RESULTS OF PHASE 2 ASSESSMENT

645 Elmwood Avenue Aurora, Illinois

Prepared for:

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and

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1. INTRODUCTION

Advanced Environmental Corporation (AEC) was retained by Mr. Robert Rhodes (prospective purchaser of the subject property) to perform a Phase 2 Assessment (Phase 2) of the former Shell gasoline service station located at 645 Elmwood Avenue, Aurora, Illinois (the subject property) presently owned by Dr. Norris Erickson. The Phase 2 authorized by Mr. Rhodes on July 15, 1999, was conducted on July 22, 1999, in general conformance with AEC Proposal 99045P dated July 13, 1999.

It is our understanding of from the prospective purchaser and current owner of the property that two gasoline underground storage tanks (USTs) and one heating oil/used oil UST were removed buy Shell Oil Company prior to Federal and State UST registration regulations. Furthermore, we did not learn that the heating oil UST was also used for the disposal of used oil to fuel the on-site heating system until the day of the investigation. Our understanding of the layout of the former USTs, pump islands, facility building, and product piping is as presented in the Boring Location Plan.

The purpose of the Phase 2 was to determine with a reasonable minimum number of borings and laboratory analyses whether there is evidence of obvious leaking underground storage tank (LUST) contamination of the subject property.

2. SCOPE OF WORK

The authorized Phase 2 consisted of advancing three borings at the locations of the three former USTs to a depth of 15 feet each. The authorized scope of work allowed for the laboratory analysis of one soil sample from each boring. Two of the soil samples were to be from the gasoline UST area, and were to be analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) and total lead, in accordance with the analytical requirements for USTs that formerly stored leaded gasoline as outlined in the Illinois UST law, 35 IAC Part 732. The third soil sample was to be selected from the boring located at the former heating oil UST site, and was to be analyzed for BTEX and polynuclear aromatic hydrocarbons (PNAs), also in accordance with the requirements of 35 IAC Part 732 for heating oil USTs. Although used oil screening generally involves a more extensive analysis than just BTEX and PNAs, BTEX and PNAs are mandatory base tests for used oil as well as heating oil USTs. Therefore BTEX and PNA analyses adequately assess contaminant conditions at the heating oil/used oil UST site for this level of study.

Based on visual observations of site conditions and the former facility layout at the time of the investigation and a discussion with the Property Owner, Dr. Norris Erickson, it was judged that three borings would not adequately assess potential contamination at all of the likely areas of impact; i.e. at the locations of the former USTs, at the former pump islands, and along product piping runs. Therefore, the investigation was modified in the field to allow the implementation of additional borings within the total authorized budget. The modified investigation consisted of reducing the depths of some of the borings, and applying that footage towards additional shallow borings at the pump islands and along product piping runs. A total of 5 borings to depths ranging from 5 feet to 15 feet were ultimately conducted. One soil sample from the heating oil/used oil UST area was analyzed for BTEX and PNAs, and two soil samples - one from the gasoline UST tank bed area, and the other from one of the other gasoline LUST borings exhibiting the most elevated VOCs screened in the field - were analyzed for BTEX and total lead.

3. SUBSURFACE INVESTIGATION

3.1 Drilling and Sampling Procedures

Borings B1 through B5 were advanced at the locations shown on the Boring Location Plan with hollow stem augers using a truck-mounted drill rig, with split spoon soil sampling performed through and ahead of the augers at 2.5-foot vertical intervals. All soil samples were screened at the time of collection for the presence of volatile organic compounds (VOCs) using a Photovac Microtip photoionization detector (PID). Screening was conducted by placing a small portion of each sample in a plastic ziplock bag, warming the sample in the sun to induce volatilization, and inserting the tip of the PID into the bag through a small opening to sample the headspace within the bag. Total VOC concentrations measured for each sample have been recorded on the boring logs in Appendix 1.

Sampling tools were washed in an alconox bath, rinsed with tap water, and final rinsed with distilled water following each use to prevent cross contamination between samples. Augers were pressure washed inside and out between uses to ensure cross contamination between borings could not occur. Soil cuttings were returned to their respective borings following drilling and sampling.

3.2 Results of VOC Field Screening

Total VOC concentrations measured in the field at the time of the investigation

have been recorded on the boring logs in Appendix 1. Boring B1 was situated in the center of the gravel area understood to be the site of the former gasoline USTs. Soil conditions at B1 bore this out as original tank backfill pea gravel was still present between the depths of 6 and 11 feet which exhibited a gasoline odor. VOC concentrations in B1 ranged from 35.7 ppm to 61.7 ppm within the pea gravel, and sharply decreased in underlying native soils to 1.5 ppm at a depth of 15 feet.

Very low VOC concentrations were measured at B2, situated at the location of the former heating oil/used oil UST. VOC concentrations ranged from 0 ppm at a depth of 10 feet, to 4.3 ppm at a depth of 3.5 feet.

The highest VOC concentrations were detected at the two pump islands/product piping runs. The highest VOC concentration of 353 ppm was detected in boring B3 along the piping run adjacent to the north pump island, and the second highest VOC concentration of 218 ppm was detected in boring B5 at the location of the former west pump island. Very low VOCs (maximum 6.3 ppm) were detected in B4 located at the edge of the gasoline UST bed, indicating that LUST contamination is possibly confined to within the tank bed area.

3.3 Results of Laboratory Analysis

As discussed previously, one soil sample was selected from the soil sample exhibiting the highest VOCs during field screening from the boring at the heating oil/used oil UST site for laboratory analysis of BTEX and PNAs, one soil sample was selected from the soil sample exhibiting the highest VOCs from the boring in the center of the gasoline UST field for laboratory analysis of BTEX and total lead, and the soil sample exhibiting the highest VOCs from the remaining three borings was selected for laboratory analysis of BTEX and total lead.

The depth of each soil sample selected for laboratory analysis is indicated both on the boring logs in Appendix 1, and on the sample Chain of Custody Record included in Appendix 2.

Soil samples were maintained in a cooler until delivery to First Environmental Laboratories (First), Naperville, Illinois, for chemical analysis. Proper sample handling, preservation, and chain of custody protocols were maintained at all times.

Analytical results have been compared with Tier 1 soil corrective action objectives (CAOs) for Residential Properties outlined in 35 Illinois Administrative Code Part 742, "Tiered Approach to Corrective Action Objectives (TACO)", as published in the TACO release dated June 5, 1997. An analytical summary and analytical data sheets are included in Appendix 2.

The following summarizes the comparison of the soil results with TACO Tier 1 CAOs.

Sample B1-3 (6.0'-6.2'). This sample was from the tank bed area of the former USTs where a total VOC concentration of 61.7 ppm was measured during field screening. It was analyzed for BTEX and total lead. IEPA Tier 1 CAOs were not exceeded for any of the compounds analyzed.

Sample B2-2 (3.5'-3.7'). This sample was from the former heating oil/used oil UST site where a total VOC concentration of 4.3 ppm was measured during field screening. It was analyzed for BTEX and PNAs. BTEX and PNAs were not detected in this sample.

Sample B3-1 (1.4'-1.7'). This sample was from along the product piping run adjacent to the north pump island area where a total VOC concentration of 353 ppm was measured during field screening. It was analyzed for BTEX and total lead. Benzene was detected at a concentration of 0.101 ppm, which is approximately 3.4 times higher than the IEPA Tier 1 CAO for this compound. The other BTEX compounds and lead did not exceed their respective Tier 1 CAO.

4. CONCLUSIONS

Based on the results of this Phase 2, there is evidence of some LUST contamination in excess of Tier 1 CAOs along the piping runs. This contamination likely extends beneath the pump islands, and although not detected in the single soil sample obtained from the gasoline tank bed, olfactory indications of the presence of gasoline in the original tank backfill materials that still remain in the excavation area would tend to indicate that there is likely some LUST contamination within the former tank area. However, judging from the findings of this study and the relatively low contaminant concentrations, the extent of LUST contamination exceeding Tier 1 CAOs is anticipated to be relatively minor.

5. LIMITATIONS

AEC warrants that the Phase 2 study presented in this Report has been performed in a professional manner using the degree of care and skill exercised for similar projects under similar conditions as those used by other reputable and competent environmental consultants. The findings and conclusions presented by AEC are limited to the date of evaluation, and are based solely on the scope of work conducted, observations made, and limited explorations described in this Report, and not on scientific tasks or procedures beyond the scope of agreed

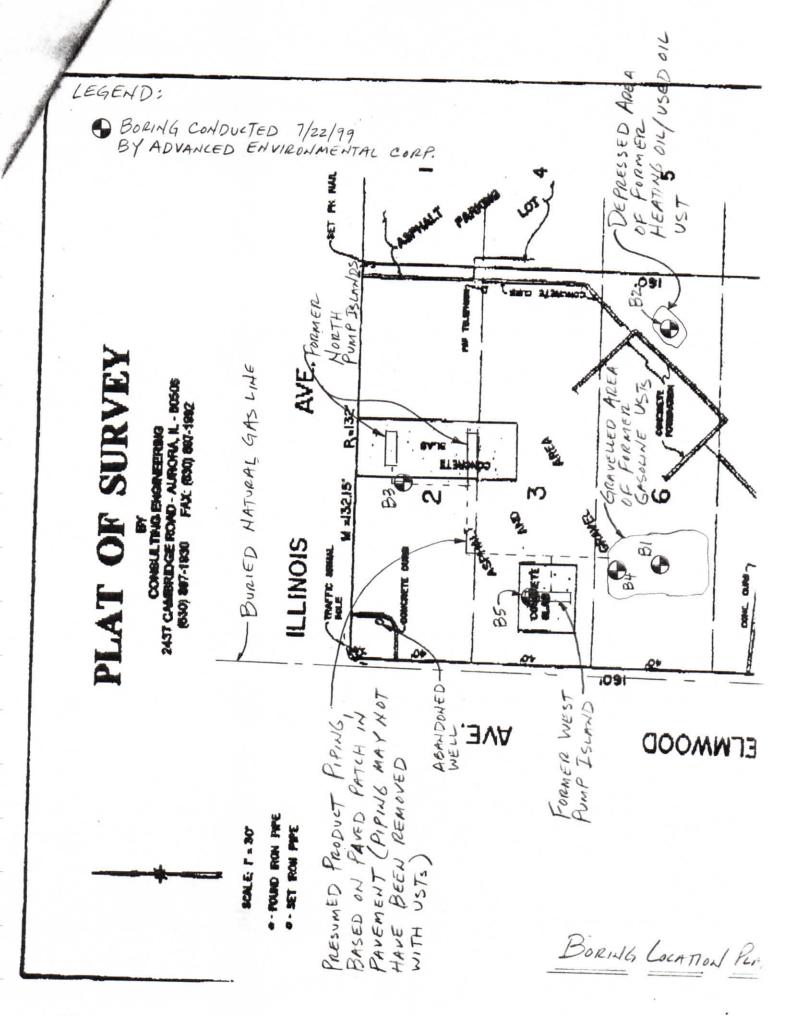
RESULTS OF PHASE 2 ASSESSMENT 645 N. Elmwood Avenue Aurora, Illinois

upon services, or time and budget restraints imposed by the Client. No warranty, expressed or implied, is made as to the professional opinions included in this Report.

RESULTS OF PHASE 2 ASSESSMENT 645 N. Elmwood Avenue Aurora, Illinois

Figure

Boring Location Plan



RESULTS OF PHASE 2 ASSESSMENT 645 N. Elmwood Avenue Aurora, Illinois

Appendices

Appendix 1 - Soil Boring Logs Appendix 2 - Analytical Results

APPENDIX 1 SOIL BORING LOGS

Project Number 99045TO1 Client AEC Contractor EMICASO DARLIAGO Contractor EMICASO DARLIAGO DITIING METHOD 2/4" HCA Hole Size 5/2" \$\Property \text{MEDATE} \\ Date DATE Sample Hammer: Weight 140" Drop 30" Drop 30" Drop 30" Drop 30" Date Started 1/22/59 Date Completed 1/22/	SIT	VICE E	Envi	RONH	ENT.	A L			S	OIL BORING LOG	Sheet \angle of -					
Client AEC Contractor CHICAGO DALLIAGO Contractor CHICAGO DALLIAGO Drilling Method 21/4" HEA Sample Hammer: Weight 19 0" Sample Dorop 30" Date Coordinates: N End of USE STORY OF UST FIE Coordinates: N FIED TOSPO TOTAL Coordinates: N FORD 30" Date Started 7/21/79 Date Completed 7/21/79 Date Com	D. a.i.	N		9	190	40	TOI		Pro	1000 None 645 N. FLAULAND	0.					
Contractor CHICASO DRILINGS. Drilling Method 274" HCA Drilling Method 274" HCA Hole Size 5/2" © Driller M Strumon Logged by D. YACKD Sampler Dimensions 2" SEPLIT SI ON Date Started 7/22/79 Date Started 7/22/79 Date Started 7/22/79 Date Completed 7/22/79 Date Started 7/22/79 Date Completed 7/22/79 Date Started 7/22/79 Date Completed 7/22/79 Date Started									_	Boring No						
DATE DATE Sample Hammer: Weight 140 the proposition of the propositi					50	Dan	LIAL	1.	+	Location	CENTER OF UST FIE					
Hole Size 5/2 D Driller M SHLIMON Logged by D YACKO Sampler Dimensions 2" LDSPLIT SILLON Drop 30" Drop 30" Drop 30" Date Started 7/22/79 Date Completed 7/22/79 Date	Drilli	ina M	ethod	121	4"	HS,	4	0	-	Coordina	tes: N					
Logged by P. YACK D Sampler Dimensions 2"SDSPLT SIST Date Started 7/22/59 Date Started 7/22/59 Date Started 7/22/59 Date Completed 7/22/59 Date C	Hole	Size	51	2" (Ø				C		levation					
Logged by P. YACK D Sampler Dimensions 2"SDSPLT SIST Date Started 7/22/59 Date Started 7/22/59 Date Started 7/22/59 Date Completed 7/22/59 Date C	Drille	er_/	1.5	HLI	MON	J			Samp	5 O TOTAL DE	pth _15.0'					
SOIL DESCRIPTION NOTES AND FIELD TESTS Surface Conditions: STONE BACKFILL IN GAS UST AREA 1 1 55 SK PPED TO COMPSE TO SPT 1 2 55 SK PPED TO COMPSE TO SPT TO	Logged by D. YACKO								Samp	Date Star	ted 7/22/99					
1 1 55 5K PED	(ft/m)	e Depth	ole No.	er Type	vs per	Driven (cm)	(cm)	Depth /m)			NOTES AND					
1 1 55 SKPPED	Dept	Sampl (ft	Samp	Sample	Blow 6 in/	Length	Length R (in/	Casing (ft,	Unifie Classif	DIONE DACKFILL IN GAS						
2 1 55 5K PED - TO SPT		_			_				GP	GOOTED CIMESTONE						
2 SS 2 18 6 - CL BR-GK SI-CL W/FI-CO SA, FI-M GVL', WET; PLASTIC (SOFT) - CHY' 5 2 GP PEA GRAPEL; WET (DENSE) PID: GINFPI 8 GASOLINE OBORE 9 4 55 2 8 2 - CL GK SI-CL W/ SOFI SA, TR FI GVL; PID: 8.18PM 10 S SS 6 8 2 - CL GK SI-CL W/ SOFI SA, TR FI GVL; PID: 8.18PM MOIST; M. PLASTICITY (VISTIFF) - CO 12' 13 9 9 12 13 14 15 16 17 17 18 18 18 18 18 18		I	1	55	SKI	PPE	0			+3" CRUSHED CONCRETE	TOO COARSE					
7 2 55 2 18 6 - CL BR-GK SI-CL W/FI-CO SA, FI-M GVL', WET; PLASTIC (SOFT) B 3 SS 2 18 2 - GP PEAGRANEL; WET (DENSE) PID=Offm GY' GY' GY' GASOLINE ODOR 10 5 SS 6 18 12 - CL GK SI-CL W/ SOFI SA, TR FI GVL; PID: B./ SPM MOIST; M. PLASTICITY (VISTIFF) G12' MOIST; M. PLASTICITY (VISTIFF) G12' CO12' C	V	+	-	-	-	-		-			1					
7 2 55 2 18 6 - CL BR-GK SI-CL W/FI-CO SA, FI-M GVL', WET; PLASTIC (SOFT) B 3 SS 2 18 2 - GP PEAGRANEL; WET (DENSE) PID=Offm GY' GY' GY' GASOLINE ODOR 10 5 SS 6 18 12 - CL GK SI-CL W/ SOFT SA, TR FI GVL; PID: BIPPIN MOIST; M. PLASTICITY (VISTIFF) G12' MOIST; M. PLASTICITY (VISTIFF) G12' CO12' CO	3			-	-	_	-	-	-							
5 2 2 602, WE 1, PLASTIC (SOPT) 5 3 55 2 18 2 - GP PEA GRAVEL; WET (DENSE) PID = 61.7pp											+0.0-000					
5 2 2 602, WE 1, PLASTIC (SOPT) 5 3 55 2 18 2 - GP PEA GRAVEL; WET (DENSE) PID = 61.7pp	4	-	2	SS		18	6	-	CL	BR-GR SI-CL W/FI-COSA, FI-M	- D-Offm					
6 3 SS 2 18 2 - GP PEAGRNEL; WET (DENSE) PID=61.7ppi - 2612' GASOLINE ODOR 11 5 SS 6 18 12 - CL GREST-CLW/SOFI SH, TR FIGUL, PID: 8.18pm MOIST; M. PLASTICITY (VISTIFF) - 212' MOIST; M. PLASTICITY (VISTIFF) - 212' 13	5	+		_	-	-	_	-	-	GUL, WET; PLASTIC (SOFT)	1 4					
7 2 2 6 17 PEA GRAVEC, WET (DENSE) - PID=61, 18pm 8 6/ASOLINE OBORE 10 1 1 5 55 6 18 12 - CL GREST-CL W/ SO FI SM, TR FI GVL; PID = 8.18pm, 10 1 1 8 8 10 - CL GREST-CL W/ SO FI SM, TR FI GVL; PID = 8.18pm, 10 13 9 9 0 005 T; M. PLASTICITY (VISTIFF) - @12'		-			-	_	_			,						
7 2 2 6 17 PEA GRAVEC, WET (DENSE) - PID=61, 18pm 8 6/ASOLINE OBORE 10 1 1 5 55 6 18 12 - CL GREST-CL W/ SO FI SM, TR FI GVL; PID = 8.18pm, 10 1 1 8 8 10 - CL GREST-CL W/ SO FI SM, TR FI GVL; PID = 8.18pm, 10 13 9 9 0 005 T; M. PLASTICITY (VISTIFF) - @12'	6	14									+					
8 9 4 55 2 18 2 - 10 1 1	7	-	3	SS	_	18	2	-	GP	PEAGRAPEL; WET (DENSE)						
9 4 55 2 18 2 - 10 1 1 2 35.7 pp.	8							_			- (D612'					
10 1 - (2 8.7' - GASOLINE ODORZ) 11 5 55 6 18 12 - CL GREST-CL WI SO FI SA, TR FI GUL; PID: 8.18Pm, 12 8 MOIST; M. PLASTICIT; (VISTIFF) (2) 2' 13 9 MOIST; M. PLASTICIT; (VISTIFF) (2) 12'	0	_				.0	_				GASOLINE OVOR					
10 1 - (2) 8.7' - (3) 5 5 5 6 18 12 - CL GREST-CL WISOFI SA, TR FIGUL PID: 8.18Pm. 12 8 MOIST; M. PLASTICITY (VISTIFF) (2) 12' 13 9 MOIST; M. PLASTICITY (VISTIFF) (2) 12'	-1	+	4	55	2	18	2	-	-		- PID = 35,7PP.					
5 55 6 18 12 - CL GR ST-CL WI SO FI SH, TR FI GUL; - PID : 8.18Pm, MDIST; M. PLASTICITY (VISTIFF) - @12'	10	\Box			T						@8.7'					
MOIST; M. PLASTICITY (VISTIFF) - PID: FIJEPIN	11		_								- GASOLINE ODOR					
13	-	+	5	SS	6	18	12	-	CL	GNSI-CLWISOFISH, TR FIGUL	PID: RIPPIN					
13	10	+					-		\dashv	MOIST; M. PLASTICITY (VISTIFF)	T-@12'					
14 6 55 8 18 18 - 15 10 12	13	-			-											
15 10 10 15'	14	\parallel	6	55		18	18	_			IPID= 1.5 PPI					
	15	+				-		_	_		[@15'					

BORING TERMINATED @ 151 WATER ENCOUNTERED @26'

SOIL BORING LOG

Project Number 99045T01	Project Name 645	N. ELMI	JOOD
Client AEC	WATER LEVEL	\top	
Contractor CHICAGO DALLIAGG.	TIME		\neg
Drilling Method 214" HEA	DATE		\neg
Hole Size 5/2" Ø	Sample Hammer: Weight	140#	

Boring No. 52
Location CENTER OF HTG OILL
Coordinates: N
E
Ground Elevation
- 10

Sampler Dimensions 2" DSPLIT SP. OF

Total Depth 10.6

Date Started 7/22/99

Date Completed 7/22/99

Logg	Logged by D. YACKO								Drop Date Started Date Complete Dimensions 2" Despeit Speek Date Complete	7/22/99 red 7/22/99
Depth (ft/m)	Sample Depth (ft/m)	Sample No.	Sampler Type	ws per /15 cm	h Driven	Recovered 1/cm)	Casing Depth (ft/m)	Unified Soil Classification		NOTES AND FIELD TESTS
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1	-		-	-		-	-	77	CRUSHED STONE -	_
		1	55	10	18	18	-	CL	(ng 5) - 11 - 1/50 G) (n 04) 1 - 15)	
2				10				_	BRSI-LLWISOFISA; DRY (VISTIFF)	-PID= 1.6 ppm
3	Ш			12						- @z.5'
1-2				_	_					_
4		2	sS	R	2	2		_	PIECE OF LIMESTONE IN BIT., - RELOCATE 3 NORTH -	- PID= 4.3ppm - @3.5
5									-	-
				_						-
7	+	3	SS	5	18	18	-	_	GRADES PLASTIC	-PID=0.5ppm=
_	\perp			1					-	- 0 75
-8	-			_						-
9	\top	4	55	10	18	18	_		GRADES WET, WI M-COGUL,	-PID= OPPU-
		-		12	10	10		\neg	MO. SAND -	@101
10	П			15						
11		-		-				-	BORING TERMINATED @ 10' -	
		5	SS		-	-		-	WATER ENCOUNTERED @28' -	-
12									-	-
-	\dashv	-								-
13	-	-	-		-	-		_		_
14		6	55						-	_
-	\perp								-	-
15	+	-	-	-	-	-	_	_		_
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SITE ENVIRONMENTAL SERVICES, INC.

SOIL BORING LOG

		-						5	OIL BURING LUG	
Proje Clien	ct Nu	mber	9	900	15	TO	1	Pro	ject Name Boring No	B3
Clien	t	AE	C					l w	ATER LEVEL Location Pl	PING TO MORTH ISLA
Cont	ractor	CH	1101	4600	D	RIL	LING	,		N
Drilli	na Me	thod	21/0	1 11	HSA	4			DATE	E
Hole	ng Me Size _	5	1/2"	0				Samo	In Hammer Weight 140 # Ground Elev	ation
D-111-	_ /	4.5	SHI	IM	12			Samp	le Hammer: Weight 140 th Ground Elev Drop 36" Data Started	3/22/08
Logge	ed by.	D	. 7	Ach	0			Samo		7/22/99 eted 7/22/99
				_		D	$\overline{}$			7
Depth (ft/m)	Sample Depth (ft/m)	le No.	er Type	Blows per 6 in/15 cm	Driven (cm)	ecovere (cm)	Casing Depth (ft/m)	Unified Soil Classification	SOIL DESCRIPTION	NOTES AND FIELD TESTS
Depth	Sample (ft	Samp	Sample	Blow 6 in/	Length (in/	Length Recovered (in/cm)	Casing (ft	Unific Classif	Surface Conditions: ASPHALT PAVEMENT	
									ACRUALT	T
1								SP	BRFI-MSAND, MOIST (DENSE)	-P10=3530pn
			55	5	18	18	_			(D2.5')
2	T			5			-		BLE OVE SI- EL COAMI, WISIST (STIFF	+ -
3	-							CL	BRSI-CL W/SOFISA, MOIST; M. PLASTICITY (STIFF)	
									MIPLASTICITY (STIFF)	0.0.112=
4		2	55	3	18	18	-			PID=43,3ppm-
-				4						1 (25)
5	\perp			5						
-	-								BORING TERMINATED @51.	-
-					_		-		•	
										+ -
-				_				-		
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SOIL BORING LOG

Project Number 99045T01	Project Name 64	2 M. FIM	W
Client AEC	WATER LEVEL		_
Contractor CHICASO DALLINGG.	TIME		
Drilling Method 314" HEA	DATE		
Hole Size 5/2" Driller M. SHLIMON	Sample Hammer: Weig	ht 140 #	

Sample Hammer: Weight

Location N. EDGE GAS UST FIELD Coordinates: N ____ Ground Elevation _ Date Started 7/22/99

Logged by D. YACKO Sampler Dimensions 2" OD SPOIT SPOON Date Completed 7/22/99 Sample Depth (ft/m) Blows per 6 in/15 cm
Length Driven (in/cm)
ength Recovered (in/cm)
Casing Depth (ft/m) Unified Soil Classification SOIL DESCRIPTION AND FIELD TESTS Surface Conditions: STONE BACKFILL IN GAS UST AREA CRUSHED LIMESTONE (MIDENSE) CL BRSI-CL WI SO M-CO SA, MOIST, - QZ.5 PPM PLASTIC (SOFT) 55 18 GRADES BLK-GRINCOLDR, -- PID=2.4ppm WET - @5' SS 3 18 55 6 18 18 7 GROS GRN-GRINCOLOR W/TRFIGUE; LOW PLASTICITY (VISTIFF) 55 18 18 BORING TERMINATED @106 NO GW ENCOUNTERED 55 13 55

	1		1
Sheet		of	1

SERVICES, INC.	SOIL BORING LOG	Silect 1 of _
Project Number 99045T01 Client AEC	Project Name 645 N. ELMWOOD	Boring No D J
Contractor CHICAGO DALLIAGGO.	WATER LEVEL	Location WEST ISLAND
	TIME	Coordinates: N
Drilling Method 214" HEA	DATE	E
F'/- 1 A	Sample Hammer: Weight 140 #	Ground Elevation
C V	Drop 30"	Deta St. 1 7/22- / 56
Logged by D. YACKO	Sampler Dimensions 2" CD SPEIT STOOP	Date Started 7/22/99 Date Completed 7/22/99
h (ft/m) le Depth tt/m) ple No. ler Type ws per /15 cm h Driven //cm) Recovered //cm) g Depth	goil DESCRIPTION	NOTES

			_	_		170	_		Date Complet	ted
Depth (ft/m)	Sample Depth (ft/m)	Sample No.	Sampler Type	Blows per 6 in/15 cm	h Driven /cm)	Length Recovered (in/cm)	Casing Depth (ft/m)	Unified Soil Classification	SOIL DESCRIPTION	NOTES AND FIELD TESTS
ept	m t	am l	μ	Blo	ngt (in	長き	isin (+	nifi	Surface Conditions:	
10	Sa	0,	Sa	- 0	Le	Lenç	రొ	- 7	STONE TY STAAL! C TOLKIER	
	-							98	STONE	
/	-	-	100		_	_		SP	BRFI-MSAND, MOIST (V. DENSE)	PID - 718 pp.
2	+	-	55	12	18	18	-		BRFI-MSAND, MOIST (VIDENSE)	- 61/10 FM-
		_		14			_	CC	BO SINCLWISA ELSA MASS	GASOLINE ODNO -
3				-					BRSI-CLW/SOFISA, MOIST (V.STIFF)	- PID = 41.0 ppm
4	-	2		1.	10	.0			(-14055 1)	-PID-41,000
1	\vdash	-	55	10	18	18			GRADES W/M. GUL -	- (ac'
5				12	_	_	_		_	
-				-		_		_	_	_
6									BORING TERMINATED (25'-	
7		3	SS						NO GW ENCOUNTERED]	
-	-		-						_	
8	_				_			-	_	
									-	-
9		4	55						7	
									-	
15	\perp									_
_				-						
11		5	SS							_
12/	+		22	-		-		-		_
12	\dashv				-			-	4	
13					-	-			_	
								_	_	
14		6	55						+	
	\perp								-	-
15	\perp			_					_	-
					_	_			T	-
										-
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RESULTS OF PHASE 2 ASSESSMENT 645 N. Elmwood Avenue Aurora, Illinois

APPENDIX 2 ANALYTICAL RESULTS

645 Elmwood Avenue Aurora, Illinois 99045T01.WK1 07/30/99

SUMMARY OF PHASE 2 ASSESSMENT SAMPLE ANALYSIS

	Param	eter (conce	ntration in	ppm)				[2]
						•••••		
			Ethyl		Total		Total	
Sample	Benzene	Toluene	Benzene	Xylenes	BTEX	PNAs	Lead	P/*
~~~~~~~~~~	~~~~	~~~~	~ ~ ~ ~	~~~~	~~~~	~~~~	~ ~ ~ ~	~ ~ ~ ~
IEPA Soil Cleanup	0.03	12.0	13.0	150.0	175.03		400.0	
Objective [1]								
B1-3 (6.0'-6.2')	0.0074	BDL	0.1280	0.0059	0.1413		6.6	Р
B2-2 (3.5'-3.7')	BDL	BDL	BDL	BDL	BDL	BDL		Р
B3-1 (1.4'-1.7')	0.1010	0.0343	0.4220	0.4860	1.0433		33.6	*

^[1] IEPA "Tiered Approach to Corrective Action Objectives (TACO)", 35 IAC Part 742, Tier 1 Corrective Action Objectives for Residential Properties, June 5, 1997.

BDL = concentration of analyte below the Reportable Detection Limit (RDL) or Practical Quantitation Limit (PQL)

^[2] P = meets all IEPA Tier 1 Corrective Action Objectives (CAOs); * = one or more IEPA Tier 1 CAO exceeded



1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233 IEPA Certification #100292

July 29, 1999

Mr. David G. Yacko
SITE ENVIRONMENTAL SERVICES, INC.
15774 South LaGrange Road, Suit 990
Orland Park IL 60462-4766

Dear Mr. Yacko:

Enclosed are the analytical results in support of the project identified Rhodes 99045T01", received by First Environmental Laboratories, Inc. on July 22, 1999. These samples were analyzed as directed on the enclosed chain of custody form.

### PROJECT SUMMARY

Analyses were performed in accordance with methods found in the USEPA publication, <u>Test Methods for Evaluating Solid Waste</u>, <u>Physical/Chemical Methods</u>, SW-846, 3rd Edition, December, 1996. Results are reported on a dry weight basis per method protocols.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods have been met. QA/QC documentation and raw data will remain on file for future reference.

I thank you for the opportunity to be of service, and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Stan Zaworski

Project Manager

1) Matterded from

Date: Page & QUICK FAX "Office Max"

To: From: /2 / Co./Depi.

Fox: Fox: Phone:

Note: E-Mail:



1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233 IEPA Certification #100292 Analytical Report

Client:

SITE ENVIRONMENTAL SERVICES

Project ID:

Rhodes 99045T01

Sample Number:

80762

Sample Description:

B1-3 (6.0'-6.2')

Date Received:

07/22/99

Date Taken:

07/22/99

Date Reported:

07/29/99

Analyte	Result	Units	Flags
Solids, Total	92.82	%	
BTEX Method 5035/8260B Analysis Date: 07/26/99			
Benzene	7.4	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	128	ug/kg	
Xylenes (total)	5.9	ug/kg	

Method 6010B

Analysis Date:

07/29/99

Lead

6.6

mg/kg



1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233 IEPA Certification #100292 Analytical Report

Client:

SITE ENVIRONMENTAL SERVICES

Project ID:

Rhodes 99045T01

Sample Number:

80763

Sample Description: B2-2 (3.5'-3.7')

Date Received:

07/22/99

Date Taken:

07/22/99

Date Reported:

07/29/99

Analyte		Result	Units	Flags
Solids, Total		87.78	%	
BTEX Method 503	35/8260B			
Analysis Date:	07/26/99			
		- 20	/1	

Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg

# Polynuclear Aromatic Compounds Method 8270C

Preparation Date:

07/25/99

Analysis Date:

07/27/99

Naphthalene	< 25	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	< 50	ug/kg
Fluorene	< 50	ug/kg
Phenanthrene	< 50	ug/kg
Anthracene	< 50	ug/kg
Fluoranthene	< 50	ug/kg
Pyrene	< 50	ug/kg
Benzo[a]anthracene	< 8.7	ug/kg
Chrysene	< 50	ug/kg
Benzo[b]fluoranthene	< 11	ug/kg
Benzo[k]fluoranthene	< 11	ug/kg
Benzo[a]pyrene	< 15	ug/kg
Indeno[1,2,3-cd]pyrene	< 29	ug/kg
Dibenz[a,h]anthracene	< 20	ug/kg
Benzo[g,h,i]perylene	< 50	ug/kg



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IEPA Certification #100292
Analytical Report

Client:

SITE ENVIRONMENTAL SERVICES

Project ID:

Rhodes 99045T01

Sample Number: Sample Description: 80764

Date Received:

07/22/99

Date Taken:

07/22/99

B3-1 (1.4'-1.7')

Date Reported:

07/29/99

Analyte

Result

Units

Flags

Solids, Total

77.66

%

BTEX Method 5035/8260B

Analysis Date:

07/26/99

101

ug/kg

Benzene Toluene

34.3

ug/kg

Ethyl benzene

422

ug/kg

Xylenes (total)

486

ug/kg

Method 6010B

Analysis Date:

07/29/99

Lead

33.6

mg/kg



COMPANY NAM

Seences +

FAX &

CHAIN OF CUSTODY RECORD IMENINE

1600 Shore Road • Naperville, Illinois 60563
Phone (630) 778-1200 • Fax (630) 778-1233
24 Hr. Pager (708) 569-7507
E-mail: firstenv@mcs.com
IFPA Certification #100292

CONTACT NAME

ADDRESS.

SAMPLED BY:

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EPA Certification #100292  EPA Certification #100292  Project I.D. Ath DES 940 4570  Send Report To: DAVI D (Archeo	SAMPLE DESCRIPTION	0930 81-3 (6.0'-6.2')	182-2-(3.5.3.7)	B3- (1.4-1.7')											
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Date/Time_ DIRECTLY Cooler Temperature: 10°C Received By: ADVANCED ENVIRONINGUITHU Preserved in: Lab Trield Date/Time_ Bir Notes and Special Instructions: Relinquished By:

Matrix Codes: S = Soil W = Water O = Other

Date/Time.

Date/Time_

Relinquished By: