

Site Conditions Report and Data Gaps

Investigation Work Plan

Former Little Lake Industries Mill
Arcata, California
Case # 1NHU018



Prepared for:

City of Arcata



June 2018
018022.020



812 W. Wabash Ave., Eureka, CA 95501-2138

707-441-8855

Civil Engineering, Environmental Services, Geosciences, Planning & Permitting, Surveying

Reference: 018022.020

June 13, 2018

Mr. Keith Baldanza
North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite "A"
Santa Rosa, CA 95403

Subject: Site Conditions Report and Data Gaps Investigation Work Plan, Former Little Lakes Industries Mill, Arcata California, Case #1NHUQ18

Dear Mr. Baldanza:

Enclosed is the assessment of conditions and data gaps investigation work plan for the former Little Lake Industries Mill site located on South "I" Street, in Arcata, California. As part of the evaluation of current site conditions, delineation of contamination from past land uses has not been completely defined. This report summarizes results of previous site investigation activities completed and a work plan to address identified data gaps. SHN completed this work on behalf of the City of Arcata.

Respectfully submitted,

SHN Engineers & Geologists

Erik J. Nielsen, PG, CHG
Project Manager

EJN:ljms

Enclosures: Report and Work Plan

Reference: 018022.020

Site Conditions Report and Data Gaps

Investigation Work Plan

Little Lake Industries (Arcata Mill)
Arcata, California
Case # 1NHU018

Prepared for:
City of Arcata

Prepared by:



812 W. Wabash Ave.
Eureka, CA 95501-2138
707-441-8855

June 2018

QA/QC:EJN____

Table of Contents

	Page
List of Illustrations.....	ii
Abbreviations and Acronyms.....	iii
1.0 Introduction	1
1.1 Site Description.....	1
1.2 Site History and Operations.....	1
1.3 Objectives	2
2.0 Environmental Conditions	2
2.1 Previous Assessments.....	2
2.1.1 Underground Storage Tanks	2
2.1.2 Targeted Brownfields Assessments	2
2.1.3 Stockpile Sampling	3
2.1.4 Kiln Demolition and Disposal	4
2.1.5 Clandestine Drug Laboratory	4
2.2 Constituents of Concern	4
2.3.1 COCs in Soil	6
2.3.2 COCs in Groundwater	7
3.0 Data Gaps Investigation Scope of Work	8
3.1 Sample Location Rationale	8
3.2 Project Implementation.....	11
3.3 Field Program.....	11
3.3.1 Test Pits and Soil Sample Collection	11
3.3.2 Temporary Well Points for Groundwater Sample Collection	11
3.3.3 Equipment Decontamination Procedures	12
3.3.4 Investigation Derived Waste Management	12
3.3.5 Laboratory Analysis.....	12
3.4 Reporting	12
4.0 References	13

Appendix 1. Historical Data

List of Illustrations

	Follows Page
Figures	
1. Site Location Map	1
2. Site Plan with Historic Structure Locations.....	1
3. Site Plan with Stockpile Locations	3
4. Site Plan with Proposed Soil Sample Locations	8
5. Site Plan with Proposed Groundwater Sample Locations	8
Tables	
1. Proposed Soil Samples.....	9
2. Proposed Groundwater Samples.....	10

DRAFT

Abbreviations and Acronyms

--	not analyzed	mg/L	milligrams per liter
µg/g	micrograms per gram	pg/g	picograms per gram
µg/L	micrograms per liter	ppt	parts per trillion
mg/kg	milligrams per kilogram		
AM-#	sample location-number	QAPP	quality assurance project plan
APN	Assessor's parcel number	R	sample results rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria; presence or absence of the analyte cannot be verified
B	analyte detected in the method blank and in the sample		
B-#	boring-number		
Cal-EPA	California Environmental Protection Agency		
CHHSL	California human health screening levels	RSL	regional screening level
COC	constituent of concern	RWQCB	North Coast Regional Water Quality Control Board
DOT	Department of Transportation	SAP	sampling and analysis plan
DTSC	Department of Toxic Substance Control	SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
EPA	U.S. Environmental Protection Agency	SVOCs	semi volatile organic compounds
ESA	environmental site assessment	TBA	targeted Brownfields assessment
ESL	environmental screening levels	TCLP	toxicity characteristic leaching procedure
FES	Freshwater Environmental Services	TPH	total petroleum hydrocarbons
HASP	health and safety plan	TPHD	total petroleum hydrocarbons as diesel
HCDEH	Humboldt County Division of Environmental health	TPHG	total petroleum hydrocarbons as gasoline
HHRA	Human Health Risk Assessment	TPHMO	total petroleum hydrocarbons as motor oil
ITSC	Innovative Technical Solutions, Inc.	UNK	analyte may have been analyzed, but there is no lab report or table listing the results
J	estimated concentrations		
LLI	Little Lake Industries Mill Site		
MW-#	monitoring well-number	USA	Underground Service Alert
NA	not applicable	UST	underground storage tanks
PCBs	polychlorinated biphenyls	VOCs	volatile organic compounds
PCP	pentachlorophenol	W&K	Winzler and Kelly
PVC	polyvinyl chloride		

1.0 Introduction

This evaluation of site conditions and data gaps investigation work plan is being submitted for the former Little Lake Industries Mill Site (LLI), in Arcata, California (Figure 1). Previous investigation activities have been conducted at the site in order to assess contamination associated with historical use at this property. Review of these results has been conducted by SHN and other consultants that have worked previously on this site. The data gaps investigation work plan provided in this report is intended to address deficiencies identified following review of historical site sampling results. SHN prepared this report and work plan on behalf of the City of Arcata under funding provided by a U.S. Environmental Protection Agency (EPA) Brownfields grant. The City intends to redevelop this site for mixed public/private use.

Considerable effort has been completed by Freshwater Environmental Services (FES) to consolidate historical site information and summarize their findings. FES completed a “draft” sampling and analysis plan (SAP) in 2016 for additional investigation work at the Little Lake Industries site on behalf of the City of Arcata (FES, 2016). Tabulated data for all historical sampling results from the LLI site provided in the FES draft work plan has been included in this document as Appendix 1. FES additionally prepared a “site background” summary in 2017 that contained a detailed analysis of historical history, investigation activities, and sample results. Key components of the FES draft work plan and site summary have been incorporated in this evaluation of conditions and data gaps investigation work plan.

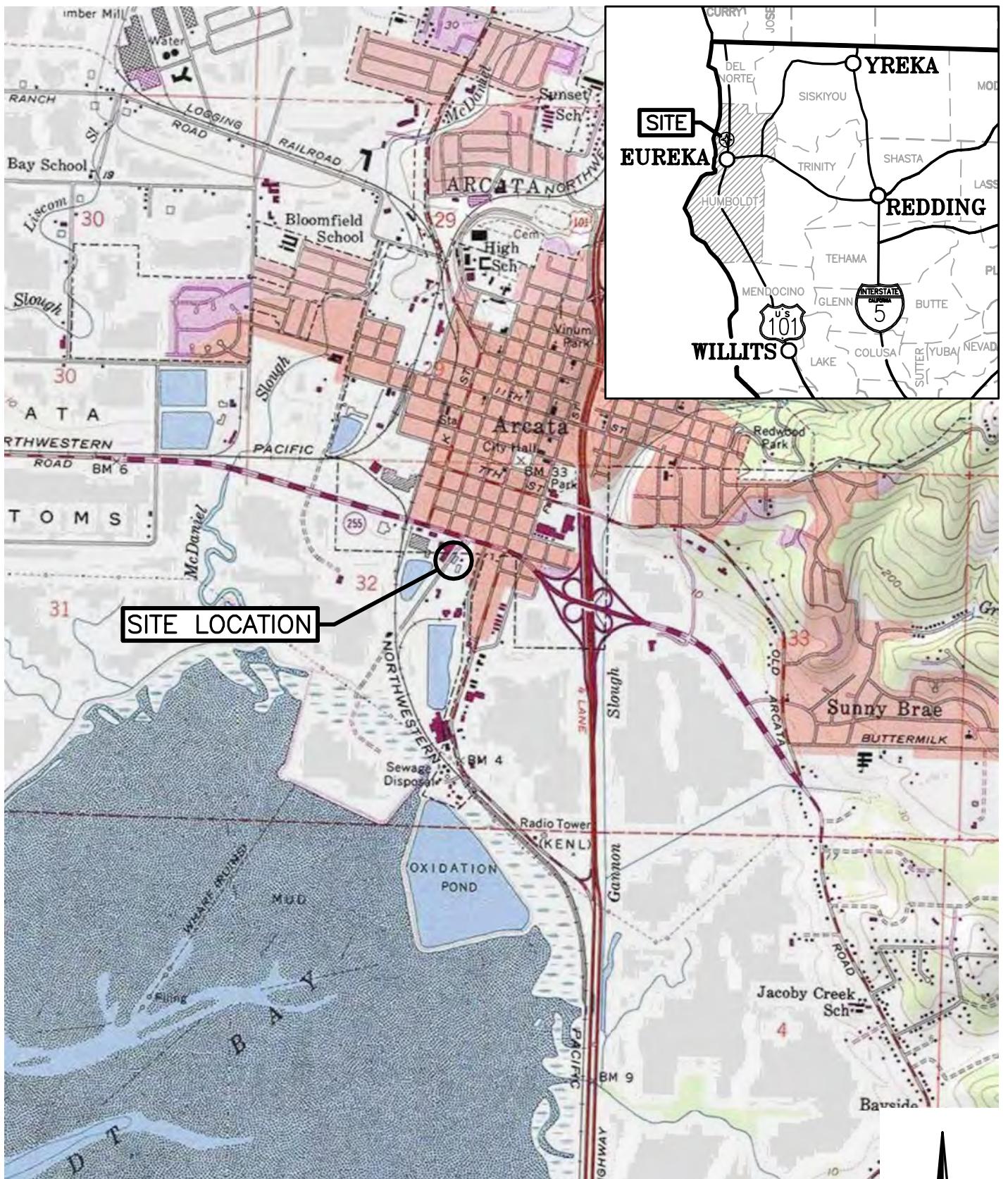
1.1 Site Description

Historically referred to as the South “I” Street Mill, the property consists of three parcels (Assessor’s parcel number [APN] 503-251-014, 503-232-013, and 503-232-004) located south of Samoa Boulevard in Arcata, California (Figure 2). The LLI site is comprised of two parcels at 46 South “I” Street and the Johnson Tract (APN 503-251-014) is located west of LLI across South “I” Street. The City of Arcata currently owns all former South “I” Street mill parcels. Previous site assessments and investigations conducted for the former South “I” Street Mill have included all three properties for the entire mill site. For this evaluation and data gaps investigation, the focus is on the former LLI site. The Johnson Tract is not considered part of this investigation.

The LLI property is comprised of approximately 12 acres that is bordered by a creek, slough, paved street, open space, and commercial property (Figure 2). Jolly Giant Creek is located along the eastern and southern portion of the property boundary, and flows south to Butcher’s Slough and eventually to Humboldt Bay. Elevation of the site is approximately 10 feet above mean sea level and surface topography gently slopes east toward Jolly Giant Creek. Subsurface conditions at the site generally consist of river run gravel with silt that grades with depth to (predominantly) silt (W&K, 1998). Groundwater at the site has been reported at a depth of 2 to 3 feet and flows toward the creek.

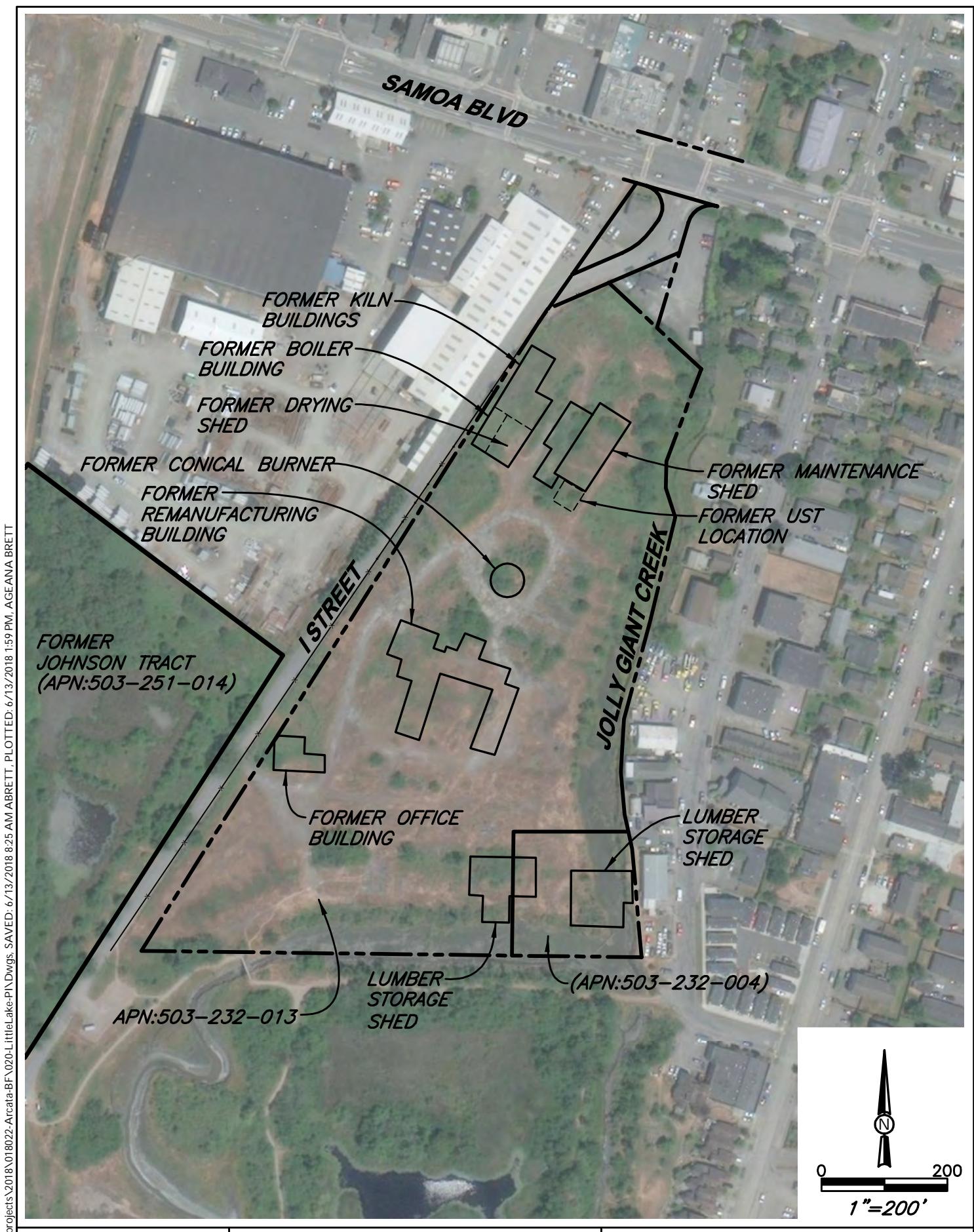
1.2 Site History and Operations

From 1950 to 1988, the site was primarily used for timber-related operations that included log storage, milling, and drying. The Johnson Tract site was used for a log pond. Structures on the site consisted of a



SOURCE: ESRI

$$1'' = 2000' \pm$$



remanufacturing complex, kilns, maintenance shed, boiler building, drying shed, conical burner, and office building. No report of wood treatment occurred at the LLI site; however, chemicals associated with treated wood have been identified. Prior to 1950, the area was used for agricultural purposes.

The City of Arcata acquired the property in 2001, and by 2010, all structures located on the property had been removed. The site currently consists of building foundations and footings, bare ground, vegetated areas, and various stockpiles of soil and gravel. The City of Arcata indicated that the several large soil stockpiles located at the site were created during excavation of Jolly Giant Creek. One large soil stockpile currently covers most of the area of the former remanufacturing complex.

1.3 Objectives

The objective of this evaluation and proposed work is to define the extent of contaminants identified in site soils and groundwater in order to complete an adequate conceptual site model and risk-based screening analysis. The City intends to redevelop this site for mixed public/private use.

2.0 Environmental Conditions

2.1 Previous Assessments

Documents available for review discussing previous operations at the site include two Phase I environmental site assessments (ESAs) completed by Winzler and Kelly in 1998 (W&K, 1998) and Innovative Technical Solutions, Inc. in 2002 (ITSC, 2002). A summary of site investigation and removal activities conducted at the site are summarized in the following sections. Sample analytical results and corresponding figures showing sample locations are provided in Appendix 1.

2.1.1 Underground Storage Tanks

Two 1,000-gallon underground storage tanks (USTs) installed in 1959 for diesel fuel were removed from the former Maintenance Building area in August 1987 (W&K, 1991). In 1990, the tank area was re-excavated and approximately 200 cubic yards of soil was removed and stockpiled at the site. Five borings and three monitoring wells were installed in August 1991 for the subsurface investigation. In addition, nine samples were collected from the soil stockpiles created during the UST excavation.

Groundwater monitoring identified total petroleum hydrocarbons as diesel (TPHD) in one of the three monitoring wells (MW-1) at a concentration of 140 micrograms per liter ($\mu\text{g}/\text{L}$). The highest concentration of TPHD in the soil borings was 43 milligrams per kilogram (mg/kg). Excavated soil tested from the UST removal contained up to 2,000 mg/kg of TPHD. The UST site received closure from the North Coast Regional Water Quality Control Board (RWQCB) in March 2000.

2.1.2 Targeted Brownfields Assessments

Two targeted Brownfields assessments (TBA) of the site were completed by Weston Solutions in December 2002 (Phase II) and April 2004 (Phase IIB) to determine if soil and groundwater at the site were impacted by contaminants from historical use. The initial investigation work scope in December 2002 included 26 soil

borings, installation of 7 temporary well points, and collection of 29 soil samples and 7 groundwater samples (Weston, 2003). Areas of concern that were evaluated included the remanufacturing complex, conical burner, drying shed, fuel storage locations, and soil stockpiles.

Sample analysis for soils during this initial work phase was extensive and included: total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and metals. Sample analysis for groundwater included TPH, VOCs, SVOCs, and metals. The Phase II sampling results indicated that soil and groundwater at the site have been impacted by historical use. Contaminants identified in soil and groundwater at the site consisted of TPH in the diesel and motor oil ranges (TPHD and TPH as motor oil [TPHMO]), SVOCs that included pentachlorophenol (PCP), and metals. Sample location maps and summarized results for the December 2002 Phase II sampling event are provided in Appendix 1.

Based on results of the Phase II TBA and correspondence from the RWQCB, a second investigation was completed at the site in April 2004 to address outstanding issues related to contaminant leachability to groundwater and the presence of the PCP. The presence of PCP was not anticipated at the site and could suggest that dioxins may be present. The second phase of work included 10 soil borings and the installation of 5 monitoring wells in areas of concern (Weston, 2004). The testing suite was similar to the Phase II work, but additionally included two soil samples for dioxin/furan analysis from the vicinity of the remanufacturing complex where PCP was previously detected.

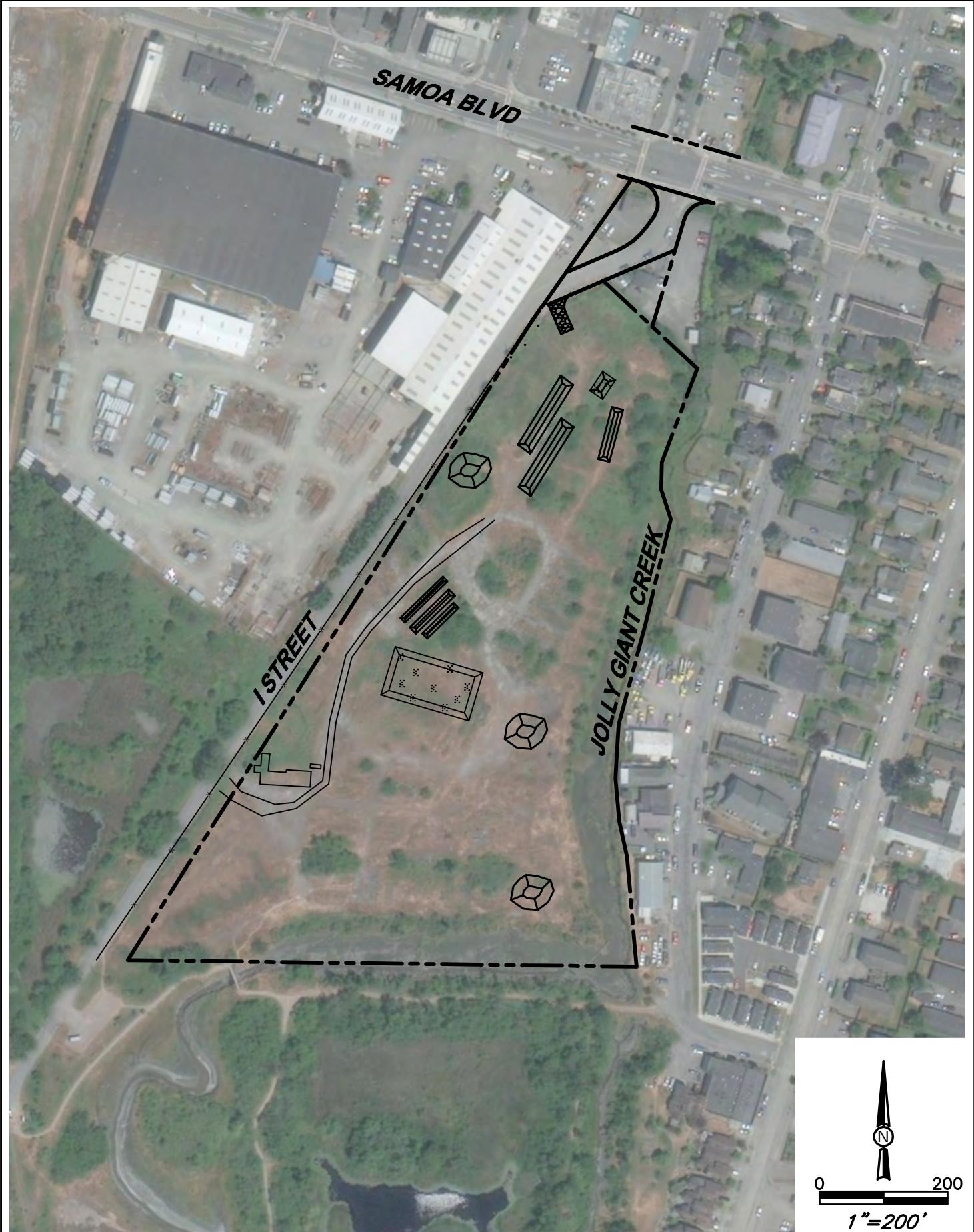
Results of the second TBA indicated that TPH, VOCs, SVOCs, and metals present in site soils do not pose a substantial threat to groundwater. This assertion was based on the second TBA finding that the constituents were either not present or did not show an increase in concentrations from previous results. However, the following text relating to the presence of dioxins at the site was excerpted from the Weston Phase IIB report:

Two samples were analyzed for dioxins from areas where PCP was detected in the Phase II investigation. Dioxins were detected in these two samples at concentrations of 3,900 parts per trillion and 400 parts per trillion, exceeding the action level of 3.9 parts per trillion.

No additional corresponding information related to this statement was included in the Weston report. The samples were believed to be collected in the area of previously identified PCP, which was north of the remanufacturing complex near the conical burner. No supporting sample location map, sample identification or corresponding laboratory report was included in the October 2004 Weston document. Based on the absence of supporting information for dioxin testing in the Weston report, the results are unsubstantiated at this time. Sample location maps and summarized results for the April 2004 Phase IIB sampling event are provided in Appendix 1.

2.1.3 Stockpile Sampling

Material stockpiles at the LLI site shown in Figure 3 and were generated by activities associated with the realignment of Jolly Giant Creek in 2002. Two sampling events (by Weston in 2002 and SHN in 2007) have



 Consulting Engineers & Geologists, Inc.	City of Arcata Little Lake Industries Arcata, California	Site Plan with Stockpile Locations SHN 018022.020
May 2018	018022-020-SITE-STOCKPILE	Figure 3

been conducted at the site for stockpile characterization. Samples from the stockpiles indicated that low levels of TPHD, TPHMO, and some metals were present and that the material was suitable for reuse at the site with placement controls (RWQCB, 2016).

2.1.4 Kiln Demolition and Disposal

During October and November 2009, SHN oversaw the demolition and disposal of the kiln buildings, their foundations and the boiler house located in the northwest corner of the site. Contamination issues for the kiln buildings were identified in surface coating on the inside of the buildings, which contained elevated levels of dioxins. Additional activities conducted during this work phase included the abandonment of a water production well adjacent to the boiler building.

2.1.5 Clandestine Drug Laboratory

A clandestine drug laboratory was discovered at the site in 2000 at a trailer located in the vicinity of the office building, which had a septic system that fed into a leachfield. Hazardous materials were removed from the laboratory included muriatic acid, iodine, phosphorus, denatured alcohol, and caustic soda. The Phase II TBA concluded that hazardous materials may have been disposed of into the leachfield from the drug laboratory, but no impact to surrounding soil or groundwater was observed.

2.2 Constituents of Concern

The constituents of concern (COCs) identified at the site from the Weston Phase II reports completed in June 2003 and October 2004 includes the following:

Soil

- Dioxins/furans and PCP in the vicinity of the former Remanufacturing Complex
- Metals at several locations
- VOCs at AM-31
- SVOCs at three locations
- TPHD in the soil stockpiles; and at several locations

Groundwater

- PCP at boring location AM-14
- Metals at several locations;
- VOCs at several locations;
- SVOCs at several locations
- TPHD throughout the site

The September 2016 FES draft work plan for additional site investigation summarized all available sample results for the Little Lake Site (Appendix 1). The results were evaluated to provide a detailed summary for each specific COC identified at the site that included:

Little Lake Industries COCs in soil:

TPHD	Benzo(b)fluoranthene	Cadmium
Methylene Chloride	Diethylphthalate	Lead
Naphthalene	2-Methylnaphthalene	Dioxins/furans
Benzo(a)pyrene	Arsenic	Pentachlorophenol

Little Lake Industries COCs in groundwater:

TPHG	Antimony	Cobalt
TPHD	Arsenic	Lead
TPHMO	Barium	Nickel
Bis(2-ethylhexyl)phthalate	Beryllium	Thallium
Methylene Chloride	Cadmium	Vanadium
Pentachlorophenol	Chromium	

FES completed further analysis of the results for each COC identified to determine if additional evaluation is warranted. The results of that analysis are provided in the following sections. For regulatory screening comparison purposes, FES contacted RWQCB staff on October 17, 2017, to discuss appropriate environmental screening levels (ESL) for use in evaluating site conditions (RWQCB, 2017). In response, the following reference documents were provided to assess contaminants in site soils for residential and commercial land use:

- California Human Health Screening Levels (CHHSLs) January 2005 (Cal-EPA)
- CHHSLs revised in 2009 for lead
- Department of Toxic Substance Control (DTSC) Note 3 Modified Screening Levels dated August 2017
- San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) ESL Spreadsheet dated February 2016
- DTSC Note 2 dated April 2017

The reason for use of numerous documents in application of ESLs in site soil is due to some reference documents having a limited number of constituents. It should also be noted that the RWQCB has adopted the cleanup goals for dioxin contained in the California DTSC Human Health Risk Assessment (HHRA) Note 2 released in May 2009. The DTSC cleanup goals are significantly higher than the previously used CHHSLs for residential and industrial land use.

For groundwater at the site, the SFBRWQCB ESL spreadsheet (Revision 3) dated February 2016 was the primary regulatory guidance document used for comparison.

2.3.1 COCs in Soil

TPHD. Concentrations of TPHD in soil samples collected at the site range from 4.9 mg/kg to 390 mg/kg. There are four locations where the concentration of TPHD equaled or exceeded the Tier 1 ESL of 230 mg/kg. The highest concentration of TPHD in soil (390 mg/kg) is less than the Construction Worker ESL (880 mg/kg). It is, therefore, recommend that no further investigation of TPHD in soil is necessary at the site.

Methylene Chloride. Methylene chloride was detected in soil at sample location AM-31 at a concentration of 2.3 mg/kg, which is greater than the Tier 1 ESL of 0.077 mg/kg. The method blank for the batch including sample AM-31 additionally contained methylene chloride, likely resulting in a biased high detection. No other soil sample tested exceeded the residential shallow exposure ESL concentration for methylene chloride in soil of 1.9 mg/kg. Further action to evaluate methylene chloride in soil at the site is not warranted.

Naphthalene. Naphthalene was detected in one soil sample at AM-25 at an estimated concentration of 0.041 mg/kg, which is greater than the Tier 1 ESL of 0.033 mg/kg but less than the residential shallow exposure ESL of 3.3 mg/kg. Naphthalene presence is not significantly greater than the Tier 1 ESL and no further action is necessary for naphthalene in soil at the site.

Benzo(a)pyrene and benzo(b)fluoranthene. The SVOCs benzo(a)pyrene and benzo(b)fluoranthene were detected in the soil from AM-40 (stockpile sample) at estimated concentrations of 0.120 mg/kg and 0.250 mg/kg, respectively. These concentrations are greater than the Tier 1 ESL but less than the commercial/industrial ESLs of 0.29 mg/kg and 2.9 mg/kg, respectively. No further action is necessary for benzo(a)pyrene and benzo(b)fluoranthene in soils at the site.

Diethylphthalate. Diethylphthalate was detected in two soil samples (AM-108 and AM-109) at concentrations of 0.340 mg/kg and 0.096 mg/kg (estimated), respectively. The Tier 1 screening level for diethylphthalate is 0.035 mg/kg, which is much lower than the residential shallow exposure ESL of 51,000 mg/kg. No further action is necessary for diethylphthalate in soils at the site.

2-Methylnaphthalene. 2-Methylnaphthalene was detected in two soil samples (AM-108 and AM-109) at concentrations of 0.340 mg/kg and 0.460 mg/kg, respectively. The Tier 1 screening levels for 2-Methylnaphthalene is 0.25 mg/kg, which is much lower than the residential shallow exposure ESL of 240 mg/kg. No further action is necessary for 2-Methylnaphthalene in soils at the site.

Metals. Arsenic concentrations in soil samples collected at the site range from 2.5 mg/kg to 8.7 mg/kg. Cadmium concentrations in soil samples collected at the site range from non-detect to 6.9 mg/kg. Lead concentrations in soil samples collected at the site range from 5.9 mg/kg to 200 mg/kg. The concentrations of arsenic are within the probable background range with the highest concentration of 8.7 mg/kg from an assumed background location. Only one of the cadmium detections (6.9 mg/kg from AM-30) exceeded the CHHSL of 1.7 mg/kg. The residential shallow exposure ESL for cadmium is 39 mg/kg. Lead concentrations in 12 of the soil samples collected at the site exceeded the CHHSL of 80 mg/kg. The highest concentration of lead was 200 mg/kg from AM-36, which is less than the industrial/commercial CHHSL of 320 mg/kg. No further action for arsenic and cadmium in soils at the site is warranted. Further action for lead in soils at the site is warranted.

Dioxins and Furans. Two soil samples reportedly collected by Weston in April 2004 for dioxin/furan analysis had concentrations of 3,900 parts per trillion (ppt) and 400 ppt, which exceeds the EPA Region 9 preliminary remediation goal for residential soils at 3.9 ppt. The current cleanup goal for dioxin is 50 picograms per gram (pg/g) for residential sites and 200 pg/g for commercial/industrial based on the DTSC HHRA NOTE 2, from May 2009. It is, however, recommended that the collection of additional soil samples for dioxin/furans be completed to confirm the previous dioxin results and determine if nearby areas contain dioxin-impacted soils.

Pentachlorophenol. PCP was detected in eight soil samples collected at the LLI site in the northern area of the remanufacturing complex and near the kiln/maintenance shed area. Although no concentrations of PCP were detected above the CHHSL for residential soil (4.4 mg/kg), several samples analyzed for PCP during the TBA had reporting limits above this level. The collection of additional soil samples for PCP analysis at LLI is warranted.

2.3.2 COCs in Groundwater

Petroleum Hydrocarbons. Groundwater samples collected from site monitoring wells and temporary well points were analyzed for TPHD, TPH as gasoline (TPHG), and TPHMO. TPHD concentrations in groundwater samples from the site range from 140 µg/L to 1,100 µg/L, exceeding the screening level of 56 µg/L. TPHG concentrations in groundwater samples at the site range from 7 µg/L to 16 µg/L, which are above the screening level of 5 µg/L. TPHMO was detected in one groundwater sample from well MW- 2 at concentrations of 820 µg/L, exceeding the site-specific water quality protection level of 175 µg/L. The installation of well points for groundwater sample collection and the analysis of TPHG, and TPHD is warranted to verify site concentrations. Further investigation of TPHMO at the LLI site does not appear to be warranted based on levels identified.

Methylene Chloride. Methylene chloride was detected in all of the groundwater samples from the temporary well points at a laboratory estimated concentration of 10 µg/L. Because methylene chloride was detected in the method blank, the result is not considered valid. No further investigation is warranted for methylene chloride in groundwater.

Bis(2-ethylhexyl) phthalate. Bis(2-ethylhexyl) phthalate was detected in all of the groundwater samples from the temporary well points at concentrations ranging from 10 µg/L to 27 µg/L. Because Bis(2-ethylhexyl) phthalate was additionally detected in the method blank and the results are not considered valid, no further investigation is necessary for Bis(2-ethylhexyl) phthalate in groundwater.

Metals. Various metals were detected across the site in groundwater samples at concentrations exceeding the water quality objectives. The primary metals that exceeded ESLs included arsenic, cobalt, lead, nickel, and thallium. One groundwater sample collected from the southwest corner of the LLI site (AM-35) had the highest concentrations and identified 10 metals that exceeded water quality objectives. The installation of one temporary well point for groundwater sample collection in this area for a full suite of metals analysis is proposed at the site. Additional testing for metals in groundwater across the site is not proposed due to most constituents being below screening level objectives.

Pentachlorophenol. Pentachlorophenol was detected in one temporary well point (AM-14) at a concentration of 74 µg/L, exceeding the water quality goal of 0.3 µg/L. The reporting limits for the other groundwater samples ranged from 5 µg/L to 25 µg/L, which is above the water quality goal and unusable for comparison. It is recommended that a soil boring be installed as near as possible to AM-14, and that a groundwater sample be collected and analyzed for PCP and dioxins.

3.0 Data Gaps Investigation Scope of Work

Based on our evaluation of site conditions, the following COCs have been identified as data gaps and will require further investigation:

- Dioxin/furans in soil site-wide and groundwater near AM-14
- PCP in soil site-wide and groundwater near AM-14
- Lead in soil site-wide and metals in groundwater near AM-35
- TPHD and TPHG in groundwater site-wide

This scope of work is designed to provide the information needed to meet the objective of this investigation:

- Project implementation, permitting, and Underground Service Alert (USA) notification
- Field program
 - Install shallow test pits for the collection of soil samples.
 - Complete soil borings with temporary well points for groundwater sample collection.
 - Submit the soil and sample samples for laboratory analysis.
 - Conduct a survey using GPS for each sample location.
 - Properly dispose of investigation-derived waste.
- Reporting—Prepare a report of findings that includes the results of the field investigation and provides recommendations to move the site toward closure or future work, as needed.

3.1 Sample Location Rationale

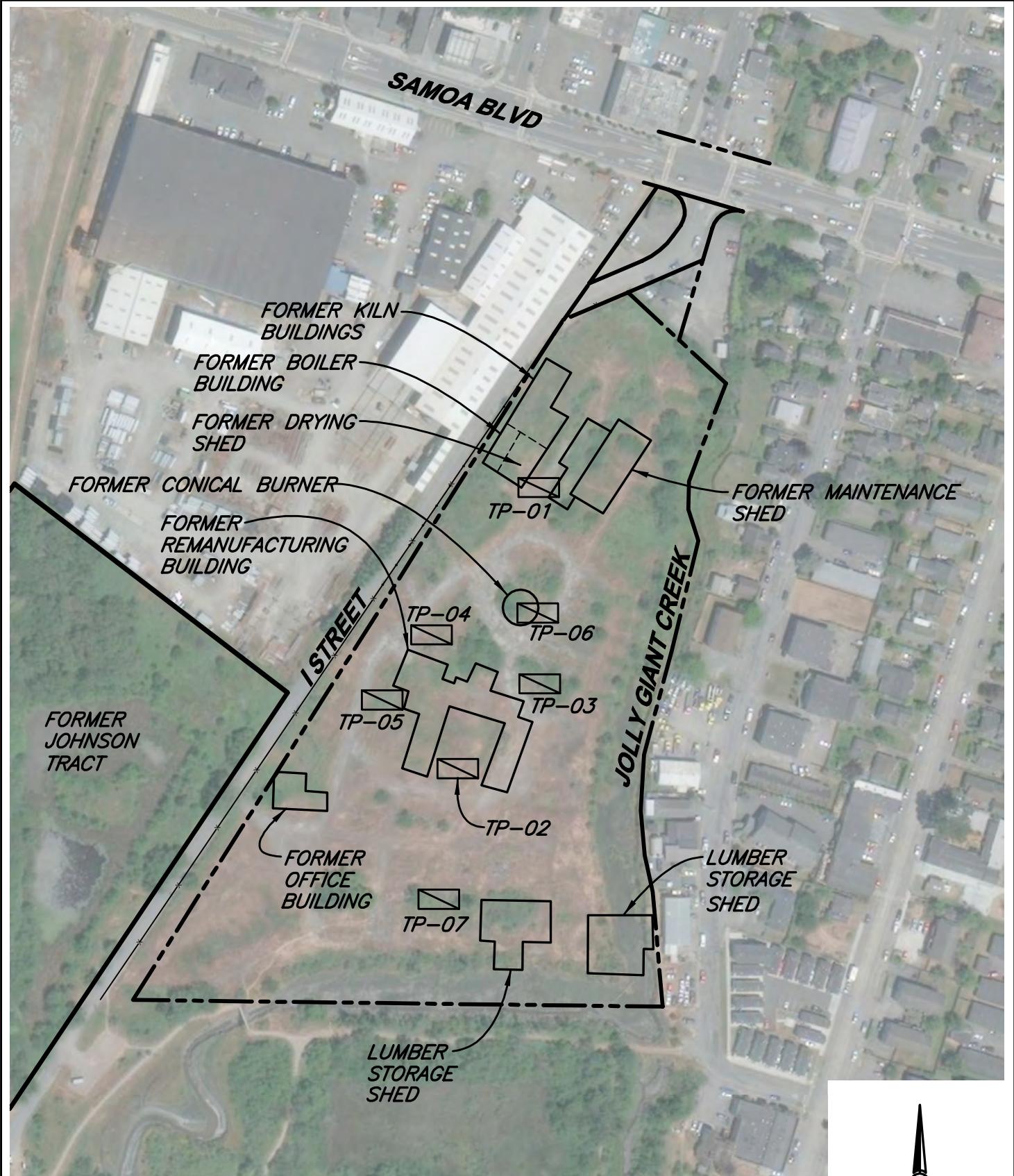
The proposed sample locations for soil and groundwater are shown on Figures 4 and 5, respectively. The scope of the proposed sampling is included in Tables 1 (soil) and 2 (groundwater).

If COCs are detected in soil and groundwater samples collected during this data gaps site investigation at concentrations that exceed regulatory ESLs, additional “step out” locations or further depth discrete sample collection and analysis may be warranted at a future date.

Table 1. Proposed Soil Samples
City of Arcata, Little Lake Industries Site, Arcata, CA

Test Pit Identification	Location	Sampling Rationale	Soil Sample Depth (feet)	Soil Analysis
TP-01	Former Drying Kiln and Maintenance Shed	Follow up PCP and lead detections	1.0-2.5	PCP, lead, and Dioxins/Furans
TP-02	Remanufacturing Complex	Follow up PCP and lead detections	1.0-2.5	PCP, Dioxins/Furans, and Lead
TP-03	Remanufacturing Complex	Follow up PCP and lead detections	1.0-2.5	PCP, Dioxins/Furans, and Lead
TP-04	Remanufacturing Complex	Follow up PCP and lead detections	1.0-2.5	PCP, Dioxins/Furans, and Lead
TP-05	Remanufacturing Complex	Follow up PCP, dioxin, and lead detections	1.0-2.5	PCP, Dioxins/Furans, and Lead
TP-06	Conical Burner Area	Evaluate former conical burner for PCP, dioxins, and lead	1.0-2.5	PCP, Dioxins/Furans, and Lead
TP-07	Former lumber Storage Area	Follow up metal detections	0.5-1.0	Lead

1. PCP: pentachlorophenol

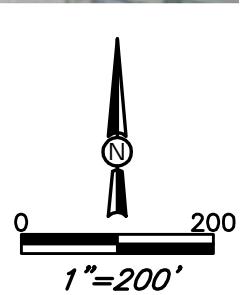


EXPLANATION



TEST PIT LOCATION

TP-01

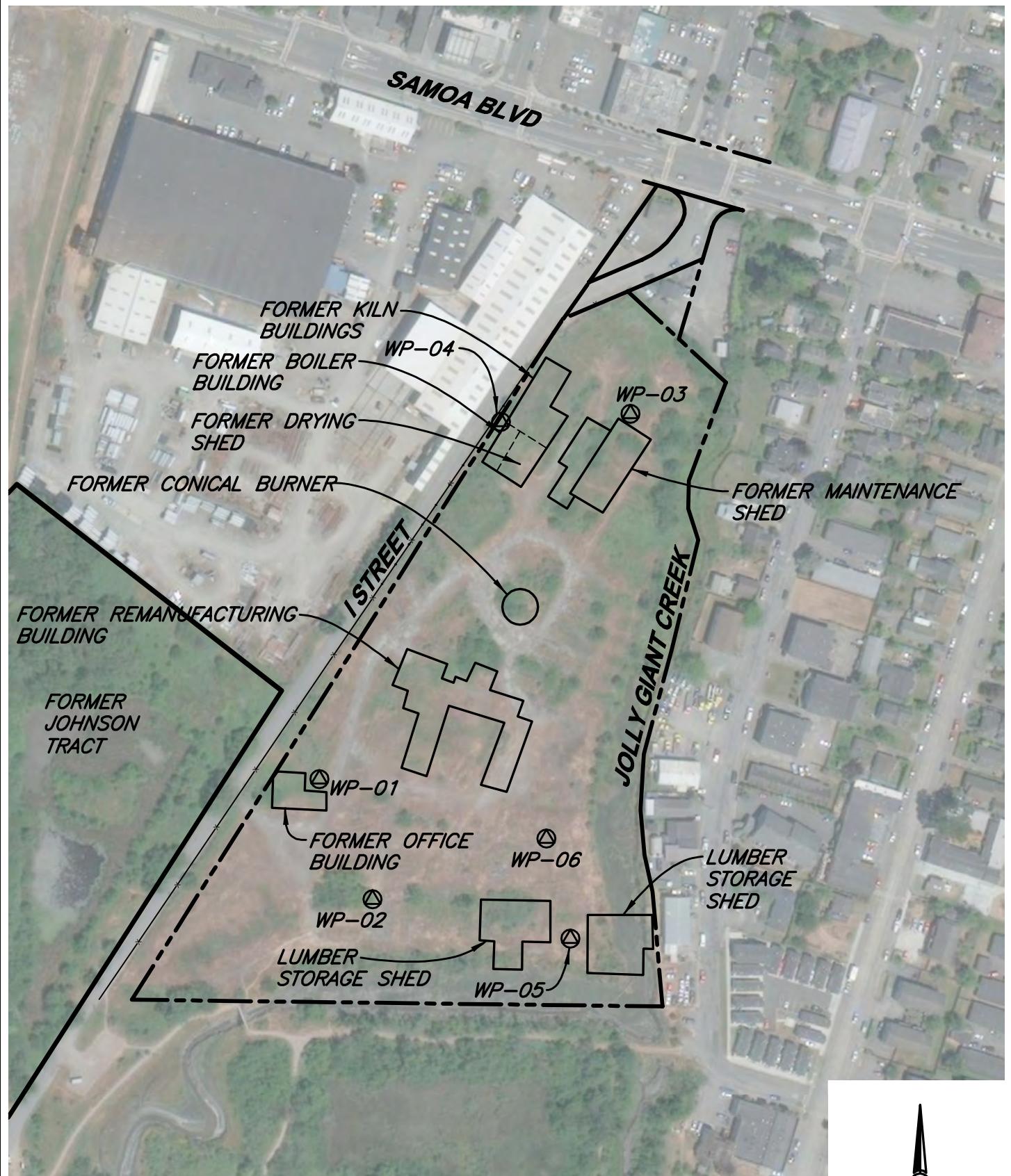


1"=200'

**Table 2. Proposed Groundwater Samples
City of Arcata, Little Lake Industries Site, Arcata, CA**

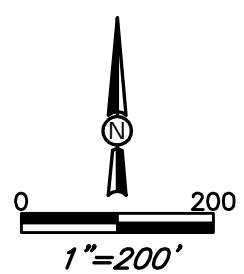
Proposed Borings	Location	Sampling Rationale	Groundwater Analysis
WP-01	Former leachfield areas	Follow up on detections of PCP ¹ , TPHG ² , and TPHD ³ from AM-14.	PCP, Dioxins/Furans, TPHG, and TPHD
WP-02	Adjacent to Former Office Building	Follow up on TPHG and TPHD detections from AM-24.	TPHG and TPHD
WP-03	North of Maintenance Shed	Follow up on TPHG and TPHD detections from AM-26.	TPHG and TPHD
WP-04	Southwest of Former Kilns	Follow up on TPHG and TPHD, from AM-32, AM-34, and MW-3.	TPHG and TPHD
WP-05	Southeast Corner of the site	Follow up on TPHD detection from MW-4.	TPHG and TPHD
WP-06	North of Lumber Storage Sheds	Follow up on TPHG, TPHD, and metal detections exceeding screening levels from AM-35.	TPHG, TPHD, and CAM 17 metals

1. PCP: pentachlorophenol
2. TPHG: total petroleum hydrocarbons as gasoline
3. TPHD: total petroleum hydrocarbons as diesel



EXPLANATION

Ⓐ TEMPORARY WELL POINT LOCATION
WP-02



 Consulting Engineers & Geologists, Inc.	City of Arcata Little Lake Industries Arcata, California	Site Plan with Groundwater Sample Locations SHN 018022.020
May 2018	018022-020-SITE-GW-SAMP	Figure 5

3.2 Project Implementation

In addition to providing this work plan, SHN will coordinate and schedule the activities related to implementing this work plan, including obtaining boring permits from Humboldt County Department of Environmental Health (HCDEH), notifying USA, and corresponding with the RWQCB. Due to the Brownfields funding program facilitating this work, the EPA will require submittal and approval of a SAP, a quality assurance project plan (QAPP), and a health and safety plan (HASP) prior to initiating the work.

3.3 Field Program

3.3.1 Test Pits and Soil Sample Collection

To evaluate the extent of residual PCP and dioxin contamination at the LLI site further, shallow test pits are proposed to be completed using a small excavator or backhoe at the locations shown on Figure 4. Excavation depth is expected to be within 3 feet of the existing surface and is intended to provide access to soils beneath gravel fill. Test pit sidewalls will expose fill material of the original working surface and zones of fine grain material that would be more likely to contain contaminants if present. Material that has been in contact with the excavator bucket will be scraped away and soil samples will be collected from the sidewalls of each test pit using a stainless steel trowel for placement of the material in laboratory-supplied containers. Soil samples will be field screened and described in general accordance with the Unified Soil Classification System under the direction of a licensed professional geologist. Soil samples will be placed in an iced cooler, shipped to the analytical laboratory under chain-of-custody documentation, and analyzed for the constituents shown in “Section 3.3.5: Laboratory Analysis.”

3.3.2 Temporary Well Points for Groundwater Sample Collection

Soil borings are proposed to be completed for the installation of temporary well points at the locations shown on Figure 5. Hand tools consisting of a breaker bar and hand auger are planned for use in advancing the boring to a depth of approximately 5-feet below grade. Groundwater is anticipated to be encountered at a depth of 2 to 3 feet below grade. If hand tools are determined inadequate for advancement of soil borings, then use of a direct push drill rig may be necessary.

After the borings are advanced beyond the depth of the water table, factory-slotted 3/4-inch polyvinyl chloride (PVC) well screen will be placed into each boring followed by the placement of sand filter pack. Temporary well points will be purged using dedicated tubing and a peristaltic pump. Following purging of the temporary well, time will be allowed to stabilize the groundwater level prior to groundwater sample collection. If a temporary well point were to fail to recharge for adequate sample volume during a given work day, then the well would be capped and groundwater sample collection would occur the next day (within 24-hrs).

Groundwater samples will be field-filtered through new disposable 0.45-micron filters prior to placement into laboratory-supplied containers. Groundwater samples will be placed in an iced cooler, shipped to the analytical laboratory under chain-of-custody documentation, and analyzed for constituents shown in “Section 3.2.5: Laboratory Analysis.” Following completion of groundwater sample collection, the PVC well screen will be removed and each boring will be backfilled with bentonite chips, and hydrated.

3.3.3 Equipment Decontamination Procedures

The excavator bucket will be cleaned prior to use on site and between each test pit location using a triple wash system—a Liquinox® solution wash, followed by two distilled water rinses. Small equipment that requires onsite cleaning will also be cleaned using the triple wash system.

3.3.4 Investigation Derived Waste Management

Soil excavated to create each test pit will be placed back in the excavation and tamped down using the excavator bucket following sample collection. Wastewater generated during decontamination and temporary well purging will be stored on site in a Department of Transportation (DOT) 17 E/H, 55-gallon drum. At the completion of onsite sampling activities, the wastewater will be characterized for proper disposal.

3.3.5 Laboratory Analysis

Samples collected during the data gaps investigation will be analyzed for COCs using the following methods:

- Soil and groundwater samples to be analyzed for dioxins and furans will be analyzed using EPA Method 1613B.
- Soil and groundwater samples to be analyzed for PCP will be analyzed using the Canadian Pulp Method.
- Soil samples to be analyzed for lead will be analyzed using EPA method 6010B.
- Groundwater samples to be analyzed for TPHG will be analyzed using EPA Method 8260B.
- Groundwater samples to be analyzed for TPHD/TPHMO will be analyzed using EPA Method 8015B with silica gel cleanup.
- Groundwater samples to be analyzed for dissolved metals will be analyzed using EPA Method 200.8.

All groundwater samples will be field filtered prior to placement in laboratory-supplied containers using a 0.45 micron filter. All samples collected will be submitted under proper chain-of-custody documentation to North Coast Laboratories of Arcata, California, a State-certified testing laboratory.

3.4 Reporting

Following the completion of the field program, SHN will prepare and submit a report of findings on behalf of the City of Arcata to the RWQCB. The report will include a description of the work performed, a summary of the sampling results, analytical laboratory reports, maps depicting the analytical results, and recommendations for site closure or additional work, if needed. The report will be submitted within 60 days of receipt of the laboratory analytical data. Upon approval of this data gaps investigation work plan, SHN will initiate document preparation for EPA approval and project implementation.

4.0 References

California Environmental Protection Agency. (January, 2005). Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties. Sacramento, CA:Cal-EPA.

---. (September, 2009). Revised California Human Health Screening Levels for Lead. Sacramento, CA:Cal-EPA.

Department of Toxic Substance Control. (May, 2009). Human Health Risk Assessment (HHRA) Note 2. Sacramento, CA:DTSC.

---. (August 2017). Note 3 Modified Screening Levels. Sacramento, CA:DTSC.

Esri and others. (March 2015). Aerial Photograph of Arcata, California. NR: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

Freshwater Environmental Services. (September, 2016). Draft Workplan for Additional Investigation, Little Lake Industries (Arcata Mill), Arcata, California. Arcata, CA:FES.

Innovative Technical Solutions, Inc. (September 2002). *Final Phase I Report Targeted Brownfields Assessment, South "I" Street Mill Reuse Project, Arcata, California*. Walnut Creek, CA:ITSI.

North Coast Regional Water Quality Control Board. (July 28, 2016). Correspondence to FES. Santa Rosa, CA:RWQCB

---. (October 13, 2017). Correspondence between Keith Baldanza (RWQCB) and SHN. Santa Rosa, CA:RWQCB.

San Francisco Bay Regional Water Quality Control Board. (February, 2016). Environmental Screening Levels (Rev. 3). San Francisco, CA:SFBRWQCB.

Weston Solutions. (June 2003). *Phase II Targeted Brownfields Site Assessment, South "I" Street Mill Reuse Project, Arcata, California*. Walnut Creek, CA:Weston.

---. (October 2004). "Appendix E: Street Mill Reuse Project, Arcata, California," *Targeted Brownfields Site Assessment Phase II B Investigation Amendment to the Final Report*. Walnut Creek, CA:Weston.

Winzler & Kelly, Consulting Engineers. (October, 1991). *Report of Initial Subsurface Investigation of Underground Tank Site at Little Lake Industries, Arcata, CA*. Eureka, CA:W&K.

---. (April, 1998). *Phase I Environmental Site Assessment, Beaver Lumber Property, 46 S. "I" Street, Arcata, CA. Little Lake Industries, Arcata, CA*. Eureka, CA:W&K.

---. (March, 1998a). *Report of Groundwater and Stockpiled Soil Sampling, at Underground Storage Tank Site, LOP#12018*. Eureka, CA:W&K.

DRAFT

Historical Data 1

1966



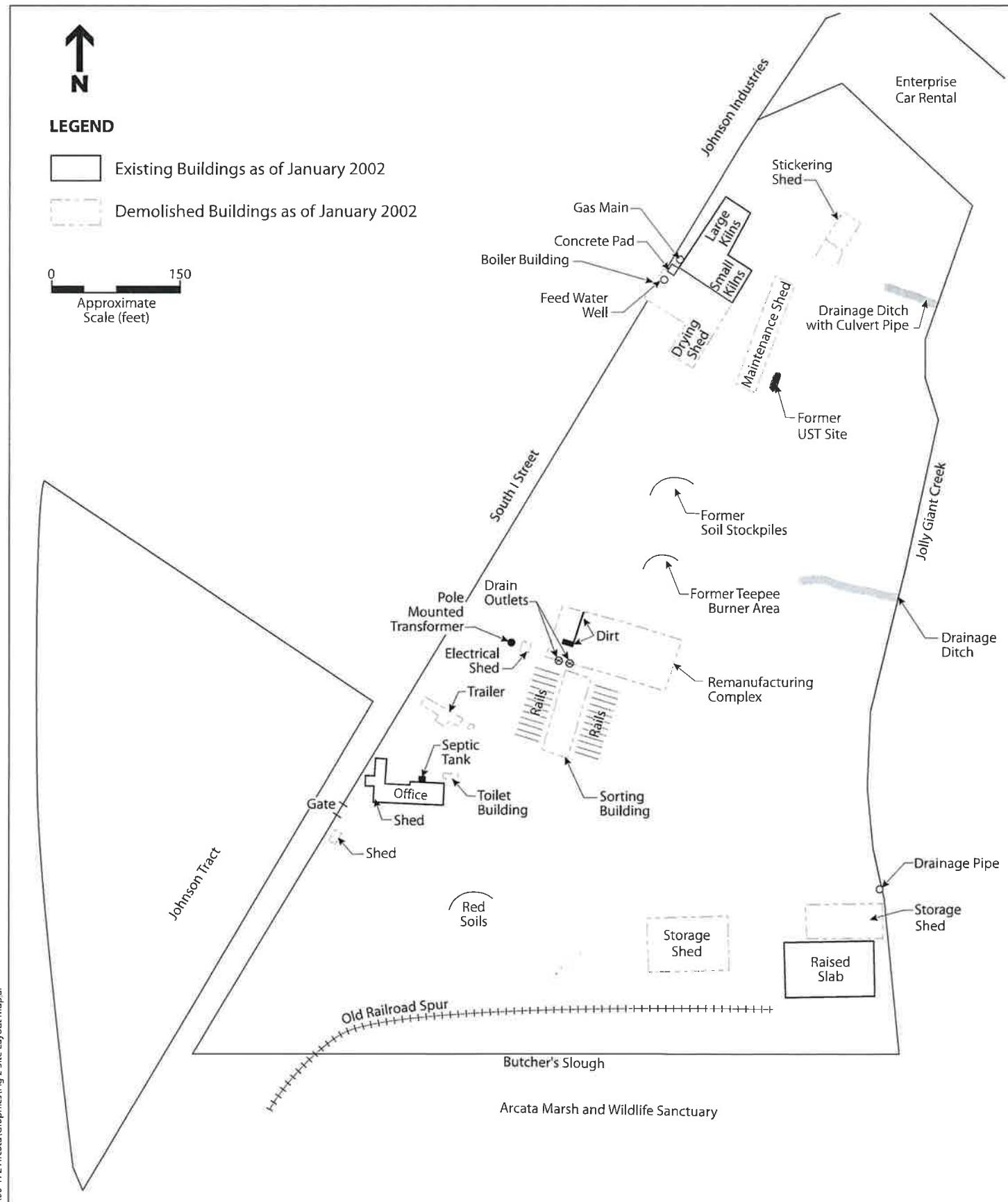
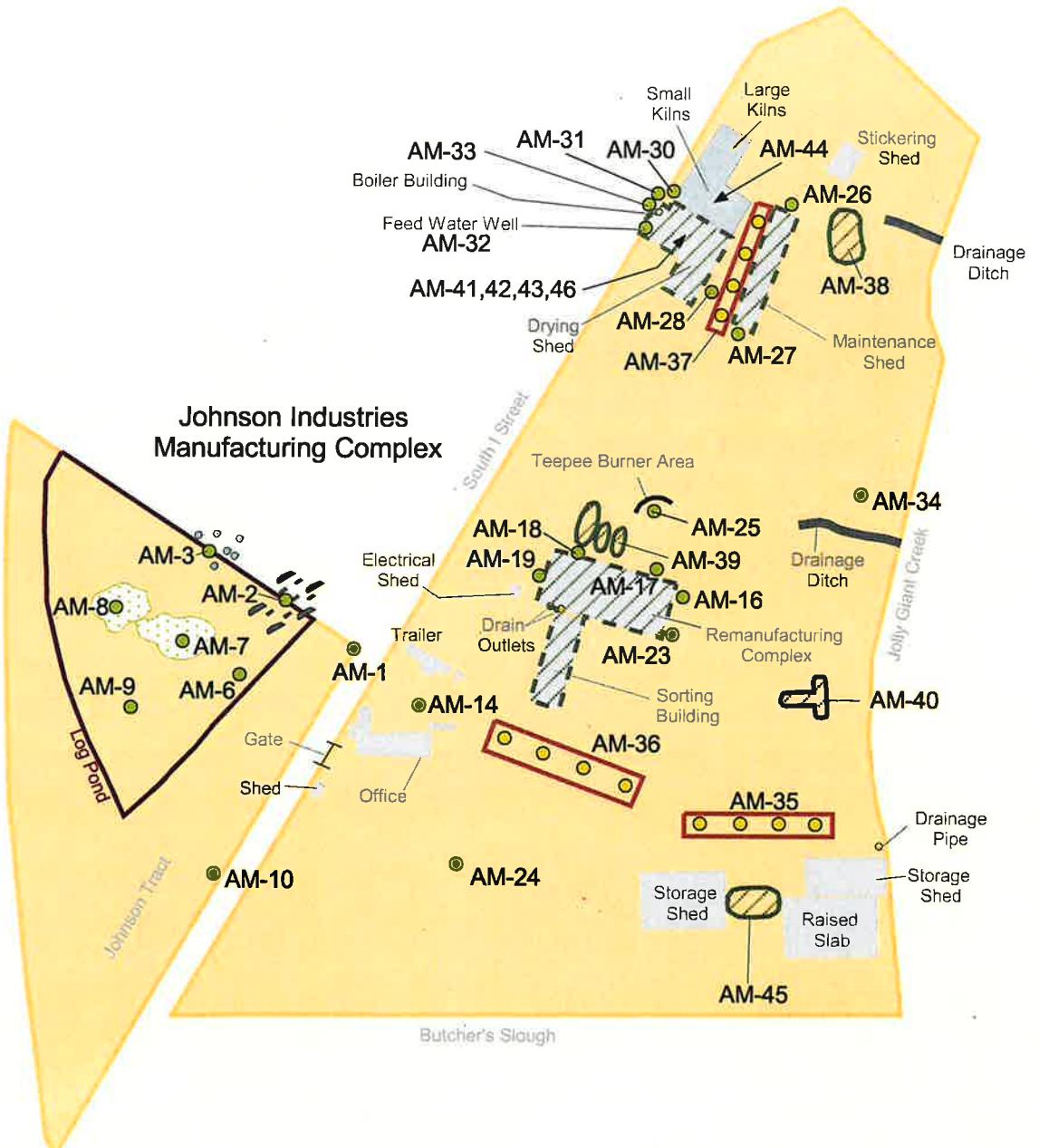


Figure 3—Former Little Lake Industries Site Layout Map
Phase I Targeted Brownfields Assessment
South I Street Mill Reuse Project, Arcata, California

Prepared For:
EPA United States Environmental Protection Agency

U.S. Army Corps of Engineers

Prepared By:
ITSI Innovative Technical Solutions, Inc.



Legend:

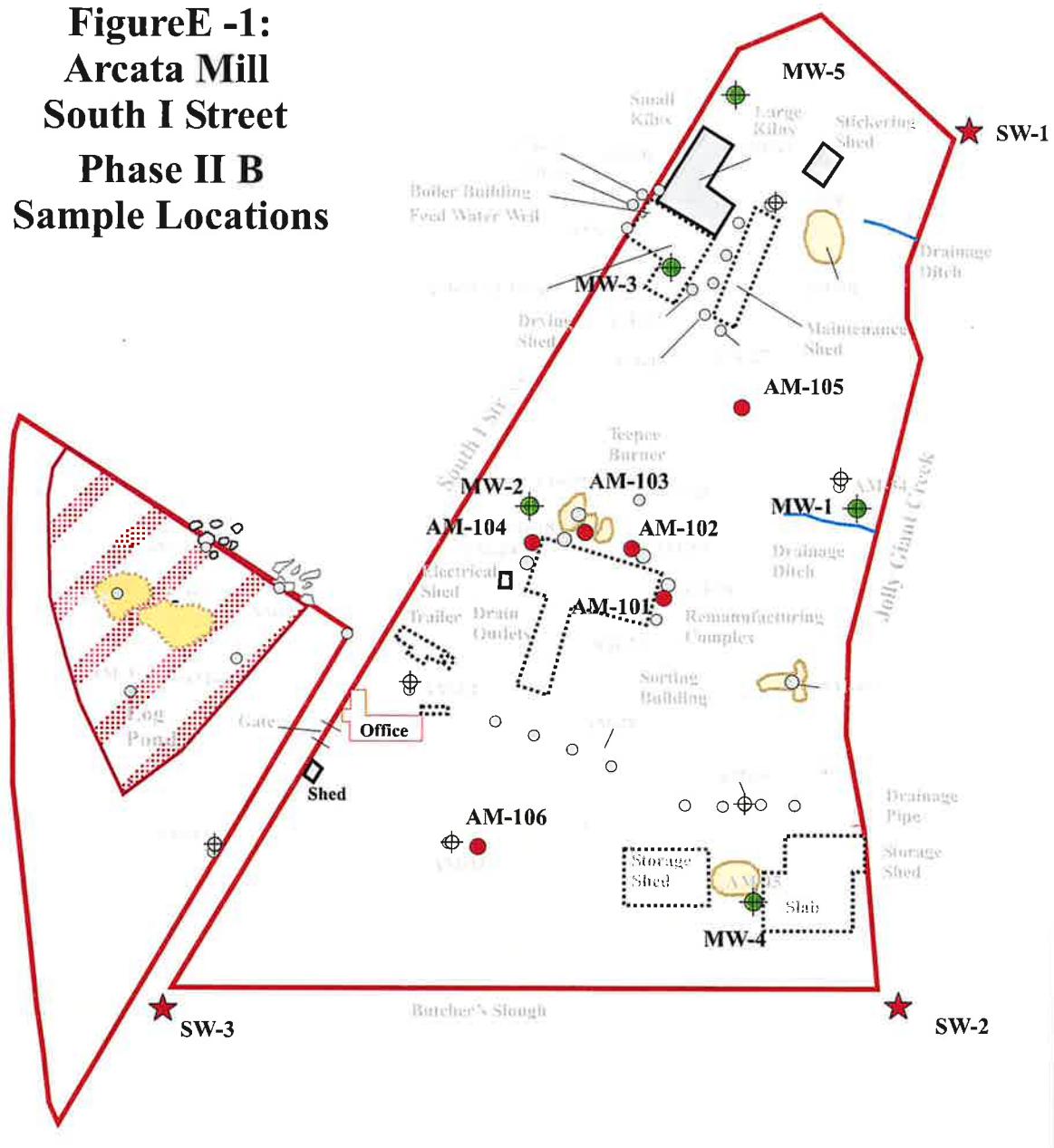
Structures		Stressed Vegetation
Demolished		
Existing		Scattered Concrete
Project Site		Scattered Metal Debris
Railroad		Composite Sample Location
Stockpile		Sample Location

Approximate Scale in Feet



**Figure 3-1
Sample Location Map
South I Street Mill
Reuse Project
Arcata, CA**

Figure E-1:
Arcata Mill
South I Street
Phase II B
Sample Locations



Legend

- Soil Sample Location
- Groundwater Monitoring Well Location
- ★ Surface Water Sample Location
- ⊕ Phase II Sample Locations



Current Buildings



Former Buildings and Pads



Soil Stockpiles

Approximate Scale in Feet

WESTON
SOLUTIONS
Restoring Resource Efficiency

TABLE 1- SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR TPH, VOCs, PCBs, AND PESTICIDES: Little Lake Industries, Arcata, California

BORING ID	DEPTH (feet)	DATE SAMPLED	TPH-Gasoline	TPH-Diesel (silica gel cleanup)	TPH-Motor Oil (silica gel cleanup)	Acetone	Benzene	cis-Dichloroethene	Methyl Acetate	Methylene Chloride	Toluene	Xylene	Trichlorofluoromethane	2-Butanone (methyl ethyl ketone) (MEK)	PCB (Aroclor 1260)	beta-BHC	4,4'-DDT	Endrin Aldehyde
			Screening Level	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			100 ¹	230 ¹	5,100 ¹	0.5 ¹	0.044 ¹	NA	78,000 ²	0.077 ¹	2.9 ¹	2.3 ¹	23,000 ²	5.1 ¹	1.6 ³	3.0 ⁴	1.6 ³	NA
AM-01-0	0.0'-0.5'	17-Dec-02	<1.3	54	57	0.048	<0.013	<0.013	<0.013	0.013 ^{JB}	0.002 ^J	<0.013	<0.013	<0.013	--	--	--	--
AM-01-2	3.0'	19-Dec-02	<1.3	11 ^J	13	<0.011	<0.011	<0.011	<0.011	0.019 ^B	<0.011	<0.011	<0.011	<0.011	--	--	--	--
AM-02-0	0.0'-0.5'	17-Dec-02	<1.6	24	20	0.029	<0.018	<0.018	<0.018	0.018 ^{JB}	<0.018	<0.018	<0.018	<0.018	--	--	--	--
AM-02-B (duplicate of AM-02-0)	0.0'-0.5'	17-Dec-02	<1.5	28	25	0.041 ^B	<0.018	<0.018	<0.018	0.018 ^{JB}	<0.018	<0.018	<0.018	<0.018	--	--	--	--
AM-03-0	0.0'-0.5'	17-Dec-02	<1.4	19	22	0.021 ^B	<0.010	<0.010	<0.010	0.010 ^{JB}	<0.010	<0.010	0.001 ^J	<0.010	--	--	--	--
AM-03-2	1.5'	17-Dec-02	<1.2	16	14	0.014 ^B	<0.011	<0.011	<0.011	0.011 ^{JB}	<0.011	<0.011	0.001 ^J	<0.011	--	--	--	--
AM-06-0	0.0'-0.5'	17-Dec-02	<1.6	26	33	0.065	<0.012	<0.012	<0.012	0.012 ^{JB}	0.002 ^J	<0.012	<0.012	0.013	--	--	--	--
AM-07-0	0.0'-0.5'	17-Dec-02	<1.4	8.5 ^J	5.5 ^B	0.039	<0.013	<0.013	<0.013	0.013 ^{JB}	<0.013	<0.013	0.002 ^J	<0.013	--	--	--	--
AM-08-0	0.0'-0.5'	17-Dec-02	<1.3	16	15	0.023 ^B	<0.011	<0.011	<0.011	0.014 ^B	<0.011	<0.011	<0.011	<0.011	--	--	--	--
AM-08-2	1.5'	17-Dec-02	<1.4	14	14	0.025 ^B	<0.012	<0.012	<0.012	0.012 ^{JB}	<0.012	<0.012	<0.012	<0.012	--	--	--	--
AM-09-0	0.0'-0.5'	17-Dec-02	<1.2	13	30	0.035 ^B	<0.013	<0.013	<0.013	0.017 ^B	<0.013	<0.013	0.002 ^J	<0.013	--	--	--	--
AM-14-2	3.0'	19-Dec-02	--	230	8.1	<0.012	<0.012	<0.012	<0.012	0.017 ^B	<0.012	<0.012	<0.012	<0.012	--	--	--	--
AM-16-0	0.0'-0.5'	17-Dec-02	--	17	19	<0.010	<0.010	<0.010	<0.010	0.010 ^{JB}	<0.010	0.013 ^B	<0.010	<0.010	<.037	<.0019	<0.0037	<0.0037
AM-16-2	3.0'	19-Dec-02	--	14	7.2	0.040 ^B	<0.011	<0.011	<0.011	0.011 ^B	<0.011	<0.011	0.006 ^J	<.041	<0.0021	<0.0041	<0.0041	
AM-17-0	0.0'-0.5'	16-Dec-02	--	39	67	0.100 ^B	0.009 ^J	<0.013	0.044 ^{JB}	0.013 ^B	0.025 ^B	0.026 ^B	<0.013	0.013	<.041	<.0019	<0.0041	<0.0041
AM-17-B (duplicate of AM-17-0)	0.0'-0.5'	16-Dec-02	--	18	38	0.060 ^B	<0.011	<0.011	0.011 ^B	0.011 ^B	<0.011	0.022 ^B	<0.011	<0.011	<.048	<0.0025	<0.0048	<0.0048
AM-18-0	0.0'-0.5'	16-Dec-02	--	140	150	0.063 ^B	<0.017	<0.017	<0.017	0.017 ^{JB}	0.03 ^B	0.030 ^B	<0.017	<0.017	<.053	<0.0027	<0.0053	<0.0053
AM-19-0	0.0'-0.5'	16-Dec-02	--	39	81	0.014 ^B	<0.010	<0.010	0.009 ^J	0.012 ^B	0.017 ^B	0.018 ^B	<0.010	<0.010	0.071	0.0057	<0.0042	0.0058 ^J
AM-23-0	0.0'-0.5'	18-Dec-02	--	7.9 ^J	15	0.006 ^B	<0.010	<0.010	<0.010	0.013 ^B	<0.010	<0.010	0.003 ^J	<0.010	<.036	<.0019	<0.0036	<0.0036
AM-24-0	0.0'-0.5'	17-Dec-02	--	--	--	0.010 ^{JB}	<0.010	<0.010	<0.010	0.011 ^B	<0.010	<0.010	0.001 ^J	<0.010	--	--	--	--
AM-24-2	3.0'	19-Dec-02	--	--	--	0.024	<0.010	<0.010	<0.010	0.010 ^B	<0.010	<0.010	<0.010	<0.010	--	--	--	--
AM-25-0	0.0'-0.5'	17-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AM-25-2	3.0'	19-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



TABLE 1- SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR TPH, VOCs, PCBs, AND PESTICIDES: Little Lake Industries, Arcata, California

BORING ID	DEPTH (feet)	DATE SAMPLED	TPH-Gasoline	TPH-Diesel (silica gel cleanup)	TPH-Motor Oil (silica gel cleanup)	Acetone	Benzene	cis-Dichloroethene	Methyl Acetate	Methylene Chloride	Toluene	Xylene	Trichlorofluoromethane	2-Butanone (methyl ethyl ketone) (MEK)	PCB (Aroclor 1260)	beta-BHC	4,4'-DDT	Endrin Aldehyde
			Screening Level	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
				100 ¹	230 ¹	5,100 ¹	0.5 ¹	0.044 ¹	NA	78,000 ²	0.077 ¹	2.9 ¹	2.3 ¹	23,000 ²	5.1 ¹	1.6 ³	3.0 ⁴	1.6 ³
				100 ¹	230 ¹	5,100 ¹	0.5 ¹	0.044 ¹	NA	78,000 ²	0.077 ¹	2.9 ¹	2.3 ¹	23,000 ²	5.1 ¹	1.6 ³	3.0 ⁴	1.6 ³
AM-26-0	0.0'-0.5'	18-Dec-02	<1.1	170	270	0.037	<0.010	<0.010	<0.010	0.010 ^B	<0.010	<0.010	<0.010	0.004 ^J	<.039	<.0020	<0.0039	<0.0039
AM-26-B (duplicate of AM-26-0)	0.0'-0.5'	18-Dec-02	<1.1	130	280	0.018	<0.010	<0.010	<0.010	0.010 ^{JB}	0.001 ^J	<0.010	<0.010	<0.010	<.040	<.0021	<0.0040	<0.0040
AM-26-2	3.0'	19-Dec-02	<1.3	33	119	0.018	<0.013	<0.013	<0.013	0.013 ^{JB}	<0.013	<0.013	<0.013	<0.013	<.043	<.0022	<0.0043	<0.0043
AM-27-0	0.0'-0.5'	18-Dec-02	<1.3	82	140	0.250	<0.012	<0.012	<0.012	0.012 ^{JB}	<0.012	<0.012	<0.012	0.027 ^J	<.044	<.0023	0.0032 ^J	<0.0044
AM-28-0	0.0'-0.5'	18-Dec-02	--	370	800	0.007	<0.012	<0.012	<0.012	0.020 ^B	<0.012	<0.012	<0.012	0.004 ^J	<.012	--	--	--
AM-30-0	0.0'-0.5'	18-Dec-02	--	150	360	0.019	<0.016	<0.016	<0.016	0.024 ^B	<0.016	<0.016	<0.016	0.002 ^J	<.016	--	--	--
AM-31-0	0.0'-0.5'	18-Dec-02	--	4.9 ^J	5.8 ^J	<1.6	<1.6	<1.6	<1.6	2.3 ^B	<1.6	1.6 ^{BJ}	<1.6	<1.6	--	--	--	--
AM-33-0	0.0'-0.5'	18-Dec-02	--	140	240	0.120	<0.012	<0.012	<0.012	0.012 ^{JB}	<0.012	<0.012	<0.012	0.011 ^J	--	--	--	--
AM-35-0 (4-point composite)	0.0'-0.5'	17-Dec-02	--	90	160	--	--	--	--	--	--	--	--	--	--	--	--	
AM-35-2 (4-point composite)	3.0'	19-Dec-02	--	97	200	0.050	<0.014	<0.014	<0.014	0.015 ^B	<0.014	<0.014	<0.014	0.002 ^J	<.014	--	--	--
AM-36-0 (4-point composite)	0.0'-0.5'	16-Dec-02	--	160	270	--	--	--	--	--	--	--	--	--	--	--	--	
AM-37-0 (4-point composite)	0.0'-0.5'	16-Dec-02	--	390	850	--	--	--	--	--	--	--	--	--	--	--	--	
AM-38-0	Stockpile	16-Dec-02	--	53	68	--	--	--	--	--	--	--	--	--	--	--	--	
AM-39-0	Stockpile	16-Dec-02	--	91	180	--	--	--	--	--	--	--	--	--	--	--	--	
AM-39-B (duplicate of AM-39-0)	Stockpile	16-Dec-02	--	110	210	--	--	--	--	--	--	--	--	--	--	--	--	
AM-40-0	Stockpile	16-Dec-02	--	150	210	--	--	--	--	--	--	--	--	--	--	--	--	
AM-45	Stockpile	17-Dec-02	--	8.7 ^J	13	--	--	--	--	--	--	--	--	--	--	--	--	
AM-101-0	0.0'-0.5'	April 2004	--	20	140	--	--	--	--	--	--	--	--	--	--	--	--	
AM-101-2	1.0'	April 2004	--	250	3,000	--	--	--	--	--	--	--	--	--	--	--	--	
AM-102-0	0.0'-0.5'	April 2004	--	57	470	--	--	--	--	--	--	--	--	--	--	--	--	
AM-103-0	0.0'-0.5'	April 2004	--	30	210	--	--	--	--	--	--	--	--	--	--	--	--	
AM-104-0	0.0'-0.5'	April 2004	--	34	220	--	--	--	--	--	--	--	--	--	--	--	--	
AM-105-0	0.0'-0.5'	April 2004	--	150	1,500	--	--	--	--	--	--	--	--	--	--	--	--	
AM-106-0	0.0'-0.5'	April 2004	--	21	170	--	--	--	--	--	--	--	--	--	--	--	--	
AM-107-0	0.0'-0.5'	April 2004	--	67	670	--	--	--	--	--	--	--	--	--	--	--	--	
AM-108-0	0.0'-0.5'	April 2004	--	180	1,800	--	--	--	--	--	--	--	--	--	--	--	--	
AM-109-0	0.0'-0.5'	April 2004	--	11	72	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE 1- SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR TPH, VOCs, PCBs, AND PESTICIDES: Little Lake Industries, Arcata, California

BORING ID	DEPTH (feet)	DATE SAMPLED	TPH-Gasoline	TPH-Diesel (silica gel cleanup)	TPH-Motor Oil (silica gel cleanup)	Acetone	Benzene	cis-Dichloroethene	Methyl Acetate	Methylene Chloride	Toluene	Xylene	Trichlorofluoromethane	2-Butanone (methyl ethyl ketone) (MEK)	PCB (Aroclor 1260)	beta-BHC	4,4'-DDT	Endrin Aldehyde
			Screening Level	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
				100 ¹	230 ¹	5,100 ¹	0.5 ¹	0.044 ¹	NA	78,000 ²	0.077 ¹	2.9 ¹	2.3 ¹	23,000 ²	5.1 ¹	1.6 ³	3.0 ⁴	1.6 ³
AM-BG-1	unknown	18-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AM-BG-2	unknown	18-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

mg/kg: milligrams per kilogram

NA: Not Available

--: Not Analyzed

10: Bold indicates a detection.

12: Bold and underlined indicates a detection above a screening level.

¹: Estimated concentrations.

²: Analyte was detected in the method blank and in the sample.

¹: San Francisco Bay Regional Water Quality Control Board, Tier 1 ESL, February, 2016.

²: EPA Regional Screening Level (RSL) Resident Soil Table, Noncancer Child Hazard Index, Ingestion SL, May 2016.

³: California Human Health Screening Levels for Soil, January 2005, Residential Land Use.

⁴: EPA Regional Screening Level (RSL) Resident Soil Table, May 2014.

TABLE 2- SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR SVOCs: Little Lake Industries, Arcata, California

BORING ID	DEPTH (feet)	DATE SAMPLED	Atrazine	Anthracene	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Bis(2-Ethylhexyl) Phthalate	Butylbenzylphthalate	Caprolactam	Chrysene	Dibenzofuran	Diethylphthalate	Di-n-butylphthalate (diethyl phthalate)	Fluoranthene	Naphthalene	Pentachlorophenol	Phenanthrene	Pyrene	2-Methylnaphthalene	2,2'-oxybis	4-Methylphenol (p-cresol)
			Screening Level	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				2.4 ²	2.8 ¹	170 ²	0.16 ¹	0.038 ³	0.16 ¹	2.5 ¹	1.6 ¹	250,000 ²	39 ¹	290 ²	31,000 ²	3.8 ¹	73 ²	0.035 ¹	6,300 ²	60 ¹	0.033 ¹	4.4 ³	11 ¹	85 ¹	0.25 ¹	NA
AM-01-0	0.0'-0.5'	17-Dec-02	<0.460	<0.380	0.061 ^j	<0.460	<0.460	<0.460	<0.460	--	0.460 ^{JB}	<0.460	0.090 ^j	<0.460	<0.460	<0.460	<0.460	<0.460	<0.460	<0.460	<1.200	0.067 ^j	<0.460	0.065 ^j	<0.460	<0.460
AM-01-2	3.0'	19-Dec-02	<0.430 ^R	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	--	0.072 ^j	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<0.430	<1.100	<0.430	<0.430	<0.430	<0.430
AM-02-0	0.0'-0.5'	17-Dec-02	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	--	0.064 ^{JB}	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<0.640	<1.160	<0.640	<0.640	<0.640	<0.640
AM-02-B (duplicate of AM-02-0)	0.0'-0.5'	17-Dec-02	<0.540 ^R	<0.540	<0.540	<0.540	<0.540	<0.540	<0.540	--	0.092 ^j	<0.540	<0.540	<0.540	<0.540	<0.540	<0.540	<0.540	<0.540	<0.540	<0.540	<1.400	<0.540	<0.540	<0.540	<0.540
AM-03-0	0.0'-0.5'	17-Dec-02	<0.360 ^R	<0.360	0.076 ^j	<0.360	<0.360	<0.360	<0.360	--	0.360 ^{JB}	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.360	<0.910	<0.360	<0.360	<0.360	<0.360
AM-03-2	1.5'	17-Dec-02	<0.380 ^R	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	--	0.068 ^j	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.950	<0.380	<0.380	<0.380	<0.380
AM-06-0	0.0'-0.5'	17-Dec-02	<0.600	<0.600	<0.600	<0.600	<0.600	<0.600	<0.600	--	1.7 ^B	<0.600	0.079 ^j	<0.600	<0.600	<0.600	<0.600	<0.600	<0.600	<0.600	<0.600	<1.5	<0.600	<0.600	<0.600	<0.600
AM-07-0	0.0'-0.5'	17-Dec-02	<2.500 ^R	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	--	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<6.2	<2.5	<2.5	<2.5	<2.5
AM-08-0	0.0'-0.5'	17-Dec-02	<0.450	<0.450	0.049 ^j	<0.450	<0.450	<0.450	<0.450	--	1.100 ^B	<0.450	0.059 ^j	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<0.450	<1.100	<0.450	<0.450	<0.450	<0.450
AM-08-2	1.5'	17-Dec-02	<0.470	0.072 ^j	<0.470	<0.470	<0.470	<0.470	<0.470	--	1.3 ^B	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<1.2	<0.470	<0.470	<0.470	<0.470
AM-09-0	0.0'-0.5'	17-Dec-02	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	--	0.470 ^{JB}	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<0.470	<1.2	<0.470	<0.470	<0.470	<0.470
AM-14-2	3.0'	19-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AM-16-0	0.0'-0.5'	17-Dec-02	<370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	--	0.420 ^B	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370	<0.370
AM-16-2	3.0'	19-Dec-02	<0.410 ^R	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	--	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	0.190 ^j	<0.410	<0.410	<0.410	<0.410
AM-17-0	0.0'-0.5'	16-Dec-02	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	--	0.410 ^{JB}	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<0.410	<1.0	<0.410	<0.410	<0.410	<0.410
AM-17-B (duplicate of AM-17-0)	0.0'-0.5'	16-Dec-02	<0.480	<0.480	<0.480	<0.480	<0.480	<0.480	<0.480	--	0.480 ^{JB}	<0.480	0.096 ^j	<0.480	<0.480	<0.480	<0.480	<0.480	<0.480	<0.480	<0.480	<1.2	<0.480	<0.480	<0.480	<0.480
AM-18-0	0.0'-0.5'	16-Dec-02	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	--	0.520 ^{JB}	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	<0.520	0.180 ^j	<0.520	<0.520	<0.520	<0.520
AM-19-0	0.0'-0.5'	16-Dec-02	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	--	0.420 ^{JB}	<0.420	0.120 ^j	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	0.160 ^j	<0.420	<0.420	<0.420	<0.420
AM-23-0	0.0'-0.5'	18-Dec-02	<0.360 ^R	<0.360	<0.360	<0.360	<0.36																			

TABLE 2- SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR SVOCs: Little Lake Industries, Arcata, California

BORING ID	DEPTH (feet)	DATE SAMPLED	Atrazine	Anthracene	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Bis(2-Ethylhexyl) Phthalate	Butylbenzylphthalate	Caprolactam	Chrysene	Dibenzofuran	Diethylphthalate	Di-n-butylphthalate (dibutyl phthalate)	Fluoranthene	Naphthalene	Pentachlorophenol	Phenanthrene	Pyrene	2-Methylnaphthalene	2,2'-oxybis	4-Methylphenol (p-cresol)	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			2.4 ²	2.8 ¹	170 ²	0.16 ¹	0.038 ³	0.16 ¹	2.5 ¹	1.6 ¹	250,000 ²	39 ¹	290 ²	31,000 ²	3.8 ¹	73 ²	0.035 ¹	6,300 ²	60 ¹	0.033 ¹	4.4 ³	11 ¹	85 ¹	0.25 ¹	NA	6,300 ²	
composite)																											
AM-36-0 (4-point composite)	0.0'-0.5'	16-Dec-02	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	0.420 JB	<0.420	0.160 J	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420	<1.1	<0.420	<0.420	<0.420	<0.420	0.049 J	
AM-37-0 (4-point composite)	0.0'-0.5'	16-Dec-02	<4.700	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	4.70 JB	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	
AM-38-0	Stockpile	16-Dec-02	<2.200	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	2.20 JB	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<5.6	<2.2	<2.2	<2.2	<2.2	<2.2
AM-39-0	Stockpile	16-Dec-02	<0.760	<0.760	<0.760	<0.760	<0.759	<0.760	<0.760	<0.760	1.10 B	0.130 J	<0.760	<0.760	<0.760	<0.760	0.096 J	<0.760	<0.760	0.078 J	<0.760	<0.760	<0.760	<0.760	<0.760	<0.760	<0.760
AM-39-B (duplicate of AM-39-0)	Stockpile	16-Dec-02	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	0.380 JB	<0.380	0.040 J	<0.380	<0.380	<0.380	<0.380	0.043 J	<0.380	<0.970	0.050 J	0.041 J	<0.380	0.065 J	<0.380	<0.380	<0.380
AM-40-0	Stockpile	16-Dec-02	<0.900	<0.90	0.190 J	0.110 J	0.120 J	0.250 J	<0.900	0.120 J	<0.90	1.50 B	0.250 J	<0.90	0.210 J	<0.90	<0.90	<0.90	0.330 J	<0.90	<2.3	0.220 J	0.290 J	<0.90	<0.90	<0.90	<0.90
AM-45	Stockpile	17-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AM-101-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	<0.400	UNK	0.250 J	<0.400	UNK	UNK	UNK	UNK	<0.40	0.230	UNK	UNK	<0.400	UNK	UNK	UNK	<0.400	UNK	UNK
AM-101-2	1.0'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	<2.700	UNK	<5.300	<2.700	UNK	UNK	UNK	UNK	<2.70	<2.30	UNK	UNK	<2.700	UNK	UNK	<2.700	UNK	UNK	UNK
AM-102-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	<0.350	UNK	0.250	0.180 J	UNK	UNK	UNK	UNK	<0.350	<0.350	UNK	UNK	0.072 J	UNK	UNK	<350	UNK	UNK	
AM-103-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	<0.420	UNK	0.360 J	0.170 J	UNK	UNK	UNK	UNK	<0.420	<0.220	UNK	UNK	<0.420	UNK	UNK	<460	UNK	UNK	
AM-104-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	<0.460	UNK	0.380 J	0.100 J	UNK	UNK	UNK	UNK	<0.460	<0.250	UNK	UNK	0.140 J	UNK	UNK	<420	UNK	UNK	
AM-105-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	<0.420	UNK	0.310 J	<0.140	UNK	UNK	UNK	UNK	<0.420	<0.180	UNK	UNK	<0.420	UNK	UNK	<420	UNK	UNK	
AM-106-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	<0.470	UNK	<0.940	<0.097	UNK	UNK	UNK	UNK	<0.470	<0.200	UNK	UNK	<0.470	UNK	UNK	<470	UNK	UNK	
AM-107-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	<0.360	UNK	<0.720	0.180 J	UNK	UNK	UNK	UNK	<0.360	<0.370	UNK	UNK	<0.360	UNK	UNK	0.085 J	UNK	UNK	
AM-108-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	0.069 J	UNK	0.680	0.180	UNK	UNK	UNK	UNK	0.340	0.200	UNK	UNK	0.340	UNK	UNK	0.340	UNK	UNK	
AM-109-0	0.0'-0.5'	April 2004	UNK	UNK	UNK	UNK	UNK	UNK	0.460	UNK	0.360 J	0.140 J	UNK	UNK	UNK	UNK	0.096 J	0.340	UNK	UNK	0.460	UNK	UNK	0.460	UNK	UNK	
AM-BG-1	unknown	18-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
AM-BG-2	unknown	18-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

mg/kg: milligrams per kilogram

NA: Not Available

--: Not Analyzed

10: Bold indicates a detection.

12: Bold and underlined indicates a detection above a screening level.

¹: Estimated concentrations.

UNK: This analyte may have been analyzed but there are no lab reports or tables listing the results.

¹: San Francisco Bay Regional Water Quality Control Board, Tier 1 ESL, February, 2016.

²: EPA Regional Screening Level (RSL) Resident Soil Table, Noncancer Child Hazard Index, Ingestion SL, May 2016.

³: California Human Health Screening Levels for Soil, January 2005, Residential Land Use.

TABLE 3- SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR METALS: Little Lake Industries, Arcata, California

BORING ID	DEPTH (feet)	DATE SAMPLED	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
30 ¹	0.07 ¹	5,200 ¹	150 ¹	1.7 ¹	10,000 ¹	660 ¹	3,000 ¹	80 ²	18 ¹	1,600 ¹	380 ¹	380 ¹	5.0 ¹	530 ¹	23,000 ¹			
AM-01-0	0.0'-0.5'	17-Dec-02	<0.94	<u>2.9</u>	170	0.41 ^B	<0.10	50	10.9 ^B	18.9 ^J	33.4	0.090 ^B	54.5	1.4	<0.18	<1.3	46.3	106 ^J
AM-01-2	3.0'	19-Dec-02	<0.82	<u>2.3</u>	125	0.25 ^B	<0.090	24.7	10.9 ^B	17.2 ^J	13.4	<0.050	33.2	1.2	<0.16	<1.1	30.1	39.2 ^J
AM-02-0	0.0'-0.5'	17-Dec-02	<1.3	<u>4.5</u>	144	0.44 ^B	<0.14	64.2	12.5 ^B	19.3 ^J	22.2	0.080 ^B	70.9	2.5	<0.25	<1.8	49.9	363 ^J
AM-02-B (duplicate of AM-02-0)	0.0'-0.5'	17-Dec-02	<1.2	<u>3.5</u>	131	0.40 ^B	<0.13	58.6	11.4 ^B	19.0 ^J	20.3	0.20 ^J	64.4	1.7	<0.23	<1.7	44.8	277 ^J
AM-03-0	0.0'-0.5'	17-Dec-02	<0.93	<u>5.0</u>	109	0.39 ^B	<0.10	57.4	9.2 ^B	22.0 ^J	16.8	0.080 ^B	48.8	1.9	<0.18	<1.3	53.4	64.3 ^J
AM-03-2	1.5'	17-Dec-02	<0.90	<u>3.5</u>	113	0.48 ^B	<0.10	45.3	11.3 ^B	17.6 ^J	9.1	0.050 ^B	119	1.6	<0.17	<1.2	49.9	45.4 ^J
AM-06-0	0.0'-0.5'	17-Dec-02	0.55 ^{JB}	<u>2.7^B</u>	98.4	0.24 ^B	0.10 ^B	34.3	7.0 ^B	32.4	21.5	<0.060	39.4	<0.89	<0.24	<0.71 ^R	27.2	301
AM-07-0	0.0'-0.5'	17-Dec-02	0.80 ^{JB}	<u>5</u>	124	0.50 ^B	<0.090	66.7	13.4 ^B	26.9	8.8	0.080 ^B	74.8	<0.87	<0.23	<0.69 ^R	50.2	72.7
AM-08-0	0.0'-0.5'	17-Dec-02	0.47 ^{JB}	<u>3.4</u>	95.3	0.46 ^B	<0.070	49.8	11.7 ^B	18.6	6.4	0.060 ^B	53.6	0.91 ^B	<0.19	<0.58 ^R	47.4	46.6
AM-08-2	1.5'	17-Dec-02	0.69 ^{JB}	<u>3</u>	95.5	0.48 ^B	<0.080	50.7	10.8 ^B	18.0	5.9	0.070 ^B	51.8	0.90 ^B	<0.21	<0.62 ^R	47.7	42.3
AM-09-0	0.0'-0.5'	17-Dec-02	<0.33	<u>2.7^B</u>	180	0.49 ^B	<0.080	54.0	8.7 ^B	29.6	56.1	0.090 ^B	46.5	<0.83	<0.22	<0.66 ^R	46.4	93.5
AM-14-??	3.0'	19-Dec-02	<0.70	<u>4.9</u>	92.6	0.45 ^B	<0.080	72.1	10.7	14.2	6.5	<0.050	77.8	1.8	<0.13	<0.97	49.2	55.4
AM-16-0	0.0'-0.5'	17-Dec-02	0.35 ^B	<u>3.4</u>	63.2	0.28 ^B	<0.070	36.2	8.1 ^B	21.4	10.5	0.17	49.1	0.84 ^B	<0.17	<0.52 ^R	37.1	54.4
AM-16-2	3.0'	19-Dec-02	<0.89	<u>5.5</u>	160	0.51 ^B	<0.10	95.1	17.7	21.2	8.2	0.080 ^B	108	1.8	<0.17	<1.2	56.6	69.7
AM-17-0	0.0'-0.5'	16-Dec-02	<0.28	<u>2.8</u>	80.0	0.23 ^B	<0.070	16.8	6.4 ^B	16.7	11.4	0.090 ^B	29.1	<0.71	<0.19	<0.57 ^R	21.6	71.9
AM-17-B (duplicate of AM-17-0)	0.0'-0.5'	16-Dec-02	<0.26	<u>2.0^B</u>	69.7	0.13 ^B	<0.070	19.8	6.5 ^B	16.7	6.8	<0.040	35.2	<0.66	<0.18	<0.53 ^R	24.1	63.2
AM-18-0	0.0'-0.5'	16-Dec-02	1.2 ^B	<u>5.8</u>	195	0.38 ^B	0.57 ^B	82.7	13.3 ^B	101	<u>124</u>	3.5	77.8	<1.0	<0.27	<0.82 ^R	46.5	387
AM-19-0	0.0'-0.5'	16-Dec-02	0.37 ^B	<u>4.3</u>	108	0.31 ^B	0.31 ^B	35.4	9.2 ^B	35.4	67.7	0.66	42.7	<0.80	<0.21	<0.64 ^R	39.6	227
AM-23-0	0.0'-0.5'	18-Dec-02	<0.78	<u>3.4</u>	160	0.51 ^B	<0.080	95.1	17.7	21.2	5.9	0.080 ^B	108	1.8	<0.17	<1.2	48.4	51.5
AM-24-0	0.0'-0.5'	17-Dec-02	0.37 ^B	<u>2.7</u>	61.0	0.25 ^B	<0.060	29.5	7.1 ^B	18.5	14.6	0.060 ^B	39.7	<0.63	<0.17	<0.51 ^R	35.3	41.3
AM-24-2	3.0'	19-Dec-02	<0.95	<u>6.1</u>	115	0.48 ^B	<0.010	93.0	10.6 ^B	14.0	8.5	0.080 ^B	93.7	2.2	<0.18	<1.3	57.5	69.3
AM-25-0	0.0'-0.5'	17-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AM-25-2	3.0'	19-Dec-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
AM-26-0	0.0'-0.5'	18-Dec-02	<0.73	<u>2.9</u>	301	0.27 ^B	<0.080	35.6	6.9 ^B	37.4	62.3	0.11	31.5	1.3	<0.14	<1.0	32.1	92.1
AM-26-B (duplicate of AM-26-0)	0.0'-0.5'	18-Dec-02	<0.84	<u>4.0</u>	289	0.27 ^B	<0.090	44.5	8.5 ^B	177	75.6	0.090 ^B	41.0	1.2	<0.16	<1.2	40.4	150
AM-26-2	3.0'	19-Dec-02	<0.90	<u>5.2</u>	207	0.44 ^B	<0.10	72.7	15.3	21.6	53.0	0.090 ^B	86.1	1.6	<0.17	<1.2	50.5	150
AM-27-0	0.0'-0.5'	18-Dec-02	<0.89	<u>5.6</u>	219	0.34 ^B	0.15 ^B	52.2	11.1 ^B	51.2	<u>166</u>	0.33	55.6	1.9	<0.17	<1.2	40.6	207

TABLE 3- SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR METALS: Little Lake Industries, Arcata, California

BORING ID	DEPTH (feet)	DATE SAMPLED	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
30 ¹	0.07 ¹	5,200 ¹	150 ¹	1.7 ¹	10,000 ¹	660 ¹	3,000 ¹	80 ²	18 ¹	1,600 ¹	380 ¹	380 ¹	5.0 ¹	530 ¹	23,000 ¹			
AM-28-0	0.0'-0.5'	18-Dec-02	<1.1	<u>3.8</u>	151	0.32 ^B	<0.11	38.9	8.8 ^B	20.3	74.5	0.17	45.2	<0.94	1.1 ^B	<1.5	44.4	391
AM-30-0	0.0'-0.5'	18-Dec-02	<1.1	<u>6.3</u>	180	0.41 ^B	<u>6.9</u>	67.6	9.0 ^B	68.4	59.7	0.11 ^B	45.2	<0.94	<0.21	<1.5	41.4	664
AM-31-0	0.0'-0.5'	18-Dec-02	<0.87	<u>4.4</u>	377	0.22 ^B	<0.090	39.6	7.9 ^B	103	54.3	0.080 ^B	46.2	1.1 ^B	<0.16	<1.2	28.6	592
AM-33-0	0.0'-0.5'	18-Dec-02	0.70 ^B	<u>4.2</u>	200	0.30 ^B	0.44 ^B	43.0	43.6	45.8	56.6	0.10	53.3	1.2	<0.18	<0.55 ^R	37.9	637
AM-35-0 (4-point composite)	0.0'-0.5'	17-Dec-02	0.86 ^B	<u>2.5</u>	137	0.23 ^B	<0.070	29.4	9.4 ^B	20.5	<u>116</u>	0.11	50.5	<0.69	<0.18	<0.55 ^R	29.0	99.9
AM-35-2 (4-point composite)	3.0'	19-Dec-02	<0.86	<u>7.5</u>	217	0.53 ^B	<0.090	39.6	13.4	17.7 ^J	10.7	0.090 ^B	111	2.0	<0.16	<1.2	61.5	80.8
AM-36-0 (4-point composite)	0.0'-0.5'	16-Dec-02	<0.86	<u>3.8^B</u>	225	0.40 ^B	0.25 ^B	42.6	13.8 ^B	54.9	<u>200</u>	0.35	48.8	<1.2	<0.33	<0.98 ^R	52.7	249
AM-37-0 (4-point composite)	0.0'-0.5'	16-Dec-02	<u>0.96^B</u>	<u>6.7</u>	<u>203</u>	<u>0.36^B</u>	<u>0.53^B</u>	<u>46.3</u>	<u>11.4^B</u>	<u>45.2</u>	<u>191</u>	<u>0.14</u>	<u>55.8</u>	<u>0.74^B</u>	<0.19	<0.58 ^R	<u>43.6</u>	<u>309</u>
AM-38-0	Stockpile	16-Dec-02	<u>0.77^B</u>	<u>6.7</u>	<u>149</u>	<u>0.44^B</u>	<0.080	<u>73.6</u>	<u>14.9</u>	<u>41.4</u>	<u>33.3</u>	<u>0.12</u>	<u>87.9</u>	<u>1.3</u>	<0.20	<0.60 ^R	<u>55.5</u>	<u>89.6</u>
AM-39-0	Stockpile	16-Dec-02	<u>0.36^B</u>	<u>5.3</u>	<u>141</u>	<u>0.37^B</u>	<0.070	<u>52.4</u>	<u>11.3</u>	<u>41.7</u>	<u>78.6</u>	<u>0.26</u>	<u>63.1</u>	<0.68	<0.18	<0.54 ^R	<u>45.5</u>	<u>133</u>
AM-39-B (duplicate of AM-39-0)	Stockpile	16-Dec-02	<u>0.39^B</u>	<u>4.4</u>	<u>127</u>	<u>0.31^B</u>	<u>0.11^B</u>	<u>46.5</u>	<u>10.0^B</u>	<u>39.5</u>	<u>112</u>	<u>0.14</u>	<u>54.0</u>	<0.63	<u>0.28^B</u>	<0.50 ^R	<u>39.1</u>	<u>118</u>
AM-40-0	Stockpile	16-Dec-02	<0.35	<u>6.0</u>	<u>120</u>	<u>0.40^B</u>	<u>0.90^B</u>	<u>60.9</u>	<u>12.4^B</u>	<u>50.5</u>	<u>124</u>	<u>0.21</u>	<u>70.2</u>	<0.87	<0.23	<0.70 ^R	<u>48.0</u>	<u>229</u>
AM-45	Stockpile	17-Dec-02	<u>0.68^B</u>	<u>4.3</u>	<u>133</u>	<u>0.40^B</u>	<0.060	<u>50.2</u>	<u>10.3^B</u>	<u>27.1</u>	<u>57.4</u>	<u>0.10</u>	<u>52.1</u>	<0.64	<0.17	<0.51	<u>45.2</u>	<u>87.7</u>
AM-101-0	0.0'-0.5'	April 2004	UNK	<u>2.6^J</u>	UNK	UNK	<u>0.18^J</u>	UNK	UNK	UNK	<u>24.8^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>131^J</u>
AM-101-2	1.0'	April 2004	UNK	<u>3.3^J</u>	UNK	UNK	<u>0.15^J</u>	UNK	UNK	UNK	<u>7.5^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>68.4^J</u>
AM-102-0	0.0'-0.5'	April 2004	UNK	<u>4.3^J</u>	UNK	UNK	<u>0.18^J</u>	UNK	UNK	UNK	<u>27^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>145^J</u>
AM-103-0	0.0'-0.5'	April 2004	UNK	<u>3.6^J</u>	UNK	UNK	<u>0.18^J</u>	UNK	UNK	UNK	<u>54.5^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>181^J</u>
AM-104-0	0.0'-0.5'	April 2004	UNK	<u>8.7^J</u>	UNK	UNK	<u>0.18^J</u>	UNK	UNK	UNK	<u>87.3^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>318^J</u>
AM-105-0	0.0'-0.5'	April 2004	UNK	<u>3.3^J</u>	UNK	UNK	<0.18	UNK	UNK	UNK	<u>93.5^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>233^J</u>
AM-106-0	0.0'-0.5'	April 2004	UNK	<u>4.9^J</u>	UNK	UNK	<u>0.24^J</u>	UNK	UNK	UNK	<u>155^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>113^J</u>
AM-107-0	0.0'-0.5'	April 2004	UNK	<u>5.4^J</u>	UNK	UNK	<u>0.17^J</u>	UNK	UNK	UNK	<u>149^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>316^J</u>
AM-108-0	0.0'-0.5'	April 2004	UNK	<u>4.1^J</u>	UNK	UNK	<u>0.15^J</u>	UNK	UNK	UNK	<u>169^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>341^J</u>
AM-109-0	0.0'-0.5'	April 2004	UNK	<u>5.9^J</u>	UNK	UNK	<u>0.22^J</u>	UNK	UNK	UNK	<u>66^J</u>	UNK	UNK	UNK	UNK	UNK	UNK	<u>490^J</u>
AM-BG-1	unknown	18-Dec-02	<2.3	<u>7.4</u>	<u>94.6^B</u>	<u>0.70^B</u>	<0.25	<u>88.9</u>	<u>14.3^B</u>	<u>96.0^J</u>	<u>61.2</u>	<u>0.19^B</u>	<u>112</u>	<2.0	<0.43	<3.2	<u>61.5</u>	<u>168^J</u>
AM-BG-2	unknown	18-Dec-02	<1.9	<u>8.2</u>	<u>59.6^B</u>	<u>0.83^B</u>	<0.21	<u>127</u>	<u>23.9^B</u>	<u>19.8^J</u>	<u>29</u>	<u>0.16^B</u>	<u>153</u>	<u>2.2^B</u>	<0.37	<2.7	<u>83.1</u>	<u>118^J</u>



TABLE 3- SUMMARY OF CHEMICAL ANALYSES OF SOIL SAMPLES FOR METALS: Little Lake Industries, Arcata, California

BORING ID	DEPTH (feet)	DATE SAMPLED Screening Level	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
			30 ¹	0.07 ¹	5,200 ¹	150 ¹	1.7 ¹	10,000 ¹	660 ¹	3,000 ¹	80 ²	18 ¹	1,600 ¹	380 ¹	380 ¹	5.0 ¹	530 ¹	23,000 ¹	
mg/kg: milligrams per kilogram																			
10: Bold indicates a detection.																			
12: Bold and underlined indicates a detection above a screening level.																			
¹ : Estimated concentrations.																			
² : Analyte was detected in the method blank and in the sample.																			
UNK: This analyte may have been analyzed but there are no lab reports or tables listing the results.																			
¹ : California Human Health Screening Levels for Soil, January 2005, Residential Land Use.																			
² : Revised California Human Health Screening Levels for Soil, September 2009, Residential Land Use.																			

TABLE 4-SUMMARY OF CHEMICAL ANALYSES OF GROUNDWATER SAMPLES FOR TPH AND VOCs: Little Lake Industries, Arcata, California

BORING ID	DATE SAMPLED	TPH-Gasoline	TPH-Diesel (silica gel cleanup)	TPH-Motor Oil (silica gel cleanup)	Acetone	Benzene	Bromomethane	Chlorobenzene	Ethylbenzene	Methylene Chloride (Dichloromethane)	Methyl t-butyl ether (MTBE)	Toluene	1,1-Dichloroethene	Trichloroethene	1,2-Dibromo-3-chloropropane (DBCP)	1,2,3-Trichlorobenzene	2-Butanone (methyl ethyl ketone) (MEK)	
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		
		5 ¹	56 ²	175 ³	6,300 ²	0.15 ⁴	9.8 ²	70 ⁴	3.2 ⁵	4 ⁴	5 ⁶	40 ⁷	0.06 ¹	1.7 ⁴	0.0017 ⁴	NA	4,000 ¹	
AM-10-GW	19-Dec-02	<u>12^J</u>	<u>140</u>	<100	<10	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-14-GW	19-Dec-02	<u>13^J</u>	<u>340</u>	<100	<10	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-24-GW	19-Dec-02	<u>11^J</u>	<u>230</u>	<100	<10	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-26-GW	19-Dec-02	<u>16^J</u>	<u>210</u>	<100	<10	<10	<10	<10	<10	<u>1.0^J</u>	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10
AM-26-GW-B (duplicate of AM-26-GW)	19-Dec-02	<u>7.0^J</u>	<u>260</u>	<100	<u>10^JB</u>	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-32-GW (Industrial Supply Well)	18-Dec-02	<u>6.0^J</u>	<u>840</u>	<100	<10	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-32-GW-B (duplicate of AM-32-GW)	18-Dec-02	<u>10^J</u>	<u>920</u>	<100	<10	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-34-GW	19-Dec-02	<u>16^J</u>	<u>1,100</u>	<100	<u>10^JB</u>	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-35-GW	19-Dec-02	<u>7.0^J</u>	<u>880</u>	<120	--	--	--	--	--	--	--	--	--	--	--	--	--	
AM-EB-1 (Equipment Blank)	16-Dec-02	--	<49	<98	<10	<u>2.0^J</u>	<10	1.0 ^J	<10	<u>10^JB</u>	<10	<u>2.0^J</u>	<u>1.0^J</u>	<u>2.0^J</u>	<10 ^R	--	<10	
AM-EB-2 (Equipment Blank)	17-Dec-02	<u>14^J</u>	<47	<94	<10	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-EB-3 (Equipment Blank)	18-Dec-02	<u>6.0^J</u>	<49	<98	<10	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
AM-EB-4 (Equipment Blank)	19-Dec-02	<u>5.0^J</u>	<51	<100	<10	<10	<10	<10	<10	<u>10^JB</u>	<10	<10	<10	<10	<10 ^R	--	<10	
MW-1	28-Apr-04	--	<250	<1,000	<u>3.5^J</u>	UNK	UNK	UNK	UNK	UNK	<1.0	UNK	UNK	UNK	UNK	<u>0.5^J</u>	<u>5.5</u>	
MW-2	28-Apr-04	--	<320	<u>820</u>	<u>3.2^J</u>	UNK	UNK	UNK	UNK	UNK	<1.0	UNK	UNK	UNK	UNK	<1	<4	
MW-3	28-Apr-04	--	<270	<1,100	<u>3.6^J</u>	UNK	UNK	UNK	UNK	UNK	<1.0	UNK	UNK	UNK	UNK	<1	<4	
MW-4	28-Apr-04	--	<u>200</u>	<1,100	<4	UNK	UNK	UNK	UNK	UNK	<1.0	UNK	UNK	UNK	UNK	<1	<4	
MW-5	28-Apr-04	--	<280	<1,100	<u>2.1^J</u>	UNK	UNK	UNK	UNK	UNK	<1.0	UNK	UNK	UNK	UNK	<1	<4	
MW-10 (duplicate of MW-2)	28-Apr-04	--	<u>140</u>	<u>550</u>	<u>5.8</u>	UNK	UNK	UNK	UNK	UNK	<1.0	UNK	UNK	UNK	UNK	<1	<4	

µg/L: micrograms per Liter

NA: Not Available

--: Not Analyzed

12: Bold and underlined indicates a detection above a screening level.

10: Bold indicates a detection.

^J: Estimated concentrations.

^B: Analyte was detected in the method blank and in the sample.

^R: The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

UNK: This analyte may have been analyzed but there are no lab reports or tables listing the results.

¹: EPA Health Advisory

²: EPA IRIS

³: Site-specific water quality protection level supplied by the North Coast Regional Water Quality Control Board as shown on Table 4 of the Weston Phase II Report.

⁴: California Public Health Goal or PHG (Cal-EPA, OEHHA)

⁵: Cal-EPA Cancer Potency Factor

⁶: California Department of Public Health, Secondary MCL

⁷: EPA, Secondary MCL

TABLE 5- SUMMARY OF CHEMICAL ANALYSES OF GROUNDWATER SAMPLES FOR SVOCs: Little Lake Industries, Arcata, California

BORING ID	DATE SAMPLED Screening Level	Atrazine	Bis(2-Ethylhexyl) Phthalate (Di(2-ethylhexyl)phthalate)	Butyl Benzyl Phthalate (n-Butyl benzyl phthalate)	Caprolactam	Diethylphthalate	Di-n-butylphthalate	Naphthalene	Pentachlorophenol	Phenol	4-Chloro-3-methylphenol (4-Chloro-m-cresol)
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		0.15 ¹	4 ²	140 ³	3,500 ³	5,600 ³	700 ³	0.29 ⁴	0.3 ¹	2,000 ⁵	NA
AM-10-GW	19-Dec-02	<10 ^R	10^{JB}	<100	<10	<10	<10	2.0^I	<25	<10	<10
AM-14-GW	19-Dec-02	<10 ^R	10^{JB}	<100	<10	<10	<10	<10	74	<10	<10
AM-24-GW	19-Dec-02	<10 ^R	27^B	<100	<10	1^J	<10	<10	<25	<10	<10
AM-26-GW	19-Dec-02	<10 ^R	10^{JB}	<100	<10	<10	<10	<10	<25	<10	<10
AM-26-GW-B (duplicate of AM-26-GW)	19-Dec-02	<10 ^R	11^B	<100	<10	<10	<10	<10	<25	<10	<10
AM-32-GW (Industrial Supply Well)	18-Dec-02	<10 ^R	10^{JB}	<100	<10	<10	<10	<10	<25	<10	<10
AM-32-GW-B (duplicate of AM-32-GW)	18-Dec-02	<10 ^R	<10	<100	<10	<10	<10	<10	<25	<10	<10
AM-34-GW	19-Dec-02	<10 ^R	10^B	<100	1^J	4^J	<10	<10	<25	5^J	<10
AM-35-GW	19-Dec-02	--	--	<120	--	--	--	--	--	--	--
AM-EB-1 (Equipment Blank)	16-Dec-02	<10 ^R	<10	<98	<10	<10	<10	<10	<25	<10	3^J
AM-EB-2 (Equipment Blank)	17-Dec-02	<10 ^R	10^{JB}	<94	<10	<10	<10	<10	<25	<10	4^J
AM-EB-3 (Equipment Blank)	18-Dec-02	<10 ^R	14^B	<98	<10	<10	<10	<10	<25	<10	4^J
AM-EB-4 (Equipment Blank)	19-Dec-02	<10 ^R	12^B	<100	<10	<10	<10	<10	<25	<10	<10
MW-1	28-Apr-04	--	0.6^J	<1,000	UNK	<1	0.5^J	UNK	<5	UNK	UNK
MW-2	28-Apr-04	--	0.5^J	820	UNK	<1	0.6^J	UNK	<5	UNK	UNK
MW-3	28-Apr-04	--	<1.1	<1,100	UNK	<1.1	<1.1	UNK	<5.5	UNK	UNK
MW-4	28-Apr-04	--	1	<1,100	UNK	<1	1.1	UNK	<5	UNK	UNK
MW-5	28-Apr-04	--	0.7^J	<1,100	UNK	<1	<1	UNK	<5	UNK	UNK
MW-10 (duplicate of MW-2)	28-Apr-04	--	0.6^J	550	UNK	<1	<1	UNK	<5	UNK	UNK

µg/L: micrograms per Liter

NA: Not Available

--: Not Analyzed

12: Bold and underlined indicates a detection above a screening level.

2: Bold indicates a detection.

^J: Estimated concentrations.

^B: Analyte was detected in the method blank and in the sample.

UNK: This analyte may have been analyzed but there are no lab reports or tables listing the results.

¹: California Public Health Goal or PHG (Cal-EPA, OEHHA)

²: California Department of Public Health, Primary MCL

³: EPA IRIS

⁴: CalEPA Cancer Potency Factor

⁵: EPA Health Advisory

TABLE 6- SUMMARY OF CHEMICAL ANALYSES OF GROUNDWATER SAMPLES FOR METALS: Little Lake Industries, Arcata, California

BORING ID	DATE SAMPLED	Analyte																																	
		Antimony		Arsenic		Barium		Beryllium		Cadmium		Chromium		Cobalt		Copper		Lead		Mercury		Molybdenum		Nickel		Selenium		Silver		Thallium		Vanadium		Zinc	
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L					
	Screening Level	2.8 ¹	0.004 ¹	700 ²	1 ¹	0.04 ¹	3 ³	3.0 ⁴	300 ¹	0.2 ¹	1.2 ¹	35 ²	12 ¹	30 ¹	35 ⁵	0.1 ¹	63 ⁵	2,000 ²																	
AM-10-GW	19-Dec-02	<1.2	8.2^B	3.76	<0.20	<0.30	<0.80	8.9^B	<1.5	<1.2	<0.10	--	9.6^B	<3.0	<0.80	10.8	0.72^B	<1.1																	
AM-14-GW	19-Dec-02	3.5^B	<3.0	52.3^B	<0.20	<0.30	<0.80	2.1^B	32.3	<1.2	<0.10	--	8.9^B	<3.0	<0.80	<2.4	1.8^B	2.7^B																	
AM-24-GW	19-Dec-02	<1.2	<3.0	32.6^B	<0.20	<0.30	<0.80	0.78^B	17.7^B	<1.2	<0.10	--	3.8^B	<3.0	<0.80	<2.4	2.2^B	9.7^B																	
AM-26-GW	19-Dec-02	<1.2	<3.0	40.2^B	<0.20	<0.30	<0.80	1.2^B	9.1^B	<1.2	<0.10	--	4.1^B	<3.0	<0.80	<2.4	1.7^B	176																	
AM-26-GW-B (duplicate of AM-26-GW)	19-Dec-02	<1.2	<3.0	46.7^B	<0.20	<0.30	<0.80	<0.70	12.6^B	<1.2	<0.10	--	4.8^B	<3.0	<0.80	<2.4	1.6^B	266																	
AM-32-GW (Industrial Supply Well)	18-Dec-02	1.7^B	<3.0	44.1^B	<0.20	<0.30	<0.80	66.0	179	<1.2	<0.10	--	6.5^B	<3.0	<0.80	<2.4	<0.70	358																	
AM-32-GW-B (duplicate of AM-32-GW)	18-Dec-02	<1.2	<3.0	44.7^B	<0.20	<0.30	<0.80	67.5	181	1.7^B	<0.10	--	6.2^B	<3.0	<0.80	<2.4	0.82B	358																	
AM-34-GW	19-Dec-02	<1.2	3.8^B	305	<0.20	<0.30	<0.80	15.9^B	3.6^B	<1.2	<0.10	--	26.8^B	5.8	<0.80	6.9^B	1.2B	<1.1																	
AM-35-GW	19-Dec-02	2.0^B	16.3	2,930	3.9^B	2.5^B	84.4	105	156	92.4	<0.10	--	148	3.2^B	<0.80	15.8	113	205																	
AM-EB-1 (Equipment Blank)	16-Dec-02	<1.2	<0.30	<0.30	<0.20	<0.30	<0.80	<0.70	<1.5	<1.2	<0.10	--	<1.0	<3.0	<0.80	<2.4	<0.70	<1.1																	
AM-EB-2 (Equipment Blank)	17-Dec-02	<1.2	<0.30	<0.30	<0.20	<0.30	<0.80	<0.70	<1.5	<1.2	<0.10	--	<1.0	<3.0	<0.80	<2.4	<0.70	<1.1																	
AM-EB-3 (Equipment Blank)	18-Dec-02	<1.2	<0.30	<0.30	<0.20	<0.30	<0.80	<0.70	<1.5	<1.2	<0.10	--	<1.0	<3.0	<0.80	<2.4	<0.70	<1.1																	
AM-EB-4 (Equipment Blank)	19-Dec-02	<1.2	<0.30	<0.30	<0.20	<0.30	<0.80	<0.70	<1.5	<1.2	<0.10	--	<1.0	<3.0	<0.80	<2.4	<0.70	<1.1																	
MW-1	28-Apr-04	UNK	3.4	UNK	UNK	<0.5	0.54^J	3.3	1.2	<0.5	UNK	5.4	9.4	UNK	UNK	UNK	UNK	6																	
MW-2	28-Apr-04	UNK	9.4	UNK	UNK	<0.5	<4.0	6.0	2.8	<0.5	UNK	8.5	8.2	UNK	UNK	UNK	UNK	9.7																	
MW-3	28-Apr-04	UNK	5.2	UNK	UNK	<0.5	<1.0	5.0	1.2	<0.5	UNK	3.5	7.8	UNK	UNK	UNK	UNK	3.8																	
MW-4	28-Apr-04	UNK	3.3	UNK	UNK	<0.5	2.0	2.2	11	<0.5	UNK	4.1	5.5	UNK	UNK	UNK	UNK	27																	
MW-5	28-Apr-04	UNK	0.32	UNK	UNK	<0.5	<1.0	1.9	1.8	<0.5	UNK	0.81	11	UNK	UNK	UNK	UNK	7.3																	
MW-10 (duplicate of MW-2)	28-Apr-04	UNK	7.3	UNK	UNK	<0.5	<1.0	4.2	1.3	<0.5	UNK	3	7.1	UNK	UNK	UNK	UNK	4.8																	

µg/L: micrograms per Liter

mg/L: milligrams per Liter

NA: Not Available

--: Not Analyzed

12: Red bold indicates a detection above a screening level.

2: Bold indicates a detection.

^J: Estimated concentrations.

^B: Analyte was detected in the method blank and in the sample.

UNK: This analyte may have been analyzed but there are no lab reports or tables listing the results.

¹: California Public Health Goal or PHG (Cal-EPA, OEHHA)

²: EPA Health Advisory

³: California Department of Public Health, Primary MCL

⁴: San Francisco Bay Regional Water Quality Control Board, Tier 1 ESL, February, 2016

⁵: EPA IRIS



Table 7
Soil Stockpile Sampling Results, June 2007
Little Lake Industries, Arcata, California

Sample ID	Stockpile Location	Sample Date	Total ¹		TCLP ³		TCLP with Silica Gel ⁵	
			Diesel	Motor Oil	Diesel	Motor Oil	Diesel	Motor Oil
			(μ g/g) ²		(μ g/L) ⁴		(μ g/L)	
MS-01	MS	6/26/2007	8.4	49	120	<170	<50	<170
MS-02	MS	6/26/2007	9.4	53	<50	<170	--	--
SS-01	SS	6/26/2007	12	51	<50	<170	--	--
SS-02	SS	6/26/2007	27	120	<50	<170	--	--
STP-3-01	STP-3	6/26/2007	13	80	<50	<170	--	--
RS-01	RS	6/26/2007	23	280	60	<170	--	--
RS-02	RS	6/26/2007	7.3	50	<50	<170	--	--
RS-03	RS	6/26/2007	4.6	29	-- ⁶	--	--	--
RM-01	RM	6/26/2007	3.8	24	<50	<170	--	--
RM-02	RM	6/26/2007	7.2	58	78	<170	<50	<170
RM-03	RM	6/26/2007	25	120	<50	<170	--	--
RM-04	RM	6/26/2007	6.5	37	80	<170	<50	<170
RM-05	RM	6/26/2007	24	170	62	<170	--	--
RM-06	RM	6/26/2007	9.5	63	<50	<170	--	--
RM-07	RM	6/26/2007	14	100	<50	<170	--	--
RM-08	RM	6/26/2007	26	230	65	<170	--	--
RM-09	RM	6/26/2007	5.0	26	<50	<170	--	--
RM-10	RM	6/26/2007	1.8	14	64	<170	--	--
RM-11	RM	6/26/2007	18	160	50	<170	--	--
RM-12	RM	6/26/2007	18	180	<50	<170	--	--
RM-13	RM	6/27/2007	10	72	69	<170	--	--
RM-14	RM	6/27/2007	13	96	66	<170	--	--
RM-15	RM	6/26/2007	16	170	--	--	--	--
SP-A-01	SP-A	6/26/2007	16	140	130	540	120	<170
SP-B-01	SP-B	6/26/2007	14	150	64	170	--	--
SP-B-02	SP-B	6/26/2007	20	260	86	310	--	--
SP-C-01	SP-C	6/26/2007	23	220	100	430	70	180
B-01	B	6/26/2007	10	94	69	<170	--	--
B-02	B	6/26/2007	8.2	82	66	<170	--	--
B-03	B	6/26/2007	24	180	58	<170	--	--
B-04	B	6/26/2007	12	78	66	<170	--	--
B-05	B	6/26/2007	22	210	90	280	<50	<170
B-06	B	6/26/2007	12	100	58	<170	--	--
B-07	B	6/26/2007	29	240	74	260	--	--
B-08	B	6/26/2007	10	120	91	270	--	--
B-09	B	6/26/2007	19	130	82	280	--	--
B-10	B	6/26/2007	5.7	58	80	290	150	600
B-11	B	6/26/2007	17	110	83	280	57	<170
B-12	B	6/26/2007	11	99	87	<170	--	--

Table 7
Soil Stockpile Sampling Results, June 2007
Little Lake Industries, Arcata, California

Sample ID	Stockpile Location	Sample Date	Total ¹		TCLP ³		TCLP with Silica Gel ⁵	
			Diesel	Motor Oil	Diesel	Motor Oil	Diesel	Motor Oil
			(μ g/g) ²		(μ g/L) ⁴		(μ g/L)	
B-13	B	6/26/2007	11	83	56	<170	--	--
B-14	B	6/26/2007	4.4	40	96	200	--	--
B-15	B	6/26/2007	9.7	79	72	250	81	240
B-16	B	6/27/2007	43	110	<50	<170	--	--
B-17	B	6/27/2007	8.3	66	140	670	--	--
B-18	B	6/27/2007	25	23	290	800	--	--
B-19	B	6/27/2007	6.0	39	86	290	<50	<170
B-20	B	6/27/2007	19	69	180	540	--	--
B-21	B	6/27/2007	12	99	--	--	--	--

1. TPHD & TPHMO (Total) analyzed in general accordance with EPA Method No. 3550/8015B.

2. μ g/g: micrograms per gram

3. TCLP: Toxicity Characteristic Leaching Procedure. Analyzed in general accordance with EPA Method SW 8015B

(completed using deionized water)

4. μ g/L: micrograms per liter

5. Extractable TCLP analyzed in general accordance with EPA Method SW 8015B, using silica gel cleanup.

6. --: not analyzed



Eureka, CA | Arcata, CA | Redding, CA | Willits, CA | Coos Bay, OR | Klamath Falls, OR

www.shn-engr.com