

AUG 13 2007

OP#312

ZONING PERMIT APPLICATION

Builder Woodland Homes Contractor Dave Lindberg

FULL NAME Tim Hanratty TELE # 651-462-4101
 MAIL ADDRESS Builder: Woodland Homes, PO Box 600
 CITY Wyoming STATE MN ZIP 55092
 911 ADDRESS OF PROPERTY 39307 State Hwy 18
 CITY Aitkin STATE MN ZIP 568431
 TOWNSHIP Wealthwood
 LEGAL DESCRIPTION _____
 SECTION 30 TOWNSHIP 45 RANGE 26

OFFICE USE ONLY	
DATE <u>9/10/07</u>	APPROVE / DENY
PERMIT# <u>35574</u>	
PARCEL# <u>36-0-044700</u>	
RECEIPT# <u>9941</u>	
CONFORMING SEPTIC <u>OP#312</u>	
YES P#	NO NEW

(circle) **RESIDENTIAL** COMMERCIAL ACCESSORY NEW BUILDING ALTERATION

BUILDING CONTRACTOR AND LICENSE NUMBER: Crystal Bay Corporation 20064904

SIZE OF ALL BUILDINGS COVERED BY THIS APPLICATION
Loft home 28x52, 2200 sq feet plus a 6x28 deck

4 Bed Multi-Flow Aerobic Septic System

COMMENTS: receipt was mailed to Lindberg with OP permit agreement 08-21-07 P. 24

DESIGNER: A.M. and Associates Inc - Michael Do'Keefe

DATA FOR SEWER CONSTRUCTION: INSTALLER Mark Ritter #BEDROOMS/GPD 4

The undersigned hereby makes application for permit to construct as herein specified, agreeing to do all such work in strict accordance with the Ordinances of the County of Aitkin, Minnesota; Minnesota Individual Sewage Disposal Code Minimum Standards set forth by Minnesota Department of Health; and Shoreland Management Standards set forth by Minnesota Department of Natural Resources. Applicant agrees that plot plan, sketches and specifications submitted herewith and which are approved by the Zoning Official, shall become a part of the permit. **APPLICANT FURTHER AGREES THAT NO PART OF THE SEWAGE SYSTEM SHALL BE COVERED UNTIL IT HAS BEEN INSPECTED AND ACCEPTED.** It shall be the responsibility of the applicant for the permit to notify the Zoning Office (at least 24 hours in advance) that the Septic System is ready for inspection.

X [Signature]
SIGNATURE APPLICANT/AGENT

DO NOT WRITE BELOW THIS LINE

ZONING DISTRICT & FLOOD PLAIN
 ZONING DISTRICT 36
 LAKE/STREAM/RIVER NAME Mille Lacs
 LAKE/RIVER ID NUMBER 48-0002
 LAKE/RIVER/STREAM CLASSIF. GD
 PARCEL LOCATED IN FLOOD PLAIN? Y X N
 10/100-YR. FLOOD ELEVATION 1253.6
 LOWEST FLOOR ELEVATION 1254.6
 ELEV. CERTIFICATE REQUIRED Y X N
 BEFORE CONSTRUCTION Y X N
 AFTER CONSTRUCTION Y X N

STRUCTURE SETBACK DISTANCE REQUIREMENTS
 (Measure from eaves or overhang)
 OHW TO LAKE/RIVER/STREAM 75
 PROPERTY LINE SETBACK (10-ft./20-ft.) 10ft
 SETBACK TO ROAD R-O-W (30-ft./50-ft. Co., State, Fed.)
 SETBACK TO BLUFF (30-ft.)
SEPTIC SYSTEM SETBACK DISTANCES
 SETBACK TO STRUCTURES - (10-ft. Tank / 20-ft. Drainfield)
 OHW TO LAKE/RIVER 75
 PROPERTY LINE SETBACK 10-ft.
 SETBACK TO ROAD R-O-W 10-ft.

****ATTACH COPY OF ELEVATION CERTIFICATES****
 SOIL BORINGS 2 Pits SEPTIC DESIGN Other GARBAGE DISP/HOT TUB
 SSF 1.27 DEPTH TO RESTRICTING LAYER 2.5' YES NO X
 MIN. SIZE SEPTIC TANK 1860 MIN. SIZE PUMP TANK 630
 DRAINFIELD: MINIMUM SQ.FT 762 WITH 12 INCHES ROCK BELOW PIPE
 MOUND: MINIMUM ROCK BED SQ.FT _____ WITH 9 INCHES ROCK BELOW PIPE
 MIN. UPSLOPE SAND WIDTH _____ MIN. DOWNSLOPE SAND WIDTH _____ END SAND WIDTHS _____

RECOMMENDATIONS: 250 Res
250 other system
50 Operating Permit

EXPIRES IN ONE YEAR • Aitkin County Zoning
 Courthouse - 209 2nd St. NW. Room 118 • Aitkin, Minnesota 56431
 Telephone 218/927-7342

\$ 550 FEE RECEIVED BY [Signature] DATE 08-20-07

SUPPLEMENTAL DATA FOR LAND USE PERMITS

Page 1 of 2

*** COMPLETE BOTH SIDES ***

A. PLANNING CHECKLIST *(required for all permits):*

Any property within 1,000 feet of a lake, 500 feet of the Mississippi River, or 300 feet of any other river, stream or flowage is zoned Shoreland.

- | | YES | NO | ??? |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| 1. Are you aware of setback requirements and will your project meet them? <i>Note: Setback distances are taken from any projection of the building (i.e. overhangs, eaves, decks, etc.)</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Are you aware of impervious surface requirements and will your project meet them? <i>Note: In the Shoreland District, Buildings can not exceed 15% of total lot area and lot coverage 25%</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Have you taken in consideration locations for future buildings, septic systems, decks, driveways, etc? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Will this structure be used for commercial purposes. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Is there a steep slope or bluff on or near the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <i>(If yes, complete Section D)</i> | | | |
| 6. Are you constructing a walkout basement in the shoreland district of a lake, river, or stream (If yes, complete Section D) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Are there any lowlands or wetlands on or near the site project? | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. Will the project involve the clearing of trees or shrubs within the Shore Impact Zone of a lake or river? (If yes, complete Section D) ... | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 9. Will the project involve grading, filling or landscaping within the shoreland district of a lake or river? (If yes, complete Section D) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Is your property in a floodplain? (If yes, complete Section D) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If it is, the lowest floor (which includes basement or crawl space, regardless of a dirt floor) must be one foot (1') above the 100-year flood elevation or 3 feet above the highest known water level. A benchmark established by a registered surveyor or licensed engineer may be required before granting a land use permit.

B. PRE-EVALUATION INSPECTION REQUEST *(required for all permits):*

Defining and staking the property lines, road right-of-ways, septic sites, and wells are the responsibility of the property owner. In some cases, a registered survey may be required to verify setbacks before granting a permit.

ALL PROPOSED DEVELOPMENT REQUESTS MUST BE CLEARLY STAKED AT ALL FOUR CORNERS IF APPLICABLE, IF STAKES ARE NOT PRESENT OR VISIBLE IT MAY RESULT IN ADDITIONAL FEES OR A DELAY IN THE PERMIT PROCESS.

The undersigned hereby makes application for a pre-evaluation permit inspection, agreeing that all setback information and delineation of property lines, well location, road setbacks, and development corners have been properly marked in accordance with the standards and requirements of the Aitkin County Ordinances.

Telephone Number between the hours of 8:00 A.M. and 4:00 P.M. 622-581-7819

Landowner: Tim Hawratty - Dave Lindberg - Rubber Date: 6-20-07

Address: 9800 Shepard Place #340
Plymouth, MN 55441

LANDOWNER SIGNATURE: X Daniel J. Lindberg - builder

If you have any questions please contact the Planning and Zoning office at (218) 927-7342
Ordinances and Publications are available FREE online at: www.co.aitkin.mn.us

WE LOOK FORWARD TO WORKING WITH YOU

FIELD EVALUATION SHEET

NAME Tim Hanratty PERMIT # 3335574
 PARCEL # 36-0-044700 TWP 45 SECTION 30

CHECK THE FOLLOWING PRIOR TO INSPECTION

NAME OF SITE EVALUATOR _____
 NAME OF DESIGNER _____
 NAME OF INSTALLER _____

LUR LOT OF RECORD BEFORE 1-21-92 (SD) OR 1-10-95 (NSL), IF NO, ALT. SITE? _____
 SITE PLAN WITH SETBACK DISTANCES AND DIMENSIONS _____
 ARE ISTS SITES PROTECTED FROM DAMAGE? IF NOT, WHEN _____
Other Septa DESIGN _____ PERC TESTS _____ SOIL BORINGS, 2 PER SITE _____
4 Bed NUMBER OF BEDROOMS (INCLUDE POTENTIAL) _____
 CROSS SECTION SHEET _____
 MOUND DESIGN SHEET _____ TRENCH DESIGN SHEET _____
 PRESSURE DISTRIBUTION SHEET _____ OTHER OR PERFORM _____
 WATER USE CALCULATIONS _____ PUMP CALC. TEST _____
NO GARBAGE DISPOSAL _____ NO HOT TUB _____
Public EASEMENTS ON LOT, IS ROAD PUBLIC OR PRIVATE SEE DEED/PLAT _____
Yes NATURAL LANDSCAPE PROTECTION PLAN _____

STAKING: BUILDINGS X, DRAINFIELD X, BORINGS _____, WELL _____
 BUILDING SETBACKS: ROAD _____, SIDE _____, REAR _____, BLUFF _____
 LAKE/RIVER _____

COMPLETE DURING SITE EVALUATION
 BUILDINGS STAKED _____ DRAINFIELD STAKED _____ BORINGS STAKED _____
 WELL STAKED _____

SETBACKS (MEASURE DISTANCE)

	DRAINFIELD	HOUSE
FLOOD PLAIN	YES/NO	YES/NO
WETLANDS	YES/NO	YES/NO
LAKE, RIVER, PROTECTED WATERS	775'	775'
ROAD RIGHT OF WAY	30'	745'
BLUFF	NO	NO
SIDE LOT LINE	10'	710'
REAR LOT LINE	OR	0/C
HOUSE OR OTHER STRUCTURE		
WELL		
EASEMENTS	TUBE DRILLED	TO BE DRILLED
NEIGHBORING WELL (S) TO ISTS	(1) / (2)	(3) / (4)
DRAINFIELD AREA DISTURBED		

CONFORMING SEPTIC SYSTEM: YES X NO If no, list reasons below.
 COMMENTS OR PROBLEMS (drainage, swales, wetlands, need gutters, etc.) MUST MEET ALL SEPTIC SETBACKS TO BE INSTALLED

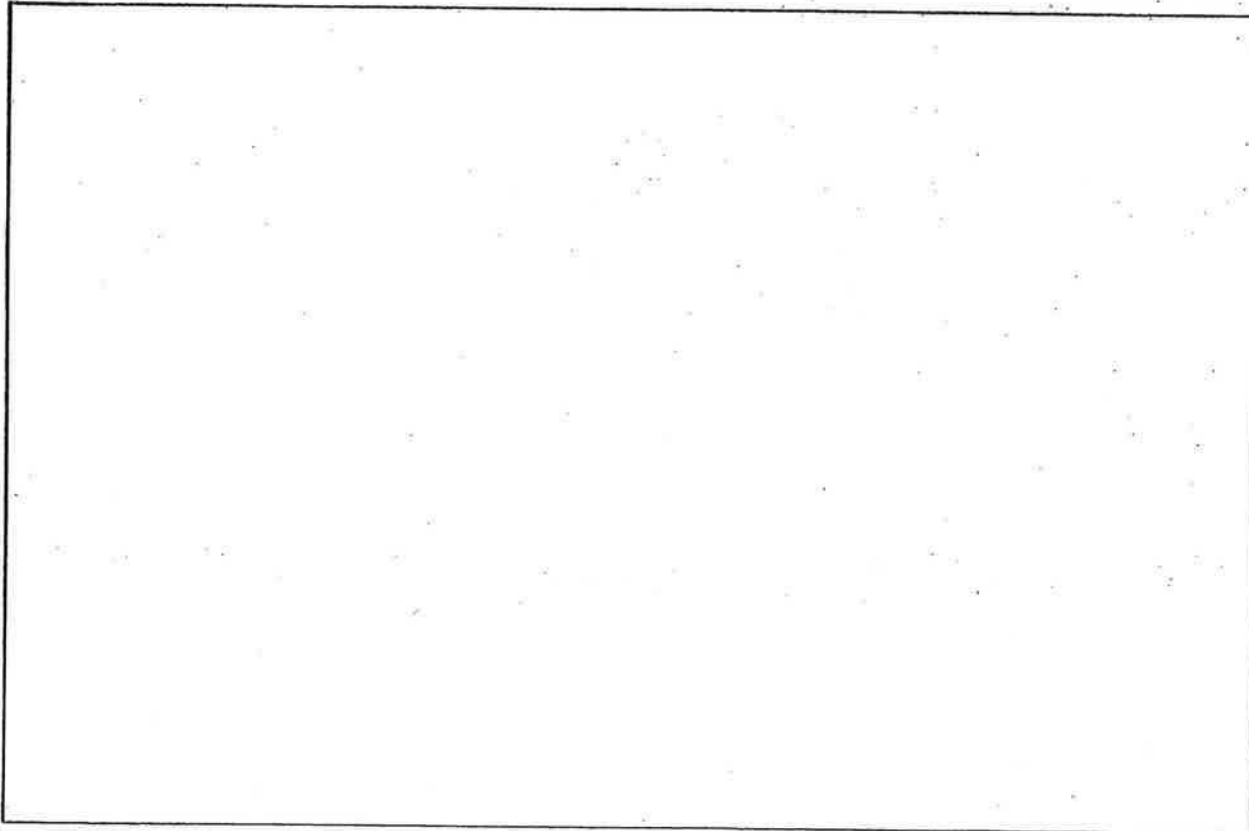
APPROVED: YES OR NO

INSPECTORS NAME M. Keller DATE 8-22-07 # PICTURES _____

SOIL BORING LOGS AND SKETCH PLAN ON REVERSE SIDE

SOIL BORING LOG #1			SOIL BORING LOG #2		
DEPTH	TEXTURE	COLOR	DEPTH	TEXTURE	COLOR
0-4"	TO SOIL				
4"-31"	SAND	5YR 3/4			
	Mottles @ 30"				

IDENTIFY LOCATIONS OF: (BORINGS; NEIGHBORING STRUCTURES; WELLS, DRAINFIELDS, DRAINAGE PATTERNS, OR OTHER FEATURES THAT MAY IMPACT THE SITE).



*** COMPLETE BOTH SIDES ***

C. Directions to your Property From Aitkin (required for all permits):

From a major intersection: _____

From Hwy 169 - go east on Hwy 18 approximately 4.2 miles - home on right

D. NATURAL LANDSCAPE PROTECTION PLAN:

Complete this section only if you were directed to in Section A OR if you are working within 1,000 feet of a lake, 500 feet of the Mississippi River, or within 300 feet of any other river, stream or flowage.

1. Description of proposed construction: New single family home
2. Existing vegetative cover (e.g., forested, grass, shrub, lawn, etc.)? shrubs, lawn
3. Setback from the Ordinary High Water Level (OHW) for proposed construction? 75'
4. How much excavation or fill work is being done inside the Shore Impact Zone (SIZ)? 0
(If excavation or fill work greater than 10 cu yds is being done, supply copy of Site review from SWCD*)
(The SIZ: Mississippi River & NE Lakes = 75 feet, RD & GD lakes = 50 feet, other waters-see ordinance)
5. How much excavation or fill work is being done outside the Shore Impact Zone (SIZ)? 80-100 yards
(If excavation or fill work greater than 50 cu yds is being done, supply copy of Site review from SWCD*)
6. What percent slope of the land currently exists on the construction site? none - 3%
(If the percent slope is greater than 20%, supply copy of Site review from SWCD*)
7. How much clearing of trees and shrubs will be done inside the Shore Impact Zone (SIZ)? none
(If vegetation will be cleared in the SIZ, supply copy of Site review from SWCD*)
8. How will erosion be controlled during construction? (Attach additional info and drawings as necessary)
Silt fence between new construction and the lake and around any excavated soils
9. What will be done after construction to control erosion? regrade lot and seed or sod lot

I have read the above and I understand the Natural Landscape Protection Plan as prepared. I hereby agree to implement this plan as part of the Land Use Permit.

X [Signature]
Landowner Signature

Date

Zoning Official

Date

*The Aitkin County Soil and Water Conservation District (SWCD)
130 Southgate Center, Aitkin MN 56431 - Telephone (218) 927-6565 or swcd@mlecmn.net

MILLE LACS LAKE

Site Plan

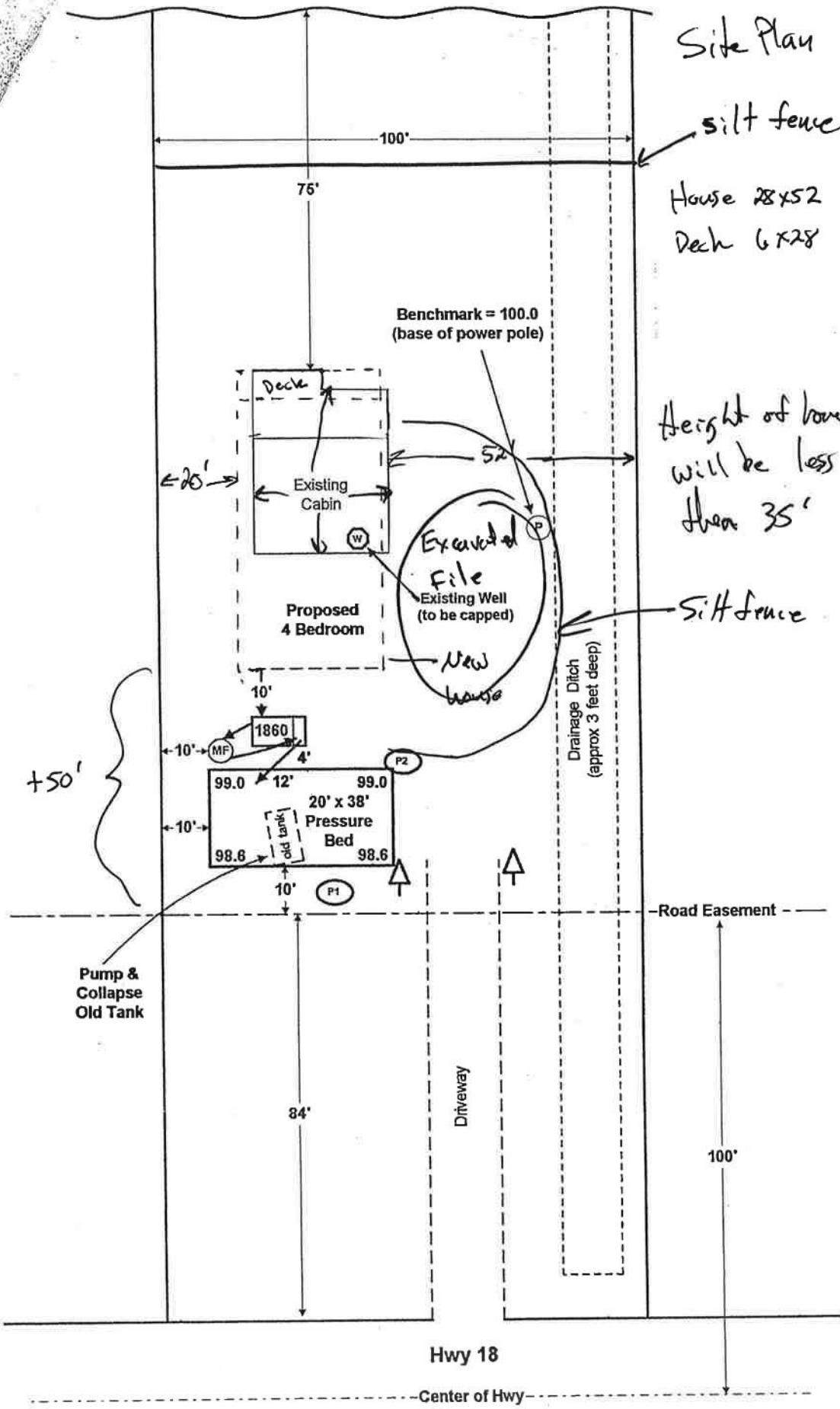
silt fence

House 28x52
Deck 6x28

Height of home
will be less
than 35'

Silt fence

Benchmark = 100.0
(base of power pole)



← 20' →

52'

10'

← 10' →

← 10' →

10'

4'

12'

10'

84'

+50'

Road Easement

Hwy 18

Center of Hwy

100'

Driveway

Drainage Ditch
(approx 3 feet deep)

Pump &
Collapse
Old Tank

Deck
Existing Cabin

Proposed
4 Bedroom

Excavated
File
Existing Well
(to be capped)

New
House

1860
20' x 38'
Pressure
Bed

P1

P2

W

↑

↑

AITKIN COUNTY ENVIRONMENTAL SERVICES-PLANNING & ZONING

209 Second Street, NW
Aitkin, Minnesota 56431

PH: (218) 927-7342
FX: (218) 927-4372



August 20, 2007

RE: Septic Operating Permit #312; Zoning
Permit #35574; Parcel #36-0-044700

HANRATTY, TIMOTHY J
C/O HANRATTY & ASSOCIATES
9800 SHELARD PKWY SUITE 340
PLYMOUTH MN 55441

Dear Mr. Hanratty:

Enclosed is the Operating Permit for an "Other" Septic System (formerly Experimental, Performance, etc.) that you are petitioning Aitkin County Zoning to allow to be installed on your property instead of holding tanks or a standard system. Please review this permit thoroughly and become aquatinted with all of the conditions, then sign the operating permit and return it to me with the enclosed envelope. NOTE: ALL FEES HAVE BEEN PAID THROUGH May 31, 2009.

One provision that is often overlooked by homeowners is the State of Minnesota requirement that a water meter or other flow measuring device be installed and the results recorded by the homeowner on a MONTHLY basis.

Sometime before this 2009 deadline, you will receive an annual reminder notice on how to renew your operating permit with Aitkin County. This reminder notice will ask that you provide the 1) monthly water meter readings, 2) annual Compliance Inspection report, and 3) renewal application and fee. The Compliance Inspector (CI) is privately hired by you, the landowner and must review the septic system onsite on an annual basis while an operating permit covers the system. This annual review would be a great opportunity to review the conditions of the operating permit.

Should you have questions, please contact me at the number above.

Missy Kingsley
Aitkin County Planning & Zoning

Enclosure

AITKIN COUNTY ENVIRONMENTAL SERVICES

**OPERATING PERMIT FOR WASTEWATER
TREATMENT AND DISPERSAL**

OPERATING PERMIT #: 312

FEE: 50

PERMITTEE: Tim Hanratty

PHONE:

ADDRESS: 9800 Shelard Pkwy Suite
Plymouth, MN 55441-

ZONING PERMIT # 35574

PARCEL #: 36-0-044700

ISSUE DATE: 8/20/2007

RENEW DATE: 5/31/2009

LEGALDESCRIPTION: Part of E 100FT of W 1007FT of lot 2 S of hwy 18

Aitkin County Environmental Services authorizes the Permittee to operate a wastewater treatment and dispersal system located on the above described property in accordance with the requirements of this permit.

This permit is effective on the issuance date identified above.

This permit and the authorization to treat and disperse from the above system shall expire on the above expiration date. The Permittee is not authorized to discharge after the date of expiration. The Permittee shall submit such information and forms as required by Aitkin County Environmental Services no later than thirty (30) days prior to the expiration date. When the required information is submitted and approved by Aitkin County Environmental Services, the permit may be renewed. This permit is not transferable from owner to owner.

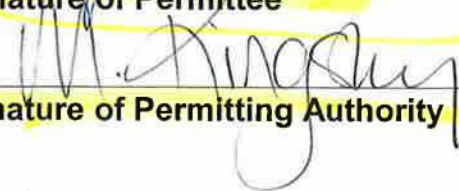
I hereby certify with my signature as the permittee that I understand the provisions of this permit including the maintenance and monitoring requirements. I agree to indemnify and hold Aitkin County harmless from all loss, damages, costs and charges that may be incurred by use of this system and if I fail to comply with the provisions of this Operating Permit. If I sell this property during the life of the permit, I will inform the new owner(s) of the permit requirements and the need to renew the permit.



Signature of Permittee

9/1/07

Date



Signature of Permitting Authority

9/10/07

Date

If You have any questions regarding this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact Aitkin County Environmental Services at 218-927-7342.

A. DESCRIPTION OF WASTEWATER TREATMENT AND DISPERSAL SYSTEM

Multi-Flow Aerobic Treatment System Dispersing into a 20x38 pressure bed sized for 4 bedrooms. This is to have the wastewater gravity from the proposed 4 bedroom dwelling into a new 1860 combination tank with a pump vault placed into the septic side of the tank. It will be timed dosed at a maximum of 600 gallons per day into a multi-flow aerobic treatment system, then gravity into the lift side of the 1860 combination tank. From there, it will pump on demand into a new 20'x 38' pressure bed with 2 feet of separation.

B. PERFORMANCE STANDARD REQUIREMENTS:

During the period beginning on the effective date (issuance date) of this permit and lasting until this permit's expiration date, the Permittee is authorized to discharge from the wastewater treatment unit to subsurface dispersal. No surface discharge is permitted. The following parameters must be monitored and the results must be found within the compliance limits.

PARAMETER	COMPLIANCE LIMIT	SAMPLE LOCATION	SAMPLE FREQUENCY	SAMPLE TYPE	REPORTING FREQUENCY
Fecal Coliform	<10,000 CFU/100ML	ATU/ Pump Tank		Record on Log Sheet	ANNUALLY
Flow	600 gpd	Water Meter	MONTHLY	Record on Log Sheet	ANNUALLY
Separation	2 Ft	Drain Field		Record on Log Sheet	ANNUALLY

C. MAINTENANCE REQUIREMENTS:

PARAMETER	LOCATION	FREQUENCY
Flow	Water Meter	MONTHLY
Pressurization of Laterals	Multi Flow	Semi Annually
Pumps, Floats & Alarms	Septic tank(s)	ANNUAL
Surface Discharge	Septic tank(s)	ANNUAL
Visual	Total System	ANNUAL

D. MONITORING AND REPORTING REQUIREMENTS:

Monitoring results obtained during each calendar year shall be submitted no later than December 31st of that year to:

Aitkin County Environmental Services
209 2nd Street NW
Aitkin, MN 56431

The monitoring reports shall be signed by the Permittee. Copies are to be retained by the Permittee.

The Permittee shall notify Aitkin County Environmental Services within thirty (30) days when monitoring results do not meet the monitoring plan requirements of this permit.

Monitoring plans may be modified as necessary and reapproved by Aitkin County Environmental Services.

Sampling and laboratory testing procedures shall be performed in accordance with Standard Methods and the testing shall be performed by a Minnesota Department of Health approved laboratory. All sampling and testing costs shall be the responsibility of the Permittee.

Monitoring will be done by Mark Ritter.

E. MITIGATION PLAN:

if weeping problems should occur; lower dosing rate, lower water usage waste strength, if fecals exceed limit, reduce waste strength or change waste characteristics. If fecals continue to exceed limit, add disinfections. If multi flo experiences problems, fix or repair at recommendation of manufacturer or replace. A different or another performance or other system may be installed at the owner's expense. If in the event that this system should fail and if there is no other ists option available, then holding tanks must be installed to be pumped by licensed pumper

F. SPECIAL REQUIREMENTS:

A. M. & Associates, Inc.

29465 442nd Lane
Palisade, MN 56469
(218) 768-4430

Michael D. O'Keeffe
Annette M. O'Keeffe

Septic Systems
Designs & Inspections
MPCA #1357

THE ENCLOSED INDIVIDUAL SEWAGE TREATMENT SYSTEM (ISTS)
IS DESIGNED SPECIFICALLY FOR:

Timothy Hanratty
9800 Shelard Place
Suite 340
Plymouth, MN 55441
(612) 718-2221

For property located at:
39307 State Hwy 18
Aitkin, MN 56431

Wealthwood Township
Sec 30, Twp. 45, Rge. 26
Parcel# 36-0-044700

APPROVED

ONSITE INSPECTION

NO ONSITE INSPECTION

February 27, 2006

SIGN. RPC DATE 3-1-06

**MULTI-FLOW AEROBIC TREATMENT SYSTEM
DISPERSING INTO A 20 X 38 PRESSURE BED
SIZED FOR 4 BEDROOMS**

This ISTS is to have the wastewater gravity from the Proposed 4 bedroom dwelling into a New 1860 Combination Tank with a Pump Vault placed into the Septic side of the Tank. It will be Timed Dosed at a maximum of 600 gallons per day into a Multi-Flo Aerobic Treatment System, and then gravity into the Lift side of the 1860 Combination Tank. From there, it will pump on demand into a new 20' x 38' Pressure Bed with 2 feet of Separation.

Note to Property Owner:

Please be advised that with the installation of the enclosed designed septic system, the Property Owner(s) understands and accepts full responsibility of that which is outlined below.

The State of Minnesota has classified the attached ISTS Design as a "Performance Based System", due to the pretreatment devise used to bring the new drainfield into separation compliance. Therefore, the Property Owner(s) accepts all responsibility and risks involved with the installation and hydraulic performance of this Septic System, and holds A.M. & Associates, Inc. harmless from all liability for this Sewage Treatment System whatsoever.

A Maintenance Service, Monitoring and Inspection Contract is required *before* Aitkin Planning & Zoning will accept an application for an Operating Permit.

A WATER METER MUST BE INSTALLED and the Property Owner(s) accepts the responsibility of recording water meter readings on a monthly/regular basis.

The Property Owner(s) accepts the responsibility of all costs involved for the servicing, monitoring, maintenance and mitigation of this system, that may occur.

NOTE TO INSTALLER:

1. Installer is to inform property owner of known supplies, contractors, and expenses required in order to make this ISTS operational -that is *not* covered in his contract.
2. Installer *must verify* all measurements and elevations on jobsite.
3. This system *must* be installed according to *current* Minnesota Chapter 7080 and Aitkin County's ISTS & Wastewater Ordinance requirements.
4. Installer is to contact Designer for questions and/or prior to making any changes to the enclosed design.

TANKS and LINES

1. Pump & Collapse Existing Tank.
2. Install a 1860 gallon Combination Tank.
3. Tank(s) should be water tested for cracks or leaks prior to backfilling.
4. Tank lids *must* be installed at ground level for monitoring and maintenance purposes.
5. Be sure the Sewer and Pump Lines are well supported to avoid bowing after ground settlement.
6. Install 2" "waterproof" styrofoam insulation on top of the Tank(s) and Sewer & Pump Lines to help prevent freezing problems.

MULTI-FLO

1. Install a Multi-Flo Aerobic Treatment Plant beside the Combination Tank.
2. Gravity from the Proposed 4 bedroom dwelling into a New 1860 Combination Tank with a Pump Vault placed into the Septic side of the Tank. It will be Timed Dosed at a maximum of 600 gallons per day into a Multi-Flo Aerobic Treatment System, and then gravity into the Lift side of the 1860 Combination Tank. From there, it will pump on demand into a new 20' x 38' Pressure Bed with 2 feet of Separation.

PRESSURE BED

1. Raise current ground elevation located at elevation of 99.0 (see drawing) to the elevation of 98.6 using Sandy Loam of 1.27. (this must be done in order to meet the 2 feet of separation in this area -depth of Mottling is at Elevation 101.1)
2. Install a 20' x 38' Pressure Bed with 6 inches of Rock with the bottom of the Rock no deeper than 6 inches below the ground surface -(maximum bottom of Rock is to be at the elevation of 98.1)

NOTE: THIS DESIGN IS SIZED FOR 4 BEDROOMS. IF AT TIME OF ONSITE BY PLANNING AND ZONING OR AT TIME OF EXCAVATION, IF THE DESIGNED 20' X 38' DRAINFIELD CANNOT MEET THE REQUIRED SETBACKS, THEN IT CAN BE DOWNSIZED TO A 3 BEDROOM PRESSURE BED WITH TIME DOSING SET TO A MAXIMUM OF 450 GALLONS PER DAY. (PER RICH COURTEMACH AT PLANNING & ZONING 2/27/06).

TIMED DOSING PANEL

1. Control panel must be a minimum of 4 feet high from finished ground surface for access. (Check with owner on whether to install the panel on house or stand)

MILLE LACS LAKE

**MULTI-FLOW AEROBIC TREATMENT SYSTEM
 20' x 38' "RAISED" PRESSURE BED
 SIZED FOR 4 BEDROOMS**

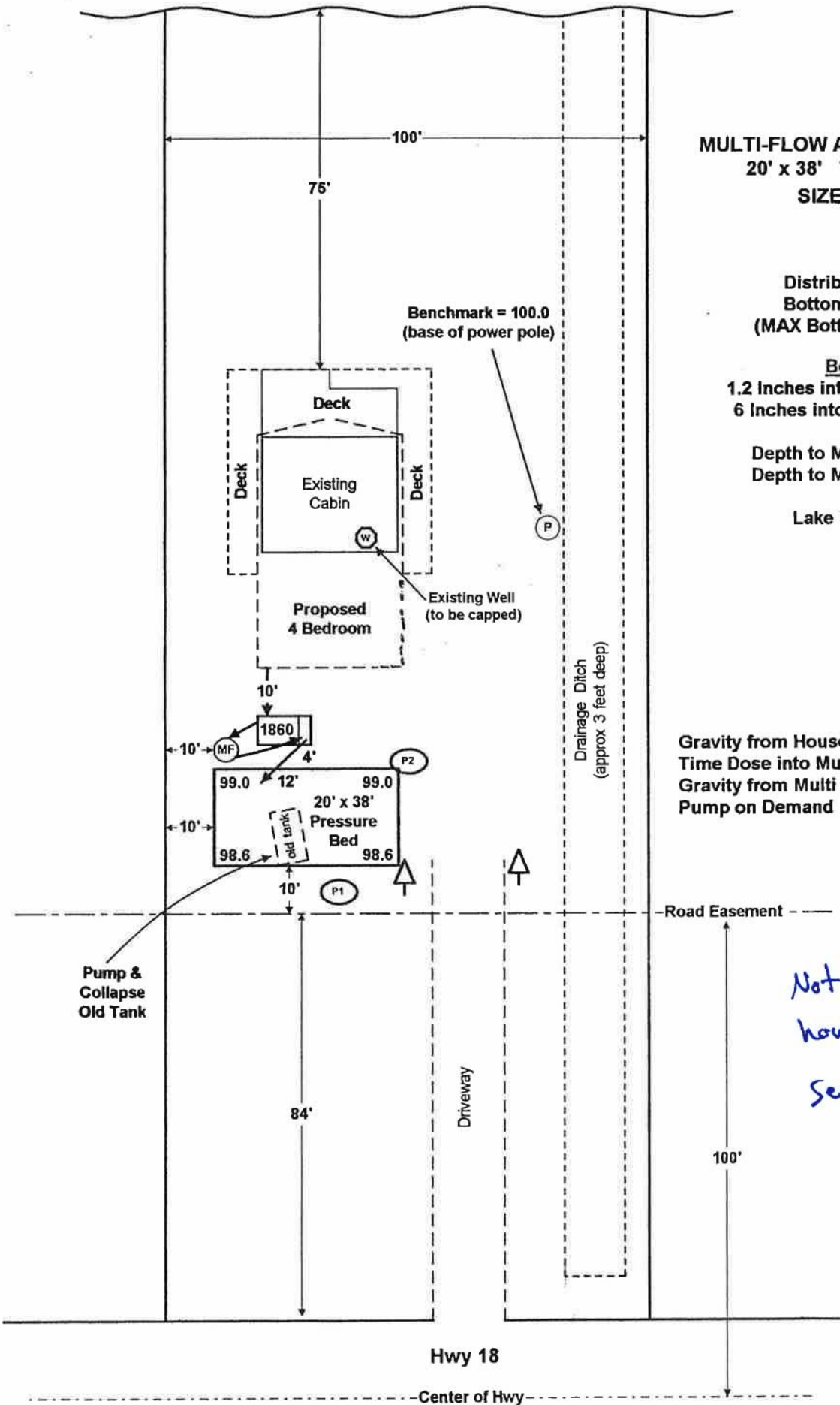
6 Inches of Rock

Distribution Device Elev = 98.6
 Bottom of Rocklayer Elev = 98.1
 (MAX Bottom of Rocklayer Elev = 98.1)

Bottom of Rock Depth
 1.2 Inches into Ground at Gr. Elev 99.0 = 98.1
 6 Inches into Ground at Gr. Elev 98.6 = 98.1

Depth to Mottles at Pit #1 = 30" = 101.1
 Depth to Mottles at Pit #2 = 32" = 101.6

Lake Elevation 2/22/06 = 107.4



Gravity from House to Septic side of 1860 Combo.
 Time Dose into Multi Flow at a maximum of 600gpd.
 Gravity from Multi Flow into Lift side of 1860 Combo.
 Pump on Demand into Pressure Bed.

*Not using this
 house drawing
 see site plan.*

PRESSURE BED DESIGN

PROPERTY OWNER: Timothy Hanratty TWP: Wealthwood

PERMIT#: _____ PIN#: 36-0-044700 DATE: _____

DESIGNER NAME: Michael D. and Annette M. O'Keeffe LICENCE#: 1357

SIGNATURE: *Michael D. O'Keeffe* DATE: 2/27/2006

OF BEDROOMS: 4 TYPE I GARBAGE DISPOSAL No AIR TEST: Unknown
 WELL: Deep (50+) _____ Shallow _____ SETBACKS: Tank _____ Drainfield _____ Sewer Line _____
 Well Depth Unknown

FLOW

- A. ESTIMATE 600 GPD OR MEASURED GPD
 B. SEPTIC TANK VOLUME 1860 Combo GALLONS
 C. MINIMUM PUMP TANK VOLUME = 630 GALLONS
 C1. ALARM TYPE = INSTALLERS CHOICE

SOILS

- D. DEPTH TO RESTRICTING LAYER = 2.5 FEET = 30 INCHES
 E. MAXIMUM SYSTEM DEPTH = 24.0 INCHES OR 98.10 ELEV
 F. SOIL TEXTURE = Sandy Loam (see next page for designed depth)
 F1. PERCOLATION RATE = 6 to 15 MPI
 G. SOIL SIZING FACTOR = 1.27 SQ FT/GPD

EST SEWAGE FLOW IN GALLONS / DAY (GPD)			
NUMBER OF BEDROOMS	TYPE I	TYPE II	TYPE III
2	300	225	180
3	450	300	218
4	600	375	256
5	750	450	294
6	900	525	332
7	1050	600	372
8	1200	675	408

TRENCH BOTTOM AREA

- H. 6 IN. OF ROCK OR GRAVELLESS:
 (A) _____ x (G) _____ = _____ SQ FT
 I. 12 IN OF ROCK: (A) _____ x (G) _____ x .8 = _____ SQ FT
 J. 18 IN OF ROCK: (A) _____ x (G) _____ x .66 = _____ SQ FT
 K. 24 IN OF ROCK: (A) _____ x (G) _____ x .6 = _____ SQ FT

BED BOTTOM AREA (6 OR 12 INCHES OF ROCK)

- L. GRAVITY BEDS: 1.5 x (A) _____ x (G) _____ = _____ SQ FT
 M. PRESSURE BEDS: (A) 600 x (G) 1.27 = 762 SQ FT

ROCK VOLUME IN CU FT

- N. ROCK DEPTH BELOW PIPE (FT) + .5 ft. x (H-M) = CU FT
0.5 + .25 x 762 = 572 CU FT

ROCK VOLUME IN CU YDS

- O. (N) 572 + 27 = 21.2 CU YDS

ROCK WEIGHT

- P. (O) 21.17 x 1.4 = 29.63 TONS

SYSTEM LENGTH

- Q. BOTTOM AREA 762 + TRENCH WIDTH 20 = 38.1 FT
 Q1. GRAVELLESS DESIGN:

(A) x (G) ~ (3 for 10" pipe, or 2 for 8" pipe or width of Chamber)
 (A) _____ x (G) _____ + _____ = _____ FT

LAWN AREA

- R. SELECT TRENCH SPACING, CENTER TO CENTER = _____ FT
 S. (R) 20 x (Q) 38.1 = 762 SQ FT OF LAWN AREA

SEPTIC TANK CAPACITIES/VOLUME (gallons)		
NUMBER OF BEDROOMS	MINIMUM CAPACITIES	
	TANK	GARBAGE DISPOSAL
2 OR LESS	1000	1500
3 OR 4	1000	1600
5 OR 6	1500	2250
7 OR 8	2000	3000
OVER 9	SEE FIG C-6	(x 1.5)

SIZING TABLE		
PERC RATE	SOIL TEXTURE	(SSF) SQ FT GAL/DAY
< THAN 0.1	COARSE SAND	—
0.1 TO 5	SAND	0.83
0.1 TO 5	FINE SAND	1.67
6 TO 15	SANDY LOAM	1.27
16 TO 30	LOAM	1.67
31 TO 45	SILT LOAM	2.00
46 TO 60	CLAY LOAM	2.20
> THAN 60	CLAY	—

Sizing for Gravelless Trench	
6 inches	= 0% Reduction
12 inches	= 20% Reduction
18 inches	= 34% Reduction
24 inches	= 40% Reduction

PUMP SELECTION PROCEDURE

Property Owner: Timothy Hanratty

A. Determine Pump Capacity:

Gravity Distribution

1. Minimum suggested is 20 gpm
2. Maximum suggested is 45 gpm

Pressure Distribution

3. a. Select number of Perforated Laterals = 6
- b. Select Perforation Spacing = 3 feet
- c. Rock Layer Length 38.1 - 2 = 36.1 feet
- d. Determine the number of spaces between perforations:
 - (c) $\frac{36.1}{3} + 1 = 13$ Spaces
- e. (d) 12 + 1 = 13 Perforations/Lateral
- f. (a) 6 x (e) 13 = 78 Total # of Perforations
- g. (f) 78 x gpm/perf 0.74 = 58 gpm

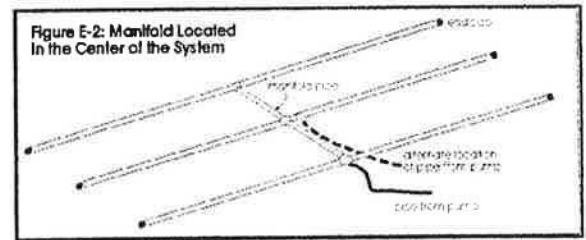
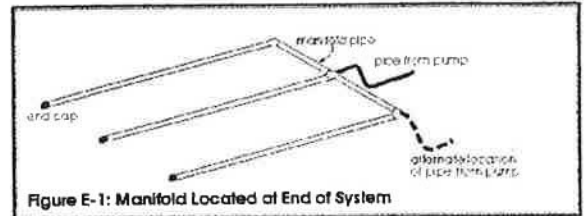
SELECTED PUMP CAPACITY = 58 gpm

B. MINIMUM Diameter for Perforated Laterals

1. If laterals are connected to header pipe as shown in Figure E-1, to select minimum required lateral diameter, enter Figure E-4 with perforation spacing (A3b) and number of perforations per lateral (A3e).
The MINIMUM diameter for perforated laterals = 1.25 inches
2. If perforated lateral system is attached to manifold pipe near the center, like Figure E-2, perforated lateral length (A3c) and number of perforations per lateral (A3e) will be approximately one half of that in Step B1. Using these values, select the MINIMUM diameter for perforated laterals = _____ inches

Head (feet)	Perforation Discharges (gpm)			
	Perforation diameter (inches)			
	1/8	3/16	7/32	1/4
1.0a	0.18	0.42	0.56	0.74
2.0b	0.26	0.59	0.80	1.04
5.0	0.41	0.94	1.26	1.65

a Use 1.0 foot residential systems
b Use 2.0 feet for other establishments
* Potential for plugging



C. Determine Head Requirements:

1. Elevation difference between pump and point of discharge = 4 feet
2. Feet of pressure at manifold = 5 feet
5 ft - for pressure required at manifold
0 ft - for gravity distribution
3. Friction Loss
 - a. Enter friction loss table with gpm and pipe diameter
F.L. = 5.60 ft./100 feet of pipe
 - b. Determine Total Pipe Length from pump to discharge point
Pipe length 12 x 1.25 = 15 feet
 - c. Calculate Total Friction Loss
(a) 5.60 x (b) 15 + 100 = 0.80 feet
 - d. Total Head Required
(1) 4 + (2) 5 + (3c) 0.8 = 10 feet

Perforation Spacing (feet)	Pipe Diameter			
	1	1 1/4	1 1/2	2
2.5	8	14	18	28
3.0	8	13	17	26
3.3	7	12	16	25
4.0	7	11	15	23
5.0	6	10	14	22

Flow Rate gpm	Friction Loss in Plastic Pipe		
	Nominal pipe diameter		
	1.5"	2"	3"
20	2.47	0.73	0.11
25	3.73	1.11	0.16
30	5.23	1.55	0.23
35	6.96	2.06	0.30
40	8.91	2.64	0.39
45	11.07	3.28	0.48
50	13.46	3.99	0.58
55		4.76	0.70
60		5.60	0.82
65		6.48	0.95
70		7.44	1.09

D. Pump Selection

A pump must be selected to deliver at least 58 gpm with at least 10 feet of total head

DESIGNER SIGNATURE: *Michael D. [Signature]*

SIZING OF DOSING CHAMBER

Property Owner: Timothy Hanratty

1. Select gallons per inch = 26

2. Calculate Gallons to cover pump (with 2 inches of water covering pump)

$$\text{Height (in)} + 2 \times \text{gallons per inch (1)}$$

$$\underline{14} + 2 \times \underline{26} = \underline{416} \text{ gallons}$$

3. Calculate Total Pumpout Volume

A. To maximize pump life, select sump size for 4 to 5 pump operations per day. 600 gpd + 5 = 120 gallon per dose.

B. Calculate Drainback

- a. Determine total pipe length = 12 feet.
 b. Determine liquid volume of pipe = 0.17 gallons per foot.
 c. Drainback quantity =
 Total Pipe Length (3Ba) x Pipe Liquid Volume (3Bb) + 100
12 x 0.17 = 2 gallons

C. Total Pump out Volume

$$\text{Gallons/dose (3A)} + \text{Drainback (3Bc)}$$

$$\underline{120} + \underline{2} = \underline{122} \text{ Total Gallons}$$

4. Float Separation Distance

$$\text{Total Pumpout Volume (3c)} + \text{Gallons/inch (1)}$$

$$\underline{122} + \underline{26} = \underline{5} \text{ inches}$$

5. Calculate Volume for Alarm (typically 2 to 3 inches)

$$2 \times \text{Gallons/inch (1)}$$

$$2 \times \underline{26} = \underline{52} \text{ gallons}$$

6. Calculate Total Gallons

$$\text{Gallons to cover pump (2)} + \text{Total Pumpout Volume (3)} + \text{Alarm Volume (5)}$$

$$\underline{416} + \underline{122} + \underline{52} = \underline{590} \text{ Total Gallons}$$

7. Total Depth

$$\text{Total Gallons (6)} + \text{Gallons/inch (1)}$$

$$\underline{590} + \underline{26} = \underline{23} \text{ inches}$$

Tank Size	gal/inch
2500	41
1960 Combo	43
1860 Combo	40
1500	33
1350	32.5
1000	35
730	17
630	26
600	25

Liquid Volume of Pipe		
Pipe diameter (inches)	Gallons Per 100 ft.	Gallons Per foot
1	4.49	0.05
1.25	7.77	0.08
1.5	10.58	0.11
2	17.43	0.17
2.5	24.87	0.25
3	38.40	0.38
4	66.10	0.66

DESIGNER SIGNATURE: *Michael D. [Signature]*

DATE: 2/27/2006

LICENCE#: 1357

SOIL BORING / PIT LOG

PROPERTY OWNER: Timothy Hanratty

PARCEL CODE: 36-0-044700

05/11/2004

NOTE: A MINI-EXCAVATOR WITH A MAXIMUM 4 FOOT DEPTH IS USED TO DIG SOIL PITS.
SOIL BORINGS THEN TAKEN AT BOTTOM OF PITS FOR FURTHER DEPTH SOIL ANALYSIS.

<u>Depth</u>	<u>Color</u>	<u>Texture</u>
<u>Pit #1</u>		
0 - 4		FILL
4 - 18	5YR 3/2	Fine Sandy Loam
18 - 30	5YR 3/4	Sand
30 - 36	5YR 4/6	Rock Layer, Very Gravely Sand
30		RESTRICTING LAYER (per Becky Sovde)
36+	5YR 6/2	MOTTLED

<u>Pit #2</u>		
0 - 20	5YR 3/2	Fine Sandy Loam
20 - 24	5YR 4/4	Sand
24 - 32	5YR 4/4	Very Gravely Sand
32+	5YR 4/6 & 6/2	CEMENTED SAND WITH MOTTLES

AITKIN COUNTY ENVIRONMENTAL SERVICES

APPLICATION for an OPERATING PERMIT FOR WASTEWATER TREATMENT AND DISPERSAL

PERMITTEE Timothy Hanratty PARCEL NUMBER 36-0-044700
ADDRESS 9800 Shelard Place Suite 340 CITY Plymouth STATE MN ZIP 55441
SEC 30 TWP 45 RGE 26 BLOCK _____ LOT _____ ACRES _____
TELEPHONE (612) 718-2221 GIS LOCATION _____
SITE LOCATION 39307 State Hwy 18 , Aitkin -Mille Lacs Lake

A. DESCRIPTION OF WASTEWATER TREATMENT AND DISPERSAL SYSTEM:

MULTI-FLOW AEROBIC TREATMENT SYSTEM DISPERSING INTO A 20 X 38 PRESSURE BED SIZED FOR 4 BEDROOMS

This ISTS is to have the wastewater gravity from the Proposed 4 bedroom dwelling into a New 1860 Combination Tank with a Pump Vault placed into the Septic side of the Tank. It will be Timed Dosed at a maximum of 600 gallons per day into a Multi-Flo Aerobic Treatment System, and then gravity into the Lift side of the 1860 Combination Tank. From there, it will pump on demand into a new 20' x 38' Pressure Bed with 2 feet of Separation.

Number of Bedrooms 4

Flow = 600 gpd

Hydraulic Loading Rate = Soil Loading Rate

Organic Loading Rate = 0.00010 BOD/sqft

$$\text{Flow} \times \text{BOD}(\text{mg}/1) \times 8.35 \div 1,000,000 = \# \text{BOD}$$
$$(600 \times 15 \times 8.35 \div 1,000,000 = .075 \text{ BOD})$$

$$\text{System Loading} = \text{organic loading} \div \text{area} = \text{BOD}/\text{sqft}$$
$$(.075 \div 720 = 0.00010 \text{ BOD}/\text{sqft})$$

Multi-Flow Output = 5 for pretreatment worksheet

Anticipated System Life = 20 - 30 years

Estimated Cost of:

System Construction = \$10,000.00 (±)
Operation = \$10.00 per month
Monitoring, Testing & Service = \$150.00 per year

B. PERFORMANCE STANDARD REQUIREMENTS:

During the period beginning on the date of the Operating Permit and lasting until the Permit's expiration date, the Permittee is authorized to discharge from the wastewater treatment unit to subsurface dispersal. No surface discharge is permitted.

The discharge from the wastewater treatment unit shall be limited by the Permittee as specified below:

PARAMETER	COMPLIANCE LIMIT	SAMPLE LOCATION	SAMPLE FREQUENCY	SAMPLE TYPE	REPORTING FREQUENCY
Flow	600 gpd	Water Meter	Monthly	Record on Log Sheet	At time of Operating Permit Renewal
5-Day BOD					
Total Nitrogen					
Total Phosphorus					
TSS					
Fats, Oils, Grease (FOG)					
Fecal Coliform	Less than 10,000 cfu / 100 ml	ATU / Pump Tank	Bi-annual 1 st Year	Take Sample for Testing	Annually
Separation Distance	2 Feet	Drainfield			Annually

C. MAINTENANCE REQUIREMENTS

PARAMETER	LOCATION	FREQUENCY
Daily Flow	Water Meter	Monthly (record on log sheet)
Sludge & Scum Level	Septic Tank	Annually
Pump, Timers, Alarm, Floats, etc	Tanks	Annually
Pressurization of Laterals in Sand Filter (squirt test)	Multi-Flo	Semi-Annually
Overall visual of entire system for landscaping, drainage and cover material	Total System	Annually

D. MONITORING AND REPORTING REQUIREMENTS:

- 1. Monitoring results obtained during each calendar year shall be submitted no later than December 31st of each year to:

Aitkin County Environmental Services
209 2nd St NW
Aitkin, MN 56431

- 2. The monitoring reports shall be signed by the Permittee. Copies are to be retained for your records.
3. The Permittee or designated agent shall notify Aitkin County Environmental Services within thirty (30) days when monitoring results do not meet the monitoring plan requirements of the Operating Permit.
4. Monitoring plans may be modified as necessary and reapproved by Aitkin County Environmental Services.
5. Sampling and laboratory testing procedures shall be performed in accordance with Standard Methods and the testing shall be performed by a Minnesota Department of Health approved laboratory.

E. MITIGATION PLAN:

- 1. If weeping problems should occur; lower dosing rate, lower water usage.
2. Waste strength: If fecals exceed limit, reduce waste strength or change waste characteristics. If fecals continue to exceed limit, add disinfection.
3. If Multi-Flo experiences problems, fix or repair at recommendations of Manufacturer, or replace.
4. A different or another Performance or Other System may be installed at the owner's expense.
5. If in the event that this system should fail and if there is no other ISTS option available, then Holding Tanks must be installed, to be pumped by Licensed Pumper. A contract must be entered into with a Licensed Pumper.

F. SPECIAL REQUIREMENTS:

- 1. MARK RITTER, a licensed ISTS firm, has agreed to perform all monitoring responsibilities, as outlined within this Operating Permit Application, for a period of Year(s).

I hereby certify with my signature as the designer, that all data for the operating permit application is true and correct to the best of my knowledge.

MICHAEL O'KEEFFE
(Name)

[Handwritten Signature]
(Signature)

1357
(License #)

02/27/2006
(Date)

A.M. & ASSOCIATES, INC.
(Company Name)

29465 442nd LANE PALISADE, MN 56469
(Address)

(218) 768-4430
(Telephone)

AITKIN COUNTY
CERTIFICATE OF COMPLIANCE/NOTICE OF NONCOMPLIANCE

This certificate of compliance/notice of noncompliance has been issued this 19 day of Nov 2007 to certify compliance/noncompliance with Aitkin County's Individual Sewage Treatment System and Wastewater Ordinance No.

1. The premises covered by this certificate are legally described as: Part
of E100 of W 1007F Lot 2 South of Hwy 18
Section 30 Township 45 Range 26 Lake Millie Lacs
PERMIT NO. 35574 Owner Name _____
Address 39307 Hwy 18
Installer Name Ritter
Type of System Inspected "Other"

The certificate of compliance/notice of noncompliance was based on, No 1 of the following:

1) Inspection of the installation or construction as in accordance with the above referenced permit and application design.

2) Review of as-built plans submitted in accordance with Subdivision 4.21 C. Of Aitkin County's Individual Sewage Treatment System and Wastewater Ordinance No. 1.

If the above permitted individual sewage treatment system is in noncompliance with Aitkin County's Individual Sewage Treatment System and Wastewater Ordinance No. 1, then the following shall serve as a Notice of Violation:

1) Statement of the findings of fact through inspections or investigations: _____

2) List of specific violations of Ordinance: _____

3) Requirements for correction or removal of violations: _____

4) Time schedule for compliance: _____

Failure to correct or remove the above violations will result in this matter being turned over to the Aitkin County Attorney's Office for further legal action which may result in revocation of licenses or registrations, fine's and/or imprisonment.

INSPECTOR SIGNATURE _____

Pete Mann

INDIVIDUAL SEWAGE TREATMENT SYSTEM INSPECTION FORM

AITKIN COUNTY, MINNESOTA OP# 312

Township Weatherwood Date of Inspection 11-19-07 Permit Number 35574

Owner Tim Haurathy Parcel Number 36-0-044700

Project Address 39307 Hwy 18 Installer Ritter

City Aitkin Zip Code 56431 New Repair

SETBACKS:

Buildings to tank(s) 10'
Buildings to drainfield +20
Well(s) 50' or 100' 0
Lake/Creek/Wetland +75

SEPTIC TANKS:

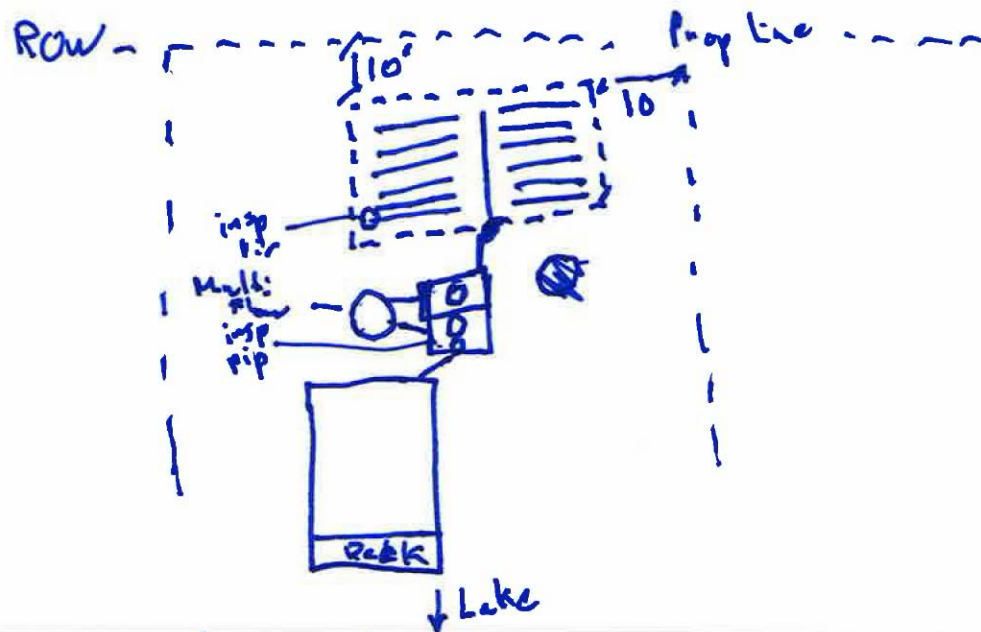
Liquid capacity 1860
Manufacturer & type Iron
Type of baffle plastic
Inspection pipes 1
Manholes access
No. & height of risers 2 + multi flow

MOUNDS:

Percent slope _____
Upslope dike width _____
Downslope dike width _____
Sideslope dike width _____
Drainfield rock below pipe _____
Depth of sand below rock _____
Perforation size & spacing 3'
Pipe size & spacing 1.25
Dimensions of rock bed _____
Dimensions of sand base _____
Final cover _____

DRAWING OF SYSTEM
(Include Soils)

check well capped
verify collapsed tank
soil milled @ 30-32"



DIST. or DROP BOX & TYPE _____

TRENCHES, BEDS, OR GRAVELLESS LEACHFIELD:

Trench depth 24"
Trench length 38
Trench bottom width 20
Trench bottom level
Trench spacing 12 intervals
Drainfield rock below pipe 6"
Size of gravelless pipe _____
Depth of backfill _____
Absorption area: square feet 762 SQ FT
lineal feet 38'

PUMPS:

Tank capacity 1860 -> Multi dose < 600 -> 1860
Tank manufacturer & type _____
No. & height of risers 2
Pump manufacturer & model # _____
Horsepower & GPM 58 GPM
Feet of head 10
Cycles per day 600 CPD.
Gallons per cycle _____
Size of discharge line _____
Type of electrical hookup
Type & location of alarm tank
Cycle counter (commercial) _____

Inspector's Comments _____

Old tank crushed + Filled

Gravity from house to side 1860 time dose multi flow back to 1860
the out to pressure bed

Corrective Action Required _____

Inspector's Signature _____ Installer's Signature _____

[Signature]
White-County Yellow-Applicant Pink-Installer

AITKIN COUNTY ENVIRONMENTAL SERVICES

**OPERATING PERMIT FOR WASTEWATER
TREATMENT AND DISPERSAL**

OPERATING PERMIT #: 312

FEE: \$100

PERMITTEE: Tim Hanratty

PHONE:

ADDRESS: 9800 Shelard Pkwy Suite
Plymouth, MN 55441-

ZONING PERMIT # 35574

PARCEL #: 36-0-044700

ISSUE DATE: 5/31/2009

RENEW DATE: ~~5/31/2010~~

LEGAL DESCRIPTION: Part of E 100FT of W 1007FT of lot 2 S of hwy 18

*5/31/2012
3 year renewal*

Aitkin County Environmental Services authorizes the Permittee to operate a wastewater treatment and dispersal system located on the above described property in accordance with the requirements of this permit.

This permit is effective on the issuance date identified above.

This permit and the authorization to treat and disperse from the above system shall expire on the above expiration date. The Permittee is not authorized to discharge after the date of expiration. The Permittee shall submit such information and forms as required by Aitkin County Environmental Services no later than thirty (30) days prior to the expiration date. When the required information is submitted and approved by Aitkin County Environmental Services, the permit may be renewed. This permit is not transferable from owner to owner.

I hereby certify with my signature as the permittee that I understand the provisions of this permit including the maintenance and monitoring requirements. I agree to indemnify and hold Aitkin County harmless from all loss, damages, costs and charges that may be incurred by use of this system and if I fail to comply with the provisions of this Operating Permit. If I sell this property during the life of the permit, I will inform the new owner(s) of the permit requirements and the need to renew the permit.

Signature of Permittee

9/21/2009

Date

[Signature]

Signature of Permitting Authority

10/28/09

Date

If You have any questions regarding this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact Aitkin County Environmental Services at 218-927-7342.

A. DESCRIPTION OF WASTEWATER TREATMENT AND DISPERSAL SYSTEM

Multi-Flow Aerobic Treatment System Dispersing into a 20x38 pressure bed sized for 4 bedrooms. this is to have the wastewater gravity from the proposed 4 bedroom dwelling into a new 1860 combination tank with a pump vault placed into the septic side of the tank. It will be timed dosed at a maximum of 600 gallons per day into a multi-flow aerobic treatment system, then gravity into the lift side of the 1860 combination tank. From there, it will pump on demand into a new 20'x 38' pressure bed with 2 feet of separation.

B. PERFORMANCE STANDARD REQUIREMENTS:

During the period beginning on the effective date (issuance date) of this permit and lasting until this permit's expiration date, the Permittee is authorized to discharge from the wastewater treatment unit to subsurface dispersal. No surface discharge is permitted. The following parameters must be monitored and the results must be found within the compliance limits.

PARAMETER	COMPLIANCE LIMIT	SAMPLE LOCATION	SAMPLE FREQUENCY	SAMPLE TYPE	REPORTING FREQUENCY
Fecal Coliform	<10,000 CFU/100ML	ATU/ Pump Tank		Record on Log Sheet	ANNUALLY <i>OK ✓</i>
Flow	600 gpd	Water Meter	MONTHLY	Record on Log Sheet	ANNUALLY <i>OK ✓</i>
Separation	2 Ft	Drain Field		Record on Log Sheet	ANNUALLY <i>OK ✓</i>

C. MAINTENANCE REQUIREMENTS:

PARAMETER	LOCATION	FREQUENCY
Flow	Water Meter	MONTHLY <i>OK ✓</i>
Pressurization of Laterals	Multi Flow	Semi Annually <i>OK ✓</i>
Pumps, Floats & Alarms	Septic tank(s)	ANNUAL <i>OK ✓</i>
Surface Discharge	Septic tank(s)	ANNUAL <i>None ✓</i>
Visual	Total System	ANNUAL <i>OK ✓</i>

*See attached sheet from
A.W. Research*

The system appears to be working good. I believe that we can extend the permit for 3 years, as long as we get and maintain contract in place.

*Thanks
Mark P. R. Her
10-26-09*

D. MONITORING AND REPORTING REQUIREMENTS:

Monitoring results obtained during each calendar year shall be submitted no later than December 31st of that year to:

Aitkin County Environmental Services
209 2nd Street NW
Aitkin, MN 56431

The monitoring reports shall be signed by the Permittee. Copies are to be retained by the Permittee.

The Permittee shall notify Aitkin County Environmental Services within thirty (30) days when monitoring results do not meet the monitoring plan requirements of this permit.

Monitoring plans may be modified as necessary and reapproved by Aitkin County Environmental Services.

Sampling and laboratory testing procedures shall be performed in accordance with Standard Methods and the testing shall be performed by a Minnesota Department of Health approved laboratory. All sampling and testing costs shall be the responsibility of the Permittee.

Monitoring will be done by Mark Ritter.

E. MITIGATION PLAN:

if weeping problems should occur; lower dosing rate, lower water usage waste strength, if fecals exceed limit, reduce waste strength or change waste characteristics. If fecals continue to exceed limit, add disinfections. If multi flo experiences problems, fix or repair at recommendation of manufacturer or replace. A different or another performance or other system may be installed at the owner's expense. If in the event that this system should fail and if there is no other option available, then holding tanks must be installed to be pumped by licensed pumper

F. SPECIAL REQUIREMENTS:

6-12-08 = 999810 = Starting
9-3-09 = 999987 = 177

177
x 150

26,550 gal.
÷ 414 days

65 gal. per day



A.W. Research Laboratories Inc.

Analysis Report

October 12, 2009

REPORT TO:
RITTERS SEWER & EXCAVATING

34753 390TH PLACE
AITKIN MN 56431-

INVOICE TO:
RITTERS SEWER & EXCAVATING
MARK RITTER
34753 390TH PLACE
AITKIN MN 56431-

Date Sampled: 9/23/2009
Time Sampled: 13:00
Date Rcvd-Brnd: 9/23/2009
Time Rcvd-Brnd: 14:14

Sampled by: MARK RITTER
Sample Type: WW
Recv Temp: 14.1 C

LOCATION:
TIM HANRATTY

SITE / ANALYTE	Analyzed Value	Public Health Limit	Analytical Method	Analysis Date/Time	Analyst	Code #
LIFT STATION						
BOD (5 DAY), MG/L-C	5.1		SM 5210 B-01 online	9/23/2009 16:00	TZ	01071B
FECAL COLIFORM, COLONIES/100 ML-C	3,000	200 Colonies	SM 9222 D (m-FC)- 97 online	9/23/2009 16:45	SK	01071B
RESIDUE, NONFILTERABLE (TSS), MG/L-C	15.6		USGS I-3765-85	9/24/2009	TZ	01071B

SAMPLES RECEIVED OVER TEMPERATURE, ANALYZED AT CLIENTS REQUEST.

Approved By: *Sara Ostrowski* Date Approved: 10-12-09
Sara Ostrowski, Laboratory Director

A.W. Research Laboratories is Certified by the Minnesota Department of Public Health and follows approved methods and procedures. Minnesota Laboratory Certification # 027-035-135. All data generated using certified methods noted as -C, all data generated using non-certified methods noted as -NC, and all analyts for which certification is unavailable -NA. The results above relate only to the samples tested. This report must not be reproduced, except in full, without the written approval of the laboratory.

~End of Analysis Report~

RECEIVED FROM Tim Hamratty DATE 10/28/09 NO. 413613

ADDRESS 21 Plymouth / mn DOLLARS \$ 100-

FOR RENT Renew OP# 312 Renewal to 3 yrs

ACCOUNT		HOW PAID	
AMT. OF ACCOUNT		CASH	
AMT. PAID		CHECK	<u>2121</u>
BALANCE DUE		MONEY ORDER	

2012 Funds
BY PAK

AITKIN COUNTY ENVIRONMENTAL SERVICES

**OPERATING PERMIT FOR WASTEWATER
TREATMENT AND DISPERSAL**

OPERATING PERMIT #: 312

FEE: 100

PERMITTEE: Tim Hanratty

PHONE:

ADDRESS: 9800 Shelard Pkwy Suite
Plymouth, MN 55441-

ZONING PERMIT # 35574

PARCEL #: 36-0-044700

ISSUE DATE: 5/31/2009

RENEW DATE: 5/31/2012

LEGALDESCRIPTION: Part of E 100FT of W 1007FT of lot 2 S of hwy 18

Aitkin County Environmental Services authorizes the Permittee to operate a wastewater treatment and dispersal system located on the above described property in accordance with the requirements of this permit.

This permit is effective on the issuance date identified above.

This permit and the authorization to treat and disperse from the above system shall expire on the above expiration date. The Permittee is not authorized to discharge after the date of expiration. The Permittee shall submit such information and forms as required by Aitkin County Environmental Services no later than thirty (30) days prior to the expiration date. When the required information is submitted and approved by Aitkin County Environmental Services, the permit may be renewed. This permit is not transferable from owner to owner.

I hereby certify with my signature as the permittee that I understand the provisions of this permit including the maintenance and monitoring requirements. I agree to indemnify and hold Aitkin County harmless from all loss, damages, costs and charges that may be incurred by use of this system and if I fail to comply with the provisions of this Operating Permit. If I sell this property during the life of the permit, I will inform the new owner(s) of the permit requirements and the need to renew the permit.



Signature of Permittee

8/2/2012

Date



Signature of Permitting Authority

8/20/12

Date

If You have any questions regarding this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact Aitkin County Environmental Services at 218-927-7342.

8/20/12 OK # 8155, receipt # 374335

per notes in file
renewal every 3 years.

**MAINTENANCE SERVICE, MONITORING AND INSPECTION
CONTRACT
FOR INDIVIDUAL SEWAGE TREATMENT SYSTEM**

It is hereby agreed this 31 day of July, 2012 by and between
Mark P Ritter (Inspector) and Tim Harratty (client)

(Client) Name & Address

Tim Harratty
Street Address 9800 Shelard Pkwy Suite
City, State, Zip Plymouth Mn 55441

That in consideration of the payments provided herein, the Inspector shall provide services to perform Preventative Maintenance, Monitoring and Inspection of the Individual Sewage Treatment System (ISTS) located at the property described in the Aitkin County Operating Permit.

Each inspection includes an examination of the ISTS followed by a written report to the client. This inspection report shall contain recommendations for operation and maintenance for failure-preventative measures, if any are deemed appropriate by the inspector and a list of recommended corrective measures or replacement parts. The Inspector is authorized to submit a copy of the report to the Aitkin County Environmental Services Department.

This contract does not assume any responsibilities or obligations, which are normally the responsibilities of the Client, as related to parts or labor and does not extend to cover any costs that may be associated with any recommendations made under this contract.

The Inspector can only contract or subcontract for parts or labor after authorization. Billings for service calls shall be made on a case by case basis. This contract only covers maintenance, monitoring and inspection services per current Aitkin County Operating Permit and does not cover alarm calls of any kind.

The Inspector shall be provided access to the site and the system in order to perform the following services:

SEPTIC TANK AND LIFT STATIONS INSPECTION

(check the boxes needed to fill the requirements of the Operating Permit)

Check septic tank and compartments for solids buildup and general appearance. If necessary, have tanks pumped (cost of pumping is the responsibility of the client).

Check effluent filter for buildup and clean, if applicable.

Check pumping system, including control panel and floats.

Record and date the readings of the elapsed time meter and cycle counter(s), if applicable.

Check dosing settings (in the control panel, if applicable).

Other: _____

**If the septic tank or lift stations need pumping to be in compliance with the operating permit the cost of the pumping is the responsibility of the Client.

TREATMENT DEVICE

Inspect pretreatment unit (aerobic tank, sand filter, etc.) per manufacturer's recommendations, if applicable.

Inspect and clean any parts per manufacturer's recommendations.

Inspect and clean laterals, if applicable.

Inspect the appearance of the wastewater inside the unit for color, turbidity and examination of odors.

_____ Sample effluent per Operating Permit monitoring requirements.

(Cost of sampling and analysis is the responsibility of the Client)

Other: _____

DISPERSAL FIELD

Inspect for visible signs of failure (surface discharge, soggy ground, wet spots, settling, etc.)

_____ If liquid level monitors are installed, levels will be observed and recorded.

_____ Flush filters and clean cartridges, if applicable.

_____ Check field control unit solenoid operations or manual control, if applicable.

Other: _____

In no event shall the Inspector be responsible for special or consequential damages, including but not limited to, loss of time, injury to personal property or any other consequential damages or incidental or economic loss due to equipment failure or for any other reason. This contract does not assume any responsibilities or obligations, which are normally, the responsibility of the Client or as, related to parts or labor and does not extend to cover any costs that may be associated with any recommendations made under this contract.

This contract shall be effective: Beginning June 1, 2012
and Ending June 1, 2015

Cost for Maintenance Service, Monitoring and Inspection Contract is:

\$ 150 - /yr. For 3 years totaling \$ 450 . -

The Inspector agrees to provide inspection, monitoring and routine maintenance service only under this contract. The Client remedies for breach of this contract shall be limited to refund of any of the amounts paid in advance for service. This contract may be renewed 30 days from the ending date.

Payment for all services shall be paid 95 per invoice each year

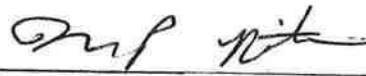
Client:

Inspector:

Sign:



Sign:



Print:

Tina Hornsby

Print:

Mark P Ritter

Date:

8/2/2012

Date:

July 30 - 2012

A. DESCRIPTION OF WASTEWATER TREATMENT AND DISPERSAL SYSTEM

Multi-Flow Aerobic Treatment System Dispersing into a 20x38 pressure bed sized for 4 bedrooms. this ists is to have the wastewater gravity from the propsed 4 bedroom dwelling into a new 1860 combination tank with a pump vault placed into the spetic side fo the tank. It will be timed dosed at a maximum of 600 gallons per day into a multi-flo aerob ic treatment system, then gravity into the lift side of the 1860 combination tank. From there, it will pump on demand into a new 20'x 38' pressure bed with 2 feet of separation.

B. PERFORMANCE STANDARD REQUIREMENTS:

During the period beginning on the effective date (issuance date) of this permit and lasting until this permits expiration date, the Permittee is authorized to discharge from the wastewater treatment unit to subsurface dispersal. No surface discharge is permitted. The following parameters must be monitored and the reuslts must be found within the compliance limits.

PARAMETER	COMPLIANCE LIMIT	SAMPLE LOCATION	SAMPLE FREQUENCY	SAMPLE TYPE	REPORTING FREQUENCY
Fecal Coliform	<10,000 CFU/100ML	ATU/ Pump Tank		Record on Log Sheet	ANNUALLY
Flow	600 gpd	Water Meter	MONTHLY	Record on Log Sheet	ANNUALLY
Separation	2 Ft	Drain Field		Record on Log Sheet	ANNUALLY

✓ good
✓ good

C. MAINTENANCE REQUIREMENTS:

PARAMETER	LOCATION	FREQUENCY
Flow	Water Meter	MONTHLY
Pressurization of Laterals	Multi Flow	Semi Annually
Pumps, Floats & Alarms	Septic tank(s)	ANNUAL
Surface Discharge	Septic tank(s)	ANNUAL
Visual	Total System	ANNUAL

✓ good
✓ good
✓ good
✓ none
✓ good

Nov. 14 - 2011 event counter 245 }
June 20 - 2012 event counter 297 }

different of 52
x 100 gls
5,200 = gls
÷ 216 days
24 gls per day
MFR
Aug 19 - 2012

AITKIN COUNTY ENVIRONMENTAL SERVICES-PLANNING & ZONING

209 Second Street, NW
Aitkin, Minnesota 56431

PH: (218) 927-7342
FX: (218) 927-4372



August 20, 2012

RE: Renewed Operating Permit

To Tim Hanratty:

This letter is to inform you that your Operating Permit (No. 312) has been renewed until May 31, 2015.

Please adhere to your monitoring and maintenance contract including monitoring your water use. Failure to do so would violate the agreement to operate your system and could void the operating permit. You should contact your Operation and Maintenance provider directly with questions that you may have during the year.

Thank you for your good stewardship and we hope that your system continues to operate well, protecting groundwater for you and the environment.

Sincerely,

Kristi K.

Aitkin County Planning & Zoning and
Environmental Services

**AITKIN COUNTY ENVIRONMENTAL SERVICES
OPERATING PERMIT FOR WASTEWATER
TREATMENT AND DISPERSAL RENEWAL**

ISSUANCE DATE: 5/31/2015
RENEWAL PERIOD: 3 YEAR

OPERATING PERMIT #: 312
ZONING PERMIT #: 35574
PARCEL #: 36-0-044700

PERMITTEE: Matthew, Troy, & Justin Hanratty

TELEPHONE:

MAILING ADDRESS:
4110 Pipewood Lane
Excelsior, MN 55331-

PROPERTY ADDRESS:
39307 State Hwy 18
Aitkin, MN 56431

100.00
Fee

LEGAL DESCRIPTION: Part of E 100FT of W 1007FT of lot 2 S of hwy 18

Aitkin County Environmental Services authorizes the Permittee to operate a wastewater treatment and dispersal system located on the above described property in accordance with the requirements of this permit.

This permit is effective on the issuance date identified above.

This permit and the authorization to treat and disperse from the above system is valid through the renewal period identified above. The Permittee is not authorized to discharge after the renewal period. The Permittee shall submit such information and forms as required by Aitkin County Environmental Services no later than thirty (30) days prior to the expiration date. When the required information is submitted and approved by Aitkin County Environmental Services, the permit may be renewed. This permit is not transferable from owner to owner.

I hereby certify with my signature as the permittee that I understand the provisions of this permit including the maintenance and monitoring requirements. I agree to indemnify and hold Aitkin County harmless from all loss, damages, costs and charges that may be incurred by use of this system and if I fail to comply with the provisions of this Operating Permit. If I sell this property during the life of the permit, I will inform the new owner(s) of the permit requirements and the need to renew the permit.

Signature of Permittee

Kaleas

Date

6/16/2015

Signature of Permitting Authority

Date

6/25/15

If you have any questions regarding this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact Aitkin County Environmental Services at 218-927-7342.

6/24/15

CK # 1096
rpt # 928138
\$100

**Aitkin County Environmental Services
Planning and Zoning
209 Second Street NW
Room 100
Aitkin, MN 56431
Phone: 218-927-7342
Fax: 218-927-4372**



December 28, 2015

Matthew, Troy & Justin Hanratty
4110 Pipewood Ln
Excelsior, MN 55331

Re: Operating Permit # 312
Zoning Permit # 35574
Parcel # 36-0-044700

Dear Permittee:

Thank you for submitting your signed operating permit renewal, \$100 renewal fee and monitoring and maintenance. According to our records, we did not receive a table of your water usage. The State of Minnesota requires that a water meter or other flow measuring device be installed and the results recorded by the homeowner on a regular basis. **If you have not been recording your water usage, please start a log now to be submitted at your next renewal.**

Your operating permit has been renewed, however please be sure to submit your water meter readings at your next renewal to remain in compliance.

If you have any questions or need additional help, contact us at (218) 927-7342.

Sincerely,

A handwritten signature in black ink that reads "Kalea J." followed by a small dash.

Planning and Zoning
Environmental Services

AITKIN COUNTY ENVIRONMENTAL SERVICES-PLANNING & ZONING

209 Second Street, NW Room# 100

Aitkin, Minnesota 56431

PH: (218) 927-734

FX: (218) 927-437



3/31/2015

Matthew, Troy, & Justin Hanratty

4110 Pipewood Lane

Excelsior, MN 55331-

Re: Operating Permit # 312

Zoning Permit #35574

Parcel ID#36-0-044700

*12/28/15 renewed
until 2020 per*

Dear Permittee:

PG

This letter is to remind you that the Operating Permit for the septic system at the above mentioned parcel is due for renewal this year. The enclosed Operating Permit was issued as part of the permit for your septic system and must be renewed.

The Operating Permit for the current renewal period has been enclosed. If there are no changes to the Operating Permit, please submit the following to the County Office:

- the signed Operating Permit Contract
- the \$100 permit renewal fee
- the results of performance and maintenance activities
- a table of your water usage

*Sent Htr need
MR for 2020 renewal*

We have checked all boxes above for information we have received. Please note, only complete applications will be accepted.

If your designer finds the system is operating in conformance with the Operating Permit, please have him/her submit a letter requesting to have the Operating Permit renewed for a longer period or to request terminating the Operating Permit. Our Office will determine if this is possible.

The performance and life expectancy of this septic system is dependent on regular monitoring and maintenance of all parts of the system. Your compliance with the Operating Permit will ensure continued performance of the system. Failure to perform the monitoring and maintenance of this system could cause costly repairs and/or replacement of this system. In addition, failure to comply with the monitoring, maintenance and reporting of the septic system is a violation of the Aitkin County Individual Sewage Treatment System and Wastewater Ordinance and could be prosecuted by the County Attorney's Office.

All information required must be submitted to this Office by the expiration date referenced on your Operating Permit. We are notifying you to give you sufficient time to contact your designer and make any necessary changes, have samples taken and tested, tanks pumped, and any other activities that were required to meet the requirements of your permit.

Please contact our office with any questions regarding the renewal of this permit.

Sincerely,

Aitkin County Planning & Zoning

SEPTIC SYSTEM REVIEW FOR
Tim Hanratty
Operating Permit# 312
Parcel # 36-0-044700

Property located in Wealthwood Township

June 15, 2015

The above mentioned property has an event counter installed on it. On May 2014 the meter reading was 514. On May 2015 the meter reading was 586 with a difference of 72 events. So at 72 events x 100 gallons per event = 7,200 gallons divided by 365 days =20 gallons per day average.

The system is set up for 600 gallons per day so I believe that we can put this system on a 5 year operating permit.

The tanks, effluent filter, pumps, floats, alarms and control panel will still be inspected ever year.

We have entered into a Maintenance, Monitoring and Inspection Contract with said property owner.

Sincerely,



Mark P. Ritter
Ritter Sewer & Excavating, Inc.

Analysis Report

May 18, 2015

REPORT TO:

RITTERS SEWER & EXCAVATING

34753 390TH PLACE
AITKIN MN 56431-

INVOICE TO:

RITTERS SEWER & EXCAVATING

MARK RITTER
34753 390TH PLACE
AITKIN MN 56431-

Date Sampled: 5/8/2015
Time Sampled: 07:15
Date Rcvd-Brnd: 5/8/2015
Time Rcvd-Brnd: 11:15

Sampled by:
Sample Type: WW
Recv Temp °C: 2.2

LOCATION:
HANRATTY/O'SULLIVAN

SITE / ANALYTE	Analyzed Value	MCL	Analytical Method	Analysis Date/Time	Analyst	Code #
HANRATTY						
BOD (5 DAY), MG/L-C	3.3*		SM 5210 B-01 online	5/8/2015 13:29	SK	31777B
FECAL COLIFORM, COLONIES/100 ML-C	5		SM 9222 D (m-FC)- 97 online	5/8/2015 13:10	SK	31777B
RESIDUE, NONFILTERABLE (TSS), MG/L-C	10.0		USGS I-3765-85	5/13/2015	LR	31777B
O'SULLIVAN						
BOD (5 DAY), MG/L-C	2.8*		SM 5210 B-01 online	5/8/2015 13:36	SK	31778B
FECAL COLIFORM, COLONIES/100 ML-C	LESS THAN 10		SM 9222 D (m-FC)- 97 online	5/8/2015 13:10	SK	31778B
RESIDUE, NONFILTERABLE (TSS), MG/L-C	LESS THAN 4.00		USGS I-3765-85	5/13/2015	LR	31778B

*RESULTS ARE AN ESTIMATE, SAMPLE DILUTIONS DID NOT MEET DEPLETION REQUIREMENTS

Approved By: 
Sara Ahlers, Laboratory Director

Date Approved: 5-18-15

A.W. Research Laboratories is Certified by the Minnesota Department of Public Health and follows approved methods and procedures. Minnesota Laboratory Certification # 027-035-135. All data generated using certified methods noted as -C, all data generated using non-certified methods noted as -NC, and all analytes for which certification is unavailable -NA. The results above relate only to the samples tested. This report must not be reproduced, except in full, without the written approval of the laboratory. Under the Safe Drinking Water Act (SDWA), EPA sets legal limits on the levels of certain contaminants in drinking water-these limits are indicated as Maximum Contaminant Levels of MCL on the report.

~End of Analysis Report~

NIBBLER, Jr.™ MONITORING CHECKLIST

OWNER Tim Henratty CONTRACTOR/DEALER INFO: _____
MAILING ADDRESS _____
SITE ADDRESS _____
CITY, STATE, ZIP _____
PHONE () _____ WORK () _____

DATE May DAY 8th TIME 10:00 INSPECTION ID _____

DATE OF LAST INSPECTION: May 2014 INSPECTED BY: McK P R. Hill

ROUTINE: YES NO PROBLEM: YES NO EMERGENCY: YES NO
NEEDS FOLLOW-UP: YES NO IF YES, EXPLAIN _____

SEPTIC TANK

EFFLUENT SURFACING/PONDING? None

SLUDGE LEVEL IN TANK

1ST COMPARTMENT FLOATING MAT 1" SLUDGE ACCUMULATION 1"
2ND COMPARTMENT FLOATING MAT 0" SLUDGE ACCUMULATION 0"

INDICATIONS OF GROUNDWATER INTRUSION OR LEAKY FIXTURES? YES NO

NIBBLER, Jr. UNIT:

D.O. of NIBBLER Jr. EFFLUENT _____ mg/L

ODOR? NO If YES - MILD / STRONG _____

WEATHER CONDITIONS:
WINDY: YES NO _____

FAN WORKING PROPERLY? YES NO If NO EXPLAIN _____

FAN INTAKE FILTER CLEAN YES NO CLEANED: YES/NO _____

MEDIA NEEDS CLEANING? YES NO CLEANED ON: _____

WATER METER READING OR FLOW DATA: _____
(If available)

NOTES: System looks good at this time

A. DESCRIPTION OF WASTEWATER TREATMENT AND DISPERSAL SYSTEM

Multi-Flow Aerobic Treatment System Dispersing into a 20x38 pressure bed sized for 4 bedrooms. this is to have the wastewater gravity from the proposed 4 bedroom dwelling into a new 1860 combination tank with a pump vault placed into the septic side of the tank. It will be timed dosed at a maximum of 600 gallons per day into a multi-flow aerobic treatment system, then gravity into the lift side of the 1860 combination tank. From there, it will pump on demand into a new 20'x 38' pressure bed with 2 feet of separation.

B. PERFORMANCE STANDARD REQUIREMENTS:

During the period beginning on the effective date (issuance date) of this permit and lasting until this permit's expiration date, the Permittee is authorized to discharge from the wastewater treatment unit to subsurface dispersal. No surface discharge is permitted. The following parameters must be monitored and the results must be found within the compliance limits.

PARAMETER	COMPLIANCE LIMIT	SAMPLE LOCATION	SAMPLE FREQUENCY	SAMPLE TYPE	REPORTING FREQUENCY
Separation	2 Ft	Drain Field		Record on Log Sheet	ANNUALLY ✓ good
Fecal Coliform	<10,000 CFU/100ML	ATU/ Pump Tank		Record on Log Sheet	ANNUALLY ✓ see attach...
Flow	600 gpd	Water Meter	MONTHLY	Record on Log Sheet	ANNUALLY ✓

C. MAINTENANCE REQUIREMENTS:

PARAMETER	LOCATION	FREQUENCY	
Flow	Water Meter <i>Event counter</i>	MONTHLY	✓
Pressurization of Laterals	Multi Flow	Semi Annually	Good ✓
Pumps, Floats & Alarms	Septic tank(s)	ANNUAL	Good ✓
Surface Discharge	Septic tank(s)	ANNUAL	None ✓
Visual	Total System	ANNUAL	Good ✓

AITKIN COUNTY ENVIRONMENTAL SERVICES-PLANNING & ZONING

209 Second Street, NW Room# 100

Aitkin, Minnesota 56431

PH: (218) 927-7342

FX: (218) 927-4372



12/28/2015

Matthew, Troy, & Justin Hanratty
4110 Pipewood Lane
Excelsior, MN 55331-

Re: Operating Permit # 312
Zoning Permit # 35574
Parcel # 36-0-044700

Dear Permittee:

This letter is to inform you that your Operating Permit has been renewed until
5/31/2020 .

Please adhere to your monitoring and maintenance contract including monitoring your water use. Failure to do so would violate the agreement to operate your system and could void the operating permit. You should contact your Operation and Maintenance provider directly with questions that you may have during the year.

Thank you for your good stewardship and we hope that your system continues to operate well, protecting groundwater for you and the environment.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kalea J.".

Aitkin County Planning & Zoning

AITKIN COUNTY ENVIRONMENTAL SERVICES-PLANNING & ZONING
307 Second St NW Room# 219
Aitkin, Minnesota 56431

PH: (218) 927-7342
FX: (218) 927-4372



4/7/2020

Hanratty, Matthew, Troy & Justin
4110 Pipewood Lane
Excelsior, MN 55331

Re: Operating Permit # 312
Zoning Permit #35574
Parcel ID#36-0-044700

Dear Permittee:

This letter is to remind you that the Operating Permit for the septic system at the above mentioned parcel is due for renewal this year by May 31st . The enclosed Operating Permit was issued as part of the permit for your septic system and must be renewed.

The Operating Permit for the current renewal period has been enclosed. If there are no changes to the Operating Permit, please submit the following to the County Office:

- 6-4-20 the signed Operating Permit (enclosed)
- 5-28-20 \$150 permit renewal fee (\$200 fee after May 31st)
- 6-4-20 the results of performance and maintenance activities
- a table of your water usage

We have checked all boxes above for information we have received. Please note, only complete applications will be accepted.

If your designer finds the system is operating in conformance with the Operating Permit, please have him/her submit a letter requesting to have the Operating Permit renewed for a longer period or to request terminating the Operating Permit. Our Office will determine if this is possible.

The performance and life expectancy of this septic system is dependent on regular monitoring and maintenance of all parts of the system. Your compliance with the Operating Permit will ensure continued performance of the system. Failure to perform the monitoring and maintenance of this system could cause costly repairs and/or replacement of this system. In addition, failure to comply with the monitoring, maintenance and reporting of the septic system is a violation of the Aitkin County's Subsurface Sewage Treatment System Ordinance and could be prosecuted by the County Attorney's Office.

All information required must be submitted to this Office by the expiration date referenced on your Operating Permit. We are notifying you to give you sufficient time to contact your designer and make any necessary changes, have samples taken and tested, tanks pumped, and any other activities that were required to meet the requirements of your permit.

Please contact our office with any questions regarding the renewal of this permit.

Sincerely,

Aitkin County Planning & Zoning

Invoice #49986 (05/28/2020)

2. Zoning/Land Use Permit Applications Misc. (OFFICE USE ONLY) Permit # 2020-5237, App. # App-2020-005821, UID # 200067

Troy Hanratty

(218) 927-7342

4110 Pipewood Lane, Excelsior, MN 55331

Aitkin County Planning & Zoning / Environmental Services

307 Second St. NW Room 219

Aitkin, MN 56431

Phone: 218-927-7342

Fax: 218-927-4372

Email: aitkinpz@co.aitkin.mn.us

Charge		Cost	Quantity	Total	Note
Operating Permit Renewal added 05/28/2020 8:21 AM \$150		\$150.00	x 1	\$150.00	
Grand Total					
				Total	\$150.00
Invoice Note					
2020 renewal of OP#312					
Payment #46464					
Method:	Value Payment Systems - Credit Card				
Date:	05/28/2020		Note:	Auto-generated by payment update	
Made By:					
Confirmed By:	Value Payment Systems				



34753 390th Place • Aitkin, MN 56431

Phone: 218.97.4125 • Fax 218.927.4471

Toll Free: 800.450.4125

rittersewer@hotmail.com • www.rittersewer.com

SEPTIC SYSTEM REVIEW FOR
Troy/Justin/Matthew Hanratty
Parcel # 36-0-044700
Operating permit #312

Property located in Hazelton Township

June 4, 2020

The above mentioned property has an event counter installed on it but the meter has not been working since serviced last so we don't have any readings to report. The meter has since been replaced. Sewage samples were pulled and sent in for testing and are within compliance limits (see attached). System is meeting 24" separation and shows no sign of surface discharge.

The system is working within limits set in operating permit (no meter readings) so I believe that we can put this system on a 5 year operating permit.

The tanks, effluent filter, pumps, floats, alarms and control panel will still be inspected ever year.

We have entered into a Maintenance, Monitoring and Inspection Contract with said property owner.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark P. Ritter".

Mark P. Ritter
Ritter Sewer & Excavating, Inc.

Analysis Report

June 03, 2020

REPORT TO:

Ritter Sewer & Excavating
Mark Ritter
34753 390th Place
Aitkin MN 56431

INVOICE TO:

Ritter Sewer & Excavating
Mark Ritter
34753 390th Place
Aitkin MN 56431

Date Rcvd-Brnd: 5/26/2020
Time Rcvd-Brnd: 14:08

Sampled By: Mark Ritter
Sample Type: WW
Recv Temp°C: 2.4 on ice

LOCATION:
Hanratty

SITE / ANALYTE	Sample Date/Time	Analyzed Value	Units	Reporting Limit	Analytical Method	Analysis Date/Time	Analyst	Code #
Lift Station	5/26/2020 @ 11:00							
Biochemical Oxygen Demand, 5 Day		3.99	mg/L	2	HACH 10360 REV. 1.2	5/27/20 15:54	SZ	032515
Fecal Coliform		< 100	MPN/100mL	1	COLILERT-18 (FECAL COLI.)	5/26/20 16:12	MH	032515
Residue-Nonfilterable (TSS)		1.91	mg/L	1	USGS I-3765-85	5/28/20 09:36	CJS	032515

Approved By:



Date Approved: 6/3/2020

Sara Ahlers, Laboratory Director

A.W. Research Laboratories, Inc. is Certified by the Minnesota Department of Public Health and follows approved methods and procedures. Minnesota Laboratory Certification # 027-035-135. All data generated using certified methods noted as -C-, all data generated using non-certified methods noted as -NC-, and all analytes for which certification is unavailable - NA. The results above relate only to the samples tested. This report must not be reproduced, except in full, without the written approval of the laboratory. We appreciate your feedback, please email us at awlab@awlab.com with questions or comments. Thank you!

~End of Analysis Report~

**AITKIN COUNTY ENVIRONMENTAL SERVICES
OPERATING PERMIT FOR WASTEWATER
TREATMENT AND DISPERSAL RENEWAL**

ISSUANCE DATE: 5/31/2020
RENEWAL PERIOD: 5 YEAR

OPERATING PERMIT #312
ZONING PERMIT #: 35574
PARCEL #: 36-0-044700

PERMITTEE: Hanratty, Matthew, Troy & Justin

TELEPHONE:

MAILING ADDRESS:
4110 Pipewood Lane
Excelsior, MN 55331

PROPERTY ADDRESS:
39307 State Hwy 18
Aitkin, MN 56431

LEGAL DESCRIPTION: Part of E 100FT of W 1007FT of lot 2 S of hwy 18

Aitkin County Environmental Services authorizes the Permittee to operate a wastewater treatment and dispersal system located on the above described property in accordance with the requirements of this permit.

This permit is effective on the issuance date identified above.

This permit and the authorization to treat and disperse from the above system is valid through the renewal period identified above. The Permittee is not authorized to discharge after the renewal period. The Permittee shall submit such information and forms as required by Aitkin County Environmental Services no later than thirty (30) days prior to the expiration date. When the required information is submitted and approved by Aitkin County Environmental Services, the permit may be renewed. This permit is not transferable from owner to owner.

I hereby certify with my signature as the permittee that I understand the provisions of this permit including the maintenance and monitoring requirements. I agree to indemnify and hold Aitkin County harmless from all loss, damages, costs and charges that may be incurred by use of this system and if I fail to comply with the provisions of this Operating Permit. If I sell this property during the life of the permit, I will inform the new owner(s) of the permit requirements and the need to renew the permit.



Signature of Permittee

5/15/2020
Date



Signature of Permitting Authority

6/5/2020
Date

If you have any questions regarding this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact Aitkin County Environmental Services at 218-927-7342.

A. DESCRIPTION OF WASTEWATER TREATMENT AND DISPERSAL SYSTEM

Multi-Flow Aerobic Treatment System Dispersing into a 20x38 pressure bed sized for 4 bedrooms. this is to have the wastewater gravity from the proposed 4 bedroom dwelling into a new 1860 combination tank with a pump vault placed into the septic side of the tank. It will be timed dosed at a maximum of 600 gallons per day into a multi-flow aerobic treatment system, then gravity into the lift side of the 1860 combination tank. From there, it will pump on demand into a new 20'x 38' pressure bed with 2 feet of separation.

B. PERFORMANCE STANDARD REQUIREMENTS:

During the period beginning on the effective date (issuance date) of this permit and lasting until this permit's expiration date, the Permittee is authorized to discharge from the wastewater treatment unit to subsurface dispersal. No surface discharge is permitted. The following parameters must be monitored and the results must be found within the compliance limits.

PARAMETER	COMPLIANCE LIMIT	SAMPLE LOCATION	SAMPLE FREQUENCY	SAMPLE TYPE	REPORTING FREQUENC
Separation	2 Ft	Drain Field		Record on Log Sheet	ANNUALLY
Fecal Coliform	<10,000 CFU/100ML	ATU/ Pump Tank		Record on Log Sheet	ANNUALLY
Flow	600 gpd	Water Meter	MONTHLY	Record on Log Sheet	ANNUALLY

C. MAINTENANCE REQUIREMENTS:

PARAMETER	LOCATION	FREQUENCY
Flow	Water Meter	MONTHLY
Pressurization of Laterals	Multi Flow	Semi Annually
Pumps, Floats & Alarms	Septic tank(s)	ANNUAL
Surface Discharge	Septic tank(s)	ANNUAL
Visual	Total System	ANNUAL

AITKIN COUNTY ENVIRONMENTAL SERVICES-PLANNING & ZONING
307 Second Street, NW Room# 219
Aitkin, Minnesota 56431

PH: (218) 927-7342

FX: (218) 927-4372



6/5/2020

Hanratty, Matthew, Troy & Justin
4110 Pipewood Lane
Excelsior, MN 55331

Re: Operating Permit # 312
Zoning Permit # 35574
Parcel # 36-0-044700

Dear Permittee:

This letter is to inform you that your Operating Permit has been renewed until 5/31/2025 .

Please adhere to your monitoring and maintenance contract including monitoring your water use. Failure to do so would violate the agreement to operate your system and could void the operating permit. You should contact your Operation and Maintenance provider directly with questions that you may have during the year.

Thank you for your good stewardship and we hope that your system continues to operate well, protecting groundwater for you and the environment.

Sincerely,

Shannon W.

Aitkin County Planning & Zoning