTY MIDLAND TOWNSHIP EDENVILLE DATE OF TESTS  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 9-81 VIRGIN PRESSURE 1806 NO. PRODUCING WELLS

OPERATOR, LEASE AND WELL NUMBER	WELL COMP DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3503 FEET	PREVIOUS PRESS	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Bower-Elwood #1-5	9-81	142.5	4228	2112	SEPT 21, 1981 .320	2112	INITIAL TEST		897	1365	
Bower-Elwood #1-5	9-81	22.8	4228	1806	NOVEMBER 7, 1981 .30*	1806	2112	9-21-81	-306	542	1461

\* = Assumed

FIELD NAME MONTMORENCY 14-32N-1E COUNTY MONTMORENCY TOWNSHIP MONTMORENCY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 7-78 VIRGIN PRESSURE 2500\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 5700 FEET	CURRENT PRESS.	PREVIOUS PRESS.		DATE OF PREV. PRESSURE	TUB. CSG.
Herzog #1-14	7-78	89.8	4637	1250	.30*	1250	Incomplete Buildup			1081	1031
Pressure buildup incomplete at approximate rate of 2 psi/Hr.											
Herzog #1-14	7-78	68 Days	4637	2248	.156	2248	Initial Test			1508	1502
Herzog #1-14	7-78	73 3	4636	1707	.380	1707	Incomplete Buildup			581	763

\* Estimated

FIELD NAME VIENNA 30-30N-1E COUNTY MONTMORENCY TOWNSHIP VIENNA DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION Sal-Niag DISCOVERY DATE 1-83 VIRGIN PRESSURE 3318 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4931 FEET	CURRENT PRESS.	PREVIOUS PRESS.		DATE OF PREV. PRESSURE	TUB. CSG.
Mathews #1-30	1-83	145	5981 TVD	3193	.320	3289	APRIL 12, 1983 INITIAL TEST			2159	2460
Mathews #1-30	1-83	12	6280 TVD	3318	.524	3318	JUNE 22, 1983 INITIAL TEST			1573	2012
Mathews #1-30	1-83	12	6280 TVD	3221	.50*	3221	JUNE 27, 1983 INITIAL TEST			1837	

\* = Assumed

FIELD NAME MONTMORENCY 29-32N-1E COUNTY MONTMORENCY TOWNSHIP MONTMORENCY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-75 VIRGIN PRESSURE 2535 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3932 FEET	CURRENT PRESS.	PREVIOUS PRESS.		DATE OF PREV. PRESSURE	TUB. CSG.
Stella Maris #1-29A	3-75	61.9	4858 TVD	2535	.981	2535	MARCH 4, 1975 INITIAL TEST				
Stella Maris #1-29A	3-75	65	4858 TVD	1655	.80	1655	2535	3-4-75	-880	1390	

\* = Estimated

OCEANA

FIELD NAME BENONA 22-14N-18W COUNTY OCEANA TOWNSHIP BENONA DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 5-80 VIRGIN PRESSURE 2007 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3907 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Isley #1-22	5-80	66.5	3910TVD	2007	MAY 11, 1980 .270	2007	INITIAL TEST		1419	901	

FIELD NAME CLAYBANKS 2-13N-18W COUNTY OCEANA TOWNSHIP CLAYBANKS DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 12-82 VIRGIN PRESSURE 2113 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3032 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Farris-Hopper #1-2	12-82	61	3815	2113	DECEMBER 14, 1982 .295	2113	INITIAL TEST		149		
Lohman #2-2A	7-83	119	3797TVD	2006	JULY 25, 1983 .293	2010	2113	12-14-83	-103	1196	770
Lohman #2-2A	7-83	3027	3797TVD	1934	NOVEMBER 29, 1983 .120	1936	2010	7-25-83	-74	1681	

FIELD NAME BENONA 22A-14N-18W COUNTY OCEANA TOWNSHIP BENONA DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG DISCOVERY DATE 7-82 VIRGIN PRESSURE 2150 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 3170 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Schultz #2-22	7-82	69.8	3892	2150	JULY 16, 1982 .087	2150	INITIAL TEST		1826	687	

FIELD NAME CLAYBANKS 11-13N-18W COUNTY OCEANA TOWNSHIP CLAYBANKS DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 8-80 VIRGIN PRESSURE 1871 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 2952 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB. CSG.	TUB. CSG.
Miller Fox #1-11	8-80	65.5	3665	1871	AUGUST 1, 1980 .085	1871	INITIAL TEST		1606		

OTSEGO

FIELD NAME BAGLEY 21-30N-3W COUNTY OTSEGO TOWNSHIP BAGLEY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 2-75 VIRGIN PRESSURE 3000\* NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES		
						P.S.I. @ 4677 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.	
Lucas #1-21	2-75	90	6000*	2475	.30*	APRIL 9, 1975	2475	3000*	2-75	- 525		
1000 bbl. oil production at time of test												
Johnson #3-21	9-82	115.5	5931	2062		SEPTEMBER 28, 1982	2080	2475	4-9-75	-395	631	971
Lucas Trust #1-21	8-83	68	5968TVD	1868		JULY 25, 1983	1878	2080	9-28-82	-202	549	

\* Estimated

FIELD NAME BAGLEY 23-30N-3W COUNTY OTSEGO TOWNSHIP BAGLEY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL.-NIAG. DISCOVERY DATE 1-1-73 VIRGIN PRESSURE 3096 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES		
						P.S.I. @ 4565 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.	
Gornick 1-23	1-73	49	APRIL 10, 1973	5875	3096							
INITIAL TEST												
Gornick #1-23	1-73	48	OCTOBER 26, 1974	5864	2724	525	2730	3096	4-10-73	- 366	1047	920
Gornick #1-23	1-73	24.8	APRIL 3, 1975	5864	2547	464	2552	2730	10-26-74	- 178	561	1650
Gornick #1-23	1-73	49	OCTOBER 1, 1975	5864	2398	503	2404	2552	4-3-75	- 148	676	1595
M.B.M. #1-22	11-75	74.2	NOVEMBER 9, 1975	5887	2410	289	2411	2404	10-1-75	+ 7	910	948
Gornick #1-23	1-73	6 Wks.	APRIL 1, 1976	5864	2345	503	2351	2411	11-9-75	- 60	488	1130
MBM #1-22	11-75	43	DECEMBER 4, 1976	5887	2237	292	2238	2351	4-1-76	- 113	928	1263
Gornick #1-23	1-73	N.A.	SEPTEMBER 8, 1978	5875	1703	360	1703	2238	12-4-76	- 535	0	

REMARKS:

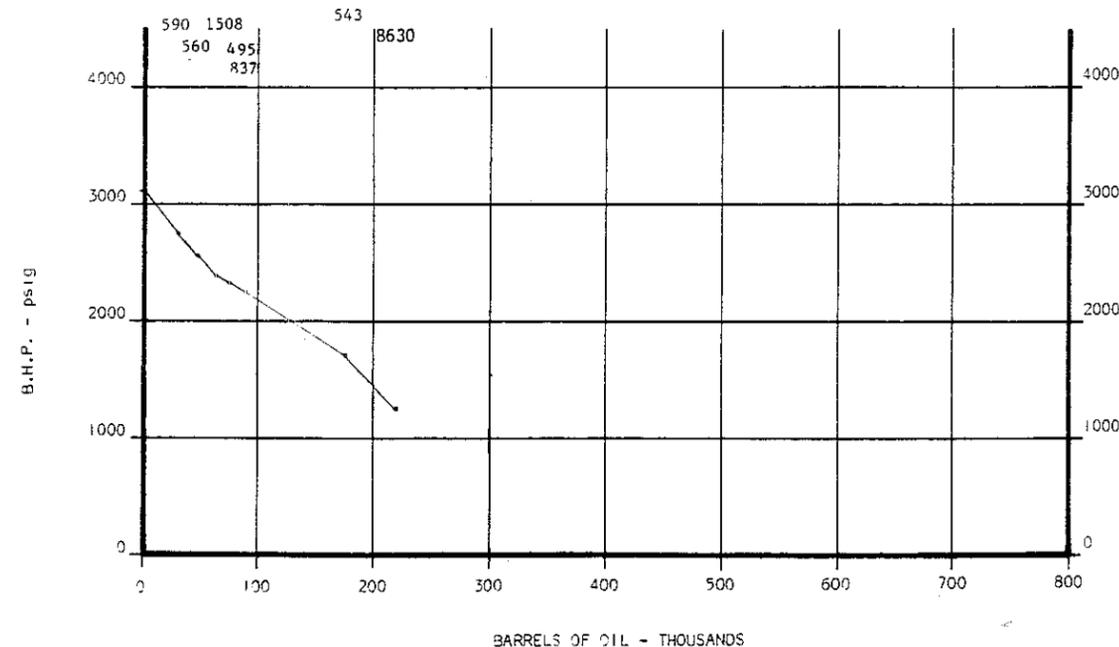
BAGLEY 23-30N-3W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER FT. 100	PRESSURES AT COMMON DATUM			INTERVAL PRESSURE DIFF	SHUT-IN SURFACE PRESSURES	
						P.S.I. @ 4565 FEET	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
Gornick #1-23	1-73	N.A.	5875	1250	SEPTEMBER 28, 1980	1250	1703	9-8-78	- 453	0	0

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION

BAGLEY 23-30N-3W



REMARKS:

FIELD NAME BAGLEY 25-30N-3W COUNTY OTSEGO TOWNSHIP BAGLEY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG. DISCOVERY DATE 4-12-72 VIRGIN PRESSURE 3160 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 4820 FEET			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Bagley 2-25	4-72	61.5	6120	3160	.450	3160	1st	test		1476	NA
St. Bagley 2-25	4-72	53.5	6120	3009	.350	3009	3160	4-72	-151	1369	1450
St. Bagley 2-25	4-72	96	6120	2788	.310	2788	3009	10-72	-221	1230	1850
St. Bagley 2-25	4-72	26	6120	2524	.340	2524	2788	4-8-73	-264	1150	1525
St. Bagley 2-25	4-72	26.5	6120	2399	.380	2399	2524	10-9-73	-125	1042	2025
St. Bagley 2-25	4-72	28	6120	2248	.550	2248	2399	4-8-74	-151	1088	1715
St. Bagley 2-25	4-72	29.5	6170	2167	.570	2164	2248	10-12-74	-84	1032	1700
St. Bagley 2-25	4-72	24	6118	2015	.571	2016	2164	4-4-74	-148	1125	1217

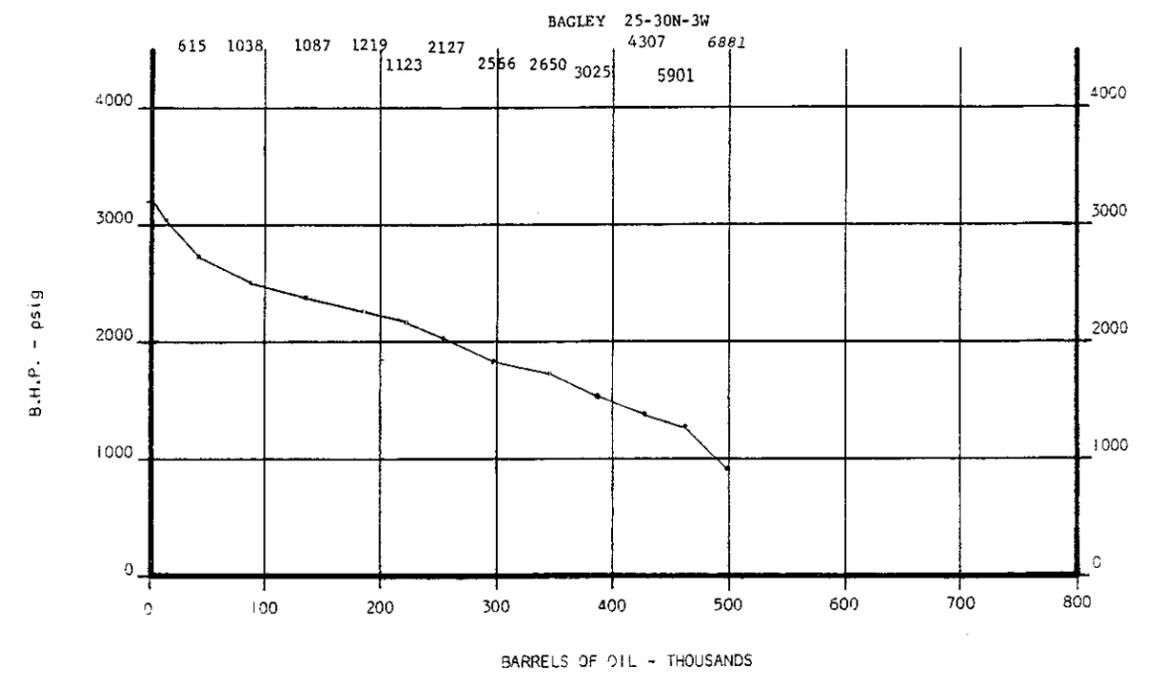
REMARKS:

BAGLEY 25-30N-3W

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 4820 FEET			INTERVAL PRESSURE DIFF.	SHUT-IN SURFACE PRESSURES	
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Bagley "A" #2-25	4-72	24	6118	1856	.561	1857	2016	10-3-75	-159	1146	1433
St. Bagley "A" #2-25	4-72	26.5	6118	1728	.314	1729	1857	4-26-76	-128	1232	
St. Bagley "A" #2-25	4-72	71	6096	1527	.426	1537	1729	4-11-77	-192	808	678
St. Bagley "A" #2-25	4-72	59.3	6096	1379	.404	1389	1537	4-4-78	-148	848	554
St. Bagley "A" 2-25	4-72	577	6096	1241	.513	1253	1389	4-23-79	-136	589	596
St. Bagley "A" 2-25	4-72	45	5969	912	.028	916	1253	5-27-80	-337	762	

REMARKS:

BOTTOM-HOLE PRESSURE DROP VERSUS RESERVOIR CUMULATIVE OIL PRODUCTION



FIELD NAME BAGLEY 25A-30N-3W COUNTY OTSEGO TOWNSHIP BAGLEY DATE OF TESTS \_\_\_\_\_  
 PRODUCING FORMATION SAL-NIAG. DISCOVERY DATE 5-18-72 VIRGIN PRESSURE 3178 NO. PRODUCING WELLS \_\_\_\_\_

OPERATOR, LEASE AND WELL NUMBER	WELL COMP. DATE	SHUT IN TIME HOURS	RECORD. DEPTH FEET	RECORDED PRESSURE P.S.I.	FLUID GRADIENT LOWER 100 FT.	PRESSURES AT COMMON DATUM P.S.I. @ 4799 FEET			INTERVAL PRESSURE DIFFERENTIAL	SHUT-IN SURFACE PRESSURES	
						CURRENT PRESS.	PREVIOUS PRESS.	DATE OF PREV. PRESSURE		TUB.	CSG.
St. Bagley 1-25	5-72	40	6085	3178	.275	3178	1st	test		1455	1710
St. Bagley 1-25	5-72	28	6085	3095	.280	3095	3178	5-72	-83	1476	1620
St. Bagley 1-25	5-72	74	6085	3025	.260	3025	3095	10-72	-70	1366	1675
St. Bagley 3-25	4-73	66	5940	2959	.245 *	2999	3095	3-73	-26	1911	1975
St. Bagley 1-25	5-72	24	6085	2580	.280	2580				1146	2100
St. Bagley 3-25	4-73	28	5940	2623	.250	2663				2008	2060
					Average	2621	2999	4-11-73	-378		
St. Bagley 1-25	5-72	28.5	6085	2424	.290	2424				1026	2010
St. Bagley 3-25	4-73	27.5	5940	2451	.160	2477				1954	2080
						2451	2621	10-10-73	-170		

REMARKS: \* Calculated