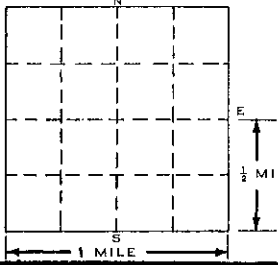


NOV 24 1980

WATER WELL RECORD
ACT 294 PA 1965

MICHIGAN DEPARTMENT
PUBLIC HEALTH

OCT 25 1980

1 LOCATION OF WELL					
County <i>Washtenaw</i>	Township Name <i>Washtenaw</i>	Fraction <i>1/4 1/4 1/4</i>	Section Number <i>31</i>	Town Number <i>NYS.</i>	Range Number <i>13 E(W)</i>
Distance And Direction from Road Intersections <i>1/2 mi. N on Lyman Rd. on W side</i>			3 OWNER OF WELL: <i>1117 S. Lyman Rd. Washtenaw, MI 48184</i>		
Street address & City of Well Location <i>1117 S. Lyman Rd. Washtenaw, MI 48184</i>			4 WELL DEPTH: (completed) Date of Completion <i>31 ft. 11/24/80</i>		
Locate with "X" in section below 			5 <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> Hollow rod <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Bored <input type="checkbox"/>		
2 FORMATION			6 USE: <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Public Supply <input type="checkbox"/> Industry <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Commercial <input type="checkbox"/> Test Well <input type="checkbox"/>		
THICKNESS OF STRATUM			7 CASING: Threaded <input type="checkbox"/> Welded <input type="checkbox"/> Height: Above/Below Surface _____ ft. Weight _____ lbs./ft. Drive Shoe? Yes <input type="checkbox"/> No <input type="checkbox"/>		
DEPTH TO BOTTOM OF STRATUM			8 SCREEN: Type: _____ Dia.: _____ Slot/Gauze _____ Length _____ Set between <i>25</i> ft. and <i>30</i> ft. Fittings: _____		
<i>lyman</i>			9 STATIC WATER LEVEL _____ ft. below land surface		
<i>lyman</i>			10 PUMPING LEVEL below land surface _____ ft. after _____ hrs. pumping _____ g.p.m. _____ ft. after _____ hrs. pumping _____ g.p.m.		
<i>lyman</i>			11 WATER QUALITY in Parts Per Million: Iron (Fe) _____ Chlorides (Cl) _____ Hardness _____ Other _____		
<i>lyman</i>			12 WELL HEAD COMPLETION: <input type="checkbox"/> In Approved Pit <input checked="" type="checkbox"/> Pitless Adapter <input type="checkbox"/> 12" Above Grade		
<i>lyman</i>			13 Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Depth: From _____ ft. to _____ ft.		
<i>lyman</i>			14 Nearest Source of possible contamination <i>200</i> feet <i>W</i> Direction <i>Lyman Rd</i> Type _____ Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
<i>lyman</i>			15 PUMP: <input checked="" type="checkbox"/> Not installed Manufacturer's Name _____ Model Number _____ HP _____ Volts _____ Length of Drop Pipe _____ ft. capacity _____ G.P.M. Type: <input type="checkbox"/> Submersible <input type="checkbox"/> Jet <input type="checkbox"/> Reciprocating		
16 Remarks, elevation, source of data, etc. <i>Added data for rock, item no. 10 10' LYMAN RD. 10' LYMAN RD. DEPTH TO ROCK</i>			17 WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. <i>James H. ...</i> REGISTERED BUSINESS NAME _____ REGISTRATION NO. _____ Address _____ Signed _____ Date _____ AUTHORIZED REPRESENTATIVE		

DRINKING WATER & RADIOLOGICAL PROTECTION DIVISION

WATER WELL AND PUMP RECORD

Completion is required under authority of Part 127 Act 368 PA 1978
Failure to comply is a misdemeanor

TAX NO:

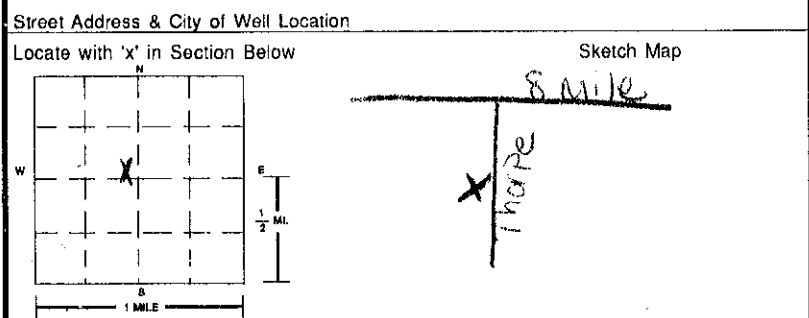
PERMIT NO:

1. LOCATION OF WELL
County **Manistee**

Township Name **Bear Lake** Fraction **SE 1/4 SW 1/4 NW 1/4** Section No. **31** Town No. **23** Range No. **1**

Distance and Direction from Road Intersection **1/2 Mile South of 8 Mile on West side of Thorpe**

3. OWNER OF WELL
Address **Sharon Gronostalski
39250 N. Hampton
Westland, MI 48185**
Address Same as Well Location Yes No



4. WELL DEPTH: **100** ft. Date Completed **6 3 98** New Well Replacement Well

5. Cable Tool Rotary Driven Dug
 Hollow Rod Auger/Bored Jetted

6. USE: Household Type I Public Type III Public
 Irrigation Type IIa Public Heat Pump
 Test Well Type IIb Public

7. CASING: Steel Threaded Plastic Welded Other
Height Above/Below Surface: **1** ft
Diameter: **5** in. to **95** ft. depth Weight **SDR21** lbs./ft.
BORE HOLE: Drive Shoe Shale Packer
Diameter: **3 3/4** in. to **100** ft. depth

2. FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Sand	8	8
Red Clay	2	10
Sandy Gray Clay	55	65
Coarse Wet Sand & Small Gravel	35	100

8. SCREEN: Not Installed Gravel Packed
Type **Plastic** Diameter **5"**
Slot/Grain **20** Length: **5'**
Set Between **95** ft. and **100** ft.
FITTINGS: K-Packer Bremer Check Blank Above Screen ft. Other

9. STATIC WATER LEVEL: _____ ft. Below Land Surface Flowing

10. PUMPING LEVEL: Below Land Surface _____ ft. After _____ hrs. Pumping at **100** G.P.M.
 Plunger Bailor Air Test Pump

11. WELL HEAD COMPLETION:
 Pitless Adapter 12" Above Grade
 Basement Offset Well House

12. WELL GROUTED? No Yes From **85** to **0** ft.
 Neat Cement Bentonite Other **Quick Grout**
No. of Bags **17** Additives

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:
Type **Septic** Distance **55** ft. Direction **East**
Type _____ Distance _____ ft. Direction _____

15. ABANDONED WELL PLUGGED? Yes No
Casing Diameter _____ in. Depth _____ ft.
PLUGGING MATERIAL: Neat Cement Bentonite Slurry
 Cement/Bentonite Slurry Concrete Grout Bentonite Chips
No. of Bags _____ Casing Removed? Yes No

14. PUMP: Not Installed Pump Installation Only
Manufacturer's Name **Myers**
Model Number _____ HP **1/2** Volts **230**
Length of Drop Pipe **30** ft. Capacity **12** G.P.M.
TYPE: Submersible Jet Other
PRESSURE TANK:
Manufacturer's Name **Well-X-Troll**
Model Number **202 UG** Capacity **18** Gallons

16. REMARKS: (Elevation, Source of Data, etc.)

17. DRILLING MACHINE OPERATOR:
 Employee Subcontractor
Name **Carl VanOeffelen**

18. WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
BRASS-MAR WATER WELLS, Inc., 41-1987
REGISTERED BUSINESS NAME REGISTRATION NO.
Address **13427 Fruit Ridge, N.W., Kent City, MI 4933**
Signed **R.P. Martin (ISB)** Date **6/18/98**
AUTHORIZED REPRESENTATIVE

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

PERMIT NUMBER:

1 LOCATION OF WELL 51231531001 Tax Parcel No.

County MANISTEE Township Name BEAR LAKE Fraction NW 1/4 SW 1/4 NE 1/4 Section No. 31 Town No. 23 N Range No. 15 W

Distance And Direction From Road Intersection
5 MI S OF 8 MILE RD ON E SIDE THORPE RD
7663 THORPE RD, BEAR LAKE 49614
Street Address & City of Well Location

3 OWNER OF WELL PORTER, ROBERT
Address 7663 THORPE RD
BEAR LAKE, MI 49614
Address Same As Well Location? Yes No

Locate with 'x' in Section Below Sketch Map:

4 WELL DEPTH: 77.0 ft. Date Completed 02/27/96 New Well Replacement Well

5 Cable tool Rotary Driven Dug
 Hollow rod Auger/Bored Jetted

6 USE Domestic Type I Public Type III Public
 Irrigation Type II Public Heat Pump
 Test Well Type IIB Public

7 CASING: Steel Threaded Height: Above Surface 1.0 ft.
 Plastic Welded
Diameter 4.00 in. to 73.0 ft. depth
0.00 in. to 0.0 ft. depth
Grouted Drill Hole Diameter 0.00 in. to 0.0 ft. depth
0.00 in. to 0.0 ft. depth
Weight 2.7 lbs/ft.
Drive Shoe Yes No

2	FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
	CLAY	7.0	7.0
	CLAY & SAND	10.0	17.0
	CLAY	49.0	66.0
	CLAY & GRAVEL	4.0	70.0
	WATER SAND	7.0	77.0

8 SCREEN Not Installed
Type Stainless Steel Diameter 3.63
SLOT 10.000 Length 4.0
Set between 73.00 ft. and 77.00 ft.
FITTINGS: K-Packer Lead Packer Bremner Check
 Blank above screen 1.0 ft. Other

9 STATIC WATER LEVEL: 0.00 ft. below land surface Flow

10 PUMPING LEVEL: below land surface
40 ft. after 2.0 hrs. pumping at 25 G.P.M.
0 ft. after 0.0 hrs. pumping at 0 G.P.M.

11 WELL HEAD COMPLETION: Pitless adapter 12" above grade
 Basement offset Approved pit

12 WELL GROUTED? No Yes From 0.0 to 73.0 ft.
No. of bags of cement Additives

13 Nearest source of possible contamination
Type Septic Distance 50 ft. Direction NW
Well disinfected upon completion? Yes No
Was old well plugged? Yes No

14 PUMP: Not Installed Pump Installation Only
Manufacturer's name F & W
Model number HP 0.5 Volts
Length of Drop Pipe 40 ft. Capacity 10 G.P.M.
TYPE: Submersible Jet
PRESSURE TANK:
Manufacturers name
Model number 302 Capacity 75 Gallons

15 Remarks, elevation, source of data, etc.
302 WELL X-TROL
4F10C05305

Data Source:

16 WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

KLUESNER, PHIL WELL DRILLING 1900
REGISTERED BUSINESS NAME REGISTRATION NO.

Address BOX 67 BRETHREN, MI 49619

Signed *Phil Kluesner* Date 2-28-96
AUTHORIZED REPRESENTATIVE

17 Rig Operator's Name: PHIL

OK

GEOLOGICAL SURVEY NO.

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

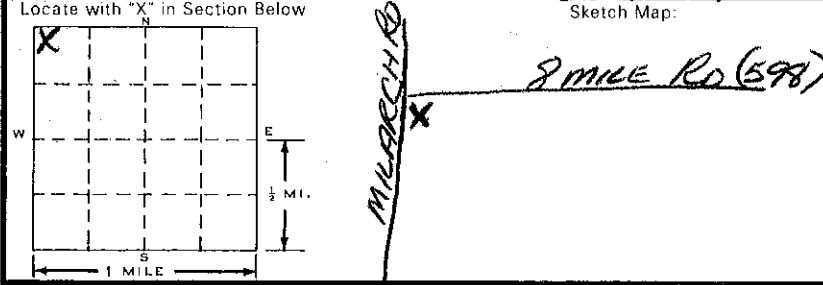
1 4463
PERMIT NUMBER

1 LOCATION OF WELL

County MANISTEE Township Name BEAR LAKE Fraction NW¹/₄, NW¹/₄, NW¹/₄ Section Number 31 Town Number 23 N¹/₂ Range Number 15 E¹/₂

Distance And Direction From Road Intersection
WELL IS S OF 8 MILE RD 9 EAST OF MILARCH RD ON CORNER.

Street Address & City of Well Location 6083 8 MILE RD



3 OWNER OF WELL: W. SOMSEL
Address 6083 8 MILE RD ONEKAMA MI 49675
Address Same As Well Location? Yes No

4 WELL DEPTH: 145 FT. Date Completed 11 4 96
 New Well Replacement Well

5 Cable tool Rotary Driven Dug
 Hollow rod Auger Jetted

6 USE: Domestic Type I Public Type III Public
 Irrigation Type IIa Public Heat pump
 Test Well Type IIb Public

7 CASING: Diameter 4 in. to 141 ft. depth
 Steel Threaded Welded
 Plastic
Height: Above/Below Surface 1 1/2 ft.
Weight 10.79 lbs./ft.
Grouted Drill Hole Diameter _____ in. to _____ ft. depth
Drive Shoe Yes No

2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
<u>TOP SOIL</u>	<u>1'</u>	<u>1'</u>
<u>YELLOW GRAVEL</u>	<u>33'</u>	<u>34'</u>
<u>GRAY CLAY</u>	<u>107'</u>	<u>141'</u>
<u>GRAVEL (OPEN HOLE)</u>	<u>4'</u>	<u>145'</u>

8 SCREEN: Not Installed
Type _____ Diameter _____
Slot/Gauze _____ Length _____
Set between _____ ft. and _____ ft.
FITTINGS: K-Packer Lead Packer Bremer Check
 Blank above screen _____ ft. Other _____

9 STATIC WATER LEVEL: 0 ft. below land surface Flow

10 PUMPING LEVEL: below land surface
0 ft. after 2 hrs. pumping at 75 G.P.M.
_____ ft. after _____ hrs. pumping at _____ G.P.M.

11 WELL HEAD COMPLETION: Pitless adapter 12" above grade
 Basement offset Approved pit

12 WELL GROUTED? No Yes. From 0 to 141 ft.
 Neat cement Bentonite Other _____
No. of bags of cement _____ Additives _____

13 Nearest source of possible contamination
Type SEPTIC Distance _____ ft. Direction _____
Well disinfected upon completion? Yes No
Was old well plugged? Yes No

14 PUMP: Not Installed Pump Installation Only
Manufacturer's name _____
Model number _____ HP _____ Volts _____
Length of Drop Pipe _____ ft. capacity _____ G.P.M.
TYPE: Submersible Jet
PRESSURE TANK
Manufacturer's name GALV
Model number 4 Capacity 42 Gallons

15. Remarks, elevation, source of data, etc.

17. Rig Operator's Name: PHIL KLUESNER

16. WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Phil Kluesner Well Drilling 1908
REGISTERED BUSINESS NAME REGISTRATION NO.
Address PO BOX 67 BROTHERS MI 49619
Signed Phil Kluesner Date 11-18-96
AUTHORIZED REPRESENTATIVE

RECEIVED ON

NOV 21 1996

MANISTEE-MASON DISTRICT HEALTH DEPARTMENT

JAN 13 1997

BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

USE A 2ND SHEET IF NEEDED

Authority: Act 368 PA 1978
Completion: Required
Penalty: Conviction of a violation of any provision is a misdemeanor.

WATER WELL RECORD
ACT 294 PA 1965

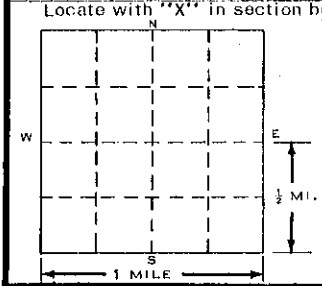
MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County <i>Manistee</i>	Township Name <i>Ocean Lake</i>	Fraction $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	Section Number <i>31</i>	Town Number <i>23 N.E.</i>	Range Number <i>15 W.</i>
---------------------------	------------------------------------	---	-----------------------------	-------------------------------	------------------------------

Distance And Direction from Road Intersections

Street address & City of Well Location
Locate with "X" in section below



Sketch Map:

3 OWNER OF WELL:
Address *Mrs. Fuggitt
Onkama*

4 WELL DEPTH: (completed) *111* ft. Date of Completion *5-22-75*

5 Cable tool Rotary Driven Dug
 Hollow rod Jetted ~~Other~~

6 USE: Domestic Public Supply Industry
 Irrigation Air Conditioning Commercial
 Test Well:

7 CASING: Threaded Welded
Diam. Height: Above ~~Below~~ Surface *1* ft.
Weight *375* lbs./ft. Drive Shoe? Yes No

2 FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
-------------	----------------------	----------------------------

<i>Sand</i>	<i>15</i>	<i>15</i>
<i>Gravel + Clay</i>	<i>15</i>	<i>30</i>
<i>Clay</i>	<i>75</i>	<i>105</i>
<i>Gravel + coarse sand</i>	<i>675</i>	<i>111</i>

8 SCREEN: Type: *fluted* Dia.: *1 1/4*
Slot/Gauze *55-60* Length *4 ft*
Set between *107* ft. and *111* ft.
Fittings: *Bremner 1 1/2 Comp 2 1/2 ft pipe*

9 STATIC WATER LEVEL
15 ft. below land surface

10 PUMPING LEVEL below land surface
_____ ft. after _____ hrs. pumping _____ g.p.m.
_____ ft. after _____ hrs. pumping _____ g.p.m.

11 WATER QUALITY in Parts Per Million:
Iron (Fe) _____ Chlorides (Cl) _____
Hardness _____ Other _____

12 WELL HEAD COMPLETION: In Approved Pit
 Pitless Adapter 12" Above Grade

13 Well Grouted? Yes No
 Neat Cement Bentonite
Depth: From _____ ft. to _____ ft.

14 Nearest Source of possible contamination
_____ feet _____ Direction _____ Type
Well disinfected upon completion Yes No

15 PUMP: Not installed
Manufacturer's Name *Louder*
Model Number *J4* HP *3/4* Volts *230*
Length of Drop Pipe *15* ft. capacity *4* G.P.M.
Type: Submersible
 Jet Reciprocating

16 Remarks, elevation, source of data, etc.
*top 10 ft 3"
around 2"*

17 WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
County & Company 0539
REGISTERED BUSINESS NAME REGISTRATION NO.
Address *Iron Mountain*
Signed *Louis J. Peterson* Date _____
AUTHORIZED REPRESENTATIVE

WATER WELL RECORD
ACT 294

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County Manistee Twp. BEAR LAKE Section No. 31 Town 23 Range 15 NW

Distance And Direction from Road Intersections
605 + 357 W
8 Miles Thorpe Rd

OWNER No. _____

3 OWNER OF WELL:
Address Donald Bristke
ONEKAMA, Michigan

2 FORMATION

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
<u>SAND</u>	<u>35</u>	<u>35</u>
<u>CLAY</u>	<u>19</u>	<u>54</u>
<u>SAND fine & water</u>	<u>8</u>	<u>62</u>
<u>CLAY</u>	<u>10</u>	<u>72</u>
<u>SAND & water course</u>		<u>77</u>

4 WELL DEPTH: (completed) 76-6" Date of Completion 1/28/67

5 Cable tool Rotary Driven Dug
 Hollow rod Jetted Bored _____

6 USE: Domestic Public Supply Industry
 Irrigation Air Conditioning Commercial
 Test Well _____

7 CASING: Threaded Welded
Diam. 2 in. to 2 1/2 ft. Depth
Height: Above 1 surface 1 ft.
Weight 3.75 lbs./ft.
Drive Shoe? Yes No

8 SCREEN:
Type: gauze Dia.: 1 1/4
Slot/Gauze 60 Length 4'-6"
Set between 72' ft. and 76 1/2' ft.
Fittings: #5320 check on bottom
1 1/2" pipe & tail pipe

9 STATIC WATER LEVEL above
19 ft. below land surface check

10 PUMPING LEVEL below land surface
_____ ft. after _____ hrs. pumping _____ g.p.m.
_____ ft. after _____ hrs. pumping _____ g.p.m.

11 WATER QUALITY in Parts Per Million:
Iron (Fe) _____ Chlorides (Cl) _____
Hardness _____

12 WELL HEAD COMPLETION: In Approved Pit
 Pitless Adapter 2' Above Grade

13 GROUTING:
Well Grouted? Yes No
Material: Neat Cement _____
Depth: From _____ ft. to _____ ft.

14 SANITARY:
Nearest Source of possible contamination
100 feet SW Direction RAIN type
Well disinfected upon completion Yes No

15 PUMP: NONE
Manufacturer's Name _____
Model Number _____ HP
Length of Drop Pipe _____ ft. capacity _____ G.P.M.
Type: Submersible _____
 Jet Reciprocating

16 Remarks, elevation, source of data, etc.
Flow 20 gpm
ADDED INFO. BY DRILLER, ITEM NO. _____
*CORRECTED BY: RTS
**ADDITION BY: _____

17 WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Rollin Well Drilling 364
REGISTERED BUSINESS NAME REGISTRATION NO.
Address 4800 Main St
Signed Hugh Rollin Date 2/2/67
AUTHORIZED REPRESENTATIVE

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL					
County <i>Manistee</i>	Twp. <i>Bear Lake</i>	Fraction <i>NW 1/4 SW 1/4 SW 1/4</i>	Section No. <i>31</i>	Town <i>23 N.P.</i>	Range <i>15 E.W.</i>
Distance And Direction from Road Intersections <i>1/4 mile south of Jones and Milarch roads</i>			3 OWNER OF WELL: Address <i>Frank Welch 1681 Francis St. Muskegon, Mich.</i>		
Street address & City of Well Location			OWNER No. _____		
2	FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	4 WELL DEPTH: (completed) Date of Completion <i>207 ft. 8/19/67</i>	
	<i>red clay</i>	<i>170</i>	<i>120</i>	5 <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Hollow rod <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input type="checkbox"/> _____	
	<i>fine white sand with clay</i>	<i>15</i>	<i>135</i>	6 USE: <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Public Supply <input type="checkbox"/> Industry <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Commercial <input type="checkbox"/> Test Well <input type="checkbox"/> _____	
	<i>Brown clay</i>	<i>63</i>	<i>198</i>	7 CASING: Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Height: Above/Below surface <i>1</i> ft. Diam. <i>2</i> in. to <i>203</i> ft. Depth Weight <i>3.75</i> lbs./ft. _____ in. to _____ ft. Depth Drive Shoe? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	<i>Blue clay</i>	<i>5</i>	<i>203</i>	8 SCREEN: Type: <i>Flush</i> Dia.: <i>1 1/4</i> Slot/Gauze <i>60</i> Length <i>4</i> Set between <i>203</i> ft. and <i>207</i> ft. Fittings: <i>Face coupling and Bremer check</i>	
	<i>coarse white sand</i>	<i>4</i>	<i>207</i>	9 STATIC WATER LEVEL <i>3</i> ft. below land surface	
				10 PUMPING LEVEL below land surface _____ ft. after _____ hrs. pumping _____ g.p.m. _____ ft. after _____ hrs. pumping _____ g.p.m.	
				11 WATER QUALITY in Parts Per Million: Iron (Fe) _____ Chlorides (Cl) _____ Hardness _____	
				12 WELL HEAD COMPLETION: <input type="checkbox"/> In Approved Pit <input type="checkbox"/> Pitless Adapter <input type="checkbox"/> 12" Above Grade	
				13 GROUTING: Well Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No Material: <input type="checkbox"/> Neat Cement <input type="checkbox"/> _____ Depth: From _____ ft. to _____ ft.	
				14 SANITARY: Nearest Source of possible contamination _____ feet _____ Direction _____ Type _____ Well disinfected upon completion <input type="checkbox"/> Yes <input type="checkbox"/> No	
				15 PUMP: Manufacturer's Name _____ Model Number _____ HP Length of Drop Pipe _____ ft. capacity _____ G.P.M. Type: <input type="checkbox"/> Submersible <input type="checkbox"/> _____ <input type="checkbox"/> Jet <input type="checkbox"/> Reciprocating	
16 Remarks, elevation, source of data, etc. ADDED INFO. BY DRILLER, ITEM NO. CORRECTED BY: **ADDITION BY:			17 WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. <i>County line Co.</i> <i>0539</i> <small>REGISTERED BUSINESS NAME</small> <small>REGISTRATION NO.</small> Address <i>Irons Mich.</i> Signed <i>Louis R. Peterson</i> Date <i>10/15/67</i> <small>AUTHORIZED REPRESENTATIVE</small>		

JUL 05 1983

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

MAY 24 1983
PERMIT NUMBER

PART 127 ACT 368, P.A. 1978

1 LOCATION OF WELL		County MANISTEE		Township Name BEAR LAKE		Fraction $\frac{1}{4}$		Section Number 31		Town Number 23 N1/4		Range Number 15 W	
Distance And Direction From Road Intersection 1 MI. WEST OF US-31 TO THORPE RD. 1 MI. SOUTH OF 8 MI. RD. ON THORPE RD.				3 OWNER OF WELL: RANDY JOHNSON Address THORPE RD. ONEKEMA, MI. Address Same As Well Location? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				4 WELL DEPTH: (completed) 108 ft. Date of Completion 5-9-83					
Street Address & City of Well Location Locate with "X" in Section Below				Sketch Map: 				5 <input type="checkbox"/> Cable tool <input type="checkbox"/> Rotary <input type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> Hollow rod <input checked="" type="checkbox"/> Auger <input type="checkbox"/> Jetted <input type="checkbox"/>					
2 FORMATION DESCRIPTION				THICKNESS OF STRATUM		DEPTH TO BOTTOM OF STRATUM		6 USE: <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Type I Public <input type="checkbox"/> Type III Public <input type="checkbox"/> Irrigation <input type="checkbox"/> Type IIa Public <input type="checkbox"/> Heat pump <input type="checkbox"/> Test Well <input type="checkbox"/> Type IIb Public <input type="checkbox"/>					
MEDIUM SAND						18		7 CASING: Diameter <input checked="" type="checkbox"/> Steel <input checked="" type="checkbox"/> Threaded <input type="checkbox"/> Plastic <input type="checkbox"/> Welded 2 in. to 104 ft. depth 1 1/4 in. to 108 ft. depth Grouted Drill Hole Diameter _____ in. to _____ ft. depth _____ in. to _____ ft. depth Height: Above/Below Surface 1 ft. Weight 3.75 lbs./ft. Drive Shoe <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
CLAY						98		8 SCREEN: <input type="checkbox"/> Not Installed Type CLAYTON Max Diameter 1 1/4 Slot/Gauze 80 Length 4 1/2 Set between 104 ft. and 108 ft. FITTINGS: <input checked="" type="checkbox"/> K-Packer <input type="checkbox"/> Lead Packer <input checked="" type="checkbox"/> Bremer Check <input type="checkbox"/> Blank above screen _____ ft. Other _____					
MEDIUM SAND						108		9 STATIC WATER LEVEL: _____ ft. below land surface <input checked="" type="checkbox"/> Flow					
								10 PUMPING LEVEL: below land surface _____ ft. after _____ hrs. pumping at 4 1/2 G.P.M. _____ ft. after _____ hrs. pumping at _____ G.P.M.					
								11 WELL HEAD COMPLETION: <input type="checkbox"/> Pitless adapter <input checked="" type="checkbox"/> 12" above grade <input type="checkbox"/> Basement offset <input type="checkbox"/> Approved pit					
								12 WELL GROUTED? <input type="checkbox"/> No <input type="checkbox"/> Yes From _____ to _____ ft. <input type="checkbox"/> Neat cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Other _____ No. of bags of cement _____ Additives _____					
								13 Nearest source of possible contamination Type SEPTIC Distance 75 ft. Direction NW Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
								14 PUMP: <input checked="" type="checkbox"/> Not Installed <input type="checkbox"/> Pump Installation Only Manufacturer's name _____ Model number _____ HP _____ Volts _____ Length of Drop Pipe _____ ft. capacity _____ G.P.M. TYPE: <input type="checkbox"/> Submersible <input type="checkbox"/> Jet _____ PRESSURE TANK Manufacturer's name _____ Model number _____ Capacity _____ Gallons					
15. Remarks, elevation, source of data, etc. ADDED INFO BY DRILLER, ITEM NO. _____ *CORRECTED BY _____ **ADDITION BY _____ ELEVATION _____ DEPTH TO ROCK _____				16. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. Dewey's Well Drilling 1736 REGISTERED BUSINESS NAME REGISTRATION NO. _____ Address P.O. Box 77 WELLSTON, MI. Signed Duane D. Dewey Date 5-18-83 AUTHORIZED REPRESENTATIVE									

RECEIVED
Michigan Dept. of Public Health
JUN 7 1983
Environmental and
Occupational Health
Services Administration

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County MANISTEE Twp. BOAT LAKE Fraction NW 1/4 NE 1/4 Section No. 31 Town 23 No. 15 Range 15 W.

Distance And Direction from Road Intersections
500' South 8 Mile Rd
1080' West US31
Street address & City of Well Location

3 OWNER OF WELL:
Mr. JAMES BRISKE
Address ONE KAMP, MICHIGAN

2 FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
<u>CLAY</u>	<u>22</u>	<u>22</u>
<u>SAND</u>	<u>2</u>	<u>24</u>
<u>CLAY & SAND</u>	<u>46</u>	<u>70</u>
<u>SAND</u>	<u>11</u>	<u>81</u>

4 WELL DEPTH: (completed) 81 ft. Date of Completion 11/30/69

5 Cable tool Rotary Driven Dug
 Hollow rod Jetted Bored

6 USE: Domestic Public Supply Industry
 Irrigation Air Conditioning Commercial
 Test Well

7 CASING: Threaded Welded
Diam. 4 in. to 68 ft. Depth
Height: 4 ft. Above/Below surface
Weight 11 lbs./ft.
Drive Shoe? Yes No

8 SCREEN:
Type: Johnson SS Dia.: 4
Slot/Gauze 12 Length 8
Set between 72 ft. and 81 ft.
Fittings: 3x18 nipple x packer 2 coupling
3x2x2 bushing 2 plug 2 nipple

9 STATIC WATER LEVEL
40 ft. below land surface

10 PUMPING LEVEL below land surface
46 ft. after 1 hrs. pumping 20 g.p.m.
_____ ft. after _____ hrs. pumping _____ g.p.m.

11 WATER QUALITY in Parts Per Million:
Iron (Fe) _____ Chlorides (Cl) _____
Hardness _____

12 WELL HEAD COMPLETION: In Approved Pit
 Pitless Adapter 12" Above Grade

13 GROUTING:
Well Grouted? Yes No
Material: Neat Cement Drilling Mud
Depth: From 0 ft. to 40 ft.

14 SANITARY:
Nearest Source of possible contamination
65 feet NW Direction Septic Tank
Well disinfected upon completion Yes No

15 PUMP:
Manufacturer's Name Gould
Model Number WEL HP 1
Length of Drop Pipe 63 ft. capacity 20 G.P.M.
Type: Submersible
 Jet Reciprocating

16 Remarks, elevation, source of data, etc.

ADDED INFO. BY DRILLER, ITEM NO.

*CORRECTED BY [Signature]

**ADDITION BY [Signature]

17 WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Rollin Well Drilling 364
REGISTERED BUSINESS NAME REGISTRATION NO.

Address 4800 MANISTEE ONE KAMP

Signed Hugh Rollin Date 12/2/69
AUTHORIZED REPRESENTATIVE

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

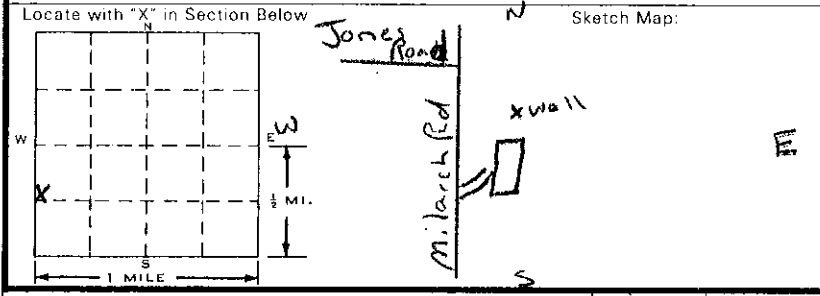
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PERMIT NUMBER

1 LOCATION OF WELL					
County MANISTEE	Township Name BEAR LAKE	Fraction SW 1/4 NW 1/4 SW 1/4	Section Number 31	Town Number 23N XX	Range Number 15W XX

Distance And Direction From Road Intersection
**On the east side of Milarch Road
South of Jones Road**

Street Address & City of Well Location



3 OWNER OF WELL:

Richard Walter
Address **7229 Milarch Rd.
Onkama, MI 49675**

Address Same As Well Location? Yes No

4 WELL DEPTH: Date Completed MO. DAY YEAR New Well
235' 5" **11 9 93** Replacement Well

5 Cable tool Rotary Driven Dug
 Hollow rod Auger Jetted

8 USE: Domestic Type I Public Type III Public
 Irrigation Type IIa Public Heat pump
 Test Well Type IIb Public

7 CASING: Diameter Steel Threaded Plastic Welded
4 in. to **225' 5"** depth Height: Above/Below **XXXX**
Surface **1** ft. Weight **11** lbs./ft.
Drive Shoe Yes No

2 FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Sand	5	5
Sand & Gravel	5	10
Clay & Gravel	2	12
Sand & Gravel	16	28
Hard Brown Clay	11	39
Soft Brown Clay	5	44
Hard Red Clay & Stones	6	50
Soft Brown Clay	11	61
Brown Clay & Stones	4	65
Redish Brown Clay	45	110
Fine Pack Sand & Gravel	9	119
Hard Brown Clay & Stones	10	129
Fine Floating Sand	2	131
Hard Gray Clay	24	155
Hard Brown Clay	40	195
Soft Brown Clay	12	207
Sand	6"	207' 6"
Soft Brown Clay	4' 6"	223
Clay, Sand & Gravel	2	225
Clean Coarse Sand	10	235
Still Good 235' ----		

8 SCREEN: Not Installed
Type **Stainless Steel** Diameter **4"**
Slot **6** Length **10'**
Set between **225' 5"** ft. and **235' 5"** ft.
FITTINGS: K-Packer Lead Packer Bremer Check
 Blank above screen **ft.** **LEADLESS PACKER**

9 STATIC WATER LEVEL: **FLOWS** ft. below land surface Flow

10 PUMPING LEVEL: below land surface
FLOWS ft. after ___ hrs. pumping at **18** G.P.M.
___ ft. after ___ hrs. pumping at ___ G.P.M.

11 WELL HEAD COMPLETION: Pitless adapter 12" above grade
 Basement offset Approved pit

12 WELL GROUTED? No Yes From **0** to **25** ft.
 Neat cement Bentonite Other ___
No. of bags of ~~XXXX~~ **6** Additives

13 Nearest source of possible contamination
Type _____ Distance _____ ft. Direction _____
Well disinfected upon completion? Yes No
Was old well plugged? Yes No

14 PUMP: Not Installed Pump Installation Only
Manufacturer's name **Red Jacket (2-wire)**
Model **1000NSWI-CN8CC** HP **1** Volts **120**
Length of Drop Pipe **84'** 1 1/4" capacity **18** G.P.M.
TYPE: Submersible Jet
PRESSURE TANK:
Manufacturer's name **Well-X-Trol**
Model number **302** Capacity **86** Gallons

15. Remarks, elevation, source of data, etc.
**FORMATION AT 110' to 118' ONLY
PUMPED 8 GALLONS PER MINUTE**

17. Rig Operator's Name: **Daniel Cameron
Helper -- Bill Kovalcik**

16. WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Cameron Brothers, Inc. 1960
REGISTERED BUSINESS NAME REGISTRATION NO.
Address **8736 N. U.S. 31 Free Soil, MI 49411**
Signed **Dan Cameron** Date **11-23-93**
AUTHORIZED REPRESENTATIVE

Authority: Act 368 PA 1978
Completion: Required
Penalty: Conviction of a violation of any provision is a misdemeanor.

TAX NO:

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER WELL AND PUMP RECORD

PERMIT NO:
15287

1. LOCATION OF WELL
County

Manistee

Township Name
Bear Lake

Fraction
NW 1/4 NW 1/4 NE 1/4

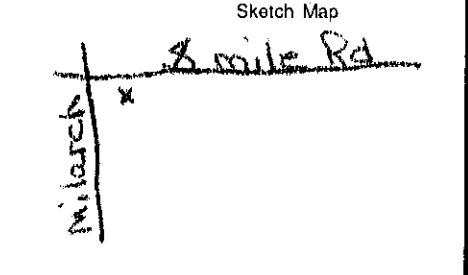
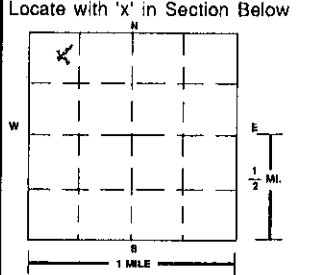
Section No.
31

Town No.
T. 23N.

Range No.
R. 15W.

Distance and Direction from Road Intersection
3 mile Rd about .2 miles
East of Milarch on S. Side

Street Address & City of Well Location



3. OWNER OF WELL
Address Robert & Linda LaPlant
7449 Leonard Ave.
Onekama, MI 49675
Address Same as Well Location Yes No

4. WELL DEPTH: 141 ft. Date Completed 6/17/98 New Well Replacement Well

5. Cable Tool Rotary Driven Dug
 Hollow Rod Auger/Bored Jetted

6. USE: Household Type I Public Type III Public
 Irrigation Type IIa Public Heat Pump
 Test Well Type IIb Public

7. CASING: Steel Threaded Plastic Welded Other
Height: Above/Below Surface: 1 ft
Diameter: 5 in. to 13 1/2 ft. depth
Weight: 50 lb./ft.
BORE HOLE: Drive Shoe Shale Packer
Diameter: 8 1/2 in. to 14 1/2 ft. depth

8. SCREEN: Not Installed Gravel-Packed
Type Johnson Pump Pull 4"
Slot/Gauze 0.10 Length: 10
Set Between 131 ft. and 141 ft.
FITTINGS: K-Packer Bremer Check
 Blank Above Screen 2 ft. Other

9. STATIC WATER LEVEL: _____ ft. Below Land Surface Flowing

10. PUMPING LEVEL: Below Land Surface
0.5 ft. After _____ hrs. Pumping at _____ G.P.M.
 Plunger Bailor Air Test Pump

11. WELL HEAD COMPLETION: Pitless Adapter 12" Above Grade
 Basement Offset Well House

12. WELL GROUTED? No Yes From _____ to _____ ft.
 Neat Cement Bentonite Other
No. of Bags _____ Additives _____

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:
Type Septic Distance 60 ft. Direction S
Type _____ Distance _____ ft. Direction _____

14. PUMP: Not Installed Pump Installation Only
Manufacturer's Name Flint & Walling
Model Number 10 GPM HP 1/2 Volts 230
Length of Drop Pipe 20 ft. Capacity 10 G.P.M.
TYPE: Submersible Jet Other
PRESSURE TANK:
Manufacturer's Name Well Rite
Model Number WR-20 Capacity 20 Gallons

2. FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Top Sand	1	1
Clay + Sand Mix	14	15
Sand + Clay Stringer	2	17
Clay + Sand + Gravel Mix	13	30
Clay + Sand + Gravel Stringer	30	60
Sand + Gravel Stringer	63	125
	16	141

15. ABANDONED WELL PLUGGED? Yes No
Casing Diameter _____ in. Depth _____ ft.
PLUGGING MATERIAL: Neat Cement Bentonite Slurry
 Cement/Bentonite Slurry Concrete Grout Bentonite Chips
No. of Bags _____ Casing Removed? Yes No

16. REMARKS: (Elevation, Source of Data, etc.)

17. DRILLING MACHINE OPERATOR:
 Employee Subcontractor
Name Rivas

18. WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Jim Jeffers Well Drilling 83-1981
REGISTERED BUSINESS NAME
Address 4498 13 Road Marich MI 49668
SIGNED _____ Date 6-22-98
AUTHORIZED REPRESENTATIVE

RECEIVED
JUL 13 1998
D.H.D. #10

TAX NO: 51-02-031-200-03

MICHIGAN DEPARTMENT OF PUBLIC HEALTH WATER WELL AND PUMP RECORD

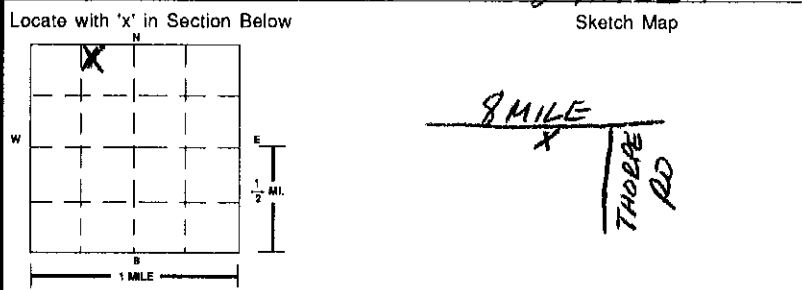
PERMIT NO: 51-364 v v

1. LOCATION OF WELL County MANISTEE

Township Name BEAR LAKE Fraction NW 1/4 NE 1/4 NW 1/4 Section No. 31 Town No. 23 N Range No. 15 W

Distance and Direction from Road Intersection Street Address & City of Well Location 8 MILE RD

3. OWNER OF WELL MCLEOD'S SALES & SERVICE Address 7778 THORPE RD BEAR LAKE MI 49614



4. WELL DEPTH: 93 ft. Date Completed 9/14/99 New Well Replacement Well

5. Cable Tool Rotary Driven Dug Hollow Rod Auger/Bored Jetted

6. USE: Household Type I Public Type III Public Irrigation Type IIa Public Heat Pump Test Well Type IIb Public

7. CASING: Steel Threaded Plastic Welded Other Height: Above/Below Surface: 1 ft Diameter: 4 in. to 89 ft. depth Weight: 11.0 lbs/ft. BORE HOLE: Drive Shoe Shale Packer

Table with 3 columns: Formation Description, Thickness of Stratum, Depth to Bottom of Stratum. Rows include SAND, CLAY, LAYERED CLAY & SAND, BROWN WATER SAND.

8. SCREEN: Not Installed Gravel-Packed Type STAINLESS Diameter 4" Slot/Gauge 10 Length 4' Set Between 89 ft. and 93 ft. FITTINGS: K-Packer Bremer Check Blank Above Screen 1 ft. Other

9. STATIC WATER LEVEL: 0 ft. Below Land Surface Flowing

10. PUMPING LEVEL: Below Land Surface 60 ft. After 2 hrs. Pumping at 18 G.P.M. Plunger Bailer Air Test Pump

11. WELL HEAD COMPLETION: Pitless Adapter 12" Above Grade Basement Offset Well House

12. WELL GROUTED? No Yes From 0 to 89 ft. Neat Cement Bentonite Other No. of Bags Additives

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION: Type SEPTIC Distance 90 ft. Direction EAST

15. ABANDONED WELL PLUGGED? Yes No Casing Diameter in. Depth ft. PLUGGING MATERIAL: Neat Cement Bentonite Slurry Cement/Bentonite Slurry Concrete Grout Bentonite Chips No. of Bags Casing Removed? Yes No

14. PUMP: Not Installed Pump Installation Only Manufacturer's Name MILAN Model Number 2MPI02-10 HP 1 Volts 230 Length of Drop Pipe 60 ft. Capacity 12 G.P.M. TYPE: Submersible Jet Other PRESSURE TANK: Manufacturer's Name WELL X TROL Model Number 302 Capacity 86 Gallons

16. REMARKS: (Elevation, Source of Data, etc.)

17. DRILLING MACHINE OPERATOR: Employee Subcontractor Name MIKE CAMPBELL

15. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. PAUL KLUESNER Well Drilling 1900 REGISTERED BUSINESS NAME REGISTRATION NO. Address 5950 FARNSWORTH RD BRETHERN MI 49619 Signed [Signature] AUTHORIZED REPRESENTATIVE Date 9-20-99