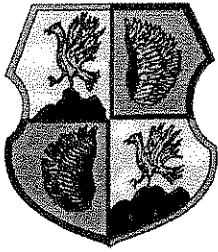


SBI-017



Grauvogel & Associates

November 5, 2004

City of South Bend
Community and Economic Development
1200 County-City Building
South Bend, IN 46601

Attention: Mr. Andy Laurent

Subject: Oliver Plow Phase IV – Buildings 46/47 Paint Solids, Contaminated Soil
REVISED

Dear Andy:

Enclosed are the corrected laboratory results documenting the characteristics of the soil with a fuel oil odor found in the concrete vault at the south end of Building 47 (Item 1012-1), the soil with the paint solvent odor found adjacent to the paint tank under Building 46 (Item 1012-2) and the black paint solids recovered from the Building 46 paint dip tank (Item 0930-1). None is RCRA hazardous waste, but none can be disposed of in Warner & Sons fill site.

The South pit fuel oil soil was analyzed for TPH and SVOC's. It contains TPH = 530 mg/kg, and no additional SVOC's were detected. TCLP analysis for SVOC's was not completed as a result. This material contains cinders and small pieces of hard coal.

The North solvent soil was analyzed for TPH, SVOC's and VOC's. It contains TPH = 670 mg/kg, 1.5 mg/kg xylenes, 10 mg/kg pyrene and 12 mg/kg fluoranthene. No other constituents were detected. TCLP analysis for SVOC's and VOC's was not completed based on these results. It has odor that suggests contamination from paint solvents, but apparently there is no significant solvent residual and fuel oil is also present.

The black paint solids were analyzed for total metals, TCLP metals, TCLP SVOC's and total VOC's. The TCLP metals, TCLP SVOC's and total VOC's *for the TCLP listed VOC's* were below detection limits, except for a minor amount of barium. TCLP analysis for VOC's was not done as a result. The total metals results were below the 1996 VRP limits. Total lead was below the 2001 RISC limit for industrial activity used previously for on-site soil disposal decisions during Phase II. However, as summarized in the attached table there were several VOC's present at high concentrations. This sample was of the semi-solid paint from the paint dip tank and piping. The semi-solid material was drummed by Warner into one 55-gallon drum. Later, Warner removed more, solid black paint solids from the pit around the dip tank. These have very low or no VOC content. There are about two or three more drums worth of these solids.

We have completed the waste profile for these wastestreams and submitted it to Waste Management for approval and pricing. We estimate a combined total of 65 CY/80T of the soil material and 4 drums of paint solids.

Oliver Plow Phase IV
Buildings 46/47 Paint Solids, Contaminated Soil
REVISED
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This includes the one 55-gallon drum already filled. The VOC content of the drummed paint waste make it inappropriate for on-site disposal, but the remaining paint solids without this VOC content and the other soil may be suitable to be left on-site, at the City's option. Direct further questions to my attention. Thank you for this opportunity to serve you.

Sincerely,
Grauvogel & Associates

A handwritten signature in cursive script, appearing to read "Lawrence W. Grauvogel".

Lawrence W. Grauvogel PE, CIH, CSP, CHMM

Attachments: EIS Reports 0410-105, 0409-347

cc: L. Turley/Hull, T. Baehr/Hull

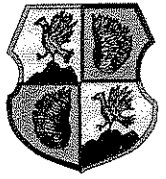


Table 1
Waste Paint – Building 46 Paint Dip Tank
 Oliver Plow Works Phase IV –
 September 30, 2004

Analyte	Total (mg/kg)	VRP Limit ¹	TCLP (mg/L)	RCRA Limit
RCRA Metals				
arsenic	<10	612	<0.1	5.0
barium	1,970	10,000	3.06	100.0
cadmium	3.3	1,020	<0.02	1.0
chromium	174	10,000	<0.02	5.0
lead	788	970^a	<0.05	5.0
mercury	<0.2	122.4	<0.001	0.2
selenium	<10	10,000	<0.1	1.0
silver	<1	10,000	<0.005	5.0
Volatile Organics (VOC)				
benzene	<0.5	16.63		
butylbenzene (n)	630	b		
butylbenzene (tert)	3,000	b		
carbon tetrachloride	<1	31^a		
chlorobenzene	<0.5	2,600^a		
chloroform	<0.5	5.28		
1,4-dichlorobenzene	<0.5	2,416		
1,2-dichloroethane	<0.5	5.27		
1,1-dichloroethene	<1	0.15		
hexachlorobutadiene	<1	1.78		
methyl ethyl ketone	<5	1,000		
naphthalene	750	10,000		
propylbenzene	1,670	b		
tetrachloroethene	<0.5	101.2		
trichloroethene	<0.5	24.97		
trimethylbenzene (1,2,4)	15,700	920^a		
trimethylbenzene (1,3,5)	12560	380^a		
vinyl chloride	<1	56^a		
xylene (o + m + p)	3,140	1,000		

¹ 1996 IDEM Voluntary Remediation Program clean-up goals, Table 9

^a 2001 IDEM RISC limit for construction activities at industrial sites; no 1996 VRP established

^b no VRP or RISC limit established

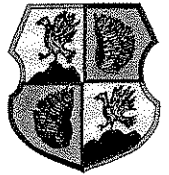


Table 1 (continued)
Waste Paint – Building 46 Paint Dip Tank
 Oliver Plow Works Phase IV –
 September 30, 2004

Analyte	Total (mg/kg)	VRP Limit ¹	TCLP (mg/L)	RCRA Limit
Semi-Volatile Organics (SVOC)				
cresol (o, m, or p)			<0.1	200.0
2,4-dinitrotoluene			<0.1	0.13
hexachloro-1,3-butadiene			<0.1	0.5
hexachlorobenzene			<0.1	0.13
hexachloroethane			<0.1	3.0
nitrobenzene			<0.1	2.0
pentachlorophenol			<1	100.0
pyridine			<0.1	5.0
2,4,5-trichlorophenol			<1	400.0
2,4,6-trichlorophenol			<0.1	2.0

¹ 1996 IDEM Voluntary Remediation Program clean-up goals, Table 9

^a 2001 IDEM RISC limit for construction activities at industrial sites; no 1996 VRP established

^b no VRP or RISC limit established