North Dakota Department of Transportation

Grant Levi, P.E.
Director

Jack Dalrymple
Governor

December 7, 2016

ADDENDUM 1 – JOB 11

TO: All prospective bidders on project NH-4-083(135)182, Job No. 11 scheduled for the December 16, 2016 bid opening.

The following plan revisions shall be made:

Plan Revisions:
Remove and replace sheets 2-1, 6-1, and 6-2 with the enclosed sheets revised 12/1/2016 or 12/5/2016.

Add sheets 180-1 to 180-5.

Sheet 2-1:
Table of Contents has been revised to add Section 180 Pit Plats and Borrow Areas.

Sheet 6-1:
Note 430-P01 SUPERPAVE FAA 45 has been added, requiring the leveling course to be paver laid.

Sheet 6-2:
Note 764-P01 RESET W-BEAM GUARDRAIL has been revised. The number of posts, blocks, and bolts has changed.

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

for CAL J. GENDREAU – CONSTRUCTION SERVICES ENGINEER
80:dch
Enclosure

REVISED 12/5/2016	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NH-4-083(135)182	2	1

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PLAN SECTIONS

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SPECIAL PROVISIONS

Number	Description
SP 5128(14)	Permits and Environmental Considerations

LIST OF STANDARD DRAWINGS

Number	Description
D-101-1, 2,3	NDDOT Abbreviations
D-101-10	NDDOT Utility Company and Organization Abbreviations
D-101-20, 21	Line Styles
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D-704-7	Breakaway Systems For Construction Zone Signs - Perforated Tube
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D-704-9	Construction Sign Details - Terminal And Guide Signs
D-704-10	Construction Sign Details - Regulatory Signs
D-704-11	Construction Sign Details - Warning Signs
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D-704-34A	Traffic Control System Lane Shift Between A Lane Closure And An Opposite Lane Closure
D-704-50	Portable Sign Support Assembly
D-706-1	Bituminous Laboratory
D-754-20	(Expressway-Freeway Use) Mile Posts
D-754-23	Perforated Tube Assembly Details
D-754-24, 25	Mounting Details Perforated Tube
D-754-24A	Breakaway Coupler System For Perforated Tubes
D-754-29	Sign Punching, Stringer And Support Location Details Regulatory, Warning, And Guide Signs
D-754-60, 74	Sign Punching, Stringer And Support Location Details - Route Marker Signs
D-754-87	Sign Punching, Stringer And Support Location Details For Street Name Signs And 911 Signs
D-760-2	Rumble Strips Divided Highways (Non-Interstate)
D-760-5	Saw Slotted Rumble Strips At Intersections
D-762-1	Pavement Marking Message Details
D-762-4	Pavement Marking
D-762-6	Pavement Marking for Standard 90 Degree Flared Intersection-(Center Left turn Lane on Major Road)
D-762-11	Short-Term Pavement Marking
D-764-1	W-Beam Guardrail General Details
D-764-6	Flared Energy Absorbing Terminal
D-764-7	Slotted Rail Terminal
D-764-14	Special W-Beam Guardrail Anchor
D-764-23	Typical Grading At Obstructions With W-Beam Guardrail

NOTES

411-P01 **MILLED PAVEMENT SURFACE:** Deliver milled material not required for RAP production to the NDDOT Maintenance yard at 1305 Hwy. 2 Bypass E. in Minot. Stockpile milled material using a payloader. Keep payloader tires off of stockpile. Include all costs associated with this work in the contract price bid for "MILLING PAVEMENT SURFACE".

Contact Project Engineer 24 hours prior to milling to determine location in maintenance yard where millings will be delivered and stockpiled.

Do not allow traffic on 1" milled pavement surface. (RP 182.302 – 197.526 NB)

430-P01 **SUPERPAVE FAA 45:** Paver lay 1" leveling course and 2" wearing course.

704-P01 **TRAFFIC CONTROL:** Traffic control for the HMA overlay and the milling operations shall consist of lane closures, and flagging. Traffic Control Devices shall comply with the following Standard Drawings:

1. Standard D-704-20, layout G: For project terminal signing during paving and milling operations.
2. Standard D-704-22, layouts K and L: For trucks hauling material.
3. Standard D-704-34, layout for temporary lane closure during milling & paving operations.
4. Standard D-704-34A, layout of lane shift between a lane closure and an opposite lane closure.

Quantities have been developed based on 1 (one) 8 mile lane closure for Milling, HMA, and Class 5 operations and 1 (one) 1 mile lane closure for guardrail operations. The required traffic control signs and devices are included in the "Traffic Control Devices List" and will be measured and paid at the Contact Unit Price for each device

706-P01 **BITUMINOUS LABORATORY:** Supply a copy machine, with reduction capabilities, and toner for the "Bituminous Laboratory".

Include payment for these items in the price bid for "BITUMINOUS LABORATORY".

This document was originally issued and sealed by Chad E. Beggs, Registration Number PE-5436, on 12-05-16 and the original document is stored at the North Dakota Department of Transportation.

NOTES

SECTION 130

203-P01 GUARDRAIL EMBANKMENT: The embankment material required for guardrail installation is not available within the highway right of way. It will be the contractor's responsibility to obtain embankment material.

The backslope is an avoidance area.

Include all costs to locate the embankment material in the contract unit price bid for Guardrail Embankment."

764-P01 RESET W-BEAM GUARDRAIL: The existing W-beam guardrail installations utilize U-shaped block-outs. Do not use the existing posts, block-outs, or mounting bolts in the reset guardrail installations.

The Contractor will be required to supply and install the following new materials to reset the W-beam guardrail:

(33) 6"X8"X6'-0" timber posts
(33) 6"X8"X14" timber blocks
(33) 5/8"X18" long guardrail bolts

Include these items in the contract unit price bid for the item "Reset W-Beam Guardrail."

This document was originally issued and sealed by Douglas A Schumaker, Registration Number PE-5047, on 12/1/2016 and the original document is stored at the North Dakota Department of Transportation.

Revised	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
12-05-16	ND	NH-4-083(135)182	180	1

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

TEST HOLE PLAT

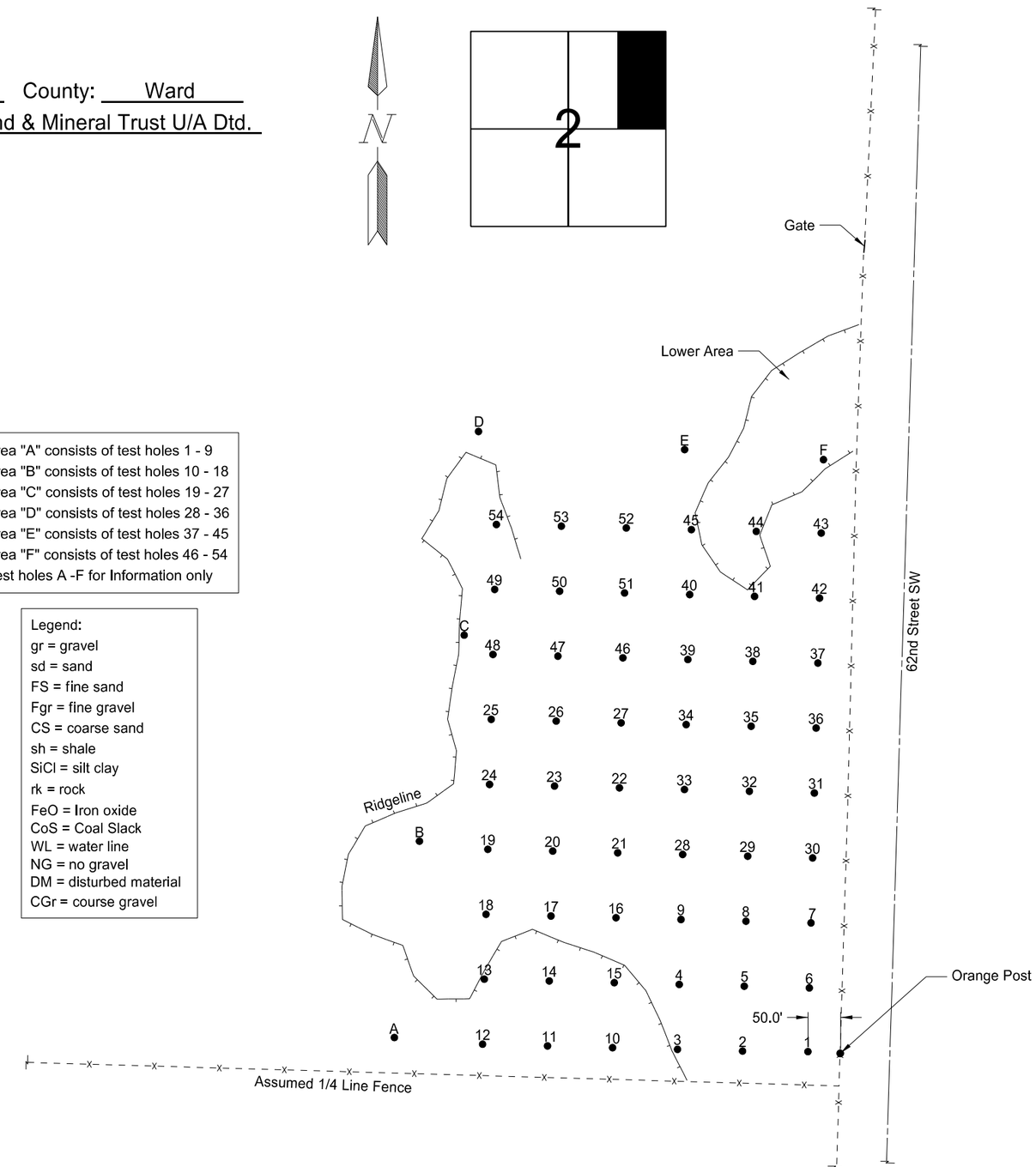
Location: E1/2NE1/4 2-151-84 County: Ward

Ownership: First Western Bank and Trust, Trustee of the Osadchy Gravel Land & Mineral Trust U/A Dtd.

LOCATION OF PIT IN SECTION

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
Area "E" consists of test holes 37 - 45
Area "F" consists of test holes 46 - 54
Test holes A -F for Information 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 = course gravel



Scale 1"=200'

Revised 12-05-16

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NH-4-083(135)182	180	2

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
1	0.5	3.5 gr	1	11	22	31	+Cave
		1.0 sd					
		4.0 Fgr					
		1.0 sd					
		1.0 Fgr					
		3.0 sd					
		1.0 gr					
		1.0 sd					
		1.0 FS CoS					
		1.0 gr					
2	1.0	3.0 gr	0	9	20	31	+
		1.0 Fgr					
		3.0 gr					
		2.0 Fgr					
		1.0 sd					
		1.0 Fgr					
		1.0 sd					
		2.0 gr					
		2.0 Fgr					
		1.0 sd SiCl					
		1.0 sd					
		1.0 gr					
3	0.5	0.5 gr	1	9	19	30	+
		4.5 Fgr					
		1.5 FS					
		1.0 sd					
		1.5 gr					
		0.5 FS sh					
		1.0 sd					
		5.5 gr					
		1.5 FS sh					
		1.0 Fgr					
		1.0 sd sh					
4	0.5	7.5 gr	1	9	19	31	+
		2.0 sd					
		1.0 gr					
		1.0 FS					
		1.0 sd					
		2.0 gr					
		1.0 sd					
		1.0 sd sh					
		1.0 sd CoS					
		1.0 gr					
		1.0 sd					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
5	1.0	1.0 gr SiCl	0	11	23	35	+
		4.0 gr					
		1.0 Fgr					
		1.0 gr					
		1.0 sd					
		1.0 Fgr					
		1.0 gr					
		1.0 Fgr					
		1.0 Fgr sh					
		2.0 gr					
		1.0 Fgr sh					
		2.0 sd					
		2.0 gr					
6	1.5	2.5 gr	1	9	20	30	+
		4.0 sd					
		2.0 Fgr					
		1.0 sd sh					
		2.0 Fgr					
		2.5 sd sh					
		1.5 Fgr					
		1.0 FS sh					
		0.5 SiCl					
		1.5 sd sh					
7	3.0	1.0 gr SiCl	0	3	13	24	+
		3.0 gr					
		2.0 sd					
		1.0 Fgr					
		1.0 gr					
		1.0 sd SiCl					
		1.0 Fgr					
		1.0 sd sh					
		1.5 gr					
		0.5 sd sh					
		1.0 gr sh					
		1.0 Fgr sh					
		1.0 sd sh					
		1.0 Fgr					
8	1.0	1.0 gr SiCl	1	10	22	33	+
		2.0 sd					
		1.0 gr					
		1.0 gr SiCl					
		1.0 sd					
		1.5 gr					
		1.0 sd					
		1.5 sd sh					
		1.0 sd					
		4.5 gr					
		2.5 sd					
		1.0 sd sh					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
9	1.0	1.0 gr SiCl	0	7	18	30	+
		1.0 gr					
		1.0 Fgr					
		1.0 sd					
		1.0 gr					
		1.0 gr SiCl					
		2.0 Fgr sh					
		1.0 gr					
		2.0 sd sh					
		1.0 Fgr					
		2.0 gr sh					
		1.0 gr					
		1.0 Fgr					
		1.0 gr					
		1.0 sd					
		1.0 gr					
10	2.0	4.0 gr	1	9	18	30	+
		1.0 Fgr					
		1.0 gr					
		1.0 sd					
		2.0 Fgr					
		1.0 gr CoS					
		3.0 gr					
		2.0 Fgr					
		1.0 sd					
11	2.5	0.5 sd SiCl	1	13	24	33	+
		1.0 Fgr					
		7.0 gr					
		1.5 sd					
		1.5 gr					
		1.0 sd					
12	1.5	1.5 gr	0	8	19	33	+
		1.0 sd					
		2.5 gr					
		1.5 FS sh					
		1.0 FS					
		1.5 gr					
		1.0 FS sh					
		6.5 Fgr					
		1.0 sd					
		1.0 Fgr					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	
13	1.0	6.0 gr	2	7	19	31	+
		2.0 sd					
		1.0 Fgr					
		8.0 gr					
		1.0 sd CoS					
		1.0 gr					
14	1.5	1.5 Fgr	0	9	19	31	+
		1.0 gr					
		1.0 sd					
		1.0 gr					
		1.0 sd					
		1.0 gr					
		2.0 sd sh					
		2.0 Fgr					
		1.0 sd sh					
		2.0 gr					
		2.0 sd sh					
		2.0 Fgr					
		1.0 sd					
15	2.0	1.0 sd SiCl	0	10	22	33	+
		3.0 gr					
		1.0 Fgr					
		1.0 gr					
		1.0 Fgr					
		1.0 sd					
		1.0 Fgr					
		1.0 sd					
		5.0 gr					
		2.0 sd					
		1.0 Fgr					
16	2.0	2.0 gr	1	12	22	33	+
		2.0 sd					
		2.0 Fgr					
		2.0 sd					
		2.0 FS					
		6.0 gr					
		1.0 FS					
		1.0 sd					

RANGE 84 **TWP** 151 **SEC** E1/2NE1/4 2

COUNTY Ward Jun-16

PROSPECTED BY Volk/Nelson

INSPECTED & APPROVED Jeffrey Swank Jun-16

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NH-4-083(135)182	180	3

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
17	1.0	1.0 sd SiCl	0	7	17	25	+
		3.5 gr					
		4.5 sd					
		2.0 sd sh					
		2.0 Fgr sh					
		1.0 gr sh					
		1.0 gr					
		2.5 sd sh					
		0.5 SiCl					
		1.0 sd					
18	1.0	1.0 Fgr	1	9	20	33	+
		4.0 gr					
		1.0 sd					
		1.5 gr					
		1.5 FS					
		1.5 sd sh					
		2.0 gr					
		1.5 sd					
		2.0 Fgr sh					
		1.0 Fgr					
		2.0 gr					
19	1.0	1.0 Fgr	0	9	21	31	+
		4.0 gr					
		1.0 sd					
		1.0 Fgr					
		0.5 gr					
		0.5 sd sh					
		1.0 Fgr sh					
		1.0 sd SiCl					
		1.0 gr sh					
		1.0 sd sh					
		1.0 Fgr					
		1.0 gr sh					
		1.0 gr					
		1.0 Fgr sh					
		3.0 gr sh					
20	1.0	2.0 Fgr sh	1	11	22	33	+
		1.0 sd					
		3.0 gr					
		3.0 sd sh					
		1.0 FS sh					
		1.0 sd sh					
		4.0 Fgr					
		1.0 sd					
		3.0 gr					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
21	1.0	1.0 sd SiCl	0	8	18	28	+
		3.0 gr					
		1.5 sd					
		0.5 gr					
		1.0 Fgr SiCl					
		1.0 sd SiCl					
		1.0 Fgr sh					
		1.0 gr					
		1.0 sd					
		1.0 Fgr					
		2.0 gr					
		1.0 gr					
		1.0 gr sh					
		1.0 FS					
		1.0 Fgr					
22	1.0	1.0 gr Si Cl	0	10	24	35	+
		8.0 gr					
		3.0 Fgr sh					
		2.0 gr sh					
		0.5 gr					
		0.5 sd					
		1.0 gr					
		1.0 gr sh					
		2.0 sd sh					
23	1.0	1.0 Fgr Si Cl	1	10	23	37	+
		4.0 gr					
		2.0 sd					
		1.0 Fgr sh					
		2.0 sd					
		2.0 Fgr					
		2.0 gr					
		1.0 sd					
		2.0 gr					
		1.0 sd					
		2.0 Fgr sh					
		1.0 gr sh					
		2.0 gr					
		1.0 sd					
		1.0 gr					
		2.0 sd sh					
		3.0 gr sh					
		1.0 sd sh					
		2.0 gr sh					
		1.0 gr					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
24	0.5	0.5 sd Si Cl	0	12	24	35	+
		2.0 Fgr sh					
		1.0 gr sh					
		2.0 gr					
		1.0 sd					
		1.0 gr					
		2.0 sd sh					
		1.0 gr					
		1.0 gr sh					
		1.0 sd sh					
		3.0 gr sh					
		1.0 sd sh					
		2.0 gr sh					
		1.0 gr					
25	2.0	2.0 Fgr Si Cl	1	11	23	33	+
		7.0 gr					
		1.0 FS Si Cl					
		2.0 sd					
		4.0 gr					
		1.0 sd					
		1.0 gr					
26	1.0	1.0 gr Si Cl	0	4	15	24	+
		1.0 gr					
		1.0 sd					
		2.0 gr sh					
		1.0 sd					
		1.0 Fgr sh					
		1.0 sd Si Cl					
		4.0 sd					
		1.0 sd sh					
		1.0 gr					
		1.0 Fgr sh					
		1.0 FS					
		1.0 gr					
		1.0 sd Si Cl					
27	1.0	1.0 Fgr Si Cl	0	6	15	24	+
		3.0 gr					
		4.0 sd					
		1.0 Si Cl					
		3.0 sd					
		2.0 Fgr					
		1.0 gr					
		3.0 sd					
		1.0 Fgr					
28	2.5	1.5 Fgr Si Cl	0	8	18	29	+
		4.0 gr					
		2.0 sd					
		1.0 FS sh					
		3.0 sd sh					
		1.0 sd					
		2.0 gr					
		1.0 Fgr					
		1.0 sd					
		1.0 Fgr					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
29	1.0	1.0 Fgr sh	0	8	18	28	+
		1.0 gr Si Cl					
		1.0 sd					
		4.0 Fgr					
		1.0 FS sh					
		2.0 FS					
		1.0 gr					
		1.0 sd					
		1.0 sd Co S					
		5.0 sd					
		1.0 gr sh					
30	0.5	1.5 Fgr	0	11	21	31	+
		2.0 gr					
		1.0 gr sh					
		1.0 sd					
		1.0 Fgr					
		1.0 sd					
		1.0 Fgr					
		1.0 sd sh					
		1.0 gr sh					
		1.5 Fgr sh					
		1.5 sd sh					
		1.0 gr Si Cl					
		1.0 gr sh					
		2.0 sd sh					
31	1.0	1.0 sd Si Cl	1	7	18	29	+
		2.0 FS					
		1.0 gr					
		1.0 FS					
		3.0 gr					
		3.0 sd					
		1.0 gr					
		1.0 sd					
		3.0 gr					
		2.0 Fgr					
		1.0 gr					

RANGE 84 **TWP** 151 **SEC** E1/2NE1/4 2

COUNTY Ward Jun-16

PROSPECTED BY Volk/Nelson

INSPECTED & APPROVED Jeffrey Swank Jun-16

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NH-4-083(135)182	180	4

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
32	1.0	1.0 sd sh	0	7	19	30	+
		1.0 Fgr sh					
		1.0 gr sh					
		2.0 gr					
		1.0 Fgr					
		1.0 sd					
		1.0 Fgr Si Cl					
		2.0 sd sh					
		1.0 Fgr					
		4.0 gr					
		2.0 gr sh					
		1.0 Fgr sh					
		1.0 FS Si Cl					
33	1.0	3.0 Fgr sh	1	8	20	30	+
		4.0 gr					
		1.0 FS					
		2.0 sd					
		1.0 gr					
		2.0 sd					
		1.0 Fgr sh					
		2.0 gr					
		1.0 FS Si Cl					
		1.0 gr					
		1.0 FS Si Cl					
34	1.0	1.0 gr Si Cl	0	6	18	27	+
		1.0 sd sh					
		2.0 gr sh					
		1.0 sd					
		1.5 gr					
		3.5 sd					
		1.0 gr sh					
		3.0 gr					
		1.0 FS					
		2.0 Fgr sh					
		2.0 sd sh					
35	1.5	1.5 Fgr Si Cl	1	11	23	34	+
		5.0 gr					
		1.0 Si Cl					
		2.0 FS					
		1.0 sd					
		7.0 gr					
		1.0 sd sh					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
36	0.5	0.5 Fgr	0	8	19	29	+
		3.0 gr					
		1.0 Fgr					
		2.0 gr					
		1.0 sd Si Cl					
		1.0 Fgr					
		0.5 sd Co S					
		0.5 sd					
		1.0 sd sh					
		2.5 gr sh					
		0.5 sd					
		3.0 gr					
		3.0 sd sh					
37	2.0	1.0 gr Si Cl	0	9	19	27	+
		1.0 Fgr					
		5.5 gr					
		1.5 Si Cl					
		1.0 FS					
		2.0 sd sh					
		1.0 gr					
		1.0 FS Si Cl					
		2.5 sd Co S					
		1.5 FS					
38	1.0	1.0 sd Si Cl	0	10	24	35	+
		1.0 gr Si Cl					
		3.0 gr					
		0.5 sd					
		0.5 Fgr					
		1.0 Si Cl					
		2.0 Fgr					
		1.0 sd Co S					
		1.0 Fgr					
		1.0 gr sh					
		6.0 gr					
		1.0 Fgr sh					
39	1.0	2.0 gr Si Cl	1	9	18	27	+
		4.0 gr					
		1.0 FS Si Cl					
		2.0 FS					
		2.0 sd					
		4.0 gr					
		3.0 FS					
		1.0 gr					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
40	0.5	0.5 Fgr Si Cl	0	7	19	28	+
		1.0 gr					
		1.0 sd					
		3.0 gr					
		2.0 sd					
		1.0 Fgr					
		1.5 gr sh					
		0.5 Fgr sh					
		1.0 gr					
		0.5 sd sh					
		0.5 gr sh					
		1.0 gr					
		1.0 sd					
		2.0 gr sh					
		1.0 gr					
		1.0 Si Cl					
		1.0 gr					
41	1.5	1.5 sd Si Cl	0	8	16	26	+
		1.0 Fgr					
		2.0 gr					
		1.0 sd					
		1.0 Fgr					
		2.0 FS sh					
		1.0 gr					
		1.0 sd					
		1.0 Fgr					
		1.0 Si Cl					
		1.0 FS Si Cl					
		1.0 FS					
		2.0 gr					
42	1.0	1.0 sd Si Cl	0	12	24	35	+
		4.0 gr					
		1.0 Fgr					
		1.5 sd					
		0.5 FS					
		2.0 sd					
		1.0 Fgr					
		4.0 gr					
		0.5 Fgr sh					
		0.5 Si Cl					
		2.0 sd sh					
		1.0 gr sh					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
43	1.0	1.0 gr Si Cl	1	6	16	27	+
		5.0 Fgr					
		2.0 FS sh					
		1.0 Fgr					
		1.0 gr					
		1.0 FS					
		1.0 FS Si Cl					
		3.0 gr					
		3.0 FS sh					
		1.0 sd					
44	2.0	1.0 gr	0	8	17	27	+
		1.0 gr Si Cl					
		2.0 gr					
		1.0 Fgr					
		1.0 gr					
		2.0 sd					
		2.0 gr					
		2.5 sd					
		1.5 Fgr					
		1.0 sd Si Cl					
		1.5 sd					
		1.5 gr					
45	1.5	2.5 gr Si Cl	0	10	21	32	+
		3.0 gr					
		1.0 sd					
		1.0 FS					
		3.0 sd					
		2.0 Fgr					
		1.0 gr					
		1.0 Si Cl					
		2.0 sd					
		1.0 gr					
		1.0 sd					

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COUNTY Ward Jun-16

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STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NH-4-083(135)182	180	5

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
46	0.5	0.5 Fgr Si Cl	0	8	19	30	+
		3.0 gr					
		1.5 gr sh					
		0.5 sd					
		1.0 Si Cl					
		1.0 sd Si Cl					
		1.0 sd					
		2.0 Fgr sh					
		3.0 gr					
		1.0 gr sh					
		2.0 sd sh					
		1.0 Fgr sh					
		1.0 sd sh					
		1.0 gr					
47	0.5	1.5 gr Si Cl	0	8	18	29	+
		2.0 Fgr					
		4.5 gr					
		1.5 FS Si Cl					
		2.0 sd					
		3.0 Fgr					
		2.0 sd					
		1.5 gr					
		1.5 sd					
48	0.5	0.5 sd Si Cl	0	7	18	27	+
		1.0 Fgr					
		4.0 gr					
		2.0 FS					
		2.0 sd sh					
		3.0 gr					
		1.0 gr sh					
		1.0 sd sh					
		1.0 gr					
		1.5 sd					
		0.5 Si Cl					
		2.0 Fgr sh					
49	2.0	2.5 gr Si Cl	1	9	21	33	+
		1.5 sd					
		1.5 gr					
		1.5 sd					
		1.0 Fgr					
		2.0 FS sh					
		2.0 Fgr					
		3.0 gr					
		1.0 sd					
		2.0 Fgr					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
50	1.0	1.0 gr Si Cl	0	6	18	30	+
		2.5 gr					
		0.5 sd					
		2.0 gr					
		2.0 sd sh					
		2.0 Fgr sh					
		2.0 gr					
		1.0 sd					
		2.0 gr					
		2.0 sd sh					
		2.0 gr					
51	1.0	2.0 Fgr Si Cl	0	6	15	25	+
		3.0 gr					
		7.0 sd					
		1.5 gr					
		0.5 FS					
		1.0 sd					
		1.0 gr					
		1.0 sd sh					
		2.0 sd					
52	2.0	1.0 gr Si Cl	0	9	20	32	+
		3.0 gr					
		1.0 Fgr sh					
		2.0 gr sh					
		1.0 Fgr					
		1.0 sd					
		2.0 Fgr sh					
		1.5 gr					
		0.5 sd					
		1.5 gr					
		1.5 sd sh					
		1.0 sd					
		1.0 gr					
53	1.0	2.0 gr Si Cl	1	14	28	39	+
		5.0 gr					
		2.0 FS					
		1.0 gr					
		1.0 sd					
		4.0 gr					
		1.0 sd					
54	1.0	5.0 gr	0	11	24	35	+
		3.0 sd					
		1.5 gr					
		0.5 Si Cl					
		1.0 sd					
		3.0 gr					
		1.0 gr sh					
		3.0 gr					
		1.0 gr sh					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
A	3.0	1.0 sd Si Cl	0	12	23	34	+
		2.0 gr					
		2.0 sd					
		5.0 gr					
		1.0 sd					
		2.0 gr					
		4.0 Fgr					
B	1.0	1.0 gr Si Cl	0	8	21	32	+
		4.0 gr					
		2.0 sd					
		1.0 gr					
		1.0 Fgr					
		1.5 gr					
		0.5 Fgr					
		2.0 gr					
		1.0 sd					
		2.0 Fgr					
		1.0 sd Si Cl					
		1.0 gr					
		1.0 Fgr					
C	1.0	1.0 Fgr	0	6	17	28	+
		1.0 gr					
		2.0 Fgr					
		2.0 FS					
		1.5 sd					
		2.5 Fgr					
		5.0 gr					
		4.0 Fgr sh					
D	1.0	2.0 gr	0	8	19	30	+
		1.0 sd					
		1.0 gr					
		1.0 Fgr					
		1.0 gr					
		1.0 sd					
		1.0 gr					
		2.0 sd					
		6.0 gr					
		1.0 Fgr Co S					
		2.0 Fgr					
E	2.0	3.0 gr	0	6	16	26	+
		2.0 sd					
		1.0 Fgr sh					
		2.0 Fgr					
		3.0 sd sh					
		3.0 gr					
		1.0 sd					
		1.0 Fgr sh					
		2.0 gr					

PIT LOGGING BY TEST HOLES

Test Hole No.	Depth of Stripping (Ft)	Depth of Material (Ft)	% Retained on 1½" Screen	% Retained on ¾" Screen	% Retained on 3/8" Screen	% Retained on #4 Screen	Bottom of Test Hole
F	1.0	2.5 gr	0	9	23	35	+
		0.5 sd					
		1.0 Fgr					
		9.0 gr					
		2.0 Fgr					
		2.5 gr					
		0.5 sd					
		1.0 gr Si Cl					

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