

WATER WELL AND PUMP RECORD

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

PERMIT NO:

B24804

TAX NO:

1. LOCATION OF WELL

County

Barry

Township Name

Rutland

Fraction

NE 1/4 SE 1/4 SE 1/4

Section No.

12

Town No.

3W

Range No.

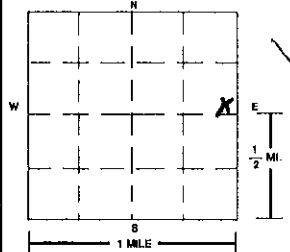
9W

Distance and Direction from Road Intersection

Lot 15 Jones Crossing

Street Address & City of Well Location

Locate with 'x' in Section Below



Sketch Map

Hyatt

2. FORMATION DESCRIPTION

THICKNESS OF STRATUM

DEPTH TO BOTTOM OF STRATUM

Sand	3	3
Little Red Clay, some Gravel, sand	4	7
Gravel, sand	9	16
Sand	18	34
Little Red Clay, Gravel, sand	6	40
Stones, Gravel	9	49
Sand	32	81
Coal	1/2	81 1/2
Sand	5 1/2	87
Sand, Little Blue Clay	6	93
some Gravel, sand, Blue Clay	7	100
Gravel	1	101
Very Little Gravel, sand, Blue Clay	21	122
Gravel	3	125
Gravel, sand, Blue Clay	9	134

USE A 2ND SHEET IF NEEDED

Cont, 2nd Page

15. ABANDONED WELL PLUGGED?

☐ Yes ☐ No

Casing Diameter

None

Depth

ft.

PLUGGING MATERIAL

☐ Cement/Bentonite Slurry

☐ Neat Cement

☐ Bentonite Slurry

☐ Concrete Grout

☐ Bentonite Chips

No. of Bags

Casing Removed?

☐ Yes ☐ No

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

well area staked by Owen Jones

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name

Douglas Franklen

3. OWNER OF WELL

Address

Mrs Mrs Owen Jones
570 N. Airport Rd
Hastings, MI 49058

Address Same as Well Location

☐ Yes ☒ No

4. WELL DEPTH:

Date Completed

☒ New Well

☐ Replacement Well

220 ft.

2/26/98

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 1/2 ft

Diameter:

5 in. to 16 1/4 ft. depth

in. to ft. depth

BORE HOLE:

Diameter: 8 1/2 in. to 16 1/4 ft. depth

4 1/2 in. to 220 ft. depth

☐ Drive Shoe

☐ Shale Packer

8. SCREEN:

☐ Not Installed

☐ Gravel-Packed

Type

None

Diameter

Slot/Gauge

None

Length:

Set Between

ft. and

ft.

FITTINGS:

☐ K-Packer

☐ Bremer Check

☐ Blank Above Screen

ft. Other

9. STATIC WATER LEVEL:

30 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

47 ft. After 4 hrs. Pumping at 20 G.P.M.

☐ Plunger

☐ Bailer

☐ Air

☒ Test Pump

11. WELL HEAD COMPLETION:

☐ Pile Driver

☒ 12" Above Grade

☐ Basement Offset

☐ Well House

12. WELL GROUTED?

☐ No

☒ Yes

From 0 to 16 1/4 ft.

☐ Neat Cement

☒ Bentonite

☐ Other

No. of Bags

10

Additives

E-2 mud

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type

None

Distance

ft. Direction

Type

None

Distance

ft. Direction

14. PUMP:

☐ Not Installed

☐ Pump Installation Only

Manufacturer's Name

None

Model Number

None

HP

Volts

Length of Drop Pipe

ft. Capacity

G.P.M.

TYPE:

☐ Submersible

☐ Jet

☐ Other

PRESSURE TANK:

Manufacturer's Name

Model Number

Capacity

Gallons

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.

Newton's Well Service Inc 2167

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address

550 E. Cloverdale Rd Hastings, MI 49058

Signed

Michael T. Kisher

Date

3-5-98

AUTHORIZED REPRESENTATIVE

TAX NO:

WATER WELL AND PUMP RECORD

PERMIT NO:

Completion is required under authority of Part 127 Act 368 PA 1978
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B 24804

1. LOCATION OF WELL

County

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Township Name

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Fraction

NE 1/4 SE 1/4 SE 1/4

Section No.

12

Town No.

3 N

Range No.

9 W

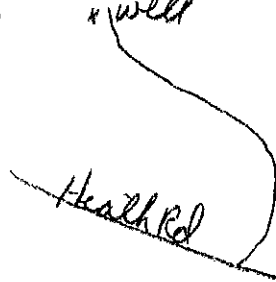
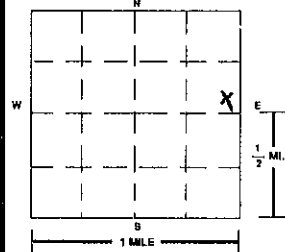
Distance and Direction from Road Intersection

Lot 15 Jones Crossing

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS OF STRATUM

DEPTH TO BOTTOM OF STRATUM

(I.C.) Fractured Sand Rock, chon Pyrite	9	143
Shale	6	149
(I.C.) Very soft sand rock	6	155
Shale	2	157
Sand Rock	8	165
Hard Shale	4	169
Lime Rock	4	173
Sand Rock (Grey)	47	220

164' SDR-21 5" PVC Well Casing
5" PVC Bell on Bottom 5" PVC Cap
on Top.

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☐ Yes ☐ No

Casing Diameter

None

Depth _____ ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry

☐ Neat Cement

☐ Bentonite Slurry

☐ Concrete Grout

☐ Bentonite Chips

No. of Bags _____

Casing Removed?

☐ Yes ☐ No

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

Lost Circulation @ 143 & 155 but were able to regain

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name

Douglas Franklin

3. OWNER OF WELL

Address

M & Mrs Owen Jones
570 N. Airport Rd,
Hastings, mi 49058

Address Same as Well Location

☐ Yes ☒ No

4. WELL DEPTH:

220 ft.

Date Completed

2/26/98

☒ 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: **7 1/2** ft

Diameter: **5** in. to **16 1/4** ft. depth

_____ in. to _____ ft. depth

BORE HOLE:

Diameter: **8 1/2** in. to **16 1/4** ft. depth

4 1/2 in. to **220** ft. depth

☐ Drive Shoe

☐ Shale Packer

8. SCREEN:

☐ Not Installed

☐ Gravel-Packed

Type

_____ Diameter

Slot/Gauze

None

Length: _____

Set Between _____ ft. and _____ ft.

FITTINGS:

☐ K-Packer

☐ Bremer Check

☐ Blank Above Screen

_____ ft. Other

9. STATIC WATER LEVEL:

30 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

47 ft. After **4** hrs. Pumping at **20** 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 **0** to **164** ft.

☐ Neat Cement

☒ Bentonite

☐ Other

No. of Bags **10**

Additives **E-2 mud**

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type

None

Distance _____ ft.

Direction _____

Type

None

Distance _____ ft.

Direction _____

14. PUMP:

☐ Not Installed

☐ Pump Installation Only

Manufacturer's Name

Model Number

None

HP

Volts

Length of Drop Pipe _____ ft.

Capacity _____ G.P. M.

TYPE:

☐ Submersible

☐ Jet

☐ Other

PRESSURE TANK:

Manufacturer's Name

Model Number

Capacity

Gallons

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.

Newton's Well Service Chce 2167

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address **550 E. Cloverdale Rd Hastings, Mi 49058**

Signed **Michael T. Kiser**

Date **3-5-98**

AUTHORIZED REPRESENTATIVE

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		3 OWNER OF WELL:																									
County <u>Barry</u>	Township Name <u>Rutland</u>	Fraction <u>NE 1/4 NW 1/4 SE 1/4</u>	Section Number <u>12</u> Town Number <u>3 N 2 E</u> Range Number <u>9 E 1/4</u>																								
Distance And Direction From Road Intersection <u>3/10 mile N of State Rd on</u> <u>W side of Hammond Rd</u>		Address <u>Don Haywood</u> <u>701 Hammond Rd Hastings MI</u>																									
Street Address & City of Well Location		Address Same As Well Location? ☐ Yes ☒ No																									
Locate with "X" in Section Below		4 WELL DEPTH: Date Completed <u>7/30/91</u> ☒ 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 ☐																									
2 FORMATION DESCRIPTION <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">FORMATION DESCRIPTION</th> <th style="width:10%;">THICKNESS OF STRATUM</th> <th style="width:10%;">DEPTH TO BOTTOM OF STRATUM</th> </tr> </thead> <tbody> <tr><td><u>Gravel & Red Clay</u></td><td><u>19</u></td><td><u>19</u></td></tr> <tr><td><u>Red Clay</u></td><td><u>12</u></td><td><u>31</u></td></tr> <tr><td><u>Blue Clay w/ Gravel</u></td><td><u>92</u></td><td><u>123</u></td></tr> <tr><td><u>Blue Clay</u></td><td><u>5</u></td><td><u>128</u></td></tr> <tr><td><u>Blue Clay w/ Gravel</u></td><td><u>54</u></td><td><u>182</u></td></tr> <tr><td><u>Sandstone & shell limestone</u></td><td><u>65</u></td><td><u>247</u></td></tr> <tr><td><u>Sandstone</u></td><td><u>28</u></td><td><u>275</u></td></tr> </tbody> </table>		FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	<u>Gravel & Red Clay</u>	<u>19</u>	<u>19</u>	<u>Red Clay</u>	<u>12</u>	<u>31</u>	<u>Blue Clay w/ Gravel</u>	<u>92</u>	<u>123</u>	<u>Blue Clay</u>	<u>5</u>	<u>128</u>	<u>Blue Clay w/ Gravel</u>	<u>54</u>	<u>182</u>	<u>Sandstone & shell limestone</u>	<u>65</u>	<u>247</u>	<u>Sandstone</u>	<u>28</u>	<u>275</u>	7 CASING: Diameter ☐ Steel ☐ Threaded ☐ Height: <u>Above/Below</u> ☒ Plastic ☐ Welded Surface <u>1</u> ft. Weight _____ lbs./ft. Drive Shoe ☐ Yes ☒ No	
		FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM																							
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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: <u>62</u> ft. below land surface ☐ Flow		10 PUMPING LEVEL: below land surface _____ ft. after _____ hrs. pumping at _____ G.P.M. _____ ft. after _____ hrs. pumping at _____ G.P.M.																									
11 WELL HEAD COMPLETION: ☒ Bitless adapter ☒ 12" above grade ☐ Basement offset ☐ Approved pit		12 WELL GROUTED? ☐ No ☒ Yes From _____ to _____ ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____																									
13 Nearest source of possible contamination Type <u>SEPTIC</u> Distance <u>65</u> ft. Direction <u>N</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No		14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>McDonald</u> Model number <u>21100P3</u> HP <u>1</u> Volts <u>230</u> Length of Drop Pipe <u>100</u> ft. capacity <u>20</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: <u>(2) Well-x-trol</u> Manufacturer's name _____ Model number <u>WX250</u> Capacity <u>13.5</u> Gallons																									
15. Remarks, elevation, source of data, etc. <u>50 ppm w/air</u>		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. <u>Newton's Well Service</u> 1896 REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>550 E. Cloverdale Rd Hastings</u> Signed <u>Raymond</u> Date <u>8/19/91</u> AUTHORIZED REPRESENTATIVE																									
17. Rig Operator's Name: <u>H. Hunter</u>																											

MAR 2 1977

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

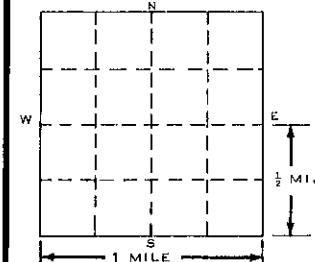
County Barny Township Name Rutland Fraction SE 1/4 SE 1/4 SE 1/4 Section Number 12 Town Number 3 N.B. Range Number 9 & 1 E.W.

Distance And Direction from Road Intersections
On Grand Ave. at Algoma Lake

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUMall gravel053 ft.

3 OWNER OF WELL:

Address

Mr. C. Lof
Hastings

4 WELL DEPTH: (completed) Date of Completion

53 ft.1/21/77

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 ☐Height: Above/Below
Surface 1 ft.

2 in. to 49 ft. Depth
 in. to ft. Depth

Weight 375 lbs./ft.
Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: Johnson Dia.: 1 1/4"
Slot/Gauze 10 Length 4 ft.
Set between 49 ft. and 53 ft.
Fittings: 2 1/2" Blanks
1 1/2" Brunner Check

9 STATIC WATER LEVEL

 ft. below land surface

10 PUMPING LEVEL below land surface

20 ft. after 1/2 hrs. pumping 600 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 Grade13 Well Grouted? ☐ Yes ☐ No☐ Neat Cement ☐ Bentonite ☐Depth: From ft. to ft.

14 Nearest Source of possible contamination

50 feet 5 Direction ST TypeWell disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installedManufacturer's Name BoultonModel Number HP 1/2 Volts 220Length of Drop Pipe 28 ft. capacity G.P.M.Type: ☐ Submersible☒ Jet ☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

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.

Smithville Drilling 0560
REGISTERED BUSINESS NAME REGISTRATION NO.

Address 6307 Cedar St Hastings

Signed Ray Smith Date 1/23/77
AUTHORIZED REPRESENTATIVE

JUN 11 1979

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County Barry Township Name Rutland Fraction SE 1/4 NW 1/4 SE 1/4 Section Number 12 Town Number 3 N/S Range Number 9 E/W

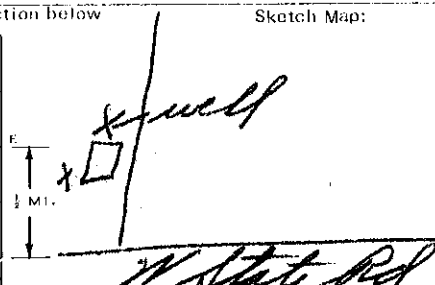
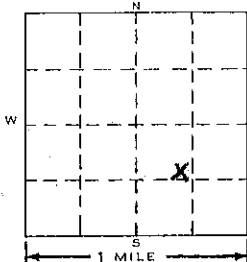
Distance And Direction from Road Intersections

200 yds N of W state Rd on W side of
Hammond Rd.

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Gravel & Sand	8	8
Red Clay	30	38
Stones, Gravel & Red Clay	16	54
Water & Sand	1	55
Blue Clay	7	62
Sand	1	63
Blue Clay	48	111
Mostly Gravel, Sand, Blue clay	14	125

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

USE A 2ND SHEET IF NEEDED

3 OWNER OF WELL:

Martin Haywood
Address Hammond Rd.
Hastings Mich 49058

4 WELL DEPTH: (completed) Date of Completion

117 ft. 9-11-78

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 ☐ Height: Above/Below
Diam. 4 in. to 113 ft. Depth Surface 1 ft.
Weight 11 lbs./ft.
Drive Shoe? Yes ☐ No ☐

8 SCREEN:

Type: 55 Dia.: 4" pipe size
Slot/Gauze 15 Length 4
Set between 113 ft. and 117 ft.
Fittings: 4" plug

9 STATIC WATER LEVEL
48 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
100 feet SW Direction septic Type
Well disinfected upon completion ☒ Yes ☐ No

15 PUMP: ☐ Not installed
Manufacturer's Name F&W
Model Number 7BA12 HP 3/4 Volts 230
Length of Drop Pipe 88 ft. capacity 10 g.p.m.
Type: ☒ Submersible ☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

40 gpm w/4" plunger

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.

Newton's Well Service 0212
REGISTERED BUSINESS NAME REGISTRATION NO.

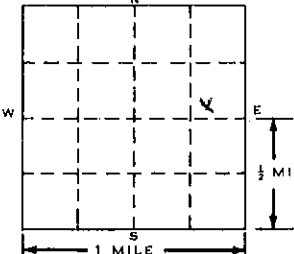
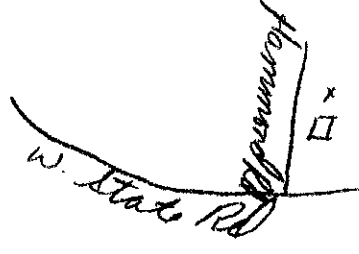
Address 550 E Cleveland Rd Hastings
49058

Signature David E. Newton Date 9-24-78
AUTHORIZED REPRESENTATIVE

WATER WELL AND PUMP RECORD

PERMIT NUMBER

Well address 576 Hammond Rd

1 LOCATION OF WELL		2 FORMATION DESCRIPTION		3 OWNER OF WELL:		4 WELL DEPTH: (completed) <u>240</u> ft. Date of Completion <u>8-14-84</u>	
County <u>BARRY</u>		Township Name <u>Rutland</u>		Fraction <u>SW 1/4 SE 1/4 NE 1/4</u>		Section Number <u>12</u>	
Distance And Direction From Road Intersection <u>2 1/10 mi N of W. State Rd on E. side of Hammond Rd</u>		Locate with "X" in Section Below		Sketch Map:		Town Number <u>5 N/5</u>	
Street Address & City of Well Location		THICKNESS OF STRATUM		DEPTH TO BOTTOM OF STRATUM		Range Number <u>9 SW</u>	
						Address <u>627 Graham Rd. E. side of Hammond Rd. 7 mi</u>	
						Address Same As Well Location? ☐ Yes ☒ No <u>45007</u>	
RECEIVED Mich. Dept. of Public Health JAN 24 1985 Bureau of Environmental and Occupational Health - GWQS						5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug	
						6 ☐ 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: ☐ Steel ☐ Threaded ☐ Welded	
						☒ Plastic ☐ Grouted Drill Hole Diameter	
						Height: Above/Below Surface <u>SDR 17121</u> ft.	
						Weight <u>SDR 17121</u> lbs./ft.	
						Drive Shoe ☐ Yes ☒ No	
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: <u>60</u> ft. below land surface ☐ Flow							
10 PUMPING LEVEL: below land surface							
_____ ft. after _____ hrs. pumping at _____ 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 _____ to _____ ft.							
☐ Neat cement ☒ Bentonite ☐ Other _____							
No. of bags of cement _____ Additives _____							
13 Nearest source of possible contamination <u>SEPTIC</u> Distance <u>85</u> ft. Direction <u>S</u>							
Type _____ Distance _____ ft. Direction _____							
Well disinfected upon completion? ☒ Yes ☐ No							
14 PUMP: ☐ Not installed ☒ Pump installation Only							
Manufacturer's name <u>FLINT-WATKINS</u>							
Model number <u>4F10B05</u> HP <u>1/2</u> Volts <u>230</u>							
Length of Drop Pipe <u>100</u> ft. capacity <u>10</u> G.P.M.							
TYPE: ☒ Submersible ☐ Jet							
PRESSURE TANK: <u>CLAYTON MARK</u>							
Manufacturer's name <u>80-03</u> Capacity <u>11.7</u> Gallons							
Model number _____ Capacity _____ Gallons							
15. Remarks, elevation, source of data, etc. <u>50 Gpm w/air</u>							
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.							
<u>Newton's Well Service 08-1826</u>							
REGISTERED BUSINESS NAME _____ REGISTRATION NO. _____							
Address <u>550 E. Cloverdale Rd Hastings, MI</u>							
Signed <u>Gary Newton</u> Date <u>9-11-84</u>							
AUTHORIZED REPRESENTATIVE							

TAX NO:		MICHIGAN DEPARTMENT OF PUBLIC HEALTH WATER WELL AND PUMP RECORD				PERMIT NO: 99916	
1. LOCATION OF WELL		Township Name		Fraction	Section No.	Town No.	Range No.
County Barny		Rutland		NE 1/4	12	3N	9W
Distance and Direction from Road Intersection				3. OWNER OF WELL			
Street Address & City of Well Location 1111 W. State				Address Donald Richardson 1111 W. State Nashville 49058			
				Address Same as Well Location ☒ Yes ☐ No			
Locate with 'x' in Section Below				4. WELL DEPTH: 65 ft. Date Completed 7/14/94			
				☐ New Well ☒ Replacement Well			
				5. ☒ Cable Tool ☐ Rotary ☐ Driven ☐ Dug ☐ Hollow Rod ☐ Auger/Bored ☐ Jetted ☐			
2. FORMATION DESCRIPTION				6. USE: ☒ Household ☐ Type I Public ☐ Type III Public			
				☐ Irrigation ☐ Type IIa Public ☐ Heat Pump ☐ Test Well ☐ Type IIb Public ☐			
THICKNESS OF STRATUM DEPTH TO BOTTOM OF STRATUM				7. CASING: ☒ Steel ☒ Threaded			
				☐ Plastic ☐ Welded ☐ Other _____			
MED. SANDS SANDY TAN CLAY-GRAVEL STICKY TAN CLAY MEDIUM SAND & GRAVEL				Diameter: 4 in. to 61 ft. depth BORE HOLE: 4 in. to 65 ft. depth			
				Height: Above/Below Surface: 2 ft. Weight: 11.75 lbs./ft.			
RECEIVED MICH. DEPT. OF PUBLIC HEALTH BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH AUG - 8 94				8. SCREEN: ☐ Not Installed ☐ Gravel-Packed			
				Type STAINLESS Diameter 4" TELE Slot/Gauze .012 Length: 4 ft. Set Between 61 ft. and 65 ft.			
USE A 2ND SHEET IF NEEDED				FITTINGS: ☒ K-Packer ☐ Bremer Check ☒ Blank Above Screen 1 ft. Other _____			
				9. STATIC WATER LEVEL: 27 ft. Below Land Surface ☐ Flowing			
15. ABANDONED WELL PLUGGED? ☒ Yes ☐ No Casing Diameter 2 in. Depth 60 ft. PLUGGING MATERIAL: ☐ Neat Cement ☐ Bentonite Slurry ☐ Cement/Bentonite Slurry ☐ Concrete Grout ☒ Bentonite Chips No. of Bags 2 Casing Removed? ☐ Yes ☒ No				10. PUMPING LEVEL: Below Land Surface			
				32 ft. After 2 hrs. Pumping at 15 G.P.M. ☐ Plunger ☐ Bailer ☐ Air ☒ Test Pump			
16. REMARKS: (Elevation, Source of Data, etc.) O - NITRATE O - NITRITE				11. WELL HEAD COMPLETION:			
				☒ Pitless Adapter ☐ 12" Above Grade ☐ Basement Offset ☐ Well House			
17. DRILLING MACHINE OPERATOR: ☒ Employee ☐ Subcontractor Name BRIAN R. BREHM				12. WELL GROUTED? ☐ No ☒ Yes From 0 to 61 ft.			
				☐ Neat Cement ☒ Bentonite ☐ Other _____ No. of Bags 2 Additives DRY DRIVEN			
14. PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's Name GRUNDFOS Model Number 10505-9 HP 1/2 Volts 220 Length of Drop Pipe 40 ft. Capacity 10 G.P.M. TYPE: ☒ Submersible ☐ Jet ☐ Other _____ PRESSURE TANK: Manufacturer's Name WELL X-TROL Model Number WX-250 Capacity 13 Gallons				13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:			
				Type SEPTIC Distance 60 ft. Direction W Type _____ Distance _____ ft. Direction _____			
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.				REGISTERED BUSINESS NAME Potter Water Works 08-1857 Address 7311 Bivens Nashville 49073 Signed Mark C. Potter Date 7-17-94 AUTHORIZED REPRESENTATIVE			
				Name BRIAN R. BREHM			

GW-2-228 9/93

GEOLOGICAL SURVEY COPY

 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 <u>Barry</u>		Twp. <u>Ruthland</u>		Fraction <u>NW 1/4 NW 1/4 SE 1/4</u>		Section No. <u>12</u>		Town <u>3 N 5 E</u>		Range <u>9 E/W.</u>	
Distance And Direction from Road Intersections <u>1/4 mile W of Hammond Rd on N. side of W. State Rd 13.5 yds. from</u>				OWNER No. _____				3 OWNER OF WELL: <u>Donald Heywood</u> Address <u>Ruthland 3rd Corner R#2 Hastings, Mich</u>					
Street address & City of Well Location <u>R#2 Hastings</u>				2 FORMATION		THICKNESS OF STRATUM		DEPTH TO BOTTOM OF STRATUM		4 WELL DEPTH: (completed) <u>232</u> ft. Date of Completion <u>9-6-72</u>			
<u>Gravel & Sand</u>				<u>45</u>		<u>45</u>		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Jetted ☐ Bored ☐					
<u>Red Clay</u>				<u>7</u>		<u>52</u>		6 USE: ☒ Domestic ☐ Public Supply ☐ Industry ☒ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐					
<u>Blue Clay</u>				<u>15</u>		<u>67</u>		7 CASING: Diam. <u>4</u> in. to <u>185</u> ft. Depth <u>1</u> ft. Weight <u>11</u> lbs./ft. Drive Shoe? Yes ☒ No ☐					
<u>Sand (low yield)</u>				<u>8</u>		<u>75</u>		8 SCREEN: Type: <u>None - Rock</u> Slot/Gauze _____ Length _____ Set between _____ ft. and _____ ft. Fittings: _____					
<u>Red Clay</u>				<u>12</u>		<u>87</u>		9 STATIC WATER LEVEL <u>54'</u> ft. below land surface					
<u>Sand (very fine)</u>				<u>3</u>		<u>90</u>		10 PUMPING LEVEL below land surface _____ ft. after _____ hrs. pumping _____ g.p.m.					
<u>Gravel (compact)</u>				<u>4</u>		<u>94</u>		_____ ft. after _____ hrs. pumping _____ g.p.m.					
<u>Red Clay</u>				<u>1</u>		<u>95</u>		11 WATER QUALITY in Parts Per Million: Iron (Fe) _____ Chlorides (Cl) _____ Hardness _____					
<u>Gravel (compact)</u>				<u>2</u>		<u>97</u>		12 WELL HEAD COMPLETION: ☐ In Approved Pit ☐ Pitless Adapter ☒ 12" Above Grade					
<u>Blue Clay, Gravel</u>				<u>11</u>		<u>108</u>		13 GROUTING: Well Grouted? ☐ Yes ☒ No Material: ☐ Neat Cement ☐ _____ Depth: From _____ ft. to _____ ft.					
<u>Gravel, Blue clay</u>				<u>38</u>		<u>146</u>		14 SANITARY: Nearest Source of possible contamination <u>250</u> feet <u>S</u> Direction <u>up</u> Type _____ Well disinfected upon completion ☒ Yes ☐ No					
<u>Sand</u>				<u>2</u>		<u>148</u>		15 PUMP: Manufacturer's Name <u>Sta-Rite</u> Model Number <u>40R4F4</u> HP <u>1 1/2</u> Length of Drop Pipe <u>109</u> ft. capacity <u>54</u> G.P.M. Type: ☒ Submersible ☐ Jet ☐ Reciprocating					
<u>Gravel, Blue Clay</u>				<u>7</u>		<u>155</u>							
<u>Sand, Gypsum</u>				<u>3</u>		<u>158</u>							
<u>Gravel, Blue Clay</u>				<u>12</u>		<u>170</u>							
<u>Sandrock w/ shale incl.</u>				<u>8</u>		<u>178</u>							
<u>Gravel, Blue Clay</u>				<u>2</u>		<u>180</u>							
<u>Sandrock w/ shale incl.</u>				<u>52</u>		<u>232</u>							
ADDED INFO. BY DRILLER, ITEM NO. <u>7200 Elev. 82.0' above S-1 (BPR)</u>				CORRECTED BY: <u>RS</u>									
*ADDITION BY:													
16 Remarks, elevation, source of data, etc. <u>yield: 70 gpm. w/ 4" plunger</u> <u>this well to be pumped</u> <u>into a pond for irrigation</u>				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. <u>Newton Well Service</u> 0212 REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>R#4 Hastings, Mich</u> Signed <u>Ernest Newton</u> Date <u>10-30-72</u> AUTHORIZED REPRESENTATIVE									

WATER WELL AND PUMP RECORD

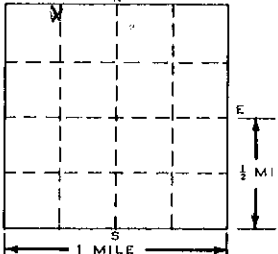
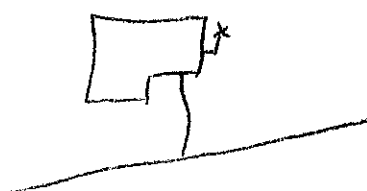
PERMIT NUMBER

Parcel # 6008 13013 03600

1 LOCATION OF WELL		County <u>Barry</u>		Township Name <u>Ruthland</u>		Fraction <u>1/4</u>		Section Number <u>12</u>		Town Number <u>3</u>		Range Number <u>9</u>	
Distance And Direction From Road Intersection <u>approx 1/4 mi W of Hammond Rd on S. side of Ottawa.</u> <u>1402 Ottawa Trail, Hastings, MI</u>						3 OWNER OF WELL: <u>Al Black</u> Address <u>885 Fisher Rd Hastings MI 49058</u> Address Same As Well Location? ☐ Yes ☒ No							
Street Address & City of Well Location <u>1402 Ottawa Trail, Hastings, MI</u>						4 WELL DEPTH: <u>135</u> FT. Date Completed <u>11/9/92</u> ☒ New Well ☐ Replacement Well							
Locate with "X" in Section Below						5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐							
Sketch Map:						6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐							
7 CASING: Diameter <u>3</u> in. to <u>135</u> ft. depth ☒ Steel ☐ Threaded ☐ Height: Above/Below Surface <u>1</u> ft. ☒ Plastic ☐ Welded Weight: <u>SDR 21</u> lbs./ft. Grouted Drill Hole Diameter <u>8</u> in. to <u>130</u> ft. depth Drive Shoe ☐ Yes ☐ No						8 SCREEN: ☐ Not Installed Type <u>SS</u> Diameter <u>3" pipe size</u> Slot/Gauge <u>6</u> Length <u>5'</u> Set between <u>130</u> ft and <u>135</u> ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☐ Blank above screen <u> </u> ft. Other <u> </u>							
2 FORMATION DESCRIPTION						9 STATIC WATER LEVEL: <u>37</u> ft. below land surface ☐ Flow							
THICKNESS OF STRATUM						10 PUMPING LEVEL: below land surface <u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M. <u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M.							
DEPTH TO BOTTOM OF STRATUM						11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit							
<u>Sand, Red Clay</u>						12 WELL GROUTED? ☐ No ☒ Yes From <u>0</u> to <u>35+</u> ft. ☐ Neat cement ☒ Bentonite ☐ Other <u> </u>							
<u>Sand, Gravel</u>						No. of bags of cement <u>2</u> Additives <u>EZ MUD</u>							
<u>Sand, Gravel, Brown clay</u>						13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>75</u> ft. Direction <u>NW</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No							
<u>Sand, some Brown clay</u>						14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>McDonald</u> Model number <u>21050 K3</u> HP <u>1/2</u> Volts <u>230</u> Length of Drop Pipe <u>80</u> ft. capacity <u>10</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: <u>Well Xtra</u> Manufacturer's name <u>Well Xtra</u> Model number <u>WX250</u> Capacity <u>13.4</u> Gallons							
<u>Fine Sand, some Brown clay</u>						15. Remarks, elevation, source of data, etc. <u>30 gpm w/pas</u>							
<u>Fine Sand</u>						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. <u>Newton Well Service 0212</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>550 E. Cleveland Rd. Hastings MI</u> Signed <u>Laurel E. Newton</u> Date <u>11-30-92</u> AUTHORIZED REPRESENTATIVE							
USE A 2ND SHEET IF NEEDED						Authority: <u> </u> Completion: <u> </u> Penalty: <u> </u>							
17. Rig Operator's Name: <u>Scott Kelly</u>						Act 368 PA 1978 Required Conviction of a violation of any provision is a misdemeanor.							

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		3 OWNER OF WELL:																
County <u>Barry</u>	Township Name <u>Rutland</u>	Fraction <u>NE 1/4 NW 1/4 NW 1/4</u>	Section Number <u>12</u>															
		Town Number <u>3</u>	Range Number <u>9</u>															
Distance And Direction From Road Intersection <u>1/2 mile W of Hammond Rd on N side of Ottawa Ave</u>		Address <u>289 S. Middlefield Rd Hastings</u>																
Street Address & City of Well Location		Address Same As Well Location? ☐ Yes ☒ No																
Locate with "X" in Section Below		4 WELL DEPTH: <u>73</u> FT. Date Completed <u>8/20/91</u>																
		☒ New Well ☐ Replacement Well																
		5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐																
Sketch Map: 		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public																
		☐ Irrigation ☐ Type IIa Public ☐ Heat pump																
		7 CASING: ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded																
		Height: <u>1</u> ft. Above/Below Surface Weight: _____ lbs./ft. Drive Shoe ☐ Yes ☐ No																
2 FORMATION DESCRIPTION <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;">FORMATION DESCRIPTION</th> <th style="width:20%;">THICKNESS OF STRATUM</th> <th style="width:20%;">DEPTH TO BOTTOM OF STRATUM</th> </tr> </thead> <tbody> <tr> <td><u>Fill</u></td> <td><u>3</u></td> <td><u>3</u></td> </tr> <tr> <td><u>Gravel sand</u></td> <td><u>28</u></td> <td><u>31</u></td> </tr> <tr> <td><u>Gravel sand, Red Clay</u></td> <td><u>33</u></td> <td><u>64</u></td> </tr> <tr> <td><u>Gravel sand</u></td> <td><u>9</u></td> <td><u>73</u></td> </tr> </tbody> </table>		FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	<u>Fill</u>	<u>3</u>	<u>3</u>	<u>Gravel sand</u>	<u>28</u>	<u>31</u>	<u>Gravel sand, Red Clay</u>	<u>33</u>	<u>64</u>	<u>Gravel sand</u>	<u>9</u>	<u>73</u>	8 SCREEN: ☐ Not Installed	
		FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM														
<u>Fill</u>	<u>3</u>	<u>3</u>																
<u>Gravel sand</u>	<u>28</u>	<u>31</u>																
<u>Gravel sand, Red Clay</u>	<u>33</u>	<u>64</u>																
<u>Gravel sand</u>	<u>9</u>	<u>73</u>																
		Type <u>SS</u> Diameter <u>3</u>																
		Slot/Gauge <u>1/20</u> Length <u>4</u>																
		Set between <u>68</u> ft. and <u>73</u> ft.																
		FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check																
		☐ Blank above screen _____ ft. Other _____																
		9 STATIC WATER LEVEL: <u>50</u> ft. below land surface ☐ Flow																
		10 PUMPING LEVEL: below land surface																
		_____ ft. after _____ hrs. pumping at _____ G.P.M.																
		_____ ft. after _____ hrs. pumping at _____ G.P.M.																
		11 WELL HEAD COMPLETION: ☒ Flush adapter ☐ 2" above grade																
		☐ Basement offset ☐ Approved pit																
		12 WELL GROUTED? ☐ No ☒ Yes From _____ to _____ ft.																
		☐ Neat cement ☒ Bentonite ☐ Other _____																
		No. of bags of cement _____ Additives _____																
		13 Nearest source of possible contamination																
		Type <u>SEPTIC</u> Distance <u>57</u> ft. Direction <u>S</u>																
		Well disinfected upon completion? ☒ Yes ☐ No																
		Was old well plugged? ☐ Yes ☐ No																
		14 PUMP: ☐ Not Installed ☐ Pump Installation Only																
		Manufacturer's name <u>McDONALD</u>																
		Model number <u>210SOK 3</u> HP <u>1/2</u> Volts <u>230</u>																
		Length of Drop Pipe <u>60</u> ft. capacity <u>12</u> G.P.M.																
		TYPE: ☒ Submersible ☐ Jet																
		PRESSURE TANK: Manufacturer's name <u>Well-X-Trol</u>																
		Model number <u>WX250</u> Capacity <u>13.5</u> Gallons																
15. Remarks, elevation, source of data, etc. <u>20 Spm/w/air</u>		WATER WELL CONTRACTOR'S CERTIFICATION:																
		I was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.																
17. Rig Operator's Name <u>S. Newton</u>		Newton's Well Service Inc 1826 REGISTERED BUSINESS NAME Address <u>550 C. Cleveland Rd Hastings, MI</u> Signed <u>Gary Newton</u> Date <u>8-27-91</u> AUTHORIZED REPRESENTATIVE																

USE A 2ND SHEET IF NEEDED

 RECEIVED
 Mich. Dept. of Public Health
 DEC 19 1991

 BUREAU OF ENVIRONMENTAL AND
 OCCUPATIONAL HEALTH-SUNSHINE

WATER WELL AND PUMP RECORD

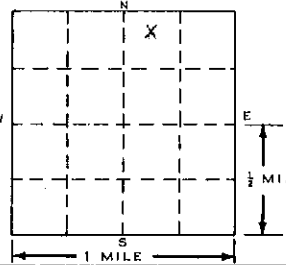
PERMIT NUMBER

6 1 6 5

1 LOCATION OF WELL			3 OWNER OF WELL:																																			
County Barry	Township Name Rutland	Fraction 1/4 NW 1/4 NW 1/4	Section Number 12	Town Number 3	Range Number 9																																	
Distance And Direction From Road Intersection 2/10 mile north of State Rd. on Douglas. 6/10 mile east of Douglas on Ottawa Trails			Address Mark Simpson 1798 Ottawa Trails Hastings MI Address Same As Well Location? ☒ Yes ☐ No																																			
Street Address & City of Well Location 1798 Ottawa Trails Hastings			4 WELL DEPTH: 83 FT. Date Completed 8/20/91 ☒ New Well ☐ Replacement Well																																			
Locate with "X" in Section Below 			5 ☒ Cable tool ☐ Rotary ☒ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐																																			
Sketch Map:			6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public ☐																																			
2 FORMATION DESCRIPTION <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>THICKNESS OF STRATUM</th> <th>DEPTH TO BOTTOM OF STRATUM</th> </tr> </thead> <tbody> <tr><td>Top Soil</td><td>2</td><td>2</td></tr> <tr><td>Red Clay</td><td>3</td><td>5</td></tr> <tr><td>Gravel</td><td>33</td><td>38</td></tr> <tr><td>Blue Clay</td><td>27</td><td>65</td></tr> <tr><td>Sand</td><td>18</td><td>83</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>				THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	Top Soil	2	2	Red Clay	3	5	Gravel	33	38	Blue Clay	27	65	Sand	18	83																7 CASING: Diameter ☒ Steel ☒ Threaded ☐ Plastic ☐ Welded 4 in. to 78 ft. depth Height: Above/Below Surface 1 ft. Weight 11 lbs./ft. Drive Shoe ☒ Yes ☐ No		
				THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM																																	
Top Soil	2	2																																				
Red Clay	3	5																																				
Gravel	33	38																																				
Blue Clay	27	65																																				
Sand	18	83																																				
8 SCREEN: ☐ Not Installed Type Stainless Diameter 3" Slot 7 Length 5' Set between 78 ft. and 83 ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☒ Blank above screen 8" Other																																						
9 STATIC WATER LEVEL: 60 ft. below land surface ☐ Flow			10 PUMPING LEVEL: below land surface _____ ft. after 1 hrs. pumping at 30 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 _____ to surface ☐ Neat cement ☒ Bentonite ☐ Other No. of bags of cement _____ Additives _____																																			
13 Nearest source of possible contamination Type Septic Distance 75 ft. Direction SE Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No			14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name Burks Model number 7SNB12B HP 3/4 Volts 220 Length of Drop Pipe 67 ft. capacity 12 G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name Well X-Trol Model number 250 Capacity 13.6 Gallons																																			
15. Remarks, elevation, source of data, etc. No nitrates on field check by driller.			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. Joe Carlson Well Drilling, Inc. 1552 REGISTERED BUSINESS NAME REGISTRATION NO. Address 5434 Thornapple River Dr. G.R. MI 49512 Signed Joe Carlson Date 8-23-91 AUTHORIZED REPRESENTATIVE																																			
17. Rig Operator's Name: Derek Schultz			Authority: Completion: Penalty: Act 388 PA 1978 Required Conviction of a violation of any provision is a misdemeanor.																																			

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		County <u>Berrien</u>		Township Name <u>Ruthland</u>		Fraction <u>1/4 NW 1/4 NE 1/4</u>		Section Number <u>12</u>		Town Number <u>3 N 1/2</u>		Range Number <u>9 EW</u>	
Distance And Direction From Road Intersection <u>approx 1/4 mi. W of Hammond Rd. on S. side of Ottawa Trail.</u>						3 OWNER OF WELL: <u>David Allending</u>							
Street Address & City of Well Location						Address <u>1398 Ottawa Trail Hastings, MI 49058</u>							
Locate with "X" in Section Below						Address Same As Well Location? ☒ Yes ☐ No							
Sketch Map:						4 WELL DEPTH: Date Completed <u>9/17/93</u>							
						<u>165 FT.</u> ☒ 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: ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded							
						Diameter <u>5"</u> in. to <u>165</u> ft. depth							
						Grouted Drill Hole Diameter <u>8</u> in. to <u>160</u> ft. depth							
						Drive Shoe ☐ Yes ☒ No							
						8 SCREEN: ☐ Not installed							
						Type <u>SS</u> Diameter <u>3" pipe size</u>							
						Slot/Gauge <u>10</u> Length <u>4'</u>							
						Set between <u>160</u> ft. and <u>165</u> ft.							
						FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check							
						☐ Blank above screen <u>1/2</u> ft. Other <u>None</u>							
						9 STATIC WATER LEVEL: <u>46</u> ft. below land surface ☐ Flow							
						10 PUMPING LEVEL: below land surface							
						_____ ft. after _____ hrs. pumping at _____ 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 <u>0</u> to <u>25</u> ft.							
						☐ Neat cement ☒ Bentonite ☐ Other _____							
						No. of bags of cement <u>1</u> Additives <u>EZ MUD</u>							
						13 Nearest source of possible contamination <u>not installed</u>							
						Type <u>Septic</u> 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 <u>Wellhead</u>							
						Model number <u>102558B</u> HP <u>1/2</u> Volts <u>230</u>							
						Length of Drop Pipe <u>80</u> ft. capacity <u>10+</u> G.P.M.							
						TYPE: ☒ Submersible ☐ Jet							
						PRESSURE TANK: <u>Wellhead</u>							
						Manufacturer's name _____							
						Model number <u>WX250</u> Capacity <u>13.6</u> Gallons							
						15. Remarks, elevation, source of data, etc. <u>40 ft.</u>							
						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.							
						Signature <u>Newton Well Service</u> D212							
						REGISTERED BUSINESS NAME <u>550 E Cleveland Rd, Hastings, MI</u>							
						REGISTRATION NO. _____							
						Signed <u>Laurel E. Hunt</u> Date <u>10-1-93</u>							
						AUTHORIZED REPRESENTATIVE							

USE A 2ND SHEET IF NEEDED

RECEIVED
DEPT. OF PUBLIC HEALTH
NOV 15 93
BUREAU OF ENVIRONMENTAL
AND OCCUPATIONAL HEALTH

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
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:

B25492

1. LOCATION OF WELL

County

BARRY

Township Name

Rothland

Fraction

NW 1/4 SW 1/4

Section No.

12

Town No.

3N

Range No.

9W

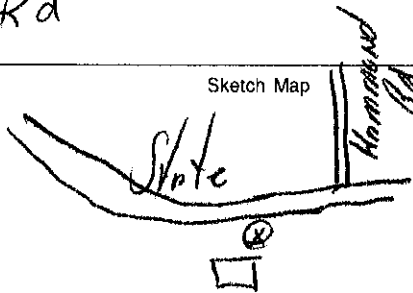
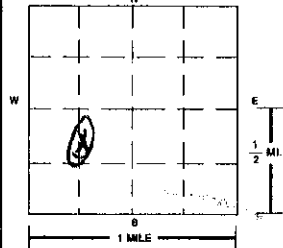
Distance and Direction from Road Intersection

*1/2 mi W of Hammond Rd
60' So of State Rd*

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUM

DEPTH TO
BOTTOM OF
STRATUM

Gravel & Sand

34'

34'

Grey Clay & Sand

6'

40'

Gravel & Sand

6'

46'

1/2 mi Grey Clay & Sand

11'

57'

Sand

3'

60'

Water Bearing Sand

5'

65'

RECEIVED
MICH DEPT OF ENVIRONMENTAL QUALITY

FEB 02 1998

Drinking Water & Radiological Protection Division
Ground Water Supply Section
WELL CONSTRUCTION UNIT

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☐ Yes ☒ No

Casing Diameter _____ in.

Depth _____ ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry

☐ Neat Cement

☐ Bentonite Slurry

☐ Concrete Grout

☐ Bentonite Chips

No. of Bags _____

Casing Removed? ☐ Yes ☐ No

*Well 12
in use by
Hans over*

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

17. DRILLING MACHINE OPERATOR:

☐ Employee ☒ Subcontractor

Name

Rich Lamy

3. OWNER OF WELL

Address

*Leon Ward
1885 W State Rd*

Address Same as Well Location ☒ Yes ☐ No

4. WELL DEPTH:

Date Completed

☒ New Well

65 ft.

12-5-97

☐ 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

Height: Above/Below

☒ Plastic

☐ Welded

Surface: *1* ft

☐ Other

Diameter: *5* in. to *60* ft. depth

in. to ft. depth

Weight: *3* lbs./ft.

BORE HOLE:

Diameter: *8* in. to *60* ft. depth

in. to ft. depth

☐ Drive Shoe

☒ Shale Packer

8. SCREEN: ☐ Not Installed

☐ Gravel-Packed

Type *Stainless Steel*

Diameter *4"*

Slot/Gauge *15*

Length: *5'*

Set Between *60* ft. and *65* ft.

ft. and ft.

FITTINGS: ☒ K-Packer

☐ Bremer Check

☐ Blank Above Screen

1 ft. Other

9. STATIC WATER LEVEL:

23 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

40 ft. After *1* hrs. Pumping at *30* 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 *0* to *60* ft.

☐ Neat Cement

☒ Bentonite

☐ Other

No. of Bags *6*

Additives

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type *Not Installed*

Distance _____ ft.

Type *Not Installed*

Distance _____ ft.

Direction _____

14. PUMP: ☒ Not Installed

☐ Pump Installation Only

Manufacturer's Name *myer*

Model Number *PF2572212*

HP *1/2*

Volts *115*

Length of Drop Pipe *10* ft.

Capacity *12* G.P.M.

TYPE: ☒ Submersible

☐ Jet

☐ Other

PRESSURE TANK:

Manufacturer's Name *myer*

Model Number

Capacity

Gallons

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.

Katz Well Drilling Inc 13-1593

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address *1474 E Michigan Ave B.C.*

Signed *Rich Lamy*

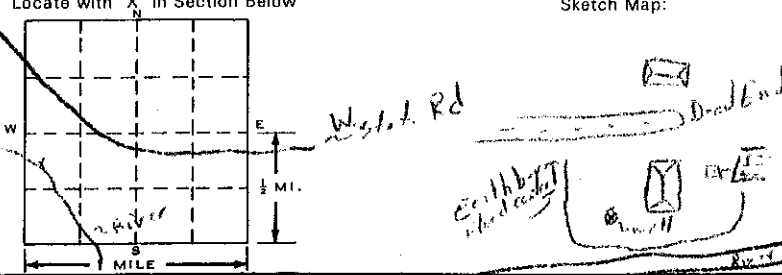
AUTHORIZED REPRESENTATIVE

Date *12-5-97*

WATER WELL AND PUMP RECORD

PERMIT NUMBER

08 6188

1 LOCATION OF WELL		Township Name		Fraction	Section Number	Town Number	Range Number
County <u>Barry</u>		<u>Rutland</u>		<u>SW 1/4 NW 1/4 SW 1/4</u>	<u>12</u>	<u>30</u>	<u>9</u>
Distance And Direction From Road Intersection <u>approx 1/4 mi S of W State Rd on Private Dr across from Stephens Travel Bldg</u>				3 OWNER OF WELL: <u>Diane Alexander</u> Address <u>1795 W State Rd, Hastings</u> Address Same As Well Location? ☒ Yes ☐ No			
Street Address & City of Well Location Locate with "X" in Section Below				4 WELL DEPTH: Date Completed MO. DAY YEAR ☐ New Well ☒ Replacement Well <u>170 FT.</u> <u>6</u> <u>31</u> <u>92</u>			
Sketch Map: 				5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐			
2 FORMATION DESCRIPTION				6 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 Height: Above/Below Surface <u>1</u> ft. Weight <u>SDR 30</u> lbs/ft. Drive Shoe ☐ Yes ☒ No			
THICKNESS OF STRATUM				8 SCREEN: ☐ Not Installed Type _____ Diameter _____ Slot/Gauze _____ Length _____ Set between <u>11</u> ft. and _____ ft. FITTINGS: ☒ A-Packer ☐ Lead Packer ☐ Brainer Check ☐ Blank above screen _____ ft. Other _____			
41				9 STATIC WATER LEVEL: <u>+6'</u> ft. below land surface ☒ Flow			
12				10 PUMPING LEVEL: below land surface _____ ft. after _____ hrs. pumping at _____ G.P.M. _____ ft. after _____ hrs. pumping at _____ G.P.M.			
16				11 WELL HEAD COMPLETION: ☒ Pitless adapter ☐ 12" above grade ☐ Basement offset ☐ Approved pit			
25				12 WELL GROUTED? ☐ No ☒ Yes From _____ to _____ ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement <u>4</u> Additives <u>EZ MUD</u>			
22				13 Nearest source of possible contamination Type <u>Septic</u> Distance <u>60</u> ft. Direction <u>SE</u> Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No			
29				14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name <u>MC Donald</u> Model number <u>21050K3</u> HP <u>1/2</u> Volts <u>230</u> Length of Drop Pipe <u>20</u> ft. capacity <u>10</u> G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name <u>Well Head</u> Model number <u>WX203</u> Capacity <u>9.7</u> Gallons			
17				15. Remarks, elevation, source of data, etc. <u>40'-5' lines, located at 130°-150° W</u> <u>Kpackers</u> <u>20-30 gpm</u>			
20				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. <u>Newton Well Service 0212</u> REGISTERED BUSINESS NAME REGISTRATION NO. Address <u>350 E Cleveland Rd Hastings MI</u> Signed <u>Laurel C. Newton</u> Date <u>7-8-92</u> AUTHORIZED REPRESENTATIVE			
20				17. Rig Operator's Name: <u>Scott K. Ellay</u> AUG 31 1992			

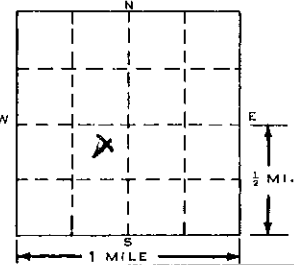
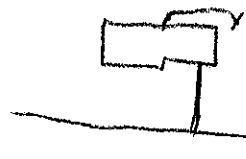
USE A 2ND SHEET IF NEEDED

JUL 1992
BARRY-EATON DIST.
HEALTH DEPT.
HASTINGSRECEIVED
Mich. Dept. of Public Health

AUG 31 1992

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		3 OWNER OF WELL:	
County <u>Barry</u>	Township Name <u>Rutland</u>	Fraction <u>NW 1/4 NE 1/4 SW 1/4</u>	Section Number <u>12</u> Town Number <u>3</u> Range Number <u>9</u> E/W <u>E/W</u>
Distance And Direction From Road Intersection <u>4 1/2 miles W of Hammond Rd on N side of State Rd</u>		Address <u>Russ Dykstra</u> <u>P.O. Box 353 Middlesboro MI</u> Address Same As Well Location? ☐ Yes ☒ No	
Locate with "X" in Section Below 		Sketch Map: 	
2 FORMATION DESCRIPTION		4 WELL DEPTH:	
Thickness of Stratum	Depth to Bottom of Stratum	Date Completed MO <u>8</u> DAY <u>2</u> YEAR <u>91</u> <u>125</u> FT. ☒ New Well ☐ Replacement Well	
<u>Gravel sand Red Clay</u>	<u>16</u>	<u>5</u> in. to <u>120</u> ft. depth	
<u>Gravel sand</u>	<u>16</u>	<u> </u> in. to <u> </u> ft. depth	
<u>Red Clay</u>	<u>2</u>	<u> </u> in. to <u> </u> ft. depth	
<u>Gravel sand</u>	<u>2</u>	<u> </u> in. to <u> </u> ft. depth	
<u>Gravel sand Blue Clay</u>	<u>84</u>	<u> </u> in. to <u> </u> ft. depth	
<u>Gravel sand</u>	<u>5</u>	<u> </u> in. to <u> </u> ft. depth	
		Grouted Drill Hole Diameter <u> </u> in. to <u> </u> ft. depth	
		Drive Shoe ☐ Yes ☒ No	
		8 SCREEN: ☐ Not Installed	
		Type <u>PIC</u> Diameter <u>5</u>	
		Slot/Gauze <u>5/16</u> Length <u>3</u>	
		Set between <u>120</u> ft. and <u>125</u> ft.	
		FITTINGS: ☐ K-Packer ☐ Lead Packer ☐ Bremer Check	
		☐ Blank above screen <u> </u> ft. Other <u>5' cup cap</u>	
		9 STATIC WATER LEVEL: <u>36</u> ft. below land surface ☐ Flow	
		10 PUMPING LEVEL: below land surface	
		<u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M.	
		<u> </u> ft. after <u> </u> hrs. pumping at <u> </u> G.P.M.	
		11 WELL HEAD COMPLETION: ☒ Pitless adapter ☒ 42" above grade	
		☐ Basement offset ☐ Approved pit	
		12 WELL GROUTED? ☐ No ☒ Yes From <u> </u> to <u> </u> ft.	
		☐ Neat cement ☒ Bentonite ☐ Other <u> </u>	
		No. of bags of cement <u> </u> Additives <u> </u>	
		13 Nearest source of possible contamination	
		Type <u>SEPTIC</u> Distance <u>55</u> ft. Direction <u>W</u>	
		Well disinfected upon completion? ☒ Yes ☐ No	
		Was old well plugged? ☐ Yes ☐ No	
		14 PUMP: ☐ Not Installed ☐ Pump Installation Only	
		Manufacturer's name <u>McDONALD</u>	
		Model number <u>21050R3</u> HP <u>1/2</u> Volts <u>230</u>	
		Length of Drop Pipe <u>100</u> ft. capacity <u>12</u> G.P.M.	
		TYPE: ☒ Submersible ☐ Jet	
		PRESSURE TANK: <u>Well-x-200</u>	
		Manufacturer's name <u>Well-x-200</u>	
		Model number <u>WY250</u> Capacity <u>136</u> Gallons	
15. Remarks, elevation, source of data, etc.		16. WATER WELL CONTRACTOR'S CERTIFICATION:	
<u>35 gpm w/a</u>		This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.	
17. Rig Operator's Name: <u>A. Hunter</u>		NEWTON'S Well Service 1/26 REGISTERED BUSINESS NAME Address <u>550 E. COVERDALE RD HASTINGS</u> Signed <u>Mary Newton</u> Date <u>8-15-91</u> AUTHORIZED REPRESENTATIVE	

USE A 2ND SHEET IF NEEDED

WATER WELL RECORD
ACT 294 PA 1965MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

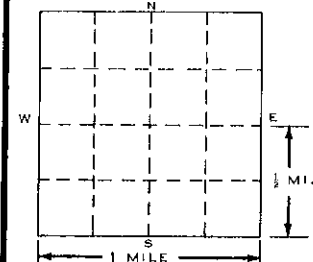
County Barry Township Name Rutland Fraction 1/4 Section Number 12 Town Number 3 Range Number 9 E.W.

Distance And Direction from Road Intersections

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Dry gravel	49	49
Blue clay	21	70
Red clay gravel	18	88
Water gravel	6	94

3 OWNER OF WELL:

Don MARTIN
Address 1799 OTTAWA TRAIL
HASTINGS MI

4 WELL DEPTH: (completed) Date of Completion

94 ft.

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.Height: Above/Below
Surface 1 ft.

4 in. to 94 ft. Depth Weight 11 lbs./ft.

Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: STAINLESS-5 Dia.: 3 in.

Slot/Gauze 10 Length 4-6

Set between 90 ft. and 94 ft.

Fittings: K-Packer 3 in. iron plug

9 STATIC WATER LEVEL

54 ft. below land surface

10 PUMPING LEVEL below land surface

72 ft. after 3 hrs. pumping 25 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 Grade13 Well Grouted? ☐ Yes ☐ No☐ Neat Cement ☐ Bentonite ☐

Depth: From ft. to ft.

14 Nearest Source of possible contamination

50 feet EAST Direction Septic Tank Type

Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installed

Manufacturer's Name Valley

Model Number S1209 HP 1/2 Volts 230

Length of Drop Pipe 84 ft. capacity G.P.M.

Type: ☒ Submersible☐ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER ITEM NO.

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

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.

DANIEL DILLINGHAM 1208
REGISTERED BUSINESS NAME REGISTRATION NO.

Address 7440 Woodschool Rd Freeport MI

Signed Duane Wilkes Date 6-3-74
AUTHORIZED REPRESENTATIVE

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL		3 OWNER OF WELL:	
County BARRY	Township Name RUTLAND	Fraction NW 1/4 NE 1/4 NW 1/4	Section Number 12
		Town Number 3 N/8	Range Number 9 OW
Distance And Direction From Road Intersection 1/2 mile W of Hammond Rd on N side of Ottawa Ln		Address C-46 Leach St Hastings	
Street Address & City of Well Location Locate with "X" in Section Below		Address Same As Well Location? ☐ Yes ☒ No	
Sketch Map: 		4 WELL DEPTH: 112 FT. Date Completed 11/19/90 ☒ New Well ☐ Replacement Well	
2 FORMATION DESCRIPTION		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 ☐ Steel ☒ Plastic ☐ Threaded ☐ Welded 5 in. to 107 ft. depth Height: Above/Below Surface 7 ft. Weight _____ lbs./ft.	
		Grouted Drill Hole Diameter _____ in. to _____ ft. depth Drive Shoe ☐ Yes ☒ No	
Thickness of Stratum 14		Depth to Bottom of Stratum 14	
Gravel, Red Clay		8 SCREEN: ☐ Not Installed Type SS Diameter 3 Slot/Gauze 12 Length 5' Set between 107 ft. and 112 ft. FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check ☐ Blank above screen _____ ft. Other _____	
Gravel, Sand, red clay		9 STATIC WATER LEVEL: 66 ft. below land surface ☐ Flow	
Coarse Sand		10 PUMPING LEVEL: below land surface _____ ft. after _____ hrs. pumping at _____ G.P.M. _____ ft. after _____ hrs. pumping at _____ G.P.M.	
Fine Sand, Red clay		11 WELL HEAD COMPLETION: ☒ Pitless adapter ☒ 12" above grade ☐ Basement offset ☐ Approved pit	
Blue Clay		12 WELL GROUTED? ☐ No ☒ Yes From _____ to _____ ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____	
Coal Gravel, Sand, blue clay		13 Nearest source of possible contamination Type SEPTIC Distance 65 ft. Direction W Well disinfected upon completion? ☒ Yes ☐ No Was old well plugged? ☐ Yes ☐ No	
Blue Clay		14 PUMP: ☐ Not Installed ☐ Pump Installation Only Manufacturer's name McDonald Model number WX205 12 Volts 230 Length of Drop Pipe 90 ft. capacity 12 G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Well-X-Trol Manufacturer's name _____ Model number WX205 Capacity 10.5 Gallons	
Gravel, Sand		15. Remarks, elevation, source of data, etc. 35-40 GPM	
17. Rig Operator's Name: Kelly		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. Newton's Well Service Inc 1826 REGISTERED BUSINESS NAME REGISTRATION NO. Address 350 E. Cloverdale Rd Hastings Signed Mary Newton Date 1-25-90 AUTHORIZED REPRESENTATIVE	

D67d 2/89

GEOLOGICAL SURVEY COPY

 Authority:
 Completion:
 Penalty:

 Act 368 PA 1978
 Required
 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 BARRY	Township Name PUTLAND	Fraction SE 1/4 NW 1/4 SE 1/4	Section Number 12	Town Number T3 N.B.	Range Number R9 E.W.
------------------------	---------------------------------	---	-----------------------------	-------------------------------	--------------------------------

Distance And Direction from Road Intersections

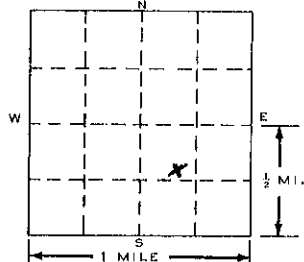
**INTERSECTION OF W. STATE RD & HAMMOND RD.
N.W. CORNER**

Street address & City of Well Location

RR 2 HASTINGS

Locate with "X" in section below

Sketch Map



2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

3 OWNER OF WELL:

FRANK SALAZAR
Address
7835 ORCHARD, OARBORN

4 WELL DEPTH: (completed) Date of Completion

63 ft. 10/31/68

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 ☐ Height: Above/Below
Diam. Surface **1** ft.

2 in. to **59** ft. Depth Weight **3.75** lbs./ft.
in. to ft. Depth Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: **CLAYTON MARK** Dia.: **1 1/4"**
~~2 1/2~~ Gauge **80** Length **54"**
Set between **59** ft. and **63** ft.
Fittings: **2" CHECK**

9 STATIC WATER LEVEL

29 ft. below land surface

10 PUMPING LEVEL below land surface

29 ft. after **1/2** hrs. pumping **700** g.p.m.

ft. after hrs. pumping g.p.m.

11 WATER QUALITY in Parts Per Million:

Iron (Fe) Chlorides (Cl)

Hardness **T** 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

Model Number HP Volts

Length of Drop Pipe ft. capacity G.P.M.

Type: ☐ Submersible

☐ Jet ☐ Reciprocating

USE A 2ND SHEET IF NEEDED

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.

LANCASTER
REGISTERED BUSINESS NAME

0660
REGISTRATION NO.

Address **703 W. STATE ST HASTINGS**

Signed **R.C. Lancaster**
AUTHORIZED REPRESENTATIVE

Date **10/31/68**

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County <u>Barry</u>	Twp. <u>Rutland</u>	Fraction <u>NW 1/4 NW 1/4 NE 1/4</u>	Section No. <u>12</u>	Town <u>3</u>	Range <u>9</u>	N. <u>W.</u>
Distance And Direction from Road Intersections <u>6.5</u>		OWNER No. _____		3 OWNER OF WELL: <u>Harold Aldrich</u>		
Street address & City of Well Location		Address <u>Rt 3 Northwood Mich</u> <u>171 Northwood Dr. Mich</u>				

2 FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	4 WELL DEPTH: (completed) Date of Completion
<u>Fill dirt</u>	<u>8'</u>	<u>8'</u>	<u>40</u> ft. <u>1-13-69</u>
<u>sand & gravel</u>	<u>18'</u>	<u>26'</u>	5 ☐ Cable tool ☐ Rotary ☐ Driven ☐ Dug
<u>clay</u>	<u>3'</u>	<u>29'</u>	☐ Hollow rod ☒ Jetted ☐ Bored ☐
<u>sand</u>	<u>7'</u>	<u>36'</u>	6 USE: ☒ Domestic ☐ Public Supply ☐ Industry
<u>Gravel</u>	<u>4'</u>	<u>40'</u>	☐ Irrigation ☐ Air Conditioning ☐ Commercial
			☐ Test Well ☐
			7 CASING: Threaded ☒ Welded ☐ Heights: Above/Below surface <u>4</u> ft.
			Diam. <u>2</u> in. to _____ ft. Depth _____ in. to _____ ft. Depth _____
			Weight <u>3.75</u> lbs/ft. Drive Shoe? Yes ☐ No ☒
			8 SCREEN: Type: <u>121-6092</u> Dia.: <u>1 1/4"</u>
			Screen/Gauze <u>60</u> Length <u>36"</u>
			Set between <u>37</u> ft. and <u>40</u> ft.
			Fittings: <u>1 1/4 coupling</u>
			9 STATIC WATER LEVEL <u>21.6</u> ft. below land surface
			10 PUMPING LEVEL below land surface _____ ft. after _____ hrs. pumping <u>15</u> 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 ☐
			Depth: From _____ ft. to _____ ft.
			14 SANITARY: <u>septic tank not yet installed</u>
			Nearest Source of possible contamination _____ feet _____ Direction _____ Type _____
			Well disinfected upon completion ☐ Yes ☐ No
			15 PUMP: Manufacturer's Name <u>F & W</u>
			Model Number <u>6265</u> HP <u>1/2</u>
			Length of Drop Pipe <u>21</u> ft. capacity <u>8</u> G.P.M.
			Type: ☐ Submersible ☐
			☒ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

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.

Newton's Well Service 212
REGISTERED BUSINESS NAME REGISTRATION NO.
Address Rt 4 N. Hastings Mich
Signed Laurel C. Newton Date 5-12-69
AUTHORIZED REPRESENTATIVE

WATER WELL AND PUMP RECORD

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

PERMIT NO:

B-26034

TAX NO:

1. LOCATION OF WELL

County

BARRY

Township Name

RUTLAND

Fraction

UNW. W. SE

Section No.

12

Town No.

3N

Range No.

9W

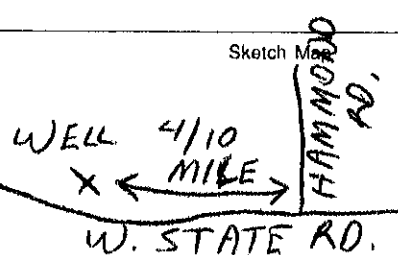
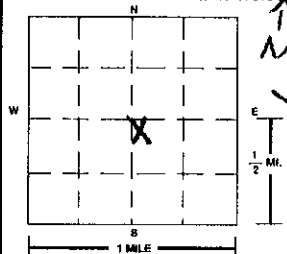
Distance and Direction from Road Intersection

**ON NORTH SIDE OF W. STATE RD.
4/10 MILE WEST OF HAMMOND RD.**

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUM

DEPTH TO
BOTTOM OF
STRATUM

0-29 SAND + GRAVEL	29	29
29-33 BROWN CLAY	4	33
33-58 GREY CLAY w/SAND	25	58
58-97 GREY CLAY w/GRAVEL	39	97
97-106 SAND	9	106

**PUMP WILL BE INSTALLED
BY LEWIS WELL DRILLING**

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☐ Yes ☐ No

Casing Diameter _____ in.

Depth _____ ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry

☐ Neat Cement

☐ Concrete Grout

☐ Bentonite Slurry

☐ Bentonite Chips

No. of Bags _____

Casing Removed?

☐ Yes ☐ No

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

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name **MARC MCKEAGUE**

3. OWNER OF WELL

Address

**SHAWN HAWTHORNE
1634-W. STATE RD.
HASTINGS, MI. 49058**

Address Same as Well Location

☒ Yes ☐ No

4. WELL DEPTH:

Date Completed

☐ New Well

106 ft.

2/11/99

☒ 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: **0** Above/Below Surface: _____ ft.

Diameter: **5** in.

to **101** ft.

depth

Weight: **3** lbs./ft.

BORE HOLE:

Diameter: **8** in.

to **101** ft.

depth

☐ Drive Shoe

☒ Shale Packer

8. SCREEN:

☐ Not Installed

☐ Gravel-Packed

Type **STAINLESS**

Diameter **4"**

Slot/auze **0.012**

Length: **4'**

Set Between **101** ft.

and **106** ft.

ft.

FITTINGS: **2**

☒ K-Packer

☐ Bremer Check

☒ Blank Above Screen

1 ft.

Other _____

9. STATIC WATER LEVEL:

39 ft.

Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

85 ft.

After **1** hrs.

Pumping at **40** G.P.M.

☐ Plunger

☐ Baller

☒ Air

☐ Test Pump

11. WELL HEAD COMPLETION:

☐ Pitless Adapter

☒ 12" Above Grade

☐ Basement Offset

☐ Well House

12. WELL GROUTED?

☐ No

☒ Yes

From **0** to **95** ft.

☐ Neat Cement

☒ Bentonite

☐ Other _____

No. of Bags **1012**

Additives _____

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type **SDS**

Distance **504** ft.

Direction **NE**

Type _____

Distance _____ ft.

Direction _____

14. PUMP:

☒ Not Installed

☐ Pump Installation Only

Manufacturer's Name _____

Model Number _____

HP _____

Volts _____

Length of Drop Pipe **60** ft.

Capacity _____ G.P.M.

TYPE: ☐ Submersible

☐ Jet

☐ Other _____

PRESSURE TANK:

Manufacturer's Name _____

Model Number _____

Capacity _____

Gallons _____

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.

KATZ WELL DRILLING INC. 13-1593

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address **1479 E. MICH. AVE. BATTLE CREEK**

Signed **Marc McKeague** Date **2-11-99**

AUTHORIZED REPRESENTATIVE

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
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:

B26559

1. LOCATION OF WELL

County

Barry

Township Name

Rutland

Fraction

SE 1/4 NW 1/4 NE 1/4

Section No.

12

Town No.

3 N

Range No.

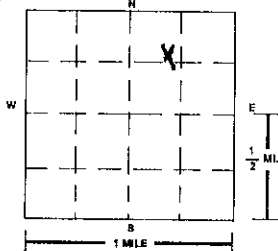
9 W

Distance and Direction from Road Intersection

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUM

DEPTH TO
BOTTOM OF
STRATUM

Gravel, some sand	22	22
fine sand	21	43
little Red Clay, sand	19	62
sand, little Blue Clay	3	65
Gravel, sand, Blue Clay	39	104
some Gravel, sand	3	107
Red Clay, sand	9	116
sand, Blue Clay	4	120
Red Clay, sand	6	126
Gravel, sand, Blue Clay	35	161
Red/yellow sandrock soft	11	172
Grey sandrock soft	1	173
soft white / yellow sand Rock	7	180
170' SDR 21-5" PVC well casing		
5" PVC Bellow Bottom		

USE A 2ND SHEET IF NEEDED

3. OWNER OF WELL

Address

**Robert & Kathy Smith
891 Hammond Rd
Hastings, Mich. 49058**

Address Same as Well Location ☒ Yes ☐ No

4. WELL DEPTH:

Date Completed

☐ New Well

☒ Replacement Well

180' ft.

9/3/98

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

Height **Above** Below

☒ Plastic

☐ Welded

Surface: **9** ft

☐ Other

Diameter: **5** in. to **170** ft. depth

in. to ft. depth

Weight: **SDP21** lbs./ft.

BORE HOLE:

Diameter: **8 1/2** in. to **170** ft. depth

4 1/2 in. to **180** ft. depth

☐ Drive Shoe

☐ Shale Packer

8. SCREEN: ☐ Not Installed

☐ Gravel-Packed

Type

Diameter

Slot/Gauze

None

Length:

Set Between

ft. and

ft.

FITTINGS:

☐ K-Packer

☐ Bremer Check

☐ Blank Above Screen

ft. Other

9. STATIC WATER LEVEL:

72 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

ft. After

hrs. Pumping at

50+ 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 **0** to **170** ft.

☐ Neat Cement

☒ Bentonite

☐ Other

No. of Bags

9

Additives

E-2 7mucf

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type **Septic**

Distance **60+** ft.

Direction **NW**

Type

Distance

ft.

Direction

14. PUMP:

☐ Not Installed

☐ Pump Installation Only

Manufacturer's Name **Webb**

Model Number **1025711B**

HP **3/4**

Volts **220**

Length of Drop Pipe **110** ft.

Capacity

10 G.P.M.

TYPE:

☒ Submersible

☐ Jet

☐ Other

PRESSURE TANK:

Manufacturer's Name **Champion**

Draw-Down

Model Number **10050**

Capacity

Gallons **13.6**

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.

Newton's Well Service Inc 2167

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address **550 E. Cloverdale Rd Hastings, Mich**

Signed **Michael J. Kessler**

Date **9/11/98**

AUTHORIZED REPRESENTATIVE

15. ABANDONED WELL PLUGGED?

☒ Yes ☐ No

Casing Diameter **2** in.

Depth **75 Approx**

PLUGGING MATERIAL:

☐ Neat Cement

☐ Bentonite Slurry

☐ Cement/Bentonite Slurry

☐ Concrete Grout

☒ Bentonite Chips

No. of Bags **2 1/2**

Casing Removed?

☐ Yes

☒ No

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

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name **Douglas Franklan**

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
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:

B-23249

1. LOCATION OF WELL

County

Barry

Township Name

Rutland

Fraction

SW 1/4 SE 1/4

Section No.

12

Town No.

3A

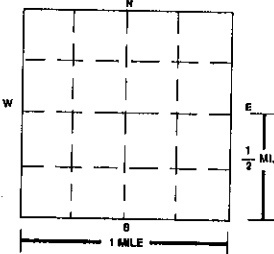
Range No.

9N

Distance and Direction from Road Intersection

Street Address & City of Well Location

Locate with 'x' in Section Below

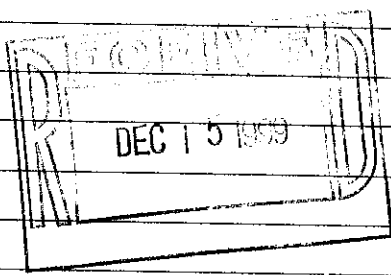


Sketch Map

2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUM

DEPTH TO
BOTTOM OF
STRATUM



USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☒ Yes ☐ No

Casing Diameter **2** in.

Depth **all** ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry

No. of Bags

☐ Neat Cement

☐ Concrete Grout

Casing Removed? ☒ Yes ☐ No

☐ Bentonite Slurry

☒ Bentonite Chips

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

17. DRILLING MACHINE OPERATOR:

☐ Employee ☐ Subcontractor

Name

3. OWNER OF WELL

Address

**Mr & Mrs Martin
1792 W State St
Houghton, MI 49931**

Address Same as Well Location

☒ Yes ☐ No

4. WELL DEPTH:

Date Completed

93 ft.

12/7/99

☐ New Well

☒ Replacement Well

5. ☐ Cable Tool

☐ Hollow Rod

☐ Rotary

☐ Auger/Bored

☐ Driven

☐ Jetted

☐ Dug

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: _____ ft

Diameter: _____ in. to _____ ft. depth

Weight: _____ lbs./ft.

_____ in. to _____ ft. depth

BORE HOLE:

Diameter: _____ in. to _____ ft. depth

_____ in. to _____ ft. depth

☐ Drive Shoe

☐ Shale Packer

8. SCREEN:

☐ Not Installed

☐ Gravel-Packed

Type

Diameter _____

Slot/Gauze

Length: _____

Set Between _____

ft. and _____ 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 _____ 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 _____ Distance _____ ft. Direction _____

Type _____ Distance _____ ft. Direction _____

14. PUMP:

☐ Not Installed

☒ Pump Installation Only

Manufacturer's Name

Mayer

Model Number

152572-12

HP **3A**

Volts **220**

Length of Drop Pipe **50** ft.

Capacity **12** G.P.M.

TYPE:

☒ Submersible

☐ Jet

☐ Other _____

PRESSURE TANK:

Manufacturer's Name

Mayer

Model Number

52

Capacity

18

Gallons **18**

DEC 28 1999

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.

REGISTERED BUSINESS NAME

Lewis Well Drilling

Address

23705 Charlton PK Rd Houghton MI 49931

Signed

[Signature]

AUTHORIZED REPRESENTATIVE

Date

12-13-99

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
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

PERMIT NO:

8-13249

TAX NO:

1. LOCATION OF WELL

County

Barry

Township Name

Rutland

Section No.

SW 1/4 NE 1/4 12

Section No.

12

Town No.

3N

Range No.

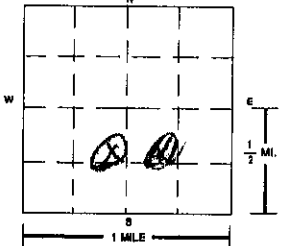
9W

Distance and Direction from Road Intersection

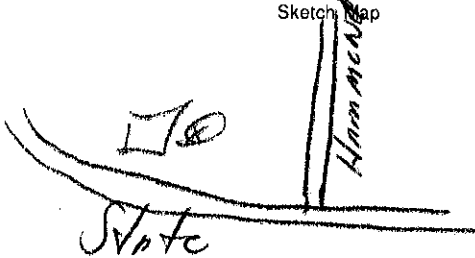
3/4 mi W of Hammond Rd
150' No of State

Street Address & City of Well Location

Locate with 'x' in Section Below



Sketch Map



3. OWNER OF WELL

Address

Mrs. St Martin
179a W State Rd

Address Same as Well Location ☐ Yes ☐ No

4. WELL DEPTH:

93 ft.

Date Completed

12-17-99

☐ 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

Height: Above/Below

☒ Plastic

☐ Welded

Surface: 1 ft

☐ Other

Diameter: 5 in.

to 88 ft. depth

Weight: 3 lbs./ft.

BORE HOLE:

Diameter: 9 in.

to 88 ft. depth

☐ Drive Shoe

☒ Shale Packer

8. SCREEN:

☐ Not Installed

☐ Gravel-Packed

Type

Stainless Steel

Diameter 4"

Slot/Gauze

15

Length: 5'

Set Between

88 ft. and

83 ft.

FITTINGS:

☒ K-Packer

☐ Bremer Check

☐ Blank Above Screen

1 ft. Other

9. STATIC WATER LEVEL:

38

ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

50

ft. After 1 hrs. Pumping at

30 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 88 ft.

☐ Neat Cement

☒ Bentonite

☐ Other

No. of Bags 9

Additives

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type

Septic

Distance 504 ft.

Direction

Type

Distance

ft. Direction

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

☐ Other

PRESSURE TANK:

Manufacturer's Name

Model Number

Capacity

Gallons

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.

Rate Well Drilling Inc 13-1593
REGISTERED BUSINESS NAME

Address

1419 E Michigan Ave Bt.

REGISTRATION NO.

Signed

Rate Well Drilling Inc

Date

12-7-99

AUTHORIZED REPRESENTATIVE

2. FORMATION DESCRIPTION

THICKNESS OF STRATUM

DEPTH TO BOTTOM OF STRATUM

Brown Clay + Sand

19'

19'

Medium Gravel + Sand

11'

30'

Gray Clay

8'

38'

Brown Clay + Gravel

4'

40'

Sand

1'

43'

Soft Brown Clay + Sand

2'

45'

Gray Clay

20'

65'

Gravel + Sand

2'

67'

Gray Clay

15'

82'

Sand

6'

88'

Water Bearing Sand

5'

93'

Pump Installed By Lewis W.D.

USE A 2ND SHEET IF NEEDED

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

Rate Well Drilling Inc

WATER WELL AND PUMP RECORD

Completion is required under authority of Part 127 Act 368 PA 1978

Failure to comply is a misdemeanor

PERMIT NO:

B27955

TAX NO:

1. LOCATION OF WELL

County

Barry

Township Name

Rutland

Fraction

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

Section No.

12

Town No.

3 N

Range No.

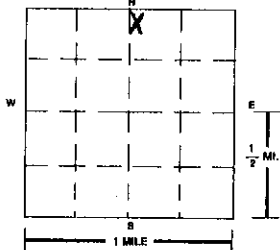
9 W

Distance and Direction from Road Intersection

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS OF STRATUM

DEPTH TO BOTTOM OF STRATUM

Gravel, sand, little red clay	3	3
Gravel	3	6
sand	23	29
soft red clay, sand	18	47
soft blue clay	40	87
Gravel, some sand	4	91
sand, little blue clay	1	92
Gravel, sand	4 1/2	96 1/2
sand, soft blue clay	1/2	97

87' SDR-21 5" PUC Well Casing
 10' SDR 21 20 slot 5" PUC Screen Fittings
 13 bags #5 Gravel Pack Sand

MICH DEPT OF ENVIRONMENTAL QUALITY

DEC 07 1999

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☒ Yes ☐ No

Casing Diameter 2 in.

Depth 90 Approx

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry

No. of Bags 3

☐ Neat Cement☐ Concrete Grout

Casing Removed?

☒ Bentonite Slurry☒ Bentonite Chips☐ Yes ☒ No

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

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name

Douglas Franklin

3. OWNER OF WELL

Address

Mrs & Mrs Norma Hall
 1040 Hammond Rd
 Hastings, MI 49058

Address Same as Well Location ☒ Yes ☐ No

4. WELL DEPTH:

Date Completed

97 ft.

11/1999

☐ New Well☒ Replacement Well5. ☐ Cable Tool☐ Hollow Rod☒ Rotary☐ Auger/Bored☐ Driven☐ Jetted☐ Dug

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 87 ft. depth

in. to ft. depth

Weight: SDR-21 lbs./ft.

BORE HOLE:

Diameter: 8 1/2 in. to 97 ft. depth

in. to ft. depth

☐ Drive Shoe☐ Shale Packer

8. SCREEN:

☐ Not Installed☒ Gravel-Packed

Type PUC

Diameter 5"

Slot/Gauge 20

Length: 10

Set Between 87 ft. and 97 ft.

FITTINGS: ☐ K-Packer☐ Bremer Check☐ Blank Above Screen

ft. Other

9. STATIC WATER LEVEL:

56 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

ft. After

hrs. Pumping at

30 G.P.M.

☐ Plunger☐ Bailor☒ Air☐ Test Pump

11. WELL HEAD COMPLETION:

☒ Pitless Adapter☐ Basement Offset☒ Above Grade☐ Well House

12. WELL GROUTED?

☐ No☒ Yes

From 0 to 80 ft.

☐ Neat Cement☐ Bentonite☐ Other

No. of Bags 7

Additives E-2 Mud

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

Aeromotor

Model Number

A-1255-80

HP 1/2

Volts 220

Length of Drop Pipe

82 ft.

Capacity

12 G.P.M.

TYPE: ☒ Submersible☐ Jet☐ Other

PRESSURE TANK:

Manufacturer's Name

Champion

Draw Down

Model Number

CM-10050

Capacity

Gallons 13.6

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.

Newtons Well Service Inc 2167

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address

550 E. Cloverdale Rd Hastings, MI

Signed

Michael T. Kisher

Date

11-23-99

AUTHORIZED REPRESENTATIVE

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:

84991

1. LOCATION OF WELL

County

BARRY

Township Name

RUTLAND

Fraction

NW 1/4 NW 1/4 SE 1/4

Section No.

12

Town No.

3N

Range No.

9W

Distance and Direction from Road Intersection

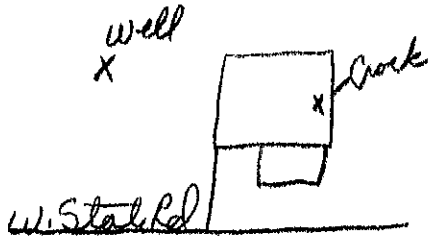
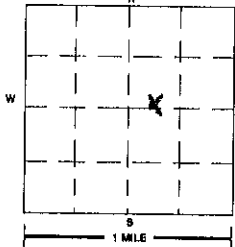
**Approx 1/4 mi. W. of Hammond Rd on
The N. Side of W. State Rd**

Street Address & City of Well Location

1370 W. State Rd

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUM

DEPTH TO
BOTTOM OF
STRATUM

Red Clay, sand	2	2
Gravel, sand	22	24
Little Red Clay, sand	13	37
Blue Clay, sand	3	68
Little Red Clay, sand	8	76
Gravel, sand	5	81
Gravel, sand, Blue Clay	58	139
Dolomite	2	141
Hard sand rock	3	144
Gypsiferous	2	146
Hard sand rock	18	164
Hard sand rock	7	171
Soft sand rock	16	187
1 1/2" Sdr-21 5" PVC well casing		
5" PVC Bellon Bottom		

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☐ Yes ☒ No

Casing Diameter _____ in.

Depth _____ ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry

☐ Neat Cement

☐ Bentonite Slurry

☐ Concrete Grout

☐ Bentonite Chips

No. of Bags _____

Casing Removed?

☐ Yes ☒ No

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

65 GPM W/AIR

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name **Douglas Franklin**

3. OWNER OF WELL

Address

**Andrea & Dennis Stone
1370 W. State Rd
Hastings, MI 49058**

Address Same as Well Location

☒ Yes ☐ No

4. WELL DEPTH:

Date Completed

187 ft.

4/9/98

☒ New Well

☐ Replacement Well

5. ☐ Cable Tool

☒ Rotary

☐ Driven

☐ Dug

☐ Hollow Rod

☐ Auger/Bored

☐ Jetted

6. USE:

☒ Household

☐ Irrigation

☐ Test Well

☐ Type I Public

☐ Type IIa Public

☐ Type IIb Public

☐ Type III Public

☐ Heat Pump

7. CASING:

☐ Steel

☐ Threaded

☒ Plastic

☐ Welded

☐ Other

Height Above/Below

Surface: **1 1/2** ft

Diameter: **5** in. to **1 1/2** ft. depth

_____ in. to _____ ft. depth

Weight: **50#2** lbs./ft.

BORE HOLE:

Diameter: **8 1/2** in. to **1 1/2** ft. depth

4 1/2 in. to **187** ft. depth

☐ Drive Shoe

☐ Shale Packer

8. SCREEN:

☐ Not Installed

☐ Gravel-Packed

Type

Diameter

Slot/Gauze

None

Length:

Set Between

_____ ft. and _____ ft.

FITTINGS:

☐ K-Packer

☐ Bremer Check

☐ Blank Above Screen

_____ ft. Other

9. STATIC WATER LEVEL:

42 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

_____ ft. After

hrs. Pumping at

65 G.P.M.

☐ Plunger

☐ Bailor

☒ Air

☐ Test Pump

11. WELL HEAD COMPLETION:

☒ Pitless Adapter

☐ Basement Offset

☒ 12" Above Grade

☐ Well House

12. WELL GROUTED?

☐ No

☒ Yes

From **0** to **160** ft.

☐ Neat Cement

☒ Bentonite

☐ Other

No. of Bags

9

Additives

E-Z mud

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type **Crack**

Distance **51** ft.

Direction **E**

Type

Distance

ft.

Direction

14. PUMP:

☐ Not Installed

☐ Pump Installation Only

Manufacturer's Name **Wellbore**

Model Number **202S1514B**

HP **1 1/2**

Volts **220**

Length of Drop Pipe **160** ft.

Capacity

20 G.P.M.

TYPE:

☒ Submersible

☐ Jet

☐ Other

PRESSURE TANK:

Manufacturer's Name **Champion**

Model Number **Cm17002**

Capacity

26.7 Gallons

each Tank

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.

Newton's Well Service Inc **2167**

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address **550 E. Cloverdale Rd Hastings, MI 49058**

Signed **Michael T. Kesler**

Date **4-9-98**

AUTHORIZED REPRESENTATIVE

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County

BARRY

Township Name

RUTLAND

Fraction

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

Section Number

12

Town Number

T3 N0.

Range Number

R9 @W.

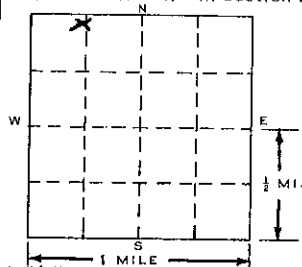
Distance And Direction from Road Intersections

1/2 mile west of HAMMOND RD

RR 2 HASTINGS N SIDE

Street address & City of Well Location

Locate with "X" in section below



3 OWNER OF WELL:

Address
LORRETTA CUYLER
RR 2 HASTINGS

4 WELL DEPTH: (completed) Date of Completion

76 ft. 9/11/67

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

72 ft. Depth

Height: Above/Below
Surface 1 ft.

in. to

ft. Depth

Weight 3.25 lbs./ft.

Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: CLAYTON MARK Dia.: 1 1/4"

Gauge 60 Length 54"

Set between 72 ft. and 76 ft.

Fittings: 2" check

9 STATIC WATER LEVEL

55 ft. below land surface

10 PUMPING LEVEL below land surface

55 ft. after 1/2 hrs. pumping 700 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 STARTE

Model Number 5550 HP 3/4 Volts 220

Length of Drop Pipe 60 ft. capacity 500 G.P.M.

Type: ☐ Submersible☒ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

ADDED INFO. BY DR. J. E. HILL

*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.

LANCASTER

REGISTERED BUSINESS NAME

0660

REGISTRATION NO.

Address 903 W. STATE ST HASTINGS

Signed R. E. Lancaster

AUTHORIZED REPRESENTATIVE

Date 9/11/67

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

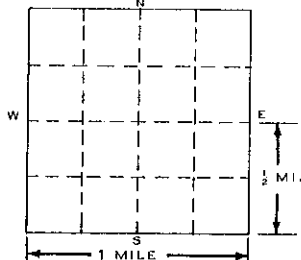
County Barry	Township Name Butland	Fraction 1/4 1/4 1/4	Section Number 12	Town Number T 3 N 25 E	Range Number R 9 W
------------------------	---------------------------------	--------------------------------	-----------------------------	----------------------------------	------------------------------

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
Dorothy Dingman
1795 W. State Rd.
Hastings, Mich.

4 WELL DEPTH: (completed) Date of Completion

43' ft. **Oct 4 84**

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 ☐ Height: Above/Below
Diam. Surface **1'** ft.

2 1/2 in. to **40'** ft. Depth Weight **3.75** lbs./ft.
in. to ft. Depth Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: **Johnson** Dia.: **1 1/4**
Slot/Groove **7** Length **42"**
Set between **40'** ft. and **43'** ft.
Fittings: **Check Valve**

9 STATIC WATER LEVEL

4' ft. below land surface

10 PUMPING LEVEL below land surface

30' ft. after **1** hrs. pumping **10** g.p.m.
ft. after hrs. pumping g.p.m.

11 WATER QUALITY in Parts Per Million:

Iron (Fe) Chlorides (Cl)

Not Checked

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

60 feet **W** Direction **3 Tank** Type
Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installed

Manufacturer's Name **Sta Rite**

Model Number **ABC** HP **1** Volts **110**

Length of Drop Pipe **21'** ft. capacity **10** G.P.M.

Type: ☐ Submersible

☐ Jet ☐ Reciprocating

Sallow Well Jet

2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Top Soil

2'

2'

Sand

12'

14'

Gravel

8'

22'

Clay & Rocks

17'

39'

Sand Med Fine

4'

43'

RECEIVED

CHIEF DEPT. OF PUBLIC HEALTH

OCT 9 1984

BUREAU OF ENVIRONMENTAL AND
OCCUPATIONAL HEALTH - GWQS

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

432

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.

Lewis Well Drilling 0548

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address **128 W. Grant. St. Hastings, Mich.**

Signed

Paul Lewis
AUTHORIZED REPRESENTATIVE

Date **10/5/84**

MAR 08 1978

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT

OF
PUBLIC HEALTH

1 LOCATION OF WELL

County

Barry

Township Name

Rutland

Fraction

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

Section Number

12

Town Number

13 N/S.

Range Number

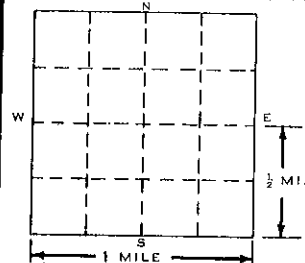
R 9 W/W.

Distance And Direction from Road Intersections

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



South East
Corner of
Cigonquin Lake

3 OWNER OF WELL:

Address

Douglas Bonerost
1519 Ottawa Trail
Hastings, Mich

4 WELL DEPTH: (Completed) Date of Completion

42' ft. 8-5-77

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 ☐

Height: Above ~~Below~~
Surface 1' ft.

2 in. to 42 ft. Depth
in. to ft. Depth

Weight 3.75 lbs./ft.

Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: Johnson Dia.: 1 1/4
Slot/Gauze #10 Length 36"
Set between 39 ft. and 42 ft.
Fittings: check Valve

9 STATIC WATER LEVEL

18' ft. below land surface

10 PUMPING LEVEL below land surface

30' ft. after 1 hrs. pumping 10 g.p.m.

ft. after hrs. pumping g.p.m.

11 WATER QUALITY in Parts Per Million:

Iron (Fe) Chlorides (Cl)
Not checked

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

50 feet S E Direction S. Tank Type
Well disinfected upon completion ☒ Yes ☐ No

15 PUMP:

☐ Not installed

Manufacturer's Name ST Rite

Model Number MSC HP 3/4 Volts 110

Length of Drop Pipe 21 ft. capacity 10 G.P.M.

Type: ☐ Submersible

☒ Jet

☐ Reciprocating

USE A 2ND SHEET IF NEEDED

RECEIVED

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

100 17 1978

Michigan Department of Environmental and
Occupational Health

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.

Lewis Well Drilling 0548

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address 128 W. Grant St. Hastings

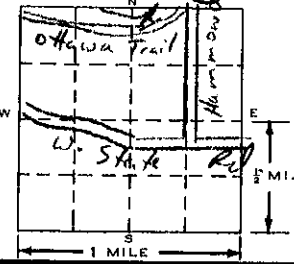
Signed Paul Lewis

Date 8-5-77

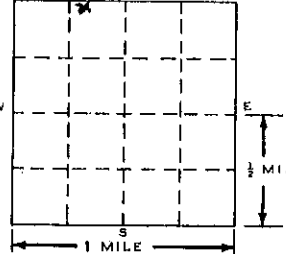
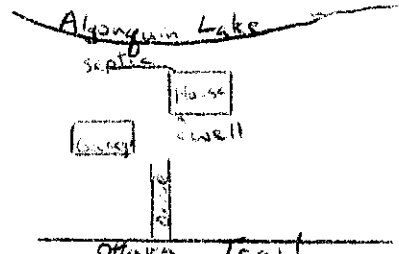
AUTHORIZED REPRESENTATIVE

WATER WELL AND PUMP RECORD

PERMIT NUMBER

1 LOCATION OF WELL			3 OWNER OF WELL:		
County <u>Barry</u>	Township Name <u>Rutland</u>	Fraction <u>NW 1/4 NW 1/4 NE 1/4</u>	Section Number <u>12</u>	Town Number <u>3</u>	Range Number <u>9 E/W</u>
Distance And Direction From Road Intersection <u>2 1/2 miles west of Hammond road on the NW side of Ottawa Trail</u>			Address <u>Clarence House</u> <u>1401 Ottawa Trail</u> <u>Hastings</u>		
Street Address & City of Well Location Locate with "X" in Section Below			Address Same As Well Location? ☒ Yes ☐ No		
Sketch Map: 			4 WELL DEPTH: (completed) <u>164</u> ft. Date of Completion <u>5-24-85</u>		
2 FORMATION DESCRIPTION			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		
			7 CASING: ☐ Steel ☐ Threaded ☐ Plastic ☐ Welded		
			Height: <u>1</u> ft. Above/Below Surface		
			Weight <u>502</u> lbs./ft.		
			Drive Shoe ☐ Yes ☒ No		
TOPSOIL			8 SCREEN: <u>SS</u> ☐ Not Installed		
RED CLAY			Type <u>SS</u> Diameter <u>3"</u>		
GRAVEL			Slot/Gauze <u>#12</u> Length <u>5</u>		
RED CLAY			Set between <u>159</u> ft. and <u>164</u> ft.		
SAND, LITTLE BLUE CLAY			FITTINGS: ☐ K-Packer ☐ Lead Packer ☐ Bremer Check		
GRAVEL, SAND			☐ Blank above screen <u>5x3 SPIGOT</u>		
SAND, BLUE CLAY			9 STATIC WATER LEVEL: <u>28</u> ft. below land surface ☐ Flow		
SAND, LITTLE BLUE CLAY			10 PUMPING LEVEL: below land surface		
BLUE CLAY			_____ ft. after _____ hrs. pumping at _____ G.P.M.		
SAND, LITTLE BLUE CLAY			_____ ft. after _____ hrs. pumping at _____ G.P.M.		
GRAVEL, SAND, LITTLE BLUE CLAY			11 WELL HEAD COMPLETION: ☒ Pitless adapter ☒ 12" above grade		
SAND, GRAVEL			☐ Basement offset ☐ Approved pit		
			12 WELL GROUTED? ☐ No ☒ Yes From _____ to _____ ft.		
			☐ Neat cement ☒ Bentonite ☐ Other _____		
			No. of bags of cement _____ Additives _____		
			13 Nearest source of possible contamination		
			Type <u>SEPTIC</u> Distance <u>60</u> ft. Direction <u>NW</u>		
			Well disinfected upon completion? ☒ Yes ☐ No		
			14 PUMP: ☒ Not installed ☐ Pump Installation Only		
			Manufacturer's name <u>1" W</u>		
			Model number _____ HP <u>3/4</u> Volts <u>230</u>		
			Length of Drop Pipe <u>80</u> ft. capacity _____ G.P.M.		
			TYPE: ☒ Submersible ☐ Jet		
			PRESSURE TANK:		
			Manufacturer's name _____		
			Model number _____ Capacity _____ Gallons		
15. Remarks, elevation, source of data, etc. <u>Well permit # 932</u> <u>35 gpm w/c</u>			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. <u>NEWTON'S WELL SERVICE 08-1826</u> REGISTERED BUSINESS NAME Address <u>559 E. CLOVERDALE RD HASTINGS MI</u> Signed <u>Gary J. Newton</u> Date <u>5-27-85</u> AUTHORIZED REPRESENTATIVE		

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORDPERMIT NUMBER

1 LOCATION OF WELL			3 OWNER OF WELL:																										
County Barry	Township Name Rutland	Fraction NW 1/4 NE 1/4 NW 1/4	Section Number 12	Town Number 3	Range Number 9 N/W																								
Distance And Direction From Road Intersection 3 blocks west of Hammond Road			Address 1749 Ottawa Trail Hastings MI 49058																										
Street Address & City of Well Location 1749 Ottawa Trail Hastings, MI 49058			Address Same As Well Location? ☒ Yes ☐ No																										
Locate with "X" in Section Below			4 WELL DEPTH: (completed) 76 ft. Date of Completion 9-2-86																										
 Sketch Map: 			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 ☐																										
2 FORMATION DESCRIPTION			7 CASING: Diameter ☐ Steel ☐ Threaded ☒ Plastic ☐ Welded																										
			Height: Above/Below Surface 2 ft. Weight SDR 2-1 lb./ft. Drive Shoe ☐ Yes ☒ No																										
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th></th><th>THICKNESS OF STRATUM</th><th>DEPTH TO BOTTOM OF STRATUM</th></tr></thead><tbody><tr><td>TOPSOIL</td><td>1</td><td>1</td></tr><tr><td>GRAVEL, SAND, RED CLAY</td><td>17</td><td>18</td></tr><tr><td>GRAVEL, SAND</td><td>32</td><td>50</td></tr><tr><td>GRAVEL, SAND, LITTLE RED</td><td>5</td><td>55</td></tr><tr><td>BLUE CLAY, GRAVEL, SAND</td><td>15</td><td>70</td></tr><tr><td>GRAVEL, SAND</td><td>7</td><td>77</td></tr><tr><td>GRAVEL, SAND, BLUE CLAY</td><td>3</td><td>80</td></tr></tbody></table>				THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM	TOPSOIL	1	1	GRAVEL, SAND, RED CLAY	17	18	GRAVEL, SAND	32	50	GRAVEL, SAND, LITTLE RED	5	55	BLUE CLAY, GRAVEL, SAND	15	70	GRAVEL, SAND	7	77	GRAVEL, SAND, BLUE CLAY	3	80	8 SCREEN: ☐ Not Installed Type SS Diameter 3 Slot/Gauze #15 Length 3 Set between 71 ft. and 76 ft. FITTINGS: ☐ K-Packer ☐ Lead Packer ☐ Bremer Check ☐ Blank above screen 5x3 Spigot		
				THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM																								
TOPSOIL	1	1																											
GRAVEL, SAND, RED CLAY	17	18																											
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BLUE CLAY, GRAVEL, SAND	15	70																											
GRAVEL, SAND	7	77																											
GRAVEL, SAND, BLUE CLAY	3	80																											
			9 STATIC WATER LEVEL: 37 ft. below land surface ☐ Flow																										
			10 PUMPING LEVEL: below land surface _____ ft. after _____ hrs. pumping at _____ 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 _____ to _____ ft. ☐ Neat cement ☒ Bentonite ☐ Other _____ No. of bags of cement _____ Additives _____																										
			13 Nearest source of possible contamination Type SEPTIC Distance 65 ft. Direction NW Well disinfected upon completion? ☒ Yes ☐ No																										
			14 PUMP: ☐ Not installed ☐ Pump Installation Only Manufacturer's name GRUNDFOS Model number SP2-12-HP 12 Volts 230 Length of Drop Pipe 60 ft. capacity 10 G.P.M. TYPE: ☒ Submersible ☐ Jet PRESSURE TANK: Manufacturer's name CLAYTON MARK Model number CM03 Capacity 11.7 Gallons																										
15. Remarks, elevation, source of data, etc. 30 gpm, w/ 3" PLUNGER APR 10 1987 Bureau of Environmental and Occupational Health - GVSCH			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. Newton's Well Serv 1826 REGISTERED BUSINESS NAME 550 E. CLAYTONDALE RD HASTINGS MI Address Larry Newton Date 9-11-86 Signed Newton's Well Serv AUTHORIZED REPRESENTATIVE																										

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT

OF
PUBLIC HEALTH

1 LOCATION OF WELL

County

Township Name

Fraction

Section Number

Town Number

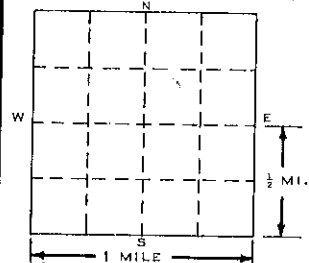
Range Number

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

4 WELL DEPTH: (completed) Date of Completion

ft.

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.

Height: Above/Below
Surface _____ ft.

_____ in. to _____ ft. Depth

Weight _____ lbs./ft.

_____ in. to _____ ft. Depth

Drive Shoe? Yes ☐ No ☐

8 SCREEN:

Type: _____ Dia.: _____

Slot/Gauze _____ Length _____

Set between _____ ft. and _____ ft.

Fittings:

9 STATIC WATER LEVEL

_____ 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 Grade13 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 _____

Model Number _____ HP _____ Volts _____

Length of Drop Pipe _____ ft. capacity _____ G.P.M.

Type: ☐ Submersible☐ Jet☐ Reciprocating

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

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.

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address

Signed

AUTHORIZED REPRESENTATIVE

Date

JUN 29 1981

WATER WELL RECORD

ACT 294 PA 1985

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

County

BARRY

Township Name

RUTLAND

Fraction

NE 1/4 SW 1/4 E 1/4

Section Number

12

Town Number

3 N4S.

Range Number

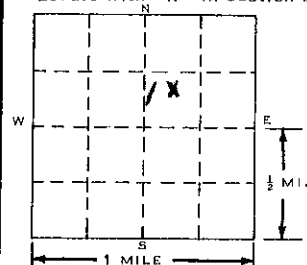
9 E/W.

Distance And Direction from Road Intersections

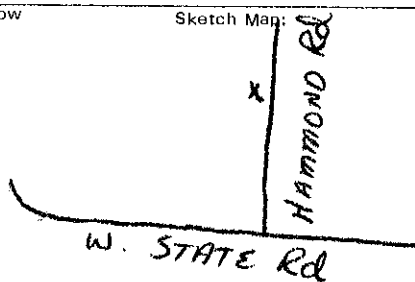
2 mi N of W. STATE Rd
on Hammond Rd

Street address & City of Well Location

Locate with "X" in section below



Sketch Map:



3 OWNER OF WELL:

DONALD HAYWOOD

Address

Hammond Rd

4 WELL DEPTH: (completed) Date of Completion

301 ft.

7-21-80

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.

Height: Above/Below

Surface 1 ft.

4 in. to

221 ft. Depth

Weight 11 lbs./ft.

2 in. to

301 ft. Depth

Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type:

DIA.:

Slot/Groze

Length

Set between

ft. and

ft.

Fittings:

9 STATIC WATER LEVEL

ft. below land surface

62'-8"

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 Grade13 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

Bunkers

Model Number

10SN10C

HP

1

Volts

230

Length of Drop Pipe

100 ft.

capacity

12

G.P.M.

Type:

☒ Submersible☐ Jet☐ Reciprocating

16 Remarks, elevation, source of data, etc.

36 GPM w/air

K-packers @ 216' & 266' - 2" pipe

to bottom of hole w/ 3/4" holes

in bottom part

ADDED INFO BY DRILLER, ITEM NO.

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.

NEWTON'S WELL SERVICE

REGISTERED BUSINESS NAME

REGISTRATION NO.

Address

550 E. CLOVERDALE RD HASTINGS

Signed

Lawrence Newton

Date

10-17-80

AUTHORIZED REPRESENTATIVE

D67d

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

GEOLOGICAL SURVEY COPY

MAY 30 1978

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT
OF
PUBLIC HEALTH

1 LOCATION OF WELL

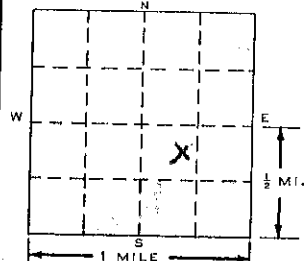
County Barny Township Name Rutland Fraction 1/4 NW 1/4 SE 1/4 Section Number 12 Town Number 3 Range Number 9 N.E. S.W.

Distance And Direction from Road Intersections
on Hammond Rd approx 1/4 mile N
of W State Rd, on W side of Rd.

Street address & City of Well Location

Locate with "X" in section below

Sketch Map:



Hammond Rd
N State Rd

3 OWNER OF WELL:

Donald Hayward
Address 575 Hammond Rd. Hastings

4 WELL DEPTH: (completed) Date of Completion

300 ft. 6-26-77

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 ☐ Height: Above/Below

Diam. 4 in. to 1 1/4 ft. Depth 2 in. to 302 ft. Depth

Surface 11 lbs./ft. Weight 11 lbs./ft.

Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: _____ Dia.: _____

Slot/Gauze _____ Length _____

Set between _____ ft. and _____ ft.

Fittings: None

9 STATIC WATER LEVEL

56 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 _____

Model Number _____ HP _____ Volts _____

Length of Drop Pipe _____ ft. capacity _____ G.P.M.

Type: ☐ Submersible ☐ Jet ☐ Reciprocating

2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Gravel & Red Clay	14	14
Red Clay	12	26
Gravel & Sand	13	39
Red Clay	8	47
Gravel & Sand Blue Clay	98	145
Gravel & some Blue Clay	2	147
Blue Clay	27	174
Black Shale	7	181
Black Shale Black Rock (hard)	28	209
Gray Sandrock (hard)	4	213
Shale, Limestone some Sandrock	38	251
Shale		
Gray Sandrock	51	302

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

2" lines sealed at 250' w/ 2X4
K packer & perforated below w/
3/4" hole, also sealed @ 189' w/
3X4 K packer 40 gpm

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.

Newell & Son Service 0212
REGISTERED BUSINESS NAME REGISTRATION NO.

Address 550 E Cleveland Rd Hastings

Signed Lawrence E. Newell Date 5/18/78
AUTHORIZED REPRESENTATIVE

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 Barry Twp. Rutland Fraction 1/4 NW 1/4 NE 1/4 Section No. 12 Town 3 N. 9 W.

Distance And Direction from Road Intersections
1/4 mile NE of Hammond (W.)

OWNER No. _____

3 OWNER OF WELL

Address Algonquin Lake

Street address & City of Well Location

2 FORMATION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

4 WELL DEPTH: (completed)

Date of Completion

41 ft.MAY 1, 1970

5 ☐ Cable tool ☐ Rotary ☒ Driven ☐ Dug
☒ Hollow rod ☐ Jetted ☐ Bored ☐

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

7 CASING:

Diam.

Threaded ☒ Welded ☐2 in. to37 ft. Depth

Height: Above/Below

surface 1 ft.Weight 375 lbs./ft.Drive Shoe? Yes ☒ No ☐

8 SCREEN:

Type: Jubilee Dia.: 1 1/4"Slot/Groove 10 Length 42"Set between 37 ft. and 41 ft.Fittings: 2 1/2" BlackBarber check 479

9 STATIC WATER LEVEL

_____ ft. below land surface

10 PUMPING LEVEL below land surface

30 ft. after 12 hrs. pumping 600 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 ☐ NoMaterial: ☐ Neat Cement ☐

Depth: From _____ ft. to _____ ft.

14 SANITARY:

Nearest Source of possible contamination

50 feet N Direction S.T. TypeWell disinfected upon completion ☒ Yes ☐ No

15 PUMP:

Manufacturer's Name Pearl Pump Works

Model Number _____ HP

Length of Drop Pipe _____ ft. capacity _____ G.P.M.

Type: ☐ Submersible ☐☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

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.

Brightwell Drilling
REGISTERED BUSINESS NAME

0560

REGISTRATION NO.

Address P.O. #3, HastingsSigned Ray Brightwell

Date _____

AUTHORIZED REPRESENTATIVE

PERMIT NUMBER

1 LOCATION OF WELL		County		Township Name		Fraction		Section Number		Town Number		Range Number	
Barr		Rutland		NE 1/4 NW 1/4		12		T 3 N		R 9 E		W	
Distance And Direction From Road Intersection				300 yards From Hammond rd. on Chippewa Trail on west side of road				3 OWNER OF WELL: Tom M. Galt					
Street Address & City of Well Location				2565 Chippewa Trail				Address Same As Well Location? ☒ Yes ☐ No					
Locate with "X" in Section Below				Sketch Map:				4 WELL DEPTH: 44 FT. Date Completed: 6/3/88					
								5 ☐ Cable tool ☐ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☒ Jetted					
2 FORMATION DESCRIPTION				THICKNESS OF STRATUM		DEPTH TO BOTTOM OF STRATUM		6 USE: ☒ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☐ Test Well ☐ Type IIb Public					
Sand				10		10		7 CASING: ☒ Steel ☒ Threaded ☐ Plastic ☐ Welded					
Sand - Gravel				10		20		Height: Above/Below Surface 1 ft. Weight 3.75 lbs./ft.					
Gravel - Clay				10		30		Drive Shoe ☒ Yes ☐ No					
Clay - Sand				10		40		8 SCREEN: ☐ Not Installed					
Sand				4		44		Type Johnson Diameter 1 1/2" Slot/Gauge 7 Length 48" Set between 40 ft. and 44 ft. FITTINGS: ☐ K-Packer ☐ Lead Packer ☒ Bremer Check ☐ Blank above screen 4 ft. Other					
								9 STATIC WATER LEVEL: 30 ft. below land surface ☐ Flow					
								10 PUMPING LEVEL: below land surface 30 ft. after 1 hrs. pumping at 12 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 cement Additives					
								13 Nearest source of possible contamination Type 57 Distance 60 ft. Direction S 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 Model number Capacity Gallons					
15. Remarks, elevation, source of data, etc.								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. Lewis & Diller, O.S.V.R. REGISTERED BUSINESS NAME REGISTRATION NO. Address 622 E. Green St. Hasting, MN Signed [Signature] AUTHORIZED REPRESENTATIVE Date 6-3-88					
17. Rig Operator's Name: Roy Barr													

D67d 12/85

GEOLOGICAL SURVEY COPY

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

TAX NO:

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
WATER WELL AND PUMP RECORD

PERMIT NO:

10220

1. LOCATION OF WELL

County

Barry

Township Name

Rothland

Fraction

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

Section No.

12

Town No.

3 N

Range No.

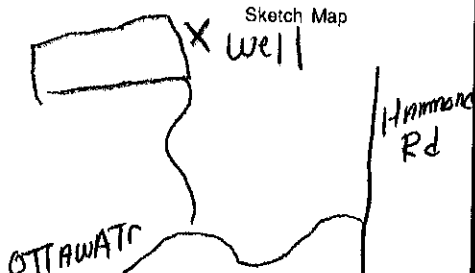
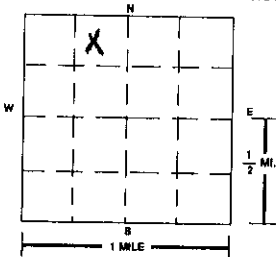
9 W

Distance and Direction from Road Intersection

Approx 1/2 mi. W. of Hammond Rd. on N.
Side of OTTAWA Tr 1501 OTTAWA Tr
HASTING'S MI

Street Address & City of Well Location

Locate with 'x' in Section Below



2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Course Gravel, Sand	43	43
Gravel, Blue Clay	9	52
Course, Gravel	4	56
Blue, Clay	31	87
Medium Gravel, Blue Clay	5	92
Soft Blue Clay, Gravel	5	97
Gravel, Water Sand	7	104

3. OWNER OF WELL

Address

Robert King
1501 OTTAWA Tr
HASTING'S MI 49058Address Same as Well Location ☒ Yes ☐ No

4. WELL DEPTH:

Date Completed

☐ New Well☒ Replacement Well5. ☐ 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

Height: Above/Below

☒ Plastic☐ Welded

Surface: 9 ft

☐ Other

Diameter: 5 in. to 99 ft. depth

Weight: SDR-21 lbs./ft.

5" A.F. in. to 104 ft. depth

BORE HOLE:

Diameter: 8 1/2 in. to 104 ft. depth

☐ Drive Shoe☒ Shale Packer

8. SCREEN:

☐ Not Installed☐ Gravel-Packed

Type SS

Diameter 3" Pipe Size

Slot/Gauze

Length: 4'

Set Between 99

ft. and 104

FITTINGS: ☒ K-Packer☐ Bremer Check☒ Blank Above Screen

1/2 ft. Other

9. STATIC WATER LEVEL:

20 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

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 0 to 99 ft.

☐ Neat Cement☒ Bentonite☐ Other

No. of Bags 6

Additives

E-Z Mud

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type Septic

Distance 70+

ft. Direction S/W

Type

Distance

ft. Direction

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☒ Yes ☐ No

Casing Diameter 4 in.

Depth 45 ft. Approx

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry☐ Neat Cement☐ Bentonite Slurry☐ Concrete Grout☒ Bentonite Chips

No. of Bags 5

Casing Removed?

☐ Yes ☒ No

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

25 GPM w/AIR

17. DRILLING MACHINE OPERATOR:

☒ Employee ☐ Subcontractor

Name Douglas Franklin

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.

New Town's Well Service

REGISTERED BUSINESS NAME

REGISTRATION NO. 2167

Address 550 E. Cloverdale Rd

HASTING'S MI

Signed Michael Keeler

Date 10-12-94

AUTHORIZED REPRESENTATIVE

GW-2-228 9/93

GEOLOGICAL SURVEY COPY

Authority: Act 368 PA 1978

Completion: Required

Penalty: Conviction of a violation of any provision is a misdemeanor.

TAX NO:

MICHIGAN DEPARTMENT OF PUBLIC HEALTH WATER WELL AND PUMP RECORD

PERMIT NO:

9912

1. LOCATION OF WELL

County

Barry

Township Name

RUTLAND

Fraction

5/16 1/4 N 1/4 NE 1/4

Section No.

12

Town No.

3 N

Range No.

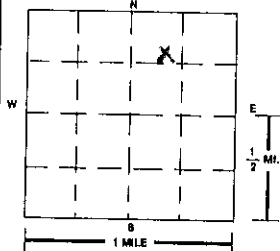
9 W

Distance and Direction from Road Intersection

975 HAMMOND RD
HASTING'S, MI 49058

Street Address & City of Well Location

Locate with 'x' in Section Below



Sketch Map

X

H. State Rd.

Hammond Rd.

2. FORMATION DESCRIPTION

THICKNESS
OF
STRATUMDEPTH TO
BOTTOM OF
STRATUM

Sand & gravel	15	15
Red clay, gravel, sand	16	31
Red clay & sand	24	55
Blue clay & sand	37	92
Fine sand	13	105
Sand, some blue clay	32	137
Fine sand	13	150
Sand, med		160

160' - SDR 21 - Bottom 5' perforated
1" apart - 5/8" holes

USE A 2ND SHEET IF NEEDED

15. ABANDONED WELL PLUGGED?

☐ Yes ☒ No

Casing Diameter _____ in.

Depth _____ ft.

PLUGGING MATERIAL:

☐ Cement/Bentonite Slurry☐ Neat Cement☐ Bentonite Slurry

No. of Bags _____

☐ Concrete Grout☐ Bentonite ChipsCasing Removed? ☐ Yes ☒ No

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

40 gpm. w/in

17. DRILLING MACHINE OPERATOR:

☐ Employee ☒ Subcontractor

Name Douglas Franklin

3. OWNER OF WELL

Address

Leonard Swiatek
917 Lakeview Dr
Hastings, mi.

Address Same as Well Location ☐ Yes ☒ No

4. WELL DEPTH:

Date Completed

160 ft.

10/10/94

☒ New Well☐ Replacement Well5. ☐ 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: 7 ft

Diameter: _____ in. to _____ ft. depth

Weight: SDR 21 lbs./ft.

BORE HOLE:

Diameter: 8 1/2 in. to 160 ft. depth

_____ in. to _____ ft. depth

☐ Drive Shoe☒ Female Packer

8. SCREEN:

☐ Not Installed☐ Gravel-Packed

Type

SS

Diameter

3" Pipe size

Slot/Gauze

10

Length:

Set Between

155

ft. and

160

ft.

FITTINGS:

☐ K-Packer☐ Bremer Check☐ Blank Above Screen

_____ ft. Other

9. STATIC WATER LEVEL:

41 ft. Below Land Surface

☐ Flowing

10. PUMPING LEVEL: Below Land Surface

_____ 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 0 to 150 ft.

☐ Neat Cement☒ Bentonite☐ Other

No. of Bags

8

Additives

E-Z MIX

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type

Septic

Distance

60

ft. Direction

ENE

Type

Distance

ft. Direction

14. PUMP:

☐ Not Installed☐ Pump Installation Only

Manufacturer's Name

Well Xtrap

Model Number

102S711B

HP

3/4

Volts

230

Length of Drop Pipe

80

Capacity

10

G.P.M.

TYPE:

☒ Submersible☐ Jet☐ Other

PRESSURE TANK:

Manufacturer's Name

Well Xtrap

Model Number

WX322

Capacity

26.5 Gallons

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.

Heaton Well Service
REGISTERED BUSINESS NAME

0212

REGISTRATION NO.

Address 550 E Cloverdale Rd., Hastings, MI 49058

Signed Samuel E. Heaton
AUTHORIZED REPRESENTATIVE

Date 10-16-94

GEOLOGICAL SURVEY COPY

Authority: Act 368, PA 1978

Completion: Required

Penalty: Conviction of a violation of any provision is a misdemeanor.

WATER WELL AND PUMP RECORD

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

PERMIT NO:

B27718

TAX NO:

1. LOCATION OF WELL

County *Ben*

Township Name *Butland*

Fraction *N 1/4 Sec 5*

Section No. *12*

Town No. *3N*

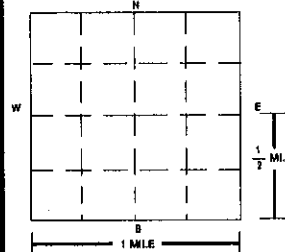
Range No. *9W*

Distance and Direction from Road Intersection

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map



2. FORMATION DESCRIPTION

THICKNESS OF STRATUM

DEPTH TO BOTTOM OF STRATUM

3. OWNER OF WELL

Address

Silvia Chadjem
1655 W. Main St. Apt. 405
Hastings, MI 48058

Address Same as Well Location ☒ Yes ☐ No

4. WELL DEPTH:

Date Completed

☐ 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

Height: Above/Below

☐ Plastic

☐ Welded

Surface: _____ ft.

☐ Other

Diameter: _____ in. to _____ ft. depth

Weight: _____ lbs./ft.

_____ in. to _____ ft. depth

BORE HOLE:

Diameter: _____ in. to _____ ft. depth

☐ Drive Shoe

_____ in. to _____ ft. depth

☐ Shale Packer

8. SCREEN: ☐ Not Installed

☐ Gravel-Packed

Type _____ Diameter _____

Slot/Gauze _____ Length: _____

Set Between _____ ft. and _____ 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 _____ 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 _____ to _____ ft.

☐ Neat Cement

☐ Bentonite

☐ Other _____

No. of Bags _____

Additives _____

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:

Type _____ Distance _____ ft. Direction _____

Type _____ Distance _____ ft. Direction _____

14. PUMP:

☐ Not Installed

☒ Pump Installation Only

Manufacturer's Name *Mayer*

Model Number *PF2512-12* HP *3/4* Volts *220*

Length of Drop Pipe *30* ft. Capacity *12* G.P.M.

TYPE: ☒ Submersible ☐ Jet ☐ Other _____

PRESSURE TANK:

Manufacturer's Name *Mayer*

Model Number *S2* Capacity *18* Gallons *12*

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.

Jenna Well Drilling *2180*
REGISTERED BUSINESS NAME REGISTRATION NO.
Address *2376 S Charlton Pkwy Hastings 48058*

Signed *Bo E. Bay* Date *10-19-99*
AUTHORIZED REPRESENTATIVE

EQP 2017 (12/96)

GEOLOGICAL SURVEY COPY