

August 9, 2011

Nicholas W. Monafo, Executive Director Lackawanna Community Development Corporation c/o Roger L. Ross, Esq. Hurwitz & Fine, P.C. 1300 Liberty Building Buffalo, New York 14202

Re: Focused Phase II ESA Follow Up (Spill # 1103969)
Industrial Property, 100 Ridge Road, Lackawanna, NY

Dear Mr. Monafo:

In accordance with our agreement, dated July 14, 2011, Hazard Evaluations, Inc. (HEI) completed a Focused Phase II Environmental Site Assessment (ESA) at the above-referenced (subject) industrial site (Figure 1, Attachment 1). Both the ESA and this related letter report were completed on behalf of, and for the use of, Lackawanna Community Development Corporation (hereinafter "Client") for its reliance in the environmental assessment of the subject site. Use of this ESA report by any other party is strictly prohibited, except by authorization in writing from the Client.

The purpose of these follow-up investigative activities was to delineate site conditions as identified within HEI's previous Phase II ESA, most notably the extent of contaminated soil and/or groundwater related to the historical use of the site for gasoline sales and service and dry cleaning. The field investigative activities and related results are summarized below.

#### Soil Boring Installation and Soil Sampling/Analysis

On July 28, 2011, a direct-push boring rig was mobilized to the subject site to install soil borings in an effort to identify the extent of soil contamination related to the conditions of concern identified above. A total of fourteen push borings were installed on the subject site throughout various locations within areas of concern. approximate sampling locations are as depicted in Figure 2. At each boring location, hollow stem sampling probes were used to obtain discrete soil samples at approximately four foot depth intervals to the bottom of each boring. Sampling equipment was initially decontaminated, and then again after each sample was collected using an Alconox/water wash and water rinse. The soil/fill encountered at each sampling location was visually described from the discrete samples obtained. Upon collection, each discrete sample was screened for the presence of volatile organic compounds (VOCs) using a portable PID (See Attachment 1 for Field Notes). Moist soils were encountered within several borings across the six to twelve foot bg depth interval. After all discrete samples for each boring had been collected the boring was backfilled with the remaining excavated soil/fill. Subsequently, all asphalt and concrete surfaces were patched, where applicable.

Several of the soil/fill samples collected from the site (G1, G2, G3, G4, S2 and S4) exhibited positive VOCs headspace readings which were noted to be higher than what would be anticipated as background in nature (0-25 ppm). The highest readings recorded included 275 ppm within G2 (4'-8'), 1,484 ppm within G4 (4'-8'), 28.3 ppm within S2 (0-4') and 87.2 ppm within S4 (8'-12'). Weak to notable petroleum-type odors were observed within G1, G2, G3 and G4. In addition, samples G2, G3 and G4 all exhibited what appeared to be petroleum-type staining. Based on observed conditions and PID readings, nine discrete soil/fill samples from the soil borings were placed in appropriate containers that were labeled and sealed, preserved in the field by cooling, and handled under chain-of-custody procedures until receipt by a NYSDEC-approved analytical laboratory. Samples S1 (0-4'), S2 (0-4'), S3 (8'-12'), S4 (8'-12'), S4 (8'-12'), S5 (4'-8'), S8 (4'-8'), S9 (0-4') and G4 (4'-8') were all analyzed for Volatile Organic Compounds (VOCs) using USEPA Method 8260 TCL. Discrete samples collected from other borings installed across the site exhibited either lower VOCs headspace readings, less notable characteristics or no evidence of contamination, or did not aid in characterization of the contamination of the site and therefore were not selected for analysis.

#### **Groundwater Sampling**

One 1" diameter temporary PVC piezometer was installed within boring G4 to allow for the collection of shallow groundwater samples. The piezometer consisted of a 10' length of slotted PVC well screen installed to the bottom of the boring with solid PVC riser completing the well. Prior to sampling, approximately one well volume worth of water was purged from the piezometer and then allowed to recharge. This well exhibited a relatively low recharge rate; however, a sample was able to be obtained. A new single-use polyethylene bailer was used to collect an unfiltered groundwater sample from this well. This sample was placed in sample jars, preserved in the field by cooling, and handled under chain-of-custody procedures until receipt by a NYSDEC-approved analytical laboratory. Following sampling, the temporary piezometer was removed from the ground, and the boring was backfilled with the remaining excavated soil/fill after sampling. Sample G4 Water was analyzed for VOCs using USEPA Method 8260 TCL.

#### **Discussion of Results**

The analytical results indicate that several volatile organic compounds were detected in the samples from S2, S3, S4, S5, S8 and G4 (Table 1; Attachment 2). In S2 (0'-4'), S3 (8'-12') and S4 (8'-12'), Tetrachloroethene (PCE) was found to exceed the applicable NYSDEC Soil Cleanup Objective (SCO) for Unrestricted Use (UUSCO) sites, as presented in 6 NYCRR Part 375-6.8 Table 375-6(a), but was below the Soil Cleanup Objective for Commercial Use sites (CUSCO), as presented in 6 NYCRR Part 375-6.8 Table 375-6(b). The other four samples analyzed exhibited levels well below the UUSCO. Trichloroethene was also detected within S2 (0-4'), but at a level below the UUSCO. In SB8 (4-8'), two parameters were detected, including cis-1,2-Dichloroethene and Acetone, both of which exceeded the applicable UUSCOs, but were below CUSCOs. Similarly, in sample G4 (4'-8'), two parameters were detected, including Ethylbenzene and Xylenes, both of which exceeded the applicable UUSCOs but were below CUSCOs. In samples S1 (0-4'), S5 (4'-8') and S9 (0-4'), several VOCs

parameters were detected; however, none exceeded the applicable UUSCOs. It should be noted that all detected levels of any contaminant that exceeded the applicable UUSCOs were below the corresponding Residential Use SCOs.

The analytical results also indicate that several VOCs compounds, including Tetrachloroethene, Benzene, Ethylbenzene, Toluene, and Xylenes were detected in the G4 Water sample. Each of these compounds was detected at a level which exceeds the applicable NYSDEC 6 NYCRR Part 703 Groundwater Quality Standards. The Laboratory Analytical Report is presented in Attachment 3.

#### **Conclusions**

Based on the results of this focused investigation, additional evidence was obtained which indicates that past gasoline sales and dry-cleaning operations have impacted the on-site soil profile to a limited extent. In addition, evidence was obtained which indicates that groundwater quality in the vicinity of the former gasoline station has also been impacted. Of significance, during this round of sampling, eight subsurface soil samples were analyzed for TCL VOCs, with none exhibiting levels of any contaminants that exceeded NYSDEC Residential Use Soil Clean-up Objectives. Similarly, during the Phase II ESA conducted recently by HEI, with the exception of two samples obtained, no analytical results were obtained which exceeded the UUSCOs. Considering that this specific location within the City of Lackawanna may be characterized as a heavily commercial and industrialized area, the likelihood of human exposure from these subsurface contaminant levels is limited.

Also, with respect to on-site groundwater, during the Phase II ESA HEI installed two temporary piezometers which were characterized as having poor well recharge rates (no full sample yield after purging one well volume). However, an adequate well was installed as part of this follow-up study. BETX and PCE were detected above Class GA groundwater standards within the former UST excavation area of this inactive spill site, with Toluene, Benzene and Tetrachloroethene being just slightly above the applicable standards. Considering that the entire area surrounding the subject site was historically used for the disposal of slag by Bethlehem Steel, as well as the current characteristics of this area of the City, the application of Class GA groundwater standards to the quality of the naturally-occurring groundwater seems inappropriate. As with the soil contaminants, the likelihood of human exposure from these groundwater contaminant levels is limited. Due to these site conditions, the NYSDEC will need to make the decision regarding further investigation and/or remediation.

In summary, to reduce risk of exposure, the consideration being given to excavating and disposing of the soil which exhibited a high PCE level during the Phase II ESA should be conducted. Evidence has also been obtained that the historical UST removal in the southeast corner of the site either was not successful or another UST may exist on-site that may be causing the elevated gasoline derivative levels in the soil and groundwater. Since this is an inactive spill site, the NYSDEC will need to make the decision regarding further investigation and/or remediation. Other than these two specific on-site locations, analytical results from across the bulk of the site are below either the NYSDEC's Unrestricted Use or Residential Use Soil Clean-up Objectives.

Following any remedial activities, with respect to the prevention of potential human contact with any low level contaminants remaining within the soil profile of the subject site, two activities need to be considered: 1) Installation of a sub-slab de-pressurization system with exterior venting to ensure no buildup of solvent vapors occurs within the building; and 2) A Site Management Plan prepared for implementation by the owner of the subject site to identify necessary information regarding limiting human exposure to solvents for use by employees or contractor/utility personnel in the event subsurface work must be conducted within the greater area of low level contamination for a variety of reasons (e.g., planting trees, foundation repair, utility installation, etc.).

Due to the nature of groundwater contamination in general and the related application of existing groundwater standards under the conditions that exist at the subject site, the NYSDEC will be tasked with determining if further investigative and/or remedial activities are warranted for the subject site.

The information presented above should adequately summarize HEI's investigative efforts and the results obtained regarding the conditions of environmental concern at the subject site, as identified above. If you have any questions regarding the contents of this letter report, please contact me directly.

Very truly yours,

HAZARD EVALUATIONS, INC.

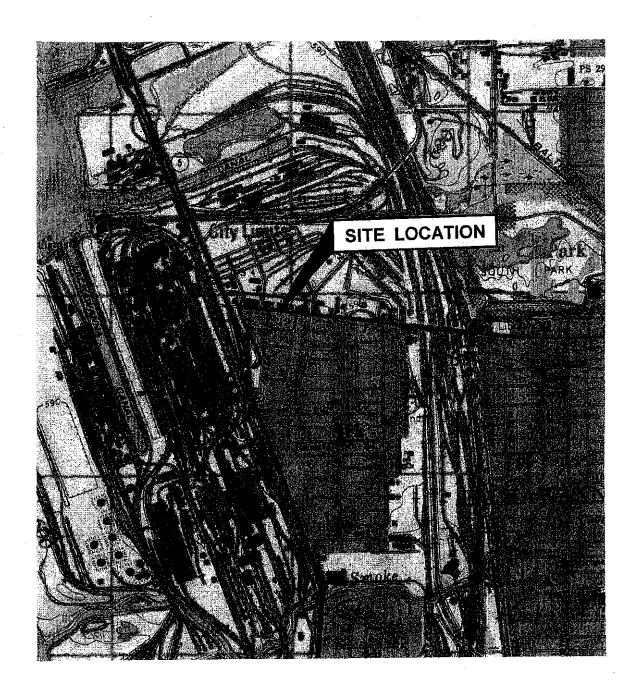
C. Mark Hanna, CHMM

President

Attachments

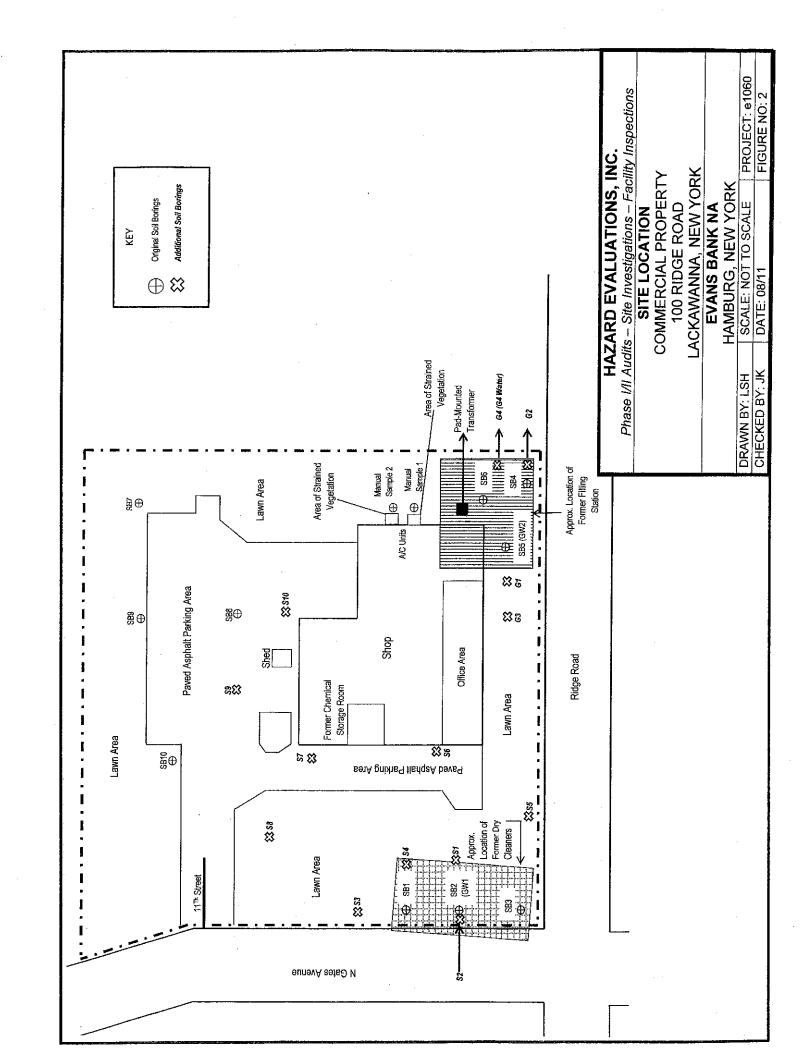
E1060\EBna 100Ridge Rd Lack P2follow-up

## Attachment 1 Figures & Field Notes



THIS DRAWING IS FOR ILLUSTRATIVE AND INFORMATIONAL PURPOSES ONLY AND WAS ADAPTED FROM USGS, BUFFALO SE, NEW YORK 1965 QUADRANGLE.

# HAZARD EVALUATIONS, INC. Phase I/II Audits – Site Investigations – Facility Inspections LOCATION PLAN COMMERCIAL PROPERTY 100 RIDGE ROAD LACKAWANNA, NEW YORK EVANS BANK NA HAMBURG, NEW YORK DRAWN BY: LSH SCALE: NOT TO SCALE PROJECT: e1037 CHECKED BY: JK DATE: 04/11 FIGURE NO: 1



Date: July 28, 2011 Project No. e1060  Client: Lackawanna Community Development Corporation  Project: Phase II ESA Follow-up  Site: 100 Ridge Road, Lackawanna	Hazard Evaluations, Inc 3752 N. Buffalo Rd. Orchard Park, NY 1412 P (716) 667-3130
Weather: Sunny and Warm Temp.	F (716) 667-3156

#### **FIELD INVESTIGATION REPORT**

HEI	arrived on-site	e at approximately 8:30am.
PID	Calibration:	Zero calibration (fresh air) = 0.0ppm.
		Span calibration (100 ppm Isobutylene) = 100.0ppm.
<u>G1</u>	(0-4'):	Medium brown sandy soil with fill pieces mixed within the bottom 1.5' of sample. PID = 0.0ppm.
	(4'-8'):	Medium brown moist sandy soil mixed with fill overlying approximately
	*	1.5' of rocky gray fill material. PID = 0.0ppm.
	(8'-12'):	Medium brown sandy soil and fill overlying gray stony fill underlain by
	<u> </u>	approximately 2.5' of medium brown sandy soil becoming claylike at the
		bottom of the boring. Petroleum type odor identified. PID = 40.0ppm.
G2	(0-4'):	Medium brown sandy soil with stony fill pieces mixed in at approximately
		2'-3' depth. PID = 4.2ppm.
•	(4'-8'):	Medium brown sandy soil overlying approximately 1.5' of reddish brown to
		medium brown sandy soil overlying approximately 2' of medium to grayish
	·	brown moist sandy claylike soil with petroleum odors and staining present.
-		PID = 275ppm.
	(8'-10'):	Approximately 6" of medium brown sandy claylike soil overlying
		approximately 1.5' of light gray sandy claylike soil. PID = 16.2ppm.
<del>G</del> 3	(0-4'):	Medium brown sandy soil overlying approximately 6" of dark reddish sandy
		soil overlying approximately 6" of tan to white colored granular fill.
**	·	PID = 2.3ppm.
	(4'-8'):	Approximately 6" of reddish colored dark sandy soil overlying
		approximately 1.5' of medium to reddish brown sandy soil, underlain by
		approximately 2' of medium brown to gray claylike soil with petroleum odo
•••		and staining identified. PID = 86.5ppm.
	(8'-12'):	Soft claylike soil with staining within top 6" of sample overlying medium
	, , , , , , , , , , , , , , , , , , , ,	brown claylike soil becoming denser at bottom of sample. PID = 11.3ppm.

Signature \_\_\_\_\_

Title \_\_\_\_\_\_

Project: <u>Phase II ESA Follo</u> Site: <u>100 Ridge Road, Lack</u>	awanna	Hazard Evaluations, Inc. 3752 N. Buffalo Rd. Orchard Park, NY 14127 P (716) 667-3130 F (716) 667-3156
Weather: Sunny and Warm	Temp	F (716) 667-3156

FIELD INVESTIGATION REPORT

(0-4'): (4'-8'): (8'-12'):	Medium brown sandy soil overlying approximately 1' of multi-colored granular fill. PID = 0.0ppm.  Approximately 1.5' of granular fill mixed with sandy soil overlying approximately 2.5' of medium stiff to soft gray clay with dark staining and strong odor identified. PID = 1484ppm.  Approximately 1' of moist, medium brown sandy soil overlying approximately 1' of soft gray clay with light staining, overlying 2' of
	Approximately 1.5' of granular fill mixed with sandy soil overlying approximately 2.5' of medium stiff to soft gray clay with dark staining and strong odor identified. PID = 1484ppm.  Approximately 1' of moist, medium brown sandy soil overlying
	approximately 2.5' of medium stiff to soft gray clay with dark staining and strong odor identified. PID = 1484ppm.  Approximately 1' of moist, medium brown sandy soil overlying
	approximately 2.5' of medium stiff to soft gray clay with dark staining and strong odor identified. PID = 1484ppm.  Approximately 1' of moist, medium brown sandy soil overlying
(8'-12'):	strong odor identified. PID = 1484ppm.  Approximately 1' of moist, medium brown sandy soil overlying
(8'-12'):	
	in stable 1' of soft grove glove with light staining overlying 2' of
	approximately 1 of soft gray clay with fight stamming, overlying 2 of
	medium dense brownish gray clay. Weak odor identified. PID = 86.2ppm.
(12-15'):	Soft, wet, gray clay. No noticeable odors or staining. PID = 18.2ppm.
	Refusal encountered at 15'.
(0-4'):	Medium brown sandy soil with small stony fill pieces noted at approximately
(2 1 /	2' depth. Dark to rusty brown sandy soil noted within the bottom 1' of
	Sample. PID = 3.3ppm.
(4'-8'):	Medium brown sandy soil with areas of dark brown soil mixed throughout.
(, , ,	Bottom 2' consists of light brown moist, sandy, claylike soil. PID = 0.6ppm.
(8'-12'):	Approximately 1' of medium brown sandy soil over 3' of light brown, moist,
	claylike soil becoming denser with increased depth. PID = 0.2ppm.
(0-4'):	Medium brown sandy soil with stony fill noted within the bottom 1' of
(04).	sample. PID = 26.3ppm.
(4'-8')	Medium brown sandy soil with small fill pieces mixed throughout overlying
(1 0 ).	light brown clay. Moist soils noted within bottom 6" of sample.
<u> </u>	PID = 9.5ppm.
(8'-12'):	Medium to light brown sandy claylike soil with stony pieces mixed
(0 12 ).	throughout. Moisture noted mostly within top 1' of sample. PID = 3.3ppm.
(0, 42).	Approximatley 1' of medium brown sandy soil overlying approximately 2.5'
(0-4 ):	Of dark colored sandy soil and fill material. Light to medium brown sandy
<u>.</u>	soils noted within bottom of sample. PID = 9.7ppm.
	(12-15'): (0-4'): (8'-12'): (8'-12'): (8'-12'):

Signature

Title \_\_\_\_\_

Date: July 28, 2011 Project No. e1060 Hazard Evaluations, Inc.

Client: Lackawanna Community Development Corporation 3752 N. Buffalo Rd.

Project: Phase II ESA Follow-up Orchard Park, NY 14127

Site: 100 Ridge Road, Lackawanna P (716) 667-3130

Weather: Sunny and Warm Temp. F (716) 667-3156

#### FIELD INVESTIGATION REPORT

S3	(4'-8'):	Medium brown sandy soil becoming claylike within bottom 1' of boring.
		PID = 7.5 ppm.
	(8'-12'):	Approximately 6" of mill material mixed in with medium brown soil
		becoming claylike. Claylike soil becomes more dense with increased depth.
		PID = 16.9ppm.
	4.07	
S4	(0-4'):	Medium brown sandy soil with fill material mixed throughout.
		PID = 6.4ppm.
	(4'-8'):	Medium brown sandy soil. PID = 48.6ppm.
	(8'-12'):	Dark brown, moist sandy soil overlying light brown claylike soil becoming
		more dense with increased depth. PID = 87.2ppm.
S5	(0-4'):	Sandy, medium to rusty brown soil. PID = 2.2ppm.
	(4'-8'):	Medium brown sandy claylike soil becoming light and moist within bottom
		6" of boring. PID = 2.8ppm.
	(8'-12'):	Light brown, sandy moist soil overlying light brown claylike soil becoming
		more dense within the bottom 6" of boring. $PID = 1.2ppm$ .
 S6	(0-4'):	Medium brown sandy soil and fill material. PID = 0.0ppm.
	(4'-8'):	Moist medium brown to dark brown moist sandy soil with approximately
		6" of stony material at approximately 7.5' depth, underlain by moist sandy
		soil becoming claylike within bottom 6" of sample. PID = 0.0ppm.
	(8'):	8'-12' sample attempted, no recovery.
S7	(0-4'):	Approximately 6" of asphalty fill overlying 2' of light brown sandy soil with
		stony pieces mixed within the bottom 6" of sample. PID = $0.0$ ppm.
	·	
		· · · · · · · · · · · · · · · · · · ·

Signature

Fitle Fittle

	July 28, 20 : Lackawan	11 Project No. <u>e1060</u> nna Community Development Corporation	Hazard Evaluations, Inc. 3752 N. Buffalo Rd.
		ESA Follow-up	Orchard Park, NY 14127
		Road, Lackawanna	P (716) 667-3130
Weath	ner: Sunny	and Warm Temp	F (716) 667-3156
	•		
		FIELD INVESTIGATION REPO	ORT
S8	(0-4'):	Approximately 1' of medium brown sandy so	
		with large fill pieces mixed within the bottom	of boring. PID = 3.6ppm.
	(4'-8'):	Sandy fill overlying moist sandy soil with fill	material mixed throughout.
4-		Moist sandy soils were noted within the botto	m 6" of sample.
		PID = 5.5ppm.	
	(8'-12'):	Moist, light brown sandy soil becoming more	dense and claylike within the
		bottom of boring. PID = 4.8ppm.	
<u>S9</u>	(0-4'):	Hard rocky/asphalty fill overlying 2' of reddi	sh sandy fill overlying 1' of
	(4 //	whitish colored granular fill. PID = 15.4ppm	
<del></del>	<u></u>		
<u>S10</u>	(0-4'):	6" of asphalty fill overlying 2' of light brown	sandy/granular fill underlain
	<u> </u>	by approximately 1.5' of dark brown moist sa	andy soil. PID = 3.8ppm.
_			
	·		
	**		
	2011		
<u></u>			
			Agent
		0.	
	- 1		
Signa	ature 🗼	Title	
		$\sqrt{}$	

## Attachment 2 Summary Data Tables

Table 1
Soil Sample Analytical Results; Volatile Organics (TCL & STARS)
100 Ridge Road, Lackawanna New York
July 28, 2011 Sampling Date

								to commence secondarios estad para mathematica estad and estad.		
Analytical	100	8	i i	100	io On	88	60	0.00	Mily Threshinged History	Restricted Use Soil
Parameter	647	(0.4)				4.0	(370)	(4-6)	Objectives:	Commercial Participation of the Commercial C
Bromodichloromethane	QN	QN	ND	QN	ND	QN	dN	QN	*	838
Bromomethane	QN	QN	QN	QV	QN	QN	ON	QN	*.	*
Bromoform	Q	QN	Q	QN	ND	DN	ND	ON	*	*
Carbon Tetrachloride	2	Q	QN	QN	QΝ	QN	ΩN	QN	760	22,000
Chloroethane	Ð	Ð	QN	QN	Q	ΩN	ΩN	ΠN	*	*
Chloromethane	QN	Q	QN	QN	ND	QΝ	ΟN	QΝ	*	*
2-Chloroethyl vinyl ether	Ð	9	QN	QN	ΩN	QN	QN	ND	*	*
Chloroform	S	a	QN	QN	QN	αN	ΩN	QΝ	370	350,000
Dibromochloromethane	9	Q	QN	ND	ND	ΠN	QN	ND	*	*
1,1-Dichloroethane	2	QN	ND	DN	ND	QΝ	ΩN	QN	270	240,000
1,2-Dichloroethane	QN	QN	ND	QN	ND	ND	ND	ND	20	30,000
1,1-Dichloroethene	Q.	9	QN	ND	ON	GN	GN	ND	330	500,000
cis-1,2-Dichloroethene	Q	QN	QN	۵N	ND	727	QN	ND	250	500,000
trans-1,2-Dichloroethene	ON	QN	ND	ND	ND	ND	ND	ΩN	190	500,000
1,2-Dichloropropane	ND	DN	ND	QN	ND	ND	QN	Q	*	*
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	Q	Q	QN	*	*
trans-1,3-Dichloropropene	QN	QN	QN	ΩN	ND	ND	ON	ND	*	*
Methylene Chloride	QN _	ND	ND	ND	QN	QN	Q	Q	50	500,000
1,1,2,2-Tetrachloroethane	QN	ON	ND	ND	ND	ND	Q	ND	*	*
Tetrachloroethene	256	678		2.090	35.9	137	156	ND	1,300	150,000
1,1,1-Trichloroethane	ND	ΩN	ON	ND	QN	ND	QN	QN	680	500,000
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	QN	Q	ON	*	*
Trichloroethene	155	90.3	ND	ND	Q	19.8	Q	Q	470	200,000
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	Q	ND	*	*
1,2,4-Trimethylbenzene	NA	AN	NA	NA	NA	NA	NA	NA	3,600	190,000

Table 1 (continued)
Soil Sample Analytical Results; Volatile Organics (TCL & STARS)
100 Ridge Road, Lackawanna New York
July 28, 2011 Sampling Date

	6	N)		5.4	io G	88	68	(6)	Secondine Russis	Restricted Lise Soil
* arameter			47.78	(3:4/2/h)	4.61	4 8)				Cleanar Binecives
135 Trimothylhonzono	VIA	VN	VIV	VN	VN	NA	VV	VN	8 400	190,000
Vinyl Chloride	2	2	Q	QN	N Q	Q	QN	QN	20 20	13.000
Benzene	S	9	QN	QN	QN.	9	QN	Ð	09	44,000
n-Butylbenzene	NA	NA	ΑN	NA	NA	NA	NA	NA	12,000	*
Chlorobenzene	QN	QN	ND	ND	ND	ND	ND	QN	1,100	500,000
Hexachlorobenzene	ΝΑ	· W	AN	ΑN	NA	ΑN	NA	ΝA	330	000'9
Ethylbenzene	ND	ND	QN	ND	DN	ND	ND	1.050	1,000	390,000
Methyl tert-butyl ether	NA	NA	ΥN	NA	NA	NA	NA	NA	930	500,000
n-Propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	3,900	500,000
sec-Butylbenzene	NA	NA	ΥN	AN	NA	NA	NA	NA	11,000	500,000
tert-Butylbenzene	NA	NA	AN	NA	NA	NA	NA	NA	5,900	500,000
Naphthalene	ΑN	ΥN	ΥN	AN	٨N	NA	NA	NA	12,000	*
p-IsopropyItoluene	AN	NA	VN	ΥN	NA	NA	NA	NA	*	*
Isopropylbenzene	AN	NA	ΑN	WA	AN	NA	NA	NA	*	*
Toluene	ND	ND	ND	ND	ND	QN	ND	ND	700	500,000
Xylenes (mixed)	QN	dN	ΩN	ND	ND	QN	ND	7.250	260	500,000
Styrene	ND	ON	QN	ND	QN	QN	ND	ND	*	*
1,2-Dichlorobenzene	ND	ND	QN	QN	ON	QN	ND	QN	1,100	500,000
1,3-Dichlorobenzene	QN	ND	QN	ND	ND	ND	ND	QN	2,400	280,000
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,800	130,000
Acetone	ND	ND	ND	ND	ND		ND	ND	50	500,000
2-Butanone (MEK)	QN	DN	QN	ΠN	dN	QN	ND	QN	120	500,000
2-Hexanone	ND	ND	ND	ND	ND	QN	ND	QN	*	*
4-Methyl-2-pentanone	ND	Q	ND	Q	ND	Q	QN	QN	*	*
Carbon Disulfide	ND	ND	ND	QN	ND	QN	QN	QN	*	*
Vinyl acetate	ND	ND	ND	N	ND	Q	QN	ND	*	*

 Results from USEPA Method 8260 for Volatiles; All results in ppb (ug/kg).
 SCOs from 6NYCRR Subpart 375-6. Remedial Program Soil Cleanup (ppb).
 ND means compound not detected above MDL.
 Lightly shaded results indicate concentration exceeds UUSCO.
 Darker shaded results indicate concentration exceeds CUSCO.
 \* means no SCO determined.
 NA means Not Applicable; -- means no analysis conducted Notes:

Table 2 Groundwater Sample Analytical Results; Volatile Organics 100 Ridge Road, Lackawanna, New York July 28, 2011 Sampling Date

Analytical Parameter Tr	*12 (C4 Water	Water Quality Standards (See note)
Bromodichloromethane	ND	NA
Bromomethane	ND	5
Bromoform	ND_	NA NA
Carbon Tetrachloride	ND	5 or 5*
Chloroethane	ND	5 or 50*
Chloromethane	ND	NA NA
2-Chloroethyl vinyl Ether	ND	NA
Chloroform	ND	7 or 7*
Dibromochloromethane	ND_	5 or 50*
1,1-Dichloroethane	ND	5 or 5*
1,2-Dichloroethane	ND	0.6 or 5*
1,1-Dichloroethene	ND	5 or 5*
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5 or 5*
1,2-Dichloropropane	ND	11
1,3-Dichloropropene (mixed)	ND	0.4 or 5*
Methylene Chloride	ND	5 or 5*
1,1,2,2-Tetrachloroethane	ND	5 or 5*
Tetrachloroethene	11.9	5 or 5*
1,1,1-Trichloroethane	ND	5 or 5*
1,1,2-Trichloroethane	ND	1
Trichloroethene	ND	5 or 5*
Trichlorofluoromethane	ND_	5
Vinyl Chloride	ND	2 or 2*
Benzene		1.0 or 7.0*
Chlorobenzene	ND	5 or 5*
Ethylbenzene		5 or 5*
Toluene	ka padisi	5 or 5*
Xylenes (mixed)		5 or 5*
Styrene	ND	5
1,2-Dichlorobenzene	ND	3 or 4.7*
1,3-Dichlorobenzene	ND	3 or 5*
1,4-Dichlorobenzene	ND	3 or 5*
Acetone	ND	50*
2-Butanone	ND	50*
2-Hexanone	ND	NA
4-Methyl-2-pentanone	ND	NA
Carbon Disulfide	ND	50*
Vinyl Acetate	ND	NA

Notes: 1) Results from USEPA Method 8260 for Volatiles (STARS); All results in ppb (ug/l).

2) Water Quality Standards from either 6 NYCRR Subpart 703.5 or TAGM 4046 (Represented by \*) 3) ND means compound not detected above MDL.

4) Shaded results indicate concentration exceeds water quality standards.

5) NA means not applicable; -- means no analysis conducted.

## Attachment 3 Laboratory Analytical Report



### Analytical Report Cover Page

#### Hazard Evaluations, Inc.

For Lab Project # 11-3173
Issued August 4, 2011
This report contains a total of 11 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

- "<" = analyzed for but not detected at or above the reporting limit.
- "E" = Result has been estimated, calibration limit exceeded.
- "Z" = See case narrative.
- "D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.
- "M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
- "B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173

Lab Sample Number: 10420

de la companya de la

Client Job Number:

N/A

Field Location:

S1 (0-4')

Date Sampled: Date Received: 07/28/2011 08/02/2011

Field ID Number: Sample Type:

N/A Soil

Date Analyzed:

08/02/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 8.72
Bromomethane	< 8.72
Bromoform	< 21.8
O-shan Tetrachleride	< 8.72

Carbon Tetrachloride < 8.72 Chloroethane < 8.72 Chloromethane < 43.6 2-Chloroethyl vinyl Ether < 8.72 Chloroform

< 8.72 Dibromochloromethane < 8.72 1,1-Dichloroethane < 8.72 1,2-Dichloroethane < 8.72 1,1-Dichloroethene

< 8.72 cis-1,2-Dichloroethene < 8.72 trans-1,2-Dichloroethene < 8.72 1,2-Dichloropropane < 8.72 cis-1,3-Dichloropropene < 8.72 trans-1,3-Dichloropropene < 21.8 Methylene chloride < 8.72 1,1,2,2-Tetrachloroethane

256 Tetrachloroethene 1,1,1-Trichloroethane < 8.72 < 8.72 1,1,2-Trichloroethane 155 Trichloroethene < 8.72 Trichlorofluoromethane < 8.72

ELAP Number 10958

Vinyl chloride

Aromatics	Results in ug / Kg
Benzene	< 8.72
Chlorobenzene	< 8.72
Ethylbenzene	< 8.72
Toluene	< 8.72
m,p-Xylene	< 8.72
o-Xylene	< 8.72
Styrene	< 21.8
1,2-Dichlorobenzene	< 8.72
1,3-Dichlorobenzene	< 8.72
1,4-Dichlorobenzene	< 8.72

Ketones	Results in ug / Kg
Acetone	< 43.6
2-Butanone	< 43.6
2-Hexanone	< 21,8
4-Methyl-2-pentanone	< 21.8

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 8.72
Vinyl acetate	< 21.8
	٠.

Method: EPA 8260B

Data File: V89628.D

Comments: ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:

Bruce Hoogesteger: Technical Director



Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173

Client Job Number:

Lab Sample Number: 10421

Field Location:

S3 (8-12')

Date Sampled: Date Received: 07/28/2011 08/02/2011

Field ID Number: Sample Type:

N/A Soil

08/03/2011

Date Analyzed:

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 21.4
Bromomethane	< 21.4
Bromoform	< 53.4
Carbon Tetrachloride	< 21.4
Chloroethane	< 21.4
Chloromethane	< 21.4
2-Chloroethyl vinyl Ether	< 107
Chloroform	< 21.4
Dibromochloromethane	< 21.4
1,1-Dichloroethane	< 21.4
1,2-Dichloroethane	< 21.4
1.1-Dichloroethene	< 21.4
cis-1,2-Dichtoroethene	< 21.4
trans-1,2-Dichloroethene	< 21.4
1,2-Dichloropropane	< 21.4
cis-1,3-Dichloropropene	< 21.4
trans-1,3-Dichloropropene	< 21.4
Methylene chloride	< 53.4
1,1,2,2-Tetrachloroethane	< 21.4
Tetrachloroethene	1,770
1,1,1-Trichloroethane	< 21.4

Aromatics	Results in ug / Kg
Benzene	< 21.4
Chlorobenzene	< 21.4
Ethylbenzene	< 21.4
Toluene	< 21.4
m,p-Xylene	< 21.4
o-Xylene	< 21.4
Styrene	< 53.4
1,2-Dichlorobenzene	< 21.4
1.3-Dichlorobenzene	< 21.4
1,4-Dichlorobenzene	< 21.4

Ketones	Results in ug / Kg
Acetone	< 107
2-Butanone	< 107
2-Hexanone	< 53.4
4-Methyl-2-pentanone	< 53.4

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 21.4
Vinyl acetate	< 53.4
	•

ELAP Number 10958

1,1,2-Trichloroethane

Trichloroethene Trichlorofluoromethane

Vinyl chloride

Method: EPA 8260B

< 21.4 < 21.4

< 21.4

< 21.4

Data File: V89647.D

Comments: ug / Kg = microgram per Kilogram



Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173 Lab Sample Number: 10422

Client Job Number:

N/A

Date Sampled:

07/28/2011

Field Location: Field ID Number: S4 (8-12') N/A

Date Received:

08/02/2011

Sample Type:

Soil

Date Analyzed:

08/03/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 18.6
Bromomethane	< 18.6
Bromoform	< 46.4
Carbon Tetrachloride	< 18.6
Chloroethane	< 18.6
Chloromethane	< 18.6
2-Chloroethyl vinyl Ether	< 92.8
Chloroform	< 18.6
Dibromochloromethane	< 18.6
1,1-Dichloroethane	< 18.6
1,2-Dichloroethane	< 18.6
1,1-Dichloroethene	< 18.6
cis-1,2-Dichloroethene	< 18.6
trans-1,2-Dichloroethene	< 18.6
1,2-Dichloropropane	< 18.6
cis-1,3-Dichloropropene	< 18.6
trans-1,3-Dichloropropene	< 18.6
Methylene chloride	< 46.4
1,1,2,2-Tetrachloroethane	< 18.6
Tetrachloroethene	2,090
1,1,1-Trichloroethane	< 18.6
1,1,2-Trichloroethane	< 18.6
Trichloroethene	< 18.6
Trichlorofluoromethane	< 18.6
Vinyl chloride	< 18.6

Aromatics	Results in ug / Kg
Benzene	< 18.6
Chlorobenzene	< 18.6
Ethylbenzene	< 18.6
Toluene	< 18.6
m,p-Xylene	< 18.6
o-Xylene	< 18.6
Styrene	< 46.4
1.2-Dichlorobenzene	< 18.6
1,3-Dichlorobenzene	< 18.6
1,4-Dichlorobenzene	< 18.6

Ketones	Results in ug / Kg
Acetone	< 92.8
2-Butanone	< 92.8
2-Hexanone	< 46.4
4-Methyl-2-pentanone	< 46.4

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 18.6
Vînyl acetate	< 46.4

ELAP Number 10958

Method: EPA 8260B

Data File: V89648.D

Comments: ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director



Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173

Client Job Number: N/A

Lab Sample Number: 10423

Field Location:

S5 (4-8')

Date Sampled: Date Received: 07/28/2011 08/02/2011

Field ID Number:

N/A

Sample Type:

Soil

Date Analyzed:

08/02/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 8.42
Bromomethane	< 8.42
Bromoform	< 21.0
Carbon Tetrachloride	< 8.42
Chloroethane	< 8.42
Chloromethane	< 8.42
2-Chloroethyl vinyl Ether	< 42.1
Chloroform	< 8.42
Dibromochloromethane	< 8.42
1,1-Dichloroethane	< 8.42
1,2-Dichloroethane	< 8.42
1,1-Dichloroethene	< 8.42
cis-1,2-Dichloroethene	< 8.42
trans-1,2-Dichloroethene	< 8.42
1,2-Dichloropropane	< 8.42
cis-1,3-Dichloropropene	< 8.42
trans-1,3-Dichloropropene	< 8.42
Methylene chloride	< 21.0
1,1,2,2-Tetrachloroethane	< 8.42
Tetrachloroethene	35.9
1,1,1-Trichloroethane	< 8.42
1,1,2-Trichloroethane	< 8.42
Trichloroethene	< 8.42
Trichlorofluoromethane	< 8.42
Vinyl chloride	< 8.42
ELAD Number 10069	Metho

	· · · · · · · · · · · · · · · · · · ·
Aromatics	Results in ug / Kg
Benzene	< 8.42
Chlorobenzene	< 8.42
Ethylbenzene	< 8.42
Toluene	< 8.42
m,p-Xylene	< 8.42
o-Xylene	< 8.42
Styrene	< 21.0
1,2-Dichlorobenzene	< 8.42
1,3-Dichlorobenzene	< 8.42
1,4-Dichlorobenzene	< 8.42

Ketones	Results in ug / Kg
Acetone	< 42.1
2-Butanone	< 42.1
2-Hexanone	< 21,0
4-Methyl-2-pentanone	< 21.0

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 8.42
Vinyl acetate	< 21.0

ELAP Number 10958

Method: EPA 8260B

Data File: V89631.D

Comments: ug / Kg = microgram per Kilogram



Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173

Lab Sample Number: 10424

Client Job Number:

N/A

Date Sampled:

Field Location: Field ID Number: \$8 (4-8') N/A

Date Received:

07/28/2011 08/02/2011

Sample Type:

Bromodichloromethane Bromomethane

Carbon Tetrachloride Chloroethane

Halocarbons

Bromoform

Date Analyzed:

08/02/2011

npie	ī Abe:	5

Results in ug / Kg		Δ
< 9.59	•	B
< 9.59		C
< 24.0		Е
< 9.59		Т
< 9.59		n
< 9.59		a
- 17 Q		c

Chloromethane < 9.59 < 47.9 2-Chloroethyl vinyl Ether < 9.59 Chloroform

< 9.59 Dibromochloromethane 1,1-Dichloroethane < 9.59 < 9.59 1,2-Dichloroethane < 9.59 1,1-Dichloroethene

254 cis-1,2-Dichloroethene < 9.59 trans-1,2-Dichloroethene < 9.59 1.2-Dichioropropane

cis-1,3-Dichloropropene < 9.59 trans-1,3-Dichloropropene < 9.59 < 24.0 Methylene chloride < 9.59 1,1,2,2-Tetrachloroethane Tetrachloroethene 137 < 9.59 1,1,1-Trichloroethane

Trichlorofluoromethane Vinyl chloride

ELAP Number 10958

1,1,2-Trichloroethane

Trichloroethene

Aromatics	Results in ug / Kg
Benzene	< 9.59
Chlorobenzene	< 9.59
Ethylbenzené	< 9.59
Toluene	< 9.59
m,p-Xylene	< 9.59
o-Xylene	< 9.59
Styrene	< 24.0
1,2-Dichlorobenzene	< 9.59
1,3-Dichlorobenzene	< 9.59
1,4-Dichlorobenzene	< 9.59

Ketones	Results in ug / Kg
Acetone	65.3
2-Butanone	< 47.9
2-Hexanone	< 24.0
4-Methyl-2-pentanone	< 24.0

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 9.59
Vinyl acetate	< 24.0
_	
1	

Method: EPA 8260B

< 9.59

< 9.59

< 9.59

19.8

Data File: V89632.D

Comments: ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 113173V6.XLS requirements upon receipt.



Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173

Client Job Number: N/A

Lab Sample Number: 10425

Field Location:

S9 (0-4') N/A

Date Sampled: Date Received: 07/28/2011 08/02/2011

Field ID Number: Sample Type:

Soil

Date Analyzed:

08/02/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 8.96
Bromomethane	< 8.96
Bromoform	< 22.4
Carbon Tetrachloride	< 8.96
Chloroethane	< 8.96
Chloromethane	< 8.96
2-Chloroethyl vinyl Ether	< 44.8
Chloroform	< 8.96
Dibromochloromethane	< 8.96
1,1-Dichloroethane	< 8.96
1,2-Dichloroethane	< 8.96
1,1-Dichloroethene	< 8.96
cis-1,2-Dichloroethene	< 8.96
trans-1,2-Dichloroethene	< 8.96
1,2-Dichloropropane	< 8.96
cis-1,3-Dichloropropene	< 8.96
trans-1,3-Dichloropropene	< 8.96
Methylene chloride	< 22.4
1,1,2,2-Tetrachloroethane	< 8.96
Tetrachloroethene	156
1,1,1-Trichloroethane	< 8.96
1,1,2-Trichloroethane	< 8.96
Trichloroethene	< 8.96
Trichlorofluoromethane	< 8.96
Vinyl chloride	< 8.96

Aromatics	Results in ug / Kg
Benzene	< 8.96
Chlorobenzene	< 8.96
Ethylbenzene	< 8.96
Toluene	< 8.96
m,p-Xylene	< 8.96
o-Xylene	< 8.96
Styrene	< 22.4
1,2-Dichlorobenzene	< 8.96
1,3-Dichlorobenzene	< 8.96
1,4-Dichlorobenzene	< 8.96

Ketones	Results in ug / Kg
Acetone	< 44.8
2-Butanone	< 44.8
2-Hexanone	< 22.4
4-Methyl-2-pentanone	< 22.4

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 8.96
Vinyl acetate	< 22.4

ELAP Number 10958

Method: EPA 8260B

Data File: V89633.D

Comments: ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

approximation of the contraction of the contraction



#### Volatile Analysis Report for Soils/Solids/Sludges

Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173

Lab Sample Number: 10426

Client Job Number:

Date Sampled:

07/28/2011

Field Location: Field ID Number: G4 (4-8') N/A

Date Received:

08/02/2011

Sample T	ype:
----------	------

e	n	ŀ	ŀ
w	u	ı	ŧ

Date A	nalyzed:
--------	----------

08/02/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 126
Bromomethane	< 126
Bromoform	< 314
Carbon Tetrachloride	< 126
Chloroethane	< 126
Chloromethane	< 126
2-Chloroethyl vinyl Ether	< 629
Chloroform	< 126
Dibromochloromethane	< 126
1,1-Dichloroethane	< 126
1,2-Dichloroethane	< 126
1,1-Dichloroethene	< 126
cis-1,2-Dichloroethene	< 126
trans-1,2-Dichloroethene	< 126
1,2-Dichloropropane	< 126
cis-1,3-Dichloropropene	< 126
trans-1,3-Dichloropropene	< 126
Methylene chloride	< 314
1,1,2,2-Tetrachloroethane	< 126
Tetrachioroethene	< 126
1,1,1-Trichloroethane	< 126
1,1,2-Trichloroethane	< 126
Trichloroethene	< 126
Trichlorofluoromethane	< 126
Vinyl chloride	< 126

Aromatics	Results in ug / Kg
Benzene	< 126
Chlorobenzene	< 126
Ethylbenzene	1,050
Toluene	< 126
m,p-Xylene	2,250
o-Xylene	< 126
Styrene	< 314
1,2-Dichlorobenzene	< 126
1,3-Dichlorobenzene	< 126
1,4-Dichlorobenzene	< 126

Ketones	Results in ug / Kg
Acetone	< 629
2-Butanone	< 629
2-Hexanone	< 314
4-Methyl-2-pentanone	< 314

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 126
Vinyl acetate	<b>&lt; 314</b> .
•	·

ELAP Number 10958

Method: EPA 8260B

Data File: V89635.D

Comments: ug / Kg = microgram per Kilogram



#### Volatile Analysis Report for Non-potable Water

Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173

Lab Sample Number: 10427

Client Job Number: N/A

**Date Sampled:** 

07/28/2011

Field Location: Field ID Number: G4 Water N/A

Date Received:

08/02/2011

Sample	ype:

Water

Date Analyzed:

08/02/2011

Halocarbons	Results in ug / L
Bromodichloromethane	< 2.00
Bromomethane	< 2.00
Bromoform	< 5.00
Carbon Tetrachloride	< 2.00
Chloroethane	< 2.00
Chloromethane	< 2.00
2-Chloroethyl vinyl Ether	< 10.0
Chloroform	< 2.00
Dibromochloromethane	< 2.00
1,1-Dichloroethane	< 2.00
1,2-Dichloroethane	< 2.00
1,1-Dichloroethene	< 2.00
cis-1,2-Dichloroethene	< 2.00
trans-1,2-Dichloroethene	< 2.00
1,2-Dichloropropane	< 2.00
cis-1,3-Dichloropropene	< 2.00
trans-1,3-Dichloropropene	< 2.00
Methylene chloride	< 5.00
1,1,2,2-Tetrachloroethane	< 2.00
Tetrachloroethene	11.9
1,1,1-Trichloroethane	< 2.00
1,1,2-Trichloroethane	< 2.00
Trichloroethene	< 2.00
Trichlorofluoromethane	< 2.00
Vinyl chloride	< 2.00

Aromatics	Results in ug / L
Benzene	23.1
Chlorobenzene	< 2.00
Ethylbenzene	138
Toluene	5 <b>.4</b> 7
m,p-Xylene	170
o-Xylene	6.40
Styrene	< 5.00
1,2-Dichlorobenzene	< 2.00
1,3-Dichlorobenzene	< 2.00
1,4-Dichlorobenzene	< 2.00

Ketones	Results in ug / L
Acetone	< 10.0
2-Butanone	< 10.0
2-Hexanone	< 5.00
4-Methyl-2-pentanone	< 5.00

Miscellaneous	Results in ug / L
Carbon disulfide	< 2.00
Vinyl acetate	< 5.00
_	
1	

ELAP Number 10958

Method: EPA 8260B

Data File: V89623.D

Comments: ug / L = microgram per Liter



Client: Hazard Evaluations Inc.

Client Job Site:

LCDC 100 Ridge Part 2

Lab Project Number: 11-3173 Lab Sample Number: 10428

Client Job Number: N/A

Field Location:

S2 (0-4') N/A

Field ID Number: Sample Type: Soil Date Sampled:

07/28/2011 08/02/2011

Date Received:

08/03/2011

Date	Analyzed:
------	-----------

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 21.9
Bromomethane	< 21.9
Bromoform	< 54.7
Carbon Tetrachloride	< 21.9
Chloroethane	< 21.9
Chloromethane	< 21.9
2-Chloroethyl vinyl Ether	< 109
Chloroform	< 21.9
Dibromochloromethane	< 21.9
1,1-Dichloroethane	< 21.9
1,2-Dichloroethane	< 21.9
1,1-Dichloroethene	< 21.9
cis-1,2-Dichloroethene	< 21.9
trans-1,2-Dichloroethene	< 21.9
1,2-Dichloropropane	< 21.9
cis-1,3-Dichloropropene	< 21.9
trans-1,3-Dichloropropene	< 21.9
Methylene chloride	< 54.7
1,1,2,2-Tetrachloroethane	< 21.9
Tetrachloroethene	1,840
1,1,1-Trichloroethane	< 21.9
1,1,2-Trichloroethane	< 21.9
Trichloroethene	90.3
Trichlorofluoromethane	< 21.9
Vinyl chloride	< 21.9

Aromatics	Results in ug / Kg
Benzene	< 21.9
Chlorobenzene	< 21.9
Ethylbenzene	< 21.9
Toluene	< 21.9
m,p-Xylene	< 21.9
o-Xylene	< 21.9
Styrene	< 54.7
1,2-Dichlorobenzene	< 21.9
1,3-Dichlorobenzene	< 21.9
1,4-Dichlorobenzene	< 21.9

Ketones	Results in ug / Kg
Acetone	< 109
2-Butanone	< 109
2-Hexanone	< 54.7
4-Methyl-2-pentanone	< 54.7

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 21.9
Vinyl acetate	< 54.7
•	

ELAP Number 10958

Method: EPA 8260B

Data File: V89649.D

Comments: ug / Kg = microgram per Kilogram Surrogate outliers indicate probable matrix interference

Signature:

Bruce Hoogesteger. Technical Director
This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 113173V9.XLS requirements upon receipt.

CHAIN OF CUSTODY

PARADIGM		REPORT TO:		2000	JANI	INVOICE TO:	II AR PROJECT	LECT # ICLIENT PROJECT #	
Salara service services and services	COMPANY:	Mazurd Evaluations	Loc.	COMPANY	Same		# 17 C		
	ADDRESS	N. B. FELC RA.		ADDRESS:					
	LE C	, l	ZIP:	CITY:		STATE	ZIP: TURNAROUND TIN	TURNAROUND TIME: (WORKING DAYS)	
	PHONE: 6	FAX:	, , , , , , , , , , , , , , , , , , ,	PHONE:		FAX:		STD OTHER	띮
PROJECT NAME/SITE NAME: LCDC	ATTA	1 Jost K	4	ATTN:			1 2	2 X 3 C 5	_
100 R. Mas Part 2	COMMENTS						Quotation #		į
	_				REQUESTE	REQUESITED ANALYSIS			
<b>5</b> 0 ≥			<b>∑</b> 4	00 Z :	701				
DATE TIME O	9 2 < 0	SAMPLE LOCATION/FIELD ID	( <del>-</del> E	- d z 2 2 0 4	0988		REMARKS	PARADIGM LAB SAMPLE NUMBER	<u>e</u>
- p- W			×	m oc o	570/				
1 24 7/2 1100.	R	51 (0-4)	1,05		ヌ			1042	0
2 7/38 11:15	2	53(8-13")	153	-	×			1042	_
7/28	2	54(3-12')	Soil		×			ر ر ک	
7/28	2	15	5.11		×			1042	m
7/28	2	53 (4-8)	5 <sub>21</sub> (	_	×			× 70 /	7
7/2%	×	Sy (0-4')	3		×			1012	כי
7/23	×	64(4-8')	Sail	~	夂			1042	9
	ኣ	G4 Water	Agraces	u	Z.			0101	7
7/73	X	52(0-4)	- W		Z,		·	2 7 0 7	œ
10 /									
Sample Condition: Per NELAC/ELAP 210/241/242/243/244	> 210/241/242	1243/244			AND THE PROPERTY OF THE PROPER				
Receipt Parameter		S    	<u>-</u>	7	Ú	7/2			
Container Type:			Sampled By		1307	Date/Time	Ė	Total Cost:	_
Preservation:		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Relindulished	N Z		Sal j			
Holding Time:			Received By	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		8/1/ // Date/Time		P.I.F.	
Temperature:			Received @ Lab By	2 Cold	attonch	η CL 8/2/1, Date/Time	1 1203		•
<b>*</b>	Emo DIK								