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DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

VIA E-MAIL

TO: Members of the Michigan Legislature
FROM:  James M. Kasprzak, Chief, Administration Division
DATE: March 2, 2012
SUBJECT: Report on Orphan Well Fund Annual Report

In accordance with Section 324.61607 of Part 616, Orphan Well Fund, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, attached is the Department of Environmental Quality's (DEQ) Orphan Well Fund Annual Report for fiscal year 2010-2011.

If you need further information, please contact Harold R. Fitch, Chief, Office of Oil, Gas, and Minerals, Resource Management Division, at 517-241-1548; or you may contact me at 517-241-7427.

Attachment

cc/att: Ellen Jeffries, Director, Senate Fiscal Agency
Mary Ann Cleary, Director, House Fiscal Agency
John Nixon, Director, Office of the State Budget
Dennis Muchmore, Governor's Office
Dick Posthumus, Governor's Office
Dan Wyant, Director, DEQ
Jim Sygo, Deputy Director, DEQ
Jamie Clover Adams, Director of Policy and Legislative Affairs, DEQ
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Harold R. Fitch, DEQ
Jane Schultz, DEQ
Kathy Tetzlaff, DEQ

Orphan Well Fund Annual Report **(Fiscal Year 2010-2011)**



Michigan Department of Environmental Quality
Resource Management Division
Office of Oil, Gas and Minerals

Pursuant to Part 616, Orphan Well Fund,
of the Natural Resources and Environmental Protection Act,
1994 PA 451, as Amended

For more information on the Orphan Well Program, please contact:

Office of Oil, Gas and Minerals
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**ORPHAN WELL FUND ANNUAL REPORT
FISCAL YEAR 2010-2011**

Part 616, Orphan Well Fund, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), created a funding source and method for carrying out plugging, response activity, or site restoration at abandoned or improperly closed oil or gas wells for which no owner or operator is known, for which all owners or operators are insolvent, or at which the Supervisor determines there exists an imminent threat to public health and safety. Section 324.61607 requires an annual report be submitted to the Legislature detailing expenditures from the Orphan Well Fund for the preceding fiscal year (FY).

During FY 2010-2011, total expenditures were as follows:

Plugging, Response Activity, and Site Restoration	\$1,104,840
Remedial Investigation	\$65,604
Program Costs (i.e., Wages, CSS&M, Travel)	\$278,201
Central Administrative Costs	\$56,633
Emergency Contingency	\$0
TOTAL COST FOR FY 2010-2011	<u><u>\$1,505,278</u></u>

The attached table titled "Orphan Well Expenditures for Fiscal Year 2010-2011" shows total expenditures for plugging costs, response activity, remedial investigation, and site restoration, as well as a breakdown of these costs by well or project and total administrative costs.

Plugging costs ranged from approximately \$23,000 to \$107,000 with an average cost of \$47,653. Tank battery and well site restoration averaged \$4,646 per location. The total cost for plugging, response activity, and site restoration for all projects was \$1,104,840.

Not shown on the Annual Report, however worthy of note, is the return to the Orphan Well Fund of \$44,900 resulting from the sale of well tubing, casing, and equipment and bond recovery.

The Annual Report for FY 2010-2011 represents the 16th year that funds were expended from the Orphan Well Fund. Twenty-one wells were plugged, one oil storage area (tank battery location) was remediated, and five Category III sites were investigated for contaminants.

DESCRIPTION OF TABLE COLUMN HEADINGS

COUNTY: Name of the county where the well is located.

PERMIT NUMBER: The number is issued in a chronological order sequence. The first drilling permit (Permit Number 1) was issued in 1927. Permits are currently issued pursuant to Part 615, Supervisor of Wells, of the NREPA. By the end of FY 2010-2011, a total of **60,444** permits had been issued.

YEAR: The calendar year in which the drilling permit was issued.

COMPANY: The last person or organization that owned the well.

WELL NAME AND NUMBER: The name and number assigned by the permittee. The name and number are intended to allow easy identification and differentiation in the oil field of the various wells owned by a company. TB means tank battery.

CATEGORY:

CATEGORY IA wells are abandoned oil and gas wells that are leaking significant volumes of gas or that as a result of leaking oil or brine are contaminating the groundwater used for public consumption.

CATEGORY IB wells are abandoned oil and gas wells that are leaking oil resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

CATEGORY IC wells are abandoned oil and gas wells that are leaking gas or brine resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

CATEGORY II wells are abandoned, nonleaking wells.

CATEGORY III wells have been plugged; however, site remediation has not yet been completed.

PLUGGING COSTS: The cost to plug the well.

RESPONSE ACTIVITY: The cost for removing contaminated soils and fluids in the tank and isolating wellheads and flow lines prior to the plugging of the well.

REMEDIAL INVESTIGATION: The estimated cost for studies to define any soils or groundwater and associated resources contamination.

REMEDICATION: The estimated cost to remediate soil and groundwater. Costs are to be determined after completing the plugging, interim response, and remedial investigation.

SITE RESTORATION: The cost for removal of production equipment and flow lines, disposal of fluids, excavation and disposal of contaminated soils, grading of soils, and revegetation of the area. Site restoration occurs after the plugging of the well.

TOTAL COSTS: The total costs per well.

STATE HOUSE: The Michigan House District where the well is located.

STATE SENATE: The Michigan Senate District where the well is located.

ORPHAN WELL FUND EXPENDITURES FOR FISCAL YEAR 2010-2011

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	CATEGORY	PLUGGING COSTS	RESPONSE ACTIVITY	REMEDIAL INVESTIGATION	REMEDIATION	SITE RESTORATION	TOTAL COSTS *	STATE HOUSE	STATE SENATE
Kent	6670	1939	Hogan Brothers	Alabastine Co. #1 (1 well - 0 TB)	IB	\$107,388	\$0	\$0	\$0	\$0	\$107,388	76	29
Tuscola	Various	1950s	Richter, Ervin	Multiple wells (2 wells - 0 TB)	II	\$91,210	\$0	\$0	\$0	\$19,494	\$110,704	84	31
Jackson/ Hillsdale	Various	1940s - 1960s	Various Operators	Multiple wells (4 wells - 0 TB)	II	\$153,071	\$0	\$0	\$0	\$695	\$153,766	64/58	19/16
Midland	Various	1930s	Various Operators	Multiple wells (2 wells - 0 TB)	II	\$124,246	\$0	\$0	\$0	\$19,696	\$143,942	99	36
Osceola	Various	1920s - 1950s	Various Operators	Multiple wells (5 wells - 0 TB)	II	\$214,678	\$0	\$0	\$0	\$19,992	\$234,670	102	35
Lenawee	Various	1980s	Various Operators	Multiple wells (3 wells - 0 TB)	II	\$94,294	\$0	\$0	\$0	\$0	\$94,294	57	16
Grand Traverse/ Kalkaska	Various	1980s	Various Operators	Multiple wells (4 wells - 1 TB)	II	\$217,728	\$0	\$0	\$0	\$42,348	\$260,076	104	35/37
Various	-	-	Various Operators	Multiple Sites	III	\$0	\$0	\$65,604	\$0	\$0	\$65,604	-	-
Plugging, Response Activity, and Site Restoration Costs:						\$1,002,615	\$0	\$65,604	\$0	\$102,225	\$1,170,444		
Orphan Well Program Administrative Costs:											\$334,834		
TOTAL COSTS :											\$1,505,278		

TB = Tank Battery

* See Orphan Well Project Summary for details on activities undertaken at the above projects.

ORPHAN WELL FUND PROJECT SUMMARY

The following is a brief description of Orphan Well Fund Projects for FY 2010-2011:

Kent County – Alabastine Company #1 (PN 6670): This previously plugged and abandoned well, from the 1930s, was located in downtown Grand Rapids.

Reported to the DEQ's Office of Oil, Gas, and Minerals (OOGM), Orphan Well Program, in 2010, the well had obviously been leaking for many years. While an urban environment poses interesting challenges for operations, the well location (within the boundaries of an abandoned lumber warehouse yard) provided ample room for required equipment. The well was successfully reentered and plugged to surface without incident.

The well site was removed from the Orphan Well List upon completion of this project.

Tuscola County - Richter 2011 Project: This project, located in Elmwood Township of Tuscola County, involved two 1950s era wells. All tank batteries were removed and restored during a previous Orphan Well project in 2008. Successful plugging and site restoration returned the land to the owner for complete usage after years of neglect.

These well sites were removed from the Orphan Well List upon completion of this project.

Currently, 5 "adopted" orphan wells remain in the field. Operators continue to coax these wells to produce the heavy oil that remains recoverable.

Jackson and Hillsdale Counties – Jackson-Hillsdale County 2011 Project: Two wells in Jackson County and two in Hillsdale County were plugged. One oil storage area (tank batteries) was also restored in this project. All locations were cleaned and restored as nearly as possible to their original conditions. There was no salvage equipment or materials recovered or sold.

These four wells and the tank battery were removed from the Orphan Well List upon completion.

A fifth well in Jackson County, which was in the initial scope of work, required a wetland permit before any operations could begin. The acquisition of that permit is in process with current plans to begin work in FY 2012.

Midland County – Midland County 2011 Project: Two previously plugged wells in Midland County comprised this project. The first well had been plugged and all casing at surface had been pulled. This resulted in a collapse at the surface, found by a farmer while tilling. The well was reconstructed and drilled out before plugging of the well was completed. The second plugged well was determined to be incomplete as oil was observed to be inside the open casing at surface. This well also had to be redrilled before it could be properly sealed to surface.

Each site was cleaned and restored as nearly as possible to its original condition. There was no salvage of equipment or materials from either location.

These wells were removed from the Orphan Well List upon completion of this project.

Osceola County - Osceola County 2011 Project: Five wells were plugged in Osceola County. The well sites were cleaned and restored as nearly as possible to their original conditions, and associated buried piping was removed from the areas. There were no storage areas (tank batteries) associated with these wells.

The wells were removed from the Orphan Well List upon completion of this project.

Grand Traverse and Kalkaska Counties-Grand Traverse/Kalkaska County 2011 Project: Four wells were plugged within Kalkaska and Grand Traverse Counties. Additionally, one tank battery was disassembled and the associated lands restored. These wells were some of the more modern wells within the Orphan Well Program. However, being drilled in the mid-1980s did not ensure they were without challenges. Corroded and rusted well components, unconventional mechanical assemblies, pressure, and surface soil contamination presented unique challenges with these wells.

One benefit of the more modern era wells is the quality of salvage materials recovered. This project provided a significant amount of recovered materials that were sold with all money returned to the Orphan Well account for future operations. The project was successful and without incident. Once completed, the wells were removed from the Orphan Well List.

Lenawee County-Lenawee County 2011 Project: Two wells in Lenawee County were plugged with an additional well location only requiring site restoration. There were no storage areas (tank batteries) associated with these wells. The sites were cleaned and restored as nearly as possible to their original conditions.

The three well sites were removed from the Orphan Well List upon completion of this project.

Category III Remedial Investigation: During the 16 years of Orphan Well Program activities, there has been an occasional need to postpone a 'complete' site restoration. This has been due to extensive impact to soil or water that would require excessive funds and resources to accomplish. The primary directive of the Orphan Well Program is to eliminate the source, or potential source, of impact first; that is, plug wells and clean and dismantle storage areas (tank batteries). However, as the number of well sites and tank batteries continue to decline, the program will expand to also include remediation as a primary task. The risk to public health and to the environment from the contamination at these sites was evaluated and prioritized. The prioritization was based on actual impact and risks to public health and safety and the environment.

This past fiscal year, five separate Category III locations were investigated by the DEQ's Remediation Division (RD) staff. Led by the OOGM hydrogeologist, in cooperation with RD geologists, extensive soil and groundwater samples were obtained with State-owned equipment and analyzed at the State of Michigan laboratory. Reports are being finalized on these sites to determine the best approach(s) for remediation.

Utilizing in-house equipment and expertise for preliminary planning results in a significant cost savings to the Orphan Well Program. The OOGM will continue to work with the RD in the coming year to gather data as efficiently and cost effectively as possible. However, plans will be developed in FY 2012 to address the potential needs and services required for soil and groundwater remediation where RD resources are insufficient. This will lead to opportunities for other specialized vendors to participate in future Orphan Well projects.

2012 Orphan Well List



Michigan Department of Environmental Quality
Resource Management Division
Office of Oil, Gas and Minerals

Pursuant to Part 616, Orphan Well Fund,
of the Natural Resources and Environmental Protection Act,
1994 PA 451, as Amended

For more information on the Orphan Well Program, please contact:

Office of Oil, Gas and Minerals
Resource Management Division
Michigan Department of Environmental Quality
P.O. Box 30256
Lansing, Michigan 48909-7756
517-241-1548

2012 ORPHAN WELL LIST

The Orphan Well List (List), prepared by the Department of Environmental Quality (DEQ), Resource Management Division (RMD), Office of Oil, Gas and Minerals (OOGM), is a compiled listing of oil or gas wells scheduled to be plugged and those at which interim response, remedial investigation, remediation, or site restoration should be performed with money from the Orphan Well Fund. The List is arranged in order of priority using the score assessment determined for each well or project. Estimated costs are given for the total cost of each well or project and the cost of each phase of the project (plugging costs, interim responses, etc.). The List also shows the State House and State Senate District in which each well is located. The criteria used to calculate the score and a brief description of column headings are identified below.

The List is divided into three categories of wells: **Category I** wells are known to be leaking oil, gas, and/or brine; **Category II** wells are not known to be leaking, but may have had past leaks or spills, have been incompletely plugged by the operator, or have surface equipment or facilities remaining; and **Category III** wells have been properly plugged but still have remediation needs.

Category I wells are subdivided into three subcategories based on their potential risk to public health, safety, and the environment. The wells are listed in a descending order of priority within each subcategory.

Category IA wells are abandoned oil and gas wells that are leaking significant volumes of gas or that as a result of leaking oil or brine are contaminating the groundwater used for public consumption.

Category IB wells are abandoned oil and gas wells that are leaking oil resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

Category IC wells are abandoned oil and gas wells that are leaking gas or brine resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

Category II wells are abandoned, nonleaking wells. These wells may also have been incompletely plugged by the operator or have surface equipment or facilities remaining. Category II wells are then grouped and prioritized by project.

Category III wells have been plugged; however, site remediation has not yet been completed.

Abandoned oil and gas wells that qualify for plugging under Part 616, Orphan Well Fund, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, must be scored prior to being added to the List. All wells are scored (prioritized) utilizing a well assessment program. The well assessment program was developed by the OOGM. This system factors in: presence and type of contaminants in soils or groundwater from spills, potential for future contamination, sensitivity of drinking water supplies, degree to which groundwater is protected by geology, age of the well, presence of hydrogen sulfide gas, potential for public exposure to contaminants, and the environmental sensitivity of the area.

The score values are only applicable within their respective category. All Category I wells have priority over Category II wells. However, special considerations such as assessment of risk and available technology to successfully resolve a situation, the inability to obtain access to the location, or the need to obtain auxiliary permits may necessitate temporarily bypassing a well with a higher score in favor of a well with a lower score.

CATEGORY I WELLS

CATEGORY IA WELLS are leaking significant volumes of gas or that as a result of leaking oil or brine are contaminating the groundwater used for public consumption.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST.	REMED. ATION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE
TOTAL ESTIMATED COSTS:													
TOTAL WELLS: 0													

CATEGORY IB WELLS are leaking oil resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST.	REMED. ATION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE
Muskegon	653	1929	Damm, Carl & Dollie	C.P. Damm #4	24	>\$750,000	\$15,000	T.B.D.	T.B.D.	T.B.D.	>\$765,000	92	34
Arenac	15842	1950	Major, Ervin	Adolph & Marie Hanggi 32	14	\$150,000	\$0	T.B.D.	T.B.D.	T.B.D.	\$150,000	97	31
Midland	2076	1934	Turner, Fred	Eugene St. John B #2	19	>\$300,000	\$0	T.B.D.	T.B.D.	T.B.D.	>\$300,000	70	36
TOTAL ESTIMATED COSTS:													
TOTAL WELLS: 3													

CATEGORY IC WELLS are leaking gas or brine resulting in contamination of soils, surface water resources, or the groundwater where water wells used for public consumption are not yet contaminated.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST.	REMED. ATION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE
TOTAL ESTIMATED COSTS:													
TOTAL WELLS: 0													

CATEGORY II WELLS - PRIORITIZED

CATEGORY II WELLS are not known to be leaking. Projects are delineated by the alternately shaded and nonshaded groups.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	CAT II WELL SCORE	CAT II PROJ. SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST	REMEDIA-TION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE
Jackson	24425	1962	Mammoth Prod. Corp.	Barton-Dew Unit #1	13	13	\$55,000	\$0	\$0	T.B.D.	\$6,000	\$61,000	64	19
Manistee	50718	1996	MYD, Inc.	Hilliard #1-4B	12	13	\$55,000	\$0	\$0	T.B.D.	\$10,000	\$65,000	101	35
Manistee	N/A	N/A	Manistee Gas LLC	Brown CPF	13	13	PC*	\$0	\$0	T.B.D.	\$125,000	\$125,000	101	35
St. Clair	506	1929	Patterson, BP Trustee	Routley #1	13	13	\$5,000	\$0	\$0	T.B.D.	\$5,000	\$10,000	81	25
Mecosta	12549	1946	Wait, Vincent, & Spence	Bongard & Vincent #1	12	12	\$35,000	\$0	\$0	T.B.D.	\$5,000	\$40,000	102	35
Muskegon	588	1929	Witt & Wyant	Fenner, A.L. #2	13	12	\$15,000	\$0	\$0	T.B.D.	\$15,000	\$30,000	92	34
Muskegon	784	1929	Reliable Oil & Gas Co.	Caleman #1	na	na	PC*	\$0	\$0	T.B.D.	\$5,000	\$5,000	92	34
Muskegon	27986	1970	Wagonmaker, John	Wagonmaker #1	11	12	\$40,000	\$0	\$0	T.B.D.	\$5,000	\$45,000	92	34
Newaygo	36546	1983	Raffaele Exp. & Raffaele Inc.	DeVries #2-27	12	12	PC*	\$0	\$0	T.B.D.	\$10,000	\$10,000	100	34
Missaukee	18521	1953	Calderone-Curran Ranch	Davis, H. Sr. #1	12	12	\$60,000	\$0	\$0	T.B.D.	\$7,000	\$67,000	103	35
Arenac	18409	1953	Collin, C.W.	Templin #1	11	11	\$40,000	\$0	\$0	T.B.D.	\$2,000	\$42,000	97	31
Bay	1016	1930	Eureka Oil Corp	Lambert-Cloverleaf #1	11	11	\$5,000	\$0	\$0	T.B.D.	\$2,500	\$7,500	97	31
Gratiot	1193	1931	Miller & Combs	Rebecca Kerr #1	11	11	\$40,000	\$0	\$0	T.B.D.	\$2,500	\$42,500	93	32
Isabella	471	1929	McCandless, J.	Bufford #1	11	11	PC*	\$0	\$0	T.B.D.	\$5,000	\$5,000	99	33
Otsego	29028	1973	Saba Energy of TX	Leacock, Hubbard Underwood Unit #1	11	11	PC*	\$0	\$0	T.B.D.	\$35,000	\$35,000	105	36
Otsego	44355	1991	Duff Oil Company	Forterra #1-15	na	11	PC*	\$0	\$0	T.B.D.	\$20,000	\$20,000	105	36
Sanilac	966	1930	K-Bar Oil & Gas	Kolodziej #1	11	11	\$2,500	\$0	\$0	T.B.D.	\$5,000	\$7,500	83	31
Tuscola	64	1928	Murphy Oil Co.	Adam Gottler #1	11	11	\$2,500	\$0	\$0	T.B.D.	\$5,000	\$7,500	84	31
Ogemaw	4333	1937	R.E. Gallagher	Vincent, Ellis #1	11	10	\$55,000	\$0	\$0	T.B.D.	\$8,000	\$63,000	103	36
Ogemaw	31207	1976	States Petroleum	Sheppard & Marquieta #1	9	10	\$65,000	\$0	\$0	T.B.D.	\$2,000	\$67,000	103	36

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	CAT II WELL SCORE	CAT II PROJ. SCORE	PLUGGING COSTS	INTERIM RESPONSE	REMEDIAL INVEST	REMEDIAL ACTION	SITE RESTORATION	TOTAL COSTS	STATE HOUSE	STATE SENATE	
Presque Isle	40971	1988	Richland Exploration	Compton #1-14B	8	10	\$50,000	\$0	\$0	T.B.D.	\$4,000	\$54,000	106	37	
Presque Isle	40923	1988	Richland Exploration	Kimball #1-11	11	10	\$50,000	\$0	\$0	T.B.D.	\$7,000	\$57,000	106	37	
Wexford	N/A	<1931	unknown	Cummer Diggins Location	7	7	\$5,000	\$0	\$0	T.B.D.	\$2,500	\$7,500	102	35	
Estimated Costs Remaining:							\$580,000	\$0	\$0	T.B.D.	\$293,500	\$873,500			
Current Number of Category II Orphan Wells:							23								

*PC = Plugging Complete

CATEGORY III WELLS

CATEGORY III WELLS – Sites still require remedial work.

COUNTY	PERMIT NUMBER	YEAR	COMPANY	WELL NAME & NUMBER	SCORE	ACTUAL PLUGGING	ACTUAL INTERIM RESPONSE	ACTUAL SITE RESTOR.	TOTAL COSTS TO DATE	ESTIMATED REMEDIAL INVEST.	ESTIMATED REMED.	ESTIMATED FUTURE COSTS	SALVAGE (Income)	STATE HOUSE	STATE SENATE								
Allegan	15891	1950	Michigan Pipe Co.	Maude Mesick #1	17	\$27,580	\$0	\$19,374	\$46,953	\$10,000	\$50,000	\$60,000	\$0	88	24								
Calhoun	N/A	1970	James Kelly dba Kelly Oil Co.	Miller CTB	13	\$141,282	\$0	\$5,671	\$146,953	\$1,500	\$80,000	\$81,500	\$0	62	19								
Gladwin	19368	1955	Lakeland Oil Corp.	Connolly #B-1	23	\$50,420	\$0	\$10,400	\$60,820	\$10,000	\$75,000	\$85,000	\$0	97	36								
Gladwin	18112	1953	Lakeland Oil Corp	Kobetich #L-2	25	\$50,420	\$0	\$10,400	\$60,820	\$10,000	\$75,000	\$85,000	\$0	97	36								
Isabella	694	1929	Denver Oil Development	Adams #1	36	\$109,951	\$4,981	\$4,998	\$119,930	\$20,000	\$50,000	\$70,000	\$0	99	33								
Isabella	1941	1934	Nollem O & G	Thayer, L. # 3	24	\$78,765	\$0	\$11,603	\$90,368	\$20,000	\$80,000	\$100,000	\$0	99	33								
Isabella	3628	1937	Nollem O & G	Thayer, L # 5	39	\$60,529	\$0	\$9,331	\$69,860	\$20,000	\$80,000	\$100,000	\$0	99	33								
Kent	6056	1939	Bauman, M.H.	Burgess #1	20	\$29,500	0	\$5,300	\$34,800	\$5,000	\$75,000	\$80,000	\$0	74	30								
Lake	12767	1946	Byron MacCallum	Lake Co Farm #1	41	\$41,031	\$4,969	\$4,729	\$50,729	\$35,000	\$65,000	\$100,000	\$0	100	35								
Manistee	30540	1975	Whitney Oil & Gas Corp.	Hadaway #2-2A	PC*	-	-	-	\$0	\$10,000	\$20,000	\$30,000	\$0	101	35								
Montcalm	11919	1945	Kill Drilling Co.	Douglas #1	16	\$40,316	\$0	\$40,268	\$80,584	\$10,000	\$75,000	\$85,000	\$0	70	33								
Montcalm	10816	1944	Stewart, Fred	Charley - Witherall # 1	44	\$39,000	\$0	\$25,900	\$64,900	\$1,500	\$7,000	\$8,500	\$0	70	33								
Montcalm	10922	1944	Stewart, Fred	Paris #1	43	\$39,000	\$0	\$7,400	\$46,400	\$1,500	\$7,000	\$8,500	\$0	70	33								
Montcalm	27876	1969	Stewart, James	Graham, H. #1	43	\$33,206	\$0	\$9,190	\$42,396	\$50,000	\$150,000	\$200,000	\$0	70	33								
Muskegon	92	1928	Continental Motors Corp.	Continental #1	47	\$56,161	\$4,570	\$6,424	\$67,155	\$50,000	\$200,000	\$250,000	\$0	92	34								
Muskegon	46	1928	Blue Arrow Petroleum Co	A. Workman #1	39	\$47,018	\$3,172	\$1,369	\$51,559	\$10,000	\$25,000	\$35,000	\$0	92	34								
Muskegon	85	1928	Muskegon Oil Corp	H. Heinz #3	38	\$46,086	\$5,111	\$2,746	\$53,943	\$10,000	\$35,000	\$45,000	\$0	92	34								
Muskegon	114	1928	W. J. Simon	Reaths #1-D	37	\$69,458	\$11,551	\$5,715	\$86,724	\$20,000	\$50,000	\$70,000	\$0	92	34								
Oceana	31691	1977	Simmons, J.	Vander Zanden #2	15	\$45,246	\$0	\$5,882	\$51,128	\$5,000	\$50,000	\$55,000	\$0	100	34								
Ogemaw	1281	1932	Leon G. Thompson	Price #1	38	\$151,899	\$1,236	\$9,587	\$162,722	\$50,000	\$150,000	\$200,000	\$0	103	36								
Ottawa	20999	1958	J & T Distributing	Kneibel #1	19	\$21,000	\$0	\$5,700	\$26,700	\$5,000	\$50,000	\$55,000	\$0	74	30								
Ottawa	20219	1956	J & T Distributing	Neahr #3	19	\$21,000	\$0	\$5,700	\$26,700	\$5,000	\$50,000	\$55,000	\$0	74	30								
Ottawa	7051	1939	J & T Distributing	Sims #1	19	\$21,000	\$0	\$5,700	\$26,700	\$5,000	\$50,000	\$55,000	\$0	74	30								
Estimated Costs Remaining:													\$1,219,868	\$35,590	\$213,387	\$1,468,844	\$364,500	\$1,549,000	\$1,913,500	\$0			
Total Category III Sites Remaining:													23										

*PC = Plugging Complete