

Preliminary & Field Evaluation Form

Revised 6/8 / 2020

www.SepticResource.com vers 12.4

Owner Information			
Date	<u>10/23/2019</u>	Sec / Twp / Rng	<u>S-23, T-46, R-27</u>
Parcel ID	<u>07-0-046102</u>	LUG (county, city, township)	<u>Aitkin Co.</u>
Property Owner:	<u>Robert Isabel</u>	Owners address (if different)	
Property Address:	<u>30040 414th Pl. Aitkin MN 56431</u>	<u>1333 Bucher Ave.</u>	
City / State / Zip:		<u>Shoreview MN 55126</u>	


Flow Information and Waste Type / Strength			
Estimated Design flow	<u>600</u>	Anticipated Waste strength	<input type="checkbox"/> Hi Strength <input checked="" type="checkbox"/> Domestic
Comments: Build oversized for future expansion Existing cabin is 2 bedroom, Existing septic sysyetm is with cluster system May have to wait untill 2 properties to the west unhook from cluster to install this system.		Any Non-Domestic Waste	<input type="checkbox"/> Yes (class V) <input checked="" type="checkbox"/> No
		Sewage ejector/grinder pump	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Water softener	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Garbage Disposal	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Daycare / In home business	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Site Information					
Existing & proposed lot improvements located (see site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Well casing depth	Exsiting Deep Well -777860	
Easements on lot located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Drainfield w/in 100' of residential well	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Property lines determined (see site map) By Others	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site w/in 200' of transient noncommunity water supply (TNCWS)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Req'd setbacks determined (see site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site w/in an inner wellhead mgmt zone (CWS/NTNCWS)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Utilities located & identified (gopher state one call)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Buried water supply pipe w/in 50' of system	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Access for system maintenance (shown on site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site located in Shoreland (w/in 1000' of lake, 300' of river)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Soil treatment area protected	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site map prepared with previous items included	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Construction related issues	<u>Owner will install lift station inside house with grinder pump in basin</u>				

Soil Information

		Evidence of site:	
		Cut	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Filled	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Compacted	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Disturbed	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Original soils	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Soil logs completed and attached	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Perk test completed and attached (if applicable) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Soil loading rate (gpd/ft ²)	<u>0.78</u>		Percolation rate (if applicable) _____
Depth/elev to SHWT	66" or Elv. 98.8'		Flooding or run-on potential (comments) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth to system bottom maximum (or elev minimum)	<u>Elv. = 100'</u> Bottom of Rockbed		Flood elevation (if applicable) _____
Depth/elev to standing water (if applicable)	_____		Elevation of ordinary high water level (if applicable) _____
Depth/elev to bedrock (if applicable)	_____		Floodplain designation and elev - 100 yr/10 yr (if applicable) _____
Soil Survey information determined (see attachment)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Differences between soil survey and field evaluation (if applicable)	_____ _____		

I hereby certify this evaluation was completed in accordance with MN 7080 and any local req's.



 Designer Signature

Brummer Septic LLC.

 Company

L-1347

 License #

Soil Observation Log

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Owner Information	
Property Owner / project: <u>Robert Isabel</u>	Date <u>10/23/2019</u>
Property Address / PID: <u>30040 414th Pl. Aitkin MN 56431</u>	

Soil Survey Information	
<input type="checkbox"/> refer to attached soil survey	
Parent mat'l's:	<input checked="" type="checkbox"/> Till <input type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Alluvium <input type="checkbox"/> Organic <input type="checkbox"/> Bedrock
landscape position:	<input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input checked="" type="checkbox"/> Side slope <input type="checkbox"/> Toe slope
soil survey map units:	<u>504B</u> slope <u>1</u> % direction- <u>South - SE</u>

Soil Log #1							
		<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit	Elevation <u>101.3'</u>		Depth to SHWT <u>66"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 7	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
7 - 66	Med Sand	<35	10YR5/4		Loose	Loose	Granular
66 - 72	Med Sand	<35	10YR5/4	7.5YR5/6	Loose	Loose	Granular
		<35					
		<35					

Comments:

30040 414th Pl. Aitkin MN 56431 **Soil Log #2**

<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>103.5'</u>		Depth to SHWT <u>84"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
6 - 84	Med Sand	<35	10YR5/4		Loose	Loose	Granular
		<35					
		<35					

30040 414th Pl. Aitkin MN 56431 **Soil Log #3**

<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>102.3'</u>		Depth to SHWT <u>78"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
6 - 78	Med Sand	<35	10YR5/4		Loose	Loose	Granular
78 - 84	Med Sand	<35	10YR5/4	7.5YR5/6	Loose	Loose	Granular
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive

I hereby certify this work was completed in accordance with MN 7080 and any local req's.


 Designer Signature

Brummer Septic LLC.
 Company

L-1347
 License #

Pressure Bed Design

Property Owner: Robert Isable Date: 10/23/2019 Revised 6/8 2020

Site Address: 30040 414th PL. Aitkin MN 56431 PID: 07-0-046102

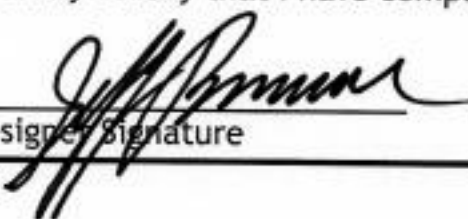
Comments: ~~Owner will install lift tank inside cabin with grinder pump.~~

instructions: = req'd input = input or default = calculated field *** = installer info

- 1) 4 bedroom Type I Residential System
- 2) 600 GPD design flow
- 3) Yes Garbage disposal or pumped to septic 50% larger tank w/mult comp/tanks, effluent filter & alarm req'd
Install Jacobson 1650 Compartment tank
- 4) *** 1000 Gallon septic tank (minimum) Tank options: multiple tanks or compartments req'd
- 5) 0.78 GPD/ft² Soil Loading Rate 769 ft² bed req'd, or 769 ft² LUG minimum
(must match soil boring log)
- 6) *** 16.0 ft desired bed width, leads to a 48.1 ft bed length
(25' maximum)
- 7) *** 3.0 ft lateral spacing 3.0 ft perforation spacing (maximum 3 for both)
 end feed manifold connection
- 8) *** 5 laterals 46.1 feet long 16.0 perfs / lateral 80 perfs total
(1/2 perf means the first perf starts at the middle feed manifold)
- 9) *** 7/32 inch perfs at 1 feet residual head gives 0.56 gpm flow rate per perforation
(If bed has > 1' of cover, increase residual head for cleanout req's)
for this perf size & spacing, & pipe size on line 12, max perfs/lateral = 0, line #8 must be less --> ERROR
- 10) 6 doses per day (4 minimum)
- 11) 100 gallons per dose (treatment volume)
- 12) 1.5" inch diameter laterals (or smaller) will meet "5x pipe volume"
*** 1.5" inch diameter laterals (or smaller) must be used to meet "4x pipe volume" requirement
 1.50 inch diameter laterals (or smaller) will meet "3x pipe volume"
- 13) *** 20 feet of 2.0 inch supply line leads to 3 gallons of drainback volume
("top feed" to control the drainback)
- 14) 103 gallons TOTAL pump out volume (treatment + drainback)
- 15) 10 feet vertical lift from pump to dispersal area, leads to a
- 16) *** 45 GPM @ 17 feet of head, Pump requirement
(>50 gpm may require additional 3-6' head allowance for discharge assy)

- 17) *** 520 gal Dose tank (minimum) *pump tank for Pressure Bed.* at 16.57 gpi
- 18) *** 6.2 inch swing on Demand float, or Timed dosing of 2.3 min ON (confirm pump rate with drawdown test and adjust as necessary)
(<100% of design flow requires a larger OFF time) 4 hrs OFF
- 19) 12 inches of from bottom of tank to "pump OFF" float, and/or to cover pump
- 20) *** 18 inches from bottom of tank to "pump ON" float, or 12 inches to "timer ON" float
- 21) *** 21 inches from bottom of tank to "Hi Level" float (add 5-15 inches if Time Dosed)
- 22) 172 gallons reserve capacity (after High Level Alarm is activated)
- 23) 66 inches, or 5.50 ft. to Redox or other limiting condition (This must match the soil boring log)
- 24) 36 inches, or 3.00 ft. of vertical separation required Keep Bottom of Rockbed at Elv. = 100'
leads to bottom of rock no more than:
- 25) *** 30 inches, or 2.5 ft. Below existing grade **CRITICAL FOR FUTURE CERTIFICATIONS!!!**
- 26) *** 9 inches of rock below the pipe
3 inches of rock to cover the pipe
- 27) Overall Dimensions: 16.0 ft. wide by 48.1 ft. long Pressure Bed
- 28) *** Rock Bed materials:
16 ft. by 48.1 ft. by 12 inches total, plus 20% gives 35 yd³ or *1.4= 49 ton

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.


Designer Signature

Brummer Septic LLC.
Company

L-1347
License#

6-8-2020
Date

There will be 3 Electric alarms on system, one for lift tank, one for Effluent filter , one for pump tank.

Installer should list pumps and alarms : make & model # on install inspection report.

Installer should show Owner how system operates, and were alarms are located.

Installer Summary

gallon Septic tank (minimum) multiple tanks Install Jacobson 1650
 gallon Dose tank (minimum) 50% larger tank w/mult comp/tanks, effluent filter & alarm req'd
at gpi

GPM @ ft. of head, Pump required

inch swing on Demand float or minutes ON time & hours OFF time

inches from bottom of tank to "pump ON" float, or inches to "timer ON" float
 inches from bottom of tank to "Hi Level Alarm" float

ft. of inch supply line with manifold connection

laterals inch diameter feet long ft lateral spacing

inch perfs ft perforation spacing

Effluent filter & alarm
 clean out & valve box assembly

Pressure Bed:

ft. wide by ft. Long

Bottom of rock no more than:

inches, or ft. Below existing grade

inches of rock below the pipe

Overall Dimensions: ft. wide by ft. long Pressure Bed

Rock Bed materials: yd³ or *1.4= ton

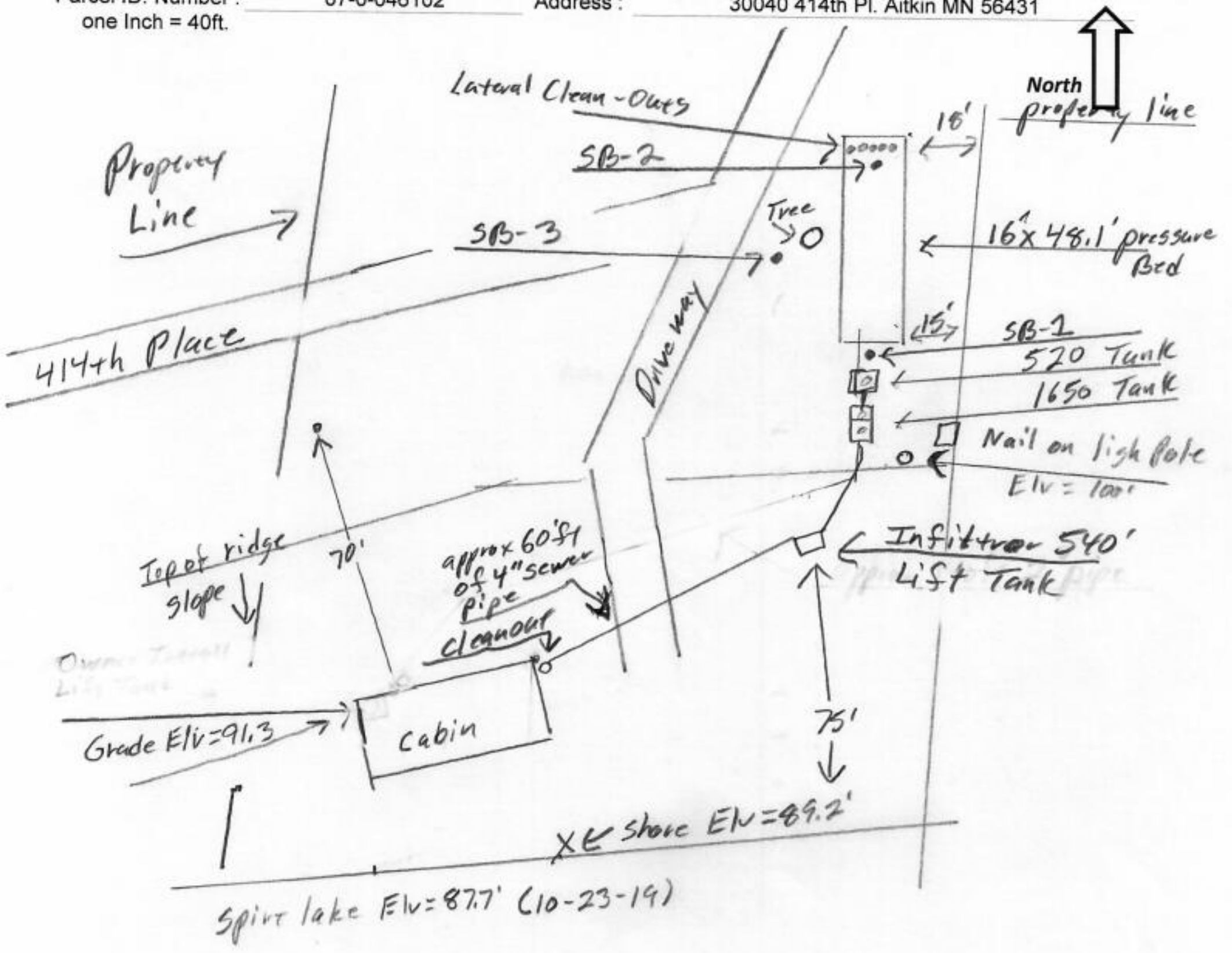
INSPECTOR CHECKLIST - Pressure bed

- WELL setbacks: 20' to pressure tested sewer line (5 psi for 15 min)
50' to everything 100' to dispersal area with shallow well
- PROPERTY LINES setback: 10' to everything
- Road setback: outer ditch, or 33' from center of township road, or 65' from center of cnty road
- LAKE / BLUFF setback: 20' for bluff. Lakes: gen 50', rec 75', nat 150'. Protected wetland 50'.
- Building setbacks: 10' for everything, 20' for dispersal area.
- WATER LINE under pressure 10' to bed, tank & sewer line.

- Sewer line & baffle connection (no 90's, 3' between 45's, slope of 1/8"/ft, or 1" in 8', or 1' in 96'.
(no depth req's, clean out every 100', Sch 40 D2665 or F891)
- Septic tank and risers (water tight, insulated, proper depth, existing verified by pumping)
mfg _____ 1000 gallons multiple tanks or compartments req'd
- Riser over outlet, riser over inlet, 6"+ inspection pipe over any remaining baffles.
- Yes effluent filter & alarm
- Dose tank risers and piping (water tight, insulated, proper depth, drainback)
mfg _____ 520 gallons
- dose pump _____ 45 gpm 17 head VERIFY PUMP CURVE 2.3 M on 4 H off
- float setting drop 6.2 inches
LABEL pump requirements and drawdown on riser or panel
- Cam lock, weep hole, supply line access (no hard 90, pipes reachable from grade)
- supply pipe sloped 1/8"+, supported by sch40 sleeve, and buried 6"+.
- splice box / control panel / electrical connections
- Bed dimensions 16 X 48.1
- Rock depth below pipe 9 inches
- Rock bottom elevation 30.0 inches from Grade to bottom of rock (max)
- cover depth of 12"+ VERIFY
- 5 laterals (1-2' from edge of rock)
- 1.5" inch pipe size (bigger is ok but do not exceed 4 times pipe volume)
- 3.0 ft lateral spacing
- 7/32 inch perforations (smaller is ok)
- 3.0 ft perforation spacing
- Air inlet at end of laterals, and at top feed manifold. VERIFY
- clean outs (deep bed 2' of head) (no hard 90's)
- 4" inspection pipe to bottom of rock, anchored VERIFY
- Abandon existing system if necessary
- monitoring plan and type _____

{ Design Drawing }

Property Owner: Robert Isabel Date: 10/23/19 Designer's Initials: JB
 Parcel ID. Number: 07-0-046102 Address: 30040 414th Pl. Aitkin MN 56431
 one Inch = 40ft.



Top of Deep Well Cap Elv. = 102.6'

Grade at List Elv = 92'

	Surface/ SHWT	Nail on light pole = Bench Mark 100'		Existing Grade at pressure bed	
Soil Bore 1	101.3'/ 66"	Bench Mark	100'	NW = 103.8'	NE = 103.2'
Soil Bore 2	103.5'/ 84"	Ground Elv. BM	99.2'	SW = 101.3'	SE = 101.4'
Soil Bore 3	102.3'/ 78"	Ground Elv. Tank	101.1'	Lake Elv. = 87.7' (10/24/2019)	
	Ground at	Existing house	91.3'	NW corner	Shore Elv. = 89.2'

Please show all that apply (Existing)

- Wells within 100ft. Of Drain field.
- Water lines within 10 ft. of Drain field.
- Drain field Areas:

Please Draw to Scale with North to Top or Left Side of Page:

- | | |
|---------------------------|-----------------------------------|
| Disturbed/Compacted Areas | Access Route for Tank Maintenance |
| Component Location | Property Lines |
| OHW ordinary high water | Structures |
| Lot Easements | Setbacks |

Mound Design Notes - Aitkin county

Property Owner: Robert Isable

Date: 6/8/2020

Site Address: 30040 414th PL. Aitkin MN 56431

PID: 07-0-046102

Comments: Type I Pressure Bed / 3 bedroom

- 1 This is a type I Pressure Bed for a future 4 bedroom House, existing cabin is 2 bedrooms.
- 2 Existing septic system is a cluster with 7 cabins, 2 are up stream from this one.
This system may have to wait until the 2 upstream have unhooked from cluster system.
- 3 Owner may have to replumb cabin to exit the NE corner of foundation if existing plumbing is to low.
Install 540 Infiltrator tank approx. 60 ft. from NE corner of cabin, must meet lake setback of 75 ft.
- 4 Install clean-out near cabin. Install 4" sewer pipe to gravity flow to 540 lift tank.
This lift station should have a grinder pump, install grinder pump with 20 Ft head at 20 GPM .
The whole cabin will be lifted to the septic tank. Set dose at approx. 50 gal per dose. Approx. 5 gal drainback.
Install 2" supply pipe to septic tank to drainback to lift tank .
- 5 Soil separation is at 66" at South end of Pressure bed.
There is a South slope of 2.5' across pressure bed area. Keep bottom of Rockbed at Elv.= 100'
- 6 There is an existing Deep well to the West, top of cap Elv.= 102.6', Deep well meets setbacks.
Existing septic system to be unhooked, existing drainfield to be abandon.
- 7 Bench Mark (Elv. = 100') is nail on Light pole, South of proposed pressure bed.
- 8 The Pressure bed area will be 16 ft. wide and 48.1 ft. long. Bottom of rock Elv= 100'.
Cover rock bed with fabric and 12" to 18" of soil.
- 9 Installer to double check bench mark. Installer should confirm bench mark height Elv. with inspector.
Installer should record bench mark Elv. and bottom of rockbed height on installation inspection form.
It is important that the soils do not get compacted, and area stays protected.
- 10 The Jacobson 1650 2/Compartment septic tank will have sewage pumped to it from cabin.
Install effluent filter and alarm on outlet of 2nd compartment. Insulate tank tops.
Install 520 pump tank (pump for pressure bed) with gravity flow from 1650 septic tank.
Install pump to dose 6 doses per day, to the pressure bed,
approx. 103 gallons per dose, 6.2 inches of tank level. Install alarm at 3 inches from pump on level.
Install effluent pump with 45 GPM and 17 Ft. head. Install alarm on pump tank.
Install all manholes, inspection pipes and clean-outs to grade or above , (recommend manholes 4" above grade).
- 11 Install a 2" supply pipe from pump tank to end manifold in rock bed, install so 2" pipe drains back to 520 pump tank.
- 12 Install 1.5" laterals with 9" of rock under them. Install clean-outs at far end of laterals.(12" total inches of rock)
Drill 7/32" perf holes spaced 3 ft. apart.
Install inspection pipe to bottom of rock bed, secure in rock bed and raise to above final grade.
- 13 Installer will pressure test and squirt height laterals when finished. Give info to owner.
There will be 3 alarms on the system, Installer & Owner are responsible to learn were and what each one is for.
- 14 Owner is responsible to maintain protection of bed area before and after installation. .

Designed to Aitkin Co. and MPCA recommendations and requirements.


Designer Signature

Brummer Septic LLC.
Design Company

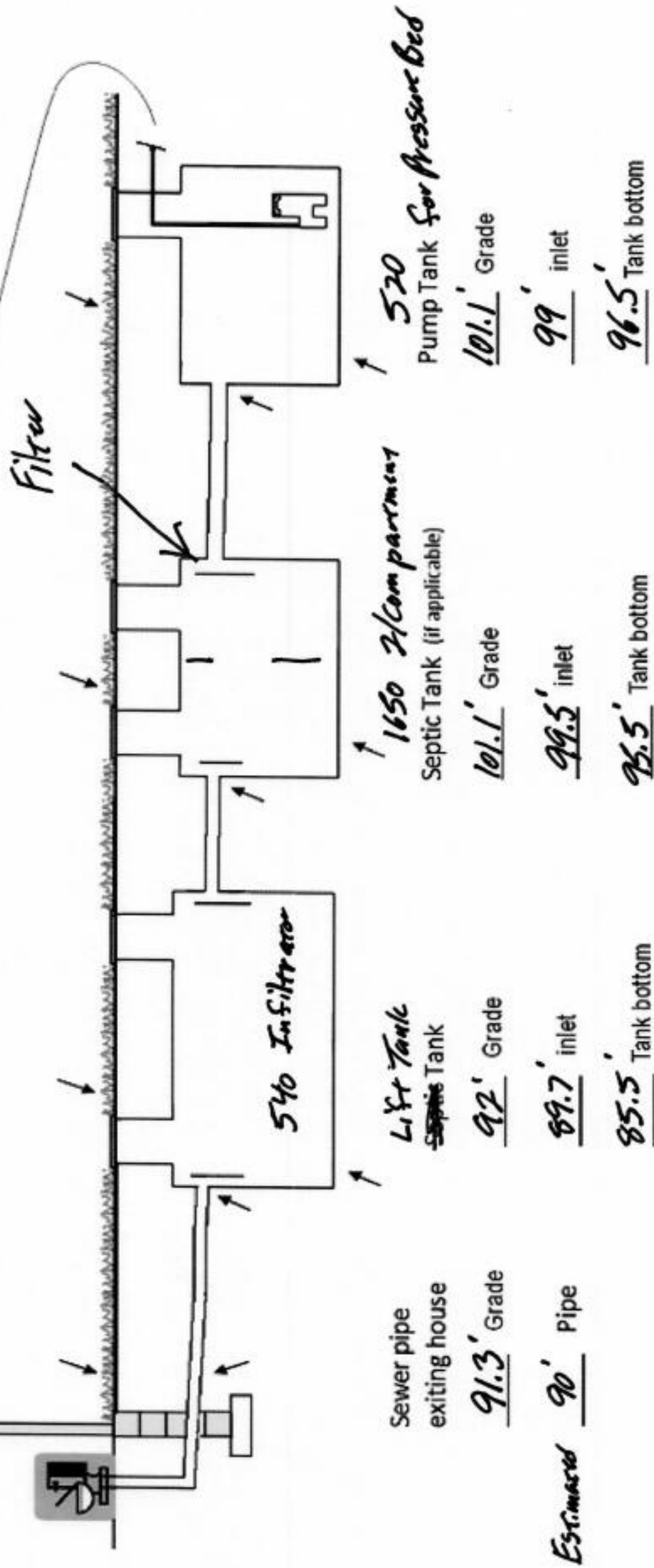
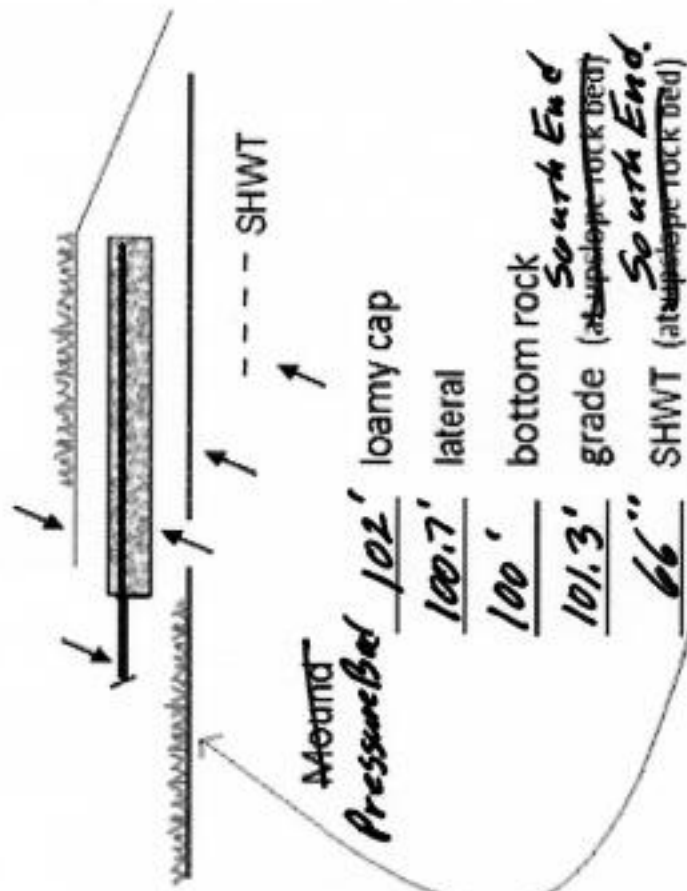
L-1347
License#

There will be 3 Electric alarms on this septic system, one for lift tank, one for effluent filter, one for pump tank.

System Elevations

ELV = 100' benchmark Nail on light pole
 Top of Deep Well Cap ELV = 102.6'

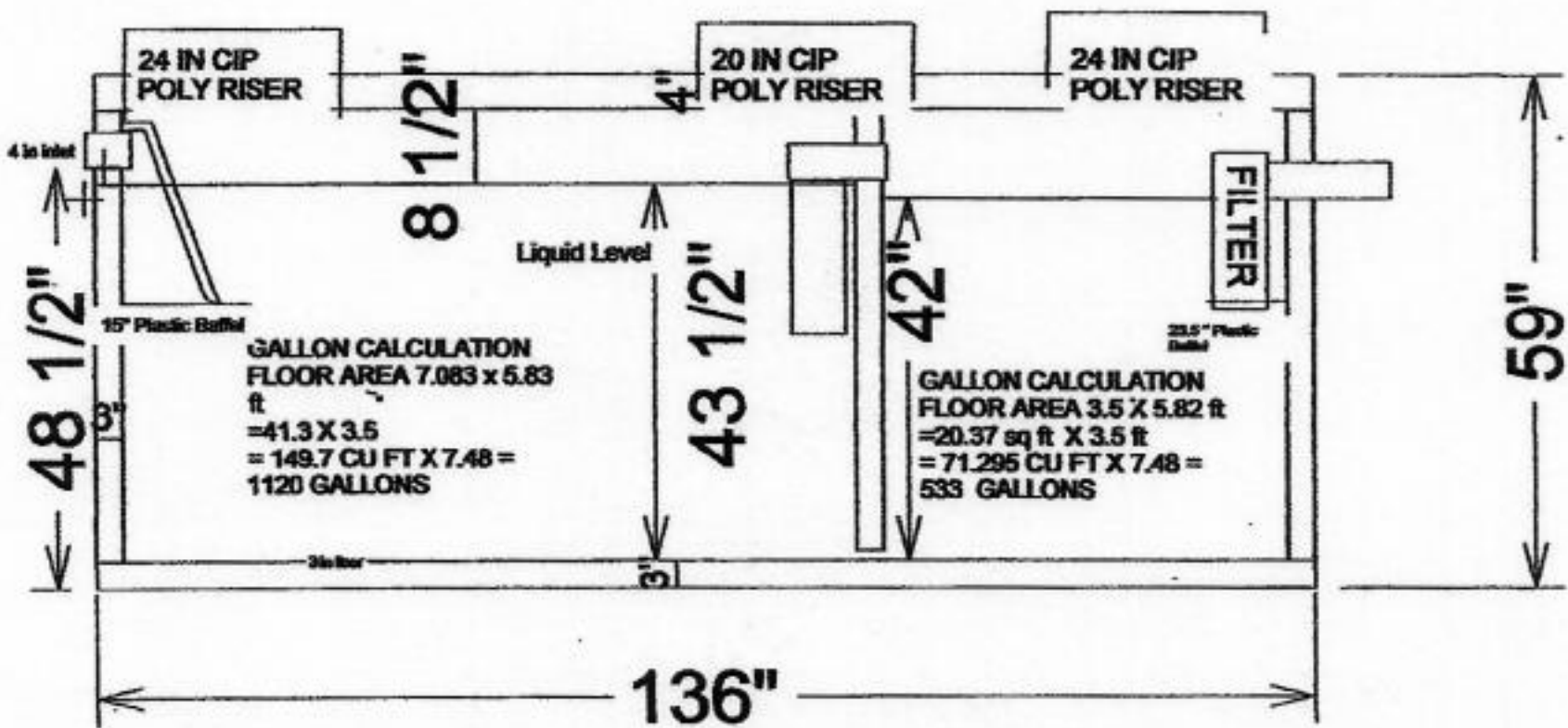
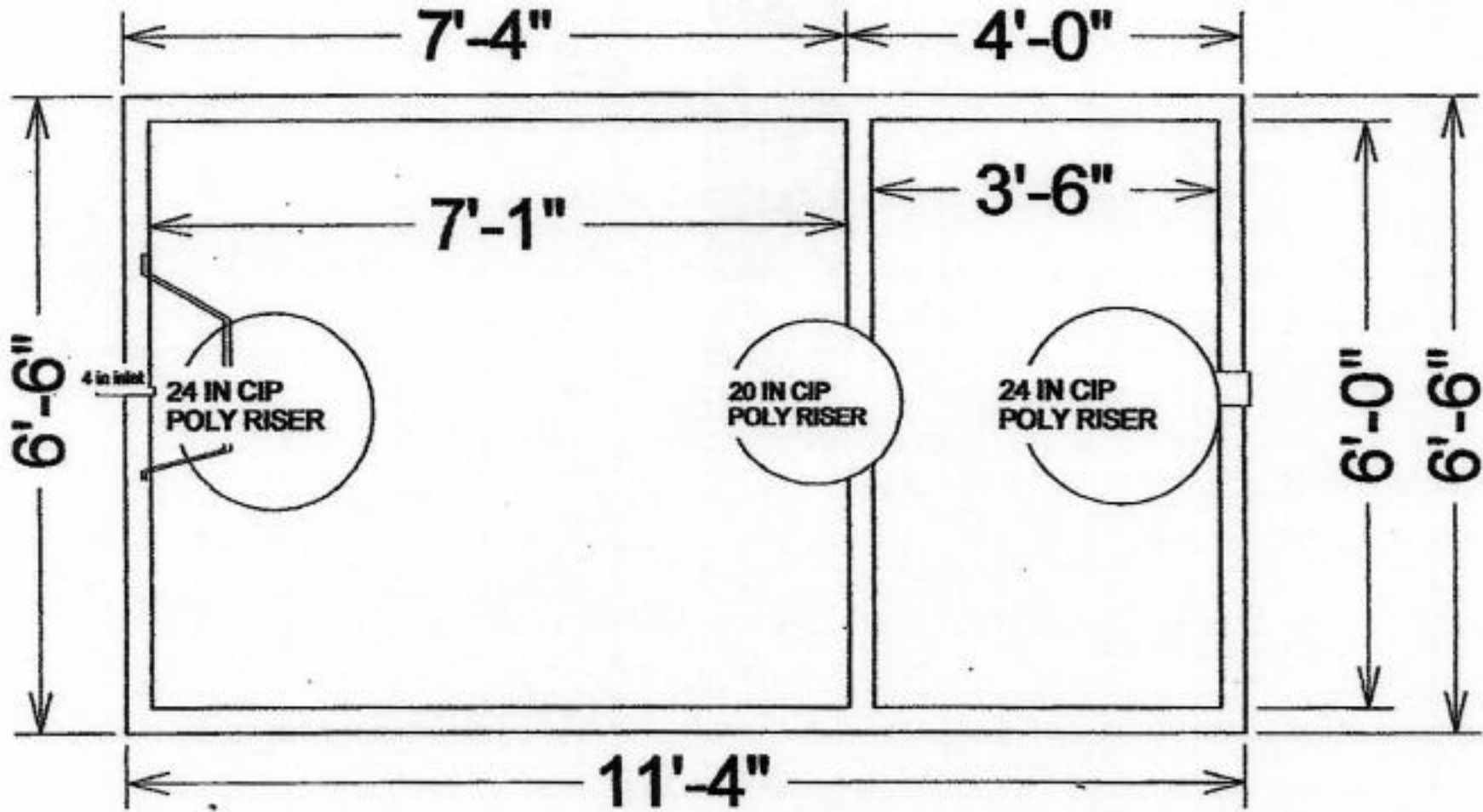
(Grade elevations are existing. If a different final grade is desired it should be shown and described here.)



Spirit lake ELV on 10-23-19 ELV = 87.7'

1650 Gallon 2 Compartment Septic Tank

TOP VIEW

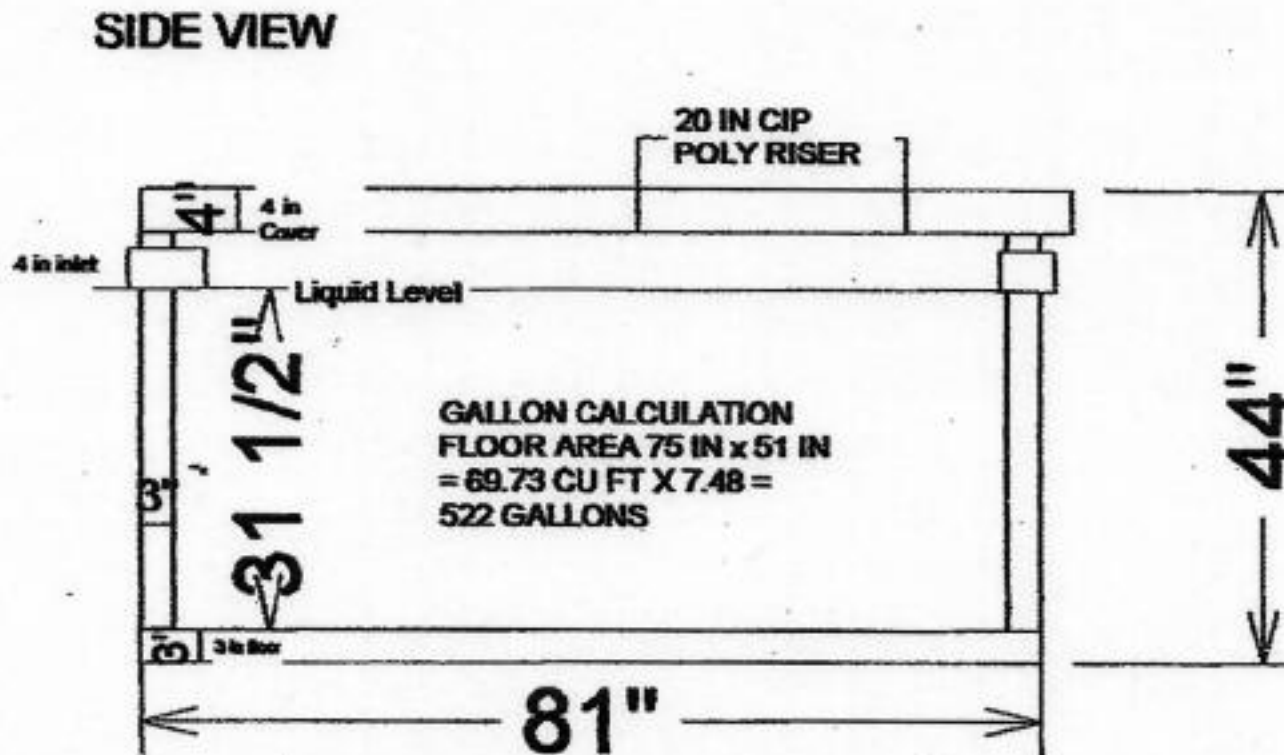
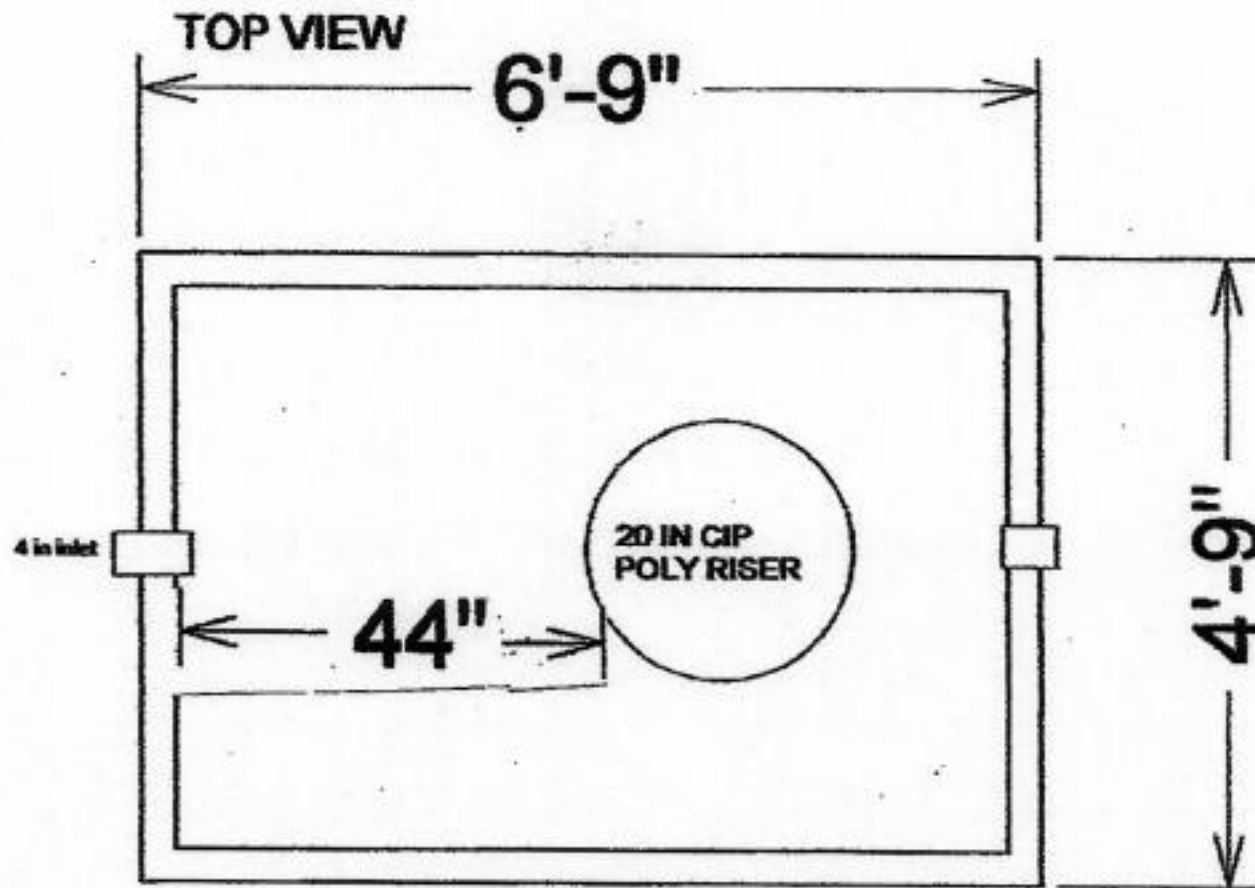


SIDE VIEW

$533 / 42" = 12.69 \text{ GPI}$

Drawings Owned BY Jacobson Precast, Inc.
36641 HWY 169, Aitkin, Mn 56431

520 Gallon Pump Tank



522 gals. / 31.5" = 16.57 GPI

Drawings Owned BY Jacobson Precast, Inc.
36641 HWY 169, Aitkin, Mn 56431

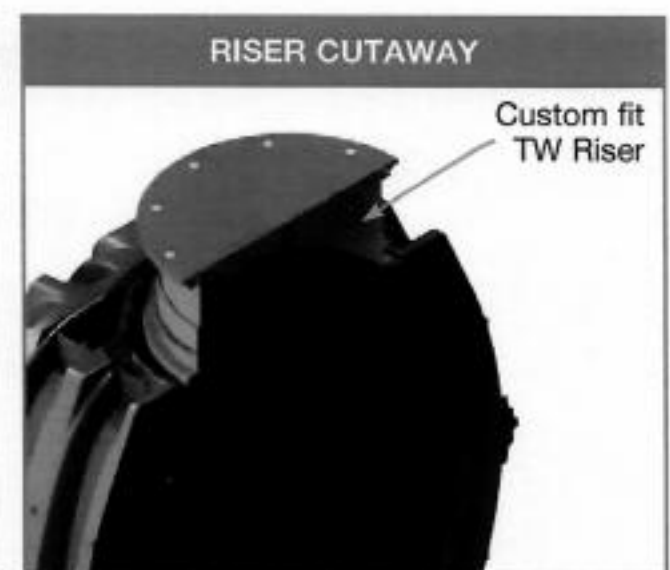
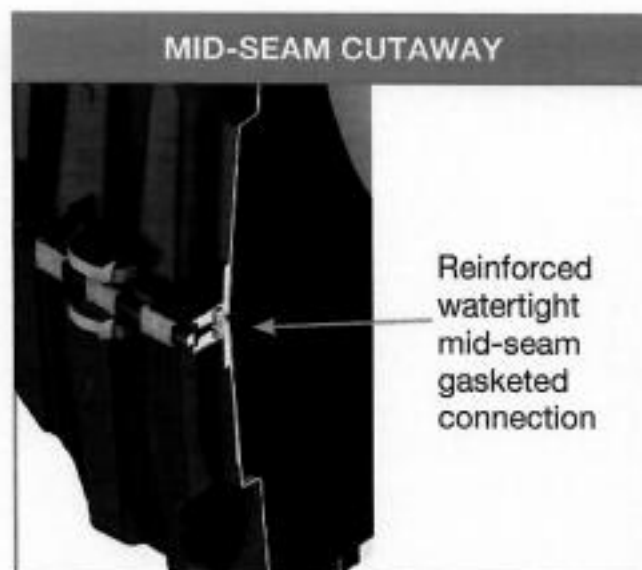
Do not copy drawings without permission of the Owner



The Infiltrator IM-540 is a lightweight strong and durable septic/pump tank. This watertight tank design is offered with Infiltrator's line of custom-fit risers and heavy-duty lids. Infiltrator injection molded tanks provide a revolutionary improvement in plastic tank design, offering long-term exceptional strength and watertightness.

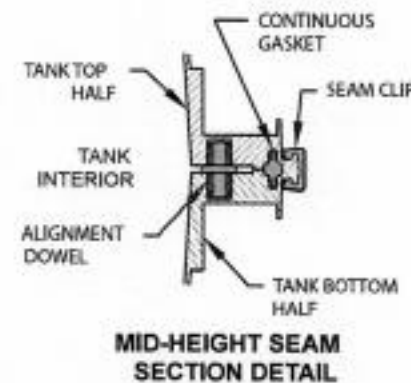
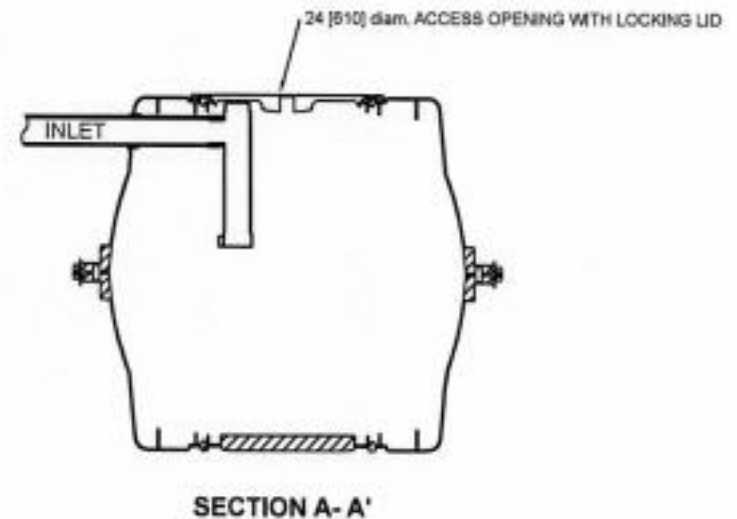
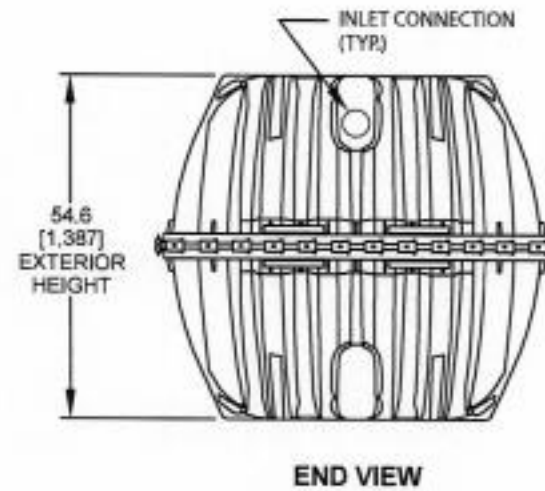
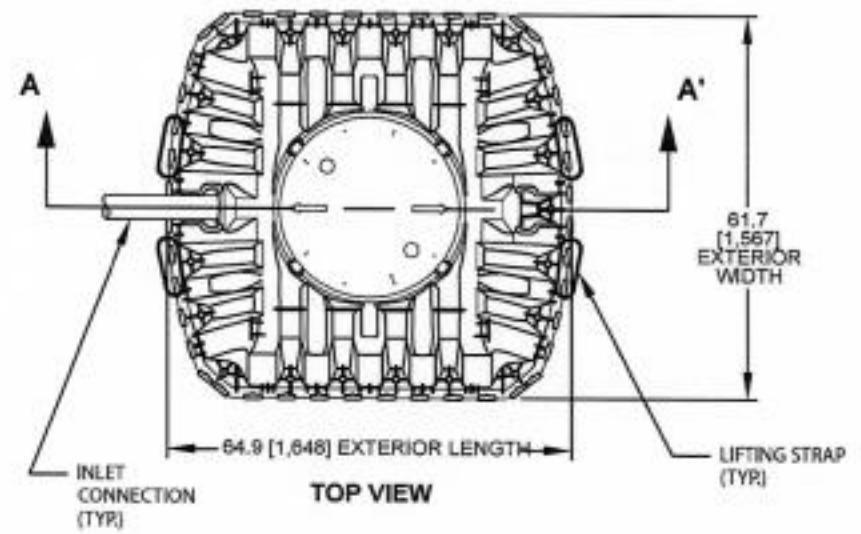
Features & Benefits

- Strong injection molded polypropylene construction
- Lightweight plastic construction and inboard lifting lugs allow for easy delivery and handling
- Integral heavy-duty green lids that interconnect with TW™ risers and pipe riser solutions
- Structurally reinforced access ports eliminate distortion during installation and pump-outs
- Reinforced structural ribbing offers additional strength
- Can be installed with 6" to 48" of cover
- Can be pumped dry during pump-outs
- Suitable for use as a pump tank or rainwater (non-potable) tank
- No special installation, backfill or water filling procedures are required



IM-540 General Specifications and Illustrations

The IM-540 is an injection molded two piece mid-seam plastic tank. The IM-540 injection molded plastic design allows for a mid-seam joint that has precise dimensions for accepting an engineered EPDM gasket. Infiltrator's gasket design utilizes technology from the water industry to deliver proven means of maintaining a watertight seal. The two-piece design is permanently fastened using a series of non-corrosive plastic alignment dowels and locking seam clips. The IM-540 is assembled and sold through a network of certified Infiltrator distributors.



IM-540	
Total Capacity	552 gal (2090 L)
Length	64.9" (1648 mm)
Width	61.7" (1567 mm)
Height	54.6" (1387 mm)
Maximum Burial Depth	48" (1219 mm)
Minimum Burial Depth	6" (152 mm)
Maximum Pipe Diameter	4" (100 mm)
Weight	169 lbs (77 kg)



4 Business Park Road
P.O. Box 768
Old Saybrook, CT 06475
860-577-7000 • Fax 860-577-7001
1-800-221-4436
www.infiltratorwater.com

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending. Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Water Technologies. Infiltrator is a registered trademark in France. Infiltrator Water Technologies is a registered trademark in Mexico. Crtour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Water Technologies. PolyLok is a trademark of PolyLok, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.

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IM11 0813

Contact Infiltrator Water Technologies' Technical Services Department for assistance at 1-800-221-4436



Minnesota Well Index

General Information

Unique Well ID:	777860	Well Name:	TAFLIN, ROSS	County:	Aitkin	Aquifer:	Quat. buried artes. aquifer
Well Elevation (msl in feet):	1261	Drilled Depth (ft):	132	Well Completed (ft):	132	Date Drilled:	05/04/2010
Township:	46	Range:	27	Dir:	W	Section:	23
Subsection:	DDCCCB	Use:	domestic	Well Status:	Active	Depth To Bedrock:	
Driller:	Hasskamp Bros. Well Drilling	Entry Date:	12/13/2011	Update Date:	09/12/2017		

Related Resources:

[Go to MN Well Index Map](#)
 [Well Log Report](#)
 [Scanned Record\(s\)](#)
 [Stratigraphy Report](#)

[More Details](#)
[Stratigraphy](#)
[Address](#)
[Chemical Data](#)
[Construction](#)
[Pump Test](#)
[Static Water](#)
[Comments](#)

[Location Changes](#)
[Overview Map](#)

Description	From(ft)	To(ft)	Color	Hardness	Lith Primary	Lith Secondary	Interpretation
SANDY CLAY	0	22	BROWN	SOFT	CLAY		clay+sand-brown
SANDY CLAY	22	56	GRAY	SOFT	CLAY		clay+sand-gray
GRAVEL	56	68	GRAY	MEDIUM	GRVL		gravel (+larger)-gray
CLAY	68	114	BROWN	SOFT	CLAY		clay-brown
SAND	114	132	BROWN	SOFT	SAND		sand-brown



Detailed Parcel Report

Parcel Number: 07-0-046102

General Information

Township/City: FARM ISLAND TWP
 Taxpayer Name: ISABEL, ROBERT S & SARAH E GOHL
 Taxpayer Address: 1333 BUCHER AVE
 SHOREVIEW MN 55126
 Property Address: 30040 414th Pl
 Township: 46 Lake Number: 1017800
 Range: 27 Lake Name: SPIRIT LAKE *RD*
 Section: 23 Acres: 1.52
 Green Acres: No School District: 1.00
 Plat:
 Brief Legal Description: .36 AC IN SW SE & 1.16 AC IN LOT 1 AS IN DOC #209680 & 252284

Tax Information

Class Code 1: Non-Comm Seasonal Residential Recreational
 Class Code 2: Unclassified
 Class Code 3: Unclassified
 Homestead: Non Homestead
 Assessment Year: 2019

Estimated Land Value:	\$171,700.00
Estimated Building Value:	\$51,100.00
Estimated Total Value:	<u>\$222,800.00</u>
Prior Year Total Taxable Value:	\$222,900.00
Current Year Net Tax (Specials Not Included):	\$1,792.00
Total Special Assessments:	\$0.00
**Current Year Balance Not Including Penalty:	\$896.00
Delinquent Taxes:	No

* For more information on delinquent taxes, please call the Aitkin County Treasurer's Office at 218-927-7325.

** Balance Due on a parcel does not include late payment penalties.



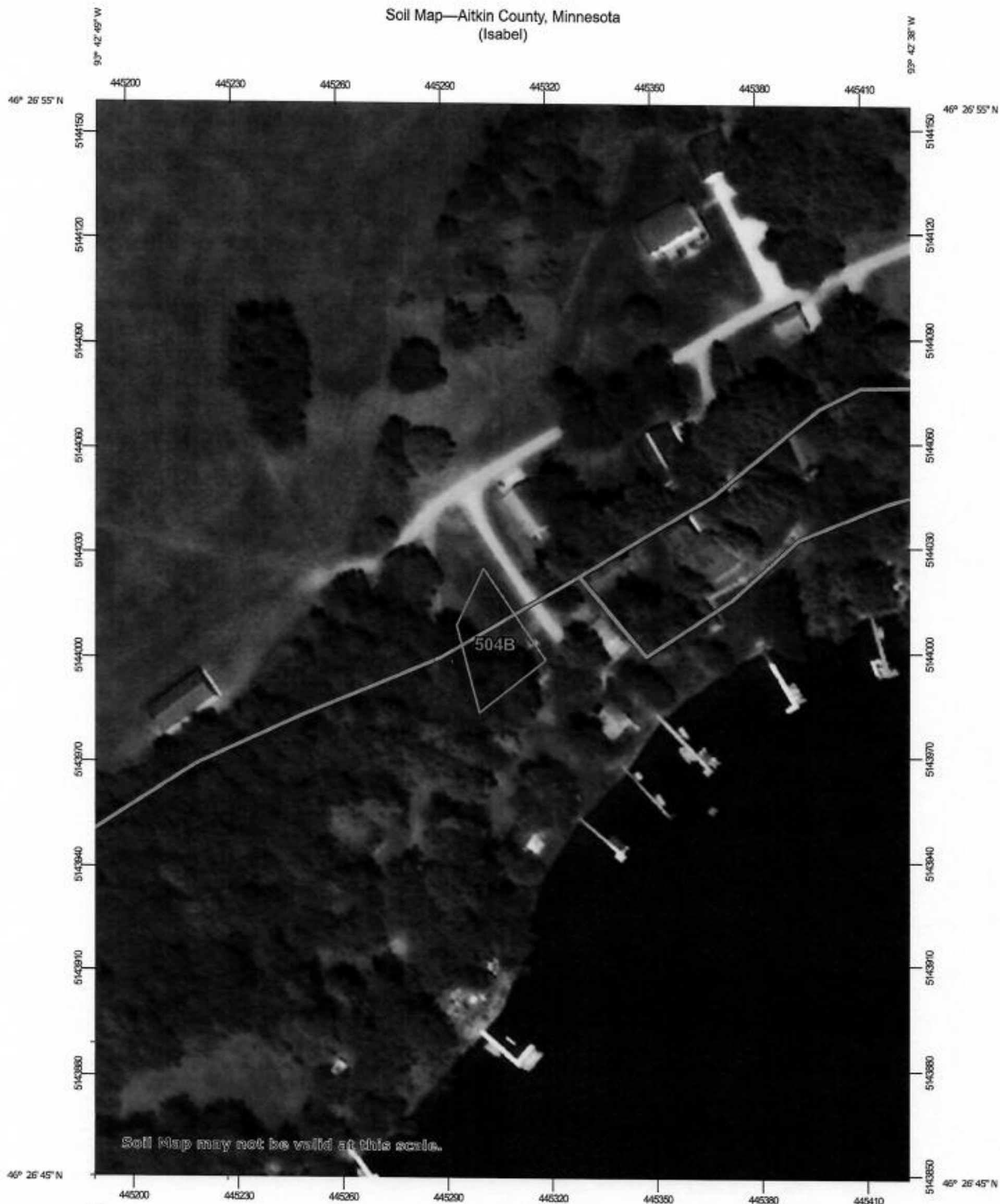
These data are provided on an "AS-IS" basis, without warranty of any type, expressed or implied, including but not limited to any warranties to their performance, merchantability, or fitness for any particular purpose.

Isabel



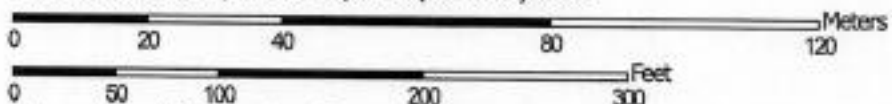
Date: 9/3/2019

Soil Map—Aitkin County, Minnesota
(Isabel)



Soil Map may not be valid at this scale.

Map Scale: 1:1,500 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 15N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

10/12/2019
Page 1 of 3

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
504B	Duluth fine sandy loam, 1 to 6 percent slopes	0.1	100.0%
Totals for Area of Interest		0.1	100.0%

Aitkin County, Minnesota

504B—Duluth fine sandy loam, 1 to 6 percent slopes

Map Unit Setting

National map unit symbol: gjh7
Elevation: 980 to 1,640 feet
Mean annual precipitation: 25 to 30 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 120 to 140 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Duluth and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Duluth

Setting

Landform: Moraines
Landform position (two-dimensional): Backslope, summit
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy till

Typical profile

A - 0 to 3 inches: fine sandy loam
E,Bw,2BE,2Bt - 3 to 41 inches: clay loam
2C - 41 to 60 inches: loam

Properties and qualities

Slope: 1 to 6 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat):
Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 13 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Available water storage in profile: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Forage suitability group: Sloping Upland, Acid (G090AN006MN)
Hydric soil rating: No

Minor Components

Mahtowa and similar soils

Percent of map unit: 3 percent

Landform: Depressions

Hydric soil rating: Yes

Blackhoof and similar soils

Percent of map unit: 3 percent

Landform: Depressions

Hydric soil rating: Yes

Rifle and similar soils

Percent of map unit: 3 percent

Landform: Bogs

Hydric soil rating: Yes

Cromwell and similar soils

Percent of map unit: 2 percent

Hydric soil rating: No

Dusler and similar soils

Percent of map unit: 2 percent

Hydric soil rating: No

Cutaway and similar soils

Percent of map unit: 2 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Aitkin County, Minnesota

Survey Area Data: Version 20, Sep 16, 2019