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Reference No. 017303

Mr. Kevin Lund
Michigan Department of Environmental Quality (MDEQ)
Remediation and Redevelopment Division
Jackson District Office
301 East Louis Glick Highway
Jackson, Michigan 49201-1556

VIA EMAIL ONLY (PDF)

Dear Mr. Lund

Re: Interim Measures Work Plan- Part 2
PAOC 23: Disposal of Excavated Materials
RACER: Willow Run Company Vehicle Operations
2901 Tyler Road, Ypsilanti, Michigan

In December 2013 Revitalizing Auto Communities Environmental Response Trust (RACER) submitted an Interim Measures Work Plan (IMWP) – Part I for the Willow Run Company Vehicle Operations (CVO) property located in Ypsilanti, Michigan (Site) for the excavation of paint sludge and impacted soils beneath the northern portion of the Haulaway Building at the Site. As part of this Interim Measure, the excavated materials were stockpiled, winterized and stored onsite. On behalf of RACER, Conestoga-Rovers & Associates, Inc. (CRA) has prepared this letter to summarize the disposal plan for the stockpiled material currently at the Site.

During the implementation of the IMWP-Part 1, approximately 562 cubic yards of impacted soils and paint sludge were excavated from beneath the Haulaway building. The excavated material was stockpiled onsite and separated into piles based on the interval that it was excavated from. As discussed in the IMWP – Part 1, due to the Area of Contamination (AOC) concept which allows the consolidation and in-situ treatment of hazardous waste within the AOC without creating a new point of generation, the excavated material was stored onsite for the winter. Each individual pile was placed on 15 mm plastic sheeting and was covered with multiple sheets of 6 mm plastic sheeting. The plastic sheeting provided protection from adverse weather and prevented infiltration of precipitation and snow melt.

Following excavation, soil samples were collected for laboratory analysis in December 2013. Two grab samples were collected from each of the six piles. Review of these totals results prompted the collection of additional soil samples in April 2014, once the soils had thawed, for

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toxic characteristic leaching procedure (TCLP) analysis. Composite samples were collected from each of the six piles. Approximately 5-6 locations were selected from each individual pile and combined to obtain a representative composite soil sample (excluding paint sludge). Two additional composite samples were collected from Pile 3. These additional samples were comprised of only paint sludge. One composite was analyzed for TCLP and the other was analyzed for Total analysis. Four grab samples were also collected, three to delineate a PCB exceedance in Pile 6 from the December 2013 sampling event, and one to sample wood block debris that was found in Pile 6.

Attachment 1 presents the Total and TCLP analytical data from samples that were collected in December 2013 and April 2014. Based on these results, disposal options were reviewed for each pile. Table 1 summarizes the source, estimated volume, waste classification, and selected disposal option for each pile.

The proposed management and disposal of the excavated material is anticipated to be completed by the end of July 2014.

If you have any questions, please do not hesitate to contact us.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Beth Landale

Beth Landale

DB/bw/9/Det.

cc: Grant Trigger, RACER
David Favero, RACER
Scott Adamowski, CRA Engineering

TABLE 1
DISPOSAL SUMMARY
CVO IMWP-PART 2
YPSILANTI, MICHIGAN

Pile	Interval (feet bgs)	Estimated Volume (cyd)	Waste Classification (Sampling Results)	Disposal Facility
1	0.5-1.5	55	RCRA Haz - TCE, <Alt TS, no UHCs	EQ Direct Landfill (WDI)
2	1.5-3	55	non-hazardous	WM Direct Landfill (Woodland Meadows)
3 / 4	3-9	240	RCRA Haz - TCE & Chromium, >Alt TS, UHCs present [2]	EQ Treatment (MDI)
5	9-11	82	non-hazardous	WM Direct Landfill (Woodland Meadows)
6	HP	100	RCRA Haz - lead ,>Alt TS, no UHCs	EQ Treatment (MDI)
6 - TSCA[1]	HP	~30	RCRA non hazardous, TSCA (PCBs > 50ppm)	EQ Direct Landfill (WDI)

Notes

bgs - below ground surface (top of concrete)

cyd - in place cubic yards

TCE - trichloroethene

Alt TS: Alternate Land Disposal Restriction Treatment Standards

UHC - Underlying Hazardous Constituents

HP - These soils were excavated to install the helical piers in various locations beneath the building.

[1] -December 2013 sample from Pile 6 had a PCB concentration of 52 ppm, three step out samples were collected in April 2014 to delineate the extent of PCB impacts (results were 0.62, 1.3, and 1.0 ppm)

[2] - UHCs are present that require treatment at the disposal facility prior to land filling of the waste material.

Attachment 1

Analytical Data

ATTACHMENT 1- TOTAL ANALYSIS RESULTS
CVO IMWP-PART 2
YPSILANTI, MICHIGAN

PAOC			*Soil Pile 1*	*Soil Pile 1*	*Soil Pile 2*	*Soil Pile 2*	*Soil Pile 3 & 4*	*Soil Pile 3 & 4*	*Soil Pile 5*	*Soil Pile 5*	*Soil Pile 6*	*Soil Pile 6*	*Soil Pile 3*	*Soil Pile 6*	*Soil Pile 6*	*Soil Pile 6*	*Soil Pile 6*
Sample Location:			*Excavation Stockpile*	*Excavation Stockpile*	*Excavation Stockpile*	*Excavation Stockpile*	*Excavation Stockpile*	*Excavation Stockpile*	*Excavation Stockpile*	*Excavation Stockpile*	*Excavation Stockpile*	*Excavation Stockpile*	*Paint sludge*	*Additional PCB*	*Additional PCB*	*Additional PCB*	*Wood Block*
			Soil	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*Soil*	*material only*	*Delineation*	*Delineation*	*Delineation*	
Sample ID:	*RCRA*	*UTS*	*SO-17303-123013-CT-100*	*SO-17303-123013-CT-101*	*SO-17303-123013-CT-102*	*SO-17303-123013-CT-103*	*SO-17303-123013-CT-104*	*SO-17303-123013-CT-107*	*SO-17303-123013-CT-105*	*SO-17303-123013-CT-106*	*SO-17303-123013-CT-108*	*SO-17303-123013-CT-109*	*ST-17303-041714-DB-012*	*SO-17303-041714-DB-004*	*SO-17303-041714-DB-005*	*SO-17303-041714-DB-006*	*ST-17303-041714-DB-008*
Sample Date:			*12/30/2013*	*12/30/2013*	*12/30/2013*	*12/30/2013*	*12/30/2013*	*12/30/2013*	*12/30/2013*	*12/30/2013*	*12/30/2013*	*12/30/2013*	*04/17/2014*	*04/17/2014*	*04/17/2014*	*04/17/2014*	*04/17/2014*
Sample Type:			*Grab*	*Grab*	*Grab*	*Grab*	*Grab*	*Grab*	*Grab*	*Grab*	*Grab*	*Grab*	*Composite*	*Grab*	*Grab*	*Grab*	*Grab*
Parameters	*a*	*b*															
VOCs mg/kg																	
1,1,1-Trichloroethane		60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
1,1,2,2-Tetrachloroethane		60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
1,1,2-Trichloroethane		60	0.03 J	0.15 U	0.074 J	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
1,1-Dichloroethane		60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
1,1-Dichloroethene	14	60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
1,2,4-Trichlorobenzene		190	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)		150	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)		150	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
1,2-Dichlorobenzene		60	0.15 U	0.3 U	0.38 U	0.81 U	0.24 U	210 U	43 U	190 U	0.1 U	0.087 U	53000 U	--	--	--	--
1,2-Dichloroethane	10	60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
1,2-Dichloropropane		180	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
1,3-Dichlorobenzene		60	0.15 U	0.3 U	0.38 U	0.81 U	0.24 U	210 U	43 U	190 U	0.1 U	0.087 U	53000 U	--	--	--	--
1,4-Dichlorobenzene	150	60	0.15 U	0.3 U	0.38 U	0.81 U	0.24 U	210 U	43 U	190 U	0.1 U	0.087 U	53000 U	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	4000	360	1.1 U	2.3 U	2.8 U	6.1 U	1.8 U	1600 U	320 U	1400 U	0.75 U	0.65 U	400000 U	--	--	--	--
2-Hexanone			3.8 U	7.5 U	9.5 U	20 U	5.9 U	5200 U	1100 U	4800 U	2.5 U	2.2 U	1300000 U	--	--	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)		330	3.8 U	7.5 U	9.5 U	20 U	5.9 U	5200 U	1100 U	4800 U	2.5 U	2.2 U	1300000 U	--	--	--	--
Acetone		1600	1.1 U	2.3 U	2.8 U	6.1 U	1.8 U	1600 U	320 U	1400 U	0.75 U	0.65 U	400000 U	--	--	--	--
Benzene	10	100	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Bromodichloromethane		150	0.15 U	0.3 U	0.38 U	0.81 U	0.24 U	210 U	43 U	190 U	0.1 U	0.087 U	53000 U	--	--	--	--
Bromoform		150	0.15 U	0.3 U	0.38 U	0.81 U	0.24 U	210 U	43 U	190 U	0.1 U	0.087 U	53000 U	--	--	--	--
Bromomethane (Methyl bromide)		150	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
Carbon disulfide		48	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
Carbon tetrachloride	10	60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Chlorobenzene	2000	60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Chloroethane		60	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
Chloroform (Trichloromethane)	120	60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Chloromethane (Methyl chloride)		300	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
cis-1,2-Dichloroethene			0.15	0.51	0.45	1.1	0.96	200	95	250	0.024 J	0.06	5200 J	--	--	--	--
cis-1,3-Dichloropropene		180	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Cyclohexane			1.8 U	0.16 J	4.5 U	9.7 U	2.8 U	2500 U	22 J	2300 U	1.2 U	0.051 J	640000 U	--	--	--	--
Dibromochloromethane		150	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Dichlorodifluoromethane (CFC-12)		72	0.15 U	0.3 U	0.38 U	0.81 U	0.24 U	210 U	43 U	190 U	0.1 U	0.087 U	53000 U	--	--	--	--
Ethylbenzene		100	0.076 U	0.035 J	0.19 U	0.12 J	0.079 J	80 J	43	65 J	0.0079 J	0.044 U	**72000[b]**	--	--	--	--
Isopropyl benzene			0.38 U	0.75 U	0.95 U	2 U	0.023 J	520 U	6.2 J	480 U	0.25 U	0.22 U	17000 J	--	--	--	--
Methyl acetate			0.056 J	3.6 U	4.5 U	9.7 U	2.8 U	2500 U	510 U	2300 U	0.043 J	0.036 J	640000 U	--	--	--	--
Methyl cyclohexane			1.8 U	3.6 U	4.5 U	9.7 U	2.8 U	2500 U	7.5 J	2300 U	1.2 U	1 U	640000 U	--	--	--	--
Methyl tert butyl ether (MTBE)			0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
Methylene chloride		300	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
Styrene			0.019 J	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Tetrachloroethene	14	60	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Toluene		100	0.15 U	0.3 U	0.38 U	0.81 U	0.079 J	94 J	31 J	73 J	0.1 U	0.087 U	**31000 J[b]**	--	--	--	--
trans-1,2-Dichloroethene		300	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
trans-1,3-Dichloropropene		180	0.076 U	0.15 U	0.19 U	0.4 U	0.12 U	100 U	21 U	96 U	0.05 U	0.044 U	27000 U	--	--	--	--
Trichloroethene	10	60	4.5	7.1	**12[a]**	**23[a]**	5.5	**4600[ab]**	**960[ab]**	**2700[ab]**	1.7	0.66	**1400000[ab]**	--	--	--	--
Trichlorofluoromethane (CFC-11)		300	0.15 U	0.3 U	0.38 U	0.81 U	0.24 U	210 U	43 U	190 U	0.1 U	0.087 U	53000 U	--	--	--	--
Trifluorotrichloroethane (Freon 113)		300	0.38 U	0.75 U	0.95 U	2 U	0.59 U	520 U	110 U	480 U	0.25 U	0.22 U	130000 U	--	--	--	--
Vinyl chloride	4	60	0.061 U	0.12 U	0.15 U	0.32 U	0.094 U	83 U	17 U	76 U	0.04 U	0.035 U	21000 U	--	--	--	--
Xylenes (total)		300	0.064 JB	0.24 JB	0.16 JB	0.68 JB	0.73 B	**720 B[b]**	300 B	**570 B[b]**	0.063 JB	0.0081 JB	**760000[b]**	--	--	--	--
SVOCs mg/kg																	
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)			0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2,4,5-Trichlorophenol	8000	74	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2,4,6-Trichlorophenol	40	74	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2,4-Dichlorophenol		140	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2,4-Dimethylphenol		140	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2,4-Dinitrophenol		1600	0.32 U	1 U	1.6 U	0.63 U	1 U	17 U	8.1 U	8 U	1.7 U	0.83 U	--	--	--	--	--
2,4-Dinitrotoluene	2.6	1400	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2,6-Dinitrotoluene		280	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2-Chloronaphthalene		56	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2-Chlorophenol		57	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2-Methylnaphthalene			0.0079 J	1.8 U	2.8 U	0.044 J	0.051 J	2.3 J	5.1 J	2.9 J	0.14 J	0.039 J	--	--	--	--	--
2-Methylphenol	4000	56	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
2-Nitroaniline		140	0.43 U	1.4 U	2.1 U	0.84 U	1.4 U	23 U	11 U	11 U	2.2 U	1.1 U	--	--	--	--	--
2-Nitrophenol		130	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
3&4-Methylphenol			0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
3,3'-Dichlorobenzidine			0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
3-Nitroaniline			0.43 U	1.4 U	2.1 U	0.84 U	1.4 U	23 U	11 U	11 U	2.2 U	1.1 U	--	--	--	--	--
4,6-Dinitro-2-methylphenol		1600	0.43 U	1.4 U	2.1 U	0.84 U	1.4 U	23 U	11 U	11 U	2.2 U	1.1 U	--	--	--	--	--
4-Bromophenyl phenyl ether		150	0.32 U	1 U	1.6 U	0.63 U	1 U	17 U	8.1 U	8 U	1.7 U	0.83 U	--	--	--	--	--
4-Chloro-3-methylphenol		140	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
4-Chloroaniline		160	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
4-Chlorophenyl phenyl ether			0.43 U	1.4 U	2.1 U	0.84 U	1.4 U	23 U	11 U	11 U	2.2 U	1.1 U	--	--	--	--	--
4-Nitroaniline		280	0.43 U	1.4 U	2.1 U	0.84 U	1.4 U	23 U	11 U	11 U	2.2 U	1.1 U	--	--	--	--	--
4-Nitrophenol		290	0.71 U	2.3 U	3.5 U	1.4 U	2.3 U	37 U	18 U	18 U	3.6 U	1.8 U	--	--	--	--	--
Acenaphthene		34	0.57 U	1.8 U	2.8 U	1.1 U	0.047 J	30 U	0.85 J	0.31 J	0.63 J	0.16 J	--	--	--	--	--
Acenaphthylene		34	0.57 U	1.8 U	2.8 U	1.1 U	0.094 J	30 U	14 U	14 U	0.11 J	0.023 J	--	--	--	--	--
Acetophenone		97	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Anthracene		34	0.013 J	1.8 U	2.8 U	0.021 J	0.13 J	30 U	14 U	14 U	1.3 J	0.34 J	--	--	--	--	--
Atrazine			0.086 U	0.28 U	0.42 U	0.17 U	0.28 U	4.5 U	2.2 U	2.1 U	0.44 U	0.22 U	--	--	--	--	--
Benzaldehyde			0.12 J	1.8 U	2.8 U	0.063 J	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Benzo(a)anthracene		34	0.067 J	0.052 J	2.8 U	0.11 J	1 J	30 U	14 U	14 U	4	1.4 J	--	--	--	--	--
Benzo(a)pyrene		34	0.075 J	0.11 J	0.14 J	0.14 J	1.7 J	30 U	14 U	14 U	3.8	1.3 J	--	--	--	--	--
Benzo(b)fluoranthene		68	0.11 J	0.11 J	0.16 J	0.19 J	2.5	0.81 J	14 U	14 U	6	1.8	--	--	--	--	--

ATTACHMENT 1- TOTAL ANALYSIS RESULTS
CVO IMWP-PART 2
YPSILANTI, MICHIGAN

PAOC			*Soil Pile 1*	*Soil Pile 1*	*Soil Pile 2*	*Soil Pile 2*	*Soil Pile 3 & 4*	*Soil Pile 3 & 4*	*Soil Pile 5*	*Soil Pile 5*	*Soil Pile 6*	*Soil Pile 6*	*Soil Pile 3*	*Soil Pile 6*	*Soil Pile 6*	*Soil Pile 6*	*Soil Pile 6*
Sample Location:			*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Excavation Stockpile Soil*	*Paint sludge material only*	*Additional PCB Delineation*	*Additional PCB Delineation*	*Additional PCB Delineation*	*Wood Block*
Sample ID:	***RCRA***	***UTS***	***SO-17303-123013-CT-100***	***SO-17303-123013-CT-101***	***SO-17303-123013-CT-102***	***SO-17303-123013-CT-103***	***SO-17303-123013-CT-104***	***SO-17303-123013-CT-107***	***SO-17303-123013-CT-105***	***SO-17303-123013-CT-106***	***SO-17303-123013-CT-108***	***SO-17303-123013-CT-109***	***ST-17303-041714-DB-012***	***SO-17303-041714-DB-004***	***SO-17303-041714-DB-005***	***SO-17303-041714-DB-006***	***ST-17303-041714-DB-008***
Sample Date:			***12/30/2013***	***12/30/2013***	***12/30/2013***	***12/30/2013***	***12/30/2013***	***12/30/2013***	***12/30/2013***	***12/30/2013***	***12/30/2013***	***12/30/2013***	***04/17/2014***	***04/17/2014***	***04/17/2014***	***04/17/2014***	***04/17/2014***
Sample Type:			***Grab***	***Grab***	***Grab***	***Grab***	***Grab***	***Grab***	***Grab***	***Grab***	***Grab***	***Grab***	***Composite***	***Grab***	***Grab***	***Grab***	***Grab***
Parameters	***a***	***b***															
VOCs mg/kg																	
Benzo(g,h,i)perylene		18	0.055 J	0.11 J	0.14 J	0.099 J	0.99 J	30 U	14 U	14 U	2.1 J	1.1 J	--	--	--	--	--
Benzo(k)fluoranthene		68	0.033 J	0.045 J	2.8 U	0.072 J	0.9 J	30 U	14 U	14 U	2.1 J	0.82 J	--	--	--	--	--
Biphenyl (1,1-Biphenyl)			0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	0.048 J	1.5 U	--	--	--	--	--
bis(2-Chloroethoxy)methane		72	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
bis(2-Chloroethyl)ether		60	0.17 U	0.56 U	0.85 U	0.34 U	0.55 U	9.1 U	4.3 U	4.3 U	0.88 U	0.44 U	--	--	--	--	--
bis(2-Ethylhexyl)phthalate (DEHP)		280	0.051 JB	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Butyl benzylphthalate (BBP)		280	0.042 J	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Caprolactam			0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Carbazole			0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	0.67 J	0.2 J	--	--	--	--	--
Chrysene		34	0.074 J	0.067 J	2.8 U	0.14 J	1.4 J	30 U	14 U	0.88 J	4.5	1.6	--	--	--	--	--
Dibenz(a,h)anthracene		82	0.57 U	1.8 U	2.8 U	1.1 U	0.28 J	30 U	14 U	14 U	0.63 J	1.5 U	--	--	--	--	--
Dibenzofuran			0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	0.83 J	0.42 J	0.4 J	0.078 J	--	--	--	--	--
Diethyl phthalate		280	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Dimethyl phthalate		280	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Di-n-butylphthalate (DBP)		280	2 B	0.21 JB	0.99 JB	1.1 B	5.9 B	180 B	62 B	39 B	2.6 JB	1.5 U	--	--	--	--	--
Di-n-octyl phthalate (DnOP)		280	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Fluoranthene		34	0.14 J	0.096 J	0.21 J	0.25 J	1.6 J	1.3 J	0.98 J	0.95 J	9.9	3.4	--	--	--	--	--
Fluorene		34	0.57 U	1.8 U	2.8 U	1.1 U	0.046 J	30 U	0.7 J	0.31 J	0.73 J	0.15 J	--	--	--	--	--
Hexachlorobenzene	2.6	100	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Hexachlorobutadiene	10	56	0.086 U	0.28 U	0.42 U	0.17 U	0.28 U	4.5 U	2.2 U	2.1 U	0.44 U	0.22 U	--	--	--	--	--
Hexachlorocyclopentadiene		24	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Hexachloroethane	60	300	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Indeno(1,2,3-cd)pyrene		34	0.051 J	0.098 J	2.8 U	0.1 J	0.91 J	30 U	14 U	14 U	1.9 J	0.82 J	--	--	--	--	--
Isophorone			0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Naphthalene		56	0.01 J	1.8 U	0.045 J	0.025 J	0.1 J	9 J	8.8 J	8.7 J	0.21 J	1.5 U	--	--	--	--	--
Nitrobenzene	40	140	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
N-Nitrosodi-n-propylamine		140	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
N-Nitrosodiphenylamine		130	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	30 U	14 U	14 U	2.9 U	1.5 U	--	--	--	--	--
Pentachlorophenol	2000	74	0.32 U	1 U	1.6 U	0.63 U	1 U	17 U	8.1 U	8 U	1.7 U	0.83 U	--	--	--	--	--
Phenanthrene		56	0.068 J	0.037 J	0.075 J	0.15 J	0.55 J	2.2 J	2.5 J	1.7 J	7	1.9	--	--	--	--	--
Phenol		62	0.57 U	1.8 U	2.8 U	1.1 U	1.8 U	11 J	1.9 J	3.2 J	2.9 U	1.5 U	--	--	--	--	--
Pyrene		82	0.11 J	0.094 J	0.18 J	0.2 J	1.6 J	1.1 J	1.1 J	0.96 J	7.3	2.9	--	--	--	--	--
Metals mg/kg																	
Antimony			2.4	1.3	14	8.7	2.9	440	32	77	4.0	1.8	20000000 B	--	--	--	--
Arsenic	100		3.5 B	3.2 B	3.2 B	3.1 B	3.7 B	3.7 B	2.5 B	2.4 B	4.2 B	6.2 B	**43000 B[a]**	--	--	--	--
Barium	2000		20 B	28 B	53 B	41 B	23 B	1400 B	110 B	220 B	48 B	56 B	**13000000 B[a]**	--	--	--	--
Beryllium			0.12 J	0.18	0.17	0.15	0.13 J	0.46	0.084 J	0.087 J	0.19	0.22	2400 U	--	--	--	--
Cadmium	20		0.77	0.34	0.96	0.76	0.58	**22[a]**	4.1	3.5	0.98	0.80	**12000[a]**	--	--	--	--
Chromium	100		26	18	**110[a]**	**130[a]**	32	**1200[a]**	**310[a]**	**330[a]**	23	22	**50000000[a]**	--	--	--	--
Chromium III (trivalent)			23	0.84 U	80	110	1.3	1100	280	230	21	21	--	--	--	--	--
Chromium VI (hexavalent)			2.9	77	29	16	30	100	30	97	2.5	0.80 J	--	--	--	--	--
Cobalt			2.5	2.2	2.9	3.1	2.8	6.0	3.0	3.8	3.3	4.4	85000	--	--	--	--
Copper			7.1	4.7	11	8.9	7.2	280	8.7	13	8.4	8.2	86000	--	--	--	--
Lead	100		16	11	34	31	23	**160[a]**	43	**170[a]**	64	82	**2800000[a]**	--	--	--	--
Manganese			140 B	180 B	160 B	220 B	140 B	280 B	110 B	120 B	290 B	620 B	280000	--	--	--	--
Mercury	4		0.018 J	0.040 U	0.043	0.026 J	0.018 J	0.58	0.049	0.026 J	0.019 J	0.018 J	**540[a]**	--	--	--	--
Nickel			6.2	5.4	7.1	14	7.0	11	5.4	6.3	7.4	8.2	12000 U	--	--	--	--
Selenium	20		0.32	0.18 J	0.22 J	0.20 J	0.22 J	4.5	0.68	0.59	0.22 J	0.22 J	24000 U	--	--	--	--
Silver	100		0.033 J	0.077 J	0.55	0.092 J	0.063 J	2.5	0.12 J	0.26	0.088 J	0.035 J	**620 J[a]**	--	--	--	--
Thallium			0.097 J	0.078 J	0.075 J	0.071 J	0.074 J	0.071 J	0.045 J	0.050 J	0.067 J	0.099 J	2900 JB	--	--	--	--
Vanadium			8.4	11	8.6	9.3	8.4	8.3	6.9	6.9	12	10	20000	--	--	--	--
Zinc			96 B	44 B	220 B	220 B	110 B	2200 B	720 B	750 B	85 B	48 B	71000000	--	--	--	--
PCBs mg/kg																	
Aroclor-1016 (PCB-1016)			0.18 U	0.34 U	0.35 U	0.28 U	0.35 U	0.19 U	0.18 U	0.28 U	18 U	0.072 U	--	0.17 U	0.35 U	0.35 U	0.99 U
Aroclor-1221 (PCB-1221)			0.18 U	0.34 U	0.35 U	0.28 U	0.35 U	0.19 U	0.18 U	0.28 U	18 U	0.072 U	--	0.17 U	0.35 U	0.35 U	0.99 U
Aroclor-1232 (PCB-1232)			0.18 U	0.34 U	0.35 U	0.28 U	0.35 U	0.19 U	0.18 U	0.28 U	18 U	0.072 U	--	0.17 U	0.35 U	0.35 U	0.99 U
Aroclor-1242 (PCB-1242)			0.18 U	0.34 U	0.35 U	0.28 U	0.35 U	0.19 U	0.18 U	0.28 U	18 U	0.072 U	--	0.17 U	0.35 U	0.35 U	0.99 U
Aroclor-1248 (PCB-1248)			0.18 U	0.34 U	0.35 U	0.28 U	0.35 U	0.19 U	0.18 U	0.28 U	18 U	0.072 U	--	0.17 U	0.35 U	0.35 U	0.99 U
Aroclor-1254 (PCB-1254)			0.18 U	0.34 U	0.35 U	0.28 U	0.35 U	0.19 U	0.18 U	0.28 U	18 U	0.072 U	--	0.17 U	0.35 U	0.35 U	2.8
Aroclor-1260 (PCB-1260)			0.79	1.6	1.1	0.39	1.3	0.39	0.13 J	0.12 J	52	0.34	--	0.62	1.3	1	0.99 U
														0.62	1.3	1	2.8

Notes:
U Not detected at the associated reporting limit
J Estimated concentration
B Not detected substantially above the level reported in the laboratory or field blanks

a Exceeded 20 x RCRA values
b Exceeded 10 x UTS values

ATTACHMENT 1- TCLP RESULTS
CVO IMWP-PART 2
YPSILANTI, MICHIGAN

Sample Location:		***RCRA***	***UTS***	***Soil Pile 1***	***Soil Pile 2***	***Soil Pile 3***	***Soil Pile 3***	***Soil Pile 4***	***Soil Pile 5***	***Soil Pile 6***
Sample ID:			***x10***	***SO-17303-041714-DB-001***	***SO-17303-041714-DB-002***	***SO-17303-041714-DB-010***	***ST-17303-041714-DB-011***	***SO-17303-041714-DB-009***	***SO-17303-041714-DB-003***	***SO-17303-041714-DB-007***
Sample Date:				***04/17/2014***	***04/17/2014***	***04/17/2014***	***04/17/2014***	***04/17/2014***	***04/17/2014***	***04/17/2014***
Sample Type:				***Composite***	***Composite***	***Composite***	***Composite (Paint Sludge)***	***Composite***	***Composite***	***Composite***
Parameters	***Units***	***a***	***b***							
TCLP VOCs										
1,1-Dichloroethene	mg/L	0.7		0.025 U	0.025 U	0.10 U	0.10 U	0.025 U	0.025 U	0.025 U
1,2-Dichloroethane	mg/L	0.5		0.025 U	0.025 U	0.10 U	0.10 U	0.025 U	0.025 U	0.025 U
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	200.0		0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U
Benzene	mg/L	0.5		0.025 U	0.025 U	0.10 U	0.10 U	0.025 U	0.025 U	0.025 U
Carbon tetrachloride	mg/L	0.5		0.025 U	0.025 U	0.10 U	0.10 U	0.025 U	0.025 U	0.025 U
Chlorobenzene	mg/L	100.0		0.025 U	0.025 U	0.10 U	0.10 U	0.025 U	0.025 U	0.025 U
Chloroform (Trichloromethane)	mg/L	6.0		0.025 U	0.025 U	0.10 U	0.10 U	0.025 U	0.025 U	0.025 U
Tetrachloroethene	mg/L	0.7		0.025 U	0.025 U	0.10 U	0.10 U	0.025 U	0.025 U	0.025 U
Trichloroethene	mg/L	0.5		**3.3[a]**	0.057	**6.3[a]**	**5.0[a]**	0.095	0.021 J	0.025 U
Vinyl chloride	mg/L	0.2		0.025 U	0.025 U	0.10 U	0.10 U	0.025 U	0.025 U	0.025 U
TCLP SVOCs										
1,4-Dichlorobenzene	mg/L	7.5		0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U
2,4,5-Trichlorophenol	mg/L	400.0		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
2,4,6-Trichlorophenol	mg/L	2.0		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
2,4-Dinitrotoluene	mg/L	0.13		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
2-Methylphenol	mg/L	200.0		0.00081 J	0.0040 U	0.0018 J	0.0040 U	0.0040 U	0.0040 U	0.0040 U
3&4-Methylphenol	mg/L			0.0053 J	0.040 U	0.0055 J	0.055	0.0019 J	0.040 U	0.040 U
Hexachlorobenzene	mg/L	0.13		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Hexachlorobutadiene	mg/L	0.5		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Hexachloroethane	mg/L	3.0		0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Nitrobenzene	mg/L	2.0		0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U
Pentachlorophenol	mg/L	100.0		0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U
Pyridine	mg/L	5.0		0.020	0.020 U	0.023	0.15	0.020 U	0.020 U	0.020 U
TCLP Metals										
Arsenic	mg/L	5	50	0.0087 JB	0.0064 JB	0.0089 JB	0.27 JB	0.0069 JB	0.0046 JB	0.0072 JB
Barium	mg/L	100	210	0.59 JB	0.62 JB	0.86 JB	0.094 JB	0.89 JB	0.46 JB	0.64 JB
Cadmium	mg/L	1	1.1	0.011 J	0.021 J	0.077 J	0.079 J	0.013 J	0.0072 J	0.016 J
Chromium	mg/L	5	6	0.063 J	0.25 J	2.7	**210[ab]**	0.040 J	0.044 J	0.0035 J
Lead	mg/L	5	7.5	0.46 J	0.079 J	0.15 J	0.014 J	0.020 J	0.015 J	**11[ab]**
Mercury	mg/L	0.2	0.25	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U
Selenium	mg/L	1	57	0.0052 J	0.0061 J	0.0042 J	1.0 U	0.25 U	0.0086 J	0.25 U
Silver	mg/L	5	1.4	0.50 U	0.50 U	0.50 U	2.0 U	0.50 U	0.50 U	0.50 U

Notes:
U Not detected at the associated reporting limit
J Estimated concentration
B Not detected substantially above the level reported in the laboratory or field blanks
a Exceeded RCRA values
b Exceeded UTS values