708 Heartland Trl.
Suite 3000
Madison, WI 53717

T 608.826.3600
TRCcompanies.com

September 4, 2019

Ms. Kristina Femal
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313

Subject: Excavation Management Plan for STH 23 – Tynan Property
Town of Forest, Fond du Lac County, Wisconsin
WisDOT Project ID #1440-15-01, WDNR BRRTS# 02-20-554881

Dear Ms. Femal:

TRC Environmental Corporation (TRC) has prepared this Excavation Management Plan (EMP) for the STH 23 project at the former Tynan Property (W998 STH 23) in Fond du Lac County, Wisconsin. The Plans, Specifications, and Estimates (PS&E) is due November 2019.

Background

The Tynan property is located in the northeastern quarter of Section 15 of T15N, R19E, Town of Forest, Fond du Lac County, Wisconsin (see Attachment 1 for Background Information). The property has been acquired for the STH 23 project. The Tynan property previously operated as a farm.

In 2009, RMT, Inc. (RMT) completed a Phase 3 subsurface investigation of the property and concluded that low-level metals- and petroleum-contaminated soil was present. Also, in 2011 RMT completed an inventory and waste characterization of various liquid wastes that were stored on the property. Veolia Environmental Services then removed the waste for off-site treatment/disposal. Following this work, the site was cleared and the private well was abandoned.

Excavation Management Plan

On the basis of the results of the Phase 3 investigation, low-level petroleum- and metals-contaminated soil is present in the area of borings B-1, B-3, B-4, and B-12. These locations are contained within the contaminated area defined as Station 619+30 to 620+40 from 70 feet right of the reference line to the construction limits on the right. Petroleum-contaminated soil is also present in the area of boring B-5 but is outside the limits of planned highway excavations.

TRC recommends that the soil excavated for the re-construction of STH 23 at the above locations be field-screened by an environmental consultant. Except for soil in the area of B-5, most of the soil excavated from these areas is expected to have only low-level contamination and to be suitable for reuse as fill on the site. Excess low-level contaminated soil that cannot be reused as fill, low-level contaminated soil that is geotechnically unsuitable for reuse as fill (to be determined by the WisDOT project engineer), and soil identified by the environmental consultant as having significant contamination will require disposal at a WDNR-licensed treatment and disposal facility. Petroleum-related contamination will be determined based on field-screening, and all soil with significant staining or elevated PID readings (for example, PID readings greater than 10 ppm) will be considered significantly contaminated and managed as contaminated for off-site treatment and disposal. Metals-related contamination will be determined based on laboratory results from previous investigations and field-screening, and all soil with significant staining or elevated laboratory results will be considered significantly contaminated and managed as contaminated soil for off-site treatment and disposal. If

significantly contaminated soil is stockpiled on-site prior to disposal, it will be placed on an impermeable surface and covered with an impermeable material to prevent infiltration of precipitation.

WDNR Concurrence Request

We recommend that this report and the attached Special Provisions (Attachment 2) be reviewed by the WDNR as the Excavation Management Plan (EMP) and that the WDNR's concurrence with the EMP and the Special Provisions be obtained. We ask for WDNR review and concurrence by September 27, 2019.

If you have any questions, please contact me at 608.826.3628.

Sincerely,

TRC

Dan Haak
Project Manager

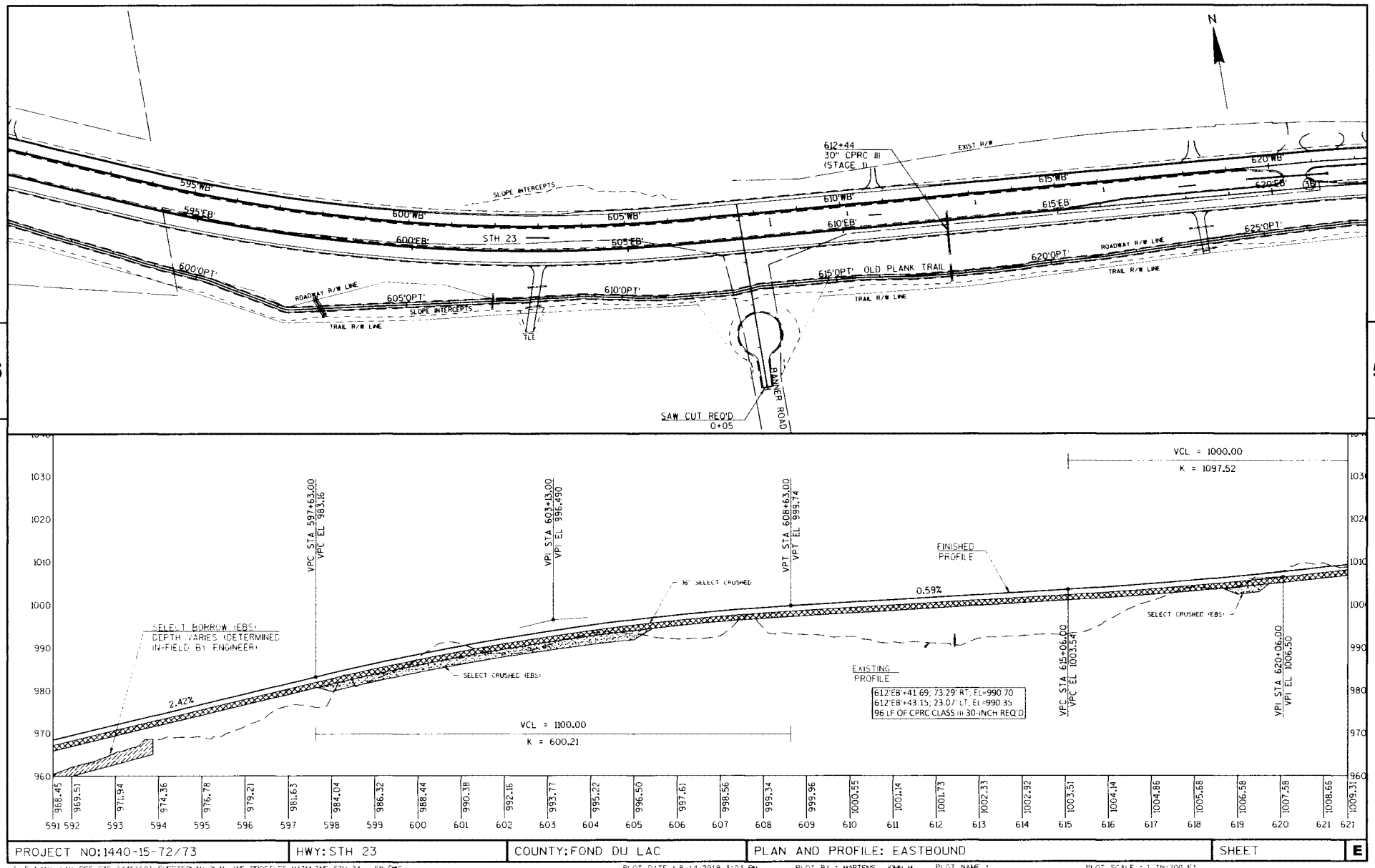
Bryan Bergmann
TRC Quality Assurance

Attachments: Attachment 1 – Background Information
Attachment 2 – Special Provisions

cc: Kathie VanPrice – WisDOT (pdf via email)

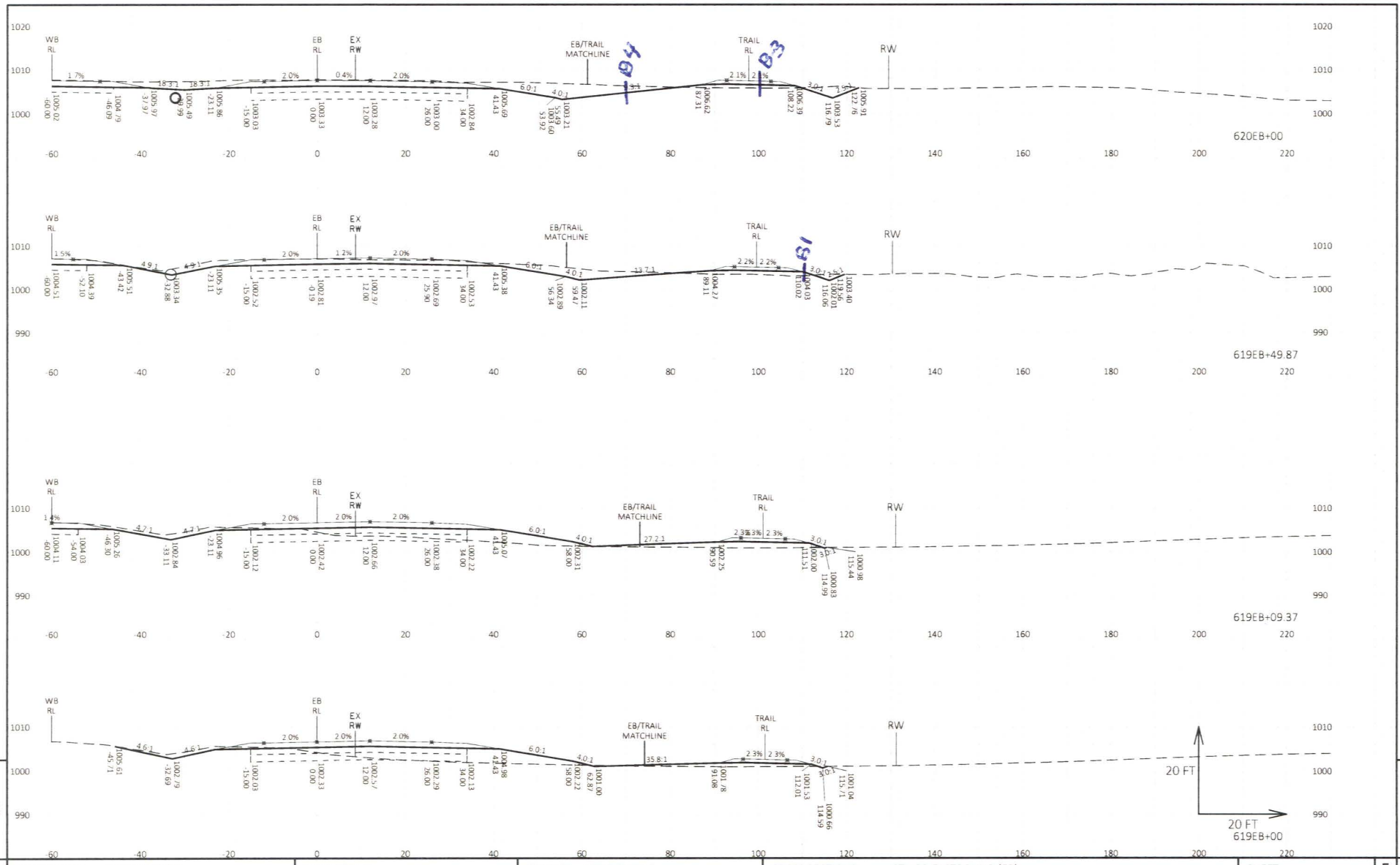
Attachment 1

Background Information



PROJECT NO:1440-15-72/73	HWY: STH 23	COUNTY:FOND DU LAC	PLAN AND PROFILE: EASTBOUND	SHEET	E

FILE NAME : N:\PDS\C3D\1440\1501\SHEETS\PLAN-PLAN AND PROFILES\MAINLINE\STH 23 - EB.DWG
LAYOUT NAME - STH 23 - EB - EB - (6)
PLOT DATE : 8/14/2019 3:03 PM
PLOT BY : MARTENS, JOHN M
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



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9

PROJECT NO: 1440-15-72/73	HWY: STH 23	COUNTY: FOND DU LAC	CROSS SECTIONS: STH 23-EASTBOUND (EB)	SHEET	E

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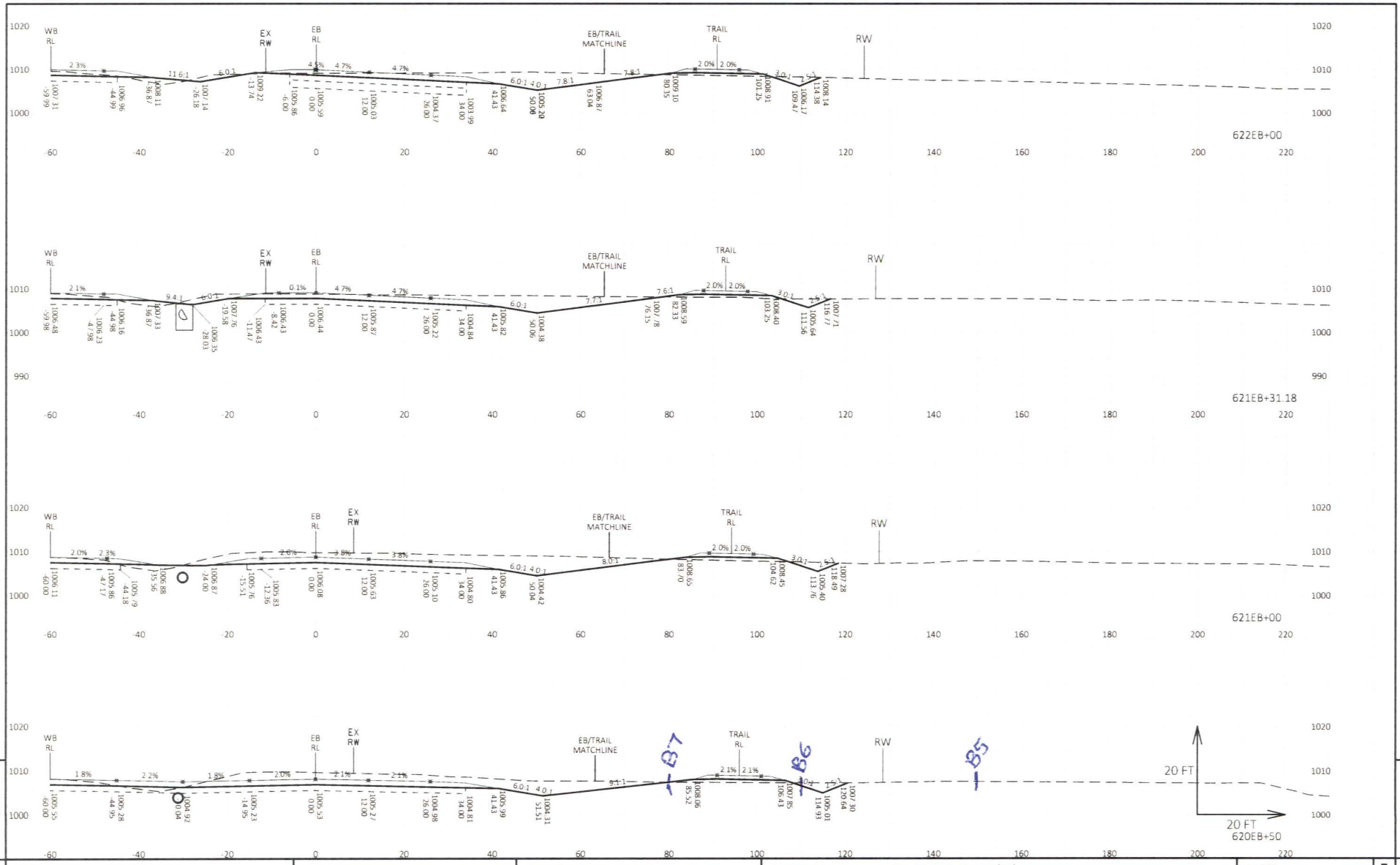
PLOT DATE: 8/19/2019 11:26 AM
PLOT BY: VICKMAN, GARRETT T
PLOT NAME:
PLOT SCALE: 1 IN 20 FT HORZ / 1 IN 20 FT VERT



9

9

PROJECT NO: 1440-15-72/73	HWY: STH 23	COUNTY: FOND DU LAC	CROSS SECTIONS: STH 23-EASTBOUND (EB)	SHEET	E

FILE NAME: N:\PDS\C3D\14401501\SHEETSPLAN\CROSSSECTIONS\144015?3\144015?3_EB_F.DWG
LAYOUT NAME - 144015?3-0902140-xs
PLOT DATE: 8/19/2019 11:27 AM
PLOT BY: VICKMAN, GARRETT T
PLOT NAME:
PLOT SCALE: 1 IN 20 FT HORZ / 1 IN 20 FT VERT

WISDOT/CADDS SHEET 49

N

SCALE IN FEET

25 0 25 50

LEGEND

	APPROXIMATE PROPERTY LINE
B-2	RMT SOIL BORING LOCATION
B-1	RMT SOIL BORING AND TEMPORARY MONITORING WELL LOCATION
B100/TW100	STANTEC SOIL BORING AND TEMPORARY MONITORING WELL LOCATION
	TYNAN PRIVATE WELL LOCATION (ABANDONED)

Stantec

1165 Scheuring Road, Green Bay, Wisconsin 54115
Phone: 920-592-8400 Fax: 920-592-8444

SITE LAYOUT WITH SOIL BORING AND TEMPORARY MONITORING WELL LOCATIONS

TYNAN PROPERTY
W998 STH 23
(PARCELS #T10-15-19-15-01-003-00, #T10-15-19-15-03-002-00)
TOWN OF FOREST, WISCONSIN

DATE:	DRAWN BY:	PROJECT MANAGER:	PROJECT NUMBER:	FIGURE
06/20/19	JRB	JRB	193706841	1

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Tynan Property - 193706841

Job ID: 500-165419-1

Client Sample ID: S102 — Lab Sample ID: 500-165419-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Styrene	41	J B	55	21	ug/Kg	50	☼	8260B	Total/NA

Client Sample ID: S202 — Lab Sample ID: 500-165419-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Styrene	31	J B	50	19	ug/Kg	50	☼	8260B	Total/NA
Lead	3.0		0.57	0.26	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: S302 — Lab Sample ID: 500-165419-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Styrene	26	J B	49	19	ug/Kg	50	☼	8260B	Total/NA
Lead	9.6		0.55	0.25	mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: TW100 — Lab Sample ID: 500-165419-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.21	J	0.50	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TW200 — Lab Sample ID: 500-165419-5

No Detections.

Client Sample ID: TW300 — Lab Sample ID: 500-165419-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.26	J	0.50	0.15	ug/L	1		8260B	Total/NA
Toluene	0.50		0.50	0.15	ug/L	1		8260B	Total/NA
Xylenes, Total	0.26	J	1.0	0.22	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Table 1
Soil Analytical Results
STH 23 (Tynan Properties)
WisDOT ID #1440-15-01
Town of Forest, Fond du Lac County, Wisconsin
September 22, 2009 to September 23, 2009

ANALYTE	UNITS	GENERIC RCL			B-1	B-1	B-2	B-3	B-3	B-4	B-5	B-5	B-6	B-7	B-8	B-9	B-9	B-10	B-10	B-11	B-11	B-12	B-12	B-13	B-13
		GW PATH[1]	NON-INDUST[2]	INDUST[2]	(0"-6")	(3'-4')	(3'-4')	(0'-1')	(6'-7')	(1'-2')	(0"-6")	(1'-3')	(2'-4')	(3'-4')	(3'-4')	(3'-4')	(7'-8')	(0'-1')	(2'-4')	(0'-1')	(5'-6')	(0'-2')	(4'-6')	(0'-2')	(8'-9')
PID	ppm	--	--	--	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
		NR 720 RCLs (SOIL)																							
GRO	mg/kg	100	--	--	< 10.9	NA	< 11.15	< 12	< 8.95	< 10.6	< 11.3	NA	< 11	< 9.99	< 11.8	< 10.3	< 9.08	< 11	NA	< 11.2	< 9.89	< 9.59	NA	< 11.3	< 9.53
DRO	mg/kg	100	--	--	< 4.87	NA	< 5.12	54.4	< 4.14	< 5.98	**1,490**	< 4.77	< 6.34	< 4.95	< 5.2	< 5.01	< 4.33	< 4.76	NA	12.6	< 5.6	9.44	NA	5.13	< 4.69
VOCs[3]		NR 720 RCLs (SOIL)																							
Benzene	µg/kg	5.5	--	--	**17 JB**	< 116	< 116	< 121	< 104	< 99.4	< 111	< 107	< 108	< 99.9	< 102	< 103	**11 JB**	< 110	< 96.5	< 112	< 98.9	< 95.9	< 98.1	< 108	< 95.3
Bromomethane	µg/kg	--	--	--	1,110	170 J	NA	941	601	NA	618	< 213	NA	405	355	395	848	855	210	646	614	514	< 196	508	438
Chloromethane	µg/kg	--	--	--	499	< 233	NA	358	302	NA	270	< 213	NA	190 J	170 J	190 J	424	397	< 193	343	284	257	< 196	256	237
Tetrachloroethene	µg/kg	--	--	--	62 JB	66 JB	NA	57 JB	52 JB	NA	56 JB	59 JB	NA	37 JB	42 JB	43 JB	48 JB	59 JB	42 JB	54 JB	54 JB	47 JB	42 JB	44 JB	37 JB
Trichloroethene	µg/kg	--	--	--	21 JB	< 116	NA	< 121	< 104	NA	< 111	< 107	NA	< 99.9	< 102	< 103	< 90.8	< 110	< 96.5	< 112	< 98.9	< 95.9	< 98.1	< 108	< 95.3
Trimethylbenzenes	µg/kg	--	--	--	34 JB	< 232	< 232	< 242	< 208	< 198.8	39 J	< 214	< 216	< 199.8	< 204	< 206	< 181.6	< 220	< 193	< 224	< 197.8	< 191.8	< 196.2	< 216	< 190.6
Total xylenes	µg/kg	4,100	--	--	< 326	< 349	< 348	< 363	< 311	< 298	110 JB	< 320	< 324	< 300	< 305	< 308	< 272	< 331	< 290	< 335	< 297	< 288	< 294	< 325	< 286
PCBs		NR 720 RCLs (SOIL)																							
Aroclor	µg/kg	--	--	--	NA	NA	NA	< 365	NA	NA	< 364	< 325	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs		SUGGESTED RCLs (SOIL)[4]																							
Acenaphthene	µg/kg	38,000	900,000	60,000,000	NA	NA	NA	5.5 J	NA	NA	2.7 J	0.67 J	NA	NA	NA	NA	NA	NA	NA	< 4.76	NA	NA	NA	NA	NA
Acenaphthylene	µg/kg	700	18,000	360,000	NA	NA	NA	36 J	NA	NA	< 123	< 22.2	NA	NA	NA	NA	NA	NA	NA	< 23.8	NA	NA	NA	NA	NA
Anthracene	µg/kg	3,000,000	5,000,000	300,000,000	NA	NA	NA	129	NA	NA	< 123	< 22.2	NA	NA	NA	NA	NA	NA	NA	< 23.8	NA	NA	NA	NA	NA
Benz(a)anthracene	µg/kg	17,000	88	3,900	NA	NA	NA	**400**	NA	NA	24 J	2.1 J	NA	NA	NA	NA	NA	NA	NA	3.3 J	NA	NA	NA	NA	NA
Benzo(a)pyrene	µg/kg	48,000	8.8	390	NA	NA	NA	**200**	NA	NA	**27 J**	< 90	NA	NA	NA	NA	NA	NA	NA	4.5 J	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	µg/kg	360,000	88	3,900	NA	NA	NA	**536**	NA	NA	33 J	2.8 J	NA	NA	NA	NA	NA	NA	NA	4.5 J	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	µg/kg	6,800,000	1,800	39,000	NA	NA	NA	290 J	NA	NA	61 J	2.2 J	NA	NA	NA	NA	NA	NA	NA	3.4 J	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	µg/kg	870,000	880	39,000	NA	NA	NA	243	NA	NA	25 J	2.2 J	NA	NA	NA	NA	NA	NA	NA	4.5 J	NA	NA	NA	NA	NA
Chrysene	µg/kg	37,000	8,800	390,000	NA	NA	NA	746	NA	NA	59.8	1.5 J	NA	NA	NA	NA	NA	NA	NA	3.8 J	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	µg/kg	38,000	8.8	390	NA	NA	NA	**130**	NA	NA	< 90	< 90	NA	NA	NA	NA	NA	NA	NA	< 90	NA	NA	NA	NA	NA
Fluoranthene	µg/kg	500,000	600,000	40,000,000	NA	NA	NA	502	NA	NA	46 J	2.1 J	NA	NA	NA	NA	NA	NA	NA	6.5 J	NA	NA	NA	NA	NA
Fluorene	µg/kg	100,000	600,000	40,000,000	NA	NA	NA	33 J	NA	NA	< 49.4	0.67 J	NA	NA	NA	NA	NA	NA	NA	< 9.53	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	µg/kg	680,000	88	3,900	NA	NA	NA	**200 J**	NA	NA	< 617	< 111	NA	NA	NA	NA	NA	NA	NA	< 119	NA	NA	NA	NA	NA
Naphthalene	µg/kg	400	20,000	110,000	NA	NA	NA	4.6 JB	NA	NA	7.4 JB	1.3 JB	NA	NA	NA	NA	NA	NA	NA	0.72 JB	NA	NA	NA	NA	NA
Phenanthrene	µg/kg	1,800	18,000	390,000	NA	NA	NA	397	NA	NA	31.4 B	1.8 JB	NA	NA	NA	NA	NA	NA	NA	5.15	NA	NA	NA	NA	NA
Pyrene	µg/kg	8,700,000	500,000	30,000,000	NA	NA	NA	588	NA	NA	65 J	2.9 J	NA	NA	NA	NA	NA	NA	NA	7.8 J	NA	NA	NA	NA	NA
Total Metals		NR 720 RCLs (SOIL)																							
Arsenic	mg/kg	--	0.039	1.6	**5.2 J**	**3.2 J**	NA	**4.8 J**	< 5.16	NA	**5.2 J**	**3.3 J**	NA	**3.1 J**	**2.8 J**	**4.6 J**	< 5.19	**3.7 J**	< 5.37	3 J	< 5.16	< 5.39	< 5.01	**3.7 J**	< 5.37
Barium	mg/kg	--	--	--	85.2	41.4	NA	69.3	18	NA	95.7	45.6	NA	63.1	97.6	63.1	36.3	67.2	30.6	81.9	27.7	42.2	12	93	28.1
Cadmium	mg/kg	--	8	510	< 6.11	< 5.7	NA	0.9 J	< 5.16	NA	4 J	< 5.31	NA	< 5.51	< 5.62	< 5.42	< 5.19	< 5.85	< 5.37	0.7 J	< 5.16	< 5.39	< 5.01	< 5.75	< 5.37
Chromium	mg/kg	--	--	--	13.4	18	NA	13.3	< 7.74	NA	98.1	15	NA	18.5	20.2	12.6	< 7.78	12.3	10.6	14.5	8.93	12.4	< 7.52	14.2	8.4
Lead	mg/kg	--	50	500	**88.1**	8.16	7.28	**152**	1.8 J	**179**	**1,340**	9.13	6.57	10.8	12	23.7	1.9 J	19.5	3.4 J	45.5	10.2	**52.4**	2.1 J	26.1	3.5 J
Mercury	mg/kg	--	--	--	0.101	0.0918	NA	0.0779	0.02 J	NA	0.292	0.0627	NA	0.0475	0.0928	0.124	0.014 J	0.118	0.0477	0.103	0.029 J	0.0515	0.015 J	0.319	0.0355
Selenium	mg/kg	--	--	--	< 6.11	< 5.7	NA	< 6.08	< 5.16	NA	< 6.18	< 5.31	NA	< 5.51	< 5.62	< 5.42	< 5.19	< 5.85	< 5.37	< 5.78	< 5.16	< 5.39	< 5.01	< 5.75	< 5.37
Silver	mg/kg	--	--	--	< 6.11	< 5.7	NA	< 6.08	< 5.16	NA	< 6.18	< 5.31	NA	< 5.51	< 5.62	< 5.42	< 5.19	< 5.85	< 5.37	< 5.78	< 5.16	< 5.39	< 5.01	< 5.75	< 5.37

Notes:

B = Analyte was detected in the associated method blank.

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

NA = Not analyzed.

NR 720 SOIL RCLs = generic RCL defined by Wisconsin Administrative Code NR 720.

RCLs = Residual Contaminant Levels.

-- = Suggested RCL has not been established for this analyte.

Bold = indicates that the sample exceeds the groundwater pathway or non-industrial NR 720 RCL.

Footnotes:

(1) Value is the generic RCL for the groundwater pathway.

(2) Value is the generic RCL for exposure by direct contact.

(3) Soil samples collected were analyzed for either PVOCs or the WI LUST 8260 list for VOCs. Only those analytes that were detected are listed.

(4) Value is the suggested generic soil cleanup level provided in the 1997 WDNR document, "Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance"

Prepared by: MDW 10/21/09
Checked by: RS 10/21/09

Table 2
Groundwater Analytical Results
STH 23 (Tynan Properties)
WisDOT ID #1440-15-01
Town of Forest, Fond du Lac County, Wisconsin
September 22, 2009 to September 23, 2009

		ES	PAL	B-1 (20')	B-5 (20')	B-9 (20')	B-10 (20')	B-11 (20')	Tynan Well (20')
VOCs[1]									
Benzene	µg/L	5	0.5	0.28 J	*0.64 J*	*0.8 J*	0.37 J	*0.94 J*	< 2
Ethylbenzene	µg/L	700	140	< 2	0.93 J	0.63 J	0.33 J	0.65 J	< 2
Styrene	µg/L	100	10	< 2	6.42	< 2	< 2	< 2	< 2
Tetrachloroethene	µg/L	5	0.5	< 2	*0.74 J*	0.5 J	< 2	< 2	< 2
Toluene	µg/L	1,000	200	0.92 J	2.6	2.56	1.1 J	2.11	0.4 J
Trimethylbenzenes	µg/L	480	96	< 4	0.89 J	0.53 J	0.5 J	0.52 J	< 4
Xylenes	µg/L	10,000	1,000	0.74 J	3.5 J	1.8 J	1.2 J	1.6 J	< 6
Total Metals									
Arsenic	µg/L	10	1	< 63	< 63	< 63	< 63	< 63	< 63
Barium	µg/L	2,000	400	192	104	165	222	150	18 J
Cadmium	µg/L	5	0.5	< 63	< 63	< 63	< 63	< 63	< 63
Chromium	µg/L	100	10	< 63	< 63	< 63	< 63	< 63	< 63
Lead	µg/L	15	1.5	< 63	< 63	< 63	< 63	< 63	< 63
Mercury	µg/L	2	0.2	< 0.5	< 0.5	< 0.5	0.2 J	< 0.5	< 0.5
Selenium	µg/L	50	10	< 63	< 63	< 63	< 63	< 63	< 63
Silver	µg/L	50	10	< 63	< 63	< 63	< 63	< 63	< 63

Notes:

-- = Suggested standard has not been established for this analyte

B = Analyte detected in the associated Method Blank.

ES = NR 140 Enforcement Standard; analytical results that exceed the ES are shown in **bold** font.

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

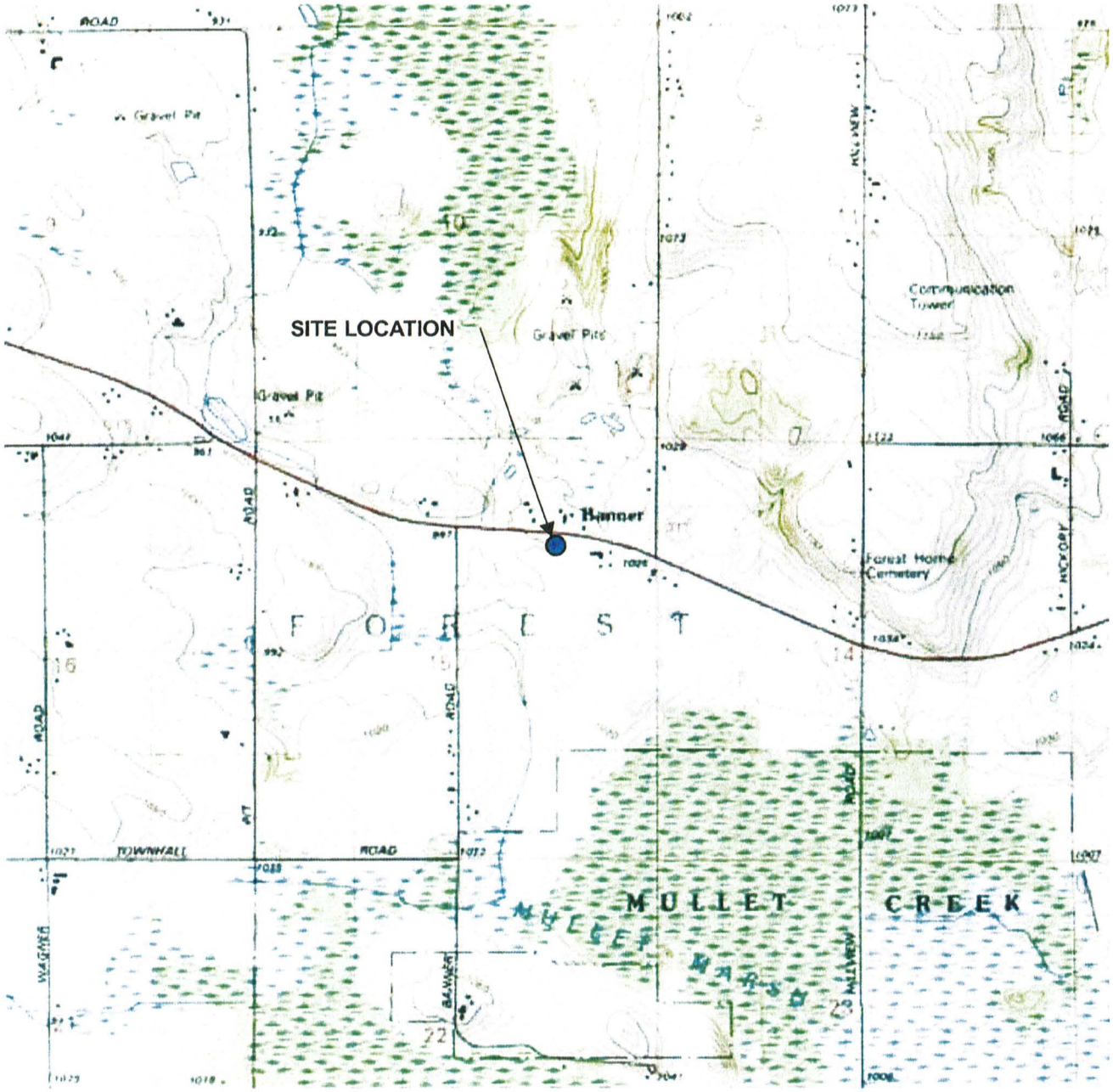
PAL = NR 140 Preventative Action Limit; analytical results that exceed the PAL are shown in *italics*.

Prepared by: MDW 10/21/09

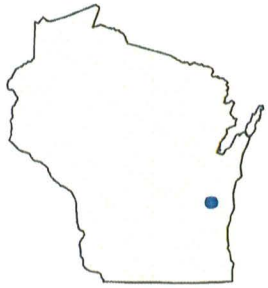
Checked by: RS 10/21/09

Footnotes:

[1] Groundwater samples collected were analyzed for the WI LUST 8260 list for VOCs. Only those analytes that were detected are listed.



SOURCE:
BASE MAP FROM ESRI NGS
USA TOPOGRAPHIC MAPS.



STATE LOCATION

RMT
744 Heartland Trail
Madison, WI 53717-1934
P.O. Box 8923 53708-8923
Phone: 608-831-4444
Fax: 608-831-3334

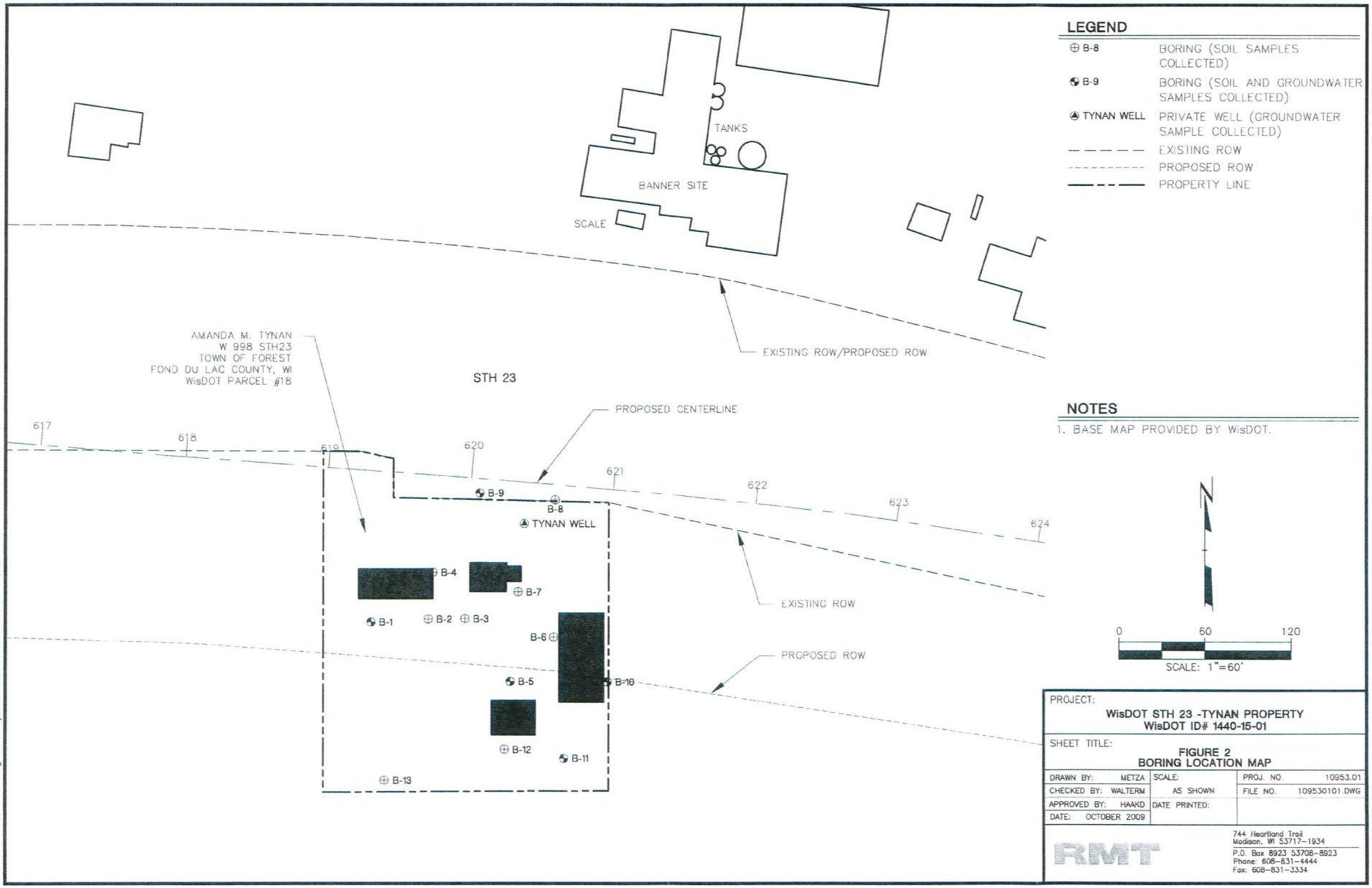
WISDOT STH 23 - TYNAN PROPERTY
WISDOT ID# 1440-15-01

SITE LOCATION MAP

DRAWN BY:	METZA
APPROVED BY:	WALTERM
PROJECT NO:	00-010953.01
FILE NO.	109530102.mxd
DATE:	OCTOBER 2009

D:\10953\01\MXD\109530102.mxd 10/29/2009 14:23:50

FIGURE 1



PROJECT:
WisDOT STH 23 -TYNAN PROPERTY
WisDOT ID# 1440-15-01

SHEET TITLE:
FIGURE 2
BORING LOCATION MAP

DRAWN BY: METZA	SCALE:	PROJ. NO.	10953.01
CHECKED BY: WALTERM	AS SHOWN	FILE NO.	109530101.DWG
APPROVED BY: HAAKD	DATE PRINTED:		
DATE: OCTOBER 2009			

RMT
744 Heartland Trail
Madison, WI 53717-1934
P.O. Box 8923 53708-8923
Phone: 608-831-4444
Fax: 608-831-3334

PLOT DATA
Drawing Name: J:\10953\01\109530101.dwg
Operator Name: metza
X:\10953\01\109536101.dwg Thursday, October 22, 2009 12:28 PM metza

Attachment 2

Special Provisions

Special Provisions for the Management of Contaminated Material

STH 23
Project I.D. #1440-15-01

Fond du Lac County, Wisconsin

Prepared by
TRC Environmental Corporation
Madison, Wisconsin

Revised September 2019

1. Excavation, Hauling, and Disposal of Contaminated Material, Item _____.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing of contaminated material at a DNR approved landfill facility. The closest DNR approved landfill facilities are:

Advanced Disposal Glacier Ridge Landfill
N7296 Hwy V
Horicon, Wisconsin 53032

Waste Management Solutions Valley Trail Landfill
N9101 Willard Road
Berlin, Wisconsin 54923

Perform this work in accordance with section 205 of the standard specifications and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated material.

A.2 Notice to the Contractor – Contaminated Material Location(s)

The department completed testing for soil and groundwater contamination for locations within this project where excavation is required. Testing indicated that contaminated material is present at the following location(s):

- Station 619+30 to Station 620+40, from 70 feet right of the reference line to construction limits on the right.

Contaminated soils and/or groundwater and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soils and/or groundwater and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Contaminated soil and/or groundwater at other locations shall be managed by the contractor under this contract. USTs will be removed by others.

For further information regarding previous investigation and remediation activities at these sites contact:

Name: Kathie VanPrice
Wisconsin DOT, Northeast Region

Address:	944 Vanderperren Way Green Bay, WI 54324
Phone:	(920) 492-7175
Fax:	(920) 492-5640
E-mail:	Kathie.VanPrice@dot.wi.gov

Name:	Dan Haak TRC Environmental Corporation
Address:	708 Heartland Trail, Ste 3000 Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
E-mail:	DHaak@trccompanies.com

A.3 Coordination

Coordinate work under this contract with the environmental consultant retained by the department:

Consultant:	TRC Environmental Corporation
Address:	708 Heartland Trail, Suite 3000, Madison, WI 53717
Fax:	(608) 826-3941
Contact:	Dan Haak
Phone:	(608) 826-3628 (office), (608) 886-7423 (mobile)
E-mail:	DHaak@trccompanies.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated material to be excavated based on analytical results from previous investigations, visual observations, and field screening of material that is excavated;
2. Identifying contaminated materials to be hauled to the landfill facility;
3. Documenting that activities associated with management of contaminated material are in conformance with the contaminated material management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated material from the landfill facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Identify the DNR approved landfill facility that will be used for disposal of contaminated materials, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant

will be responsible for obtaining the necessary approvals for disposal of contaminated materials from the landfill facility.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not transport contaminated soil or pump contaminated groundwater offsite without prior approval from the environmental consultant.

A.4 Protection of Groundwater Monitoring Wells

Groundwater monitoring wells are not expected to be present within the construction limits. If encountered, protect all groundwater monitoring wells to maintain their integrity. Adjust wells that do not conflict with utilities, structures, curb and gutter, etc. to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the environmental consultant, and coordinate with the environmental consultant the abandonment or adjustment of the wells by others. The environmental consultant will provide maps indicating the locations of all known monitoring wells, if requested by the contractor.

A.5 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding the investigations, including waste characterization within the project limits, contact Kathie VanPrice with the department, at (920) 492-7172.

A.6 Health and Safety Requirements for Workers Remediating Contamination

Supplement subsection 107.1 of the standard specifications with the following:

During excavation activities, expect to encounter material contaminated with metals or petroleum related products. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

Disposal of contaminated material at the landfill facility is subject to the facility's safety policies, which include as a minimum:

1. No smoking is allowed on-site.
2. Maximum speed limit of 15 mph on access roads and 5 mph while in active area.

3. All persons entering the active area must wear the following personal protective equipment: hard hats, high visibility clothing, steel toed work boots, safety glasses, and seat belts.
4. Minimum requirement for spacing is as follows:
    a. A minimum 15 foot Safety Zone is required between landfill equipment and all personnel at all times.
    b. Do not back up directly behind the compactor or dozer.
    c. Trucks must yield the right-of-way to landfill equipment.
    d. 15 feet required between trucks.
5. Only the driver can exit the truck and must stay within 4 feet of the truck. Use of Spotter is prohibited. Helper (if any), must remain in vehicle while unloading.
6. Tailgates of all vehicles may only be opened while in the active area and must be closed prior to exiting the active area.
7. Cleaning out vehicles must be done in designated area, not in the active area. Vehicles must be properly locked out / tagged out in accordance with OSHA during the clean out process.
8. No scavenging is allowed.
9. Horseplay is prohibited.

Violation of the landfill's safety policy will result in a verbal or written warning explaining this policy and may result in the loss of dumping privileges.

Immediately report all accidents and injuries at the disposal facility to landfill management.

B (Vacant)

C Construction
Supplement subsection 205.3 of the standard specification with the following:

Control operations in the contaminated areas to minimize the quantity of contaminated material excavated.

The environmental consultant will periodically evaluate material excavated from the contaminated areas to determine if the material will require offsite disposal. The environmental consultant will evaluate excavated material based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material (PID readings less than 10 ppm and no observation of staining or petroleum odor) for reuse as fill within the construction limits, or
- Contaminated soil (significant petroleum odor, staining, and/or PID readings greater than 10 ppm) for off-site treatment and disposal at the WDNR-licensed landfill facility, or
- Potentially contaminated material for temporary stockpiling and additional characterization prior to disposal

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 100 cubic yards of contaminated soil on-site that requires additional characterization. Construct and maintain a temporary stockpile of the material in accordance with NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The Department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 10 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the WDNR-licensed disposal facility by the contractor or, if characterized as hazardous waste, by the Department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending excavation in those areas where such soil is encountered until such time as characterization is completed.

Directly load and haul materials designated by the environmental consultant for offsite disposal to the WDNR-licensed landfill facility. Verify that vehicles used to transport contaminated material are licensed for such activity in accordance with applicable state and federal regulations. Use loading and hauling practices that are appropriate to prevent any spills or releases of contaminated materials or residues. Prior to transport, sufficiently dewater materials designated for off-site disposal so as not to contain free liquids.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Contaminated Material in tons of contaminated material accepted by the landfill facility as documented by weight

tickets generated by the landfill facility. Load tickets must be delivered to the engineer within 10 business days of the date on which the soil was accepted by the bioremediation facility. The Management of Contaminated Groundwater is considered incidental to the other items in the contract.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
205.0501.S	Excavation, Hauling, and Disposal of Contaminated Material	Ton

Payment is full compensation for excavating, segregating, loading, hauling, and disposal of contaminated material; obtaining solid waste collection and transportation service operating licenses; assisting in the collection of samples for field evaluation; dewatering of materials prior to transport, if necessary; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

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