APPENDIX C

WELL LOGS

STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.06

MINNESOTA UNIQUE WELL NO. for Water Sample: 168714

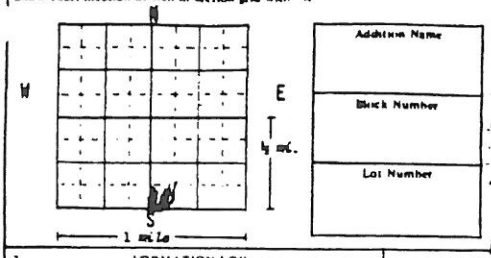
1. LOCATION OF WELL

County Name: WASHINGTON

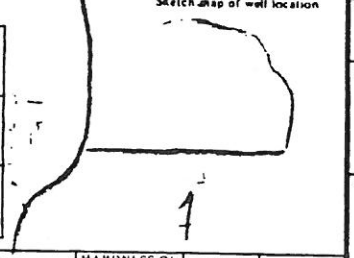
Township Name: NEW SCANDIA | Township Number: 32 N or S | Range Number: 20 E or W | Section No.: 7 | Fraction: sw sw se

Distance and Direction from Road Intersections or Street Address and City of Well Location: FORESTLAKE GRAVEL PIT off Manning trl

Show exact location of well in section grid with "X"



Sketch map of well location



2. FORMATION LOG

FORMATION	COLOR	HARDNESS OF FORMATION	FROM	TO
QFUB - SAND & GRAVEL	SAND, GRVL BROWN		0	98
	Aquifer =		QWTA	
32-20-7 ADDCAB				
Elev. 958±5'				
134C				
Remarks				
Test hole Sampled by				
D. R. Setterholm				
Comments on back of				
Log				

Use a second sheet, if needed

3. REMARKS, ELEVATION, SOURCE OF DATA, etc.

A NON-POTABLE WELL..../ no samples tanke

MINN. GEOLOGICAL SURVEY COPY 168714

3. PROPERTY OWNER'S NAME: H & S ASPHALT

Address: 700 Industry Ave NW, ANOKA, MN 55303

4. WELL DEPTH (completed): 98 ft. | Date of Completion: 2MAY80

5. [1] Cable tool [2] Hollow rod [3] Rotary [4] Reverse [5] Air [6] Jetted [7] Driven [8] Bored [9] Power Auger [10] Dug [11] ____

6. USE: [1] Domestic [2] Irrigation [3] Test Well [4] Public Supply [5] Municipal [6] Air Conditioning [7] Industry [8] Commercial

7. CASING: [1] Black [2] Galv [3] Plastic [4] Threaded [5] Welded [6] ____

HEIGHT: Above/Below Surface one ft. Drive Shoe? Yes ✓ No ____

			HOLE DIAM
16 in. to 69 ft.	Weight 62.58 lbs./ft.		in. to ft.
in. to ft.	Weight lbs./ft.		in. to ft.
in. to ft.	Weight lbs./ft.		in. to ft.

8. SCREEN: Make JOHNSON; Type Stainless Steel; Dia. 10"; Slot/Gauze 30 slot; Length 31ft; Set between 69 ft. and 98 ft.; ft. and ft.; ft. and ft.

Or open hole from ____ ft. to ____ ft.

FITTINGS:

9. STATIC WATER LEVEL: 20 ft. [below] [above] land surface; Date Measured 2MAY80

10. PUMPING LEVEL (below land surface): 42 ft. after 3 hrs. pumping air 800 g.p.m.; ft. after ____ hrs. pumping ____ g.p.m.

11. WELL HEAD COMPLETION: [1] Pitless adapter [2] Basement offset [3] At least 12" above grade

12. Well grouted? [1] Yes [2] No; Cu. Yds. ____; [1] Neat Cement [2] Bentonite [3] ____

Depth: from ____ ft. to ____ ft.; from ____ ft. to ____ ft.

13. Nearest sources of possible contamination: ____ feet ____ direction ____ type

Well disinfected upon completion? Yes [ ] No [✓]

14. PUMP

Date Installed: 20JUN80

[ ] Not Installed

Manufacturer's Name: JACUZZI

Model Number: 10MSa5 HP: 40 Volts: 230 3

Length of drop pipe: 50 ft. capacity: 600 g.p.m.

Material of drop pipe: 6" sch #30

Type: [1] Submersible [2] Jet [3] L. S. Turbine [4] Centrifugal [5] Reciprocating [6] ____

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.

E. H. RENNER & SONS INC — License Business Name — License No. 02015

Address: 6300 Industry Ave NW ANOKA, MN553

Signed: ____ Date: 1AUG80

Authorized Representative

BUDD LEDBETTER — Name of Driller — Date: 1AUG80

5/74 30M
7/76 30M
7/78 30M

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

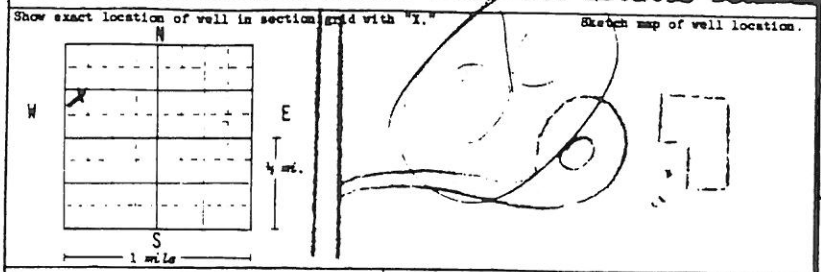
MINNESOTA UNIQUE WELL NO. for Water Sample 112561

1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
Washington	NW¼ NW¼	7	32 N. or S.	20 E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 22600 Kirk Avenue North Kirkhill Estates Roseville

Show exact location of well in section grid with "X." Sketch map of well location.



2.

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
clay gravel QTUU	(CLAY, GRVL)		0	72
water gravel QFUU	(GRVL)		72	104
Aquifer: QBOW - QBOW				
32-20-7	BCCBBC			
ELEV. 984±5				

CODED

Use a second sheet, if needed.

REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME Raymond Jackson

Address: 22600 Kirk Avenue North, Roseville, Minnesota 55073

4. WELL DEPTH (completed) 104 ft. Date of Completion 7/15/76

5. [X] 1 Cable tool [ ] 2 Hollow rod [ ] 3 Rotary [ ] 4 Reverse [ ] 5 Air [ ] 6 Jetted [ ] 7 Driven [ ] 8 Bored [ ] 9 Power Auger [ ] 10 Dug [ ] 11 ____

6. USE [X] 1 Domestic [ ] 2 Irrigation [ ] 3 Test Well [ ] 4 Public Supply [ ] 5 Air Conditioning [ ] 6 ____ [ ] 7 Industry [ ] 8 Commercial

7. CASING DIAM. Threaded [X] 1 Welded [ ] 3 Black [X] Galv. [ ] 4

4 in. to 101 ft. depth

____ in. to ____ ft. depth

____ in. to ____ ft. depth

HEIGHT: Above/Below Surface 1 ft. Weight 11 lbs./ft. Drive Shoe? Yes X No ____

8. SCREEN Make Howard Smith Type 236 Dia. 2 Slot/Gauge 18 Length 5 Set between 99 ft. and 104 ft.

____ ft. and ____ ft.

____ ft. and ____ ft.

FITTINGS:

Or open hole from ____ ft. to ____ ft.

9. STATIC WATER LEVEL 70 ft. [X] below land surface [ ] above Date Measured 7/15/76

10. PUMPING LEVEL (below land surface) 84 ft. after 2 hrs. pumping 20 g.p.m.

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

11. WELL HEAD COMPLETION [X] 1 Pitless adapter [ ] 2 Basement offset [X] 3 At least 12" above grade

12. Well grouted? [ ] Yes [X] No Cu. Yds. ____

[ ] 1 Neat cement [ ] 2 Bentonite [ ] 3 ____

Depth: from ____ ft. to ____ ft.

from ____ ft. to ____ ft.

13. Nearest source of possible contamination 50 feet East direction septic tank type

Well disinfected upon completion? Yes [X] No [ ]

14. PUMP Date installed 8/3/76 [ ] Not installed

Manufacturer's Name Sta-rite

Model Number CP10D2 HP 3/4 Volts 220

Length of drop pipe 84 ft. capacity 15 g.p.m.

Material of drop pipe steel

Type: [X] 1 Submersible [ ] 2 Jet [ ] 3 L.S. Turbine [ ] 4 Centrifugal [ ] 5 Reciprocating [ ] 6 ____

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.

McCullough & Sons, Inc. — License Business Name
82054 — License No.

Address: 15597 Highway 61, Hugo, Minnesota 55038

Signed ____ Date ____
Authorized Representative

Lawrence Higgler
Name of Driller

MINN. GEOLOGICAL SURVEY COPY

7/74 30M

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

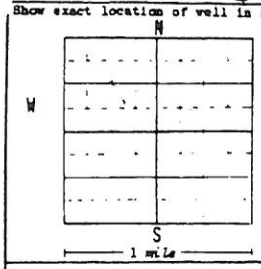
MINNESOTA UNIQUE WELL NO. for Water Sample: 112603

1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
Washington	information not available		W. or S.	E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 22560 Manning Trail Scandia

Show exact location of well in section grid with "X." Sketch map of well location.



2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
clay gravel QTUU (CLAY, GRVL)			0	40
clay QUUU (CLAY)			41	170
gravel sand QFUU (GRVL, SAND)			171	270
clay sand mixed QFUU (CLAY, SAND)			271	350
sand rock 1665	CFRN (SNDS)		351	400
lime & sand rock 615			401	440

Aquifer CFRN-CFRN

32-20-7 BDBDCA

ELEV. 1015 ±5

315

665

COPIED

Use a second sheet, if needed.

7. REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME

Address: Mo Backen
22560 Manning Trail
Scandia, Minnesota 55073

4. WELL DEPTH (completed) 440 ft. Date of Completion 1/30/76

5. 1☐ Cable tool 4☐ Reverse 7☐ Driven 10☐ Dug
2☐ Hollow rod 5☐ Air 8☐ Bored 11☐
3☒ Rotary 6☐ Jetted 9☐ Power Auger

6. USE

1☒ Domestic 4☐ Public Supply 7☐ Industry
2☐ Irrigation 5☐ Air Conditioning 8☐ Commercial
3☐ Test Well 6☐

7. CASING DIAM.

Threaded ☒ 1 Welded ☐ 3
Black ☒ 2 Galv. ☐ 4

4 in. to 380 ft. depth
in. to ft. depth
in. to ft. depth

HEIGHT: Above/Below Surface 1 ft.
Weight 11 lbs./ft.
Drive Shoe? Yes ___ No ___

8. SCREEN

Make
Type Dia.
Slot/Gauze Length
Set between ft. and ft.
ft. and ft.
ft. and ft.

Or open hole from 380 ft. to 440 ft.

FITTINGS:

9. STATIC WATER LEVEL

150 ft. ☒ below ☐ above land surface Date Measured 1/30/76

10. PUMPING LEVEL (below land surface)

200 ft. after 2 hrs. pumping 40 g.p.m.
ft. after hrs. pumping g.p.m.

11. WELL HEAD COMPLETION

1☒ Pitless adapter 2☐ Basement offset 3☒ At least 12" above grade

12. Well grouted?

☐ Yes ☒ No Cu. Yds.
1☐ Neat cement 2☐ Bentonite 3☐
Depth: from ft. to ft.
from ft. to ft.

13. Nearest source of possible contamination

feet direction septic tank type

Well disinfected upon completion? Yes ☒ No ☐

14. PUMP

Date installed 2/2/76
☐ Not installed

Manufacturer's Name Sta-rite
Model Number HP 1½ Volts 230
Length of drop pipe 200 ft. capacity 20 g.p.m.
Material of drop pipe steel
Type: 1☒ Submersible 3☐ U.S. Turbine 5☐ Reciprocating
2☐ Jet 4☐ Centrifugal 6☐

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.

McCullough & Sons, Inc. 82054
Licensee Business Name License No.

Address 15597 Highway 61, Hugo, Minn. 55038

Signed Date
Authorized Representative
Ken Engler

MINN. GEOLOGICAL SURVEY COPY

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

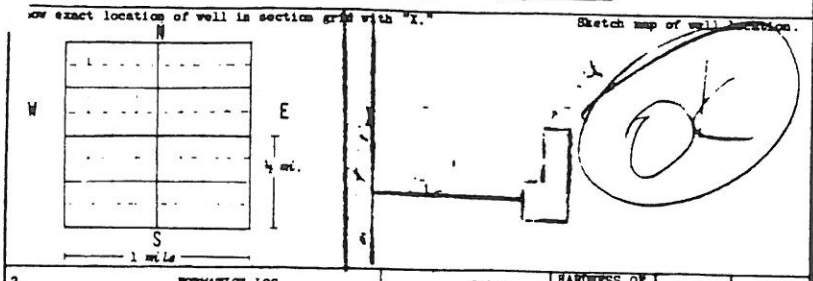
MINNESOTA UNIQUE WELL NO. for Water Sample: 112555

1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
Washington	SW ne ¼	17	[illegible] N. or S.	[illegible] E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 21509 Lofton Avenue North Scandia

Show exact location of well in section grid with "X." Sketch map of well location.



2. FORMATION LOG

FORMATION	COLOR	HARDNESS OF FORMATION	FROM	TO
sand gravel QFUU (SAND, GRVL)			0	60
clay QTUU (CLAY)			61	90
sand rock ~~OSFP~~ OFDC (SNDS)			91	104
lime rock OPDC (DLMT)			105	128

Aquifer: OPDC - OPDC

32-20-17 ACC DDA

ELEV. 961 ± 5

CODED

Use a second sheet, if needed.

REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME Donald L. Engler

Address: 21509 Lofton Avenue North, Scandia, Minnesota 55073

FL-2

4. WELL DEPTH (completed) 128 ft. Date of Completion 6/12/76

5. 1 [ ] Cable tool 4 [ ] Reverse 7 [ ] Driven 10 [ ] Dug
2 [ ] Hollow rod 5 [ ] Air 8 [ ] Bored 11 [ ]
3 [X] Rotary 6 [ ] Jetted 9 [ ] Power Auger

6. USE 1 [X] Domestic 4 [ ] Public Supply 7 [ ] Industry
2 [ ] Irrigation 5 [ ] Air Conditioning 8 [ ] Commercial
3 [ ] Test Well 6 [ ]

7. CASING DIAM. Threaded [X] Welded [ ] 3
Black [X] Galv. [ ] 4
4 in. to 105 ft. depth
in. to ft. depth
in. to ft. depth

HEIGHT: Above/Below Surface 1 ft.
Weight 11 lbs./ft.
Drive Shoe? Yes [X] No [ ]

8. SCREEN Or open hole from 105 ft. to 128 ft.
Make
Type Dia.
Slot/Gauge Length
Set between ft. and ft.
ft. and ft.
ft. and ft.
FITTINGS:

9. STATIC WATER LEVEL 40 ft. [X] below land surface [ ] above Date Measured 6/4/76

10. PUMPING LEVEL (below land surface) 100 ft. after 8 hrs. pumping 30 g.p.m.
ft. after hrs. pumping g.p.m.

11. WELL HEAD COMPLETION 1 [X] Pitless adapter 2 [ ] Basement offset 3 [X] At least 12" above grade

12. Well grouted? [ ] Yes [X] No Cu. Yds.
1 [ ] Neat cement 2 [ ] Bentonite 3 [ ]
Depth: from ft. to ft.
from ft. to ft.

13. Nearest source of possible contamination 100 feet S direction septic tank type
Well disinfected upon completion? Yes [X] No [ ]

14. PUMP Date installed 6/15/76
[ ] Not installed
Manufacturer's Name Sta-rite
Model Number SP10B2 HP 3/4 Volts 220
Length of drop pipe 100 ft. capacity 15 g.p.m.
Material of drop pipe steel
Type: 1 [X] Submersible 3 [ ] L.S. Turbine 5 [ ] Reciprocating
2 [ ] Jet 4 [ ] Centrifugal 6 [ ]

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.

McCullough & Sons, Inc. 82054
Licensee Business Name License No.

Address 19597 Highway 61, Hugo, Mn. 55038

Signed Date
Authorized Representative
Ken Engler

MINN. GEOLOGICAL SURVEY COPY

STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.05

MINNESOTA UNIQUE WELL NO. for Water Samples: 138286

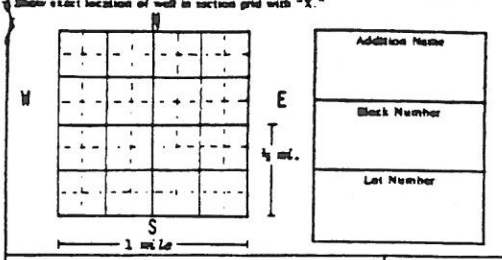
1. LOCATION OF WELL

County Name: Washington

Township Name: Scandia | Township Number: 32 N or S | Range Number: 20 W E or W | Section No.: 17 | Fraction: ¼ 20 ¼ 20 ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 21950 Lofton Ave. North Scandia

Show exact location of well in section grid with "X." Sketch map of well location.



1A-3C

2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
sand clay	SAND CLAY		0	30
sand	SAND		30	70
sand rock	SAND	DRY	70	87
			B/E56	
Log - OPDC-OPDC				
32-20-17 BAAADB				
Elev. 942 ±5				
30				
WD				

LOCATED BY
1 - ☑ Address Verification
2 - ☐ Name on Mailbox
3 - ☐ Lot/Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

CODED

3. PROPERTY OWNER'S NAME

Address: Arthur P. Ostman, 21950 Lofton Ave. North, Scandia, Minn. 55073

4. WELL DEPTH (completed) 87 ft. | Date of Completion 9/26/77

5. 1☐ Cable tool 4☐ Reverse 7☐ Driven 10☐ Dug 2☐ Hollow rod 5☐ Air 8☐ Bored 11☐ ___ ☒ Rotary 6☐ Jetted 9☐ Power Auger

6. USE ☒ Domestic 4☐ Public Supply 7☐ Industry 2☐ Irrigation 5☐ Municipal 8☐ Commercial 3☐ Test Well 6☐ Air Conditioning 9☐

7. CASING 1☒ Black 2☒ Threaded 2☐ Galv. 5☐ Welded 3☐ 6☐

HEIGHT: Above/Below Surface 1 ft. Drive Shoe? Yes X No

4 in. to 86 ft. Weight 11 lbs./ft.

HOLE DIAM: ___ in. to ___ ft.

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

Or open hole from 86 ft. to 87 ft.

9. STATIC WATER LEVEL 30 ft. ☒ below land surface ☐ above Date Measured 9/26/77

10. PUMPING LEVEL (below land surface) 55 ft. after 2 hrs. pumping 40 g.p.m.

11. WELL HEAD COMPLETION ☒ Pitless adapter 2☐ Basement offset ☒ At least 12" above grade

12. Well grouted? ☐ Yes ☒ No Cu. Yds. ___ 1☐ Neat Cement 2☐ Bentonite 3☐ ___ Depth: from ___ ft. to ___ ft.

13. Nearest sources of possible contamination 150 feet X direction septic tank type

Well disinfected upon completion? Yes ☒ No ☐

14. PUMP Date installed 11/8/77 ☐ Not installed

Manufacturer's Name: Suit Commander

Model Number: C7BC310 HP 3/4 Volts 220

Length of drop pipe: 55 ft. capacity 15 g.p.m.

Material of drop pipe: steel

Type: ☒ Submersible 3☐ L.S. Turbine 5☐ Reciprocating 2☐ Jet 4☐ Centrifugal 6☐ ___

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.

McCullough & Sons, Inc. (Licensee Business Name) 82054 (License No.)

Address: 20335 Forest Blvd. N. Forest Lake

Signed ___ (Authorized Representative) Date 2/7/78

Ken Boyer (Name of Driller) Date ___

MINN. GEOLOGICAL SURVEY COPY

5/74 30M
7/76 30M

STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 1974, Ch. 86

MINNESOTA UNIQUE WELL NO. for Water Sample: 151740

1. LOCATION OF WELL

County Name: Washington

Township Name | Township Number N or S | Range Number E or W | Section No. | Fractions ¼ ¼ ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 11939 Scandia Trail No. Scandia, MN 55073

Show exact location of well in section grid with "X." Sketch map of well location.

T N, W, E, S, 1 mi. to, ½ mi.

Addition Name

Block Number

Lot Number

4-32

2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
Clay and sand QUCG	Blue CLAY SAND		0	45
Clay, gravel, & rocks GTUR	Red CLAY GRVL COBB		45	55
Sand QFUU	SAND		55	103
Broken limestone CPDC	DLMT 7/87		103	105
Broken limestone CPDC	DLMT	Hard	105	108
	7/87			
Aquifer CPDC - CPDC				
32-30-17 DCDDDD				
Elev. 990 ± 5				
3-8				

LOCATED BY
1 - ☑ Address Verification
2 - ☐ Name on Mailbox
3 - ☐ Lot-Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

CODED

3. PROPERTY OWNER'S NAME

Richard Land

Address: 11939 Scandia Trail No.
Scandia, MN 55073

4. WELL DEPTH (completed) 108 ft. Date of Completion 9/6/79

5. 1☐ Cable tool 4☐ Reverse 7☐ Driven 10☐ Dug
2☐ Hollow rod 5☐ Air 8☐ Bored 11☐
3☒ Rotary 6☐ Jetted 9☐ Power Auger

6. USE 1☒ Domestic 4☐ Public Supply 7☐ Industry
2☐ Irrigation 5☐ Municipal 8☐ Commercial
3☐ Test Well 6☐ Air Conditioning 9☐

7. CASING 1☒ Black 4☒ Threaded
2☐ Galv. 5☐ Welded
3☐ 6☐

HEIGHT Above/Below Surface ____ ft. Drive Shoe? Yes ☒ No ☐

4 in. to 105 ft. Weight 11 lbs./ft.
____ in. to ____ ft. Weight ____ lbs./ft.
____ in. to ____ ft. Weight ____ lbs./ft.

HOLE DIAM ____ in. to ____ ft.

8. SCREEN Make ____ Type ____ Dia. ____ Slot/Gauge ____ Length ____ Set between ____ ft. and ____ ft.

Or open hole from 105 ft. to 108 ft.

FITTINGS.

9. STATIC WATER LEVEL 52 ft. below land surface ☒ above ☐ Date Measured ____

10. PUMPING LEVEL (below land surface)
____ ft. after ____ hrs. pumping ____ g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.

11. WELL HEAD COMPLETION 1☒ Pitless adapter 2☐ Basement offset 3☒ At least 12" above grade

12. Well grouted? ☐ Yes ☒ No Cu. Yds. ____
1☐ Neat Cement 2☐ Bentonite 3☐ ____
Depth: from ____ ft. to ____ ft.
from ____ ft. to ____ ft.

13. Nearest sources of possible contamination
____ feet ____ direction ____ type
Well disinfected upon completion? Yes ☒ No ☐

14. PUMP Date installed 8/29/79 ☐ Not installed
Manufacturer's Name McDonald
Model Number 18050K3 HP 1/2 Volts ____
Length of drop pipe 84 ft. capacity ____ g.p.m.
Material of drop pipe Steel
Type: 1☒ Submersible 3☐ L.S. Turbine 5☐ Reciprocating
2☐ Jet 4☐ Centrifugal 6☐ ____

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.

Johnson Bros. Well Drilling (6211)
Licensed Business Name License No.

Address: 2750 Neal Drive

Signed ____ Date ____
Authorized Representative

George W. Johnson Date ____
Name of Driller

16. REMARKS, ELEVATION, SOURCE OF ELEVATION

MINN. GEOLOGICAL SURVEY COPY

5/74 3004

STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

MINNESOTA UNIQUE WELL NO. for Water Sample: 153229

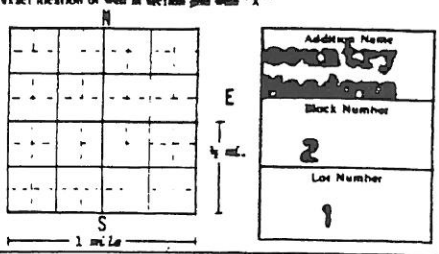
1. LOCATION OF WELL

County Name: Washington

Township Name: Scandia | Township Number: N or S | Range Number: E or W | Section No. | Fraction: ¼ ¼ ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 11000 218th Street Court No, Scandia

Show exact location of well in section grid with "X"



Sketch map of well location.

2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
sand GFUU	SAND		0	40
clay GTUU	CLAY		40	145
sandrock CJDN	SNDS	4/8	145	168

32-20-18 AABCCA

Elev: [illegible]

134-C

Agf: CJDN-CJDN

LOCATED BY
1 - ☑ Address Verification
2 - ☑ Name on Mailbox
3 - ☐ Lot-Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

Use a second sheet, if needed

3. PROPERTY OWNER'S NAME

David Bunner

Address: 11000 218th Court No.
Scandia, Mn 55073

4. WELL DEPTH (completed): 168 ft. | Date of Completion: 8/9/78

5. 1☐ Cable tool 4☐ Reverse 7☐ Driven 10☐ Dug
2☐ Hollow rod 5☐ Air 8☐ Bored 11☐
☒ Rotary 6☐ Jetted 9☐ Power Auger

6. USE
☒ 1 Domestic 4☐ Public Supply 7☐ Industry
2☐ Irrigation 5☐ Municipal 8☐ Commercial
3☐ Test Well 6☐ Air Conditioning 9☐

7. CASING
☐ 1 Black ☒ Threaded
2☐ Galv 5☐ Welded
3☐ 6☐

HEIGHT Above/Below Surface 1 ft.
Drive Shoe? Yes ☒ No ☐

4 in. to 166 ft. Weight 11 lbs./ft.
in. to ft. Weight lbs./ft.
in. to ft. Weight lbs./ft.

HOLE DIAM: in. to ft.; in. to ft.; in. to ft.

8. SCREEN
Make: DOPE
Or open hole from 166 ft. to 168 ft.
Type: Dia.
Slot/Gauze: Length:
Set between ft. and ft.
ft. and ft.
ft. and ft.
FITTINGS

9. STATIC WATER LEVEL: 60 ☒ below land surface ☐ above | Date Measured 8/9/78

10. PUMPING LEVEL (below land surface): 100 ft. after 2 hrs. pumping 40 g.p.m.
ft. after hrs. pumping g.p.m.

11. WELL HEAD COMPLETION
☒ 1 Pitless adapter 2☐ Basement offset 3☒ At least 12" above grade

12. Well grouted? ☐ Yes ☒ No | Cu. Yds.
1☐ Neat Cement 2☐ Bentonite 3☐
Depth: from ft. to ft.
from ft. to ft.

13. Nearest sources of possible contamination: 65 feet East direction septic type
Well disinfected upon completion? Yes ☐ No ☒

14. PUMP
Date installed 9/15/78 ☐ Not installed
Manufacturer's Name: Gould
Model Number: 10ssm7412 HP 3/4 Volts 230
Length of drop pipe: 90 ft. capacity 15 g.p.m.
Material of drop pipe: Steel
Type: 1☒ Submersible 3☐ L. S. Turbine 5☐ Reciprocating
2☐ Jet 4☐ Centrifugal 6☐

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.

Lauren McCullough Well Drl 82443
Licensee Business Name — License No.

Address: 15597 Hwy 61, Hugo, MN 55038

Signed: Authorized Representative — Date 9/19/78

Dale Beauvais — Date 9/19/78
Name of Driller

MINN. GEOLOGICAL SURVEY COPY

5/74 30M

1 LOCATION OF WELL — First Name S.W. — STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

MINNESOTA UNIQUE WELL NO. for Water Supply: 138275

County Name: Washington

p. 3C 1-A

Township Name	Township Number	Range Number	Section No.	Fractions
Lake Elmo	029 N or S	20W E or W	18	NW NW

Distance and Direction from Road Intersections or Street Address and City of Well Location: 10982 - 218th Street North Scandia

Show exact location of well in section grid with "X" — Sketch map of well location.

Addition Name: Country Hedges — Block Number: 1 — Lot Number: 2

2. FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
sand clay			0	35
sand gravel			35	95
Aff. C3M-OJA.1				
32-20-18 ABDCDB				
Elev. 925.5				
134-C				

CODED

LOCATED BY
1 - ☑ Address Verification
2 - ☑ Name on Mailbox
3 - ☐ Lot-Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

Use a second sheet, if needed.

15. REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME: Carle G. Burch
Address: 10981 North 218th Street, Scandia, Minn. 55073

4. WELL DEPTH (completed): 95 ft. — Date of Completion: 9/12/77

5. 1☐ Cable tool 4☐ Reverse 7☐ Driven 10☐ Dug
2☐ Hollow rod 5☐ Air 8☐ Bored 11☐
3☒ Rotary 6☐ Jetted 9☐ Power Auger

6. USE: 1☒ Domestic 4☐ Public Supply 7☐ Industry
2☐ Irrigation 5☐ Municipal 8☐ Commercial
3☐ Test Well 6☐ Air Conditioning 9☐

7. CASING — HEIGHT Above/Below — HOLE DIAM
1☒ Black ☒ Threaded
2☐ Galv. 5☐ Welded Surface 1 ft.
3☐ 6☐ Drive Shoe? Yes ☒ No
4 in. to 92 ft. Weight 11 lbs./ft.
in. to ft. Weight lbs./ft.
in. to ft. Weight lbs./ft.
in. to ft.
in. to ft.
in. to ft.

8. SCREEN — Or open hole from ft. to ft.
Make: Johnson
Type: 236 Dia. 2
Slot/Gauze: 18 Length: 5
FITTINGS
Set between 90 ft. and 95 ft.
ft. and ft.
ft. and ft.

9. STATIC WATER LEVEL: 30 ft. ☒ below land surface ☐ above — Date Measured 9/12/77

10. PUMPING LEVEL (below land surface): 63 ft. after 3 hrs. pumping 15 g.p.m.
ft. after hrs. pumping g.p.m.

11. WELL HEAD COMPLETION: 1☒ Pitless adapter 2☐ Basement offset 3☒ At least 12" above grade

12. Well grouted? ☐ Yes ☒ No Cu. Yds.
1☐ Neat Cement 2☐ Bentonite 3☐
Depth: from ft. to ft.
from ft. to ft.

13. Nearest sources of possible contamination: 80 feet S direction septic tank type
Well disinfected upon completion? Yes ☒ No ☐

14. PUMP — Date installed 9/27/77 ☐ Not installed
Manufacturer's Name: Pait Commander
Model Number: C7EC310 HP 3/4 Volts 230
Length of drop pipe: 63 ft. capacity 15 g.p.m.
Material of drop pipe: steel
Type: ☒ Submersible 3☐ L.S. Turbine 5☐ Reciprocating
2☐ Jet 4☐ Centrifugal 6☐

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.

McCullough & Sons, Inc. 82054
Licensed Business Number License No.

Address: 15597 Highway 61, Hugo, Minn. 55038

Signed: Authorized Representative Date: 10/31/77

Ken Eagler
Name of Driller Date

MINN. GEOLOGICAL SURVEY COPY

5/74 30M
7/76 30M

208057

FL 71

SW

p.3B 5-A Forest Lake S.W.

Neudahr, Glen
21980 Manning Trail
Co. 15 No. of Hy 97

Jan. 25, 1974

235' 4 in Well WTE 84'

0-10	Red clay	QUUR (CLAY)
10-32	Yellow to blue clay	QUUG (CLAY)
32-70	Gravely red clay	QTUR (GRVL, CLAY)
70-85	Sand	QFUU (SAND)
85-120	fine sand + clay	QUUU (SAND, CLAY)
120-180	Gravely red clay + boulders (hard)	QTUR (GRVL, CLAY, BLD
180-200	Soft + hard sandrock	CUDN (SNDS)
200-235	fine hard sandrock + shale	CSTL (SHLE, SNDS, DI
235-	very hard siltstone	

pipe to 206'

Aquifer: CSTL-CSTL

32-20-18 BBBBBC
ELEV. 972±5

CODE

STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

MINNESOTA UNIQUE WELL NO. for Water Samples: 139719

1. LOCATION OF WELL

County Name: [illegible]

Township Name: [illegible] | Township Number: N or S | Range Number: E or W | Section No.: 11 | Fractions: ¼ ¼ ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 100 77-01 T 4 11.

Show exact location of well in section grid with "X."

Sketch map of well location.

Addition Name: [illegible] | Block Number | Lot Number

54-33 well

septic

2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
Topsoil	Black	Soft	0	4
QTUB	Clay	Hard	4	62
QFUB	Rock	Gravel	62	77
QTUB	Clay	Hard	77	102
QFUB	Sand	Hard	102	122
QFUB	Sand	"	122	130

Aquifer QBAA - QBAA

32-20-18 BCADED

Elev. 996±5

1346

CODED

LOCATED BY

1 - ☒ Address Verification
2 - ☐ Name on Mailbox
3 - ☐ Lot-Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

Use a second sheet, if needed.

15. REMARKS, ELEVATION, SOURCE OF DATA, etc.

MINN. GEOLOGICAL SURVEY COPY

PROPERTY OWNER'S NAME: ANDERSON

Address: [illegible]

4. WELL DEPTH (completed): 130 ft. | Date of Completion: 11/2/77

5. 1☒ Cable tool 2☐ Hollow rod 3☒ Rotary 4☐ Reverse 5☐ Air 6☐ Jetted 7☐ Driven 8☐ Bored 9☐ Power Auger 10☐ Dug 11☐ [illegible]

6. USE: 1☒ Domestic 2☐ Irrigation 3☐ Test Well 4☐ Public Supply 5☐ Municipal 6☐ Air Conditioning 7☐ Industry 8☐ Commercial 9☐

7. CASING: 1☒ Black 2☐ Galv 3☐ 4☒ Threaded 5☐ Welded 6☐

Surface 18 ft. Drive Shoe? Yes ☒ No ☐

in. to ft. Weight 11 lbs./ft.

HOLE DIAM: 11½ in. to 130 ft.

8. SCREEN: Make [illegible] Type [illegible] Slot/Gauze 125-66 Set between 125 ft. and 130 ft.

Dia. 4" Length [illegible] FITTINGS

Or open hole from ft. to ft.

9. STATIC WATER LEVEL: 65 ft. below land surface ☒ above Date Measured 11/[illegible]

10. PUMPING LEVEL (below land surface): 110 ft. after 2 hrs. pumping 20 g.p.m.; 100 ft. after 3 hrs. pumping 30 g.p.m.

11. WELL HEAD COMPLETION: 1☒ Pitless adapter 2☐ Basement offset 3☒ At least 12" above grade

12. Well grouted? ☐ Yes ☐ No Cu. Yds. 1☐ Neat Cement 2☐ Bentonite 3☐

Depth: from ft. to ft.; from ft. to ft.

13. Nearest sources of possible contamination: 50 feet S direction [illegible] type

Well disinfected upon completion? Yes ☒ No ☐

14. PUMP: Date Installed 12/[illegible] ☐ Not Installed

Manufacturer's Name: Hy Rite

Model Number [illegible] HP 1/2 Volts 220

Length of drop pipe 90 ft. capacity 10 g.p.m.

Material of drop pipe galvanized

Type: 1☒ Submersible 2☐ Jet 3☐ L.S. Turbine 4☐ Centrifugal 5☐ Reciprocating 6☐

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.

[illegible] Well [illegible] — Licensed Business Name — License No.

Address [illegible]

Signed [illegible] — Authorized Representative

[illegible] — Name of Driller — Date 11/[illegible]

5/74 30M

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

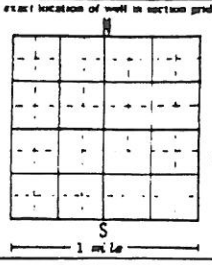
MINNESOTA UNIQUE WELL NO. for Water Sample: 141711

County Name: Washington

Township Name: Hay Township | Township Number: N or S | Range Number: E or W | Section No.: 18 | Fraction: ¼ ¼ ¼ NW NW

Distance and Direction from Road Intersections or Street Address and City of Well Location: 10560 217th Street No, Scandia Minn

Show exact location of well in section grid with "X." Sketch map of well location.



Addition Name: Rosemary Acres
Block Number: 1
Lot Number: 6

2. FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
clay			0	10
sand & gravel			10	180
clay			180	220
broken lime rock CSTL		1764	220	235
sandrock CFRN		1740	235	260
Aquifer CFRN-CFRN				
32-20-18 BCBBDA				
Elev. 984 ± 5				
134-C				

CODED

LOCATED BY
1 - [X] Address Verification
2 - [ ] Name on Mailbox
3 - [ ] Lot-Block
4 - [ ] Plat Book
5 - [ ] Info. From Owner
6 - [ ] Info. From Neighbor
7 - [ ] Other
[ ] Can't Locate State Why

Use a second sheet, if needed.

15. REMARKS, ELEVATION, SOURCE OF DATA, etc.

MINN. GEOLOGICAL SURVEY COPY

3. PROPERTY OWNER'S NAME: Dave L. Anderson
Address: 10560 217th Street No.
Scandia, Minn 55073

4. WELL DEPTH (completed): 261 ft. | Date of Completion: 4/6/78

5. [1] Cable tool [4] Reverse [7] Driven [10] Dug [2] Hollow rod [5] Air [8] Bored [11] [3] Rotary [6] Jetted [9] Power Auger

6. USE: [1] Domestic [4] Public Supply [7] Industry [2] Irrigation [5] Municipal [8] Commercial [3] Test Well [6] Air Conditioning [9]

7. CASING: [1] Black [2] Threaded [2] Galv. [5] Welded [3] [6]
HEIGHT Above/Below: Surface 1 ft.
Drive Shoe? Yes [X] No
4 in. to 235 ft. Weight 11 lbs./ft.
in. to ft. Weight lbs./ft.
in. to ft. Weight lbs./ft.
HOLE DIAM: in. to ft.; in. to ft.; in. to ft.

8. SCREEN: Make BOMB | Or open hole from 235 ft. to 261 ft.
Type | Dia.
Slot/Gauze | Length
Set between ft. and ft.
ft. and ft.
ft. and ft.
FITTINGS

9. STATIC WATER LEVEL: 115.00 ft. [X] below [ ] above land surface | Date Measured 4/6/78

10. PUMPING LEVEL (below land surface): 115 ft. after 2 hrs. pumping 30 g.p.m.
ft. after hrs. pumping g.p.m.

11. WELL HEAD COMPLETION: [X] Pitless adapter [2] Basement offset [X] At least 12" above grade

12. Well grouted? [ ] Yes [X] No | Cu. Yds.
[1] Neat Cement [2] Bentonite [3]
Depth: from ft. to ft.
from ft. to ft.

13. Nearest sources of possible contamination: 50 feet | NW direction | septic type
Well disinfected upon completion? Yes [ ] No [ ]

14. PUMP: Date Installed 4/8/78 [ ] Not installed
Manufacturer's Name: Tait
Model Number: C7EC310 HP 3/4 Volts 230
Length of drop pipe: 115 ft. capacity 12 g.p.m.
Material of drop pipe: steel
Type: [1] Submersible [3] L. S. Turbine [5] Reciprocating [2] Jet [4] Centrifugal [6]

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.

Lengren McCullough Well Drilling 82443
License Business Name | License No.

Address: 15597 Hwy 61, Hugo, Minn 55038

Signed: [signature] Authorized Representative Date 5/2/78

Dale Beauvais
Name of Driller | Date 5/2/78

5/78 50M
7/76 30M

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

Forest Lake
f. 3B 5A

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

MINNESOTA UNIQUE WELL NO.
for Water Sample

124149

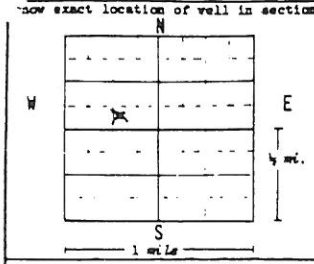
1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
W[illegible]NGT N	[illegible]		N. or S.	E. or W.

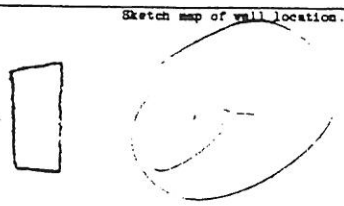
Distance and Direction from Road Intersections or Street Address and City of Well Location

[illegible] N. New SANDIA

Show exact location of well in section grid with "X."



Sketch map of well location.



2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
QFUB (GRVL)	[illegible] WN	[illegible]	0	30
QTUB(CLAY) [illegible]	brown	[illegible]	30	50
QUUB(SAND) [illegible]	brown	[illegible]	50	70
QUUR(CLAY) [illegible]	red	[illegible]	70	90
QFUB (SAND) [illegible]	[illegible]	[illegible]	90	125
QFUB (SAND) [illegible]	brown	[illegible]	125	179
Aquifer: QSOW - QSOW				
32-20-18	BCB CAD			
ELEV. 986±5				

Use a second sheet, if needed.

15. REMARKS, ELEVATION, SOURCE OF DATA, etc.

MINN. GEOLOGICAL SURVEY COPY

3. PROPERTY OWNER'S NAME [illegible] FLQ (5)

Address [illegible]

4. WELL DEPTH (completed) 131 ft. Date of Completion [illegible]

5. 1 [X] Cable tool 2 [ ] Hollow rod 3 [ ] Rotary 4 [ ] Reverse 5 [ ] Air 6 [ ] Jetted 7 [ ] Driven 8 [ ] Bored 9 [ ] Power Auger 10 [ ] Dug 11 [ ] ____

6. USE 1 [X] Domestic 2 [ ] Irrigation 3 [ ] Test Well 4 [ ] Public Supply 5 [ ] Air Conditioning 6 [ ] ____ 7 [ ] Industry 8 [ ] Commercial

7. CASING DIAM. Threaded [X] 1 Black [X] 2 Welded [ ] 3 Galv. [ ] 4

____ in. to 125 ft. depth
____ in. to ____ ft. depth
____ in. to ____ ft. depth

HEIGHT: Above/Below Surface [illegible] ft.
Weight ____ lbs./ft.
Drive Shoe? Yes [ ] No [ ]

8. SCREEN Or open hole from ____ ft. to ____ ft.

Make [illegible]
Type [illegible] Dia. ____
Slot/Gauge ____ Length ____
Set between ____ ft. and [illegible] ft.
____ ft. and ____ ft.
____ ft. and ____ ft.
FITTINGS: [illegible]

9. STATIC WATER LEVEL 95 ft. below land surface [X] above [ ] Date Measured [illegible]

10. PUMPING LEVEL (below land surface)
110 ft. after 2 hrs. pumping [illegible] g.p.m.
110 ft. after [illegible] hrs. pumping [illegible] g.p.m.

11. WELL HEAD COMPLETION 1 [ ] Pitless adapter 2 [X] Basement offset 3 [ ] At least 12" above grade

12. Well grouted? [ ] Yes [ ] No Cu. Yds. ____
1 [ ] Neat cement 2 [ ] Bentonite 3 [ ] ____
Depth: from ____ ft. to ____ ft.
from ____ ft. to ____ ft.

13. Nearest source of possible contamination
[illegible] feet [illegible] direction [illegible] type
Well disinfected upon completion? Yes [X] No [ ]

14. PUMP Date installed [illegible]
[ ] Not installed
Manufacturer's Name [illegible]
Model Number [illegible] HP [illegible] Volts ____
Length of drop pipe ____ ft. capacity ____ g.p.m.
Material of drop pipe ____
Type: 1 [X] Submersible 2 [ ] Jet 3 [ ] L.S. Turbine 4 [ ] Centrifugal 5 [ ] Reciprocating 6 [ ] ____

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.

[illegible] Wells [illegible]
Licensee Business Name License No.

Address [illegible] NW ANDIA

Signed ____ Date ____
Authorized Representative

[illegible]

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

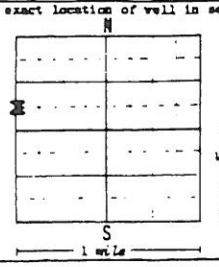
MINNESOTA UNIQUE WELL NO. for Water Sample: 114314

1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
Washington	SW SW NW	18	N. or S.	E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 21652 Kilian Ave, New Scandia, MN

Show exact location of well in section grid with "X." Sketch map of well location.



3. PROPERTY OWNER'S NAME

Robert Stanford

Address: 21652 Kilian Ave, New Scandia, MN

4. WELL DEPTH (completed) 280 ft. **Date of Completion** 23 May 75

5. 1☐ Cable tool 4☐ Reverse 7☐ Driven 10☐ Dug
2☐ Hollow rod 5☐ Air 8☐ Bored 11☐
3☒ Rotary 6☐ Jetted 9☐ Power Auger

6. USE 1☒ Domestic 4☐ Public Supply 7☐ Industry
2☐ Irrigation 5☐ Air Conditioning 8☐ Commercial
3☐ Test Well 6☐

7. CASING DIAM. Threaded ☒ 1 Welded ☐ 3
Black ☐ 2 Galv. ☐ 4
4 in. to 260 ft. depth
in. to ft. depth
in. to ft. depth

HEIGHT: Above/~~BELOW~~ Surface one ft.
Weight 10.42 lbs./ft.
Drive Shoe? Yes X No

8. SCREEN Make none
Or open hole from 260 ft. to 280 ft.
Type Dia.
Slot/Gauze Length
Set between ft. and ft.
ft. and ft.
ft. and ft.
FITTINGS:

9. STATIC WATER LEVEL 80 ft. ☒ below ☐ above land surface Date Measured 23 May 75

10. PUMPING LEVEL (below land surface)
(air) ft. after three hrs. pumping 55 g.p.m.
ft. after hrs. pumping g.p.m.

11. WELL HEAD COMPLETION Baker 5½ 1" copper
1☒ Pitless adapter 2☐ Basement offset 3☐ At least 12" above grade

12. Well grouted? ☐ Yes ☒ No Cu. Yds.
1☐ Neat cement 2☐ Bentonite 3☐
Depth: from ft. to ft.
from ft. to ft.

13. Nearest source of possible contamination
feet direction type
Well disinfected upon completion? Yes ☒ No ☐

14. PUMP Date installed 5 June 75
☐ Not installed
Manufacturer's Name Meyer's
Model Number SF7-21 HP 3/4 Volts 230
Length of drop pipe 105 ft. capacity 12 g.p.m.
Material of drop pipe galvanized
Type: 1☒ Submersible 3☐ U.S. Turbine 5☐ Reciprocating
2☐ Jet 4☐ Centrifugal 6☐

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.

L. H. RENNER & SONS INC 27015
Licensee Business Name License No.

Address 6300 Industry Ave NW ANOKA

Signed Date
Authorized Representative

2.

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
ZUUU (FILL) GRAVEL FILL	MIXED		0	8
QUUR (CLAY) CLAY	RED		8	10
QTUR (CLAY, GRVL) CLAY & STONE	REDDISH		10	20
QFUU (GRVL) GRAVEL	MIXED		20	25
QTUR (GRVL, CLAY) GRAVEL & CLAY	REDDISH	STICKY	25	37
QTUB (CLAY, GRVL) CLAY & STONES	BROWN		37	49
QTUR (SAND, GRVL) SAND & GRAVEL	REDDISH		49	72
QTUB (CLAY) CLAY	BROWN	7	72	80
SAND QFUB (SAND)	BROWN		80	100
GRAVEL QFUB (GRVL)	MIXED		100	110
QTUB (GRVL, CLAY, SAND) GRAVEL & SANDY CLAY	BROWN		110	115
QTUB (GRVL, CLAY) CLAY & GRAVEL	BROWN		115	131
QFUB BOULDER (BLDR)	—	GRANIT	131	133
QTUB CLAY & ROCKS (CLAY, ETC)	BROWN		133	150
QTUB BOULDER (BLDR)	MIXED		150	151
QTUB CLAY & ROCKS (CLAY, ETC)	BROWN		151	165
QTUG CLAY (CLAY)	GRAY	STICKY	165	210
QTUB SAND & CLAY (CLAY, SAND)	BROWN		210	248
CTLN ~~CPL~~ (SHLE, DLMT,) SHALE & ST LAWRENCE	GREEN/RED	HARD	248	280
Aquifer: ~~SST~~ ~~CSTL~~ CTLN				

Use a second sheet, if needed.

5. REMARKS, ELEVATION, SOURCE OF DATA, etc.
32-20-18 BCBCCB
ELEV. 976±5

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

Forest Lake Q
p. 38 5A

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

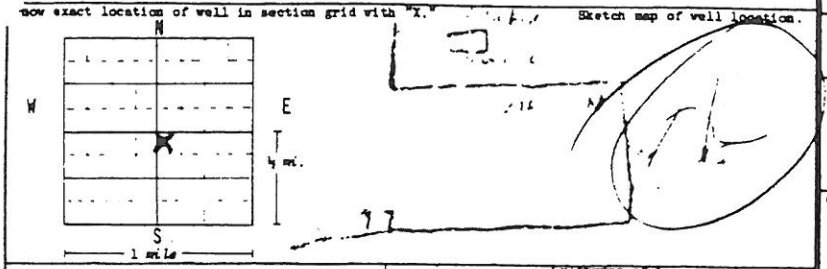
MINNESOTA UNIQUE WELL NO. for Water Sample: 124072

1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
WASHINGTON			N. or S.	E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 10370 216 ... No. New Scandia

Show exact location of well in section grid with "X." Sketch map of well location.



3. PROPERTY OWNER'S NAME: Ed Nordlund Son Inc. FLQ (5B)

Address: 7989 Lake Drive Lino Lakes Sc

4. WELL DEPTH (completed): 130 ft. Date of Completion: 8/15/76

5. [X] 1 Cable tool [ ] 2 Hollow rod [ ] 3 Rotary [ ] 4 Reverse [ ] 5 Air [ ] 6 Jetted [ ] 7 Driven [ ] 8 Bored [ ] 9 Power Auger [ ] 10 Dug [ ] 11 ____

6. USE [X] 1 Domestic [ ] 2 Irrigation [ ] 3 Test Well [ ] 4 Public Supply [ ] 5 Air Conditioning [ ] 6 ____ [ ] 7 Industry [ ] 8 Commercial

7. CASING DIAM. Threaded [X] 1 Welded [ ] 3 Black [X] 2 Galv. [ ] 4

4 in. to 126 ft. depth
____ in. to ____ ft. depth
____ in. to ____ ft. depth

HEIGHT: Above/Below Surface 18 ft. Weight 11 lbs./ft. Drive Shoe? Yes [X] No [ ]

8. SCREEN Make Johnson Type Stainless Steel Dia. 4" Slot/Gauge 40/60 Length 4' Set between 126 ft. and 130 ft.

Or open hole from ____ ft. to ____ ft.

FITTINGS: 3½ Bushing; 2" x 2" Pipe; 2½ x ½ Pk. Key

9. STATIC WATER LEVEL 100 ft. [X] below land surface [ ] above Date Measured 8/15/76

10. PUMPING LEVEL (below land surface)
110 ft. after 3 hrs. pumping 20 g.p.m.
110 ft. after 3 hrs. pumping 20 g.p.m.

11. WELL HEAD COMPLETION [ ] 1 Pitless adapter [X] 2 Basement offset [X] 3 At least 12" above grade

12. Well grouted? [ ] Yes [ ] No Cu. Yds. ____
[ ] 1 Neat cement [ ] 2 Bentonite [ ] 3 ____
Depth: from ____ ft. to ____ ft.
from ____ ft. to ____ ft.

13. Nearest source of possible contamination 75 feet N direction SEPTIC type
Well disinfected upon completion? Yes [X] No [ ]

14. PUMP Date installed 8/24/76 [ ] Not installed
Manufacturer's Name Sta-rite
Model Number GP5C2 HP ½ Volts 230
Length of drop pipe 108 ft. capacity 17 g.p.m.
Material of drop pipe galvanized
Type: [X] 1 Submersible [ ] 2 Jet [ ] 3 U.S. Turbine [ ] 4 Centrifugal [ ] 5 Reciprocating [ ] 6 ____

2. FORMATION LOG

	COLOR	HARDNESS OF FORMATION	FROM	TO
QTUB (CLAY) Clay	Brown	hard	0	40
QFUB (GRVL) Gravel	Brown	hard	40	60
QTUB (CLAY) Clay	red	hard	60	80
QFUB (GRVL) gravel; fine	brown	hard	80	120
QFUB (GRVL) gravel	brown	hard	110	130
Aquifer: QSOW-QSOW				
32-20-18	3CCCDA			
ELEV. 998±5				

Use a second sheet, if needed.

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.

Art Thompson's Sons Well Drilling
Licensee Business Name — License No.

Address 1671 Highway 61 NW Scandia

Signed Art Thompson Date 10/1/76
Authorized Representative

Gene Thompson

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

Forest Lake Q
P. 3B 5A

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

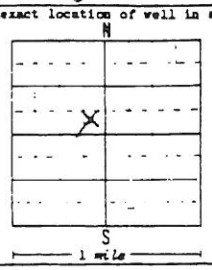
MINNESOTA UNIQUE WELL NO. for Water Sample: 124150

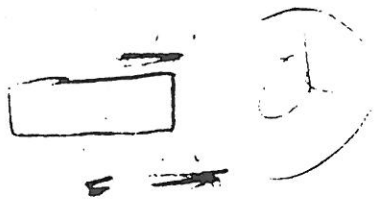
1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
[illegible] N	[illegible]		N. or S.	E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: [illegible] N N=W [illegible]/A

Show exact location of well in section grid with "X." Sketch map of well location.





2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
QFUB (GRVL)	[illegible]	hard	0	30
QUUB (CLAY)	brown	hard	30	50
QFUB (SAND)	brown	[illegible]	50	70
QUUR (CLAY)	red	soft	70	90
QFUB (SAND)	brown	hard	90	129
QFUB (SAND)	brown	soft	129	133

Aquifer: QSOW - QSOW

32-20-18 BCDBDB

ELEV. 1003 ± 5

COPY

Use a second sheet, if needed.

REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME [illegible] FLQ (48)

Address: 1749 Lake Drive [illegible] SW

4. WELL DEPTH (completed) 133 ft. Date of Completion 4/20/76

5. 1 [X] Cable tool 4 [ ] Reverse 7 [ ] Driven 10 [ ] Dug
2 [ ] Hollow rod 5 [ ] Air 8 [ ] Bored 11 [ ]
3 [ ] Rotary 6 [ ] Jetted 9 [ ] Power Auger

6. USE 1 [X] Domestic 4 [ ] Public Supply 7 [ ] Industry
2 [ ] Irrigation 5 [ ] Air Conditioning 8 [ ] Commercial
3 [ ] Test Well 6 [ ]

7. CASING DIAM. Threaded [X] 1 Welded [ ] 3
Black [ ] 2 Galv. [ ] 4
[illegible] in. to 129 ft. depth
in. to ft. depth
in. to ft. depth

HEIGHT: Above/Below Surface ft.
Weight 11 lbs./ft.
Drive Shoe? Yes [ ] No [ ]

8. SCREEN Or open hole from ft. to ft.
Make [illegible]
Type Dia.
Slot/Gauge Length
Set between ft. and ft.
ft. and ft.
ft. and ft.
FITTINGS:

9. STATIC WATER LEVEL [illegible] ft. [X] below land surface [ ] above Date Measured [illegible]

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

11. WELL HEAD COMPLETION 1 [ ] Pitless adapter 2 [X] Basement offset 3 [ ] At least 12" above grade

12. Well grouted? [ ] Yes [ ] No Cu. Yds.
1 [ ] Neat cement 2 [ ] Bentonite 3 [ ]
Depth: from ft. to ft.
from ft. to ft.

13. Nearest source of possible contamination [illegible] feet N direction [illegible] type
Well disinfected upon completion? Yes [X] No [ ]

14. PUMP Date installed [illegible]
[ ] Not installed
Manufacturer's Name [illegible]
Model Number [illegible] HP Volts
Length of drop pipe ft. capacity 2 g.p.m.
Material of drop pipe [illegible]
Type: 1 [X] Submersible 3 [ ] L.S. Turbine 5 [ ] Reciprocating
2 [ ] Jet 4 [ ] Centrifugal 6 [ ]

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.

[illegible] License Business Name License No.

Address [illegible]

Signed [illegible] Date [illegible]
Authorized Representative

[illegible]

Minnesota Statutes 156A.04-.08 — for Water Samples

V 139111

County Name: Hennepin | Township Number: 32 N or S | Range Number: 20 E or W | Section No.: 18 | Fraction: ¼ ¼ ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 10325-217th St North

Show exact location of well by placing grid with "X"

Sketch map of well location.

Addition Name

Block Number

Lot Number

54-33

well

septic

3. PROPERTY OWNER'S NAME: S.S. REMLEY

Address: 7434 Lake Nokomis

4. WELL DEPTH (completed): 126 ft. — Date of Completion: 11/14/77

5. ☐1 Cable tool ☐2 Hollow rod ☒3 Rotary ☐4 Reverse ☐5 Air ☐6 Jetted ☐7 Driven ☐8 Bored ☐9 Power Auger ☐10 Dug ☐11 Dosed in

6. USE: ☒1 Domestic ☐2 Irrigation ☐3 Test Well ☐4 Public Supply ☐5 Municipal ☐6 Air Conditioning ☐7 Industry ☐8 Commercial ☐9

7. CASING: ☒1 Black ☒4 Threaded ☐2 Galv. ☐5 Welded ☐3 ☐6

Height Above/Below Surface: 1½ ft. Drive Shoe? Yes ☒ No ☐

Weight: 11 lbs./ft.

Hole Diam: 6 in. to 126 ft.

8. SCREEN: Make; Type; Slot/Gauze; Set between ft. and ft.; Dia.; Length; Or open hole from ft. to ft.

FITTINGS

9. STATIC WATER LEVEL: 15 ft. ☒ below land surface ☐ above — Date Measured 11/14/77

10. PUMPING LEVEL (below land surface): 100 ft. after 2 hrs. pumping 20 g.p.m.; 106 ft. after 3 hrs. pumping 20 g.p.m.

11. WELL HEAD COMPLETION: ☒1 Pitless adapter ☐2 Basement offset ☒3 At least 12" above grade

12. Well grouted? ☐ Yes ☐ No — Cu. Yds.

☐1 Neat Cement ☐2 Bentonite ☐3

Depth: from ft. to ft.; from ft. to ft.

Nearest sources of possible contamination: feet; direction; type

Disinfected upon completion? Yes ☒ No ☐

Pump: Date Installed 11/22/77 ☐ Not installed

Manufacturer's Name: Star Rite

Model Number: 5FL5-2E HP: 1/2 Volts

Length of drop pipe: 70 ft. capacity g.p.m.

Material of drop pipe

Type: ☒1 Submersible ☐2 Jet ☐3 L.S. Turbine ☐4 Centrifugal ☐5 Reciprocating ☐6

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.

Licensee Business Name: Carl Tryggvason Well Co. — License No.

Address: 15021 Judicate N-Mpls

Signed: Carl Tryggvason — Authorized Representative — Date

Name of Driller: Carl Tryggvason — Date: 11/14/78

2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
Black dirt	Black	Hard	0	38
Clay	Yellow	"	38	74
Yellow sand	Yellow	"	74	96
Clay	Yellow	"	96	106
Sand	Tan	"	106	120
Water sand	Tan	"	120	128
				B/8/76
Total Depth				

32-20-18 EDBCDA

Elev. 1000 ±5

1124

CODED

LOCATED BY

1 - ☒ Address Verification
2 - ☐ Name on Mailbox
3 - ☐ Lot-Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

Use a second sheet, if needed.

15. REMARKS, ELEVATION, SOURCE OF DATA, etc.

MINN. GEOLOGICAL SURVEY COPY

5/74 30M
7/76 30M

County Name: WASHINGTON

WATER WELL RECORD

Minnesota Statutes 156A.01 et seq

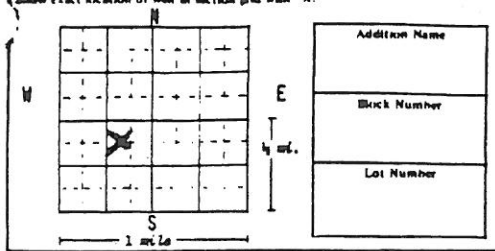
For Water Supply

UNIQUE WELL NO. 139703

Township Name	Township Number	Range Number	Section No.	Fraction
NEW SCANDIA	32 N or S	20 E or W	18	¼ ¼ ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 10520 216th St No. 5A-33

Show exact location of well in section grid with "X." Sketch map of well location.



2 FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
Sand (QT)	Brown	Soft	0	12
Gravel; rocks (QT)	Brown	Hard	12	43
Clay	Brown	Soft	43	75
Gravel (QT)	Brown	Hard	75	101
Clay	Brown	Hard	101	120
Sand (QT)	Brown	Hard	120	135
				B/860
32-20-18 BDCBCB				
Elev. 995 ± 5				
1346				

CODED

LOCATED BY
1 - ☒ Address Verification
2 - ☐ Name on Mailbox
3 - ☐ Lot-Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

Use a second sheet, if needed.

15 REMARKS, ELEVATION, SOURCE OF DATA, etc.

MINN. GEOLOGICAL SURVEY COPY

3. PROPERTY OWNER'S NAME: El Rutherford Sun Inc
Address: 7989 Lake Drive

4. WELL DEPTH (completed): 135 ft. Date of Completion: 4/18/77

5. ☒ 1 Cable tool ☐ 2 Hollow rod ☐ 3 Rotary ☐ 4 Reverse ☐ 5 Air ☐ 6 Jetted ☐ 7 Driven ☐ 8 Bored ☐ 9 Power Auger ☐ 10 Dug ☐ 11

6. USE: ☒ 1 Domestic ☐ 2 Irrigation ☐ 3 Test Well ☐ 4 Public Supply ☐ 5 Municipal ☐ 6 Air Conditioning ☐ 7 Industry ☐ 8 Commercial ☐ 9

7. CASING: ☒ 1 Black ☒ 4 Threaded ☐ 2 Galv ☐ 5 Welded ☐ 3 ☐ 6
HEIGHT Above/Below: Surface 18 ft. Drive Shoe? Yes ☒ No
4 in. to 131 ft. Weight 11 lbs./ft.
HOLE DIAM: in. to ft.

8. SCREEN: Make J. Lowe; Type Stainless Steel; Dia. 2; Slot/Gauze 40; Length 4; Set between 131 ft. and 135 ft.
Or open hole from ft. to ft.
FITTINGS: 2 couplings, 2 x 2 nipple, 2 wood plug

9. STATIC WATER LEVEL: 100 ft. ☐ below land surface ☐ above; Date Measured 4/18/77

10. PUMPING LEVEL (below land surface): 115 ft. after 2 hrs. pumping 20 g.p.m.; 115 ft. after 3 hrs. pumping 20 g.p.m.

11. WELL HEAD COMPLETION: ☐ 1 Pitless adapter ☒ 2 Basement offset ☐ 3 At least 12" above grade

12. Well grouted? ☐ Yes ☐ No Cu. Yds.
☐ 1 Neat Cement ☐ 2 Bentonite ☐ 3
Depth: from ft. to ft.; from ft. to ft.

13. Nearest sources of possible contamination: 50 feet N direction Septic type
Well disinfected upon completion? Yes ☒ No ☐

14. PUMP: Date installed 4/21/77 ☐ Not installed
Manufacturer's Name: Star rite
Model Number: 5P4F02L HP ½ Volts 220
Length of drop pipe: 18 ft. capacity 12 g.p.m.
Material of drop pipe: galvanized
Type: ☒ 1 Submersible ☐ 2 Jet ☐ 3 L.S. Turbine ☐ 4 Centrifugal ☐ 5 Reciprocating ☐ 6

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.
Licensee Business Name: A-1 Torgerson & Sons Well Co. License No. 02213
Address: 1431 Castle St Anoka
Signed: Authorized Representative Date 4-11-78
Name of Driller: Carl Torgerson Date

5/74 30M
7/76 30M

STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01 (1x)

MINNESOTA UNIQUE WELL NO. for Water Sample: 164676

1. LOCATION OF WELL

County Name: Washington

Township Name	Township Number	Range Number	Section No.	Fraction
	N or S	E or W		¼ ¼ ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 21473 Manning Trail North

Show exact location of well in section grid with "X"

Sketch map of well location

Addition Name

Block Number

Lot Number

5A 3-B

2. FORMATION LOG

FORMATION	COLOR	HARDNESS OF FORMATION	FROM	TO
Sand			0	25
Sandy Clay	red & blue		25	45
Clay	red		45	60
Sand & gravel			60	75
Sand & clay layers			75	105
Sand & gravel			105	134
				B/S 4
32-20-18 CAAABC				
elev. 982±5'				
134-C				

LOCATED BY

1 - ☑ Address Verification
2 - ☐ Abstract
3 - ☐ Tax Book
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate Site Why

Use a second sheet, if needed.

8. REMARKS, LOCATION, SOURCE OF DATA, etc.

COPY

3. PROPERTY OWNER'S NAME

Address: Dick McNamara, 21473 Manning Trail North, Forest Lake, Mn

4. WELL DEPTH (completed): 134 ft. — Date of Completion: 4-21-81

5. ☐ 1 Cable tool ☐ 4 Reverse ☐ 7 Driven ☐ 10 Dug ☐ 2 Hollow rod ☐ 5 Air ☐ 8 Bored ☐ 11 ☐ ☒ Rotary ☐ 6 Jetted ☐ 9 Power Auger

6. USE: ☒ 1 Domestic ☐ 4 Public Supply ☐ 7 Industry ☐ 2 Irrigation ☐ 5 Municipal ☐ 8 Commercial ☐ 3 Test Well ☐ 6 Air Conditioning ☐ 9

7. CASING: ☒ Black ☒ Threaded ☐ 2 Galv ☐ 5 Welded ☐ 3 Plastic ☐ 6

HEIGHT: Above/Below Surface 1 ft.

Drive Shoe? Yes ☒ No

Diameter	To	Weight
4 in.	123 ft.	11 lbs./ft.
in.	ft.	lbs./ft.
in.	ft.	lbs./ft.

HOLE DIAM: in. to ft.; in. to ft.; in. to ft.

8. SCREEN: Make Johnson; Type stainless; Slot/Gauze 40 slot; Set between 123 ft. and 134 ft.; Dia. 4" tel; Length k-packer; FITTINGS

Or open hole from ft. to ft.

9. STATIC WATER LEVEL: 53 ft. below land surface; Date Measured 4-21-81

10. PUMPING LEVEL (below land surface): 75 ft. after 2 hrs. pumping 25 g.p.m.

11. WELL HEAD COMPLETION: ☒ 1 Pitless adapter ☐ 2 Basement offset ☐ 3 At least 12" above grade

12. Well grouted? ☐ Yes ☒ No — Cu. Yds.

☐ 1 Neat Cement ☐ 2 Bentonite ☐ 3

Depth: from ft. to ft.; from ft. to ft.

13. Nearest sources of possible contamination: unknown feet, direction, type

Well disinfected upon completion? Yes ☐ No ☐

14. PUMP: Date installed 4-21-81 ☐ Not installed

Manufacturer's Name: Deming

Model Number: 3ALL HP: ½ Volts: 230

Length of drop pipe: 105 ft. capacity: 15 g.p.m.

Material of drop pipe: galv. steel

Type: ☒ 1 Submersible ☐ 3 L.S. Turbine ☐ 5 Reciprocating ☐ 2 Jet ☐ 4 Centrifugal ☐ 6

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.

Salverda Well Co. — Licensee Business Name — License No. 62005

Address: 19930 Harrow Ave. N., Forest Lake, Mn.

Signed: William E. Schneider — Date: 4-24-81

Authorized Representative

Geo. Johnson — Date

STATE OF MINNESOTA DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.06

MINNESOTA UNIQUE WELL NO. for Water Sample: 162244

1. LOCATION OF WELL

County Name: Washington

Township Name: Scandia | Township Number: N or S | Range Number: E or W | Section No. | Fraction: ¼ ¼ ¼

Distance and Direction from Nearest Intersections or Street Address and City of Well Location: 10466 215th St Court North

Show exact location of well in section grid with "X"

Addition Name: Hanning Acres

Block Number: 1

Lot Number: 19

Sketch map of well location: septic, well

2. FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
clay & gravel	[illegible]		0	30
gravel & Boulders	[illegible]		30	45
gravel & clay	[illegible]		45	60
gravel	[illegible]		60	95
watersand	[illegible]		95	113
5-32				
32-20-18 CABBCB				
El. 993 ±5				
134C				

CODED

LOCATED BY
1 - ☒ Address Verification
2 - ☒ Name on Mailbox
3 - ☐ Lot Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

Use a second sheet, if needed

REMARKS ELEVATION SOURCE OF DATA, etc

3. PROPERTY OWNER'S NAME: Vernon Hall

Address: 10466 215th St Court N, New Scandia, MN 55073

4. WELL DEPTH (completed): 113 ft. | Date of Completion: 9-7-79

5. 1☐ Cable tool 4☐ Reverse 7☐ Driven 10☐ Dug 2☐ Hollow rod 5☐ Air 8☐ Bored 11☐ 3☒ Rotary 6☐ Jetted 9☐ Power Auger Forest S.W.

6. USE: 1☒ Domestic 4☐ Public Supply 7☐ Industry 2☐ Irrigation 5☐ Municipal 8☐ Commercial 3☐ Test Well 6☐ Air Conditioning 9☐

7. CASING: 1☒ Black 4☒ Threaded 2☐ Galv 5☐ Welded 3☐ Plastic 6☐

HEIGHT: Above/Below Surface 1 ft. Drive Shoe? Yes ☒ No ☐

4 in. to 110 ft. Weight 11 lbs./ft.

in. to ft. Weight lbs./ft.

in. to ft. Weight lbs./ft.

HOLE DIAM: in. to ft.; in. to ft.; in. to ft.

8. SCREEN: Make Johnsons; Type 236; Dia. 2"; Slot/Gauze 18; Length 6 1'

Or open hole from ft. to ft.

FITTINGS

Set between 107 ft. and 113 ft.

ft. and ft.

ft. and ft.

9. STATIC WATER LEVEL: 50' ft. ☒ below land surface ☐ above | Date Measured 9-7-79

10. PUMPING LEVEL (below land surface): 90 ft. after 2 hrs. pumping 15 g.p.m.

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

11. WELL HEAD COMPLETION: 1☒ Pitless adapter 2☐ Basement offset 3☒ At least 12" above grade

12. Well grouted? ☐ Yes ☒ No | Cu. Yds.

1☐ Neat Cement 2☐ Bentonite 3☐

Depth: from ft. to ft.

from ft. to ft.

13. Nearest sources of possible contamination: 105 feet N direction septic tank

Well disinfected upon completion? ☒ No ☐

14. PUMP: Date installed 9-17-79 ☐ Not installed

Manufacturer's Name: Goulds

Model Number: 10EX07 HP 3/4 Volts 220

Length of drop pipe: 90 ft. capacity 15 g.p.m.

Material of drop pipe: steel

Type: 1☒ Submersible 3☐ L. S. Turbine 5☐ Reciprocating 2☐ Jet 4☐ Centrifugal 6☐

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.

McCullough & Sons, Inc. 82054
Licensee Business Name — License No.

Address: 20335 Forest Blvd, Forest Lak

Signed: [signature] Date: 10-23-7
Authorized Representative

David McCullough Date: 9-21-79
Name of Driller

MINN. GEOLOGICAL SURVEY COPY 162244

5/74 30M

STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

MINNESOTA UNIQUE WELL NO. for Water Samples: 139701

1. LOCATION OF WELL

County Name: WASHINGTON

Township Name: New Scandia | Township Number: 32 N or S | Range Number: 20 E or W | Section No.: 18 | Fractions: ¼ ¼ ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 16537 215th St No.

Show exact location of well in section grid with "X." (N, W, E, S, ½ mi., 1 mile)

Addition Name / Block Number / Lot Number

Sketch map of well location. 5A.3B; o WELL; o septic

2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
Sand	brown	Soft	0	10
Gravel, rocks	Brown	hard	10	38
Clay	Brown	Soft	38	82
gravel, rocks	Brown	hard	57	93
water sand	Brown	Soft	93	101
32-20-18 CAECAC				
El. 987 ± 5				
134C				

Use a second sheet, if needed.

LOCATED BY
1 - ☐ Address Verification
2 - ☐ Name on Mailbox
3 - ☐ Lot Block
4 - ☐ Plat Book
5 - ☒ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
☐ Can't Locate State Why

3. PROPERTY OWNER'S NAME: T. Rowan
Address: ~~E. Kellar + Son Inc~~ 7959 Lake Drive

4. WELL DEPTH (completed): 101 ft. Date of Completion: 3/26/77

5. ☒ 1 Cable tool; 2 ☐ Hollow rod; 3 ☐ Rotary; 4 ☐ Reverse; 5 ☐ Air; 6 ☐ Jetted; 7 ☐ Driven; 8 ☐ Bored; 9 ☐ Power Auger; 10 ☐ Dug; 11 ☐

6. USE: ☒ 1 Domestic; 2 ☐ Irrigation; 3 ☐ Test Well; 4 ☐ Public Supply; 5 ☐ Municipal; 6 ☐ Air Conditioning; 7 ☐ Industry; 8 ☐ Commercial; 9 ☐

7. CASING: ☒ 1 Black; 2 ☐ Galv; 3 ☐; ☒ 4 Threaded; 5 ☐ Welded; 6 ☐
HEIGHT: Above/Below — Surface 18 ft. Drive Shoe? Yes ☒ No ☐
4 in. to 97 ft. Weight 11 lbs./ft
in. to ft. Weight lbs./ft
in. to ft. Weight lbs./ft
HOLE DIAM: in. to ft.; in. to ft.; in. to ft.

8. SCREEN: Make Johnson; Type Stainless Steel; Dia. 4"; Slot/Gauze 40/40; Length 4'; Set between 97 ft. and 101 ft.; ft. and ft.; ft. and ft.
Or open hole from ft. to ft.
FITTINGS: 3x2 bushing; 2"x2" nipple; 2x4 x packer

9. STATIC WATER LEVEL: 85 ft. below land surface ☐ above; Date Measured 3/26/77

10. PUMPING LEVEL (below land surface): 90 ft. after 2 hrs. pumping 20 g.p.m.; 90 ft. after 3 hrs. pumping 20 g.p.m.

11. WELL HEAD COMPLETION: 1 ☐ Pitless adapter; 2 ☒ Basement offset; 3 ☐ At least 12" above grade

12. Well grouted? ☐ Yes ☐ No Cu. Yds.
1 ☐ Neat Cement; 2 ☐ Bentonite; 3 ☐
Depth: from ft. to ft.; from ft. to ft.

13. Nearest sources of possible contamination: 50 feet; S direction; Septic type
Well disinfected upon completion? Yes ☒ No ☐

14. PUMP: Date installed 3/27/77; ☐ Not installed
Manufacturer's Name: Sta-rite
Model Number: SP4C03E HP ½ Volts 220
Length of drop pipe: 90 ft. capacity 12 g.p.m.
Material of drop pipe: galvanized
Type: ☒ 1 Submersible; 2 ☐ Jet; 3 ☐ L. S. Turbine; 4 ☐ Centrifugal; 5 ☐ Reciprocating; 6 ☐

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.
Art Torgerson + Son Well Co. 02203 (Licensee Business Name, License No.)
Address: 14031 Bodi Ln St Anoka
Signed: Gene Torgerson (Licensee or Authorized Representative) Date 5/15/78
Gene T. Lagesen (Name of Driller) Date

MINN. GEOLOGICAL SURVEY COPY

5/74 30M
7/76 30M

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

Forest Lake Q

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

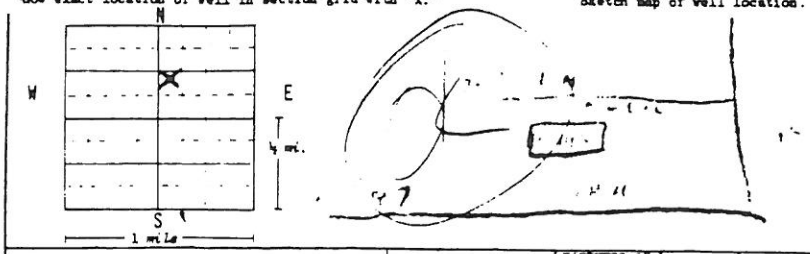
MINNESOTA UNIQUE WELL NO. for Water Sample: 124082

1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
WASHTENAW			N. or S.	E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 14445 215th St N. New Scandia

Show exact location of well in section grid with "X." Sketch map of well location.



2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
QFUB (SAND, GRVL) Sand, Gravel	brown	hard	0	30
QUUB (CLAY) clay	brown	hard	30	58
QFUB (GRVL) gravel	brown	hard	58	69
QFUB (SAND) sand	brown	hard	69	82
QUUB (CLAY) clay	red	hard	82	91
QFUB (SAND) sand	brown	soft	91	99
QFUB (SAND) white sand	brown	soft	99	105
Aquifer: QSOW-QSOW				
32-20-18	CBABBC			
ELEV. 1001±5				

COPIED

Use a second sheet, if needed.

REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME Lt Kuhlman Inc. FLQ

Address 7951 Lake Vine Lane Lake.

4. WELL DEPTH (completed) 105 ft. Date of Completion 10/11/76

5. [X] 1 Cable tool [ ] 2 Hollow rod [ ] 3 Rotary [ ] 4 Reverse [ ] 5 Air [ ] 6 Jetted [ ] 7 Driven [ ] 8 Bored [ ] 9 Power Auger [ ] 10 Dug [ ] 11 ____

6. USE [X] 1 Domestic [ ] 2 Irrigation [ ] 3 Test Well [ ] 4 Public Supply [ ] 5 Air Conditioning [ ] 6 ____ [ ] 7 Industry [ ] 8 Commercial

7. CASING DIAM. Threaded [X] 1 Welded [ ] 3 Black [ ] 2 Galv. [ ] 4

4 in. to 101 ft. depth

____ in. to ____ ft. depth

____ in. to ____ ft. depth

HEIGHT: Above/Below Surface 18 ft.

Weight 11 lbs./ft.

Drive Shoe? Yes X No ____

8. SCREEN Or open hole from ____ ft. to ____ ft.

Make Johnson

Type Stainless Dia. 4

Slot/Gauge 16/16 Length 4

Set between 101 ft. and 105 ft.

FITTINGS: 3½ bottom

____ ft. and ____ ft.

____ ft. and ____ ft.

9. STATIC WATER LEVEL 80 ft. [X] below land surface [ ] above Date Measured 10/11/76

10. PUMPING LEVEL (below land surface)

90 ft. after 2 hrs. pumping 30 g.p.m.

90 ft. after 3 hrs. pumping 20 g.p.m.

11. WELL HEAD COMPLETION [X] 1 Pitless adapter [ ] 2 Basement offset [X] At least 12" above grade

12. Well grouted? [ ] Yes [ ] No Cu. Yds. ____

[ ] 1 Neat cement [ ] 2 Bentonite [ ] 3 ____

Depth: from ____ ft. to ____ ft.

from ____ ft. to ____ ft.

13. Nearest source of possible contamination 75 feet SW direction septic type

Well disinfected upon completion? Yes [X] No [ ]

14. PUMP

Date installed 10/22/76

[ ] Not installed

Manufacturer's Name Sta-rite

Model Number GP4C2 HP ½ Volts 230

Length of drop pipe 72 ft. capacity 12 g.p.m.

Material of drop pipe galvanized

Type: [X] 1 Submersible [ ] 2 Jet [ ] 3 U.S. Turbine [ ] 4 Centrifugal [ ] 5 Reciprocating [ ] 6 ____

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.

Ab Thompson & Son Well Co. 00203

License Business Name License No.

Address 1331 Trout Ct NW Anoka

Signed [signature] Date 10/76

Authorized Representative

Gene Thompson

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

Forest Lake Q
p. 3B 5A

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

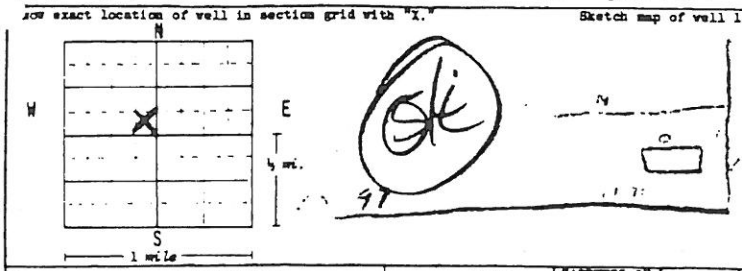
MINNESOTA UNIQUE WELL NO. for Water Sample: 124073

1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
Washington	¼ ¼ ¼		N. or S.	E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 10474 Zick St No. New Scandia

Show exact location of well in section grid with "X." Sketch map of well location.



2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
QTUB(CLAY) Clay	Brown	hard	0	10
QUUB(GRV) Gravel	Brown	hard	10	30
QTUR(CLAY) Clay	red	hard	30	60
QFUB (GRVL) Gravel; Stones	brown	hard	60	90
QFUB (SAND) Water Sand	brown	soft	90	103
Aquifer: QSOW - QSOW				
32-20-18	<BAD	BD		
ELEV. 993±5				

Use a second sheet, if needed.

9. REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME [illegible] FLQ

Address: 7789 Lake Drive Lino Lakes

4. WELL DEPTH (completed) 103 ft. Date of Completion 8/23/76

5. 1☒ Cable tool 2☐ Hollow rod 3☐ Rotary 4☐ Reverse 5☐ Air 6☐ Jetted 7☐ Driven 8☐ Bored 9☐ Power Auger 10☐ Dug 11☐

6. USE 1☒ Domestic 2☐ Irrigation 3☐ Test Well 4☐ Public Supply 5☐ Air Conditioning 6☐ 7☐ Industry 8☐ Commercial

7. CASING DIAM. Threaded ☒ 1 Welded ☐ 3 Black ☒ 2 Galv. ☐ 4

4 in. to 99 ft. depth

in. to ft. depth

in. to ft. depth

HEIGHT: Above/Below Surface 1X ft.

Weight 11 lbs./ft.

Drive Shoe? Yes X No

8. SCREEN Or open hole from ft. to ft.

Make Johnson

Type Stainless Steel Dia. 4"

Slot/Gauze 1/40 Length 4'

Set between 11 ft. and 12 ft.

ft. and ft.

ft. and ft.

FITTINGS:

9. STATIC WATER LEVEL 55 ft. ☒ below land surface ☐ above Date Measured 8/23/76

10. PUMPING LEVEL (below land surface)

90 ft. after 3 hrs. pumping 20 g.p.m.

90 ft. after 3 hrs. pumping 20 g.p.m.

11. WELL HEAD COMPLETION 1☐ Pitless adapter 2☒ Basement offset 3☐ At least 12" above grade

12. Well grouted? ☐ Yes ☐ No Cu. Yds.

1☐ Neat cement 2☐ Bentonite 3☐

Depth: from ft. to ft.

from ft. to ft.

13. Nearest source of possible contamination 75 feet 5 direction Septic type

Well disinfected upon completion? Yes ☒ No ☐

14. PUMP Date installed 8/24/76 ☐ Not installed

Manufacturer's Name Sta-rite

Model Number 6PSC2 HP 1/2 Volts 230

Length of drop pipe 80 ft. capacity 12 g.p.m.

Material of drop pipe galvanized

Type: 1☒ Submersible 2☐ Jet 3☐ L.S. Turbine 4☐ Centrifugal 5☐ Reciprocating 6☐

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.

Art Torgerson's Sun Well Co. 03203
License Business Name License No.

Address [illegible] New Brighton

Signed [illegible] Date 12/1/76
Authorized Representative

[illegible]

STATE OF MINNESOTA
DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

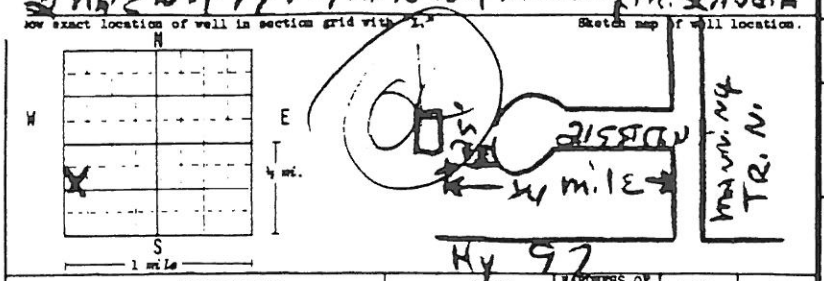
MINNESOTA UNIQUE WELL NO. for Water Sample: 109667

1. LOCATION OF WELL

County Name	Direction	Section Number	Township Number	Range Number
WASHINGTON	SW SW SW	18	32 N. or S.	20 W. E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 1/2 mile E of 97 + 1/4 mile West MANVILLE TR. NEW SCANDIA

Show exact location of well in section grid with "X". Sketch map of well location.



2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
QTUB (SAND, GRVL, CLAY) SAND + GRAVEL + CLAY	BRN	VARY	0	15
QFUB (SAND, GRVL) SAND + GRAVEL	BRN	SOFT	15	56
QUUR (CLAY, SAND) CLAY + SAND	BRN	SOFT	56	67
QFUR (SAND, GRVL) SAND + GRAVEL	BRN	VARY	67	115
QUUB (CLAY, SAND) CLAY + SAND	BRN	SOFT	115	185
CJDN (SNDS) SANDROCK	WHITE	SOFT	185	226
CJDN (SNDS) SANDROCK	BRN	MED	226	261
Aquifer CJDN - CJDN				
32-20-18 CBBACD				
ELEV. 990 ± 5				

CODED

Use a second sheet, if needed.

REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME GEORGE GALLEBERG

Address: 10410 215TH ST. CT. N. SCANDIA MINN. FL

4. WELL DEPTH (completed) 261 ft. Date of Completion: 3 OCT 75

5. 1 [ ] Cable tool 4 [ ] Reverse 7 [ ] Driven 10 [ ] Dug
2 [ ] Hollow rod 5 [ ] Air 8 [ ] Bored 11 [ ]
3 [X] Rotary 6 [ ] Jetted 9 [ ] Power Auger

6. USE 1 [X] Domestic 4 [ ] Public Supply 7 [ ] Industry
2 [ ] Irrigation 5 [ ] Air Conditioning 8 [ ] Commercial
3 [ ] Test Well 6 [ ]

7. CASING

DIAM.	Threaded	Welded	Black	Galv.	in. to ft. depth
4	[X] 1	[ ] 3	[X] 2	[ ] 4	0 to 249

HEIGHT Above/Below Surface 1 ft. Weight 11.00 lbs./ft. Drive Shoe? Yes X No

8. SCREEN Make ____ Type ____ Dia. ____ Slot/Gauze ____ Length ____ Set between ____ ft. and ____ ft. FITTINGS:

Or open hole from 249 ft. to 261 ft.

9. STATIC WATER LEVEL 75 ft. [X] below land surface [ ] above Date Measured 3 OCT 75

10. PUMPING LEVEL (below land surface) 80 ft. after 15 hrs. pumping 15 g.p.m.

11. WELL HEAD COMPLETION 1 [X] Pitless adapter 2 [ ] Basement offset 3 [X] At least 12" above grade

12. Well grouted? [X] Yes [ ] No Cu. Yds. 3
1 [ ] Neat cement 2 [X] Bentonite 3 [ ]
Depth: from 0 ft. to 249 ft.
from ____ ft. to ____ ft.

13. Nearest source of possible contamination 85 feet NW direction Cesspool type
Well disinfected upon completion? Yes [X] No [ ]

14. PUMP Date installed 14 OCT 75 [ ] Not installed
Manufacturer's Name: REDA PUMP CO
Model Number: 9L9L4051 HP 1/2 Volts 230
Length of drop pipe: 100 ft. capacity: 12 g.p.m.
Material of drop pipe: GALV
Type: 1 [X] Submersible 3 [ ] U.S. Turbine 5 [ ] Reciprocating
2 [ ] Jet 4 [ ] Centrifugal 6 [ ]

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.

MARTYLA WELL DRILLING INC. — License Business Name — License No.

K653 UPPER 41ST N. LAKELAND — Address

Signed: [illegible] — Authorized Representative — Date 11-1-75

GARY SAINTJEAN — Name of Driller

MINN. GEOLOGICAL SURVEY COPY

STATE OF MINNESOTA — DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-06

MINNESOTA UNIQUE WELL NO. for Water Samples: 138121

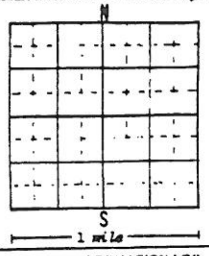
1. LOCATION OF WELL

County Name: Washington

Township Name: Information not available | Township Number: N | Range Number: E or W | Section No. | Fraction: ¼ ¼ ¼

Distance and Direction from Road Intersections or Street Address and City of Well Location: 21277 Morning Trail North Scandia

Show exact location of well in section grid with "X." Sketch map of well location.



Addition Name

Block Number

Lot Number

5A - 3B

2. FORMATION LOG

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
sand clay	SAND	CLAY	0	50
gravel	GRVL		50	100
clay	CLAY		100	115
sand rock			115	130
limerock			130	150
soft sand rock			150	155
CSTL - CSLF				
32-20-18 DBCDAA				
Elev. 962±5				
134C				

LOCATED BY

1 - ☒ Address Verification
2 - ☐ Name on Mailbox
3 - ☐ Lot Block
4 - ☐ Plat Book
5 - ☐ Info. From Owner
6 - ☐ Info. From Neighbor
7 - ☐ Other
8 - ☐ Can't Locate State Why

Use a second sheet, if needed.

15. REMARKS, ELEVATION, SOURCE OF DATA, etc.

3. PROPERTY OWNER'S NAME: Pratt Construction

Address: 144 South Shore Drive, Forest Lake, Minn. 55025

Forest Lk Sw

4. WELL DEPTH (completed): 155 ft. Date of Completion: 11/16/77

5. ☐1 Cable tool ☐4 Reverse ☐7 Driven ☐10 Dug ☐2 Hollow rod ☐5 Air ☐8 Bored ☐11 ☐ ☒3 Rotary ☐6 Jetted ☐9 Power Auger

6. USE: ☒1 Domestic ☐4 Public Supply ☐7 Industry ☐2 Irrigation ☐5 Municipal ☐8 Commercial ☐3 Test Well ☐6 Air Conditioning ☐9

7. CASING: ☒1 Black ☒4 Threaded ☐2 Galv. ☐5 Welded ☐3 ☐6

HEIGHT: Above/Below Surface 1 ft. Drive Shoe? Yes ☒ No ☐

4 in. to 151 ft. Weight 11 lbs./ft.

in. to ft. Weight lbs./ft.

in. to ft. Weight lbs./ft.

HOLE DIAM: in. to ft.; in. to ft.; in. to ft.

8. SCREEN: Make

Or open hole from 131 ft. to 155 ft.

Type Dia.

Slot/Gauze Length

Set between ft. and ft.

ft. and ft.

ft. and ft.

FITTINGS

9. STATIC WATER LEVEL: 35 ft. ☒ below ☐ above land surface. Date Measured 11/16/77

10. PUMPING LEVEL (below land surface): 85 ft. after 2 hrs. pumping 30 g.p.m.

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

11. WELL HEAD COMPLETION: ☒1 Pitless adapter ☐2 Basement offset ☒3 At least 12" above grade

12. Well grouted? ☐ Yes ☒ No Cu. Yds.

☐1 Neat Cement ☐2 Bentonite ☐3

Depth: from ft. to ft.

from ft. to ft.

13. Nearest sources of possible contamination: feet direction type

Well disinfected upon completion? Yes ☐ No ☐

14. PUMP: Date installed 1/3/78 ☐ Not installed

Manufacturer's Name: Pratt Commander

Model Number: C7Ba310 HP 3/4 Volts 220

Length of drop pipe: 85 ft. capacity 15 g.p.m.

Material of drop pipe: steel

Type: ☒1 Submersible ☐3 L. S. Turbine ☐5 Reciprocating ☐2 Jet ☐4 Centrifugal ☐6

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.

McCullough & Sons, Inc. (Licensee Business Name) 83054 (License No.)

Address: 20335 Forest Blvd N. Forest Lake

Signed (Authorized Representative) Date 2/7/78

Ken Backen (Name of Driller) Date

MINN. GEOLOGICAL SURVEY COPY

5/74 30M

DEPARTMENT OF HEALTH

WATER WELL RECORD

Minnesota Statutes 156A.01-.08

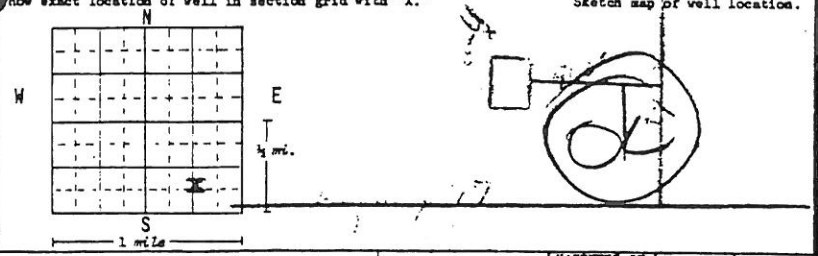
MINNESOTA UNIQUE WELL NO. for Water Sample: 112633

1. LOCATION OF WELL

County Name	Fraction	Section Number	Township Number	Range Number
Washington	S½ se¼	13	32 N. or S.	21W E. or W.

Distance and Direction from Road Intersections or Street Address and City of Well Location: 10161 North Shore Trail Forest Lake

Show exact location of well in section grid with "X." Sketch map of well location.



2.

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
sand			0	40
clay			40	70
clay and sand			70	112
water sand			112	126
32-21-13	DDCA	AD		
ELEV. 992±5				

Use a second sheet, if needed.

. REMARKS, ELEVATION, SOURCE OF DATA, etc.

MINN. GEOLOGICAL SURVEY COPY

3. PROPERTY OWNER'S NAME FLO (10)

Address: Kenneth V. Johnson, 10161 North Shore Trail, Forest Lake, Minn. 55025

4. WELL DEPTH (completed) 126 ft. Date of Completion 4/7/76

5. [X] 1 Cable tool [ ] 2 Hollow rod [ ] 3 Rotary [ ] 4 Reverse [ ] 5 Air [ ] 6 Jetted [ ] 7 Driven [ ] 8 Bored [ ] 9 Power Auger [ ] 10 Dug [ ] 11 ____

6. USE [X] 1 Domestic [ ] 2 Irrigation [ ] 3 Test Well [ ] 4 Public Supply [ ] 5 Air Conditioning [ ] 6 ____ [ ] 7 Industry [ ] 8 Commercial

7. CASING DIAM. Threaded [X] 1 Black [X] 2 Welded [ ] 3 Galv. [ ] 4

4 in. to 123 ft. depth

____ in. to ____ ft. depth

____ in. to ____ ft. depth

HEIGHT: Above/Below Surface 1 ft. Weight 11 lbs./ft. Drive Shoe? Yes ____ No ____

8. SCREEN Or open hole from ____ ft. to ____ ft.

Make Johnson Type 236 Dia. 2 Slot/Gauze 18 Length 5 FITTINGS:

Set between 121 ft. and 126 ft.

____ ft. and ____ ft.

____ ft. and ____ ft.

9. STATIC WATER LEVEL 60 ft. [X] below land surface [ ] above Date Measured 4/7/76

10. PUMPING LEVEL (below land surface) 84 ft. after 3 hrs. pumping 15 g.p.m.

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

11. WELL HEAD COMPLETION [X] 1 Pitless adapter [ ] 2 Basement offset [X] 3 At least 12" above grade

12. Well grouted? [ ] Yes [X] No Cu. Yds. ____

[ ] 1 Neat cement [ ] 2 Bentonite [ ] 3 ____

Depth: from ____ ft. to ____ ft.

from ____ ft. to ____ ft.

13. Nearest source of possible contamination 80 feet SE direction septic tank type

Well disinfected upon completion? Yes [X] No [ ]

14. PUMP Date installed 4/13/76 [ ] Not installed

Manufacturer's Name Sta-rite

Model Number GP10D2 HP 3/4 Volts 220

Length of drop pipe 84 ft. capacity 15 g.p.m.

Material of drop pipe steel

Type: [X] 1 Submersible [ ] 2 Jet [ ] 3 L.S. Turbine [ ] 4 Centrifugal [ ] 5 Reciprocating [ ] 6 ____

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.

McCullough & Sons, Inc. — License Business Name — 82054 License No.

Address 15597 Highway 61, Hugo, Minn. 550

Signed ____ Authorized Representative Date ____

Roger Murray — Name of Driller

7/74 30M

WRD Exp. (GW)
April 1966

Well No. 32.20.07 bad

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR — GEOLOGICAL SURVEY — WATER RESOURCES DIVISION

MASTER CARD

Record by B. HASSINGER Source of data DRILLER Date 10 JULY 68 Map FOREST L. 15

State MN. 27 County (or town) WASH. 82

Latitude: 45 16 46 N Longitude: 092 53 11 Lat-long method: 1

Lat-long accuracy: 1 T 32 S, R 20 E Sec 07 SE NE NW 4TH

Local well number: 032N20W07BAD Other number:

Local use: EDGAR JOHNSON Owner name: Ron Finch

Owner or name: RON FINCH Address: Scandia

Ownership: (C) County, (F) Fed Gov't, (M) City, (N) Corp or Co, (P) Private, (S) State Agency, (W) Water Dist — P

Use of water: (A) Air cond, (B) Bottling, (C) Comm, (D) Dewater, (E) Power, (F) Fire, (H) Dom, (I) Irr, (M) Med, (N) Ind, (P) P S, (R) Rec, (S) Stock, (T) Instit, (U) Unused, (V) Repressure, (W) Recharge, (X) Desal-P S, (Y) Desal-other, (Z) Other — H

Use of well: (A) Anode, (D) Drain, (G) Seismic, (H) Heat Res, (O) Obs, (P) Oil-gas, (R) Recharge, (T) Test, (U) Unused, (W) Laundry, (X) Waste, (Z) Destroyed — W

DATA AVAILABLE: Well data 3 Freq. W/L meas.: Φ Field aquifer char.

Hyd. lab. data:

Qual. water data; type:

Freq. sampling: Pumpage inventory: yes no period:

Aperture cards:

Log data:

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 84 ft 84 Meas. rept. — 3

Depth cased: (first perf.) ft Casing type: Diam. — 4

Finish: (C) porous concrete, (F) gravel w. (perf.), (G) gravel w. (screen), (H) horiz. gallery, (O) open hole, (P) perf., (S) screen, (T) sd. pt., (W) shorts, (Z) other — S

Method Drilled: (A) air rot, (B) bored, (C) cable, (D) dug, (E) hand rot., (J) jetted, (P) air percussion, (R) reverse rotary, (W) wash — C

Date Drilled: Pump intake setting:

Driller: Edgar Johnson Scandia

Lift (type): (A) air, (B) bucket, (C) cent, (D) jet, (E) multiple, cent., (M) multiple, turb., (N) none, (P) piston, (R) rot, (S) submerg, (T) turb, (Z) other — Deep D Shallow

Power (type): diesel, elec, gas, gasoline, hand, gas, wind; H.P.

Trans. or meter no.

Descrip. MP ft above below LSD. Alt. MP

Alt. LSD: 970 Accuracy: — 4

Water Level 70 ft MP; Ft above below 0 70 Accuracy: — D

Date meas: Yield: gpm 20 Method determined

Drawdown: ft Act. rate: Pumping period: hrs

Quality of water: Iron Sulfate Chloride Hard.

Sp. Conduct. x 10 Temp. °F Date sampled

Taste, color, etc.

970

< 5x

32.20.07 bad

Well No. 32.20.07 bad

Latitude-Longitude 45 16 46 N 92 53 11
d m s d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD (1–19) Physiographic Province: 12 (20–21) Section:

B (22) Drainage Basin: 276 (23–25) Subbasin: 2 (26)

Topo of well site: (D) depression, (C) stream channel, (E) dunes, (F) flat, (H) hilltop, (K) sink, (L) swamp, (O) offshore, (P) pediment, (S) hillside, (T) terrace, (U) undulating, (V) valley flat 27 S

MAJOR AQUIFER: system, series QG (28–29) aquifer, formation, group 00 (30–31)

Lithology: G (32–33) Origin: O (34) Aquifer Thickness: ft

Length of well open to: ft (35–37) Depth to top of: ft (38–40) (41–43)

MINOR AQUIFER: system, series (44–45) aquifer, formation, group (46–47)

Lithology: (48–49) Origin: (50) Aquifer Thickness: ft

Length of well open to: ft (51–53) Depth to top of: ft (54–56) (57–59)

Intervals Screened:

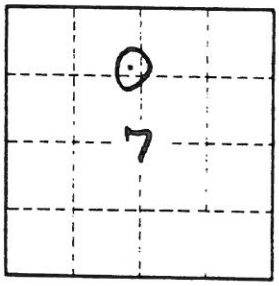
Depth to consolidated rock: ft (60–63) Source of data: (64)

Depth to basement: ft (65–68) Source of data: (69)

Surficial material: (70–71) Infiltration characteristics: (72)

Coefficient Trans: gpd/ft (73–75) Coefficient Storage: (76–78)

Coefficient Perm: gpd/ft^2; Spec cap: gpm/ft; Number of geologic cards: (79)



32.20.07 bad

GPO 1971-

WRD Exp. (GW)
April 1966

Well No. 32.20.07 bba

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR — GEOLOGICAL SURVEY — WATER RESOURCES DIVISION

MASTER CARD

Record by B. HASSINGER Source data DRILLER Date 10 July 68 Map FOREST L. 1

State MN. 27 County (or town) WASH. B2

Latitude: 451654N Longitude: 0925328 Hydrologic unit: 1

Lat-long accuracy: 1 T 32 N R 20 W Sec 07, NE, NW, NW 4TH B & M

Local well number: 032N20W07BBA Other number:

Local use: EDGER JOHNSON Owner or name:

Owner or name: EDGER JOHNSON Address: SCANDIA

Ownership: (C) County, (F) Fed Gov't, (M) City, (N) Corp or Co, (P) Private, (S) State Agency, (W) Water Dist P

Use of water: (A) Air cond, (B) Bottling, (C) Comm, (D) Dewater, (E) Power, (F) Fire, (H) Dom, (I) Irr, (M) Med, (N) Ind, (P) P S, (R) Rec, (S) Stock, (T) Instit, (U) Unused, (V) Repressure, (W) Recharge, (X) Desal-P S, (Y) Desal-other, (Z) Other H

Use of well: (A) Anode, (D) Drain, (G) Seismic, (H) Heat Res, (O) Obs, (P) Oil-gas, (R) Recharge, (T) Test, (U) Unused, (W) Withdraw, (X) Waste, (Z) Destroyed W

DATA AVAILABLE: Well data 3 Freq. W/L meas.: Φ Field aquifer char.

Hyd. lab. data:

Qual. water data: type:

Freq. sampling: Pumpage inventory: yes no period:

Aperture cards:

Log data:

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 90 ft 90 Meas. rept. 3

Depth cased: (first perf.) ft Casing type: Diam. in 4

Finish: (C) porous concrete, (F) gravel w. (perf.), (G) gravel w. (screen), (H) horiz. gallery, (O) open hole, (P) perf., (S) screen, (T) sd. pt., (W) shored, (X) open hole, (Z) S

Method Drilled: (A) air rot, (B) bored, cable, (C) dig, (D) hand rot., (H) jetted, (P) air percussion, (R) reverse rotary, (T) trenching, (W) drilled, (X) drive wash, (Z) C

Date Drilled: Pump intake setting:

Driller: Scandia

Lift (type): (A) air, (B) bucket, (C) cent, (J) jet, (L) multiple, (cent.), (M) multiple, (turb.), (N) none, (P) piston, (R) rot, (S) submerg, (T) turb, (Z) other Deep Shallow D

Power (type): diesel, elec, nat gas, gasoline, hand, LP gas, wind; H.P. Trans. or motor no.

Descrip. MP ft above below LSD. Alt. MP

Alt. LSD: 940 Accuracy: (source) 4

Water Level 47 ft above below MP; ft above below LSD 47 Accuracy: D

Date meas: Yield: 25 gpm 25 Method determined

Drawdown: ft Accuracy: Pumping period hr

QUALITY OF WATER DATA: Iron ppm Sulfate ppm Chloride ppm Hard. ppm

Sp. Conduct K x 10 Temp. °F Date sampled

Taste, color, etc.

740
713
555
552
<850

32.20.07 bba

Well No. 32.20.07 bba

Latitude-longitude 45 16 54 N 92 53 28
d m s d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD (1–19) Physiographic Province: _____ 12 (20–21) Section: _____

B (22) Drainage Basin: _____ 276 (23–25) Subbasin: _____ 2 (26)

Topo of well site: (D) depression, (C) stream channel, (E) dunes, (F) flat, (H) hilltop, (K) sink, (L) swamp, (Ø) offshore, (P) pediment, (S) hillside, (T) terrace, (U) undulating, (V) valley flat _____ 27 H

MAJOR AQUIFER: _____ system, _____ series QG (28–29) _____ aquifer, formation, group 0Ø (30–31)

Lithology: _____ G (32–33) Origin: _____ 0 (34) Aquifer Thickness: _____ ft

(35–37) Length of well open to: _____ ft (38–40) Depth to top of: _____ ft (41–43)

MINOR AQUIFER: _____ system, _____ series (44–45) _____ aquifer, formation, group (46–47)

Lithology: _____ (48–49) Origin: _____ (50) Aquifer Thickness: _____ ft

(51–53) Length of well open to: _____ ft (54–56) Depth to top of: _____ ft (57–59)

Intervals Screened: _____

Depth to consolidated rock: _____ ft (60–63) Source of data: _____ (64)

Depth to basement: _____ ft (65–68) Source of data: _____ (69)

Surficial material: _____ (70–71) Infiltration characteristics: _____ (72)

Coefficient Trans: _____ gpd/ft (73–75) Coefficient Storage: _____ (76–78)

Coefficient Perm: _____ gpd/ft^2; Spec cap: _____ gpm/ft; Number of geologic cards: _____ (79)

Fine gravel

0
7

Well No. 32.20.07 bba

GPO 857-700

WRD Exp. (GW)
April 1966

Well No. 32.20.07 cdb

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR — GEOLOGICAL SURVEY — WATER RESOURCES DIVISION

MASTER CARD

Record by: B. HASSINGER Source of data: DRILLER Date: 10 July 68 Map: FOREST L. 15

State: MN. 27 County (or town): WASH. 82

Latitude: 45 16 11 N Longitude: 092 53 24 Topographical number: 1

Lat-long accuracy: 1 T. 32 N, R. 20 W Sec. 07, NW, SE, SW

Local well number: 32N20W07CDB Other number:

Local use: EDGAR JOHNSON Owner or name:

Owner or name: E WRIGHT Address: Scandia

Ownership: (C) County, (E) Fed Gov't, (M) City, (N) Corp or Co, (P) Private, (S) State Agency, (T) Water Dist — P

Use of water: (A) Air cond, (B) Bottling, (C) Comm, (D) Dewater, (E) Power, (F) Fire, (H) Dom, (I) Irr, (M) Med, (N) Ind, (P) P S, (R) Rec, (S) Stock, (T) Instit, (U) Unused, (V) Repressure, (W) Recharge, (X) Desal-P S, (Y) Desal-other, (Z) Other — H

Use of well: (A) Anode, (D) Drain, (G) Seismic, (H) Heat Res, (O) Obs, (P) Oil-gas, (R) Recharge, (T) Test, (U) Unused, (W) Withdraw, (X) Waste, (Z) Destroyed — W

DATA AVAILABLE: Well data 3 Freq. W/L meas.: 0 Field aquifer char.

Hyd. lab. data:

Qual. water data: type:

Freq. sampling: Pumpage inventory: yes no period:

Aperture cards: yes

Log data:

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 130 ft 130 Meas. rept. 3

Depth cased: (first perf.) ft Casing type: Diam. 3

Finish: (C) porous concrete, (F) gravel w. (perf.), (G) gravel w. (screen), (H) conic. gallery, (O) open end, (P) perf., (S) screen, (T) sd. pt., (W) shored, (X) open hole, (Z) other — S

Method Drilled: (A) air rot, (B) bored, (C) cable, (D) dug, (H) hyd rot., (J) jetted, (P) air percussion, (R) reverse rotary, (T) trenching, (W) driven, (Y) drive wash, (Z) other — C

Date Drilled: Pump intake setting:

Driller: Edgar Johnson Scandia (name, address)

Lift (type): (A) air, (B) bucket, (C) cent, (J) jet, (L) multiple, (cent.), (M) multiple, (turb.), (N) none, (P) piston, (R) rot, (S) submerg, (T) turb, (Z) other — Deep D Shallow

Power (type): diesel, elec, gas, gasoline, hand, nat gas, wind; H.P. Trans. or meter no.

Descrip. MP 1002 ft above/below LSD. Alt. MP

Alt. LSD: 1012 980 Accuracy: (source) 3

Water Level ft above/below MP; Ft above/below 112 Accuracy: D

Date meas: Yield: 20 gpm Method determined

Drawdown: ft Accuracy: Pumping period hrs

QUALITY OF WATER DATA: Iron ppm Sulfate ppm Chloride ppm Hard. ppm

Sp. Conduct K x 10^6 Temp. °F Date sampled

Taste, color, etc.

1002
840
877
872
<872

32.20.07 cdb

Well No. 32.20.07 cdb

Latitude-longitude 45.16.11 92.53.24
d m s d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD (1–19) Physiographic Province: 12 (20–21) Section:

B (22) Drainage Basin: 276 (23–25) Subbasin: 2 (26)

Topo of well site: (D) depression, (C) stream channel, (E) dunes, (F) flat, (H) hilltop, (K) sink, (L) swamp, (O) offshore, (P) pediment, (S) hillside, (T) terrace, (U) undulating, (V) valley flat 27 S

MAJOR AQUIFER: system, series QG (28–29) aquifer, formation, group 00 (30–31)

Lithology: 45 (32–33) Origin: O (34) Aquifer Thickness: ft

Length of well open to: (35–37) ft Depth to top of: (38–40) ft (41–43)

MINOR AQUIFER: system, series (44–45) aquifer, formation, group (46–47)

Lithology: (48–49) Origin: (50) Aquifer Thickness: ft

Length of well open to: (51–53) ft Depth to top of: (54–56) ft (57–59)

Intervals Screened:

Depth to consolidated rock: ft (60–63) Source of data: (64)

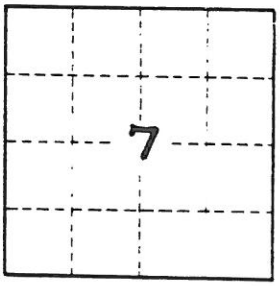
Depth to basement: ft (65–68) Source of data: (69)

Surficial material: (70–71) Infiltration characteristics: (72)

Coefficient Trans: gpd/ft (73–75) Coefficient Storage: (76–78)

Coefficient Perm: gpd/ft^2; Spec cap: gpm/ft; Number of geologic cards: (79)

finish caarse sd.



32.20.07 cdb

WRD Exp. (GW)
April 1966

Well No. 32.20.07 bdc

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR — GEOLOGICAL SURVEY — WATER RESOURCES DIVISION

MASTER CARD

Entered by: B. HASSINGER Source of data: DRILLER Date: 12 July 68 Map: FOREST L. 15'

County (or town): MN. 27 State: WASH. 82

Latitude: 451633N Longitude: 0925323 (degrees min sec) Sequential number: 1

Lat-long accuracy: 1 T. 32 N. R. 20 W. Sec. 07, SW, SE, NW 4 B & M

Local well number: 032N20W07BDC Other number:

Local use: JOHN ALLEN Owner of name:

Owner or name: ECKO BACKENSKI Address:

Owner up: (C) Fed Gov't, (T) Tribal, (M) City, (N) County, (P) Private, (S) State Agency, (W) Water Dist 67 N

Use of water: (A) Air cond, (B) Bottling, (C) Comm, (D) Dewater, (E) Power, (F) Fire, (H) Dom, (I) Irr, (M) Med, (N) Ind, (P) P S, (R) Rec, (S) Stock, (T) Instit, (U) Unused, (V) Repressure, (W) Recharge, (X) Desal-P S, (Y) Desal-other, (Z) Other 68 I

Use of well: (A) Anode, (D) Drain, (G) Seismic, (H) Heat Res, (O) Obs, (P) Oil-gas, (R) Recharge, (T) Test, (U) Unused, (W) Withdrawn, (X) Waste, (Z) Destroyed. 69 W

DATA AVAILABLE: Well data 3 Freq. W/L meas.: Field aquifer char.

Ind. lab. data:

Gen. water data: type:

Freq. sampling: Pumpage inventory: period:

Aperture cards:

Log data: D

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 255 Meas. rept. 3

Depth cased: 203 Casing: Diam. 8

Type: (C) perforated, (D) gravel w. (perf.), (E) gravel w. (screen), (H) horiz. alert., (O) open hole, (P) perf., (S) screen, (T) sq. pt., (W) shored, (X) open hole, (Z) other X

Method drilled: (A) air rot., (B) bored, (C) cable, (D) dug, (E) hand rot., (F) hand dri., (G) air perc ss., (R) reverse rotary, (T) drive, (U) drive wes., (Z) other C

Date drilled: 968 Pump intake setting:

Driller: John Allen, Hugo

Mill (single): (A) air, (B) auger, (C) cent., (D) jet, (E) multiple (vert.), (M) triple (horiz.), (N) none, (P) piston, (R) rot., (S) submerged, (T) turb., (Z) other Deep Shallow

Power: (A) diesel, (B) elec., (C) gas, (D) gasoline, (E) hand, (F) LP gas, (G) wind; H.P. Trans. or meter no.

Descrip. MP: above/below LSD, Alt. MP 4

Alt. MP: 1005 Accuracy

Water level: above/below MP; above/below LSD Accuracy

Date meas.: Yield: 50 Method determined

Drawdown: 0 Acc. meas.: 3 Pumping period: hrs

Chemical: Iron Sulfate Chloride Hard.

Specific cond. x 10 Temp. Date sampled

Taste, color, etc.

1005
-
502
750
8+5

32.20.07 bdc

Well No. 32.20.07 bdc

Latitude-longitude 45.16.33 N 92.53.23
d m s d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD (1–19)

Physiographic Province: 12 (20–21) Section:

B (22) Drainage Basin: 276 (23–25) Subbasin: 2 (26)

Topo of well site: (D) depression, (C) stream channel, (E) dunes, (F) flat, (H) hilltop, (K) sink, (L) swamp, (O) offshore, (P) pediment, (S) hillside, (T) terrace, (U) undulating, (V) valley flat H (27)

MAJOR AQUIFER: system, series C3 (28–29) Jordan aquifer, formation, group (30–31)

Lithology: V (32–33) Origin: 6 (34) Aquifer Thickness: ft

Length of well open to: 20 (35–37) ft Depth to top of: 37 (38–40) ft 160 (41–43)

MINOR AQUIFER: system, series (44–45) aquifer, formation, group (46–47)

Lithology: (48–49) Origin: (50) Aquifer Thickness: ft

Length of well open to: (51–53) ft Depth to top of: (54–56) ft (57–59)

Intervals Screened:

Depth to consolidated rock: ft 160 (60–63) Source of data: D (64)

Depth to basement: ft (65–68) Source of data: (69)

Surficial material: (70–71) Infiltration characteristics: (72)

Coefficient Trans: gpd/ft (73–75) Coefficient Storage: (76–78)

Coefficient Perm: gpd/ft^2; Spec cap: ∞ gpm/ft; Number of geologic cards: (79)

Log	D	T
		10
		15
		25
		15
		35
		30
		30
		40
		40
		5

845

765

07

Well No. 32.20.07 bdc

J. H

CPO 857-700

FORM 9-1642
(1-68)

Well No. 32.20 18 cdc

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR — GEOLOGICAL SURVEY — WATER RESOURCES DIVISION

MASTER CARD

Record by: Brooker Source of data: [illegible] Date: 7/73 Map: [illegible]

State: MN County (or town): Wash

Latitude: 45 [illegible] N Longitude: 92 25 [illegible] Supplemental number:

Land-line description: T 032 S, R 20 E, Sec [illegible]

Local well number: [illegible] Other number:

Local use: [illegible] Owner or name:

Owner or name: Address:

Ownership: (C) County, (F) Fed Gov't, (M) City, (N) Corp or Co, (P) Private, (S) State Agency, (W) Water Dist P

Use of water: (A) Air cond, (B) Bottling, (C) Comm, (D) Dewater, (E) Power, (F) Fire, (H) Dom, (I) Irr, (M) Med, (N) Ind, (P) P S, (R) Rec, (S) Stock, (T) Instit, (U) Unused, (V) Repressure, (W) Recharge, (X) Desal-P S, (Y) Desal-other, (Z) Other

Use of well: (A) Anode, (D) Drain, (G) Seismic, (H) Heat Res, (O) Obs, (P) Oil-gas, (R) Recharge, (T) Test, (U) Unused, (W) Withdraw, (X) Waste, (Z) Destroyed.

DATA AVAILABLE: Well data Freq. W/L meas.: Field aquifer char.

Hyd. lab. data:

Qual. water data; type:

Freq. sampling: Pumpage inventory: yes no period:

Aperture cards: yes

Log data: [illegible]

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 618 ft Meas. rept accuracy

Depth cased: (first perf.) ft Casing type: Diam. in

Finish: (C) porous concrete, (E) gravel w. (perf.), (G) gravel w. (screen), (H) horiz. collect., (O) open hole, (P) perf., (S) screen, (T) sd. pt., (W) shored, (X) open hole, (Z) other

Method Drilled: (A) air rot, (B) bored, (C) cable, (D) dug, (H) hyd rot., (J) jetted, (P) air percussion, (R) reverse rotary, (T) trenching, (V) driven, (W) drive wash, (Z) other

Date Drilled: Pump intake setting: ft

Driller: Cartwright Const. Co

Lift (type): (A) air, (B) bucket, (C) cent, (J) jet, (L) multiple, (cent.), (M) multiple, (turb.), (N) none, (P) piston, (R) rot, (S) submerg, (T) turb, (Z) other Deep Shallow

Power (type): diesel, elec, nat gas, gasoline, hand, LP gas, wind; H.P. Trans. or meter no.

Descrip. MP ft above below LSD, Alt. MP

Alt. LSD: 880 Accuracy: (source) 72

Water level: 91 ft above below MP; Ft above below LSD Accuracy:

Dire meas: Yield: gpm Method determined

Drawdown: ft Accuracy: Pumping period hrs

QUALITY OF WATER DATA: Iron ppm Sulfate ppm Chloride ppm Hard. ppm

Sp. Conduct. K x 10 Temp. °F Date sampled

Taste, color, etc.

232

WELL NO.

Well No. _____

Latitude-longitude _____ N/S d m s d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD (1, 19) Physiographic Province: _____ (20, 21) 12 Section: _____

(22) Drainage Basin: _____ (23, 25) 276 Subbasin: _____ (26)

Topo of well site: (D) depression, (C) stream channel, (E) dunes, (F) flat, (H) hilltop, (K) sink, (L) swamp, (O) offshore, (P) pediment, (S) hillside, (T) terrace, (U) undulating, (V) valley flat _____ (27)

MAJOR AQUIFER: _____ system, _____ series (28, 29) _____ aquifer, formation, group (30, 31)

Lithology: _____ (32, 33) V Origin: _____ (34) Aquifer Thickness: _____ ft

(35, 37) Length of well open to: _____ ft (38, 40) Depth to top of: _____ ft (41, 43)

MINOR AQUIFER: _____ system, _____ series (44, 45) _____ aquifer, formation, group (46, 47)

Lithology: _____ (48, 49) Origin: _____ (50) Aquifer Thickness: _____ ft

(51, 53) Length of well open to: _____ ft (54, 56) Depth to top of: _____ ft (57, 59)

Intervals Screened: _____

Depth to consolidated rock: _____ ft (60, 63) Source of data: _____ (64) D

Depth to basement: _____ ft (65, 68) Source of data: _____ (69)

Surficial material: _____ (70, 71) Infiltration characteristics: _____ (72)

Coefficient Trans: _____ gpd/ft (73, 75) Coefficient Storage: _____ (76, 78)

Coefficient Perm: _____ gpd/ft^2; Spec cap: _____ gpm/ft; Number of geologic cards: _____ (79)

0 – 110 drift

110 – 115 Sandstone brown

115 – 258 Green shaly sandstone

258 – 280 Gray shale

280 – 330 Green "

330 – 360 shale gray

360 – 425 Green shaley sandstone

425 – 435 Green shale

435 – 500 Coarse sd. stone

500 – 505 sticky shale

505 – 515 Sandstone brown

515 – 535 " white

535 – 570 sandstone

570 – 590 "

590 – 595 Red shale

595 – 640 [illegible]

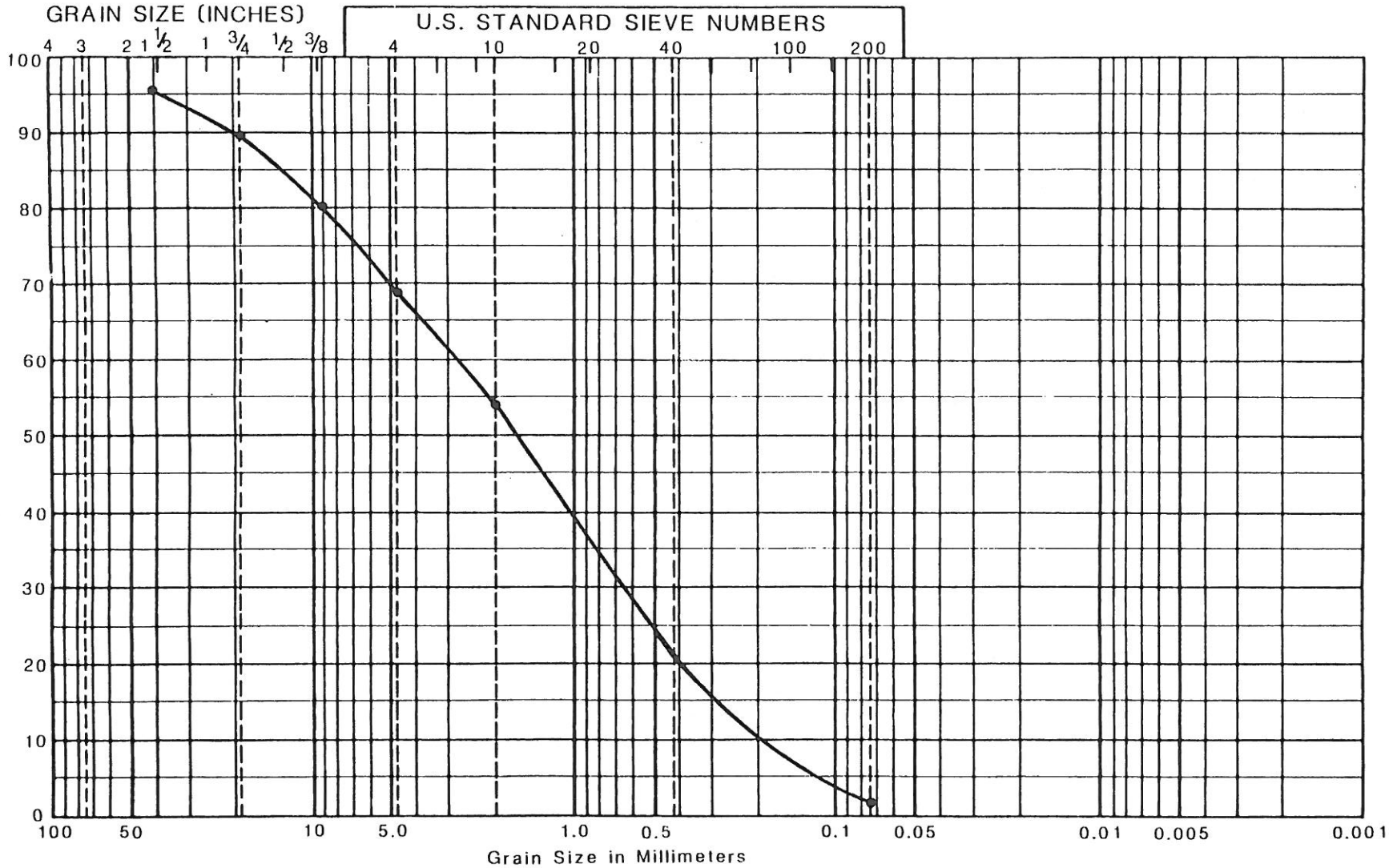
Well No.

GPO 937-142

APPENDIX D

RESULTS OF GRAIN SIZE ANALYSES

GRAIN SIZE DISTRIBUTION DIAGRAM



Unified Soil Classification System	GRAVEL		SAND			FINES
	COARSE	FINE	COARSE	MEDIUM	FINE	

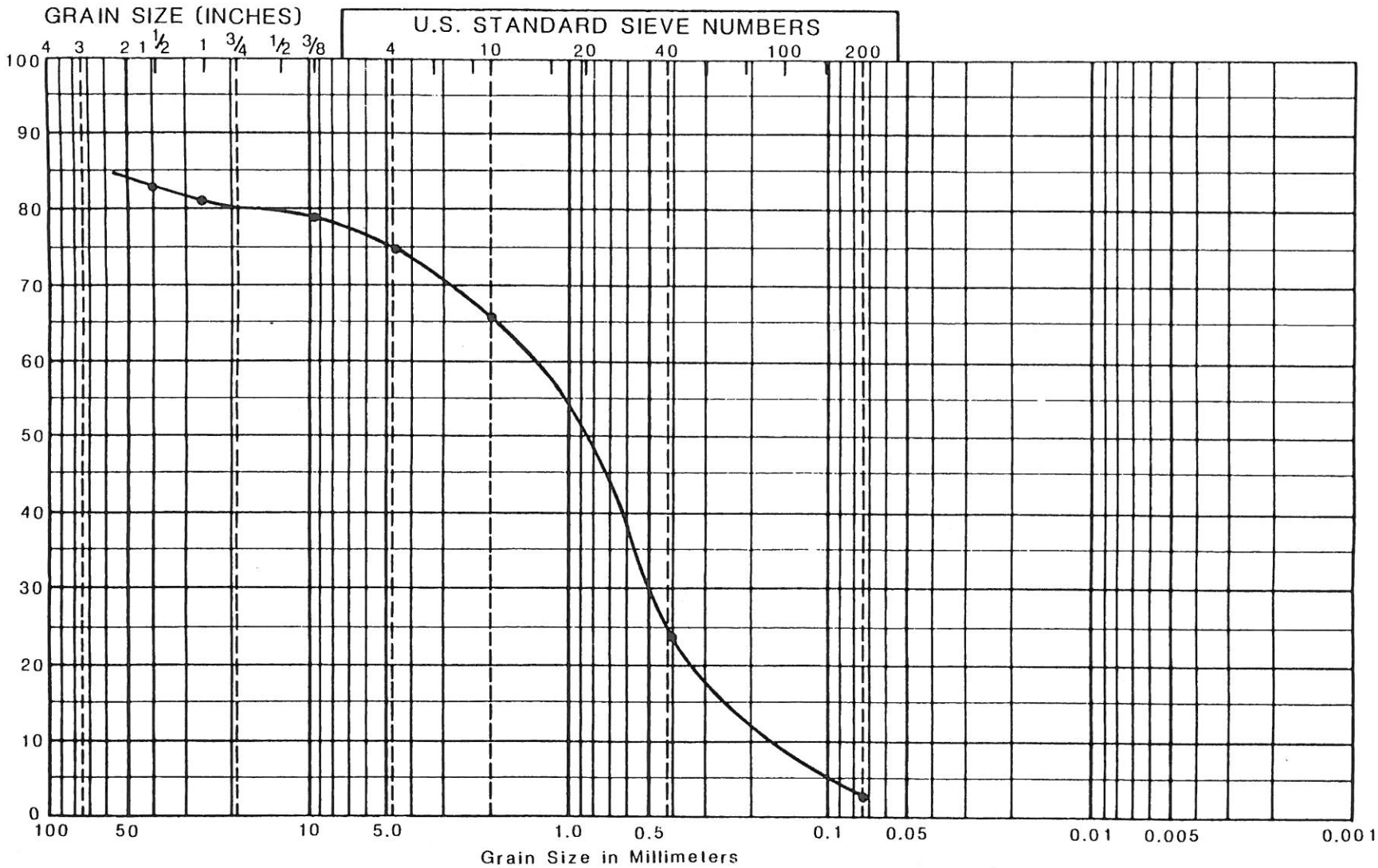
Boring Number	Sample Number	Depth (ft)	Soil Classification
	#1		

Job No. _____ Date _____

Project _____

SAMPLE #1 9/25/87
BARTON PIT-NEW SCANDIA

GRAIN SIZE DISTRIBUTION DIAGRAM



Unified Soil Classification System	GRAVEL		SAND			FINES
	COARSE	FINE	COARSE	MEDIUM	FINE	

Boring Number	Sample Number	Depth (ft)	Soil Classification
	#2		

Job No. _____ Date _____

Project _____

SAMPLE #2 9/25/87
BARTON PIT-NEW SCANDIA