

The Altum Group
73-710 Fred Waring Drive, Suite 219
Palm Desert, California 92260

**Report of
Phase II Investigation
APN 163-240-001
Horseshoe Lake Park
Southwest Corner of Lakeview Avenue and Studio Place
Jurupa Valley, Riverside County, California**

June 6, 2019

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Job No.: 302538-003
Doc. No 19-06-702



June 6, 2019

File No. 302538-003

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The Altum Group
73-710 Fred Waring Drive, Suite 219
Palm Desert, California 92260

Attention: Mr. Taku Shiozaki

Subject: **Report of Phase II Investigation**

Project: **APN 163-240-001**
Horseshoe Lake Park
Southwest Corner of Lakeview Avenue and Studio Place
Jurupa Valley, Riverside County, California

Earth Systems Pacific [Earth Systems] has completed a surface investigation to evaluate the potential presence of hazardous materials, regarding the site referenced above. This report has been prepared to document our activities and present our findings, conclusions and recommendations in accordance with Proposal PER-19-5-004, dated May 21, 2019 (ESP,2019b).

Background

The site consists of approximately 13.73 acres of land located at the southwest corner of Lakeview Avenue and Studio Place, in Jurupa Valley, Riverside County, California. The site is known as Horseshoe Lake Park and the address is 8788 Lakeview Avenue, Riverside, California 92509. The site location is depicted in Figure 1. Currently there are no building or building pads in that area.

A Phase I ESA was completed for the site by Earth Systems (ESP, 2019a). That report identified two Recognized Environmental Conditions [RECs] warranting further evaluation as follows:

- 1) Impoundment basins can accumulate contaminants from the surrounding vicinity over years of use. These can include hydrocarbons, transformer oils, pesticides and heavy metals. This is considered a REC since this is a public park. At the current time, the northwest basin is dry. Testing soil in that basin is warranted to see if unacceptable accumulations have occurred.
- 2) The imported soil pile located at the south end of the northwest basin is of unknown origin. This is considered a REC.

Site Description

The site consists of approximately 13.73 acres of land located at the southwest corner of Lakeview Avenue and Studio Place, in Jurupa Valley, Riverside County, California. The site is known as Horseshoe Lake Park and the address is 8788 Lakeview Avenue, Riverside, California 92509. The site is identified as Assessor's Parcel Number [APN] 163-240-001. The site is located

in the southwest quarter of the northeast quarter of Section 26, Township 2 South, Range 6 West, San Bernardino Baseline and Meridian. The site is currently developed as a public park. Horseshoe Lake is a municipal water control basin. Development is limited to a dirt walking trail and an equestrian exercise ring. The surface of the site is flat, except for the depression that contains Horseshoe Lake. The elevation of the site is approximately 720 feet above mean sea level.

Geology and Hydrogeology

The site is located in the west portion of the Upper Santa Ana Valley of Southern California. The Upper Santa Ana Valley is bound by the San Gabriel Mountains to the northwest; the San Bernardino Mountains to the northeast; the Santa Ana Mountains to the southwest; and the San Jacinto Mountains to the east. These mountain ranges, and the basement rock underlying the Upper Santa Ana Valley, are primarily composed of granitic and metamorphic rock. Within the Upper Santa Ana Valley, the basement complex is overlain by a series of consolidated, unconsolidated, and semi-consolidated continental clastic sediments eroded from the surrounding mountain ranges (DWR, 2006). The site is located on alluvium from the mountain ranges to the north overlain by fluvial deposits.

The depth to groundwater at the site was evaluated by reviewing data on the California Statewide Groundwater Elevation Monitoring System [CASGEM] website. Depth to groundwater in CASGEM Well ID: 48074, at an elevation of 670 feet above mean sea level and located approximately 2.4 miles west-northwest of the site, was approximately 68 feet below ground surface [bgs] on October 15, 2018. Based on a groundwater monitoring report at a remediation site located approximately 0.3 miles north of the site, groundwater was 44.38 feet bgs on November 20, 2018 (RWQCB, 2019).

Most of Horseshoe Lake is present onsite (a portion of the lake was isolated offsite by the construction of Lakeview Avenue). Horseshoe Lake, sometimes referred to as a reservoir, appears to an impoundment basin to capture runoff, perhaps associated with West Riverside Canal Lateral No. 2 (built in 1886). Horseshoe Lake may be a remnant of a prior tributary channel of the Santa Ana River, originating in the Pedley Hills. Rain water appears to infiltrate within the site. The site appears to receive excess runoff water from the up-topographic gradient site vicinity. This includes residential and roadways. Other surface water bodies are not located in a position to transport contaminants onto the site.

Purpose and Scope of Work

The purpose of this work is to evaluate the potential presence of pesticide residues, heavy metals, hydrocarbons and transformer oils within the retentions basins (lakes), and the unknown soil pile at the south end of the southwest lake. As for background, a set of samples were collected in the central ridge area and composited into one sample. This is also the area where the most construction is planned to occur.

Tasks performed to accomplish this objective are outlined below.

Sampling

- 1) The presence of contamination in the lake bottoms was evaluated by taking eight borings using a hand auger. Four borings were taken in each lake bottom. Samples were collected at the surface, 1 foot, and 2 feet below surface. The locations of the samples are shown on Figure 2 in Appendix A. Samples collected at the surface (B-1 @ 0 through B-8 @ 0), at one foot below ground surface (B-1 @ 1 through B-8 @ 1) and at two feet below ground surface (B-1 @ 2 through B-8 @ 2). Each sample at the surface and 1 foot below ground surface were analyzed by the laboratory. The samples at 2 feet below ground surface were held pending results from the samples collected above that point.
- 2) The surface samples were collected at a depth of approximately 1 inch below the surface by moving surface debris and plant litter out of the way. The laboratory supplied sample container was then pushed directly into the exposed soil to collect a sample. Each jar is sealed with a Teflon-lined screw-on lid. Subsurface samples were collected with a hand auger. When the desired depth was reached, the auger was pulled for the hole, and a sample of recovered soil was removed directly from the bottom on the auger and placed into the laboratory supplied sample container. The jar was then sealed, labeled, logged into a chain-of-custody, and placed in an ice chest. The hand auger was washed and double rinsed before and after each sample was collected.
- 3) Surface samples (SS-1 through SS-7) were collected at a depth of approximately 1 inch below the surface by moving surface debris and plant litter out of the way. The laboratory supplied sample container was then pushed directly into the exposed soil to collect a sample. Each jar is sealed with a Teflon-lined screw-on lid. Surface samples SS-1 through SS-4 were collected on the central ridge between the two lakes and SS-5 through SS-7 were collected in the unknown source soil pile in the southwest end of the northwest lake. SS-1 through SS-4 and then SS-5 through SS-7 were composited in the laboratory into two separate composite samples. The locations of the samples are shown on Figure 2 Appendix A.
- 4) All the surface and subsurface samples were labeled and logged onto a chain-of-custody form, placed into an ice chest, and transported to a California-certified testing laboratory the same day they were collected.

Laboratory Testing

Analysis of the collected samples was performed by A & R Laboratories, a California-certified testing laboratory. The two composite surface samples and the 16 surface and subsurface samples from the lake bottoms were analyzed for: Organochlorine Pesticides [OCP] residues using EPA method 8081A, Polychlorinated biphenyl [PCB] using EPA method 8082, Total Petroleum Hydrocarbon fuel screen [TPH-fs] using EPA method 8015B and CAM-17 heavy metals using EPA methods 6010B and 7471A.

A summary of the test results is presented in Tables 1 and 2. The laboratory report is presented in Appendix B.

Findings

Laboratory Results

Organochlorine Pesticides - As shown in Table 1, all eight surface samples from the lake bottoms, one sample at 1 foot below ground surface in the lake bottom (SS-3 @ 1), and the composite sample from the soil pile contained traces of OCPs. Six different OCPs were detected in the samples. DDE was the most common OCP found and was detected in the surface sample of all eight boring locations, in SS-3 @ 1 and in the soil pile. The number of OCPs detected per sample varied from six to zero. OCPs were not detected in seven of the eight boring samples at 1 foot below ground surface and were not detected in the composite sample from the central ridge area. None of the concentrations detected for any of the OCP compounds were over the Residential Screening Level [RSL], a US EPA guideline for evaluating whether concentrations pose a health hazard under typical residential land-use scenarios.

Heavy Metals – As shown in Table 2, all samples collected contained some of the 17 metals analyzed. The samples collected at the surface in the lake basins were slightly higher in metal concentrations than the samples collected in the same location at 1 foot below ground surface. The metal values were essentially within the range of typical of concentrations in soils in the Jurupa Valley area (Bradford and others, 1996). All the concentrations detected for any of the metals detected were significantly lower than the Residential Screening Level [RSL], a US EPA guideline for evaluating whether concentrations pose a health hazard under typical residential land-use scenarios. None of the samples analyzed for lead or arsenic were over the California Department of Toxic Substances Control [DTSC] specific values for those metals, which are used as guidelines for health hazard risks for school sites.

TPH-fs and PCBs – None of the samples analyzed contained detectable concentrations of TPH-fs or PCBs. The data is in Appendix B.

Conclusions and Recommendations

Based on the field activities and laboratory testing results, Earth Systems offers the following conclusions and recommendations:

1. The concentrations of metals and OCPs detected in the soils were all significantly less than the US EPA Regional Screening Level for each specific OCP and metal from the former agricultural fields. All the detected concentrations of arsenic and lead were significantly less than the DTSC Specific Value for those metals. TPH-fs and PCBs were not detected in any of the samples analyzed.
2. The detected OCPs and metals were slightly more elevated in the surface samples from the lake bottoms than from the samples at 1 foot below the lake bottom or from the central ridge area. The concentration of OCPs and metals in surface samples were slightly

more elevated in the northwest lake than in the southeast lake. Though the concentrations at the surface in the lake bottoms were all significantly less than any regulatory limit, the presence of the pesticides and metals in those lake bottom surface samples would make it unadvisable to excavate the surface soil from the lake bottoms and spread it outside the lake areas on the surface of other areas of the park, without further risk assessment considering the end use of these materials.

3. Further investigation or remediation of the site does not appear warranted.

-oOo-

Earth Systems appreciates the opportunity to assist you on the project. If we can be of further assistance, please feel free to contact the undersigned at (760) 345-1588. Note that this report was prepared based on our proposal for scope of services and contract with our client, and may not meet the needs of other users. Use of this report by others is at the sole risk of the user. Additional limitations on the use of this report are presented in Appendix C.

Respectfully submitted,
EARTH SYSTEMS PACIFIC



Alexander Schriener Jr., PG
Associate Geologist



Rpt/asj/cgj/mss

Attachments: Appendix A – Figures and Tables
Appendix B – Laboratory Report
Appendix C – Limitations

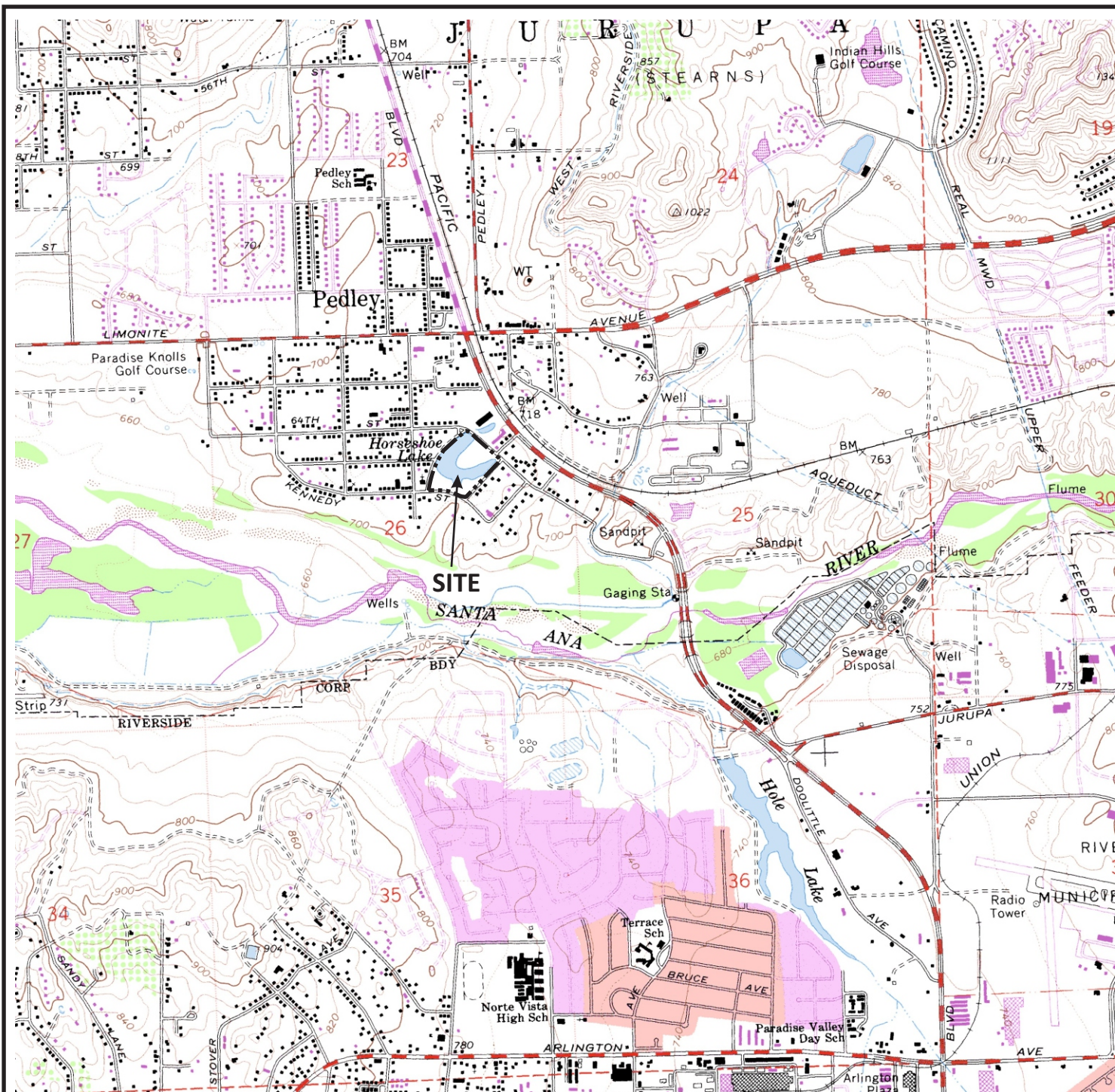
Distribution: 1/The Altum Group
1/PER

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- Earth Systems Pacific, 2019a, *Report of Phase I Environmental Site Assessment APN 163-240-001 Horseshoe Lake Park, Southwest Corner of Lakeview Avenue and Studio Place, Jurupa Valley, Riverside County, California*, File No.: 302538-002, Doc. No.: 319-04-700, dated April 3, 2019.
- _____, 2019b, *Proposal for Phase II Environmental Evaluation, APN 163-240-001, Horseshoe Lake Park, Southwest Corner of Lakeview Avenue and Studio Place, Jurupa Valley, Riverside County, California*, Proposal No.: PER-19-5-004
- US Department of Environmental Protection, 2000, Region 9, *Preliminary Remediation Goals Table 2000*.
- United States Geologic Survey, 7.5-minute *Riverside West, Calif.* Quadrangle, 1967, photo-revised 1980.

APPENDIX A

Figure 1 – Site Location Map
Figure 2 –Sample Location Map
Site Photographs
Table 1 – OCPs
Table 2 – Heavy Metals



Base Map: USGS 7-1/2' Quadrangle, *Riverside West, Calif.* Quadrangle, 1967, photo-revised 1980.

----- Approximate Site Boundary

Scale: 1" = 2,000'

0 2,000' 4,000'



Figure 1 Site Location

APN 163-240-001 - Horseshoe Lake Park
Southwest Corner of Lakeview Avenue and Studio Place
Jurupa Valley, Riverside County, California



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6/7/2019

File No.: 302538-003



Reference: Google Earth, August 24, 2018

LEGEND

-  Approximate Site Boundary
-  **B-8** Approximate Boring Locations
-  **SS-7** Approximate Surface Sample Locations

Approximate Scale: 1" = 150'



Figure 2 Sample Location Map

APN 163-240-001 - Horseshoe Lake Park
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Jurupa Valley, Riverside County, California



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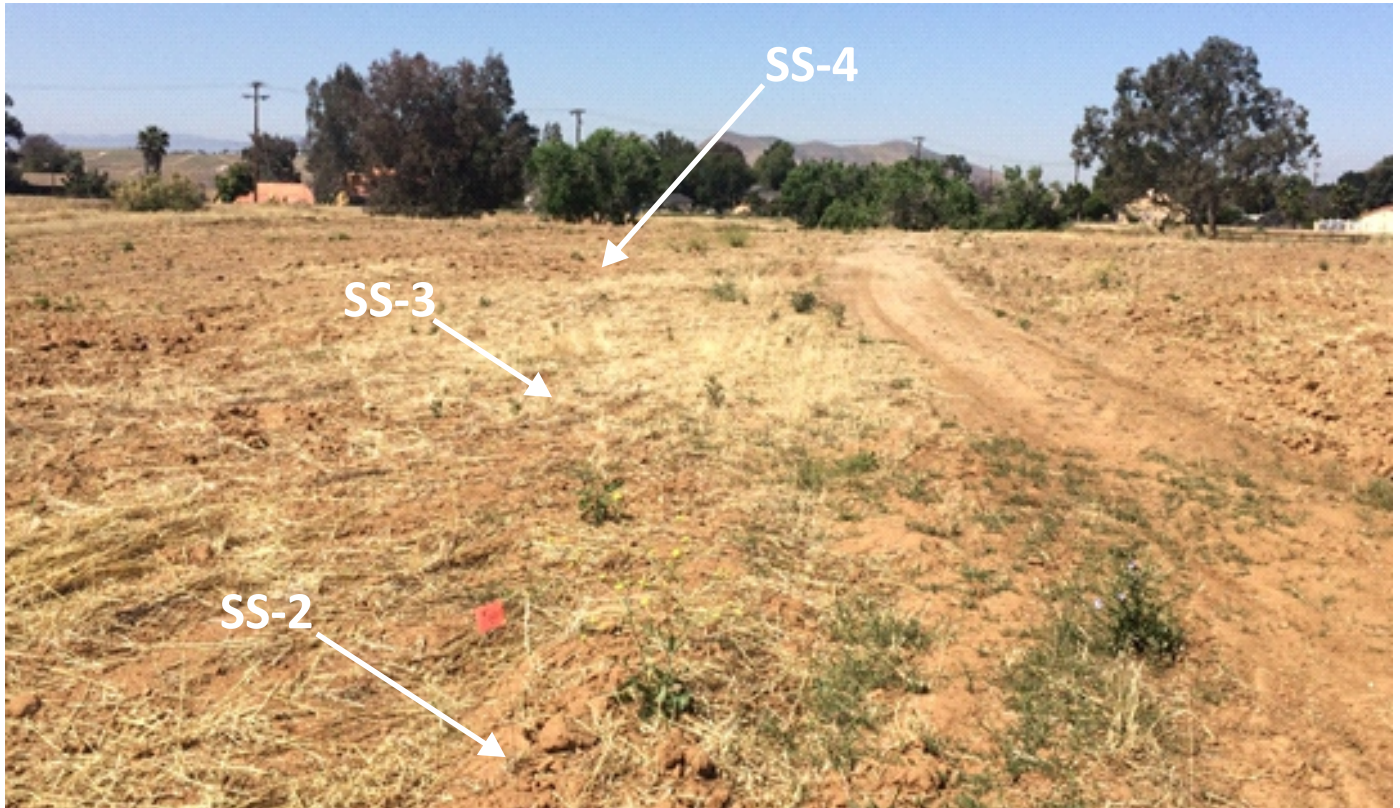


Photo 1: View southwest of central ridge showing locations of SS-3 and SS-4.



Photo 2: View of soil pile showing location of SS-5, SS-6, and SS-7.



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Site Photographs

APN 163-240-001 - Horseshoe Lake Park
Southwest Corner of Lakeview Avenue and Studio Place
Jurupa Valley, Riverside County, California



Photo 3: View of Northwest Lake, view to Northeast.

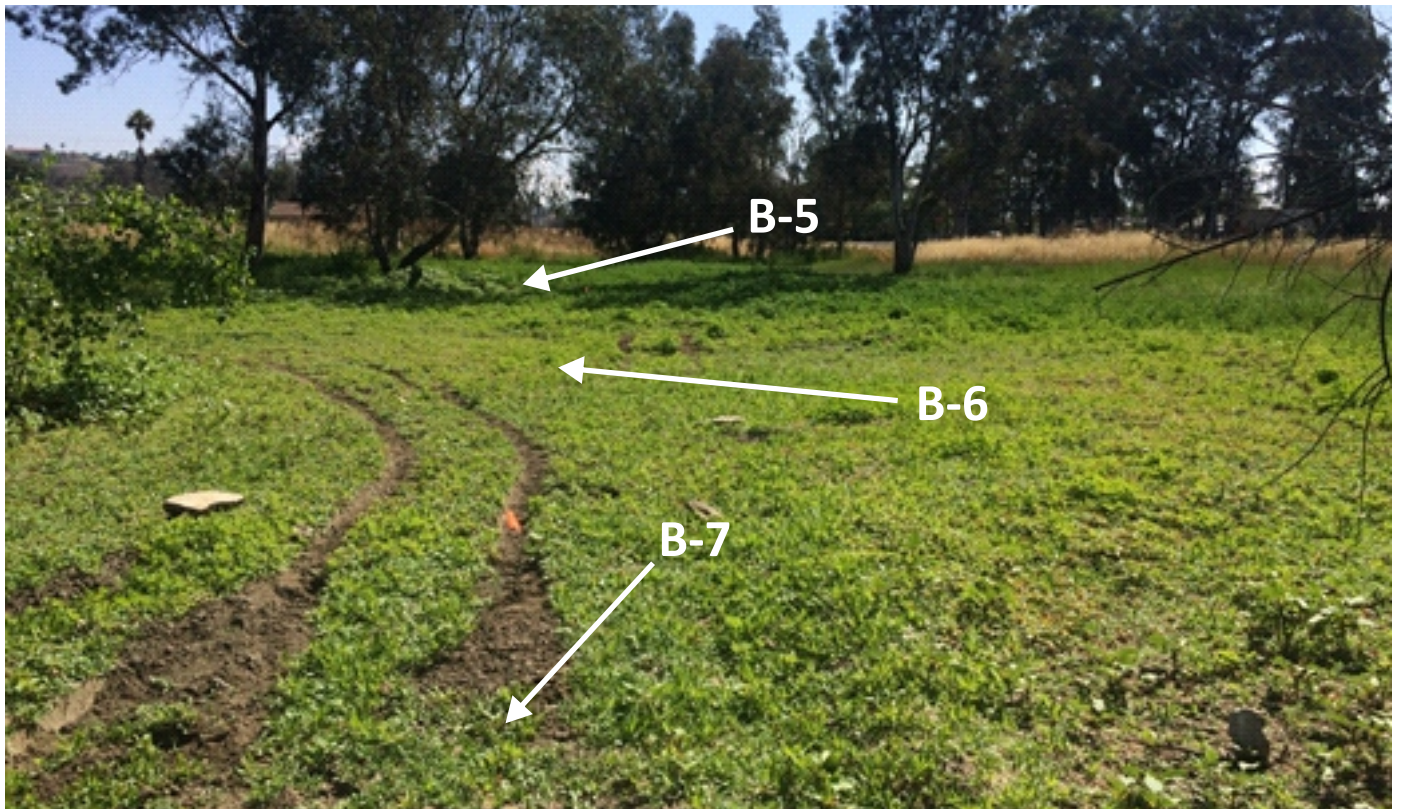


Photo 4: View of Southeast Lake, view to Northeast.



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Site Photographs

APN 163-240-001 - Horseshoe Lake Park
Southwest Corner of Lakeview Avenue and Studio Place
Jurupa Valley, Riverside County, California

Table 1
Chemical Testing Results - OCPs

Area	Sample Date	Sample ID	Depth (feet)	Chlordane	DDD	DDE	DDT	Dieldrin	Endosulfan Sulfate	Endrin Aldehyde	Other OCPs	
West Lake Bottom	5/29/2019	B-1 @0	Surface	0.025	ND <0.0020	0.016	0.0044	0.013	0.0068	0.014	nd	
		B-1 @1	1	ND <0.010	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd	
		B-2 @0	Surface	0.018	ND <0.0020	0.0094	ND <0.0020	0.0094	ND <0.0020	0.012	nd	
		B-2 @1	1	ND <0.010	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd	
		B-3 @0	Surface	ND <0.010	ND <0.0020	0.0051	ND <0.0020	0.0053	ND <0.0020	0.0062	nd	
		B-3 @1	1	ND <0.010	ND <0.0020	0.037	0.0048	ND <0.0020	ND <0.0020	0.0035	nd	
		B-4 @0	Surface	0.010	ND <0.0020	0.0021	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd	
		B-4 @1	1	ND <0.010	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd	
East Lake Bottom		B-5 @0	Surface	0.010	ND <0.0020	0.0025	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd
		B-5 @1	1	ND <0.010	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd
		B-6 @0	Surface	0.019	ND <0.0020	0.0082	0.011	0.0077	ND <0.0020	ND <0.0010	nd	
		B-6 @1	1	ND <0.010	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd	
		B-7 @0	Surface	0.014	ND <0.0020	0.0066	0.0058	0.0054	ND <0.0020	ND <0.0010	nd	
		B-7 @1	1	ND <0.010	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd	
		B-8 @0	Surface	ND <0.010	ND <0.0020	0.0061	0.013	0.0075	ND <0.0020	ND <0.0010	nd	
		B-8 @1	1	ND <0.010	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd	
Central Ridge		Composite SS-1 to SS-4	Surface	ND <0.010	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0020	ND <0.0010	nd	
Soil Pile		Composite SS-5 to SS-7	Surface	0.021	ND <0.0020	0.0022	ND <0.0020	0.0033	ND <0.0020	ND <0.0010	nd	
Comparison Criteria	Onsite Average			0.017	ND <0.0020	0.0095	0.0078	0.0074	0.0068	0.0089	nd	
	US EPA Regional Screening Levels			1.8	2.2	1.6	1.9	0.033	0.033	0.059	Various	

Definitions: CHHSL = California Human Health Screening Levels
nd = Not detected in excess of the listed detection limit.

Notes: All concentrations in mg/kg.

Table 2
Chemical Testing Results - Heavy Metals

		Sample Date	Sample ID	Sample Depth (feet)	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mo	Ni	V	Zn	Others
	West Lake Bottom	5/29/2019	B1 @0	Surface	1.90	200	0.574	0.68	47.0	10.5	47.9	50.6	nd <0.500	12.4	78.4	118	nd
			B1 @1	1	nd < 1.00	110	nd <0.500	nd <0.500	20.7	6.59	17.1	8.11	nd <0.500	8.03	51.6	31.6	nd
			B2 @0	Surface	2.04	237	0.606	0.912	53.6	10.5	53.0	66.8	nd <0.500	12.3	79.6	125	nd
			B2 @1	1	1.07	235	0.914	nd <0.500	40.5	14.1	48.2	17.8	nd <0.500	17.6	110	70.2	nd
			B3 @0	Surface	1.28	218	0.568	0.721	50.0	9.65	47.8	55.0	nd <0.500	11.5	73.9	114	nd
			B3 @1	1	3.35	188	0.599	0.583	30.1	9.29	41.1	23.3	nd <0.500	11.3	79.9	78.1	nd
			B4 @0	Surface	nd < 1.00	133	nd <0.500	nd <0.500	31.1	6.85	29.0	36.0	nd <0.500	7.28	46.3	78.0	nd
			B4 @1	1	2.03	161	0.597	nd <0.500	27.9	9.23	25.7	13.1	nd <0.500	11.2	66.8	49.8	nd
	East Lake Bottom		B5 @0	Surface	nd < 1.00	78.5	nd <0.500	nd <0.500	17.6	4.34	14.8	14.8	0.640	6.76	51.5	37.6	nd
			B5 @1	1	1.53	74.7	nd <0.500	nd <0.500	17.2	6.46	10.7	4.29	nd <0.500	7.20	44.8	22.1	nd
			B6 @0	Surface	nd < 1.00	77.9	nd <0.500	nd <0.500	17.1	4.24	13.7	14.6	0.841	5.66	49.7	32.8	nd
			B6 @1	1	nd < 1.00	82.20	nd <0.500	nd <0.500	15.6	5.40	6.73	3.45	nd <0.500	6.74	43.1	18.9	nd
			B7 @0	Surface	nd < 1.00	89.7	nd <0.500	nd <0.500	20.8	5.33	18.6	19.6	nd <0.500	7.47	52.8	55.1	nd
			B7 @1	1	nd < 1.00	69.9	nd <0.500	nd <0.500	16.6	5.04	12.4	4.32	nd <0.500	6.20	44.7	23.1	nd
			B8 @0	Surface	1.91	115	nd <0.500	nd <0.500	30.0	7.05	23.6	28.9	nd <0.500	7.99	52.0	58.6	nd
			B8 @1	1	1.22	96.5	nd <0.500	nd <0.500	19.8	7.92	13.3	5.52	nd <0.500	8.63	51.1	25.1	nd
	Middle ridge		Composite SS-1 to SS-4	Surface	nd < 1.00	111	nd <0.500	nd <0.500	14.6	5.51	8.11	5.97	nd <0.500	5.62	44.0	26.5	nd
	Soil pile		Composite SS-5 to SS-7	Surface	nd < 1.00	182	nd<0.500	nd <0.500	22.2	9.48	22.8	21.4	nd <0.500	11.8	62.8	63.7	nd
	Onsite Average					1.81	137	0.643	0.725	27.4	7.64	25.3	21.9	0.741	9.20	60.2	57.1
Comparison Values	Generic "Normal" Values						<200	<1	<1	<50	<20	<50	<20	<1	<20	<100	<500
	DTSC Specified Value					12						80					
	US EPA Regional Screening Levels - Residential						1,500	16	7.0	12,000	2.3	310	400	390	82	39	2,300

Notes: Concentrations are in mg/kg unless otherwise noted
nd = Not detected in excess of the listed detection limit.
na = not applicable
Averages do not include "non-detect" results

APPENDIX B
Laboratory Reports



A & R Laboratories, Inc.

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LA City#	10261
ELAP#s	2789
	2790
	2122

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CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

 Ken Zheng, President
05/31/2019 12:28:39

Laboratory Job No. (Certificate of Analysis No.)

1905-00282

Project Name / No.

HORSESHOE LAKE PARK 302538-003

Dates Sampled (from/to)

05/29/19 To 05/29/19

Dates Received (from/to)

05/29/19 To 05/29/19

Dates Reported (from/to)

05/31/19 To 5/31/2019

Chains of Custody Received

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Inorganic Analyses

No analyses sub-contracted

Other Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact



A & R Laboratories, Inc.

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	2790
	2122

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Laboratory Job# 1905-00282

Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Sample	Analyte	Result	Qual	Units	RL
B4@0	4,4'-DDE	0.0021		mg/Kg	0.0020	B4@0	Chlordane	0.010		mg/Kg	0.010
B3@0	4,4'-DDE	0.0051		mg/Kg	0.0020	B3@0	Dieldrin	0.0053		mg/Kg	0.0020
B3@0	Endrin Aldehyde	0.0062		mg/Kg	0.0020	B3@1	4,4'-DDE	0.037		mg/Kg	0.0020
B3@1	Endrin Aldehyde	0.0035		mg/Kg	0.0020	B2@0	4,4'-DDE	0.011		mg/Kg	0.0020
B2@0	Chlordane	0.018		mg/Kg	0.010	B2@0	Dieldrin	0.0094		mg/Kg	0.0020
B2@0	Endrin Aldehyde	0.012		mg/Kg	0.0020	B1@0	4,4'-DDE	0.016		mg/Kg	0.0020
B1@0	4,4'-DDT	0.0044		mg/Kg	0.0020	B1@0	Chlordane	0.025		mg/Kg	0.010
B1@0	Dieldrin	0.013		mg/Kg	0.0020	B1@0	Endosulfan Sulfate	0.0068		mg/Kg	0.0020
B1@0	Endrin Aldehyde	0.014		mg/Kg	0.0020	B8@0	4,4'-DDE	0.0061		mg/Kg	0.0020
B8@0	4,4'-DDT	0.013		mg/Kg	0.0020	B8@0	Dieldrin	0.0075		mg/Kg	0.0020
B7@0	4,4'-DDE	0.0066		mg/Kg	0.0020	B7@0	4,4'-DDT	0.0058		mg/Kg	0.0020
B7@0	Chlordane	0.014		mg/Kg	0.010	B7@0	Dieldrin	0.0054		mg/Kg	0.0020
B6@0	4,4'-DDE	0.0082		mg/Kg	0.0020	B6@0	4,4'-DDT	0.011		mg/Kg	0.0020
B6@0	Chlordane	0.019		mg/Kg	0.010	B6@0	Dieldrin	0.0077		mg/Kg	0.0020
B5@0	Chlordane	0.010		mg/Kg	0.010	B5@0	Dieldrin	0.0025		mg/Kg	0.0020
COMPOSITE: SS-5, SS-6, SS-7	4,4'-DDE	0.0022		mg/Kg	0.0020	COMPOSITE: SS-5, SS-6, SS-7	Chlordane	0.021		mg/Kg	0.010
COMPOSITE: SS-5, SS-6, SS-7	Dieldrin	0.0033		mg/Kg	0.0020						



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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 B4@0					Date & Time Sampled:		05/29/19	@ 9:38
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	120		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	133		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	31.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	6.85		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	29.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	36.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	7.28		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	46.3		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	78.0		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
 ALEX SCHRIENER
 79-811B COUNTRY CLUB DRIVE
 INDIO, CA 92203

Date Reported 05/31/19
 Date Received 05/29/19
 Invoice No. 85821
 Cust # 1035
 Permit Number
 Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 B4@0					Date & Time Sampled:		05/29/19	@ 9:38
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.0021		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	115		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	109		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 002 **B4@1**
 Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 9:40



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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 B4@1					Date & Time Sampled:		05/29/19	@ 9:40
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	108		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	2.03		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	161		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	0.597		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	27.9		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	9.23		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	25.7		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	13.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	11.2		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	66.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	49.8		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
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Date Reported 05/31/19
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Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 B4@1					Date & Time Sampled:		05/29/19	@ 9:40
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	121		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	120		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 003 **B3@0**Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 9:51



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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 B3@0					Date & Time Sampled:		05/29/19	@ 9:51
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	93		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	1.28		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	218		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	0.568		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	0.721		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	50.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	9.65		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	47.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	55.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	11.5		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	73.9		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	114		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 B3@0					Date & Time Sampled:		05/29/19	@ 9:51
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.0051		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	0.0053		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	0.0062		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	84		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	100		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 004 **B3@1**
Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 9:53



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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 B3@1					Date & Time Sampled:		05/29/19	@ 9:53
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	110		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	3.35		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	188		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	0.599		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	0.583		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	30.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	9.29		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	41.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	23.3		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	11.3		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	79.9		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	78.1		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 B3@1					Date & Time Sampled:		05/29/19	@ 9:53
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.037		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	0.0035		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	109		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	105		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 005 **B2@0**Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 10:07



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Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 B2@0					Date & Time Sampled:		05/29/19	@ 10:07
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	78		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	2.04		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	237		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	0.606		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	0.912		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	53.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	10.5		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	53.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	66.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	12.3		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	79.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	125		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 B2@0					Date & Time Sampled:		05/29/19	@ 10:07
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	0.018		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.011		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	0.0094		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	0.012		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	90		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	106		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 006 **B2@1**
Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 10:09



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Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B2@1					Date & Time Sampled:		05/29/19	@ 10:09
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	74		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	1.07		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	235		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	0.914		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	40.5		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	14.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	48.2		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	17.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	17.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	110		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	70.2		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 B2@1					Date & Time Sampled:		05/29/19	@ 10:09
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	95		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	107		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 007 **B1@0**
Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 10:21



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CERTIFICATE OF ANALYSIS

1905-00282

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 B1@0					Date & Time Sampled:		05/29/19	@ 10:21
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	57		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	1.90		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	200		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	0.574		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	0.684		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	47.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	10.5		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	47.9		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	50.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	12.4		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	78.4		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	118		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 B1@0					Date & Time Sampled:		05/29/19	@ 10:21
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	0.025		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.016		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	0.0044		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	0.013		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	0.0068		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	0.014		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	103		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	108		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 008 **B1@1**
Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 10:23



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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 B1@1					Date & Time Sampled:		05/29/19	@ 10:23
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	136		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	110		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	20.7		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	6.59		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	17.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	8.11		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	8.03		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	51.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	31.6		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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1905-00282

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
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Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 B1@1					Date & Time Sampled:		05/29/19	@ 10:23
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	94		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	105		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 009 **B8@0**Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 10:47



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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 B8@0					Date & Time Sampled:		05/29/19	@ 10:47
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	136		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	1.91		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	115		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	30.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	7.05		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	23.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	28.9		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	7.99		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	52.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	58.6		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 B8@0					Date & Time Sampled:		05/29/19	@ 10:47
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.0061		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	0.013		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	0.0075		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	114		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	104		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 010 **B8@1**
Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 10:50



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Date Reported 05/31/19
Date Received 05/29/19
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Cust # 1035
Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 B8@1					Date & Time Sampled:		05/29/19	@ 10:50
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	113		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	1.22		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	96.5		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	19.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	7.92		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	13.3		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	5.52		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	8.63		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	51.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	25.1		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 B8@1					Date & Time Sampled:		05/29/19	@ 10:50
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	114		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	118		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 011 **B7@0**Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 11:00



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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 011 B7@0					Date & Time Sampled:		05/29/19	@ 11:00
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	135		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	89.7		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	20.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	5.33		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	18.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	19.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	7.47		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	52.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	55.1		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 011 B7@0					Date & Time Sampled:		05/29/19	@ 11:00
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	0.014		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.0066		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	0.0058		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	0.0054		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	103		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	126		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 012 **B7@1**
Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 11:02



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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 012 B7@1						Date & Time Sampled:	05/29/19	@ 11:02
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	133		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	69.9		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	16.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	5.04		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	12.4		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	4.32		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	6.20		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	44.7		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	23.1		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 012 B7@1					Date & Time Sampled:		05/29/19	@ 11:02
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	113		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	105		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 013 **B6@0**Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 11:14



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CERTIFICATE OF ANALYSIS

1905-00282

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 013 B6@0					Date & Time Sampled:		05/29/19	@ 11:14
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	132		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	77.9		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	17.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	4.24		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	13.7		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	14.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	0.841		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	5.66		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	49.7		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	32.8		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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Cust # 1035
Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 013 B6@0 Sample Matrix: Soil continued					Date & Time Sampled: 05/29/19 @ 11:14			
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	0.019		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.0082		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	0.011		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	0.0077		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	112		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	135		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 014 **B6@1**
Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 11:22



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Date Received 05/29/19
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Cust # 1035
Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 014 B6@1					Date & Time Sampled:		05/29/19	@ 11:22
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	141		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	82.2		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	15.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	5.40		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	6.73		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	3.45		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	6.74		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	43.1		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	18.9		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 014 B6@1					Date & Time Sampled:		05/29/19	@ 11:22
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	101		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	107		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 015 **B5@0**Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 11:26



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ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 015 B5@0						Date & Time Sampled:	05/29/19	@ 11:26
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	131		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	78.5		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	17.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	4.34		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	14.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	14.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	0.640		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	6.76		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	51.5		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	37.6		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 015 B5@0					Date & Time Sampled:		05/29/19	@ 11:26
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	0.0025		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	98		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	139		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 016 **B5@1**
Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 11:28



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Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 016 B5@1					Date & Time Sampled:		05/29/19	@ 11:28
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	115		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	1.53		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	74.7		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	17.2		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	6.46		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	10.7		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	4.29		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	7.20		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	44.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	22.1		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

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Cust # 1035
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Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 016 B5@1					Date & Time Sampled:		05/29/19	@ 11:28
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	108		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	118		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 017 **COMPOSITE: SS-1, SS-2, SS-3, SS-4**

Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 9:38



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EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 017 COMPOSITE: SS-1, SS-2, SS-3, SS-4					Date & Time Sampled:		05/29/19	@ 9:38
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	121		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	111		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	14.6		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	5.51		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	8.11		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	5.97		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	5.62		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	44.0		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	24.5		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 017 COMPOSITE: SS-1, SS-2, SS-3, SS-4					Date & Time Sampled:		05/29/19 @ 9:38	
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	122		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	107		%REC	EPA 8081A/8082		50-150	05/29/19	AL

Sample: 018 **COMPOSITE: SS-5, SS-6, SS-7**

Sample Matrix: **Soil**

Date & Time Sampled: 05/29/19 @ 9:38



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CERTIFICATE OF ANALYSIS

1905-00282

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 018 COMPOSITE: SS-5, SS-6, SS-7					Date & Time Sampled:		05/29/19	@ 9:38
Sample Matrix: Soil								
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		05/29/19	AL
Diesel	<10		mg/Kg	EPA 8015B	1.0	10	05/29/19	AL
Motor Oil	<20		mg/Kg	EPA 8015B	1.0	20	05/29/19	AL
[Surrogate]								
o-Terphenyl (OTP)	127		%REC	EPA 8015B		50-150	05/29/19	AL
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		05/30/19	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Barium	182		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Chromium	22.2		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Cobalt	9.48		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Copper	22.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Lead	21.4		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Nickel	11.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	05/30/19	TLB
Vanadium	62.8		mg/Kg	EPA 6010B	1.0	0.500	05/30/19	TLB
Zinc	63.7		mg/Kg	EPA 6010B	1.0	5.00	05/30/19	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		05/31/19	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	05/31/19	KZ
[Pesticides and PCBs]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL

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CERTIFICATE OF ANALYSIS

1905-00282

EARTH SYSTEMS
ALEX SCHRIENER
79-811B COUNTRY CLUB DRIVE
INDIO, CA 92203

Date Reported 05/31/19
Date Received 05/29/19
Invoice No. 85821
Cust # 1035
Permit Number
Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 018 COMPOSITE: SS-5, SS-6, SS-7					Date & Time Sampled:		05/29/19 @ 9:38	
Sample Matrix: Soil								
.....continued								
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Chlordane	0.021		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDE	0.0022		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Dieldrin	0.0033		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	05/29/19	AL
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	05/29/19	AL
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	05/29/19	AL
Ultrasonic Extraction	Complete			EPA 3550	1.0		05/29/19	AL
Aroclor 1016	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1221	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1232	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1242	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1248	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1254	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
Aroclor 1260	<0.050		mg/Kg	EPA 8082	1.0	0.050	05/29/19	AL
[Surrogates]								
Tetrachloro-m-xylene	102		%REC	EPA 8081A/8082		50-150	05/29/19	AL
Decachlorobiphenyl	113		%REC	EPA 8081A/8082		50-150	05/29/19	AL



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Respectfully Submitted:

Ken Zheng

Ken Zheng - Lab Director

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.

B1 = BOD dilution water is over specifications . The reported result may be biased high.

D = Surrogate recoveries are not calculated due to sample dilution.

E = Estimated value; Value exceeds calibration level of instrument.

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

I = Matrix Interference.

J = Analyte concentration detected between RL and MDL.

Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.

S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor

RL = Reporting Limit, Adjusted by DF

MDL = Method Detection Limit, Adjusted by DF

Qual = Qualifier

Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



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QUALITY CONTROL DATA REPORT

EARTH SYSTEMS

1905-00282

ALEX SCHRIENER

Date Reported 05/31/2019

79-811B COUNTRY CLUB DRIVE

Date Received 05/29/2019

INDIO, CA 92203

Date Sampled 05/29/2019

Invoice No. 85821

Customer # 1035

Customer P.O. 302538-003

Project: HORSESHOE LAKE PARK

Method #		EPA 6010B																										
QC Reference #		82027		Date Analyzed: 5/30/2019										Technician: TLB														
Samples		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018									
Results																												
		LCS %REC			LCS %DUP			LCS %RPD			SPIKE %REC			SPIKE %DUP			SPIKE %RPD			Control Ranges								
																				LCS %REC			LCS %RPD			SPIKE %RPD		
Antimony		102			104			1.5			110			111			1.1			75 - 125			0 - 20			0 - 20		
Arsenic		102			102			0.2			113			115			1.4			75 - 125			0 - 20			0 - 20		
Barium		100			99			0.2			115			115			0.1			75 - 125			0 - 20			0 - 20		
Beryllium		96			96			0.3			116			117			1.2			75 - 125			0 - 20			0 - 20		
Cadmium		100			100			0.2			101			102			1.2			75 - 125			0 - 20			0 - 20		
Chromium		101			102			1.1			93			94			2.1			75 - 125			0 - 20			0 - 20		
Cobalt		100			100			0.3			118			120			1.6			75 - 125			0 - 20			0 - 20		
Copper		98			98			0.1			118			118			0.2			75 - 125			0 - 20			0 - 20		
Lead		101			102			0.9			109			110			1.3			75 - 125			0 - 20			0 - 20		
Molybdenum		100			101			0.9			131			135			1.5			75 - 125			0 - 20			0 - 20		
Nickel		101			102			0.7			118			120			2.0			75 - 125			0 - 20			0 - 20		
Selenium		98			98			0.2			91			92			1.8			75 - 125			0 - 20			0 - 20		
Silver		101			101			0.3			94			95			0.8			75 - 125			0 - 20			0 - 20		
Thallium		100			99			0.8			91			92			0.7			75 - 125			0 - 20			0 - 20		
Vanadium		99			100			0.2			130			131			0.6			75 - 125			0 - 20			0 - 20		
Zinc		100			100			0.5			100			103			1.1			75 - 125			0 - 20			0 - 20		



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QUALITY CONTROL DATA REPORT

EARTH SYSTEMS
 ALEX SCHRIENER

1905-00282

Date Reported 05/31/2019
 Date Received 05/29/2019
 Date Sampled 05/29/2019

Project: HORSESHOE LAKE PARK

Method #		EPA 8081A																	
QC Reference #		82018		Date Analyzed: 5/29/2019								Technician: AL							
Samples		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018
Results																			
		LCS %REC				SPIKE %REC		SPIKE %DUP		SPIKE %RPD		Control Ranges							
												LCS %REC				SPIKE %RPD			
4,4'-DDT		67				125		103		22		50 - 130				0 - 30			
Aldrin		101				90		105		15		50 - 140				0 - 30			
Dieldrin		103				88		93		5		70 - 130				0 - 30			
Endrin		92				79		93		14		70 - 150				0 - 30			
gamma-BHC		94				79		89		10		50 - 150				0 - 30			
Heptachlor		87				82		91		9		50 - 150				0 - 30			

Method #		EPA 8081A/8082																	
QC Reference #		82018		Date Analyzed: 5/29/2019										Technician: AL					
Samples		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018
Results																			
</																			

Method #		EPA 8082																	
QC Reference #		82018		Date Analyzed: 5/29/2019										Technician: AL					
Samples		001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018
Results		LCS %REC										Control Ranges							
												LCS %REC							
Aroclor 1016		97										70 - 130							

No method blank results were above reporting limit

Respectfully Submitted:

Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

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CHAIN OF CUSTODY

A & R Work Order #:

1905-282

Page 1 of 3

Client Name: Earth Systems Pacific				☒ Chilled		Analyses Requested										Turn Around Time Requested					
E-mail: gSchriener@earthsystems.com				☒ Intact												☒ Rush 8 12 24 48 Hours					
Address: 7811 B Country Club, Bermuda Dunes, CA 92703				☐ Seal												☐ Normal					
Report Attention: Schriener Phone #: 3025 38-003 Sampled By: Clayton																					
Project No./ Name: 3025 38-003		Project Site: Horseshoe Lake Park														Remarks					
Lab #	Client Sample ID	Sample Collection		Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B (BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Colliform, E-Coli						
1	B4C0	5/29/19	9:38	soil	none	1 4oz Jar					X	X	X	X							
2	B4C1	[Handwritten bracket]	9:40	[Handwritten bracket]	[Handwritten bracket]	[Handwritten bracket]					X	X	X	X							
	B4C2		9:44																	Hold	
3	B3C0		9:51							X	X	X	X								
4	B3C1		9:53							X	X	X	X								
	B3C2		9:55																	Hold	
5	B2C0		10:07							X	X	X	X								
6	B2C1		10:09							X	X	X	X								
	B2C2		10:12																		Hold
7	B1C0	10:21								X	X	X	X								
8	B1C1	10:23								X	X	X	X								
	B1C2	10:26															Hold				
Relinquished By: gSchriener Company: ESP Date: 5/29/19 Time: 1242 Received By: Clayton Company: A-R Date: 5/29/19 Time: 1242																					
Relinquished By: _____ Company: _____ Date: _____ Time: _____ Received By: _____ Company: _____ Date: _____ Time: _____																					
Note: Samples are discarded 30 days after results are reported unless other arrangements are made.																					

Matrix Code:

DW=Drinking Water
GW=Ground Water
WW=Waste Water
SD=Solid Waste

SL=Sludge
SS=Soil/Sediment
AR=Air
PP=Pure Product

Preservative Code

IC=Ice
HC=HCl
HN=HNO₃

SH=NaOH
ST=Na₂S₂O₃
HS=H₂SO₄

* Sample Container Types:

T=Tedlar Air Bag
G=Glass Container
ST= Steel Tube

B= Brass Tube
P=Plastic Bottle
V=VOA Vial

E= EnCore

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E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #:

1905-282

Page 2 of 3

Client Name: Earth Systems Pacific				☒ Chilled		RUSH Analyses Requested ☒ Rush 8 12 24 48 Hours ☐ Normal											
E-mail: gschriener@earthsystems.com				☒ Intact													
Address: 79811 B Country Club Dr, Bermuda Dunes CA 92203				☐ Seal													
Report Attention: Schriener		Phone #: 760 345-1588		Sampled By: Chapman													
Project No./ Name: 302538-003		Project Site: Horseshoe Lake Park															
Lab #	Client Sample ID	Sample Collection		Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B (BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Turn Around Time Requested	Remarks
9	B800	5/29	10:40	Soil	None	1 4oz glass jar					X	X		X			
10	B801		10:50								X	X		X			
	B802		10:52														Hold
11	B700		11:00								X	X		X			
12	B701		11:02								X	X		X			
	B702		11:00														Hold
13	B600		11:14								X	X		X			
14	B601		11:22								X	X		X			
	B602 Refusal																
15	B500		11:26								X	X		X			
16	B501		11:28								X	X		X			
	B502		11:30														Hold
Relinquished By: Oliver Schriener		Company: ESP		Date: 5/29/19		Time: 1242		Received By: Chapman		Company: A&R		Date: 5/29/19		Time: 1242		Note: Samples are discarded 30 days after results are reported unless other arrangements are made.	
Relinquished By:		Company:		Date:		Time:		Received By:		Company:		Date:		Time:			

Matrix Code:

DW=Drinking Water
GW=Ground Water
WW=Waste Water
SD=Solid Waste

SL=Sludge
SS=Soil/Sediment
AR=Air
PP=Pure Product

Preservative Code

IC=Ice
HC=HCl
HN=HNO₃

SH=NaOH
ST=Na₂S₂O₃
HS=H₂SO₄

* Sample Container Types:

T=Tedlar Air Bag
G=Glass Container
ST= Steel Tube

B= Brass Tube
P=Plastic Bottle
V=VOA Vial

E= EnCore

Client Name						Analyses Requested														Turn Around Time Requested	
E-mail																				Rush 8 12 24 48 Hours	
Address																				Normal	
Report Attention		Phone #		Sampled By																	
Project No./ Name		Project Site																			
Lab #	Client Sample ID	Sample Collection		Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks					
		Date	Time																		
SS-1		3/9/19	1012	Soil	None	402L					X	X		X			17 } SS-1 to SS-4 into Comp-1				
SS-2			1018								X	X		X							
SS-3			1022								X	X		X							
SS-4			1025								X	X		X							
SS-5			1031								X	X		X			18 } SS-5 to SS-7 into Comp-2				
SS-6			1034								X	X		X							
SS-7			1036								X	X		X							

Matrix Code:

DW=Drinking Water
GW=Ground Water
WW=Waste Water
SD=Solid Waste

SL=Sludge
SS=Soil/Sediment
AR=Air
PP=Pure Product

Preservative Code

$$\begin{aligned} \text{IC} &= \text{Ice} \\ \text{HC} &= \text{HCl} \\ \text{HN} &= \text{HNO}_3 \end{aligned}$$

SH=NaOH
ST=Na₂S₂O₃
HS=H₂SO₄

* Sample Container Types:
T=Tedlar Air Bag
G=Glass Container
ST= Steel Tube

B= Brass Tube
P=Plastic Bottle
V=VOA Vial

E= EnCore



Sample Acceptance Checklist

CLIENT: Earth Systems Pacific

WORK ORDER NUMBER: 1905-00282

Temperature: (Criteria: 0.0°C-6.0°C)

Sample Temp. (w/CF) °C(w/CF) 4.1°C

- ☐ Sample(s) outside temperature criteria: PM contacted by :
☐ Sample(s) outside temperature criteria, but received on ice/chilled on same day of sampling.
☐ Sample(s) received at ambient temperature; placed on ice for transport by courier.
Ambient Temperature ☐ Air ☐ Filter

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present and Not Intact ☒ Not Present
Sample(s) ☐ Present and Intact ☐ Present and Not Intact ☒ Not Present

Sample Condition:

	Yes	No	N/A
Was a COC received	☒	☐	☐
Were sample IDs present?	☒	☐	☐
Were sampling dates & times present?	☒	☐	☐
Was a relinquished signature present?	☒	☐	☐
Were the tests required clearly indicated?	☒	☐	☐
Were all samples sealed in plastic bags?	☐	☒	☐
Did all bottle labels agree with COC? (ID, dates and times)	☒	☐	☐
Were correct containers used for the tests required?	☒	☐	☐
Was a sufficient amount of samples sent for tests indicated?	☒	☐	☐
Was there headspace in VOA vials?	☐	☐	☒
Were the containers labeled with correct preservatives?	☐	☐	☒

Explanations/Comments:

Notification:

For discrepancies, how was the Project Manager notified? Verbal

Verbal: PM Initials: _____ Data/Time: _____

Email: Send to: _____ Data/Time: _____

Project Manager's response:

Completed By: [Signature]

Date: 5-29-19

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APPENDIX C

Limitations

LIMITATIONS

This report has been prepared for the exclusive use of the The Altum Group. The conclusions and recommendations rendered in this report are opinions based on readily available information obtained to date within the scope of the work authorized by the client. The scope of work for this project was developed to address the needs of the client and may not meet the needs of other users. Any other use of or reliance on the information and opinions contained in this report without the written authorization of Earth Systems is at the sole risk of the user.

The results contained in this report are based upon the information acquired during the investigation, and may include information obtained from third parties. Earth Systems makes no claim as to the accuracy of the information obtained from others. It should be noted that any level of assessment cannot ascertain that a property is completely free of chemical or toxic substances. It is possible that variations exist beyond or between points explored during the course of the investigation, and that changes in conditions can occur in the future due to the works of man, contaminant migration, variations in rainfall, temperature, and/or other factors not apparent at the time of the field investigation.

The services performed by Earth Systems have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the site vicinity. No warranty is expressed or implied.