Juniper Flats Well Log

Michigan Well ID#: 2014902

Pg 1 of 2

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: W00-02-003

1. LOCATION OF WELL

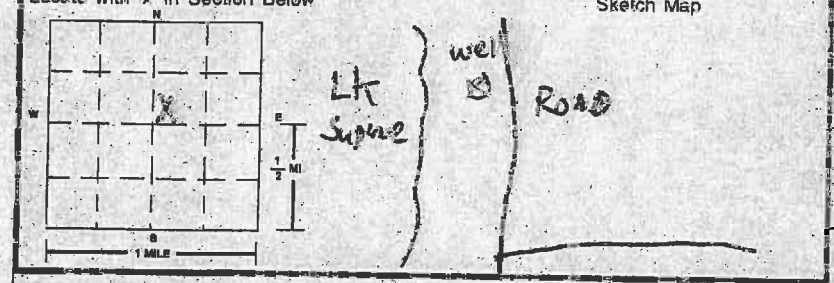
County	Township Name	Fraction	Section No	Town No	Range No
Alger	GRAND ISLAND	SW 1/4 SW 1/4 NE 1/4	9	47 N	19 W

Distance and Direction from Road Intersection: West side Grand Island Juniper beach campground

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map



3. OWNER OF WELL: US Forest Service
Address: 2727 N. Lincoln Rd, Escanaba, MI 49829
Address Same as Well Location: ☐ Yes ☒ No

4. WELL DEPTH: 158 ft | Date Completed: 7/17/01 | ☐ 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
Diameter 6 in to 42 ft depth; ___ in to ___ ft depth
BORE HOLE Diameter 10 in to 40 ft depth; ___ in to ___ ft depth
Height: Above/Below Surface 3 ft
Weight ___ lbs/ft
☐ 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: 59 ft Below Land Surface ☐ Flowing

10. PUMPING LEVEL Below Land Surface: 100 ft After 1 hrs Pumping at 20 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 10 Additives #8

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION
Type None Distance ___ 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 ___

2. FORMATION DESCRIPTION

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Loamy Sand	3	3
Gray Sandstone	10	13
Red Sandstone	12	25
Tan Sandstone	3	28
Red Sandstone	28	56
Tan Sandstone	9	65
Red Sandstone	10	75
White Sandstone	1	76
Red Sandstone	19	95
White Sandstone	7	102
Red Sandstone	8	110
White Sandstone	5	115
Red Sandstone	5	120
White Sandstone	3	123
Red Sandstone	5	128

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
N/A

16. REMARKS (Elevation, Source of Data, etc.) pump to go 100'

17. DRILLING MACHINE OPERATOR
☒ Employee ☐ Subcontractor
Name BOB Flynn

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: Kopecky Well Drilling
REGISTRATION NO: 2196
Address: US2 Box 191 Gulliver, MI 49840
Signed: [signature] AUTHORIZED REPRESENTATIVE
Date: 17 July 2001

IMPORTANT: File with deed

WELL OWNER COPY

EQP 2017 (12/96)

DEQ MI GAN DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKI WATER & RADIOLOGICAL PROTECTION D N

Pg 2 of 2

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: W00-07-003

1. LOCATION OF WELL

County	Township Name	Fraction	Section No	Town No	Range No
Alger	Grand Island	1/4 1/4 1/4	09	47N	19W

Distance and Direction from Road Intersection

Street Address & City of Well Location

Locate with 'x' in Section Below — Sketch Map

N, W, E, S, 1/2 MI, 1 MILE

3. OWNER OF WELL: Grand Island
Address: USDA-FS - Hiawatha, 2727 N. Lincoln Rd, Escanaba, MI 49829
Address Same as Well Location: ☐ Yes ☒ No

4. WELL DEPTH ft. 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 ☐ Plastic ☐ Welded ☐ Other
Diameter in. to ft. depth
in. to ft. depth
BORE HOLE
Diameter in. to ft. depth
in. to ft. depth
Height: Above/Below Surface ft
Weight lbs./ft.
☐ Drive Shoe ☐ Shale Packer

2. FORMATION DESCRIPTION

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
White Sandstone	10	138
Red Sandstone	20	158

USE A 2ND SHEET IF NEEDED

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
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

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 Bob Flynn

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.
Ropecky Well Drilling — REGISTERED BUSINESS NAME — 2196 — REGISTRATION NO.
Address Box 191 Gulliver, MI 49840
Signed Janet Ropecky — AUTHORIZED REPRESENTATIVE — Date 17 July 2001

IMPORTANT: File with deed

WELL OWNER COPY

EQP 2017 (12/96)

Murray Bay Well Log

Michigan Well ID#: 2014702

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

TAX NO:

PERMIT NO: W02-02-001

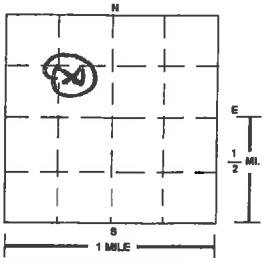
1. LOCATION OF WELL

County	Township Name	Fraction	Section No.	Town No.	Range No.
ALGER	GRAND ISLAND	NW 1/4 SE 1/4 NW 1/4	14	47N	19W

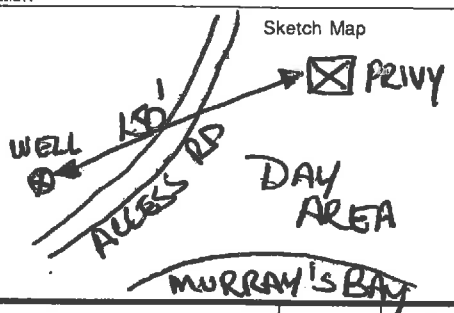
Distance and Direction from Road Intersection: MURRAY'S BAY CAMP AREA

Street Address & City of Well Location

Locate with 'x' in Section Below



Sketch Map



3. OWNER OF WELL: USFS - MURRAY BAY
Address: 2727 N. Lincoln Rd, Escanaba, MI 49829
Address Same as Well Location ☐ Yes ☐ No

4. WELL DEPTH: 118 ft. Date Completed 7/27/02 ☐ 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 ____
Diameter: 6 in. to 104 ft. depth; ____ in. to ____ ft. depth
Height: Above/Below Surface: 3 ft
Weight: 19 lbs./ft.
BORE HOLE: Diameter: 10 in. to 104 ft. depth; ____ in. to ____ ft. depth
☐ Drive Shoe ☐ Shale Packer

2. FORMATION DESCRIPTION

	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
COARSE SAND	28	28
ORGANIC debris & Sand	12	40
Fine silt & Clay Layers	57	97
Red & Gray sandstone	21	118

USE A 2ND SHEET IF NEEDED

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: 8 ft. Below Land Surface ☐ Flowing

10. PUMPING LEVEL: Below Land Surface 20 ft. After 1 hrs. Pumping at 20 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 104 to 4 ft.
☒ Neat Cement ☐ Bentonite ☐ Other ____
No. of Bags 25 Additives 1#8 + 4 bags yield

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:
Type Privy Distance 150 ft. Direction NE
Type ____ Distance ____ ft. Direction ____

14. PUMP: ☐ Not Installed ☐ Pump Installation Only
Manufacturer's Name Shurflo 9300
Model Number SESPS-24/110BC Volts 24
Length of Drop Pipe 20 ft. Capacity 1 G.P.M.
TYPE: ☒ Submersible ☐ Jet ☐ Other ____
PRESSURE TANK:
Manufacturer's Name To Be Installed By USFS
Model Number ____ Capacity ____ Gallons ____

15. ABANDONED WELL PLUGGED? ☒ Yes ☐ No
Casing Diameter 2 in. Depth 25 ft.
PLUGGING MATERIAL: ☐ Neat Cement ☐ Bentonite Slurry ☐ Cement/Bentonite Slurry ☐ Concrete Grout ☒ Bentonite Chips
No. of Bags 1 Casing Removed? ☒ Yes ☐ No

16. REMARKS: (Elevation, Source of Data, etc.) Set pump on 20' drop pipe

17. DRILLING MACHINE OPERATOR:
☒ Employee ☐ Subcontractor
Name Garret Kopecky

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.
Kopecky Well Drilling (REGISTERED BUSINESS NAME) 2196 (REGISTRATION NO.)
Address Box 191 U.S. 2 Gulliver, MI 49840
Signed Garret Kopecky (AUTHORIZED REPRESENTATIVE) Date 31 July 2002

IMPORTANT: File with deed.

WELL OWNER COPY

EQP 2017 (12/96)

Mather Lodge Well Log

Michigan Well ID#: NA, Type III Private System

ECOLOGICAL SURVEY SAMPLE No. [ ] RECEIVED JUL 19 1971

WATER WELL RECORD

ACT 294, PA 1965

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

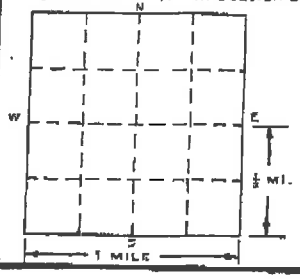
1 LOCATION OF WELL

County	Township Name	Fraction	Section Number	Town Number	Range Number
Alger	Grand Island	NW SE ¼	4	47 N	19 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: John Lezotte

Address: Munising Mich

4 WELL DEPTH: (completed) 54 ft. Date of Completion

5 [X] Cable tool [ ] Rotary [ ] Driven [ ] Dug [ ] Hollow rod [ ] Jetted [ ] Bored [ ]

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

7 CASING: Threaded [ ] Welded [X] Diam. 6 in. to 27 ft. Depth; ___ in. to ___ ft. Depth

Height: Above/~~Below~~ Surface ___ ft. Weight 20 lbs./ft. Drive Shoe? Yes [X] No [ ]

8 SCREEN: Type: ___ Dia.: ___ Slot/Gauze ___ Length ___ Set between ___ ft. and ___ ft. Fittings:

9 STATIC WATER LEVEL 15 ft. below land surface

10 PUMPING LEVEL below land surface 50 ft. after 2 hrs. pumping 5 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 [X] 12" Above Grade

13 Well Grouted? [ ] Yes [X] 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: [X] 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 STRATUM	DEPTH TO BOTTOM OF STRATUM
Sand + gravel	16	16
Sand clay gravel	11	27
Sandstone	27	54

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.

[illegible] Well Drilling — REGISTERED BUSINESS NAME — 0800 REGISTRATION NO.

Address ___

Signed [illegible] AUTHORIZED REPRESENTATIVE Date ___

D67d 100M (Rev. 12-68)

LOCAL HEALTH DEPT. COPY

Farrell Cottage Well Log

Michigan Well ID#: 2015102

TAX NO:

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PERMIT NO: W-96-02-0001

1. LOCATION OF WELL

County	Township Name	Fraction	Section No.	Town No.	Range No.
ALGER	GRAND ISLAND	SE 1/4 SW 1/4 SE 1/4	15	47 N	19 W

Distance and Direction from Road Intersection: Approx 3/4 mile North of Landing on East side of Island

Street Address & City of Well Location

Locate with 'x' in Section Below

Sketch Map: WELL, House, DRIVE, ACCESS RD, SEPTIC

2. FORMATION DESCRIPTION

	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Topsoil	2'	2'
TAN sandstone	16'	18'
Red sandstone	18'	36'
Brownish tan Sandstone	9'	45'
Red sandstone	7'	52'
white sandstone	3'	55'
Red sandstone	7'	62
Lt. Reddish Brown Sandstone	22'	84'
Redsandstone -w- clay streaks	8'	92'
WATER Bearing (12 G.P.M)		
white sandstone	6'	98'

USE A 2ND SHEET IF NEEDED

3. OWNER OF WELL: USFS - SWOGER CABIN
Address: 2727 N. LINCOLN RD, ESCANABA, MI 49829
Address Same as Well Location: ☐ Yes ☒ No

4. WELL DEPTH: 98 ft. Date Completed: 8/5/96 ☒ 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
Diameter: 6 in. to 25 ft. depth; ___ in. to ___ ft. depth
BORE HOLE: Diameter: 10 in. to 25 ft. depth; ___ in. to ___ ft. depth
Height: Above/Below Surface: 2 ft
Weight: SDR 21 lbs./ft.
☐ 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 90 ft. After 1 hrs. Pumping at 12 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 25 to 1 ft.
☒ Neat Cement ☒ Bentonite ☐ Other ___
No. of Bags 7 Additives 1 Bag #8 Benseal

13. NEAREST SOURCE OF POSSIBLE CONTAMINATION:
Type Septic Distance 75+ ft. Direction S
Type ___ Distance ___ ft. Direction ___

14. PUMP: ☐ Not Installed ☐ Pump Installation Only
Manufacturer's Name Myers Rustler 230
Model Number N5 12 HP 1 Volts ___
Length of Drop Pipe 80 ft. Capacity 12 G.P.M.
TYPE: ☒ Submersible ☐ Jet ☐ Other ___
PRESSURE TANK:
Manufacturer's Name ___
Model Number ___ Capacity ___ Gallons ___

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.) Set pump @80'
pump #2F96 24-3017

17. DRILLING MACHINE OPERATOR: ☒ Employee ☐ Subcontractor
Name Garret Hopecky

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: Hopecky well Drilling
REGISTRATION NO.: 2196
Address: Box 191 Gulliver
Signed: Garret Hopecky (AUTHORIZED REPRESENTATIVE)
Date: 5 Aug 1996

GW-2-228 9/93

OCT 29 1996

Authority: Act 368 PA 1978
Completion: Required