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709 Gillette St., Ste #3 ♦ La Crosse, WI 54603 ♦ 1-800-552-2932 ♦ Fax (608) 781-8893 Email: rona@metcohq.com ♦ www.metcohq.com

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May 16, 2017

Alex Edler  
Wisconsin Department of Natural Resources  
2984 Shawano Avenue  
Green Bay, WI 54313

**Subject:** Korth Property – Site Investigation cost cap exceedence request (>\$20K).  
BRRTS #: 02-41-563586, PECFA #: 54914-3412-29

Dear Mr. Edler,

A cost estimate (using Usual & Customary schedule of charges) is being submitted for completion of the site investigation at the subject property located at 1629 W. Washington Street in Appleton, Wisconsin. This is required due to COMM 47 rule changes (Comm 47.337(2)) which requires WDNR approval to exceed the cap, meaning any costs incurred above \$20,000 after April 30, 2006, will not be eligible for reimbursement unless previously approved.

As of today's date, \$13,584.68 has been spent of the \$20,000 Site Investigation Cap and included: [1] Investigation Workplan and [2] Geoprobe Project (22 borings ranging from 6-10 feet bgs with 57 soil samples and 22 groundwater samples collected for field (PID) and/or laboratory analysis (VOC, PAH, PVOC/Naphthalene, and Lead)).

The proposed workscope to complete the site investigation includes: Drilling Project with the installation of five monitoring wells to approximately 13 feet bgs with soil samples collected for field (PID) and laboratory analysis (PVOC+Naphthalene and GRO, TCLP Lead & Benzene for waste disposal characterization), two rounds of groundwater monitoring from all five site monitoring wells for laboratory analysis (VOC/PVOC+ Naphthalene, PAH, Lead, Nitrate/Nitrite, Sulfate, Dissolved Iron and Manganese), surveying, hydraulic conductivity testing, waste disposal, conduct sub slab vapor sampling which will consist of three sample locations for TO-15 (PVOC+Naphthalene) analysis, and completion of the Soil and Groundwater Investigation Report. The cost estimate for the proposed workscope is as follows:

Drilling Project	\$ 7,083.89
Groundwater Monitoring (two events)	\$ 2,140.64
Laboratory Analysis	\$ 2,065.69
Surveying	\$ 1,288.88
Hydraulic Conductivity Testing	\$ 828.56
Investigative Waste Disposal	\$ 1,223.99
Sub-Slab Vapor Sampling (subcontracted)	\$ 2,301.80 (variance)
Soil and Groundwater Investigation Report	\$ 4,965.35
Change Order Request	\$ <u>381.78</u>
Total	\$22,280.58

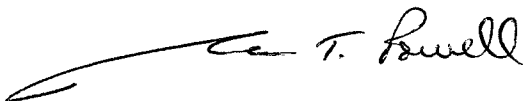
METCO is requesting a cost cap exceedence in the amount of **\$15,865.16** (proposed additional costs to complete the investigation \$22,280.58 minus the remaining investigation budget \$6,415.32). This will bring the total site investigation costs to \$35,865.16.

Upon state approval of the proposed workscope and budget, METCO will proceed with the site investigation.

Attached are sub slab vapor sampling cost estimates, a site layout map with proposed monitoring well & sub slab vapor locations, data tables, and draft standardized invoice form for the above workscope as required.

Should you have any questions, comments, or recommendations please contact me at our La Crosse office (608) 781-8879 or email at [jasonp@metcohq.com](mailto:jasonp@metcohq.com).

Sincerely,



Jason T. Powell  
Staff Scientist

Attachments

c: Robert Korth – Client

**Sub-Slab Vapor Sampling Cost Estimate (Subcontracted)**  
**Including TO-15 Analysis (PVOOC+Naphthalene)**

Braun Intertec	\$1,961.80
SCS Engineers	\$2,080.00
REI	\$2,400.00


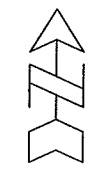
METCO Project Management Costs for Sub-Slab Vapor Sampling (scheduling, preparation, coordination, and data reduction/analysis of vapor results): 4 hours @ \$85/hour = \$340

Commodity	\$1,961.80
Consulting	<u>\$ 340.00</u>
Total	\$2,301.80

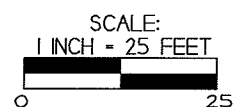
B.I.b DETAILED SITE MAP  
KORTH PROPERTY

709 Gillette St, Suite 3  
La Crosse, WI 54603  
Tel: (608) 781-8879  
Fax: (608) 781-8893

APPLETON, WISCONSIN  
DRAWN BY: ED  
DATE: 12/19/16

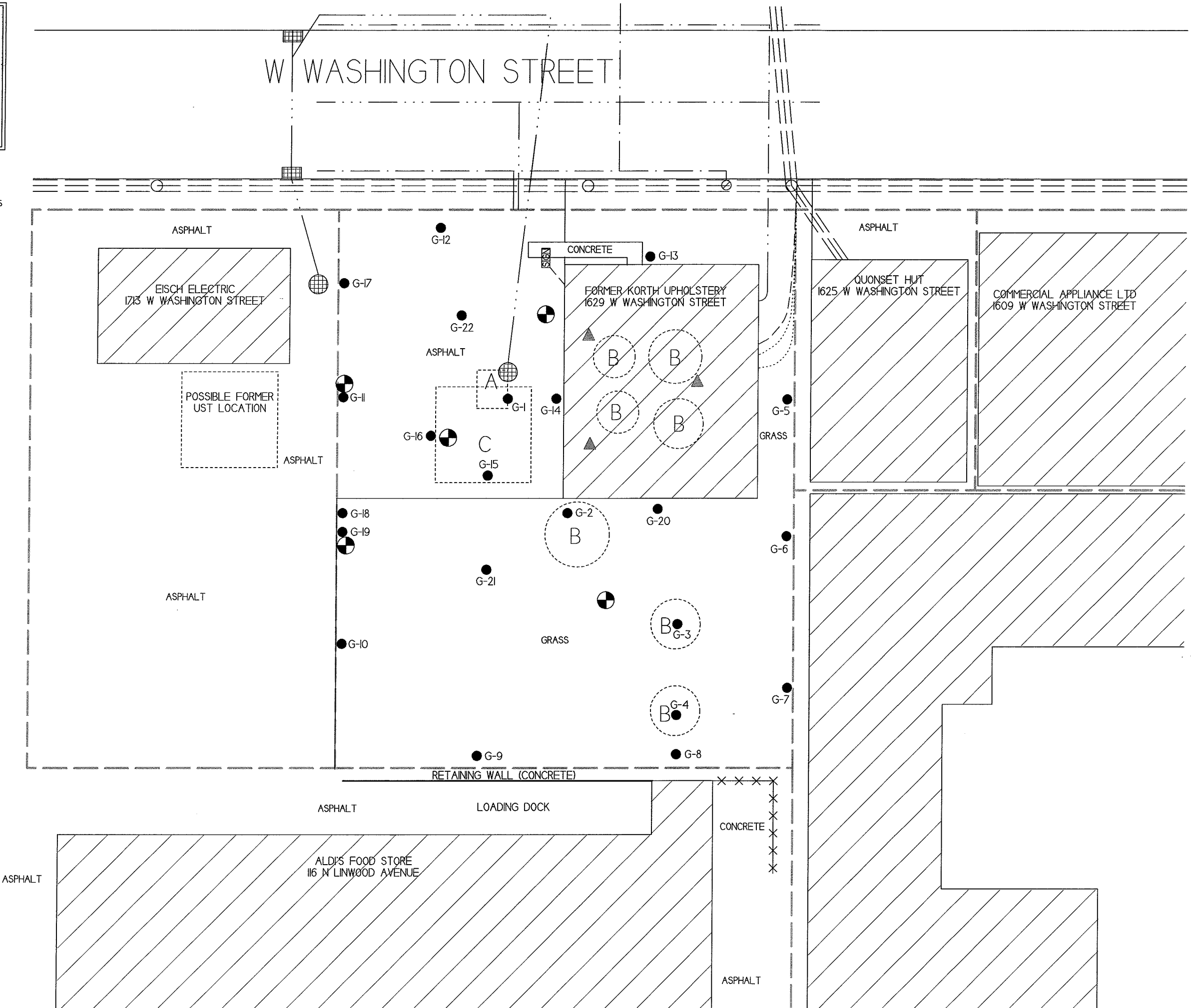
NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER



- - GEOPROBE BORING LOCATION
- ⊕ - PROPOSED MONITORING WELL LOCATION
- ▲ - PROPOSED SUB SLAB VAPOR SAMPLING LOCATION
- ⊙ - FIRE HYDRANT
- - UTILITY POLE
- ☒ - STORM DRAIN
- ⊙ - STORM DRAIN

- A - FORMER PUMP HOUSE - 1970 SANBORN MAP
- B - FORMER GASOLINE TANKS - 1970 SANBORN MAP
- C - APPROXIMATE LOCATION OF REMOVED 20,000-GALLON FUEL OIL UST

- PROPERTY BOUNDARIES
- WATER LINE
- SANITARY SEWER
- STORM SEWER
- NATURAL GAS
- TELEPHONE/CABLE
- BURIED ELECTRIC LINE
- FENCE
- OVERHEAD UTILITIES



**A.1 Groundwater Analytical Table  
(Geoprobe)**

**Korth Property LUST Site BRRT'S# 03-45-002078**

Sample ID	Date	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
G-1-W	4/10-11/17	0.28	0.55	<0.82	<2.17	<0.67	<2.05	0.64-2.20
G-2-W	4/10-11/17	<0.17	<0.2	<0.82	10.5	<0.67	<2.05	<1.95
G-3-W	4/10-11/17	<0.17	<0.2	<0.82	<2.17	<0.67	<2.05	<1.95
G-4-W	4/10-11/17	<0.17	0.25	<0.82	<2.17	<0.67	<2.05	<1.95
G-5-W	4/10-11/17	<0.17	2.15	<0.82	<2.17	<0.67	<2.05	16.7
G-6-W	4/10-11/17	<0.17	0.33	<0.82	<2.17	<0.67	<2.05	0.91-2.47
G-7-W	4/10-11/17	<0.17	<0.2	<0.82	<2.17	<0.67	<2.05	<1.95
G-8-W	4/10-11/17	<0.17	<0.2	<0.82	<2.17	<0.67	<2.05	<1.95
G-9-W	4/10-11/17	<0.17	0.21	<0.82	<2.17	<0.67	<2.05	0.56-2.12
G-10-W	4/10-11/17	4.3	1.35	<0.82	16	1.23	<2.05	3.72
G-11-W	4/10-11/17	<b>7.6</b>	3.5	<0.82	80	<0.67	5.5-6.41	1.08-2.64
G-12-W	4/10-11/17	<0.17	<0.2	<0.82	<2.17	<0.67	<2.05	<1.95
G-13-W	4/10-11/17	<0.17	0.36	<0.82	<2.17	<0.67	<2.05	0.55-2.11
G-14-W	4/10-11/17	<0.17	<0.2	<0.82	3.5	<0.67	<2.05	<1.95
G-15-W	4/10-11/17	1.6	1.45	<4.1	<b>186</b>	<3.35	<10.25	<9.75
G-16-W	4/10-11/17	<b>66</b>	4.0	<4.1	<b>138</b>	<3.35	<10.25	<9.75
G-17-W	4/10-11/17	<0.17	<0.2	<0.82	<2.17	<0.67	<2.05	<1.95
G-19-W	4/10-11/17	<b>5.8</b>	1.85	<0.82	<b>133</b>	<0.67	<2.05	1.06-2.62
G-20-W	4/10-11/17	<0.17	<0.2	<0.82	<2.17	<0.67	<2.05	<1.95
G-21-W	4/10-11/17	0.21	1.59	<0.82	40	<0.67	1.69-2.60	0.43-1.99
G-22-W	4/10-11/17	1.05	4.2	<0.82	11.7	<0.67	<2.05	0.47-2.03
<b>ENFORCE MENT STANDARD ES = Bold</b>		<b>5</b>	<b>700</b>	<b>60</b>	<b>100</b>	<b>800</b>	<b>480</b>	<b>2000</b>
<i>PREVENTIVE ACTION LIMIT PAL = Italics</i>		0.5	140	12	10	160	96	400

NS = Not Sampled

(ppb) = parts per billion

(ppm) = parts per million

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

A.2 Soil Analytical Results Table  
Korth Property LUST Site BRRT'S# 03-45-002078

Sampling Conducted on April 11, 2017

VOC's		Bold = Groundwater RCL	Underline & (Parenthesis Bold = Non- Industrial Direct Contact RCL		Asteric * & Bold =Soil Saturation (C- sat) RCL
			Industrial Direct Contact RCL	Industrial Direct Contact RCL	
Sample ID#	G-19-2				
Sample Depth/ft.	6.5				
Solids Percent	80.6				
Benzene/ppm	< 0.03	0.00512	1.49	7.41	1820
Bromobenzene/ppm	< 0.025	==	354	679	==
Bromodichloromethane/ppm	< 0.074	0.000326	0.39	976	==
Bromoform/ppm	< 0.029	0.00233	61.6	218	==
tert-Butylbenzene/ppm	0.08 "J"	==	183	183	183
sec-Butylbenzene/ppm	3.7	==	145	145	145
n-Butylbenzene/ppm	4.9	==	108	108	108
Carbon Tetrachloride/ppm	< 0.016	0.00388	0.85	4.25	==
Chlorobenzene/ppm	< 0.013	==	392	761	761
Chloroethane/ppm	< 0.091	0.227	==	==	==
Chloroform/ppm	< 0.035	0.0033	0.42	2.13	==
Chloromethane/ppm	< 0.076	0.0155	171	720	==
2-Chlorotoluene/ppm	< 0.015	==	==	==	==
4-Chlorotoluene/ppm	< 0.018	==	==	==	==
1,2-Dibromo-3-chloropropane/ppm	< 0.058	0.000173	0.01	0.099	==
Dibromochloromethane/ppm	< 0.025	0.032	0.93	4.4	==
1,4-Dichlorobenzene/ppm	< 0.037	0.144	3.48	17.5	==
1,3-Dichlorobenzene/ppm	< 0.037	1.15	297	297	297
1,2-Dichlorobenzene/ppm	< 0.028	1.17	376	376	376
Dichlorodifluoromethane/ppm	< 0.048	3.08	135	571	==
1,2-Dichloroethane/ppm	< 0.038	0.00284	0.61	3.03	540
1,1-Dichloroethane/ppm	< 0.034	0.484	4.72	23.7	==
1,1-Dichloroethene/ppm	< 0.022	0.00502	342	1190	1190
cis-1,2-Dichloroethene/ppm	< 0.032	0.0412	156	2040	==
trans-1,2-Dichloroethene/ppm	< 0.028	0.0588	211	1670	==
1,2-Dichloropropane/ppm	< 0.035	0.00332	1.33	6.62	==
1,3-Dichloropropane/ppm	< 0.025	==	1490	1490	1490
trans-1,3-Dichloropropene/ppm	< 0.022	==	==	==	==
Cis-1,3-Dichloropropene/ppm	< 0.039	==	==	==	==
Di-isopropyl ether/ppm	< 0.01	==	2260	2260	2260
EDB (1,2-Dibromoethane)/ppm	< 0.023	0.0000282	0.05	3.03	==
Ethylbenzene/ppm	0.045 "J"	1.57	7.47	37	480
Hexachlorobutadiene/ppm	< 0.085	==	6.23	22.1	==
Isopropylbenzene/ppm	1.78	==	==	==	==
p-Isopropyltoluene/ppm	0.039 "J"	==	162	162	162
Methylene chloride/ppm	< 0.15	0.00256	60.7	1070	==
Methyl tert-butyl ether (MTBE)/ppm	< 0.05	0.027	59.4	293	8870
Naphthalene/ppm	5.9	0.659	5.15	26	==
n-Propylbenzene/ppm	3.7	==	==	==	==
1,1,2,2-Tetrachloroethane/ppm	< 0.028	0.000156	0.75	3.69	==
1,1,1,2-Tetrachloroethane/ppm	< 0.028	0.0533	2.59	12.9	==
Tetrachloroethene (PCE)/ppm	< 0.032	0.00454	30.7	153	==
Toluene/ppm	< 0.032	1.11	818	818	818
1,2,4-Trichlorobenzene/ppm	< 0.064	0.408	22.1	98.7	==
1,2,3-Trichlorobenzene/ppm	< 0.066	==	48.9	493	==
1,1,1-Trichloroethane/ppm	< 0.03	0.14	==	==	==
1,1,2-Trichloroethane/ppm	< 0.033	0.00324	1.48	7.34	==
Trichloroethene (TCE)/ppm	< 0.041	0.00358	0.64	8.81	==
Trichlorofluoromethane/ppm	< 0.041	==	1120	1230	1230
1,2,4-Trimethylbenzene/ppm	< 0.025		89.8	219	219
1,3,5-Trimethylbenzene/ppm	0.094 "J"	1.38	182	182	182
Vinyl Chloride/ppm	< 0.019	0.000138	0.07	2.03	==
m&p-Xylene/ppm	< 0.072				
o-Xylene/ppm	< 0.044	3.94	258	258	258

NS = not sampled, NM = Not Measured

(ppm) = parts per million

== No Exceedences

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Note: Non-Industrial RCLs apply to this site.

A.2 Soil Analytical Results Table  
Korth Property LUST Site BRRT'S# 03-45-002078

Sample ID	Depth (feet)	Saturation U/S	Date	PID	Lead (ppm)	DRO (ppm)	GRO (ppm)	Benzene (ppm)	Ethyl Benzene (ppm)	MTBE (ppm)	Naphthalene (ppm)	Toluene (ppm)	1,2,4-Trime-thylbenzene (ppm)	1,3,5-Trime-thylbenzene (ppm)	Xylene (Total) (ppm)	Other VOC's (ppb)	DIRECT CONTACT PVOC & PAH COMBINED		
																	Exceedance Count	Hazard Index	Cumulative Cancer Risk
G-1-1	3.5		04/10/17	0.30	2.16	NS	NS	<0.025	<0.025	<0.025	<0.0153	<0.025	<0.025	<0.025	<0.075	NS	0	5.40E-03	
G1-2	4.8		04/10/17	0.80															
G-2-1	3.5		04/10/17	14.60	10.30	NS	NS	<0.125	0.189	<0.125	4.60	<0.125	7.40	1.80	1.032	NS	0	1.35E-01	9.2E-07
G-2-2	6.0		04/10/17	49.60	NS	NS	NS	<0.025	<0.025	<0.025	2.43	<0.025	0.106	0.138	0.087	NS			
G-2-3	10.0		04/10/17	4.20															
G-3-1	3.5		04/10/17	1.70	17.40	NS	NS	0.10	0.043	<0.025	0.48	0.184	0.39	0.261	0.370	NS	0	5.21E-02	1.7E-07
G-3-2	6.5		04/10/17	2.90	NS	NS	NS	0.142	0.249	<0.025	0.57	0.263	0.62	0.228	1.135	NS			
G-3-3	10.0		04/10/17	1.70															
G-4-1	3.5		04/10/17	2.20	13.50	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0	3.38E-02	
G-4-2	6.5		04/10/17	2.0	NS	NS	NS	0.14	0.203	<0.025	0.49	0.275	0.51	0.249	0.884	NS			
G-4-3	10.0		04/10/17	1.90															
G-5-1	3.5		04/10/17	3.70	16.40	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0	4.10E-02	
G-5-2	7.0		04/10/17	2.10	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS			
G-5-3	10.0		04/10/17	20.30															
G-6-1	3.5		04/10/17	4.10	17.00	NS	NS	0.047	<0.025	<0.025	0.093	0.075	<0.025	<0.025	0.072-0.097	NS	0	4.35E-02	5.0E-08
G-6-2	5.0		04/10/17	1.60	NS	NS	NS	<0.025	0.062	<0.025	0.182	0.079	0.059	0.0308	0.337	NS			
G-6-3	10.0		04/10/17	2.70															
G-7-1	3.0		04/10/17	2.70	25.40	NS	NS	<0.025	<0.025	<0.025	0.071	<0.025	<0.025	<0.025	<0.075	NS	0	6.39E-02	1.4E-08
G-7-2	6.0		04/10/17	2.40															
G-8-1	3.5		04/10/17	1.90	91.00	NS	NS	0.39	0.39	<0.025	0.050	0.256	0.258	0.133	1.423	NS	0	2.36E-01	3.2E-07
G-8-2	6.0		04/10/17	2.30	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	0.036	<0.025	<0.025	0.128	NS			
G-8-3	10.0		04/10/17	2.70															
G-9-1	3.5		04/10/17	1.30	3.91	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0	9.78E-03	
G-9-2	6.0		04/10/17	1.60	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS			
G-9-3	10.0		04/10/17	1.90															
G-10-1	3.5		04/10/17	4.40	6.68	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0	1.67E-02	
G-10-2	6.5		04/10/17	37.80	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS			
G-10-3	10.0		04/10/17	2.40															
G-11-1	3.5		04/10/17	1.50	47.60	NS	NS	0.051	0.199	<0.025	0.76	0.137	0.52	0.248	0.674	NS	5	1.42E-01	5.0E-05
G-11-2	5.0		04/10/17	149.50	NS	NS	NS	0.29	0.67	<0.25	27.80	0.35	2.65	3.90	2.73	NS			
G-12-1	3.5		04/10/17	1.40	3.61	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0	9.03E-03	
G-12-2	7.0		04/10/17	2.00	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS			
G-12-3	10.0		04/10/17	2.10															
G-13-1	3.5		04/10/17	1.20	5.26	NS	NS	<0.025	<0.025	<0.025	<0.0153	<0.025	<0.025	<0.025	<0.075	NS	0	1.32E-02	
G-13-2	7.0		04/10/17	12.30	NS	NS	NS	<0.025	<0.025	<0.025	0.92	<0.025	0.059	0.054	<0.075	NS			
G-13-3	10.0		04/10/17	11.60															
G-14-1	3.5		04/10/17	1.50	1.12	NS	NS	<0.025	<0.025	<0.025	<0.0153	<0.025	<0.025	<0.025	<0.075	NS	0	2.80E-03	
G14-2	6.0		04/10/17	38.70	NS	NS	NS	<0.025	<0.025	<0.025	3.60	<0.025	0.181	0.281	0.179	NS			
G-15-1	3.5		04/10/17	76.60	3.77	NS	NS	<0.125	0.53	<0.125	1.92	0.202	1.38	1.83	1.41	NS	7	1.01E-01	8.9E-04
G-15-2	8.0		04/10/17	109.80															
G-16-1	3.5		04/11/17	38.00	38.00	NS	NS	0.34	0.61	<0.025	4.70	1.04	3.02	10.30	4.27	NS	5	2.84E-01	2.8E-05
G-16-2	7.0		04/11/17	85.10	NS	NS	NS	0.41	0.36	<0.025	18.00	0.32	1.74	2.66	2.09	NS			
G-16-3	10.0		04/11/17	42.30															
G-17-1	3.5		04/11/17	1.70	29.20	NS	NS	<0.025	<0.025	<0.025	0.162	0.044	0.047	<0.025	<0.075	NS	3	7.73E-02	8.6E-06
G-17-2	7.0		04/11/17	42.60	NS	NS	NS	<0.025	<0.025	<0.025	1.63	<0.025	0.121	0.168	0.116	NS			
G-17-3	10.0		04/11/17	1.30															
G-19-1	3.5		04/11/17	54.70	9.17	NS	NS	<0.025	1.47	<0.025	20.40	<0.025	4.50	0.79	1.88	NS	1	1.85E-01	4.2E-06
G-19-2	6.5		04/11/17	159.00	NS	NS	NS	<0.03	0.045	<0.05	5.90	<0.032	<0.025	0.094	<0.116	SEE VOC SHEET			
G-19-3	10.0		04/11/17	20.30															
G-20-1	3.5		04/11/17	1.10	15.30	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0	3.83E-02	
G-20-2	5.5		04/11/17	13.90	NS	NS	NS	<0.025	<0.025	<0.025	0.56	<0.025	0.059	0.089	<0.075	NS			
G-20-3	10.0		04/11/17	3.90															
G-21-1	3.5		04/11/17	1.70	26.00	NS	NS	<0.025	<0.025	<0.025	0.0243	<0.025	<0.025	<0.025	<0.075	NS	1	6.55E-02	5.0E-06
G-21-2	6.0		04/11/17	52.60															
G-22-1	3.5		04/11/17	149.70	4.77	NS	NS	<0.25	3.50	<0.25	0.52	0.46	1.61	4.10	3.10	NS	1	1.65E-01	1.9E-06
G-22-2	7.0		04/11/17	56.50	NS	NS	NS	<0.025	0.039	<0.025	0.81	<0.025	0.11	0.24	0.188	NS			
G-22-3	10.0		04/11/17	27.80															
<b>Groundwater RCL</b>					<b>27</b>	-	-	<b>0.00512</b>	<b>1.57</b>	<b>0.027</b>	<b>0.659</b>	<b>1.11</b>	<b>1.38</b>	<b>3.94</b>	-	-			
<b>Non-Industrial Direct Contact RCL</b>					<b>400</b>	-	-	<b>1.49</b>	<b>7.47</b>	<b>59.4</b>	<b>5.15</b>	<b>818</b>	<b>89.8</b>	<b>182</b>	<b>258</b>	-	-	1.00E+00	1.00E-05
<b>Industrial Direct Contact RCL</b>					<b>(800)</b>	-	-	<b>(7.41)</b>	<b>(37)</b>	<b>(293)</b>	<b>(26)</b>	<b>(818)</b>	<b>(219)</b>	<b>(182)</b>	<b>(258)</b>	-	-	1.00E+00	1.00E-05
<b>Soil Saturation Concentration (C-sat)*</b>					-	-	-	<b>1820*</b>	<b>480*</b>	<b>8870*</b>	-	<b>818*</b>	<b>219*</b>	<b>182*</b>	<b>258*</b>	-	-		

**Bold = Groundwater RCL Exceedance**  
**Bold & Underline = Non Industrial Direct Contact RCL Exceedance**  
**(Bold & Parentheses) = Industrial Direct Contact RCL Exceedance**  
**Bold & Asteric \* = C-sat Exceedance**  
*Italics = Industrial Direct Contact RCL*  
 NS = Not Sampled  
 (ppm) = parts per million  
 DRO = Diesel Range Organics  
 GRO = Gasoline Range Organics  
 PID = Photoionization Detector  
 PVOC's = Petroleum Volatile Organic Compounds  
 VOC's = Volatile Organic Compounds  
**Note: Non-Industrial RCLs apply to this site.**

U=UNSATURATED (BASED ON ALL TIME LOW WATER TABLE PER WDNR)

S=SATURATED (BASED ON ALL TIME LOW WATER TABLE PER WDNR)

A.2 Soil Analytical Results Table  
(PAH)  
Korth Property LUST Site BRRT'S# 03-45-002078

Sample	Depth (feet)	Saturation U/S	Date	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthracene (ppm)	Benzo(a)anthracene (ppm)	Benzo(a)pyrene (ppm)	Benzo(b)fluoranthene (ppm)	Benzo(g,h,i)perylene (ppm)	Benzo(k)fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h)anthracene (ppm)	Fluoranthene (ppm)	Fluorene (ppm)	Indeno(1,2,3-cd)pyrene (ppm)	1-Methyl-naphthalene (ppm)	2-Methyl-naphthalene (ppm)	Naphthalene (ppm)	Phenan-threne (ppm)	Pyrene (ppm)	DIRECT CONTACT PVOC & PAH COMBINED		
																						Exeedance Count	Hazard Index	Cumulative Cancer Risk
G-1-1	3.5		04/10/17	<0.0151	<0.0159	<0.0109	<0.0116	<0.0113	<0.013	<0.0114	<0.0147	<0.0121	<0.0078	<0.0147	<0.0179	<0.0114	<0.0203	<0.0113	<0.0153	<0.0111	<0.0153	0	5.40E-03	
G-11-1	3.5		04/10/17	1.89	0.51	1.29	<b>0.257</b>	<b>(0.44)</b>	<b>0.90</b>	0.56	0.213	<b>0.47</b>	<b>0.126</b>	0.46	2.71	<b>0.38</b>	9.40	1.31	<b>0.76</b>	6.10	1.71	<b>5</b>	1.42E-01	5.0E-05
G-12-1	3.5		04/10/17	<0.0151	<0.0159	<0.0109	<0.0116	<0.0113	<0.013	<0.0114	<0.0147	<0.0121	<0.0078	<0.0147	<0.0179	<0.0114	<0.0203	<0.0113	<0.0153	<0.0111	<0.0153	0		
G-13-1	3.5		04/10/17	<0.0151	<0.0159	<0.0109	<0.0116	<0.0113	<0.013	<0.0114	<0.0147	<0.0121	<0.0078	<0.0147	<0.0179	<0.0114	<0.0203	<0.0113	<0.0153	<0.0111	<0.0153	0		
G-14-1	3.5		04/10/17	<0.0151	<0.0159	<0.0109	<0.0116	<0.0113	<0.013	<0.0114	<0.0147	<0.0121	<0.0078	<0.0147	<0.0179	<0.0114	<0.0203	<0.0113	<0.0153	<0.0111	<0.0153	0		
G-15-1	3.5		04/10/17	4.30	1.32	1.52	<b>(5.40)</b>	<b>(8.60)</b>	<b>(13.0)</b>	8.20	<b>4.10</b>	<b>8.20</b>	<b>(2.01)</b>	5.30	6.80	<b>(6.30)</b>	<b>36.0</b>	9.70	<b>1.92</b>	14.3	6.60	<b>7</b>	1.01E-01	8.9E-04
G-16-1	3.5		04/11/17	4.00	1.08	1.86	<b>0.228</b>	<b>(0.214)</b>	<b>0.53</b>	0.292	0.136	<b>0.46</b>	<b>0.078</b>	0.67	5.10	<b>0.161</b>	14.4	23.0	<b>4.70</b>	10.4	2.14	<b>5</b>	2.84E-01	2.8E-05
G-17-1	3.5		04/11/17	<0.0151	0.0169	0.0301	0.056	<b>0.071</b>	<b>0.156</b>	0.122	0.0266	0.142	<b>0.0274</b>	0.069	0.041	0.063	0.34	0.62	0.162	0.239	0.129	<b>3</b>	7.73E-02	8.6E-06
G-21-1	3.5		04/11/17	<0.0151	<0.0159	<0.0109	0.032	<b>0.044</b>	0.104	0.05	0.0264	0.053	0.0126	0.0315	<0.0179	0.04	0.045	0.075	0.0243	0.0176	0.033	<b>1</b>	6.55E-02	5.0E-06
G-22-1	3.5		04/11/17	1.01	0.47	0.68	<0.058	<0.0565	<0.065	<0.057	<0.0735	<0.0605	<0.039	<0.0735	2.06	<0.057	<b>20.5</b>	26.7	0.52	2.72	<0.0765	<b>1</b>	1.65E-01	1.9E-06
<b>Groundwater RCL</b>				---	---	197	---	<b>0.47</b>	<b>0.48</b>	---	---	<b>0.145</b>	---	<b>88.8</b>	<b>14.8</b>	---	---	---	<b>0.659</b>	---	<b>54.5</b>			
<b>Non-Industrial Direct Contact RCL</b>				<b>3440</b>	---	<b>17200</b>	<b>0.147</b>	<b>0.0148</b>	<b>0.148</b>	---	<b>1.48</b>	<b>14.8</b>	<b>0.0148</b>	<b>2290</b>	<b>2290</b>	<b>0.148</b>	<b>15.6</b>	<b>229</b>	<b>5.15</b>	---	<b>1720</b>		<b>1.00E+00</b>	<b>1.00E-05</b>
<b>Industrial Direct Contact RCL</b>				<b>(33000)</b>	---	<b>(100000)</b>	<b>(2.11)</b>	<b>(0.21)</b>	<b>(2.11)</b>	---	<b>(21.1)</b>	<b>(211)</b>	<b>(0.211)</b>	<b>(22000)</b>	<b>(22000)</b>	<b>(2.11)</b>	<b>(53.1)</b>	<b>(2200)</b>	<b>(26)</b>	---	<b>(16500)</b>			
<b>Soil Saturation Concentration (C-sat)*</b>				---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		

**Bold = Groundwater RCL Exceedance**  
**Bold & Underline = Non Industrial Direct Contact RCL Exceedance**  
**Bold & Asteric \* = C-sat Exceedance**  
*Italics = Industrial Direct Contact RCL*  
 NS = Not Sampled                      NM = Not Measured  
 (ppm) = parts per million              ND = No Detects  
 PAH = Polynuclear Aromatic Hydrocarbons  
 PID = Photoionization Detector  
 VOC's = Volatile Organic Compounds

U=UNSATURATED (BASED ON ALL TIME LOW WATER TABLE PER WDNR)  
 S=SATURATED (BASED ON ALL TIME LOW WATER TABLE PER WDNR)





**Usual and Customary Standardized Invoice #21**  
**January 2017 - June 2017**



RR-068A

**TOTAL LAB CHARGES      ###    TASK 33    62    \$2,065.69    TASK 24      0    \$-**

MATRIX/REF CODE	REIMBURSABLE ANALYTE	UNITS	MAX COST	SAMPLES	TOTAL	MAX COST	SAMPLES	TOTAL
AIR	A1	Benzene	\$44.94			\$-		
AIR	A2	BETX	\$49.46			\$-		
AIR	A3	GRO	\$46.10			\$-		
AIR	A4	VOC's	\$71.93			\$-		
WATER	W1	GRO/PVOC	\$29.19			\$-		
WATER	W2	PVOC	\$26.99	6	\$161.94			
WATER	W3	PVOC + 1,2 DCA	\$43.79			\$-		
WATER	W4	PVOC + Naphthalene	\$30.35			\$-		
WATER	W5	VOC	\$71.93	6	\$431.58			
WATER	W6	PAH	\$72.98	10	\$729.80			
WATER	W7	Lead	\$12.39	10	\$123.90			
WATER	W8	Cadmium	\$13.55			\$-		
WATER	W9	Hardness	\$12.39			\$-		
WATER	W10	BOD, Total	\$23.63			\$-		
WATER	W11	Nitrate	\$11.24	5	\$56.20			
WATER	W12	Total Kjeldahl	\$20.27			\$-		
WATER	W13	Ammonia	\$16.91			\$-		
WATER	W14	Sulfate	\$10.19	5	\$50.95			
WATER	W15	Iron	\$10.19	5	\$50.95			
WATER	W16	Manganese	\$10.19	5	\$50.95			
WATER	W17	Alkalinity	\$10.19			\$-		
WATER	W18	methane	\$46.10			\$-		
WATER	W19	Phosphorous	\$18.06			\$-		
WATER	W20	VOC Method 524.2	\$176.30			\$-		
WATER	W21	EDB Method 504	\$95.45			\$-		
SOILS	S1	GRO	\$24.78	3	\$74.34	\$24.78		\$-
SOILS	S2	DRO	\$30.35	2	\$60.70	\$30.35		\$-
SOILS	S3	GRO/PVOC	\$28.14			\$28.14		\$-
SOILS	S4	PVOC	\$25.83			\$25.83		\$-
SOILS	S5	PVOC + 1,2 DCA + Naphthalene	\$49.46			\$49.46		\$-
SOILS	S6	PVOC + Naphthalene	\$36.02	3	\$108.06	\$36.02		\$-
SOILS	S7	VOC	\$71.93			\$71.93		\$-
SOILS	S8	SPLP Extraction VOC only	\$50.61			\$50.61		\$-
SOILS	S9	PAH	\$72.98			\$72.98		\$-
SOILS	S10	Lead	\$12.39			\$12.39		\$-
SOILS	S11	Cadmium	\$14.60			\$-		\$-
SOILS	S12	Free Liquid	\$11.24			\$-		\$-
SOILS	S13	Flash Point	\$25.83			\$-		\$-
SOILS	S14	Grain Size - dry	\$42.74			\$-		\$-
SOILS	S15	Grain Size - wet	\$57.33			\$-		\$-
SOILS	S16	Bulk Density	\$13.55			\$-		\$-
SOILS	S17	Permeability	\$41.58			\$-		\$-
SOILS	S18	Nitrogen as Total Kjeldahl	\$20.27			\$-		\$-
SOILS	S19	Nitrogen as Ammonia	\$16.91			\$-		\$-
SOILS	S20	% Organic Matter	\$29.19			\$-		\$-
SOILS	S21	TOC as NPOC	\$57.33			\$-		\$-
SOILS	S22	Soil Moisture Content	\$6.83			\$-		\$-
SOILS	S23	Air Filled Porosity	\$25.83			\$-		\$-
SOILS	S24	% Total Solids	\$6.83			\$-		\$-
SOILS	S25	Field Capacity	\$28.14			\$-		\$-
SOILS	S26	TCLP Lead	\$83.16	1	\$83.16			\$-
SOILS	S27	Cation Exchange (Ca, MG, & K)	\$26.99			\$-		\$-
SOILS	S28	TCLP Cadmium	\$83.16			\$-		\$-
SOILS	S29	TCLP Benzene	\$83.16	1	\$83.16			\$-
LNAPL	LFPS01	Viscosity + Density Interfacial tension I (LNAPL/water [dyne/cm] Interfacial tension II (LNAPL/air [dyne/cm] Interfacial tension III (water/air [dyne/cm]	\$561.33			\$-		\$-

MAX COST	SAMPLES	TOTAL
\$-		
\$24.78		\$-
\$30.35		\$-
\$28.14		\$-
\$25.83		\$-
\$49.46		\$-
\$36.02		\$-
\$71.93		\$-
\$50.61		\$-
\$72.98		\$-
\$12.39		\$-
<b>TASK 24 TOTAL</b>		
		\$-

**TASK 33 TOTAL \$2,065.69**