



North Dakota Department of Transportation

Thomas K. Sorel
Director

Doug Burgum
Governor

November 1, 2017

ADDENDUM 1 – JOB 30

TO: All prospective bidders on project NH-4-052(083)059 and SNH-4-052(067)081, Job No. 30 scheduled for the November 17, 2017 bid opening.

The following plan and request for proposal revisions shall be made:

Plan Revisions for NH-4-052(083)059:

Remove and replace sheets 20-1 and 20-2 with revised sheets dated 10-30-2017.

Add sheets 180-1 thru 180-6.

Plan Revisions for SNH-4-052(067)081:

Remove sheets 180-1 thru 180-3 for the Hartman A. Brekhus Pit and replace with sheets 180-1 thru 180-6 for the Neal Biwer, Cherlyn Biwer, Doug Price and Marlene Price Pit.

This addendum is to be incorporated into the bidder's proposal for this project.

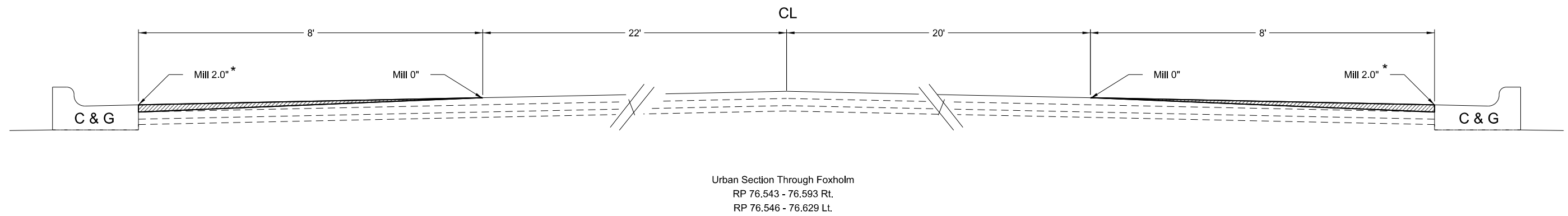
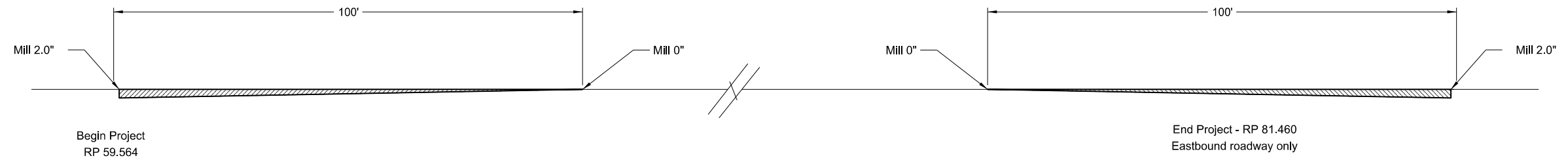
PHILLIP MURDOFF – CONSTRUCTION SERVICES ENGINEER

80:jwj

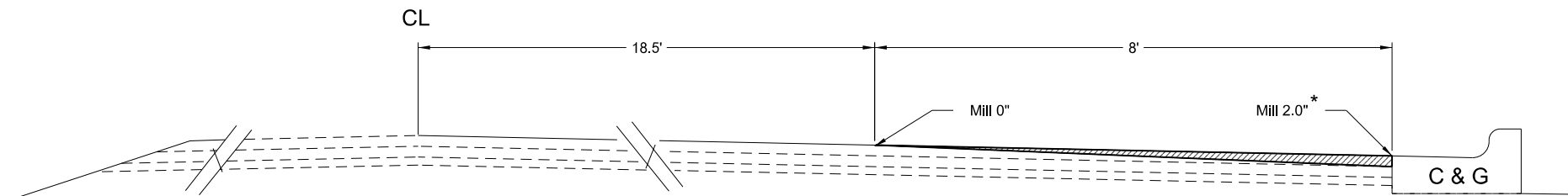
Enclosure

Revised
10/30/17

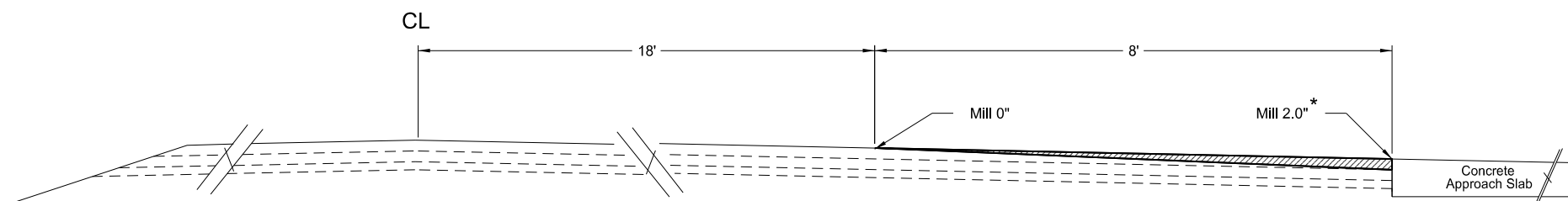
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NH-4-052(083)059	20	1



* 100' tapers entering and exiting milled areas.



Urban Section Through Carpio
RP 67.991 - 68.241 Rt.



Cenex Entrance West of Carpio
RP 67.576 - 67.643 Rt.

Concrete Approach Slab

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of Transportation

Milling

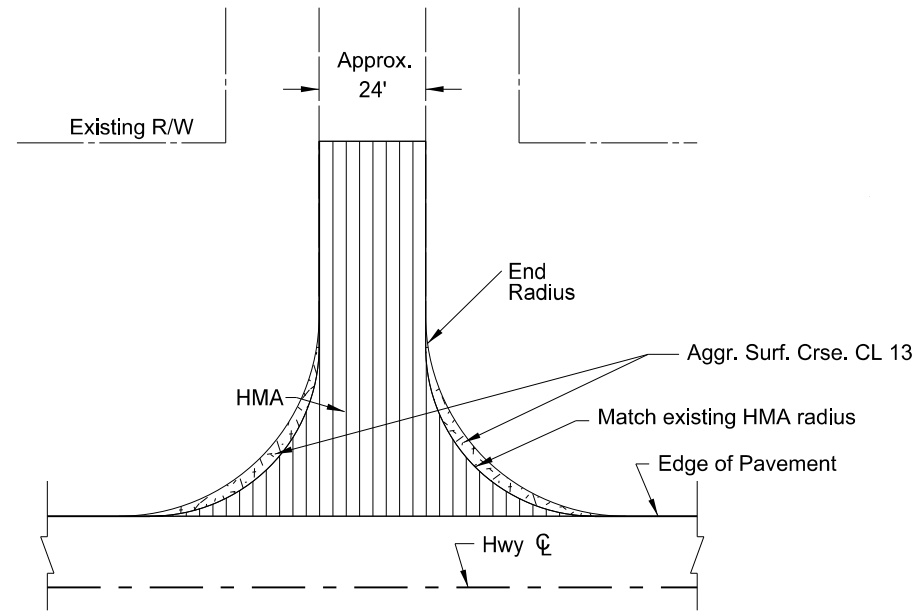
Revised
10/30/17

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NH-4-052(083)059	20	2

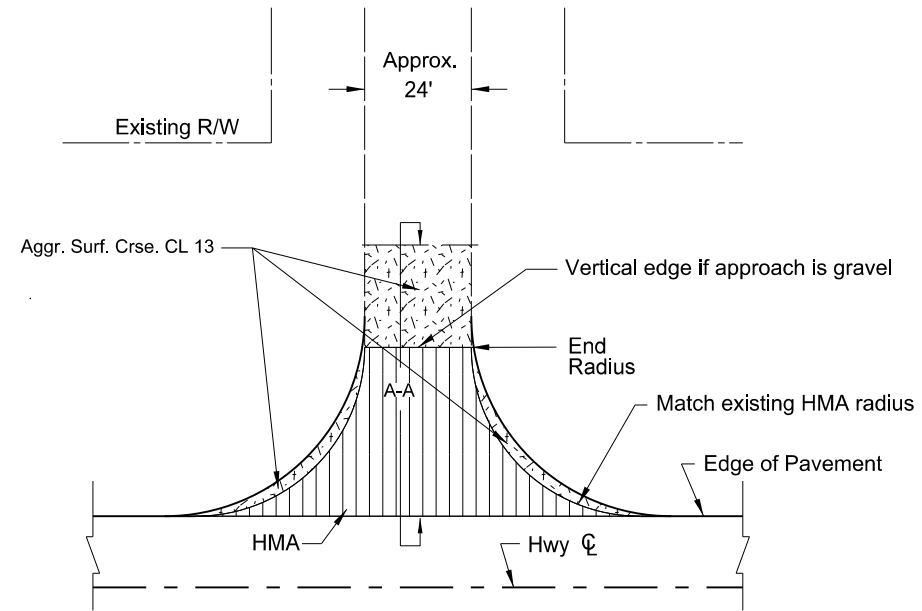
Notes:

1.A longer HMA wedge may be needed if an existing elevation difference between the mainline and the approach exists. Actual HMA paving and salvaged base locations may vary in the field for situations, as approved by the Engineer.

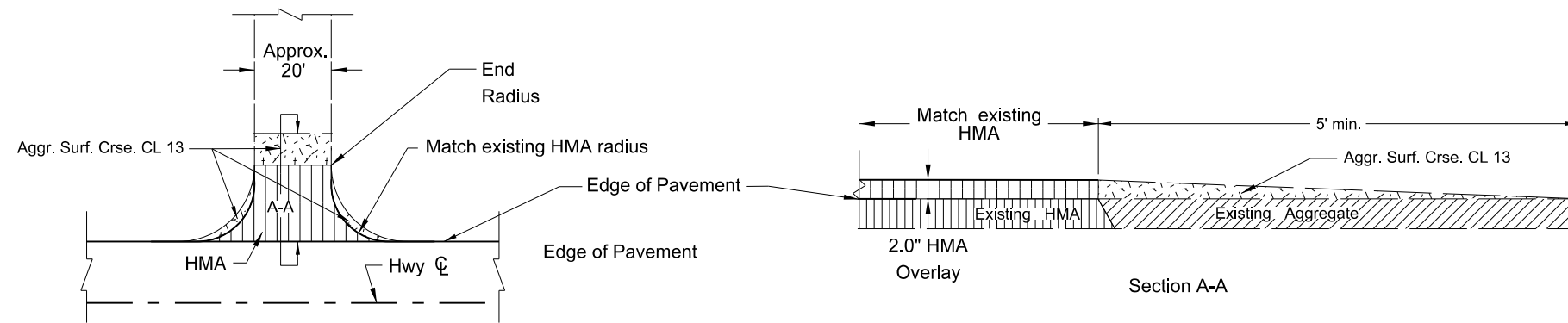
2.Quantity totals have been included in the bid items of the "Estimate of Quantities" of the plans.



(1) Paved Section Line, County Road, or Street Approach



(2) Gravel Section Line, County Road, or Street Approach



(3) Private Drives and Field Approaches

BASIS OF ESTIMATE					
ITEM	UNIT	(1)	(2)	(3)	TOTALS
		Paved Section Line	Gravel Section Line	Private Drive or Field Approach	
Number of Locations	EACH	6	9	60	75
Aggr. Surf. Cl. 13	TON	3 Ton ea. 18	3 Ton ea. 27	3 Ton ea. 180	225
Tack Coat	GAL	17 Gal. ea. 102	9 Gal. ea. 81	3 Gal. ea. 180	363
2.0" Superpave FAA 45	TON	38 Ton ea. 228	20 Ton ea. 180	5 Ton ea. 300	708
PG 64-28 Asphalt Cement 5.8%	TON	13	10	17	40

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Approach Paving Details
for
Preventive Maintenance or Minor Rehabilitation
Projects

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NH-4-052(083)059	180	1

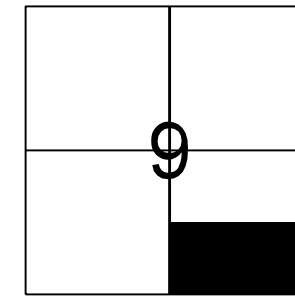
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

LOCATION OF PIT IN SECTION

TEST HOLE PLAT

Location: S1/2SE1/4 9-157-90 County: Mountrail

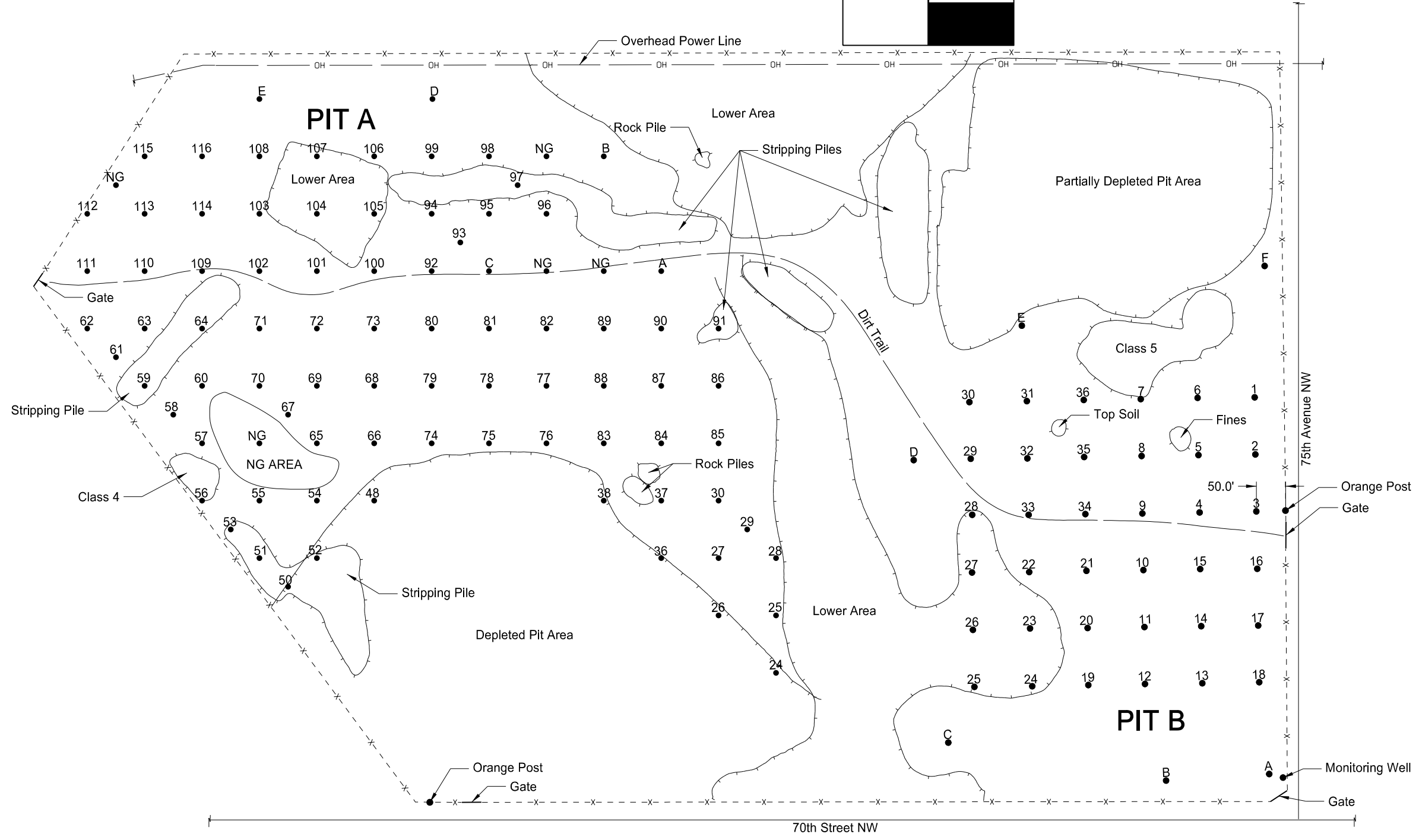
Ownership: Neal Biber, Cherlyn Biber, Doug Price and Marlene Price



PIT A
 Area "A" consists of Test Holes 1 - 9
 Area "B" consists of Test Holes 10 - 18
 Area "C" consists of Test Holes 19 - 30
 Area "D" consists of Test Holes 31 - 39
 Area "E" consists of Test Holes 40 - 48
 Area "F" consists of Test Holes 49 - 56
 Area "G" consists of Test Holes 57 - 64
 Area "H" consists of Test Holes 65 - 73
 Area "I" consists of Test Holes 74 - 82
 Area "J" consists of Test Holes 83 - 91
 Area "K" consists of Test Holes 92 - 99
 Area "L" consists of Test Holes 100 - 108
 Area "M" consists of Test Holes 109 - 116
 Holes A - F are for informational purposes only.

PIT B
 Area "A" consists of Test Holes 1 - 9
 Area "B" consists of Test Holes 10 - 18
 Area "C" consists of Test Holes 19 - 27
 Area "D" consists of Test Holes 28 - 36
 Holes A - F are for informational purposes only.

- Legend:
- gr = gravel
 - sd = sand
 - FS = fine sand
 - Fgr = fine gravel
 - CS = coarse sand
 - sh = shale
 - SiCl = silt clay
 - rk = rock
 - FeO = Iron oxide
 - CoS = Coal Slack
 - WL = water line
 - NG = no gravel
 - DM = disturbed material
 - CGr = coarse gravel



PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
24	0.5	0.5 gr Si Cl	1	13	27	39	FS Si Cl	50	1.0	2.0 gr Si Cl	0	10	25	38	Si Cl	63	1.0	3.0 gr	0	15	30	43	+WL 17.0	75	0.5	1.5 gr	1	11	24	37	Si Cl
		1.0 sd								1.0 gr								1.0 Fgr Si Cl								1.0 Fgr sh					
		3.0 gr								2.0 sd								2.0 gr								1.0 CS sh					
		1.0 sd								1.0 gr								1.0 Fgr								3.0 gr sh					
		1.0 Fgr						51	1.0	1.0 gr Si Cl	0	5	21	38	Si Cl			2.0 gr Co S								1.0 FS sh					
25	1.5	1.5 sd Si Cl	0	6	16	27	FS Si Cl			5.0 gr								5.0 gr								1.0 gr					
		1.5 Fgr						52	0.5	1.5 gr	0	8	19	28	Si Cl			2.0 gr sh						76	0.5	6.5 gr	0	9	21	33	Si Cl
26	0.5	1.5 gr	0	2	13	25	Si Cl			2.0 FS sh						64	4.0	3.0 gr sh	0	8	21	34	+Cave			1.0 Fgr					
		1.0 Fgr								2.0 sd sh								3.0 Fgr sh								1.0 gr SiCl					
		2.0 gr								0.5 gr								3.0 Fgr Co S								1.0 sd SiCl					
		1.0 sd						53	3.0	5.5 gr	0	10	27	41	Si Cl			1.0 gr						77	0.5	5.5 gr	2	18	34	46	Si Cl
		2.0 FS						54	0.5	3.0 gr	0	7	19	37	Si Cl	65	1.0	3.0 Fgr Si Cl	0	4	16	34	Si Cl			1.0 sd					
		1.0 gr								1.0 gr Co S						66	1.0	1.0 gr	0	2	16	30	Si Cl			2.0 gr					
		1.0 Fgr Si Cl								2.5 gr								2.0 Fgr						78	0.5	1.5 gr	0	10	26	41	Si Cl
27	0.5	1.5 gr	0	8	23	35	FS Si Cl	55	1.0	3.0 gr	0	12	23	38	Si Cl			1.0 gr								1.0 sd					
		6.0 Fgr sh						56	2.0	1.0 gr Si Cl	0	9	27	44	Si Cl	67	2.0	1.0 gr Si Cl	0	12	26	39	Si Cl			4.0 gr					
28	1.0	4.0 gr	0	3	14	25	FS			1.0 gr sh								1.0 sd								1.0 CS					
		0.5 Fgr								2.0 gr								1.0 Fgr								1.0 gr					
		0.5 Fgr sh								1.0 Fgr sh								1.0 sd						79	2.0	2.0 gr	0	9	23	37	Si Cl
		0.5 sd								2.0 gr								1.0 gr								1.0 gr SiCl					
		0.5 sd sh						57	1.0	1.0 gr Si Cl	0	6	18	30	Si Cl	68	2.0	2.0 gr	0	7	20	37	+WL 7.0	80	2.0	2.0 gr	0	13	31	41	Si Cl
		1.5 sd Si Cl								3.0 gr								0.5 gr Si Cl						81	2.0	2.0 gr SiCl	0	10	24	36	Si Cl
		0.5 Fgr Si Cl								1.0 Fgr								0.5 Si Cl						82	2.0	3.5 gr	0	13	29	39	Si Cl
		1.0 sd								0.5 sd sh								2.0 gr Si Cl								0.5 Fgr					
29	0.5	4.5 gr	0	11	21	31	Si Cl			0.5 sd Co S						69	1.0	3.0 gr sh	0	8	26	38	Si Cl			1.0 sd					
		1.0 Fgr sh								2.0 gr Co S								1.0 CS						83	2.0	1.0 FgrSiCl	0	3	9	18	Si Cl
		2.0 FS						58	1.0	2.0 sd Si Cl	0	8	18	32	Si Cl			1.0 gr								2.0 Fgr					
		2.0 Fg sh								1.0 gr						70	2.0	3.5 gr	0	6	23	44	Si Cl			1.0 sd CoS					
		3.0 sd								2.0 gr sh						71	4.5	3.5 FgrSiCl	0	4	16	33	Si Cl	84	0.5	7.5 gr	0	7	23	38	Si Cl
30	0.5	7.5 gr	1	11	23	36	Si Cl			1.0 gr								1.0 Fgr sh								2.0 Fgr					
		1.0 sd								2.0 Fgr sh								2.0 gr sh								3.0 gr					
		0.5 Fgr								2.5 Fgr						72	1.0	4.5 gr	0	8	21	36	Si Cl	85	0.5	2.5 gr	0	7	18	28	FS Si Cl
		0.5 gr						59	1.0	2.0 Fgr	0	8	22	39	+Cave			0.5 gr CoS								1.0 sd					
		5.0 Fgr								5.5 gr								1.5 gr								1.5 gr					
36	1.0	1.0 gr Si Cl	1	11	27	42	Si Cl			0.5 gr sh								0.5 Fgr								4.5 sd sh					
		2.0 gr								3.0 gr								0.5 sd								1.0 Fgr					
		2.0 Fgr						60	2.0	1.0 sd	0	4	17	30	sd Si Cl			0.5 FS CoS								1.0 FS					
		2.0 gr								2.0 gr								1.0 gr								2.0 Fgr sh					
37	5.0	0.5 gr Si Cl	0	18	32	45	Si Cl			1.0 Fgr sh						73	1.0	1.0 gr SiCl	0	12	26	37	Si Cl								
		1.5 gr								2.0 Fgr Co S								1.0 FS													
		1.0 gr Si Cl						61	2.0	7.0 gr	0	8	21	38	+Cave			2.0 gr													
		4.0 gr								1.0 Fgr								1.0 gr SiCl													
38	0.5	3.5 gr	0	12	26	37	rk			1.0 Fgr sh						74	0.5	1.0 gr	0	5	21	35	Si Cl								
		1.0 sd								3.0 gr								1.5 sd													
		3.0 gr Si Cl						62	5.0	1.0 sd	0	5	16	29	+Cave			2.0 gr													
48	0.5	0.5 gr Si Cl	0	8	25	45	sd Si Cl			3.0 sd sh																					
		3.0 gr								1.0 Fgr sh																					
		2.0 gr sh								5.0 gr																					

RANGE 90 TWP 157 SEC S1/2SE1/4 9
COUNTY Mountrail Aug-17
PROSPECTED BY Rogstad/Usher
INSPECTED & APPROVED Jeffrey Swank Aug-17

																										STATE	PROJECT NO.	SECTION NO.	SHEET NO.			
																										ND	NH-4-052(083)059	180	3			
PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	
86	0.5	2.5 gr	0	4	18	29	sd sh	101	2.0	1.0 Fgr	0	2	15	27	+cave	109	1.5	5.5 gr	1	14	28	43	+cave	A	1.0	0.5 gr	0	8	21	35	Si Cl	
		1.0 sd								0.5 CS								1.0 gr sh														
		0.5 Fgr								0.5 Fgr								1.0 Fgr														
		1.5 gr								2.0 gr								2.0 gr														
		1.0 Fgr								0.5 Fgr								1.0 gr sh														
		5.0 sd sh								0.5 sd						110	0.5	0.5 FgrSiCl	0	14	34	52	+cave			1.0 Fgr sh						
		2.0 Fgr sh								1.0 Fgr								2.5 gr sh														
87	0.5	1.5 gr SiCl	0	9	24	37	Fgr sh			0.5 gr								0.5 gr CoS														
		3.0 gr								2.5 sd sh								1.0 gr sh														
		2.0 sd								0.5 Fgr sh								3.0 gr														
		2.0 gr								0.5 sd sh								1.0 Fgr sh							B	0.5	1.5 gr	0	9	18	32	Si Cl
		2.0 Fgr								2.0 gr								1.0 Fgr														
88	0.5	6.0 gr	0	16	34	48	Si Cl	102	0.5	1.5 gr	0	14	26	39	Si Cl			2.0 gr sh							C	1.0	1.0 gr SiCl	0	0	0	0	Si Cl
89	7.0	3.0 sd Si Cl	0	2	6	10	FS Si Cl			1.0 sd								1.0 gr							D	0.5	7.5 gr	1	18	34	48	Si Cl
		2.0 sd								1.0 gr sh								4.0 gr sh							E	1.0	1.0 sd	0	2	9	20	Si Cl
		1.0 sd Si Cl								5.0 gr						111	6.0	4.0 FS	0	1	6	9	Si Cl			1.0 gr CoS						
90	0.5	3.5 gr	1	16	31	46	sd sh	103	1.0	8.0 gr	3	26	42	55	Si Cl			1.0 FS sh														
		1.0 Fgr						104	1.0	1.0 sd SiCl	0	3	13	26	+cave			1.0 gr														
		1.5 gr								1.0 Fgr sh						112	8.0	8.0 FS sh	0	0	0	1	sh			1.0 sd sh						
		0.5 Fgr sh								5.0 Fgr						113	1.0	2.5 sd	0	2	14	27	Si Cl			1.0 FS						
		4.0 gr								1.0 sd sh								5.5 Fgr														
		2.5 Fgr sh								2.0 Fgr sh						114	0.5	5.5 gr	2	20	37	52	Si Cl			1.0 sd						
91	0.5	1.5 gr SiCl	0	8	18	27	sd sh			1.0 Fgr								1.0 gr sh														
		3.5 gr								1.0 sd								2.5 gr														
		2.5 sd sh						105	1.0	2.5 gr	3	13	30	47	Si Cl			0.5 Fgr														
		2.0 Fgr								0.5 Fgr								2.0 gr														
		2.0 sd								3.0 gr						115	1.0	1.0 sd	0	4	10	17	Si Cl			1.0 Fgr sh						
92	1.0	1.0 FgrSiCl	0	9	22	36	Si Cl	106	1.5	1.5 gr								1.0 gr														
		1.0 FS								1.0 Si Cl								1.0 FgrSiCl														
		1.0 Fgr								1.0 gr						116	2.0	1.0 FS sh	0	5	15	27	Si Cl			3.0 Fgr						
		3.0 gr								2.0 Fgr								1.0 FS CoS														
93	0.5	2.5 gr	0	9	26	39	Si Cl			1.0 gr								1.0 sd														
94	2.0	1.0 FS	0	8	20	35	Si Cl	107	1.0	1.0 Fgr	0	7	20	33	+cave			1.0 Fgr														
		0.5 Fgr								1.0 gr								1.0 gr sh														
		1.5 gr								0.5 Fgr								1.0 CS sh														
95	1.0	2.0 gr	1	19	31	46	Si Cl			1.5 gr								1.0 gr														
96	0.5	2.0 gr SiCl	1	16	28	37	Si Cl			2.0 Fgr																						
97	1.0	1.5 gr	0	16	28	43	Si Cl			1.5 gr																						
98	0.5	0.5 gr	0	9	19	37	Si Cl			0.5 Fgr CoS								1.0 gr sh														
		1.0 Fgr sh								1.0 gr sh																						
		0.5 gr SiCl								1.0 Fgr																						
99	0.5	0.5 Fgr sh	0	12	30	45	Si Cl			1.0 FS sh																						
		1.0 gr sh								1.0 sd sh																						
		3.5 gr								1.0 sd CoS																						
100	2.0	1.0 gr SiCl	1	17	35	48	Si Cl	108	1.0	1.0 sd	0	6	22	33	Si Cl																	
		5.5 gr								1.0 Fgr sh																						
										3.5 gr																						
										1.5 sd sh																						
										2.0 gr sh																						

RANGE 90 TWP 157 SEC S1/2SE1/4 9
COUNTY Mountrail Aug-17
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PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
1	1.0	7.5 gr	0	7	19	32	gr+	6	0.5	2.5 Fgr	1	10	21	31	SiCl	11	0.5	5.5 Fgr	0	4	13	23	gr+	17	1.0	2.0 gr	0	3	12	25	gr+
		5.0 Fgr								4.0 gr								1.0 sd								3.0 Fgr					
		1.0 Fgr sh								1.0 sd								2.0 Fgr								2.0 Fgr sh					
		1.0 Fgr								6.0 Fgr								2.0 FS								1.0 Fgr					
		1.0 gr CoS								1.0 CS								1.0 sd Cos								2.0 gr					
		1.0 FS								1.0 sd								1.0 FS								1.0 Fgr					
		2.0 Fgr								2.0 sd sh								2.0 gr								1.0 sd					
		1.0 FS								1.5 sd								3.0 Fgr								1.0 FS					
2	0.5	4.5 gr	1	7	16	26	gr+	7	1.0	1.0 Fgr	0	6	20	32	gr+			2.0 gr								1.0 Fgr					
		1.0 gr CoS								6.0 gr						12	0.5	4.5 Fgr	0	4	12	21	gr+			5.0 gr					
		2.0 Fgr								1.0 Fgr								3.0 sd						18	1.0	2.0 gr	0	5	15	26	gr+
		1.0 Fgr sh								1.0 FS								3.0 Fgr								1.0 Fgr					
		1.0 sd								5.0 Fgr								2.0 sd								1.0 CS					
		3.0 Fgr								1.0 Fgr sh								0.5 sd Cos								2.0 Fgr					
		1.0 CS								1.0 Fgr								0.5 Fgr								0.5 Fgr Cos					
		3.5 sd								3.0 FS								0.5 SiCl								3.5 Fgr					
		1.0 sd sh						8	0.5	3.5 gr	0	10	21	32	gr+			1.5 gr								2.0 sd sh					
		1.5 Fgr								5.5 Fgr								3.0 Fgr								1.0 sd					
		3.5 Cgr	1	9	22	32	gr+			0.5 FS								1.0 Fgr sh								0.5 sd Cos					
		2.0 gr								1.0 Fgr sh						13	0.5	3.5 gr	0	6	13	23	gr+			0.5 sd SiCl					
		3.0 Fgr								2.0 Fgr								3.0 Fgr								1.0 Fgr Cos					
		1.0 Fgr sh								2.0 sd								1.0 gr								1.0 Fgr					
		1.0 Fgr								1.0 CS								2.0 Fgr								2.0 gr					
		1.0 CS								1.0 Fgr								1.0 CS								1.0 Fgr					
		1.0 Fgr								1.0 sd								2.0 Fgr						19	0.5	2.5 CGr	0	7	18	29	gr+
		2.0 sd sh								2.0 FS								1.0 FS								1.0 gr					
		4.0 Fgr						9	0.5	6.5 Fgr	0	3	10	19	gr+			1.0 Fgr								3.0 Fgr					
		1.0 sd								1.0 FS								1.0 sd sh								1.0 FgrSiCl					
4	0.5	2.5 gr	0	8	16	25	SiCl			3.0 Fgr								1.0 Fgr								3.0 FS					
		5.0 Fgr								3.0 FS								3.0 gr								2.0 gr					
		1.0 Fgr sh								1.0 sd sh						14	3.0	5.0 Fgr	0	4	11	20	gr+			1.0 Fgr					
		2.0 Fgr								1.0 FS								3.0 sd								1.0 Fgr sh					
		1.0 Fgr sh								0.5 gr SiCl								1.0 Fgr								3.0 Fgr					
		1.0 Fgr								3.5 gr								4.0 sd													
		1.0 sd sh						10	0.5	1.5 gr	1	8	18	28	gr+			1.0 sd Cos													
		1.0 sd								4.0 Fgr								3.0 gr													
		1.0 sd sh								2.0 sd						15	2.0	1.5 gr	0	4	13	21	gr+								
		0.5 sd CoS								2.0 Fgr								5.5 Fgr													
		1.0 sd sh								1.0 Fgr sh								5.0 sd													
5	1.0	1.0 gr	0	11	20	29	gr+			1.0 sd CoS								3.0 FS													
		2.0 Cgr								1.0 FS								3.0 gr													
		2.0 gr								1.0 Fgr						16	0.5	4.5 gr	1	8	17	25	gr+								
		6.0 Fgr								1.0 gr								2.0 Fgr													
		1.0 gr								1.0 gr Cos								2.0 sd Cos													
		2.0 Fgr								3.0 gr								2.0 Fgr													
		1.0 Fgr sh								1.0 Fgr								1.0 CS													
		1.0 Fgr																1.0 Fgr													
		3.0 sd sh																1.0 sd													
																		1.0 Fgr													
																		5.0 sd													

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COUNTY Mountrail Aug-17

PROSPECTED BY Rogstad/Usher

INSPECTED & APPROVED Jeffrey Swank Aug-17

PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
20	0.5	2.0 gr	0	4	12	19	gr+	25	1.0	2.0 gr	0	7	13	20	WL	32	0.5	1.5 gr	0	4	13	23	gr+	36	0.5	1.5 CGr	1	10	20	29	SiCl
		0.5 Fgr								3.0 Fgr								6.0 Fgr								4.0 gr					
		1.0 FgrSiCl								3.0 FS								1.0 sd								2.0 Fgr					
		1.0 Fgr								3.0 Fgr								1.0 FS								1.0 sd CoS					
		3.0 sd						26	3.0	1.0 Fgr	0	10	19	28	WL			1.0 sd								1.0 sd sh					
		1.0 FS								2.0 gr								1.0 FS								1.0 Fgr					
		1.0 sd SiCl								1.0 Fgr								1.0 gr								4.0 sd					
		2.0 FS								1.0 FS								4.0 Fgr								2.0 sd sh					
		3.0 Fgr								3.0 sd								1.5 Fgr sh								2.0 sd					
		1.0 Fgr sh						27	2.0	4.0 Fgr	0	0	5	11	SiCl			0.5 FS													
		1.0 Fgr								3.0 Fgr sh								1.0 Fgr													
		1.0 SiCl								1.0 FS						33	0.5	2.5 CGr	0	11	21	32	SiCl								
		1.0 Fgr sh								1.0 Fgr								3.0 gr													
		1.0 Fgr						28	2.0	4.0 Fgr	0	0	7	15	SiCl			2.0 Fgr													
21	0.5	6.5 gr	0	12	22	33	gr+			2.0 FS								1.0 gr													
		1.0 Fgr								1.0 sd sh								1.0 Fgr													
		2.0 Fgr sh								2.5 Fgr								1.0 FS													
		1.0 sd sh								1.0 sd								1.0 sd sh													
		1.0 gr								1.5 Fgr sh								2.0 gr													
		1.0 Fgr						29	0.5	1.5 CGr	0	5	11	18	SiCl			1.0 Fgr sh													
		3.0 FS								1.0 gr								4.0 Fgr													
		2.0 gr								2.0 Fgr						34	0.5	1.5 gr	0	11	24	34	SiCl								
		2.0 Fgr								1.0 FS								2.0 Fgr													
22	0.5	2.5 gr	0	4	15	26	gr+			1.0 Fgr								1.5 sd													
		1.0 Fgr								6.0 FS								1.5 Fgr													
		1.0 gr								1.0 FgrSiCl								1.0 FS													
		1.0 Fgr								2.0 Fgr sh								1.0 Fgr													
		1.0 sd						30	0.5	3.5 gr	0	3	15	26	SiCl			1.0 FS													
		1.0 sd sh								1.0 Fgr								1.0 sd sh													
		1.0 Fgr								3.0 FS								1.0 FS													
		1.0 Fgr sh								1.0 Fgr								1.0 sd													
		1.0 sd								1.0 sd CoS								2.0 gr													
		2.0 sd SiCl								1.0 sd								1.0 Fgr													
		2.0 gr								2.0 FgrSiCl								3.0 gr													
		5.0 Fgr								1.0 gr						35	0.5	2.5 gr	0	6	13	22	gr+								
23	9.0	2.0 Fgr	0	5	13	22	WL			1.0 Fgr								3.0 Fgr													
		1.0 gr						31	1.0	2.0 gr	0	8	19	31	gr+			1.0 gr													
		2.0 Fgr								5.0 Fgr								3.0 Fgr													
24	0.5	1.5 Fgr	0	0	3	12	WL			2.0 gr								3.0 sd													
		1.0 sd								1.0 Fgr								1.0 sd sh													
		2.0 FS								2.0 FS								1.0 sd													
		1.0 sd CoS								2.0 Fgr sh								1.0 sd sh													
		4.0 Fgr								5.0 gr								1.0 FS													
		1.0 sd CoS																2.0 Fgr													
		1.0 FS																1.0 gr													
		1.0 sd CoS																													
		1.0 Fgr Cos																													
		1.0 sd																													
		0.5 Fgr																													

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PROSPECTED BY Rogstad/Usher

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PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
A	0.5	7.5 gr	1	15	27	38	gr+																								
Holes A-F are for informational purposes only and are not included in the pit totals																															
		1.0 Fgr																													
		1.0 FS																													
		4.0 gr																													
		3.5 Fgr																													
		0.5 FS																													
		2.0 Fgr																													
B	2.5	5.5 gr	1	6	17	30	gr+																								
		2.0 sd sh																													
		1.0 FS																													
		1.0 gr CoS																													
		3.0 Fgr																													
		1.0 sd																													
		3.0 Fgr																													
		1.0 FS																													
C	0.5	4.5 gr	0	3	10	19	SiCl																								
		1.0 Fgr																													
		1.0 SiCl																													
		1.0 FS																													
		1.0 Fgr																													
D	0.5	1.5 gr	4	17	26	34	SiCl																								
		3.0 CGr																													
		2.0 Fgr																													
		1.0 gr																													
		2.0 Fgr																													
		2.0 sd																													
		1.0 Fgr																													
		1.0 FgrSiCl																													
		1.0 Fgr																													
E	0.5	2.5 CGr	0	6	16	28	SiCl																								
		1.0 Fgr sh																													
		4.0 Fgr																													
		3.0 gr																													
		1.0 sd																													
		1.0 Fgr																													
		1.0 gr																													
		2.0 Fgr																													
F	0.5	1.5 Fgr	1	6	12	21	FS																								
		2.0 gr																													
		1.0 Fgr																													
		1.0 FgrCos																													
		1.0 FS																													
		2.5 Fgr																													
		0.5 FS																													
		1.0 Fgr																													
		1.0 CS																													
		1.0 Fgr																													
		2.0 sd sh																													
		2.5 sd																													
		1.5 Fgr sh																													

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COUNTY Mountrail Aug-17
PROSPECTED BY Rogstad/Usher
INSPECTED & APPROVED Jeffrey Swank Aug-17

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STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SNH-4-052(067)081	180	1

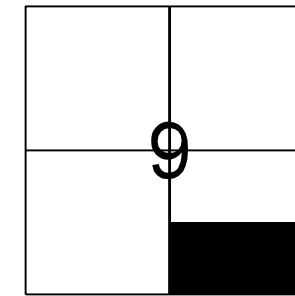
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

LOCATION OF PIT IN SECTION

TEST HOLE PLAT

Location: S1/2SE1/4 9-157-90 County: Mountrail

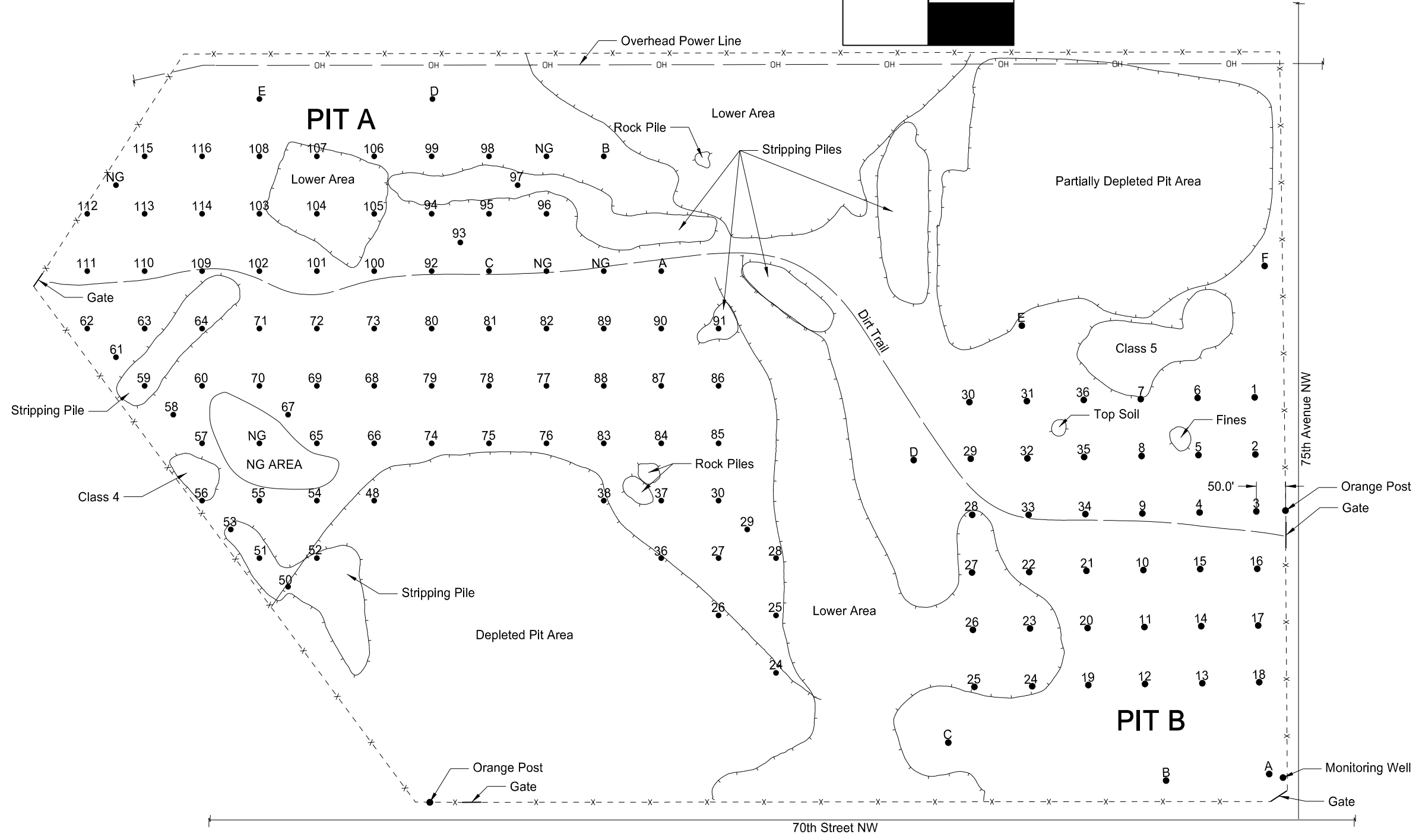
Ownership: Neal Biber, Cherlyn Biber, Doug Price and Marlene Price



PIT A
 Area "A" consists of Test Holes 1 - 9
 Area "B" consists of Test Holes 10 - 18
 Area "C" consists of Test Holes 19 - 30
 Area "D" consists of Test Holes 31 - 39
 Area "E" consists of Test Holes 40 - 48
 Area "F" consists of Test Holes 49 - 56
 Area "G" consists of Test Holes 57 - 64
 Area "H" consists of Test Holes 65 - 73
 Area "I" consists of Test Holes 74 - 82
 Area "J" consists of Test Holes 83 - 91
 Area "K" consists of Test Holes 92 - 99
 Area "L" consists of Test Holes 100 - 108
 Area "M" consists of Test Holes 109 - 116
 Holes A - F are for informational purposes only.

PIT B
 Area "A" consists of Test Holes 1 - 9
 Area "B" consists of Test Holes 10 - 18
 Area "C" consists of Test Holes 19 - 27
 Area "D" consists of Test Holes 28 - 36
 Holes A - F are for informational purposes only.

- Legend:
- gr = gravel
 - sd = sand
 - FS = fine sand
 - Fgr = fine gravel
 - CS = coarse sand
 - sh = shale
 - SiCl = silt clay
 - rk = rock
 - FeO = Iron oxide
 - CoS = Coal Slack
 - WL = water line
 - NG = no gravel
 - DM = disturbed material
 - CGr = coarse gravel



Pit A

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SNH-4-052(067)081	180	2

PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
24	0.5	0.5 gr Si Cl	1	13	27	39	FS Si Cl	50	1.0	2.0 gr Si Cl	0	10	25	38	Si Cl	63	1.0	3.0 gr	0	15	30	43	+WL 17.0	75	0.5	1.5 gr	1	11	24	37	Si Cl
		1.0 sd								1.0 gr								1.0 Fgr Si Cl								1.0 Fgr sh					
		3.0 gr								2.0 sd								2.0 gr								1.0 CS sh					
		1.0 sd								1.0 gr								1.0 Fgr								3.0 gr sh					
		1.0 Fgr						51	1.0	1.0 gr Si Cl	0	5	21	38	Si Cl			2.0 gr Co S								1.0 FS sh					
25	1.5	1.5 sd Si Cl	0	6	16	27	FS Si Cl			5.0 gr								5.0 gr								1.0 gr					
		1.5 Fgr						52	0.5	1.5 gr	0	8	19	28	Si Cl			2.0 gr sh						76	0.5	6.5 gr	0	9	21	33	Si Cl
26	0.5	1.5 gr	0	2	13	25	Si Cl			2.0 FS sh						64	4.0	3.0 gr sh	0	8	21	34	+Cave			1.0 Fgr					
		1.0 Fgr								2.0 sd sh								3.0 Fgr sh								1.0 gr SiCl					
		2.0 gr								0.5 gr								3.0 Fgr Co S								1.0 sd SiCl					
		1.0 sd						53	3.0	5.5 gr	0	10	27	41	Si Cl			1.0 gr						77	0.5	5.5 gr	2	18	34	46	Si Cl
		2.0 FS						54	0.5	3.0 gr	0	7	19	37	Si Cl	65	1.0	3.0 Fgr Si Cl	0	4	16	34	Si Cl			1.0 sd					
		1.0 gr								1.0 gr Co S						66	1.0	1.0 gr	0	2	16	30	Si Cl			2.0 gr					
		1.0 Fgr Si Cl								2.5 gr								2.0 Fgr						78	0.5	1.5 gr	0	10	26	41	Si Cl
27	0.5	1.5 gr	0	8	23	35	FS Si Cl	55	1.0	3.0 gr	0	12	23	38	Si Cl			1.0 gr								1.0 sd					
		6.0 Fgr sh						56	2.0	1.0 gr Si Cl	0	9	27	44	Si Cl	67	2.0	1.0 gr Si Cl	0	12	26	39	Si Cl			4.0 gr					
28	1.0	4.0 gr	0	3	14	25	FS			1.0 gr sh								1.0 sd								1.0 CS					
		0.5 Fgr								2.0 gr								1.0 Fgr								1.0 gr					
		0.5 Fgr sh								1.0 Fgr sh								1.0 sd						79	2.0	2.0 gr	0	9	23	37	Si Cl
		0.5 sd								2.0 gr								1.0 gr								1.0 gr SiCl					
		0.5 sd sh						57	1.0	1.0 gr Si Cl	0	6	18	30	Si Cl	68	2.0	2.0 gr	0	7	20	37	+WL 7.0	80	2.0	2.0 gr	0	13	31	41	Si Cl
		1.5 sd Si Cl								3.0 gr								0.5 gr Si Cl						81	2.0	2.0 gr SiCl	0	10	24	36	Si Cl
		0.5 Fgr Si Cl								1.0 Fgr								0.5 Si Cl						82	2.0	3.5 gr	0	13	29	39	Si Cl
		1.0 sd								0.5 sd sh								2.0 gr Si Cl								0.5 Fgr					
29	0.5	4.5 gr	0	11	21	31	Si Cl			0.5 sd Co S						69	1.0	3.0 gr sh	0	8	26	38	Si Cl			1.0 sd					
		1.0 Fgr sh								2.0 gr Co S								1.0 CS						83	2.0	1.0 FgrSiCl	0	3	9	18	Si Cl
		2.0 FS						58	1.0	2.0 sd Si Cl	0	8	18	32	Si Cl			1.0 gr								2.0 Fgr					
		2.0 Fg sh								1.0 gr						70	2.0	3.5 gr	0	6	23	44	Si Cl			1.0 sd CoS					
		3.0 sd								2.0 gr sh						71	4.5	3.5 FgrSiCl	0	4	16	33	Si Cl	84	0.5	7.5 gr	0	7	23	38	Si Cl
30	0.5	7.5 gr	1	11	23	36	Si Cl			1.0 gr								1.0 Fgr sh								2.0 Fgr					
		1.0 sd								2.0 Fgr sh								2.0 gr sh								3.0 gr					
		0.5 Fgr								2.5 Fgr						72	1.0	4.5 gr	0	8	21	36	Si Cl	85	0.5	2.5 gr	0	7	18	28	FS Si Cl
		0.5 gr						59	1.0	2.0 Fgr	0	8	22	39	+Cave			0.5 gr CoS								1.0 sd					
		5.0 Fgr								5.5 gr								1.5 gr								1.5 gr					
36	1.0	1.0 gr Si Cl	1	11	27	42	Si Cl			0.5 gr sh								0.5 Fgr								4.5 sd sh					
		2.0 gr								3.0 gr								0.5 sd								1.0 Fgr					
		2.0 Fgr						60	2.0	1.0 sd	0	4	17	30	sd Si Cl			0.5 FS CoS								1.0 FS					
		2.0 gr								2.0 gr								1.0 gr								2.0 Fgr sh					
37	5.0	0.5 gr Si Cl	0	18	32	45	Si Cl			1.0 Fgr sh						73	1.0	1.0 gr SiCl	0	12	26	37	Si Cl								
		1.5 gr								2.0 Fgr Co S								1.0 FS													
		1.0 gr Si Cl						61	2.0	7.0 gr	0	8	21	38	+Cave			2.0 gr													
		4.0 gr								1.0 Fgr								1.0 gr SiCl													
38	0.5	3.5 gr	0	12	26	37	rk			1.0 Fgr sh						74	0.5	1.0 gr	0	5	21	35	Si Cl								
		1.0 sd								3.0 gr								1.5 sd													
		3.0 gr Si Cl						62	5.0	1.0 sd	0	5	16	29	+Cave			2.0 gr													
48	0.5	0.5 gr Si Cl	0	8	25	45	sd Si Cl			3.0 sd sh																					
		3.0 gr								1.0 Fgr sh																					
		2.0 gr sh								5.0 gr																					

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 COUNTY Mountrail Aug-17
 PROSPECTED BY Rogstad/Usher
 INSPECTED & APPROVED Jeffrey Swank Aug-17

																								STATE	PROJECT NO.	SECTION NO.	SHEET NO.
																								ND	SNH-4-052(067)081	180	3

PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES									
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole		
86	0.5	2.5 gr	0	4	18	29	sd sh	101	2.0	1.0 Fgr	0	2	15	27	+cave	109	1.5	5.5 gr	1	14	28	43	+cave	A	1.0	0.5 gr	0	8	21	35	Si Cl		
		1.0 sd								0.5 CS								1.0 gr sh															
		0.5 Fgr								0.5 Fgr								1.0 Fgr															
		1.5 gr								2.0 gr								2.0 gr															
		1.0 Fgr								0.5 Fgr								1.0 gr sh															
		5.0 sd sh								0.5 sd						110	0.5	0.5 FgrSiCl	0	14	34	52	+cave			1.0 Fgr sh							
		2.0 Fgr sh								1.0 Fgr								2.5 gr sh															
87	0.5	1.5 gr SiCl	0	9	24	37	Fgr sh			0.5 gr								0.5 gr CoS															
		3.0 gr								2.5 sd sh								1.0 gr sh															
		2.0 sd								0.5 Fgr sh								3.0 gr															
		2.0 gr								0.5 sd sh								1.0 Fgr sh							B	0.5	1.5 gr	0	9	18	32	Si Cl	
		2.0 Fgr								2.0 gr								1.0 Fgr															
88	0.5	6.0 gr	0	16	34	48	Si Cl	102	0.5	1.5 gr	0	14	26	39	Si Cl			2.0 gr sh							C	1.0	1.0 gr SiCl	0	0	0	0	Si Cl	
89	7.0	3.0 sd Si Cl	0	2	6	10	FS Si Cl			1.0 sd								1.0 gr							D	0.5	7.5 gr	1	18	34	48	Si Cl	
		2.0 sd								1.0 gr sh								4.0 gr sh							E	1.0	1.0 sd	0	2	9	20	Si Cl	
		1.0 sd Si Cl								5.0 gr						111	6.0	4.0 FS	0	1	6	9	Si Cl			1.0 gr CoS							
90	0.5	3.5 gr	1	16	31	46	sd sh	103	1.0	8.0 gr	3	26	42	55	Si Cl			1.0 FS sh															
		1.0 Fgr						104	1.0	1.0 sd SiCl	0	3	13	26	+cave			1.0 gr															
		1.5 gr								1.0 Fgr sh						112	8.0	8.0 FS sh	0	0	0	1	sh			1.0 FS							
		0.5 Fgr sh								5.0 Fgr						113	1.0	2.5 sd	0	2	14	27	Si Cl			1.0 sd							
		4.0 gr								1.0 sd sh								5.5 Fgr															
		2.5 Fgr sh								2.0 Fgr sh						114	0.5	5.5 gr	2	20	37	52	Si Cl			3.0 Fgr							
91	0.5	1.5 gr SiCl	0	8	18	27	sd sh			1.0 Fgr								1.0 gr sh															
		3.5 gr								1.0 sd								2.5 gr															
		2.5 sd sh						105	1.0	2.5 gr	3	13	30	47	Si Cl			0.5 Fgr															
		2.0 Fgr								0.5 Fgr								2.0 gr															
		2.0 sd								3.0 gr						115	1.0	1.0 sd	0	4	10	17	Si Cl			1.0 gr							
92	1.0	1.0 FgrSiCl	0	9	22	36	Si Cl	106	1.5	1.5 gr								1.0 gr															
		1.0 FS								1.0 Si Cl								1.0 FgrSiCl															
		1.0 Fgr								1.0 gr						116	2.0	1.0 FS sh	0	5	15	27	Si Cl			1.0 FS CoS							
		3.0 gr								2.0 Fgr								1.0 FS CoS															
93	0.5	2.5 gr	0	9	26	39	Si Cl			1.0 gr								1.0 sd															
94	2.0	1.0 FS	0	8	20	35	Si Cl	107	1.0	1.0 Fgr	0	7	20	33	+cave			1.0 Fgr															
		0.5 Fgr								1.0 gr								1.0 gr sh															
		1.5 gr								0.5 Fgr								1.0 CS sh															
95	1.0	2.0 gr	1	19	31	46	Si Cl			1.5 gr								1.0 gr															
96	0.5	2.0 gr SiCl	1	16	28	37	Si Cl			2.0 Fgr																							
97	1.0	1.5 gr	0	16	28	43	Si Cl			1.5 gr																							
98	0.5	0.5 gr	0	9	19	37	Si Cl			0.5 Fgr CoS																							
		1.0 Fgr sh								1.0 gr sh																							
		0.5 gr SiCl								1.0 Fgr																							
99	0.5	0.5 Fgr sh	0	12	30	45	Si Cl			1.0 FS sh																							
		1.0 gr sh								1.0 sd sh																							
		3.5 gr								1.0 sd CoS																							
100	2.0	1.0 gr SiCl	1	17	35	48	Si Cl	108	1.0	1.0 sd	0	6	22	33	Si Cl																		
		5.5 gr								1.0 Fgr sh																							
										3.5 gr																							
										1.5 sd sh																							
										2.0 gr sh																							

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PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
1	1.0	7.5 gr	0	7	19	32	gr+	6	0.5	2.5 Fgr	1	10	21	31	SiCl	11	0.5	5.5 Fgr	0	4	13	23	gr+	17	1.0	2.0 gr	0	3	12	25	gr+
		5.0 Fgr								4.0 gr								1.0 sd								3.0 Fgr					
		1.0 Fgr sh								1.0 sd								2.0 Fgr								2.0 Fgr sh					
		1.0 Fgr								6.0 Fgr								2.0 FS								1.0 Fgr					
		1.0 gr CoS								1.0 CS								1.0 sd Cos								2.0 gr					
		1.0 FS								1.0 sd								1.0 FS								1.0 Fgr					
		2.0 Fgr								2.0 sd sh								2.0 gr								1.0 sd					
		1.0 FS								1.5 sd								3.0 Fgr								1.0 FS					
2	0.5	4.5 gr	1	7	16	26	gr+	7	1.0	1.0 Fgr	0	6	20	32	gr+			2.0 gr								1.0 Fgr					
		1.0 gr CoS								6.0 gr						12	0.5	4.5 Fgr	0	4	12	21	gr+			5.0 gr					
		2.0 Fgr								1.0 Fgr								3.0 sd						18	1.0	2.0 gr	0	5	15	26	gr+
		1.0 Fgr sh								1.0 FS								3.0 Fgr								1.0 Fgr					
		1.0 sd								5.0 Fgr								2.0 sd								1.0 CS					
		3.0 Fgr								1.0 Fgr sh								0.5 sd Cos								2.0 Fgr					
		1.0 CS								1.0 Fgr								0.5 Fgr								0.5 Fgr Cos					
		3.5 sd								3.0 FS								0.5 SiCl								3.5 Fgr					
		1.0 sd sh						8	0.5	3.5 gr	0	10	21	32	gr+			1.5 gr								2.0 sd sh					
		1.5 Fgr								5.5 Fgr								3.0 Fgr								1.0 sd					
3	0.5	3.5 Cgr	1	9	22	32	gr+			0.5 FS								1.0 Fgr sh								0.5 sd Cos					
		2.0 gr								1.0 Fgr sh						13	0.5	3.5 gr	0	6	13	23	gr+			0.5 sd SiCl					
		3.0 Fgr								2.0 Fgr								3.0 Fgr								1.0 Fgr Cos					
		1.0 Fgr sh								2.0 sd								1.0 gr								1.0 Fgr					
		1.0 Fgr								1.0 CS								2.0 Fgr								2.0 gr					
		1.0 CS								1.0 Fgr								1.0 CS								1.0 Fgr					
		1.0 Fgr								1.0 sd								2.0 Fgr						19	0.5	2.5 CGr	0	7	18	29	gr+
		2.0 sd sh								2.0 FS								1.0 FS								1.0 gr					
		4.0 Fgr						9	0.5	6.5 Fgr	0	3	10	19	gr+			1.0 Fgr								3.0 Fgr					
		1.0 sd								1.0 FS								1.0 sd sh								1.0 FgrSiCl					
4	0.5	2.5 gr	0	8	16	25	SiCl			3.0 Fgr								1.0 Fgr								3.0 FS					
		5.0 Fgr								3.0 FS								3.0 gr								2.0 gr					
		1.0 Fgr sh								1.0 sd sh						14	3.0	5.0 Fgr	0	4	11	20	gr+			1.0 Fgr					
		2.0 Fgr								1.0 FS								3.0 sd								1.0 Fgr sh					
		1.0 Fgr sh								0.5 gr SiCl								1.0 Fgr								3.0 Fgr					
		1.0 Fgr								3.5 gr								4.0 sd													
		1.0 sd sh						10	0.5	1.5 gr	1	8	18	28	gr+			1.0 sd Cos													
		1.0 sd								4.0 Fgr								3.0 gr													
		1.0 sd sh								2.0 sd						15	2.0	1.5 gr	0	4	13	21	gr+								
		0.5 sd CoS								2.0 Fgr								5.5 Fgr													
		1.0 sd sh								1.0 Fgr sh								5.0 sd													
5	1.0	1.0 gr	0	11	20	29	gr+			1.0 sd CoS								3.0 FS													
		2.0 Cgr								1.0 FS								3.0 gr													
		2.0 gr								1.0 Fgr						16	0.5	4.5 gr	1	8	17	25	gr+								
		6.0 Fgr								1.0 gr								2.0 Fgr													
		1.0 gr								1.0 gr Cos								2.0 sd Cos													
		2.0 Fgr								3.0 gr								2.0 Fgr													
		1.0 Fgr sh								1.0 Fgr								1.0 CS													
		1.0 Fgr																1.0 Fgr													
		3.0 sd sh																1.0 sd													
																		1.0 Fgr													
																		5.0 sd													

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PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES								PIT LOGGING BY TEST HOLES							
Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
20	0.5	2.0 gr	0	4	12	19	gr+	25	1.0	2.0 gr	0	7	13	20	WL	32	0.5	1.5 gr	0	4	13	23	gr+	36	0.5	1.5 CGr	1	10	20	29	SiCl
		0.5 Fgr								3.0 Fgr								6.0 Fgr								4.0 gr					
		1.0 FgrSiCl								3.0 FS								1.0 sd								2.0 Fgr					
		1.0 Fgr								3.0 Fgr								1.0 FS								1.0 sd CoS					
		3.0 sd						26	3.0	1.0 Fgr	0	10	19	28	WL			1.0 sd								1.0 sd sh					
		1.0 FS								2.0 gr								1.0 FS								1.0 Fgr					
		1.0 sd SiCl								1.0 Fgr								1.0 gr								4.0 sd					
		2.0 FS								1.0 FS								4.0 Fgr								2.0 sd sh					
		3.0 Fgr								3.0 sd								1.5 Fgr sh								2.0 sd					
		1.0 Fgr sh						27	2.0	4.0 Fgr	0	0	5	11	SiCl			0.5 FS													
		1.0 Fgr								3.0 Fgr sh								1.0 Fgr													
		1.0 SiCl								1.0 FS						33	0.5	2.5 CGr	0	11	21	32	SiCl								
		1.0 Fgr sh								1.0 Fgr								3.0 gr													
		1.0 Fgr						28	2.0	4.0 Fgr	0	0	7	15	SiCl			2.0 Fgr													
21	0.5	6.5 gr	0	12	22	33	gr+			2.0 FS								1.0 gr													
		1.0 Fgr								1.0 sd sh								1.0 Fgr													
		2.0 Fgr sh								2.5 Fgr								1.0 FS													
		1.0 sd sh								1.0 sd								1.0 sd sh													
		1.0 gr								1.5 Fgr sh								2.0 gr													
		1.0 Fgr						29	0.5	1.5 CGr	0	5	11	18	SiCl			1.0 Fgr sh													
		3.0 FS								1.0 gr								4.0 Fgr													
		2.0 gr								2.0 Fgr						34	0.5	1.5 gr	0	11	24	34	SiCl								
		2.0 Fgr								1.0 FS								2.0 Fgr													
22	0.5	2.5 gr	0	4	15	26	gr+			1.0 Fgr								1.5 sd													
		1.0 Fgr								6.0 FS								1.5 Fgr													
		1.0 gr								1.0 FgrSiCl								1.0 FS													
		1.0 Fgr								2.0 Fgr sh								1.0 Fgr													
		1.0 sd						30	0.5	3.5 gr	0	3	15	26	SiCl			1.0 FS													
		1.0 sd sh								1.0 Fgr								1.0 sd sh													
		1.0 Fgr								3.0 FS								1.0 FS													
		1.0 Fgr sh								1.0 Fgr								1.0 sd													
		1.0 sd								1.0 sd CoS								2.0 gr													
		2.0 sd SiCl								1.0 sd								1.0 Fgr													
		2.0 gr								2.0 FgrSiCl								3.0 gr													
		5.0 Fgr								1.0 gr						35	0.5	2.5 gr	0	6	13	22	gr+								
23	9.0	2.0 Fgr	0	5	13	22	WL			1.0 Fgr								3.0 Fgr													
		1.0 gr						31	1.0	2.0 gr	0	8	19	31	gr+			1.0 gr													
		2.0 Fgr								5.0 Fgr								3.0 Fgr													
24	0.5	1.5 Fgr	0	0	3	12	WL			2.0 gr								3.0 sd													
		1.0 sd								1.0 Fgr								1.0 sd sh													
		2.0 FS								2.0 FS								1.0 sd													
		1.0 sd CoS								2.0 Fgr sh								1.0 sd sh													
		4.0 Fgr								5.0 gr								1.0 FS													
		1.0 sd CoS																2.0 Fgr													
		1.0 FS																1.0 gr													
		1.0 sd CoS																													
		1.0 Fgr Cos																													
		1.0 sd																													
		0.5 Fgr																													

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Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole	Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1/2" Screen	% Retained on 3/4" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole					
A	0.5	7.5 gr	1	15	27	38	gr+																													
		1.0 Fgr	Holes A-F are for informational purposes only and are not included in the pit totals																																	
		1.0 FS																																		
		4.0 gr																																		
		3.5 Fgr																																		
		0.5 FS																																		
		2.0 Fgr																																		
B	2.5	5.5 gr	1	6	17	30	gr+																													
		2.0 sd sh																																		
		1.0 FS																																		
		1.0 gr CoS																																		
		3.0 Fgr																																		
		1.0 sd																																		
		3.0 Fgr																																		
		1.0 FS																																		
C	0.5	4.5 gr	0	3	10	19	SiCl																													
		1.0 Fgr																																		
		1.0 SiCl																																		
		1.0 FS																																		
		1.0 Fgr																																		
D	0.5	1.5 gr	4	17	26	34	SiCl																													
		3.0 CGr																																		
		2.0 Fgr																																		
		1.0 gr																																		
		2.0 Fgr																																		
		2.0 sd																																		
		1.0 Fgr																																		
		1.0 FgrSiCl																																		
		1.0 Fgr																																		
E	0.5	2.5 CGr	0	6	16	28	SiCl																													
		1.0 Fgr sh																																		
		4.0 Fgr																																		
		3.0 gr																																		
		1.0 sd																																		
		1.0 Fgr																																		
		1.0 gr																																		
		2.0 Fgr																																		
F	0.5	1.5 Fgr	1	6	12	21	FS																													
		2.0 gr																																		
		1.0 Fgr																																		
		1.0 FgrCos																																		
		1.0 FS																																		
		2.5 Fgr																																		
		0.5 FS																																		
		1.0 Fgr																																		
		1.0 CS																																		
		1.0 Fgr																																		
		2.0 sd sh																																		
		2.5 sd																																		
		1.5 Fgr sh																																		

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