



**PHASE II ENVIRONMENTAL SITE
ASSESSMENT**

Blue Rock Road and Cheviot Road North Intersection
(HAM CR-71/CR-73 1.28/1.44)

Colerain Township, Hamilton County, Ohio

PID 88788

November 30, 2012



PREPARED FOR:

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EXECUTIVE SUMMARY

This Phase II Environmental Site Assessment (ESA) has been prepared at the request of the Hamilton County Engineer's Office, under the direction of the Ohio Department of Transportation (ODOT) in accordance with the Ohio Department of Transportation Environmental Site Assessment Guidelines. The project is receiving funds from ODOT. The report investigates the car repair and sales property located at 3605 Hanley Road in Colerain Township, Hamilton County, Ohio. This property is located at the intersection of Blue Rock Road and Hanley Road and is part of the HAM CR-71/CR-73 1.28/1.44 project area. The property is currently in use as an automobile service facility operated by Mr. Roger Pott and sometimes known as Pott Automotive; it was previously a filling station.

The HAM CR-71/CR-73 1.28/1.44 project includes a proposed new alignment of Blue Rock Road to create a perpendicular intersection with Cheviot Road. The existing intersection is a signaled, three-legged Y intersection. Cheviot Road is situated generally north to south with Blue Rock Road creating an acute angle branching northwest. The purpose of the project is to provide an efficient operating intersection that allows capacity for existing and future traffic while creating desired intersection angles to meet design requirements and provide additional safety to pedestrians and motorists. The project will also enhance pedestrian access in the project area by closing an existing gap in the sidewalk network between West Galbraith Road and Benhill Drive. In order to facilitate the proposed construction in the project area, permanent right of way will be required from various parcels along both Blue Rock and Cheviot Roads.

This investigation included a geophysical survey using ground penetrating radar and subsurface soil sampling via two soil borings along the edge of the proposed right of way. The geophysical survey identified subsurface patterns that appeared to indicate the presence of a reinforced concrete pad measuring approximately 21 feet by 6 feet, with a possible underground storage tank or tanks beneath the pad. The pad is located directly west of the proposed right of way, parallel to the front of the building on site. The survey also identified a probable piping or utility run extending northeast from the southeast corner of the concrete pad at a depth of approximately two feet, as well as utility lines along the edge of the existing right of way and along the north line of the property; the latter were described as being deeply buried.

The soil borings identified soils as dense clays and silts underlain by hard soils combining clay, sand and gravel. No staining or odors were noted during drilling, although gray mottling was present at depth. One soil sample was collected from each boring based on the highest photoionization detector reading for soils within the boring. The northern of the two samples, collected in the 8- to 10-foot interval near the intersection of the shallow piping or utility run with the western edge of the right of way, detected no volatile or semi-volatile organic compounds and no petroleum hydrocarbons in the C6-C34 range at or above laboratory detection limits. The southern sample, collected in the 0- to 3-foot interval at the western edge of the right of way approximately in line with the southern end of the subsurface concrete pad, detected no volatile or semi-volatile organic compounds at or above laboratory detection limits, and only very low levels of petroleum hydrocarbons in the C20-C34 range, at 100 mg/kg. The latter may be an artifact of the asphalt pavement through which the boring was drilled, although reasonable attempts were made to exclude asphalt fragments from the sample.

Based on the geophysical survey, the underground storage tank(s) that once served the former filling station at the project site may still be present beneath a reinforced concrete pad, now covered with asphalt, parallel to the existing building. Taking into consideration the usual pattern of buried piping and utilities at a typical filling station, the possible piping extending northeast from the southeast corner of the buried concrete pad is interpreted as either an electrical conduit for a former sign or a former UST vent pipe. If the depth was interpreted correctly by the geophysical survey, the pipe is



unlikely to have carried petroleum product; such piping is generally buried more deeply to avoid frost heave.

There do not appear to be USTs in the proposed right-of-way take, and the sample results do not indicate the presence of significant contamination that would require special handling or disposal, or present a risk to human health or the environment during the HAM CR-71/CR-73 1.28/1.44 project. Therefore, no further work is recommended.



➤ INTRODUCTION

PROJECT LOCATION

The HAM CR-71/CR-73 1.28/1.44 project includes the proposed new alignment of Blue Rock Road to create a perpendicular intersection with Cheviot Road. The existing intersection is a signaled, three-legged Y intersection. Cheviot Road is situated generally north to south with Blue Rock Road creating an acute angle branching northwest.

PURPOSE AND NEED

The purpose of this project is to provide an efficiently operating intersection that allows capacity for existing and future traffic while creating desired intersection angles to meet design requirements and provide additional safety to pedestrians and motorists. In order to facilitate construction, permanent right of way will be required from various parcels along both Blue Rock and Cheviot Roads.

PROPOSED RIGHT OF WAY AND CONSTRUCTION ACTIVITIES

New right of way is proposed for 3605 Hanley Road, the project site. The proposed right of way is located on the east side of the property along Blue Rock Road, adjacent to the property's Blue Rock Road entrance drive and parallel to the area where the filling station formerly located on the property is most likely to have located its underground storage tanks.

Work at the project site will include replacement of the existing asphalt driveway apron and concrete directional island with a new concrete apron. New sidewalk will be installed along Blue Rock Road, including a curb ramp at the intersection with Hanley Road. A new curb will be installed west of and parallel with the sidewalk. A new retaining wall will be required at the corner of Blue Rock Road and Hanley Road to permit appropriate sidewalk slopes and elevations; a guard rail will be installed inside the top of the retaining wall and the existing signal pole will be relocated between the retaining wall and guard rail.

This Phase II ESA has been prepared at the request of ODOT in accordance with the Ohio Department of Transportation Environmental Site Assessment Guidelines. This project is receiving funds from ODOT.



BACKGROUND INFORMATION

PHYSICAL SETTING

The HAM CR71/CR 73 1.28/1.44 project study area is located in southwest Ohio, in Colerain Township, Hamilton County. The project corridor is located in an area that has slowly developed from agricultural and residential to mixed land use including offices, residences on large lots with large lawn and wooded areas, religious and commercial institutions and very limited light industrial uses. The project alignment is shown on the USGS location map in Appendix A. The north project terminus on Cheviot Road is located approximately 320 feet south of Galbraith Road and the north project terminus on Blue Rock Road is located approximately 1,100 feet northwest of the existing northern intersection with Cheviot Road. The south project terminus is located on Cheviot Road, approximately 255 feet south of the southern intersection with Blue Rock Road. The project includes the proposed new alignment of Blue Rock Road to create a perpendicular intersection with Cheviot Road.

The project area is located in the hilly, unglaciated portion of southwestern Ohio and rests on a ridge from which surface drainage flows northwest, west and east. Because of its location on the ridge, the roadway is fairly level within the project area, except that the northern and southern ends of the project area along Cheviot Road each slope down toward the project termini. A detention basin in the office park located north of the proposed new alignment of Blue Rock Road receives runoff from the office park and empties north, eventually flowing into a tributary of Briarly Creek to the west. Strong drainage swales near Wellington Woods Condominiums at 7630 Cheviot Road and White Oak Christian Church at the current northern intersection of Blue Rock Road with Cheviot Road flow east and southwest, respectively.

The USDA NRCS indicates soils in the project area are moderately well drained, with their slowest permeability rated as slow to impermeable. The ODNR Ground Water Resources Map for Hamilton County (1986) indicates the entire project area is dominated by bedrock of interbedded plastic shales with thin limestone layers. The ODNR Ground Water Pollution Potential Report (1994) indicates that overall, the groundwater in the study area is relatively less vulnerable to the effect of a pollutant release.

A portion of the Greater Miami Sole Source Aquifer network is located within Hamilton County. However, the project area is located more than five miles from this aquifer system. Based on the general topography of the project area and the flow of streams within this area, the near surface groundwater flow would be expected to be generally northwest to southeast.

RATIONALE FOR PHASE II ESA

Previous investigations have addressed concerns identified elsewhere in the project corridor, including at Garden Park Unity Church and White Oak Auto Care. The present investigation addresses concerns related to the past and present use of the property at 3605 Hanley Road, currently known as Pott Automotive and previously known as Blue Rock Sunoco.

The project site was undeveloped until approximately 1956, when a filling station with service bays was constructed. The station operated for approximately 15 years. Available historical records indicate the filling station use was discontinued in the early 1970s; pavement settlement cracks currently visible at the project site mirror the disturbed area noted in the front of the station on the 1976 aerial photograph that appeared to indicate the removal of the station's tanks.

Following filling station closure, the property was operated as an auto service facility with intermittent shared use as an auto sales lot. The current operator, Mr. Pott, reports that he has



operated his service facility for approximately 12 years and that an auto sales concern that previously shared the lot with him has moved out.

New permanent right of way is proposed for this property. The proposed permanent right-of-way take at this property is immediately adjacent to the presumed former UST cavity. Therefore, a phase II ESA of the project site was recommended.

CONTAMINANTS OF CONCERN

Based on current and historical activities at this property, contaminants of concern include petroleum products (i.e. gasoline, diesel, oil) and solvents. The related analytical methods selected for this Phase II ESA were identified in the August 15, 2012 memo from Timothy Hill, Administrator, Office of Environmental Services, to Steve Mary, District 8 Deputy Director. These include the following:

- > Volatile organic compounds (VOCs) by EPA SW-846 Method 8260
- > Semi-volatile organic compounds (SVOCs) by EPA SW-846 Method 8270
- > Total petroleum hydrocarbons (TPH) (C⁶-C³⁴) by EPA SW-846 Method 8015



FIELD ACTIVITIES AND SAMPLING PROCEDURES

Field activities for this project included a geophysical survey of the area between the existing right of way and the existing on-site building where the former filling station's underground storage tanks were most likely to have been located, and the installation of two soil borings along the western edge of the existing right of way adjacent to the suspected tank area.

GEOPHYSICAL SURVEY

The ground-penetrating radar (GPR) data were collected on Friday, October 19, 2012, using a GSSI SIR-3000 with a 400 MHz antenna mounted on a tri-wheel cart with integrated calibrated distance wheel. The "Utility Scan" software acquisition module on the SIR-3000 was used. Initial testing at the site revealed that a record length of 40 ns was suitable (to ~9-10ft depth depending upon the dielectric constant of the materials). Larger targets such as underground storage tanks and utilities were of primary interest to the survey, so GPR profiles were collected at a line spacing of 2.5 feet in both north-south and east-west directions across the targeted area. The area targeted was a strip of private property adjacent to the present street right of way. Automobiles were removed from the area outlined to be of interest prior to the survey. The east-west profiles were 35 feet long, beginning at a line along the seam of the lot pavement at the apparent current right-of-way boundary, and continuing westward across the paved lot almost to the building. The north-south lines were 95 feet long, covering the same area as the east-west profiles, and were also at a line spacing of 2.5 feet.

Data processing was performed using GSSI's RADAN software and included 'average trace removal' (filter removal of horizontal banding in the profiles related to ringing between the antenna and the ground surface) and application of a post filtering range gain function to boost the remaining weak reflection signals for display. The data were processed both as individual 2D profiles and also as a 3D data volume (including both east-west and north-south lines), and both a 3D time slice and 2D profiles are included in Appendix B.

Survey conditions were relatively good. The relative penetration of radar in the local earth materials was apparently good, as suggested by the detection of utilities at the north end at a depth of approximately 9 feet. Rain showers occurred during the survey, wetting the pavement, but water ponding on the surface, which would significantly diminish radar penetration, was not a problem.

SOIL BORINGS

Two soil borings were installed at 3605 Hanley Road on Monday, October 22, 2012. The soil borings were originally to have been installed in the proposed right of way. Because the proposed right of way closest to the former service station area was entirely occupied with a large conduit containing multiple fiber optic lines, the borings were placed along the western edge of the proposed right of way, as marked by a seam in the asphalt adjacent to the facility's curb cut along Blue Rock Road.

Field conditions during the soil boring work included clear skies and temperatures of around 60°F.

DRILLING AND LOGGING TECHNIQUES

The soil borings were advanced using a van-mounted hydraulic direct-push rig (Geoprobe®) equipped with a 2.25-inch inner diameter stainless steel corer and two-inch inner diameter acetate liner. No refusal or other drilling difficulties were encountered. Samples were collected in the acetate liners inserted into the corer. Samples were collected in three-foot intervals to a depth of six feet, and then in two-foot intervals.

The lithography was logged by LJB geologist Edward Council as the cores became available. Soil boring logs are available in Appendix C.



FIELD SCREENING TECHNIQUES AND RESULTS

Following logging of the lithography, the acetate liners were split open using a utility knife with a hooked blade. The areas of the soil core that came into contact with the blade were not sampled. A portion of soil from each interval was placed into a new zipper-closure plastic bag, which was sealed and set aside to await screening. After approximately ten minutes, the tip of the probe of a MiniRAE 2000 photoionization meter was inserted into each bag sequentially, allowing the probe to remain for approximately ten seconds, and the highest reading observed was recorded. The resulting readings are recorded in Table 1.

TABLE 1: FIELD SCREENING RESULTS

DEPTH BELOW SURFACE	SB-1 RESULT, PPM	SB-2 RESULT, PPM
0-3 ft	2.4	7.7
3-6 ft	1.9	5.5
6-8 ft	2.7	5.0
8-10 ft	2.9	4.0

SAMPLE TECHNIQUES

In each boring, the interval with the highest PID reading was sampled for laboratory analysis. The field geologist collected sampled soils directly from the acetate liners into the laboratory-supplied 4-ounce glass sample jars with Teflon lid liners using pre-cleaned stainless steel spoons. Soils were compacted into the jars as they were filled, resulting in completely filled jars with no air pockets. When filled, the jars were placed in a cooler on ice. Because samples could not be immediately transported to the laboratory, the samples were refrigerated at 40°F (4°C) or less until they could be delivered. During transport to the laboratory, the samples were again maintained on ice in a cooler. Samples were received by ALS Environmental on October 24, 2012.

QUALITY ASSURANCE/QUALITY CONTROL

All field equipment coming into contact with sampled soils was either new or decontaminated. New items included the acetate liners for the Geoprobe equipment, the zipper-closure bags into which screening samples were collected and the gloves worn by the soil sampler. Laboratory jars were supplied by the lab and had been pre-cleaned by the manufacturer to EPA protocol B. Gloves were changed between samples.

The Geoprobe stainless steel corers were cleaned using a distilled water and Liquinox wash and distilled water rinse. The stainless steel sampling spoons were cleaned off-site using the same procedures, and were allowed to dry before being wrapped in new aluminum foil for transport to the sampling location.

The MiniRAE 2000 photoionization detector was calibrated by the rental equipment supplier immediately before pick-up and was used during sampling the same day.

No QA/QC samples were collected due to the limited scope of the sampling event.



② FINDINGS, DATA EVALUATION AND REGULATORY INTERPRETATION

GEOPHYSICAL SURVEY RESULTS

Mapped ground-penetrating radar (GPR) survey results are provided in Appendix B. The annotated map view provided is a time slice of the 3D data cube at approximately one foot depth and clearly reveals the effect of the edge of pavement to the north and the presence of a concrete slab with rebar in the center west area of the survey. An apparent concrete slab with rebar shows up as a series of closely spaced (~6 inch) diffraction curves within an area (red) of different GPR shallow reflection amplitude. An apparent sag (blue area) in the concrete slab is suggested in its center on the time slice, and clusters of larger diffractions at depth beneath the concrete slab suggest underground storage tanks (USTs) are still present there. Evidence of USTs was not noted elsewhere in the data, although the absence of evidence is not the evidence of absence. However, the depth of penetration of the GPR is apparently good through approximately 9 feet below ground surface at the north end of the survey area where a deep east-west trending signature may indicate the presence of a utility line. This feature is annotated on the time-slice figure but best seen on the north-south 2D profile.

A line of diffractions trending northeast from the southeast corner of the concrete slab is best seen on 2D profiles; its location is also annotated on the time-slice figure. This feature appears to mark a shallow utility (pipe/conduit). Also, the east-west profiles at their east ends exhibit diffraction tails that suggest a north-south-trending utility just to the east of the surveyed area. This feature corresponds well with the fiber optic conduit identified during the soil boring work by OUPS representative Danny Baker.

BORING LOG DESCRIPTIONS

Boring logs are provided in Appendix C. In both boring locations, the asphalt pavement was approximately four inches thick. Beneath the asphalt to a depth of approximately one foot was gray sand and gravel with fines, apparently serving as base for the asphalt. Below the asphalt base, dense silty clays and clayey silts predominated to a depth of between 5 and 6 feet below ground surface. The underlying clayey sandy gravels and clayey gravelly sands were slightly moist and hard.

ANALYTICAL TEST RESULTS

ALS Environmental analyzed each soil sample submitted from the soil borings for volatile organic compounds (VOCs) by EPA SW-846 Method 8260, for semi-volatile organic compounds (SVOCs) by EPA SW-846 Method 8270C, and for total petroleum hydrocarbons (TPH) by EPA SW-846 Methods 8015A (gasoline range, C6-C12) and 8015B (diesel range, C10-C20, and oil range, C20-C34). Analytical results are provided in Table 2. The only chemical of concern detected at levels greater than the laboratory detection level was oil-range TPH (C20-C34), detected only in sample B-2 at 100 mg/kg. The laboratory report is provided in Appendix D.

TABLE 2: SOIL SAMPLE ANALYTICAL RESULTS

ANALYTE	B-1	B-2	ANALYTE	B-1	B-2
TPH, mg/kg			SVOCs, µg/kg		
TPH C6-C12	<2.3	<2.3	Acenaphthene	<380	<380
TPH C10-C20	<17	<17	Acenaphthylene	<380	<380
TPH C20-C34	<17	100	Acetophenone	<380	<380
			2-Acetylaminofluorene	<380	<380
VOCs, µg/kg			4-Aminobiphenyl	<750	<750
Acetone	<5.7	<5.7	Aniline	<380	<380
Benzene	<5.7	<5.7	Anthracene	<380	<380



ANALYTE	B-1	B-2	ANALYTE	B-1	B-2
VOCs, continued			SVOCs, continued		
Bromobenzene	<5.7	<5.7	Azobenzene	<380	<380
Bromochloromethane	<5.7	<5.7	Benzidine	<380	<380
Bromodichloromethane	<5.7	<5.7	Benzo(a)anthracene	<380	<380
Bromoform	<5.7	<5.7	Benzo(a)pyrene	<380	<380
Bromomethane	<5.7	<5.7	Benzo(b)fluoranthene	<380	<380
2-Butanone	<5.7	<5.7	Benzyl alcohol	<750	<750
n-Butylbenzene	<5.7	<5.7	Bis(2-chloroethoxy) methane	<380	<380
sec-Butylbenzene	<5.7	<5.7	Bis(2-chloroethyl)ether	<380	<380
tert-Butylbenzene	<5.7	<5.7	Bis(2-chloroisopropyl) ether	<380	<380
Carbon disulfide	<5.7	<5.7	Bis(2-ethylhexyl) phthalate	<380	<380
Carbon tetrachloride	<5.7	<5.7	4-Bromophenyl phenyl ether	<380	<380
Chlorobenzene	<5.7	<5.7	Butyl benzyl phthalate	<380	<380
Chloroethane	<5.7	<5.7	Carbazole	<380	<380
Chloroform	<5.7	<5.7	4-Chloro-3-methylphenol	<750	<750
Chloromethane	<5.7	<5.7	4-Chloroaniline	<750	<750
2-Chlorotoluene	<5.7	<5.7	2-Chloronaphthalene	<380	<380
4-Chlorotoluene	<5.7	<5.7	2-Chlorophenol	<380	<380
1,2-Dibromo-3-chloropropane	<5.7	<5.7	4-Chlorophenyl phenyl ether	<380	<380
Dibromochloromethane	<5.7	<5.7	Chrysene	<380	<380
1,2-Dibromoethane	<5.7	<5.7	Dibenzo(a,h)anthracene	<380	<380
Dibromomethane	<5.7	<5.7	Dibenzofuran	<380	<380
1,2-Dichlorobenzene	<5.7	<5.7	Di-n-butyl phthalate	<380	<380
1,3-Dichlorobenzene	<5.7	<5.7	1,2-Dichlorobenzene	<380	<380
1,4-Dichlorobenzene	<5.7	<5.7	1,3-Dichlorobenzene	<380	<380
Dichlorodifluoromethane	<5.7	<5.7	1,4-Dichlorobenzene	<380	<380
1,1-Dichloroethane	<5.7	<5.7	3,3'-Dichlorobenzidine	<750	<750
1,2-Dichloroethane	<5.7	<5.7	2,4-Dichlorophenol	<380	<380
1,1-Dichloroethene	<5.7	<5.7	2,6-Dichlorophenol	<380	<380
cis-1,2-Dichloroethene	<5.7	<5.7	Diethyl phthalate	<380	<380
trans-1,2-Dichloroethene	<5.7	<5.7	Dimethyl phthalate	<380	<380
1,2-Dichloropropane	<5.7	<5.7	p-Dimethylaminoazobenzene	<380	<380
1,3-Dichloropropane	<5.7	<5.7	7,12-Dimethylbenz(a) anthracene	<380	<380
2,2-Dichloropropane	<5.7	<5.7	2,4-Dimethylphenol	<380	<380
1,1-Dichloropropene	<5.7	<5.7	1,3-Dinitrobenzene	<380	<380
cis-1,3-Dichloropropene	<5.7	<5.7	4,6-Dinitro-2-methylphenol	<1,900	<1,900
trans-1,3-Dichloropropene	<5.7	<5.7	2,4-Dinitrophenol	<1,900	<1,900
Ethylbenzene	<5.7	<5.7	2,4-Dinitrotoluene	<380	<380
Hexachlorobutadiene	<5.7	<5.7	2,6-Dinitrotoluene	<380	<380
2-Hexanone	<5.7	<5.7	Di-n-octyl phthalate	<380	<380
Isopropylbenzene	<5.7	<5.7	Dinoseb	<380	<380
p-Isopropyltoluene	<5.7	<5.7	Diphenylamine	<380	<380
4-Methyl-2-pentanone	<5.7	<5.7	Ethyl methanesulfonate	<380	<380
Methyl tert-butyl ether	<5.7	<5.7	Fluoranthene	<380	<380
Methylene chloride	<5.7	<5.7	Fluorene	<380	<380
Naphthalene	<5.7	<5.7	Hexachlorobenzene	<380	<380
n-Propylbenzene	<5.7	<5.7	Hexachlorobutadiene	<380	<380
Styrene	<5.7	<5.7	Hexachlorocyclopentadiene	<380	<380
1,1,1,2-Tetrachloroethane	<5.7	<5.7	Hexachloroethane	<380	<380
1,1,2,2-Tetrachloroethane	<5.7	<5.7	Indeno(1,2,3-cd)pyrene	<170	<170



ANALYTE	B-1	B-2	ANALYTE	B-1	B-2
VOCs, continued			SVOCs, continued		
Tetrachloroethene	<5.7	<5.7	Isophorone	<380	<380
1,2,3-Trichlorobenzene	<5.7	<5.7	Isosafrole	<380	<380
1,2,4-Trichlorobenzene	<5.7	<5.7	Methapyrilene	<380	<380
1,1,1-Trichloroethane	<5.7	<5.7	Methyl methanesulfonate	<380	<380
1,1,2-Trichloroethane	<5.7	<5.7	3-Methylcholanthrene	<380	<380
Trichloroethene	<5.7	<5.7	1-Methylnaphthalene	<380	<380
Trichlorofluoromethane	<5.7	<5.7	2-Methylnaphthalene	<380	<380
1,2,4-Trimethylbenzene	<5.7	<5.7	2-Methylphenol	<380	<380
1,3,5-Trimethylbenzene	<5.7	<5.7	3&4-Methylphenol	<380	<380
1,2,3-Trichloropropane	<5.7	<5.7	Naphthalene	<380	<380
Toluene	<5.7	<5.7	1-Naphthylamine	<380	<380
Vinyl chloride	<5.7	<5.7	2-Naphthylamine	<380	<380
m,p-Xylene	<5.7	<5.7	2-Nitroaniline	<1,900	<1,900
o-Xylene	<5.7	<5.7	3-Nitroaniline	<1,900	<1,900
Xylenes, total	<5.7	<5.7	4-Nitroaniline	<750	<750
			Nitrobenzene	<380	<380
			5-Nitro-o-toluidine	<380	<380
			2-Nitrophenol	<380	<380
			4-Nitrophenol	<1,900	<1,900
			4-Nitroquinoline 1-oxide	<380	<380
			N-Nitrosodiethylamine	<380	<380
			N-Nitrosodimethylamine	<380	<380
			N-Nitroso-di-n-butylamine	<380	<380
			N-Nitroso-n-propylamine	<380	<380
			N-Nitrosomethylethylamine	<380	<380
			N-Nitrosomorpholine	<380	<380
			N-Nitrosopiperidine	<380	<380
			N-Nitrosopyrrolidine	<380	<380
			Pentachlorobenzene	<380	<380
			Pentachloroethane	<380	<380
			Pentachloronitrobenzene	<750	<750
			Pentachlorophenol	<1,900	<1,900
			Phenacetin	<750	<750
			Phenanthrene	<380	<380
			Phenol	<380	<380
			2-Picoline	<380	<380
			Pyrene	<380	<380
			Pyridine	<380	<380
			Safrole	<380	<380
			1,2,4,5-Tetrachlorobenzene	<380	<380
			2,3,4,6-Tetrachlorophenol	<380	<380
			1,2,4-Trichlorobenzene	<380	<380
			2,4,5-Trichlorophenol	<380	<380
			2,4,6-Trichlorophenol	<380	<380
			o-Toluidine	<380	<380



QUALITY ASSURANCE/QUALITY CONTROL

VOCs and SVOCs were analyzed on October 26, 2012, gasoline range TPH was analyzed on October 29, 2012 and diesel and oil range TPH were analyzed on October 30, 2012. All analyses were performed within the holding times allowed by the respective analytical methods.

Standard laboratory QA/QC procedures were used by the laboratory. The laboratory report indicated that the matrix spike duplicate (MSD) sample generated by the laboratory as part of the diesel and oil range total petroleum hydrocarbon analysis by EPA SW-846 Method 8015B failed due to the high TPH concentration in the sample. The sample used for the MSD analysis was from a different set of samples, as is common practice when laboratories receive multiple sample sets from sites with small numbers of samples. Because all other QA/QC checks for the laboratory samples were within data objectives, this failure does not indicate a concern with the TPH results for the project site's samples.

CONCLUSIONS AND RECOMMENDATIONS

The former filling station at 3605 Hanley Road within the HAM CR-71/CR-73 1.28/1.44 project area has been out of service since the early 1970s. A geophysical survey of the eastern (front) portion of the facility performed using ground penetrating radar identified a reinforced concrete pad that has been paved over by asphalt. Beneath the concrete pad, the survey tentatively identified large objects resembling underground storage tanks. Extending northeast from near the pad's southeast corner, the survey identified a shallow pipe or conduit. Based on the survey results, it appears that the underground storage tanks for the filling station were not removed when the station was taken out of service, and that some of the electrical conduit for lighting or signs at the station remains in place. Only this conduit or pipe crosses the proposed additional right-of-way take for the HAM CR-71/CR-73 1.28/1.44 project.

Two soil borings installed within the proposed right of way to a depth of ten feet each identified soils consisting primarily of silts and clays. The soils from each boring were screened for volatile organic compounds using a photoionization detector and were found to have only very low levels of such compounds; no staining or odors were present although the deeper soils were mottled gray. The soil sample from the 8- to 10-foot interval in the northern of the two borings was submitted for laboratory analysis and showed no detectable levels of volatile or semi-volatile organic compounds or total petroleum hydrocarbons in the gasoline, diesel or oil ranges. The soil sample from the 0- to 3-foot interval in the southern boring similarly showed no detectable levels of volatile or semi-volatile organic compounds or gasoline- or diesel-range petroleum hydrocarbons. The laboratory detected oil-range petroleum hydrocarbons (C20-C34) at 100 mg/kg in the latter sample. This level is well below the Ohio Bureau of Underground Storage Tank Regulations (BUSTR) petroleum-contaminated soil re-use action level for oil-range petroleum hydrocarbons of 5,000 mg/kg.

Based on the results of this phase II environmental site assessment, LJB recommends no further investigation at the 3605 Hanley Road site. Conditions do not appear to warrant a plan note for this location, although the abandoned piping should be added to project plans.

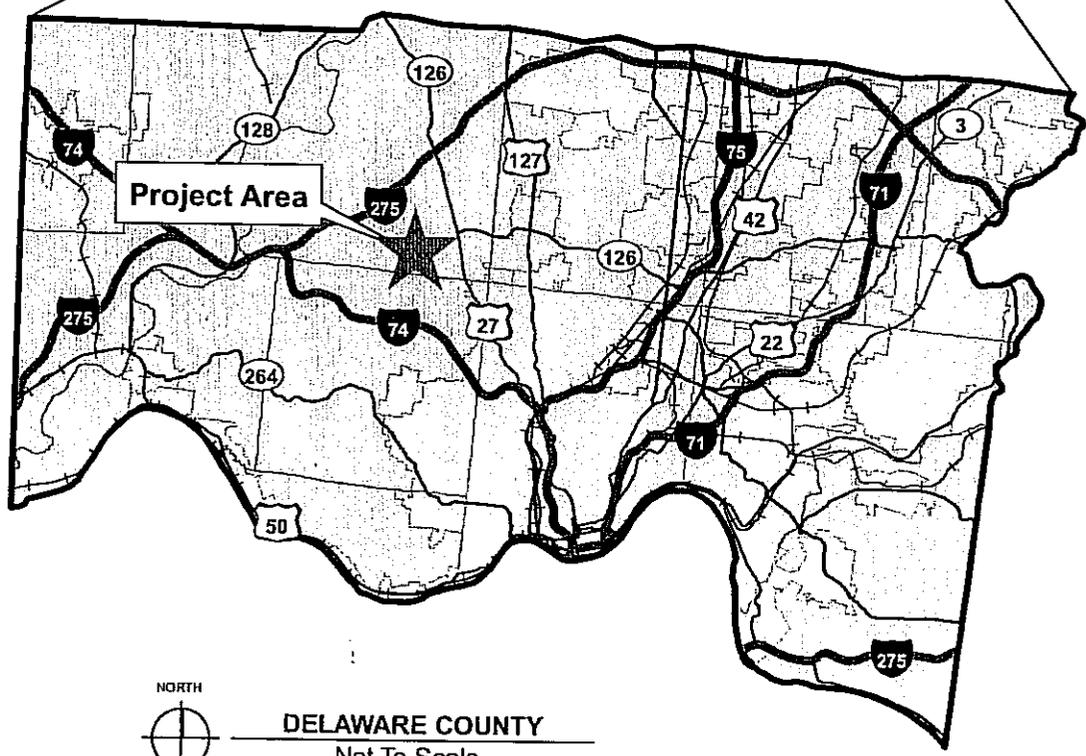




APPENDIX A



OHIO
Not To Scale



DELAWARE COUNTY
Not To Scale

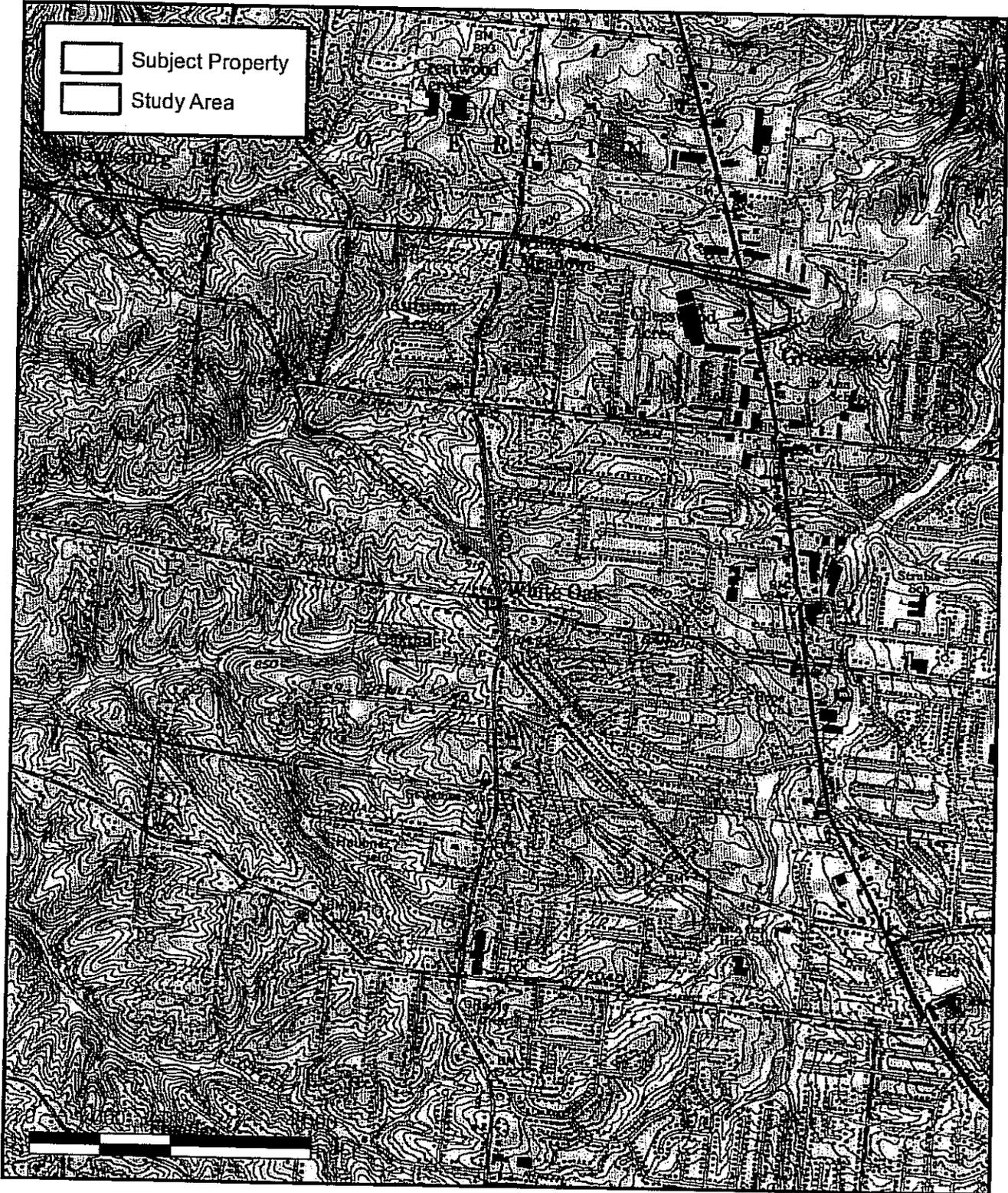
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Miami, OH 45342
(937) 259-5000 tel • (937) 259-5100 fax • ljbinc.com

HAM CR-71/CR73 1.28/1.44
Hamilton County, Ohio
County Location Map



Subject Property

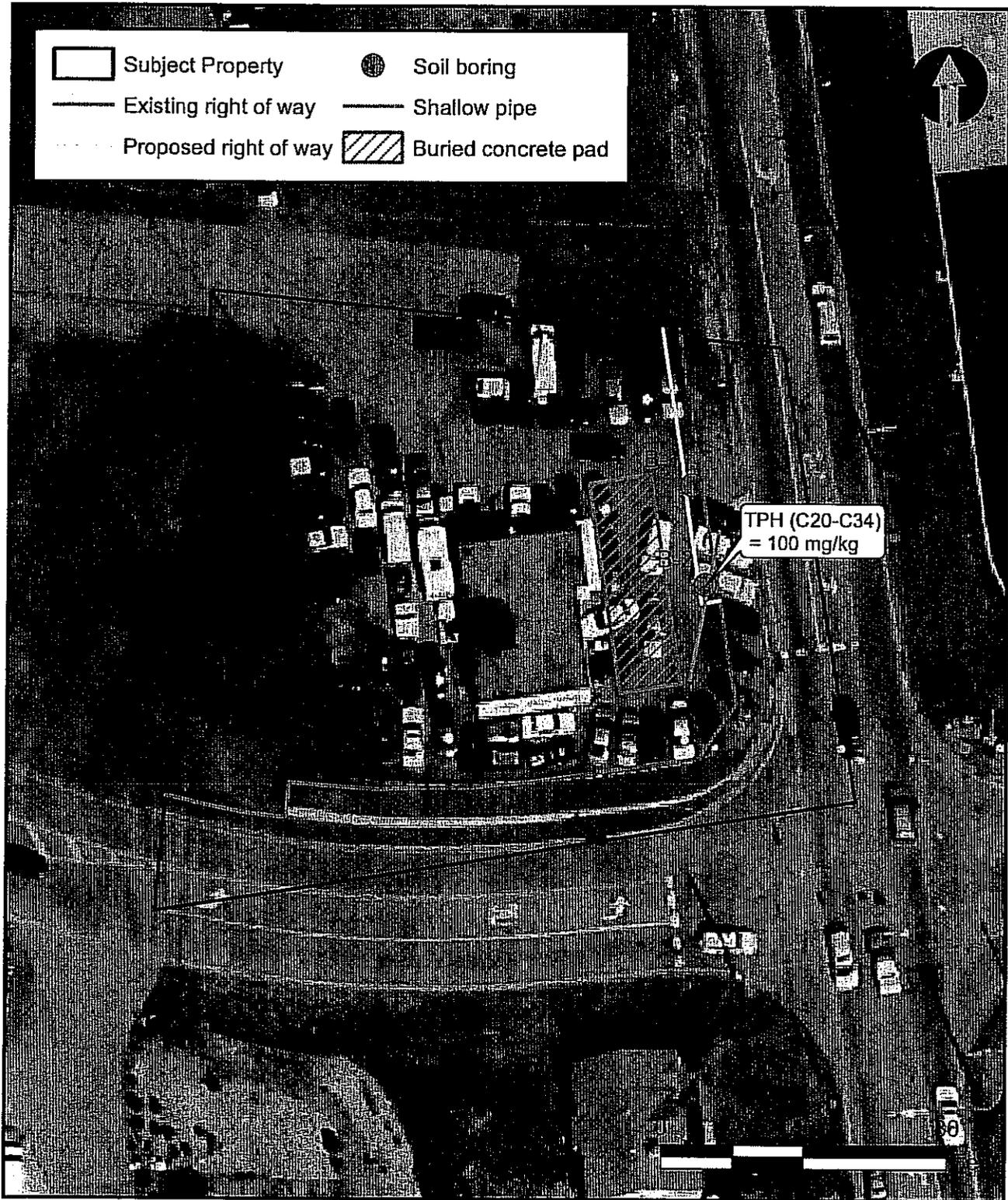
Study Area



LJB Inc. • 3100 Research Blvd. • P.O. Box 20246
Dayton, OH 45420-0246
(937) 259-5000 tel • (937) 259-5100 fax • ljbinc.com

USGS 7.5' Topographic Map
3605 Hanley Road

HAM-CR-71/CR-73-1.28/1.44
Colerain Twp., Hamilton County, Ohio



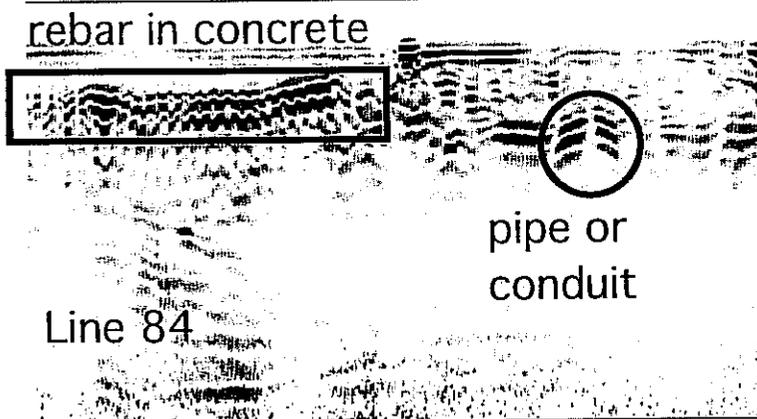
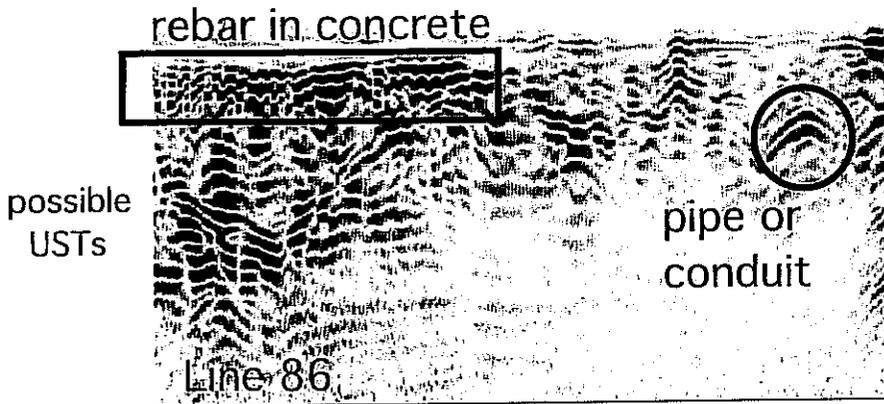
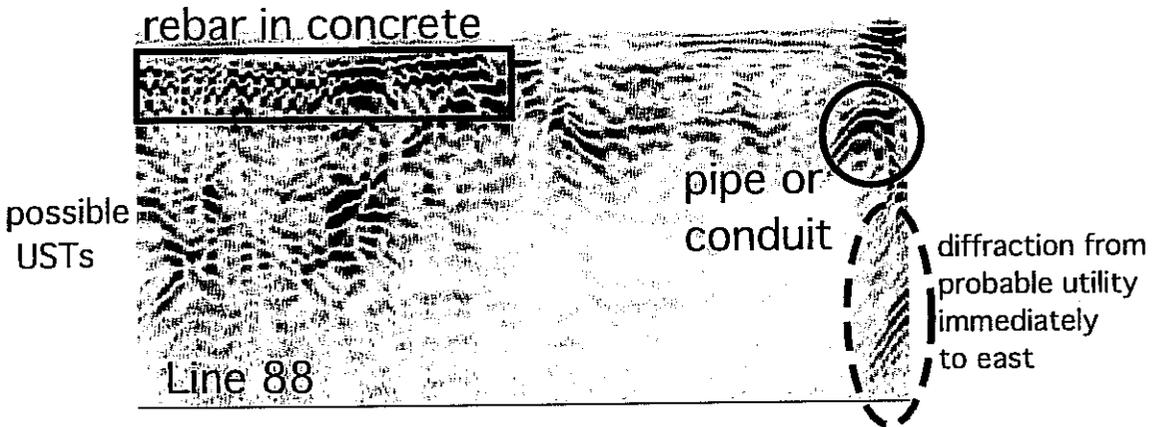
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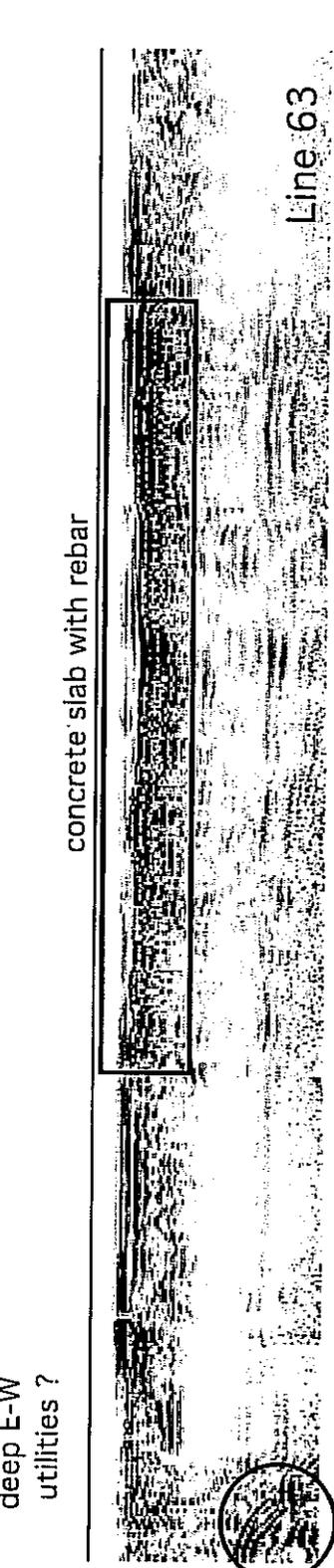
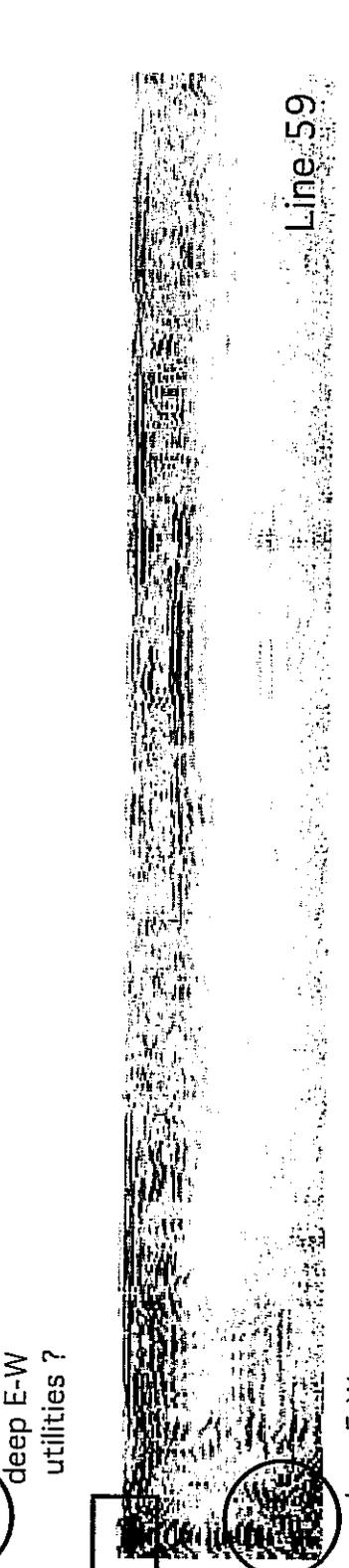
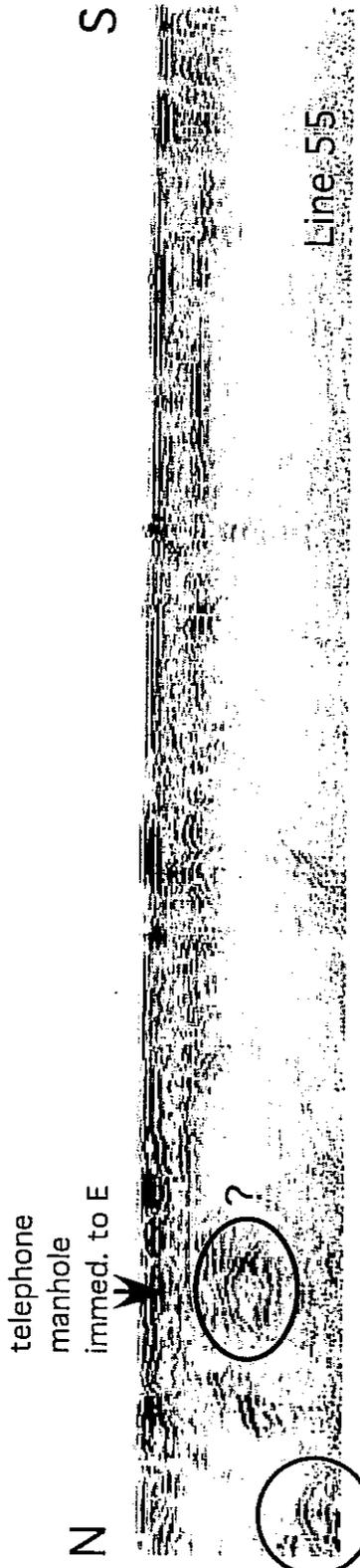
Site Map and Phase II ESA Findings
3605 Hanley Road
 HAM-CR-71/CR-73-1.28/1.44
 Colerain Twp., Hamilton County, Ohio



APPENDIX B

W profiles 5 ft apart E





telephone manhole immed. to E

N

S

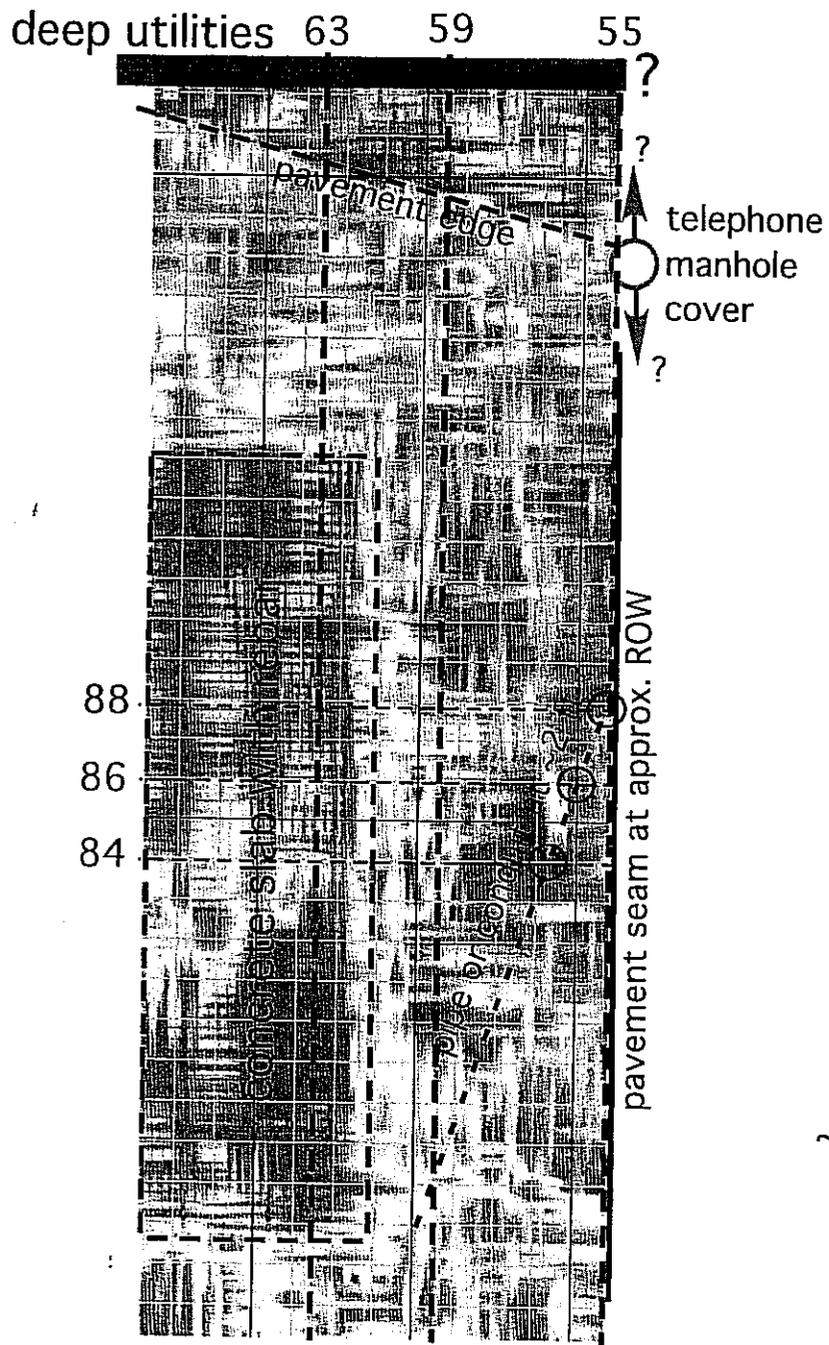
deep E-W utilities ?

surface utility access cover

deep E-W utilities ?

concrete slab with rebar

deep E-W utilities ?



time slice @ approx. 1 ft depth



APPENDIX C



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 Miamisburg, OH 45342
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 LJBInc.com

LOG OF BORING B-1

(Page 1 of 1)

HAM-CR71/CR73-1.28/1.44
3605 Hanley Rd., Colerain Twp.
Phase II Site Investigation

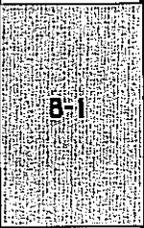
Date Started **10/22/12**
 Date Completed **10/22/12**
 Hole Diameter **2"**
 Drilling Method **GEOPROBE**
 Sampling Method **MACRO-CORE**

Northing Coord.
 Easting Coord.
 Logged By **EAC**
 Drilled By **FORE TESTING & DRILLING**
 Bottom of Boring **10 FEET**

Project #0105848A.00

Depth In Feet	Layer Thickness Ft.	GRAPHIC	DESCRIPTION	Blow Count	% Recovery	PID (ppm)	Samples Selected for Analysis
0	0.3		ASPHALT				
0.8	0.8		GRAY CLAYEY SANDY GRAVEL AND CLAYEY GRAVELLY SAND, PLASTIC, MOIST, DENSE		53%	2.4	
1			GRAY SILTY CLAY - CLAYEY SILT, PLASTIC, MOIST, DENSE				
2							
3	4.9		BECOMES MOTTLED BROWN-GRAY		94%	1.9	
4							
5							
6			CLAYEY SANDY GRAVEL - CLAYEY GRAVELLY SAND SLIGHTLY MOIST, HARD		100%	2.7	
7							
8	4.0				100%	2.9	
9							
10							

BOTTOM OF BORING @ 10 FT.



B-1



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 (937) 259-5000 tel • (937) 259-5100 fax
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LOG OF BORING B-2

(Page 1 of 1)

HAM-CR71/CR73-1.28/1.44
 3605 Hanley Rd., Colerain Twp.
 Phase II Site Investigation

Date Started 10/22/12
 Date Completed 10/22/12
 Hole Diameter 2"
 Drilling Method GEOPROBE
 Sampling Method MACRO-CORE

Northing Coord.
 Easting Coord.
 Logged By EAC
 Drilled By FORE TESTING & DRILLING
 Bottom of Boring 10 FEET

Project #0105848A.00

Depth In Feet	Layer Thickness Ft.	GRAPHIC	DESCRIPTION	Blow Count	% Recovery	PID (ppm)	Samples Selected for Analysis
0	0.3		ASPHALT				
0.3	0.8		GRAY CLAYEY SANDY GRAVEL AND CLAYEY GRAVELLY SAND, PLASTIC, MOIST, DENSE		53%	7.7	B-2
1.1			GRAY SILTY CLAY - CLAYEY SILT, PLASTIC MOIST, DENSE				
1.9	6.6		BECOMES MOTTLED BROWN-GRAY		94%	5.5	
8.5	2.3		CLAYEY SANDY GRAVEL - CLAYEY GRAVELLY SAND		100%	5.0	
10.8					100%	4.0	

BOTTOM OF BORING @ 10 FT.



APPENDIX D



31-Oct-2012

Edward Council
LJB Inc.
3100 Research Blvd.
Dayton, OH 45420

Tel: (937) 259-5000
Fax: (937) 259-5100

Re:

Work Order: 1210563

Dear Edward,

ALS Environmental received 2 samples on 24-Oct-2012 01:55 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 29.

If you have any questions regarding this report, please feel free to contact me.

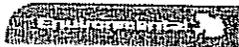
Sincerely,

Chris Gibson

Electronically approved by: Jim Baxter

Chris Gibson
Project Manager

ADDRESS 4388 Glendale Milford Rd Cincinnati, Ohio 45242 | PHONE (513) 733-5336 | FAX (513) 733-5347
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company



www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNERS

Client: LJB Inc.

Project:

Work Order: 1210563

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Dat</u>	<u>Date Received</u>	<u>Hold</u>
1210563-01	1	Soil		10/22/2012	10/24/2012 13:5	<input type="checkbox"/>
1210563-02	2	Soil		10/22/2012	10/24/2012 13:5	<input type="checkbox"/>

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

Project:

Work Order: 1210563

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected.

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 1

Lab ID: 1210563-01

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			SW8015B		Prep Date: 10/29/2012	Analyst: SAD
TPH C10-C20	ND		17	mg/Kg-dry	1	10/30/2012
TPH C20-C34	ND		17	mg/Kg-dry	1	10/30/2012
Surr: Nonane	54.9		26.9-74.3	%REC	1	10/30/2012
Surr: Pentacosane	90.3		48.9-129	%REC	1	10/30/2012
GASOLINE RANGE ORGANICS (C6-C12)			SW8015A			Analyst: TJH
TPH C6-C12	ND		2.3	mg/Kg-dry	1	10/29/2012 07:00 PM
Surr: Cyclooctane	91.9		55-135	%REC	1	10/29/2012 07:00 PM
MOISTURE			SM2540B		Prep Date: 10/24/2012	Analyst: YCL
Moisture	12		0.010	% of sample	1	10/24/2012
SEMI-VOLATILE ORGANIC COMPOUNDS			SW8270C		Prep Date: 10/26/2012	Analyst: JCL
1,2,4,5-Tetrachlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
1,2,4-Trichlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
1,2-Dichlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
1,3-Dichlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
1,3-Dinitrobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
1,4-Dichlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
1-Methylnaphthalene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
1-Naphthylamine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2,3,4,6-Tetrachlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2,4,5-Trichlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2,4,6-Trichlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2,4-Dichlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2,4-Dimethylphenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2,4-Dinitrophenol	ND		1,900	µg/Kg-dry	1	10/26/2012 05:46 PM
2,4-Dinitrotoluene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2,6-Dichlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2,6-Dinitrotoluene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Acetylaminofluorene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Chloronaphthalene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Chlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Methylnaphthalene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Methylphenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Naphthylamine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Nitroaniline	ND		1,900	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Nitrophenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
2-Picoline	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
3&4-Methylphenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM

Note:

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 1

Lab ID: 1210563-01

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		750	µg/Kg-dry	1	10/26/2012 05:46 PM
3-Methylcholanthrene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
3-Nitroaniline	ND		1,900	µg/Kg-dry	1	10/26/2012 05:46 PM
4,6-Dinitro-2-methylphenol	ND		1,900	µg/Kg-dry	1	10/26/2012 05:46 PM
4-Aminobiphenyl	ND		750	µg/Kg-dry	1	10/26/2012 05:46 PM
4-Bromophenyl phenyl ether	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
4-Chloro-3-methylphenol	ND		750	µg/Kg-dry	1	10/26/2012 05:46 PM
4-Chloroaniline	ND		750	µg/Kg-dry	1	10/26/2012 05:46 PM
4-Chlorophenyl phenyl ether	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
4-Nitroaniline	ND		750	µg/Kg-dry	1	10/26/2012 05:46 PM
4-Nitrophenol	ND		1,900	µg/Kg-dry	1	10/26/2012 05:46 PM
4-Nitroquinoline 1-oxide	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
5-Nitro-o-toluidine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
7,12-Dimethylbenz(a)anthracene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Acenaphthene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Acenaphthylene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Acetophenone	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Aniline	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Anthracene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Azobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Benzidine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Benzo(a)anthracene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Benzo(a)pyrene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Benzo(b)fluoranthene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Benzo(g,h,i)perylene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Benzo(k)fluoranthene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Benzyl alcohol	ND		750	µg/Kg-dry	1	10/26/2012 05:46 PM
Bis(2-chloroethoxy)methane	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Bis(2-chloroethyl)ether	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Bis(2-chloroisopropyl)ether	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Bis(2-ethylhexyl)phthalate	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Butyl benzyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Carbazole	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Chrysene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Dibenzo(a,h)anthracene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Dibenzofuran	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Diethyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Dimethyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Di-n-butyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Di-n-octyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM

Note:

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 1

Lab ID: 1210563-01

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dinoseb	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Diphenylamine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Ethyl methanesulfonate	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Fluoranthene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Fluorene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Hexachlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Hexachlorobutadiene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Hexachlorocyclopentadiene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Hexachloroethane	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Indeno(1,2,3-cd)pyrene	ND		170	µg/Kg-dry	1	10/26/2012 05:46 PM
Isophorone	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Isosafrole	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Methapyrilene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Methyl methanesulfonate	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Naphthalene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Nitrobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
N-Nitrosodiethylamine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
N-Nitrosodimethylamine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
N-Nitroso-di-n-butylamine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
N-Nitrosodi-n-propylamine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
N-Nitrosomethylethylamine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
N-Nitrosomorpholine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
N-Nitrosopiperidine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
N-Nitrosopyrrolidine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
o-Toluidine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
p-Dimethylaminoazobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Pentachlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Pentachloroethane	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Pentachloronitrobenzene	ND		750	µg/Kg-dry	1	10/26/2012 05:46 PM
Pentachlorophenol	ND		1,900	µg/Kg-dry	1	10/26/2012 05:46 PM
Phenacetin	ND		750	µg/Kg-dry	1	10/26/2012 05:46 PM
Phenanthrene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Phenol	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Pyrene	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Pyridine	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Safrole	ND		380	µg/Kg-dry	1	10/26/2012 05:46 PM
Surr: 2,4,6-Tribromophenol	74.5		18-115	%REC	1	10/26/2012 05:46 PM
Surr: 2-Fluorobiphenyl	73.4		30-116	%REC	1	10/26/2012 05:46 PM
Surr: 2-Fluorophenol	59.6		24-105	%REC	1	10/26/2012 05:46 PM
Surr: 4-Terphenyl-d14	68.8		40-127	%REC	1	10/26/2012 05:46 PM

Note:

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 1

Lab ID: 1210563-01

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Nitrobenzene-d5	78.2		32-106	%REC	1	10/26/2012 05:46 PM
Surr: Phenol-d5	67.8		39-123	%REC	1	10/26/2012 05:46 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
2-Butanone	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Acetone	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Benzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Bromoform	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Chloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM

Note:

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 1

Lab ID: 1210563-01

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
m,p-Xylene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Methylene chloride	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Styrene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Tetrachloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Toluene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Trichloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Xylenes, Total	ND		5.7	µg/Kg-dry	1	10/26/2012 08:44 PM
Surr: 4-Bromofluorobenzene	104		62.7-159	%REC	1	10/26/2012 08:44 PM
Surr: Dibromofluoromethane	109		88.2-133	%REC	1	10/26/2012 08:44 PM
Surr: Toluene-d8	101		81.5-110	%REC	1	10/26/2012 08:44 PM

Note:

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 2

Lab ID: 1210563-02

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			SW8015B		Prep Date: 10/29/2012	Analyst: SAD
TPH C10-C20	ND		17	mg/Kg-dry	1	10/30/2012
TPH C20-C34	100		17	mg/Kg-dry	1	10/30/2012
<i>Surr: Nonane</i>	50.5		26.9-74.3	%REC	1	10/30/2012
<i>Surr: Pentacosane</i>	89.8		48.9-129	%REC	1	10/30/2012
GASOLINE RANGE ORGANICS (C6-C12)			SW8015A			Analyst: TJH
TPH C6-C12	ND		2.3	mg/Kg-dry	1	10/29/2012 07:30 PM
<i>Surr: Cyclooctane</i>	88.1		55-135	%REC	1	10/29/2012 07:30 PM
MOISTURE			SM2540B		Prep Date: 10/24/2012	Analyst: YCL
Moisture	12		0.010	% of sample	1	10/24/2012
SEMI-VOLATILE ORGANIC COMPOUNDS			SW8270C		Prep Date: 10/26/2012	Analyst: JCL
1,2,4,5-Tetrachlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
1,2,4-Trichlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
1,2-Dichlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
1,3-Dichlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
1,3-Dinitrobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
1,4-Dichlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
1-Methylnaphthalene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
1-Naphthylamine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2,3,4,6-Tetrachlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2,4,5-Trichlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2,4,6-Trichlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2,4-Dichlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2,4-Dimethylphenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2,4-Dinitrophenol	ND		1,900	µg/Kg-dry	1	10/26/2012 06:20 PM
2,4-Dinitrotoluene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2,6-Dichlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2,6-Dinitrotoluene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Acetylaminofluorene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Chloronaphthalene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Chlorophenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Methylnaphthalene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Methylphenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Naphthylamine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Nitroaniline	ND		1,900	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Nitrophenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
2-Picoline	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
3&4-Methylphenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM

Note:

Client: LJB Inc.
 Project:
 Sample ID: 2
 Collection Date: 10/22/2012

Work Order: 1210563
 Lab ID: 1210563-02
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		750	µg/Kg-dry	1	10/26/2012 06:20 PM
3-Methylcholanthrene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
3-Nitroaniline	ND		1,900	µg/Kg-dry	1	10/26/2012 06:20 PM
4,6-Dinitro-2-methylphenol	ND		1,900	µg/Kg-dry	1	10/26/2012 06:20 PM
4-Aminobiphenyl	ND		750	µg/Kg-dry	1	10/26/2012 06:20 PM
4-Bromophenyl phenyl ether	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
4-Chloro-3-methylphenol	ND		750	µg/Kg-dry	1	10/26/2012 06:20 PM
4-Chloroaniline	ND		750	µg/Kg-dry	1	10/26/2012 06:20 PM
4-Chlorophenyl phenyl ether	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
4-Nitroaniline	ND		750	µg/Kg-dry	1	10/26/2012 06:20 PM
4-Nitrophenol	ND		1,900	µg/Kg-dry	1	10/26/2012 06:20 PM
4-Nitroquinoline 1-oxide	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
5-Nitro-o-toluidine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
7,12-Dimethylbenz(a)anthracene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Acenaphthene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Acenaphthylene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Acetophenone	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Aniline	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Anthracene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Azobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Benzidine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Benzo(a)anthracene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Benzo(a)pyrene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Benzo(b)fluoranthene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Benzo(g,h,i)perylene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Benzo(k)fluoranthene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Benzyl alcohol	ND		750	µg/Kg-dry	1	10/26/2012 06:20 PM
Bis(2-chloroethoxy)methane	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Bis(2-chloroethyl)ether	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Bis(2-chloroisopropyl)ether	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Bis(2-ethylhexyl)phthalate	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Butyl benzyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Carbazole	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Chrysene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Dibenzo(a,h)anthracene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Dibenzofuran	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Diethyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Dimethyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Di-n-butyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Di-n-octyl phthalate	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM

Note:

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 2

Lab ID: 1210563-02

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dinoseb	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Diphenylamine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Ethyl methanesulfonate	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Fluoranthene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Fluorene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Hexachlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Hexachlorobutadiene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Hexachlorocyclopentadiene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Hexachloromethane	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Indeno(1,2,3-cd)pyrene	ND		170	µg/Kg-dry	1	10/26/2012 06:20 PM
Isophorone	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Isosafrole	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Methapyrene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Methyl methanesulfonate	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Naphthalene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Nitrobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
N-Nitrosodiethylamine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
N-Nitrosodimethylamine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
N-Nitroso-di-n-butylamine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
N-Nitrosodi-n-propylamine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
N-Nitrosomethylethylamine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
N-Nitrosomorpholine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
N-Nitrosopiperidine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
N-Nitrosopyrrolidine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
o-Toluidine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
p-Dimethylaminoazobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Pentachlorobenzene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Pentachloroethane	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Pentachloronitrobenzene	ND		750	µg/Kg-dry	1	10/26/2012 06:20 PM
Pentachlorophenol	ND		1,900	µg/Kg-dry	1	10/26/2012 06:20 PM
Phenacetin	ND		750	µg/Kg-dry	1	10/26/2012 06:20 PM
Phenanthrene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Phenol	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Pyrene	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Pyridine	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Safrole	ND		380	µg/Kg-dry	1	10/26/2012 06:20 PM
Surr: 2,4,6-Tribromophenol	79.4		18-115	%REC	1	10/26/2012 06:20 PM
Surr: 2-Fluorobiphenyl	74.0		30-116	%REC	1	10/26/2012 06:20 PM
Surr: 2-Fluorophenol	57.2		24-105	%REC	1	10/26/2012 06:20 PM
Surr: 4-Terphenyl-d14	62.1		40-127	%REC	1	10/26/2012 06:20 PM

Note:

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 2

Lab ID: 1210563-02

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Nitrobenzene-d5	76.9		32-106	%REC	1	10/26/2012 06:20 PM
Surr: Phenol-d5	68.0		39-123	%REC	1	10/26/2012 06:20 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: LAK
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
2-Butanone	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Acetone	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Benzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Bromoform	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Chloroethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM

Note:

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

Project:

Work Order: 1210563

Sample ID: 2

Lab ID: 1210563-02

Collection Date: 10/22/2012

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
m,p-Xylene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Methylene chloride	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Styrene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Tetrachloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Toluene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Trichloroethene	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Xylenes, Total	ND		5.7	µg/Kg-dry	1	10/26/2012 09:15 PM
Surr: 4-Bromofluorobenzene	99.9		62.7-159	%REC	1	10/26/2012 09:15 PM
Surr: Dibromofluoromethane	114		88.2-133	%REC	1	10/26/2012 09:15 PM
Surr: Toluene-d8	94.8		81.5-110	%REC	1	10/26/2012 09:15 PM

Note:

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.
Project:
Work Order: 1210563

Analytical Comments

Method	Type:	SampID	SeqNo	Analysis	Comments
Batch SW8015B	Analysis	1210623-03BMSD	522633	Diesel Range Organics and Oil Range Organ	MSD fails due to high TPH concentration in sample.

ALS Environmental

Date: 31-Oct-12

Client: LJB Inc.

QC BATCH REPORT

Work Order: 1210563

Project:

Batch ID: 13859 Instrument ID GC8 Method: SW8015B

MBLK	Sample ID: MBLK-13859-13859					Units: mg/Kg	Analysis Date: 10/30/2012			
Client ID:	Run ID: GC8_121030A					SeqNo: 522625	Prep Date: 10/29/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	ND	15								
TPH C10-C20	ND	15								
TPH C20-C34	ND	15								
Surr: Nonane	4.563	0	8.333	0	54.8	26.9-74.3	0			
Surr: Pentacosane	7.9	0	8.333	0	94.8	48.9-129	0			

LCS	Sample ID: LCS-13859-13859					Units: mg/Kg	Analysis Date: 10/30/2012			
Client ID:	Run ID: GC8_121030A					SeqNo: 522626	Prep Date: 10/29/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	79.65	15	83.33	0	95.6	68.5-110	0			
Surr: Nonane	4.606	0	8.333	0	55.3	26.9-74.3	0			
Surr: Pentacosane	8.127	0	8.333	0	97.5	48.9-129	0			

MS	Sample ID: 1210623-03BMS					Units: mg/Kg	Analysis Date: 10/30/2012			
Client ID:	Run ID: GC8_121030A					SeqNo: 522632	Prep Date: 10/29/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	190	15	83.47	129.4	72.6	15.5-139	0			
Surr: Nonane	4.309	0	8.347	0	51.6	26.9-74.3	0			
Surr: Pentacosane	7.323	0	8.347	0	87.7	48.9-129	0			

MSD	Sample ID: 1210623-03BMSD					Units: mg/Kg	Analysis Date: 10/30/2012			
Client ID:	Run ID: GC8_121030A					SeqNo: 522633	Prep Date: 10/29/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	264.7	15	83.25	129.4	163	15.5-139	190	32.9	21	SR
Surr: Nonane	4.423	0	8.325	0	53.1	26.9-74.3	4.309	2.61		
Surr: Pentacosane	8.314	0	8.325	0	99.9	48.9-129	7.323	12.7		

The following samples were analyzed in this batch: 1210563-01B 1210563-02B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: R94919 Instrument ID GC6 Method: SW8015A

MBLK		Sample ID: BLK-R94919			Units: mg/Kg			Analysis Date: 10/29/2012 06:29 PM		
Client ID:		Run ID: GC6_121029A			SeqNo: 522115			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	1.672	2.0								J
Surr: Cyclooctane	78.92	0	100	0	78.9	55-135	0			

LCS		Sample ID: LCS-R94919			Units: mg/Kg			Analysis Date: 10/29/2012 05:59 PM		
Client ID:		Run ID: GC6_121029A			SeqNo: 522114			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	18.81	2.0	20	0	94	69.5-120	0			
Surr: Cyclooctane	94.73	0	100	0	94.7	55-135	0			

MS		Sample ID: 1210623-02B MS			Units: mg/Kg			Analysis Date: 10/29/2012 09:01 PM		
Client ID:		Run ID: GC6_121029A			SeqNo: 522120			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	15.12	2.0	20	1.958	65.8	28.8-111	0			
Surr: Cyclooctane	97.17	0	100	0	97.2	55-135	0			

MSD		Sample ID: 1210623-02B MSD			Units: mg/Kg			Analysis Date: 10/29/2012 09:31 PM		
Client ID:		Run ID: GC6_121029A			SeqNo: 522121			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	13.51	2.0	20	1.958	57.8	22.5-117	15.12	11.3	15.7	
Surr: Cyclooctane	94.91	0	100	0	94.9	55-135	97.17	2.35		

The following samples were analyzed in this batch: 1210563-01A 1210563-02A

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: 13844 Instrument ID SVMS2 Method: SW8270C

MBLK Sample ID: mblk-13844-13844 Units: µg/Kg Analysis Date: 10/26/2012 03:32 PM
 Client ID: Run ID: SVMS2_121026A SeqNo: 521770 Prep Date: 10/26/2012 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4,5-Tetrachlorobenzene	ND	330								
1,2,4-Trichlorobenzene	ND	330								
1,2-Dichlorobenzene	ND	330								
1,3-Dichlorobenzene	ND	330								
1,3-Dinitrobenzene	ND	330								
1,4-Dichlorobenzene	ND	330								
1-Methylnaphthalene	ND	330								
1-Naphthylamine	ND	330								
2,3,4,6-Tetrachlorophenol	ND	330								
2,4,5-Trichlorophenol	ND	330								
2,4,6-Trichlorophenol	ND	330								
2,4-Dichlorophenol	ND	330								
2,4-Dimethylphenol	ND	330								
2,4-Dinitrophenol	ND	1,600								
2,4-Dinitrotoluene	ND	330								
2,6-Dichlorophenol	ND	330								
2,6-Dinitrotoluene	ND	330								
2-Acetylaminofluorene	ND	330								
2-Chloronaphthalene	ND	330								
2-Chlorophenol	ND	330								
2-Methylnaphthalene	ND	330								
2-Methylphenol	ND	330								
2-Naphthylamine	ND	330								
2-Nitroaniline	ND	1,600								
2-Nitrophenol	ND	330								
2-Picoline	ND	330								
3&4-Methylphenol	ND	330								
3,3'-Dichlorobenzidine	ND	660								
3-Methylcholanthrene	ND	330								
3-Nitroaniline	ND	1,600								
4,6-Dinitro-2-methylphenol	ND	1,600								
4-Aminobiphenyl	ND	660								
4-Bromophenyl phenyl ether	ND	330								
4-Chloro-3-methylphenol	ND	660								
4-Chloroaniline	ND	660								
4-Chlorophenyl phenyl ether	ND	330								
4-Nitroaniline	ND	660								
4-Nitrophenol	ND	1,600								
4-Nitroquinoline 1-oxide	ND	330								
5-Nitro-o-toluidine	ND	330								
7,12-Dimethylbenz(a)anthracene	ND	330								
Acenaphthene	ND	330								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.

Work Order: 1210563

QC BATCH REPORT

Project:

Batch ID: 13844	Instrument ID SVMS2	Method: SW8270C
Acenaphthylene	ND	330
Acetophenone	ND	330
Aniline	ND	330
Anthracene	ND	330
Azobenzene	ND	330
Benzidine	ND	330
Benzo(a)anthracene	ND	330
Benzo(a)pyrene	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(g,h,i)perylene	ND	330
Benzo(k)fluoranthene	ND	330
Benzyl alcohol	ND	660
Bis(2-chloroethoxy)methane	ND	330
Bis(2-chloroethyl)ether	ND	330
Bis(2-chloroisopropyl)ether	ND	330
Bis(2-ethylhexyl)phthalate	ND	330
Butyl benzyl phthalate	ND	330
Carbazole	ND	330
Chrysene	ND	330
Dibenzo(a,h)anthracene	ND	330
Dibenzofuran	ND	330
Diethyl phthalate	ND	330
Dimethyl phthalate	ND	330
Di-n-butyl phthalate	ND	330
Di-n-octyl phthalate	ND	330
Dinoseb	ND	330
Diphenylamine	ND	330
Ethyl methanesulfonate	ND	330
Fluoranthene	ND	330
Fluorene	ND	330
Hexachlorobenzene	ND	330
Hexachlorobutadiene	ND	330
Hexachlorocyclopentadiene	ND	330
Hexachloroethane	ND	330
Indeno(1,2,3-cd)pyrene	ND	150
Isophorone	ND	330
Isosafrole	ND	330
Methapyrilene	ND	330
Methyl methanesulfonate	ND	330
Naphthalene	ND	330
Nitrobenzene	ND	330
N-Nitrosodiethylamine	ND	330
N-Nitrosodimethylamine	ND	330
N-Nitroso-di-n-butylamine	ND	330
N-Nitrosodi-n-propylamine	ND	330
N-Nitrosomethylethylamine	ND	330
N-Nitrosomorpholine	ND	330
N-Nitrosopiperidine	ND	330

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: 13844	Instrument ID SVMS2	Method: SW8270C					
N-Nitrosopyrrolidine	ND	330					
o-Toluidine	ND	330					
p-Dimethylaminoazobenzene	ND	330					
Pentachlorobenzene	ND	330					
Pentachloroethane	ND	330					
Pentachloronitrobenzene	ND	660					
Pentachlorophenol	ND	1,600					
Phenacetin	ND	660					
Phenanthrene	ND	330					
Phenol	ND	330					
Pyrene	ND	330					
Pyridine	ND	330					
Safrole	ND	330					
<i>Surr: 2,4,6-Tribromophenol</i>	2636	0	3330	0	79.1	18-115	0
<i>Surr: 2-Fluorobiphenyl</i>	1281	0	1670	0	76.7	30-116	0
<i>Surr: 2-Fluorophenol</i>	2105	0	3330	0	63.2	24-105	0
<i>Surr: 4-Terphenyl-d14</i>	1232	0	1670	0	73.8	40-127	0
<i>Surr: Nitrobenzene-d5</i>	1398	0	1670	0	83.7	32-106	0
<i>Surr: Phenol-d5</i>	2433	0	3330	0	73.1	39-123	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: 13844 Instrument ID SVMS2 Method: SW8270C

LCS Sample ID: lcs-13844-13844 Units: µg/Kg Analysis Date: 10/26/2012 04:06 PM
 Client ID: Run ID: SVMS2_121026A SeqNo: 521771 Prep Date: 10/26/2012 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	1080	330	1670	0	64.7	48.1-106	0			
1,4-Dichlorobenzene	1001	330	1670	0	59.9	55.5-89.4	0			
2,4-Dinitrotoluene	1476	330	1670	0	88.4	58.8-123	0			
2-Chlorophenol	1046	330	1670	0	62.6	34.7-116	0			
4-Chloro-3-methylphenol	1623	660	1670	0	97.2	32.1-109	0			
4-Nitrophenol	1503	1,600	1670	0	90	36.2-146	0			J
Acenaphthene	1195	330	1670	0	71.5	67.8-104	0			
Acenaphthylene	1280	330	1670	0	76.6	72.9-106	0			
Anthracene	1297	330	1670	0	77.7	71.1-107	0			
Benzo(a)anthracene	1334	330	1670	0	79.9	60.4-118	0			
Benzo(a)pyrene	1445	330	1670	0	86.5	73.7-110	0			
Benzo(b)fluoranthene	1281	330	1670	0	76.7	59.9-94.8	0			
Benzo(g,h,i)perylene	1632	330	1670	0	97.7	40-129	0			
Benzo(k)fluoranthene	1562	330	1670	0	93.5	75.7-130	0			
Carbazole	1632	330	1670	0	97.7	69.6-107	0			
Chrysene	1397	330	1670	0	83.7	62.3-115	0			
Dibenzo(a,h)anthracene	1462	330	1670	0	87.5	59.2-121	0			
Fluoranthene	1393	330	1670	0	83.4	63-120	0			
Fluorene	1270	330	1670	0	76	69-106	0			
Indeno(1,2,3-cd)pyrene	1530	150	1670	0	91.6	59-110	0			
Naphthalene	1120	330	1670	0	67.1	49.1-103	0			
N-Nitrosodi-n-propylamine	1175	330	1670	0	70.3	25.3-127	0			
Pentachlorophenol	1624	1,600	1670	0	97.3	22.1-105	0			
Phenanthrene	1328	330	1670	0	79.5	70-112	0			
Phenol	1073	330	1670	0	64.2	36.9-97.8	0			
Pyrene	1253	330	1670	0	75	55-117	0			
Surr: 2,4,6-Tribromophenol	2537	0	3330	0	76.2	18-115	0			
Surr: 2-Fluorobiphenyl	1130	0	1670	0	67.6	30-116	0			
Surr: 2-Fluorophenol	2051	0	3330	0	61.6	24-105	0			
Surr: 4-Terphenyl-d14	1267	0	1670	0	75.9	40-127	0			
Surr: Nitrobenzene-d5	1072	0	1670	0	64.2	32-106	0			
Surr: Phenol-d5	2124	0	3330	0	63.8	39-123	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: 13844 Instrument ID SVMS2 Method: SW8270C

MS	Sample ID: 1210563-01bms					Units: µg/Kg	Analysis Date: 10/29/2012 12:38 PM				
Client ID: 1	Run ID: SVMS2_121029A					SeqNo: 521797	Prep Date: 10/26/2012	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trichlorobenzene	1194	330	1672	0	71.4	50.6-92	0				
1,4-Dichlorobenzene	831.1	330	1672	0	49.7	40.1-84.3	0				
2,4-Dinitrotoluene	1212	330	1672	0	72.5	50.3-127	0				
2-Chlorophenol	874.8	330	1672	0	52.3	33.3-109	0				
4-Chloro-3-methylphenol	1627	660	1672	0	97.3	35.8-116	0				
4-Nitrophenol	1528	1,700	1672	0	91.4	38.7-135	0			J	
Acenaphthene	913.6	330	1672	0	54.6	54.1-109	0				
Acenaphthylene	975.6	330	1672	0	58.3	55.3-118	0				
Anthracene	1129	330	1672	0	67.5	51-106	0				
Benzo(a)anthracene	1028	330	1672	0	61.5	31.6-128	0				
Benzo(a)pyrene	1252	330	1672	0	74.9	66.1-109	0				
Benzo(b)fluoranthene	1060	330	1672	0	63.4	56.8-87.8	0				
Benzo(g,h,i)perylene	1525	330	1672	0	91.2	37.7-113	0				
Benzo(k)fluoranthene	1262	330	1672	0	75.4	57-119	0				
Carbazole	1061	330	1672	0	63.5	28.5-114	0				
Chrysene	1088	330	1672	0	65.1	60.6-104	0				
Dibenzo(a,h)anthracene	1320	330	1672	0	79	48.8-123	0				
Fluoranthene	1233	330	1672	0	73.7	52-120	0				
Fluorene	977.6	330	1672	0	58.5	54.8-113	0				
Indeno(1,2,3-cd)pyrene	1334	150	1672	0	79.8	56.1-118	0				
Naphthalene	1241	330	1672	0	74.2	51.1-99.3	0				
N-Nitrosodi-n-propylamine	1033	330	1672	0	61.8	46.5-116	0				
Pentachlorophenol	1486	1,700	1672	0	88.9	25.9-97.6	0			J	
Phenanthrene	1217	330	1672	0	72.8	52-105	0				
Phenol	920.6	330	1672	0	55	25.9-90.3	0				
Pyrene	1129	330	1672	0	67.5	51-111	0				
Surr: 2,4,6-Tribromophenol	2176	0	3334	0	65.3	18-115	0				
Surr: 2-Fluorobiphenyl	829.8	0	1672	0	49.6	30-116	0				
Surr: 2-Fluorophenol	1744	0	3334	0	52.3	24-105	0				
Surr: 4-Terphenyl-d14	1142	0	1672	0	68.3	40-127	0				
Surr: Nitrobenzene-d5	876.8	0	1672	0	52.4	32-106	0				
Surr: Phenol-d5	1849	0	3334	0	55.5	39-123	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.

Work Order: 1210563

QC BATCH REPORT

Project:

Batch ID: 13844 Instrument ID SVMS2 Method: SW8270C

MSD Sample ID: 1210563-01bmsd Units: µg/Kg Analysis Date: 10/26/2012 05:13 PM

Client ID: 1 Run ID: SVMS2_121026A SeqNo: 521773 Prep Date: 10/26/2012 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	1161	330	1671	0	69.5	50.6-92	1194	2.73	18	
1,4-Dichlorobenzene	813.3	330	1671	0	48.7	40.1-84.3	831.1	2.17	20	
2,4-Dinitrotoluene	1370	330	1671	0	82	50.3-127	1212	12.3	20	
2-Chlorophenol	855	330	1671	0	51.2	33.3-109	874.8	2.3	20	
4-Chloro-3-methylphenol	1508	660	1671	0	90.2	35.8-116	1627	7.61	20	
4-Nitrophenol	1323	1,700	1671	0	79.2	38.7-135	1528	0	20	J
Acenaphthene	1052	330	1671	0	63	54.1-109	913.6	14.1	20	
Acenaphthylene	1109	330	1671	0	66.4	55.3-118	975.6	12.8	20	
Anthracene	1152	330	1671	0	69	51-106	1129	2.01	20	
Benzo(a)anthracene	1024	330	1671	0	61.3	31.6-128	1028	0.36	20	
Benzo(a)pyrene	1251	330	1671	0	74.9	66.1-109	1252	0.0201	20	
Benzo(b)fluoranthene	1049	330	1671	0	62.8	56.8-87.8	1060	1.05	20	
Benzo(g,h,i)perylene	1457	330	1671	0	87.2	37.7-113	1525	4.55	20	
Benzo(k)fluoranthene	1229	330	1671	0	73.6	57-119	1262	2.65	20	
Carbazole	1231	330	1671	0	73.7	28.5-114	1061	14.8	20	
Chrysene	1063	330	1671	0	63.6	60.6-104	1088	2.36	21	
Dibenzo(a,h)anthracene	1295	330	1671	0	77.5	48.8-123	1320	1.94	20	
Fluoranthene	1325	330	1671	0	79.3	52-120	1233	7.23	20	
Fluorene	1142	330	1671	0	68.4	54.8-113	977.6	15.5	20	
Indeno(1,2,3-cd)pyrene	1334	150	1671	0	79.8	56.1-118	1334	0.0501	20	
Naphthalene	1244	330	1671	0	74.5	51.1-99.3	1241	0.303	20	
N-Nitrosodi-n-propylamine	981.7	330	1671	0	58.8	46.5-116	1033	5.1	17	
Pentachlorophenol	1495	1,700	1671	0	89.5	25.9-97.6	1486	0	20	J
Phenanthrene	1275	330	1671	0	76.3	52-105	1217	4.64	20	
Phenol	872.6	330	1671	0	52.2	25.9-90.3	920.6	5.35	17	
Pyrene	1227	330	1671	0	73.4	51-111	1129	8.34	20	
Surr: 2,4,6-Tribromophenol	2258	0	3331	0	67.8	18-115	2176	3.68		
Surr: 2-Fluorobiphenyl	956.3	0	1671	0	57.2	30-116	829.8	14.2		
Surr: 2-Fluorophenol	1783	0	3331	0	53.5	24-105	1744	2.23		
Surr: 4-Terphenyl-d14	1231	0	1671	0	73.7	40-127	1142	7.52		
Surr: Nitrobenzene-d5	860	0	1671	0	51.5	32-106	876.8	1.94		
Surr: Phenol-d5	1786	0	3331	0	53.6	39-123	1849	3.51		

The following samples were analyzed in this batch:

1210563-01b 1210563-02b

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 8 of 13

Client: LJB Inc.

Work Order: 1210563

Project:

QC BATCH REPORT

Batch ID: R94873 Instrument ID VMS2 Method: SW8260

MBLK Sample ID: MBLK-R94873 Units: µg/Kg Analysis Date: 10/26/2012 03:29 PM
 Client ID: Run ID: VMS2_121026A SeqNo: 521577 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	5.0								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	5.0								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: R94873	Instrument ID VMS2	Method: SW8260					
Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	5.0					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	5.0					
Sum: 4-Bromofluorobenzene	52.24	0	50	0	104	62.7-159	0
Sum: Dibromofluoromethane	51.94	0	50	0	104	88.2-133	0
Sum: Toluene-d8	50.99	0	50	0	102	81.5-110	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: R94873 Instrument ID VMS2 Method: SW8260

LCS Sample ID: LCS-R94873 Units: µg/Kg Analysis Date: 10/26/2012 12:20 PM
 Client ID: Run ID: VMS2_121026A SeqNo: 521572 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.11	5.0	50	0	98.2	70-132	0			
1,1-Dichloroethene	50.78	5.0	50	0	102	61.2-140	0			
1,2-Dichloroethane	50.52	5.0	50	0	101	67.3-139	0			
1,3-Dichlorobenzene	44.55	5.0	50	0	89.1	67.5-126	0			
1,4-Dichlorobenzene	43.38	5.0	50	0	86.8	69.5-124	0			
Benzene	44.69	5.0	50	0	89.4	67.2-135	0			
Carbon tetrachloride	50.41	5.0	50	0	101	68.6-138	0			
Chlorobenzene	46.34	5.0	50	0	92.7	66.4-133	0			
Chloroform	49.56	5.0	50	0	99.1	68.2-127	0			
cis-1,2-Dichloroethene	48.28	5.0	50	0	96.6	62.1-135	0			
Ethylbenzene	46.99	5.0	50	0	94	67.8-132	0			
m,p-Xylene	93.6	5.0	100	0	93.6	66.4-132	0			
Styrene	45.46	5.0	50	0	90.9	67.6-134	0			
Tetrachloroethene	48.16	5.0	50	0	96.3	70.3-144	0			
Toluene	45.06	5.0	50	0	90.1	67.8-130	0			
Trichloroethene	47.49	5.0	50	0	95	68.5-136	0			
Surr: 4-Bromofluorobenzene	50.85	0	50	0	102	62.7-159	0			
Surr: Dibromofluoromethane	52.81	0	50	0	106	88.2-133	0			
Surr: Toluene-d8	49.79	0	50	0	99.6	81.5-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: R94873 Instrument ID VMS2 Method: SWB260

MS	Sample ID: 1210523-01A MS	Units: µg/Kg					Analysis Date: 10/26/2012 12:51 PM				
Client ID:	Run ID: VMS2_121026A	SeqNo: 521573			Prep Date:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	50.69	5.0	50	0	101	66.9-140	0				
1,1-Dichloroethene	49.5	5.0	50	0	99	65.9-143	0				
1,2-Dichloroethane	49.26	5.0	50	0	98.5	73-135	0				
1,3-Dichlorobenzene	46.94	5.0	50	0	93.9	61.2-125	0				
1,4-Dichlorobenzene	47.08	5.0	50	0	94.2	62.3-123	0				
Benzene	46.89	5.0	50	0	93.8	35.8-162	0				
Carbon tetrachloride	54.34	5.0	50	0	109	71.4-130	0				
Chlorobenzene	46.33	5.0	50	0	92.7	65.6-137	0				
Chloroform	47.95	5.0	50	0	95.9	69.6-128	0				
cis-1,2-Dichloroethene	46.8	5.0	50	0	93.6	68.8-130	0				
Ethylbenzene	47.48	5.0	50	0	95	68.6-124	0				
m,p-Xylene	92.92	5.0	100	0	92.9	64.5-125	0				
Styrene	45.96	5.0	50	0	91.9	65.9-125	0				
Tetrachloroethene	46.76	5.0	50	0	93.5	71.6-135	0				
Toluene	46.39	5.0	50	0	92.8	67.7-135	0				
Trichloroethene	46.19	5.0	50	0	92.4	70.9-139	0				
Surr: 4-Bromofluorobenzene	49.55	0	50	0	99.1	62.7-159	0				
Surr: Dibromofluoromethane	49.12	0	50	0	98.2	88.2-133	0				
Surr: Toluene-d8	49.24	0	50	0	98.5	81.5-110	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Work Order: 1210563
 Project:

QC BATCH REPORT

Batch ID: R94873 Instrument ID VMS2 Method: SW8260

MSD Sample ID: 1210523-01A MSD Units: µg/Kg Analysis Date: 10/26/2012 01:23 PM
 Client ID: Run ID: VMS2_121026A SeqNo: 521574 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	56.09	5.0	50	0	112	66.9-140	50.69	10.1	20	
1,1-Dichloroethene	55.33	5.0	50	0	111	65.9-143	49.5	11.1	20	
1,2-Dichloroethane	52.44	5.0	50	0	105	73-135	49.26	6.25	20	
1,3-Dichlorobenzene	53.05	5.0	50	0	106	61.2-125	46.94	12.2	21	
1,4-Dichlorobenzene	52.08	5.0	50	0	104	62.3-123	47.08	10.1	22.5	
Benzene	51.83	5.0	50	0	104	35.8-162	46.89	10	23.6	
Carbon tetrachloride	59.79	5.0	50	0	120	71.4-130	54.34	9.55	22.9	
Chlorobenzene	52.38	5.0	50	0	105	65.6-137	46.33	12.3	20	
Chloroform	51.53	5.0	50	0	103	69.6-128	47.95	7.2	23.1	
cis-1,2-Dichloroethene	50.71	5.0	50	0	101	68.8-130	46.8	8.02	23.7	
Ethylbenzene	51.97	5.0	50	0	104	68.6-124	47.48	9.03	24.9	
m,p-Xylene	105.4	5.0	100	0	105	64.5-125	92.92	12.5	25.1	
Styrene	51.51	5.0	50	0	103	65.9-125	45.96	11.4	22.8	
Tetrachloroethene	54.41	5.0	50	0	109	71.6-135	46.76	15.1	24.7	
Toluene	50.8	5.0	50	0	102	67.7-135	46.39	9.08	20	
Trichloroethene	52.1	5.0	50	0	104	70.9-139	46.19	12	20	
Surr: 4-Bromofluorobenzene	52.64	0	50	0	105	62.7-159	49.55	6.05		
Surr: Dibromofluoromethane	49.27	0	50	0	98.5	88.2-133	49.12	0.305		
Surr: Toluene-d8	48.62	0	50	0	97.2	81.5-110	49.24	1.27		

The following samples were analyzed in this batch:

1210563-01A	1210563-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: LJB Inc.
 Project:
 WorkOrder: 1210563

**QUALIFIERS,
 ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<u>Units Reported</u>	<u>Description</u>
% of sample	
µg/Kg-dry	
mg/Kg-dry	

Sample Receipt Checklist

Client Name: LJB-DAYTON

Date/Time Received: 24-Oct-12 13:55

Work Order: 1210563

Received by: JNW

Checklist completed by: Steve Wilcox
eSignature

24-Oct-12
Date

Reviewed by: Jim Baxter
eSignature

31-Oct-12
Date

Matrices:

Carrier name: Client

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No

Temperature(s)/Thermometer(s):

5.5

Cooler(s)/Kit(s):

Water - VOA vials have zero headspace?

Yes No No VOA vials submitted

Water - pH acceptable upon receipt?

Yes No N/A

pH adjusted?

Yes No N/A

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



APPENDIX E



OHIO DEPARTMENT OF TRANSPORTATION
INTER-OFFICE COMMUNICATION
Office of Environmental Services

TO: Steve Mary, District 8 Deputy Director
Attn: Scott Brown

DATE: August 15, 2012

FROM: *Timothy M. Hill*
Timothy M. Hill, Administrator, Office of Environmental Services

SUBJECT: Phase I Environmental Site Assessment

PROJECT: HAM – CR-71/CR73 – 1.28/1.44

PID: 88788

This office has reviewed the Phase I Environmental Site Assessment (ESA) for the above referenced project prepared by LJB, Inc.

Based on the information provided, we concur with the consultant that a Geophysical Survey and Phase II ESA is warranted for 3605 Hanley Road (Blue Rock Sunoco). Two borings should be advanced to a depth of ten (10) feet below ground surface. Soil samples collected shall be analyzed for the following:

- Volatile Organic Compounds (VOC) by Method 8260
- Semi-Volatile Organic Compounds (SVOC) by Method 8270
- Total Petroleum Hydrocarbons (TPH) (C⁶ – C³⁴) by Method 8015

If you have any questions or concerns, please contact Kevin Hodnett, Environmental Specialist, at (614) 466-7925.

TMH:kwh

cc: A. Fluegemann, D-8
File w/attachment