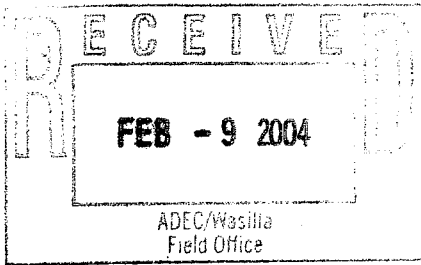


Zimmerman



DENALI NORTH
847 W. Evergreen Avenue
Palmer, Alaska 99645

January 23, 2004

Don & Brenda Graber
P.O. Box 870898
Wasilla, AK 99687

LETTER OF VERIFICATION

Re: Tax Parcel B5 in Section 24, T17N, R2W, S.M.AK WO# 03-306
Single Family On-Site Water & Wastewater Disposal System Documentation

You have requested verification that the wastewater disposal system for the four (4) bedroom, single-family, dwelling on this property was designed and installed in conformance with the current ADEC regulations and policies.

An appropriately sized soil absorption system was designed for this dwelling based upon the in situ soil conditions. This system was installed in compliance with all current ADEC regulations and specifications. The enclosed record documents were prepared based upon information obtained from field observations. The data is reasonable and represents that the wastewater disposal system was installed in general conformance with current Alaska Administrative Code, Title 18, Chapter 72 Wastewater Disposal.

A water sample tested satisfactory for Coliform bacteria.

All data presented under this letter is based upon the inspection performed on the dates shown and from ADEC files. I cannot warrant or guarantee the future performance or the installation of either the wastewater disposal system or the water system

If you have any questions or desire any further information, please feel free to contact Denali North at any time.

Sincerely,

A handwritten signature in cursive script that reads "James Rowland".

James W. Rowland, P.E.
CE 6754

A second handwritten signature in cursive script, identical to the one above, reading "James Rowland".

WO# 03-306

III. WASTEWATER DISPOSAL		Legal Description: Tax Parcel B5 in Section 24, T17N, R2W, S.M.AK	
<input checked="" type="checkbox"/> Septic Tank/Absorption System		<input type="checkbox"/> Package Treatment (Specify Brand Name or Process)	
<input type="checkbox"/> Holding Tank - Specify	<input type="checkbox"/> Capacity of Tank	Where Waste is Disposed	Frequency of Pumping
<input checked="" type="checkbox"/> Septic Tank Outfall Discharged To: subsurface		<input type="checkbox"/> Other (Specify): (Outhouse Incinerator, etc.)	

NEW SYSTEM

Name of Installer Don Graber		Date Installed 7/7/03	
<input checked="" type="checkbox"/> Owner/Builder No. _____		<input type="checkbox"/> Certified Installer No. _____	
<input type="checkbox"/> Other: _____		Septic Tank Type/Manufacturer Steel	
Septic Tank Size (Gallons) 1,250		Number of Compartments 2	
Type Soil Absorption System 2 - Deep Trenches		Soil Type and Rating 250 S.f./bdm	
Dimensions/Size Soil Absorption System 2 - 100' x 6' ED		Type/Quantity Backfill Material Used for Soil Absorption System 3/4-1 1/2" septic rock/144 cy	
Percolation Test Results (Attach Copy of Report) 30 mpi		Percolation Test by: (Name) Denali North	
Minimum Ground Cover over Absorption Area 4' Feet		Minimum Ground Cover over Septic Tank 4' Feet	
Cleanout Pipes/Caps Installed on Septic Tank <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cleanout Pipes/Caps Installed on Absorption System <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Separation Distance To	Water Supply Source on Lot 100+ Feet	Nearest Water Supply Source on Adjacent Lot	Nearest Body of Water 100+ Feet
			Water Table/Bedrock 4/6+ Feet
			Lot Line 10+ Feet

Comments/Recommendations

Denali North inspected the installation of the new soil absorption system to verify that it complies with ADEC regulations and specifications. Denali North does not warrant or guarantee the future performance or the installation of the components.

Cleanout is located outside of the foundation.

I certify that the above information, and that provided in Section IV, is correct:

Signature 	Typed/Printed Name James W. Rowland	Title, Reg./Cert No., Inst. No. CE 6754	Date 1-23-04
--	--	--	-----------------

NOTE: Must be signed by a Certified Installer, Professional Engineer, DEC staff, or approved Owner/Builder

EXISTING SYSTEM

Name of Installer		Date Installed	
<input type="checkbox"/> Owner/Builder No. _____		<input type="checkbox"/> Certified Installer No. _____	
<input type="checkbox"/> Other: _____		Septic Tank Type/Manufacturer	
Septic Tank Size (Gallons)		Number of Compartments	
Type Soil Absorption System		Soil Type and Rating	
Dimensions/Size Soil Absorption System		Type/Quantity Backfill Material Used for Soil Absorption System	
Adequacy Test results (Attach Copy of Report) <input type="checkbox"/> Pass <input type="checkbox"/> Fail		Adequacy Test Performed by: (Name)	
		Date Septic Tank Pumped (Attach Copy of Receipt)	
Minimum Ground Cover over Absorption Area Feet		Minimum Ground Cover over Septic Tank Feet	
Cleanout Pipes/Caps Installed on Septic Tank <input type="checkbox"/> Yes <input type="checkbox"/> No		Cleanout Pipes/Caps Installed on Absorption System <input type="checkbox"/> Yes <input type="checkbox"/> No	
Separation Distance To	Water Supply Source on Lot Feet	Nearest Water Supply Source on Adjacent Lot	Nearest Body of Water Feet
			Water Table/Bedrock Feet
			Lot Line Feet

Comments/Recommendations

Cleanout is located of the foundation.

I certify that the above information, and that provided in Section IV, is correct:

Signature	Typed/Printed Name	Title, Reg./Cert No.	Date
-----------	--------------------	----------------------	------

NOTE: Must be signed by a Professional Engineer.

SEAL

Registered Professional
Engineer



RECEIVED
APR 10 1997

23A

23709

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING & WATER MGMT
WATER WELL RECORD

LOCATION OF WELL

SECTION	SUBDIVISION	LOT	BLOCK	SECTION QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
Mat. 54		85			24	17	2	5m
LOCATION/SKETCH:					WELL OWNER: <u>Myron D. Morris</u> <u>PO Box 870898</u> <u>Wasilla, AK</u> <u>99657</u>			
DEPTHS MEASURED FROM: <input checked="" type="checkbox"/> casing top <input type="checkbox"/> ground surface					WELL DEPTH: _____ ft		DATE OF COMPLETION	
BOROHOLE DATA: Material Type and Color					Depth of hole: <u>220</u> ft		Depth of casing: <u>220</u> ft	
					From		To	
Top Soil		0	2	DEPTH TO STATIC WATER LEVEL: <u>168</u> ft below <input type="checkbox"/> top of casing <input type="checkbox"/> ground surface				
Hard Pan		2	190	Date: <u>2-13-97</u>				
Clay		190	211	METHOD OF DRILLING: <input checked="" type="checkbox"/> Air rotary <input type="checkbox"/> cable tool <input type="checkbox"/> other _____				
Sand + Gravel + Clay		211	217	USE OF WELL: <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Irrigation <input type="checkbox"/> monitor <input type="checkbox"/> public supply <input type="checkbox"/> other _____				
Sand + Gravel + Water		217	225	CASING STICK-UP: <u>2</u> ft. Diam: <u>6</u> in. to _____ ft Casing type: <u>253A</u> _____ in. to <u>220</u> ft				
					WELL INTAKE OPENING TYPE: <input checked="" type="checkbox"/> open end <input type="checkbox"/> screened <input type="checkbox"/> perforated <input type="checkbox"/> open hole			
					Depth of openings: _____ to _____ ft			
					SCREEN TYPE: <u>N/A</u> Diam: _____ in. Slot/Mesh Size: _____ Length: _____ ft			
					GRAVEL PACK TYPE: <u>N/A</u> Volume used: _____ Depth to top: _____			
					GROUT TYPE: <u>N/A</u> Volume: _____ Depth from _____ ft to _____ ft			
					DEVELOPMENT METHOD: <u>AIR</u> Duration: <u>15 hrs</u>			
					PUMPING LEVEL AND YIELD: <u>215</u> ft after <u>12</u> hrs pumping <u>20</u> gpm			
					PUMP INTAKE DEPTH: <u>N/A</u> ft Horsepower: _____ WELL DISINFECTED UPON COMPLETION? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			

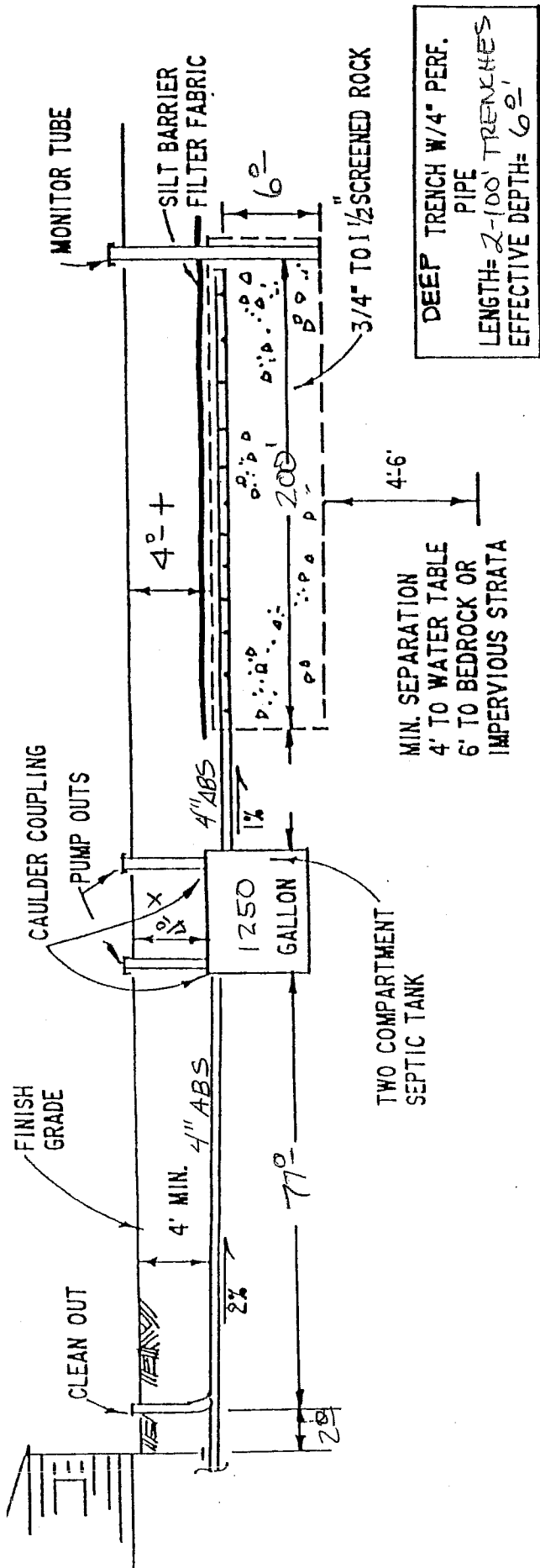
CONTRACTOR INFORMATION:

Hood & Son's Pump & Drilling Co.
Registered Business Name
Walter R. Hood 2-13-97
Signature of Authorized Representative Date

REMARKS: NO WARRANTIES OR
GUARANTEES
WELL IS STILL PUTTING OUT
SOME SMALL AMOUNT OF BILE
PLEASE MAIL WHITE COPY OF LOG TO: SDM
DIVISION OF MINING & WATER MGMT

3603 O St, Suite 800
Anchorage, AK 99503-6935
Ph (907) 762-2538, Fax (907) 662-1384

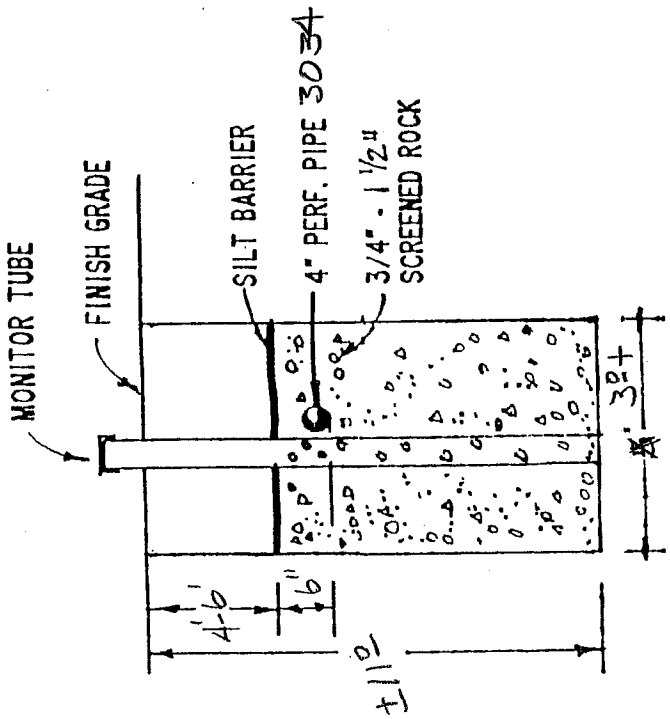
SB 17-2-24



DEEP TRENCH W/4" PERF. PIPE
 LENGTH= 2-100' TRENCHES
 EFFECTIVE DEPTH= 6'-0"

WASTEWATER SYSTEM PROFILE

N.T.S.



END SECTION

1. ALL STAND PIPES AND LEACH LINE ENDS ARE TO BE CAPPED.
2. DISTRIBUTION PIPES, SEPTIC TANK AND TRENCH BOTTOMS TO BE INSTALLED LEVEL.
3. AVOID SMEARING OF TRENCH SIDE WALLS IN FINER SOILS.

7-7-03

DEEP TRENCH SOIL ABSORPTION SYSTEM
Denali North 897 W. EVERGREEN
 PALMER, AK. 99645
 JUR# 03-306 TAX PARCEL B-5 SEC. 24, T17N R2W54

TUNDRA ROSE EST PH I

TRACT A

(5044)

B5

B3

A2

NW1/4 of Tax parcel B5 Containing 10 acres more or less.

Subject to final Borough Platting Approval

(1)	2	3	4
NORTERN ROSE LN			
3	4	5	6
		(2)	7
			8

1	2	3	4	5	6	7
	(2477)				(2)	

W DANE COURT						
6	5	4A	3A	2	1	
7						
8						

9	10	11	12	13	14	15
				(3)		

D6

D7

C3

1	1	13	14
2	2		15
3	3	12	16
(1) 4	4	(3) 11	
5	5	10	
6	6	9	9
7	7	8	(2)

D9

D8

C4

50' SECTION LINE EASEM

BLVD
FOOTHILLS

33' SECTION LINE EASEMENT
BLVD
FOOTHILLS

W LONE DUCK TRAIL
50' R.O.W. ESMT

SHANNON
MT. VIEW
(1552)

RATTAN DR.
STREET

AVENUE

HOLLAND BRIDGE