

# **EnviroTech**

## **Consultants, Inc.**

5400 Rosedale Highway  
Bakersfield, CA 93308

**VAUGHN, LLC  
RESPONSE TO RWQCB SECTION 13267 ORDER  
POND INFORMATION AND SAMPLING RESULTS**

**MIDWAY-SUNSET OIL FIELD  
USL 15 LEASE  
SECTION15 T32S/R23E MDB&M**

**May 28, 2015**

**ADDENDUM:  
July 2, 2015**

**Prepared by:**

**EnviroTech Consultants, Inc.**

July 2, 2015

Certification Statement

RWQCB Order 13267, Pond Sampling Technical Report  
Vaughn, LLC, USL 15 Lease

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Kel Vaughn

A handwritten signature in blue ink, appearing to be "Kel Vaughn", written over a horizontal line. The signature is stylized and extends to the right.

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ATTACHMENT A	USL 15 Pond Map
ATTACHMENT B	USL 15 Site Plan
ATTACHMENT C	Copy of RWQCB Order 13267, 1 April, 2015
ATTACHMENT D	Laboratory Analytical Report

## 1.0 IDENTIFICATION OF DISCHARGES OF PRODUCED WATER TO LAND

One pond was identified containing discharges of produced water. A map of the pond and surrounding lease is included as Attachment A.

## 2.0 POND SAMPLING

Representative samples of wastewater were collected by the operator on April 13, 2015 as required by Order 13267 dated April 1, 2015 (Attachment C). The samples were collected from the sample port on the stock tank (Attachment B), decanted into appropriate sampling containers and cooled with ice for storage and transportation under standard chain of custody procedures.

## 3.0 POND SAMPLING ANALYTICAL RESULTS

The samples were received by Zalco Laboratories, Inc. on April 13, 2015. EnviroTech received the laboratory analytical report on May 16, 2015. The analytical results are summarized in the following tables; complete laboratory reports are included in Attachment C.

**Table 3-1: General Chemistry**

Sample ID	Date Sampled	Total Dissolved Solids	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium	Strontium	Hardness as CaCO3	Bicarbonate ion as HCO3	Carbonate as CO3	Hydroxide as OH
EPA Analytical Method		2540C_Calcd	6010B							2320B			
Units		mg/L											
Reporting limit		Reporting limits vary, see full analytical report.											
<b>Results</b>													
USL 15	4/13/2015	<b>6,600</b>	<b>37</b>	<0.10	<b>27</b>	<b>0.2</b>	<b>36</b>	<b>2,700</b>	<b>2.0</b>	<b>200</b>	<b>1,800</b>	<10	<10

**Bold** = Analyte detected at or above minimum reporting limit.

**Table 3-2: Anions**

Sample ID	Date Sampled	Anions, Ion Chromatography			
		Bromide	Chloride	Nitrate as NO3	Sulfate
EPA Analytical Method		300	300_ORGFM_28D	300_ORGFMS	300_ORGFM_28D
Units		mg/L			
Reporting Limit		Reporting limits vary, see full analytical report.			
USL 15	4/13/2015	<b>15</b>	<b>2,700</b>	<20.0	<b>23</b>

**Bold** = Analyte detected at or above minimum reporting limit.

**Table 3-3: Metals**

Sample ID	Date Sampled	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper	Lead
EPA Analytical Method		6010B									
Units		mg/L									
Reporting Limit		Reporting limit varies by sample. See full analytical report.									
USL 15	4/13/2015	<0.20	<0.020	<b>0.83</b>	<0.010	<b>22</b>	<0.01	<0.050	<0.10	<0.05	<0.05

Sample ID	Date Sampled	Lithium	Molybdenum	Nickel	Selenium	Silver	Strontium	Thallium	Vanadium	Zinc	Mercury
EPA Analytical Method		6010B									7470A
Units		mg/L									
Reporting Limit		Reporting limit varies by sample. See full analytical report.									
USL 15	4/13/2015	<b>1.0</b>	<0.10	<b>0.059</b>	<0.05	<0.02	<b>2.0</b>	<0.50	<0.10	<0.050	<0.0020

**Bold** = Analyte detected at or above minimum reporting limit.

**Table 3-4: BTEX and TPH**

Sample ID	Date Sampled	Benzene	Ethylbenzene	Toluene	Xylenes, Total	Oil and Grease (TRPH)
EPA Analytical Method		8260B				1664
Units		ug/L				mg/L
Reporting Limit		Varies, see laboratory report				5.00
USL 15	4/13/2015	<5.00	<5.00	<5.00	<5.00	<b>5.00</b>

**Bold** = Analyte detected at or above minimum reporting limit.

**Table 3-5: Semi-volatile Organic Compounds**

Sample ID	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
EPA Analytical Method		8270C															
Units		ug/L															
USL 15	4/13/2015	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0

**Bold** = Analyte detected at or above minimum reporting limit.  
 Reporting limit varies by sample. See full analytic report.

**Table 3-6: Radionuclides**

Sample ID	Date Sampled	Gross Alpha	Radium-226	Radium-228	Uranium
<b>EPA Analytical Method</b>		900.0	903	Ra - 05	908.0
<b>Units</b>		pCi/L			
<b>Regulatory Threshold*</b>		15	3	2	20
USL 15	4/13/2015	1.69 ± 3.71	0.297 ± 0.247	0.000 ± 0.969	0.396 ± 0.476

**Bold** = Analyte detected at or above minimum reporting limit.

Reporting limit varies by sample. See full analytic report.

\* Title 22, Table 6443. MCL

#### 4.0 INFORMATION FOR EACH SURFACE IMPOUNDMENT

The following table contains the required information for the Vaughn, LLC (Vaughn) USL 15 pond. Vaughn purchased the lease in April 2014, at that time the pond had been in operation for approximately one year; the pond has been in operation since that time.

**Table 4-1: Surface Impoundment Information**

Surface Impoundment Dimensions (feet)			Location (NAD 83)	Assessor's Parcel Number of the Lease	Duration of Discharge (months)	Volume of Wastewater Discharged per year (bbls)
Length	Width	Depth	Latitude: 35.142316°	198-300-59	25 months 6 months/ year	60
12'	15'	6'	Longitude: -119.492007°			

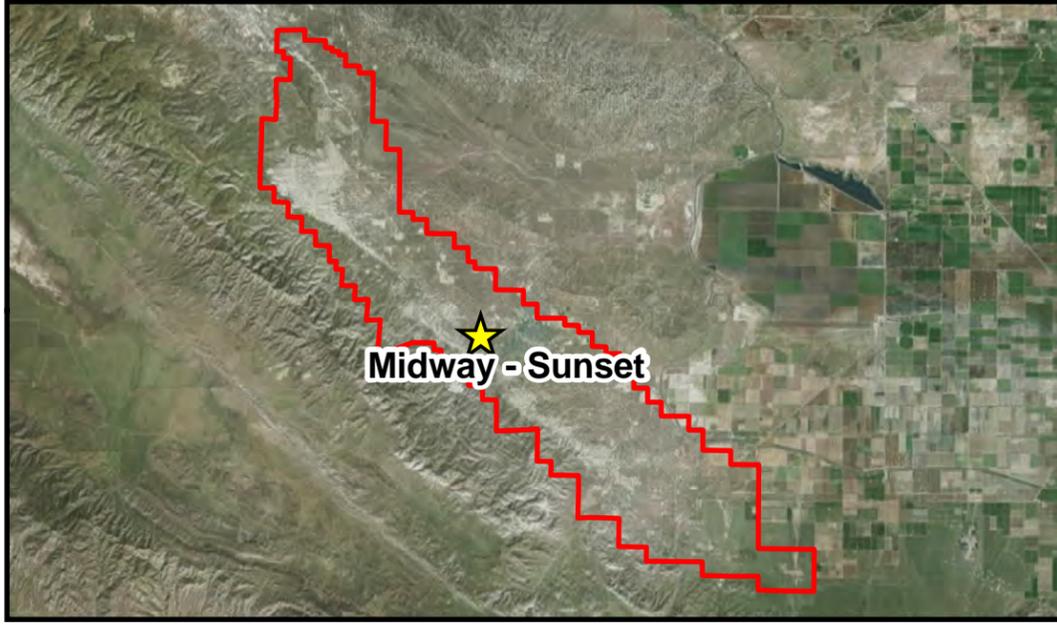
ATTACHMENT A

VAUGHN, LLC

USL 15 POND MAP

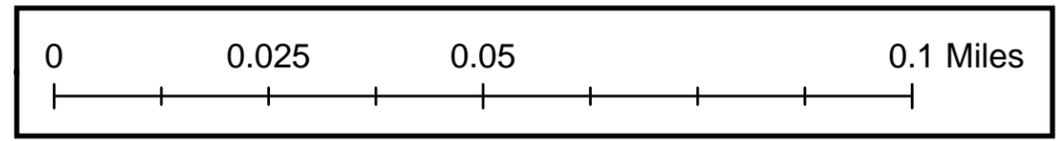


# Vaughn, LLC



### Legend

USL 15 Lease	<b>DOGGR Wells</b>
USL 15 Pond (6ft Deep)	Active
	Plugged



Prepared By:  <div style="text-align: center;"><b>EnviroTech</b> <hr style="border: 1px solid green; width: 100%;"/><b>Consultants, Inc.</b></div>	TITLE:	USL 15 Pond
	FIELD:	Midway Sunset Oil Field
	COUNTY:	Kern
Section/Township/Range	DRN BY:	Ashley Bylow
T32S/R23E - Section 15	DATE:	May 20, 2015
	SCALE:	1:1,350

ATTACHMENT B

VAUGHN, LLC

USL 15 SITE PLAN

# Vaughn, LLC

Site Plan

Sample taken from Stock Tank



ATTACHMENT C

VAUGHN, LLC

COPY OF RWQCB ORDER 13267, 1 APRIL, 2015

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## Central Valley Regional Water Quality Control Board

7 April 2015

### NOTICE OF VIOLATION

Kal Vaughn  
Vaughn, LLC  
909 Twenty one Canyon Road  
Taft, CA 93268

**CERTIFIED MAIL**  
**7012 2920 0000 1430 0175**

#### **INSPECTION REPORT – VAUGHN, LLC, USL 15 LEASE, MIDWAY – SUNSET OIL FIELD, KERN COUNTY**

Central Valley Regional Water Quality Control Board staff (Staff) inspected the USL Lease in the Midway-Sunset Oil Field on 19 February 2015 to ascertain the status of a surface impoundment (pond) identified by the California Division of Oil, Gas, and Geothermal Resources (DOGGR) as active. Disposal operations at the facility are not regulated by Waste Discharge Requirements (WDRs). Staff's observations and comments are presented in the enclosed inspection report.

Staff observed an unlined earthen pond that had wet soil in the pond bottom. Discharge to the pond was the only method of wastewater disposal.

Use of the pond without WDRs is a violation of California Water Code (CWC) Section 13260(a). CWC Section 13260(a), requires that persons discharging waste that could affect the quality of waters of the state (including groundwater), other than into a community sewer system, must file a Report of Waste Discharge (RWD).

If Vaughn, LLC (Vaughn) intends to retain the pond for the discharge of wastes or use the pond during maintenance or other upset conditions, a RWD, along with the appropriate filing fee, needs to be submitted for issuance of WDRs. The discharge of wastes to the concrete-lined ponds without WDRs, or before 140 days following a determination that the submitted RWD is complete and adequate, is a violation of CWC Section 13260. The RWD needs to include a demonstration that the California Environmental Quality Act (CEQA) has been satisfied. A violation of Section 13260(a) of the CWC may subject Vaughn to potential liability pursuant to CWC Section 13350 or 13261, in an amount up to \$10 for each gallon discharged or \$5,000 for each day that the discharge occurs, and/or up to \$1,000 for each day the RWD is not submitted.

If Vaughn plans to close the pond, please submit closure plans prepared by a California registered professional. In addition, please submit a history of waste discharge (volumes & dates) to the ponds.

If you have any questions regarding this inspection, please contact Hoss Aghazeynali at (559) 445 6194 or by email at [Hossein.Aghazeynali@waterboards.ca.gov](mailto:Hossein.Aghazeynali@waterboards.ca.gov)



DANE S. JOHNSON  
Senior Engineering Geologist  
Professional Geologist No. 4239

Enclosure: Inspection Report

cc: Mike Toland, DOGGR, Bakersfield

5F OFFICE		<b>FACILITIES INSPECTION REPORT</b>	UN-REG PROGRAM	1/4 PAGE NO.
NA ORDER NO.	WDID REG MEASURE ID		PARTY ID	PLACE ID
Vaughn, LLC DISCHARGER NAME		Midway-Sunset Oil Field, USL 15 Lease FACILITY NAME		
909 TWENTYONE CANYON ROAD STREET ADDRESS		Section 15, T32S, R23E, MDB&M, CA STREET ADDRESS		
TAFT, CA 93268 CITY, STATE, ZIP CODE		Kern County CITY, STATE, ZIP CODE		
KAL VAUGHN DISCHARGER CONTACT PERSON		KAL VAUGHN, VP FACILITY CONTACT PERSON		
(661) 342 - 2838 TELEPHONE NO.		(661) 342 - 2838 TELEPHONE NO.		
	E-MAIL ADDRESS		E-MAIL ADDRESS	

### GENERAL INSPECTION INFORMATION

Inspection Type: B Type Compliance Inspection      Lead Inspector: Hoss Aghazeynali

02/19/2015 to 02/19/2015      11:30AM-1:00PM      Clear and sunny with slight wind

INSPECTION DATE(S)      INSPECTION TIME      GENERAL WEATHER CONDITIONS

#### INSPECTION ATTENDEE(S)

<u>Hoss Aghazeynali</u> NAME	<u>Regional Water Board</u> COMPANY/AGENCY	<u>(559)445-6194</u> TELEPHONE NO.	<u>Hossein.aghazeynali@waterboards.ca.gov</u> E-MAIL ADDRESS
<u>Kal Vaughn</u> NAME	<u>Vaughn, LLC</u> COMPANY/AGENCY	<u>(661) 342-2838</u> TELEPHONE NO.	<u></u> E-MAIL ADDRESS
<u></u> NAME	<u></u> COMPANY/AGENCY	<u></u> TELEPHONE NO.	<u></u> E-MAIL ADDRESS

### INSPECTION SUMMARY (for CIWQS entry – 500 character maximum)

The USL 15 Lease in the Midway-Sunset Oil Field was inspected to ascertain the status of a surface impoundment (pond) identified by the California Division of Oil, Gas, and Geothermal Resources (DOGGR) as active. Staff observed an active earthen pond with wet soil in pond bottom and no oil present. Disposal operations at the facility are not regulated by Waste Discharge Requirements (WDRs).

### INSPECTION VIOLATIONS SUMMARY (if applicable)

Identify VIOLATIONS noted during inspection in table below. For each violation documented entered into CIWQS, identify Violation ID and Violation Type, describe violation, and identify section of the WDRs or Water Code violated.

Label	Violation ID	Violation Type	Violation Description	Section of the WDRs Violated
V1				
V2				
V3				
V4				
V5				
V6				

### OTHER VIOLATIONS (if applicable)

SMR violations?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Evaluated	Notes:
File Review violations?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Evaluated	Notes:

Lead Inspector ID: 139095      Signature: H Aghazeynali      Date: 4/7/15

Inspection Tracking Information      Reviewed by: (1) [Signature]      (2) \_\_\_\_\_      (3) \_\_\_\_\_      CIWQS Coordinator

**FACILITY INFORMATION**

Oil and water production and wastewater treatment facility

active

FACILITY DESCRIPTION (e.g., total area in acres, number of waste management units, etc.)

STATUS (active, inactive, closed)

Oil field production wastewater (produced water)

Oil/Gas Extraction

WASTE TYPES

FACILITY CLASSIFICATION

Surface impoundment

DISPOSAL DESCRIPTION (e.g., composting, landfill, surface impoundment, etc.)

**BACKGROUND**

Disposal operations at the facility are not regulated by WDRs. There was no prior inspection.

**INSPECTION GIS DATA**

GIS Equipment used:

MANUFACTURER	MODEL	SERIAL NO.	DATUM	
Description of Measured Point	Latitude	Longitude	Datum	Comments

**INSPECTION OBSERVATIONS AND FINDINGS**

Describe observations and findings and identify those that document and reference each violation listed in the Inspection Violations Summary table by identifying the cited violation number within parentheses following the observation/finding (e.g., Exposed waste on top deck (V1)).

See Attachment 1 for an aerial photo of the facility area with a tank and one pond.

**Observations included (See Photos 1 and 2):**

- An active unlined earthen pond with netting.
- Pond bottom had wet soil but no oil was present.
- Pond area soil had very sandy-soil

According to Mr. Vaughn, the lease only has two active wells and the wastewater discharge to pond occurs when the percent water in the stock tank is too high for oil shipment. The pond is the only method of wastewater disposal.

**SAMPLING INFORMATION AND OBSERVATIONS**

Were samples collected during the inspection?  Yes  No

Are sample results included in report?  Yes  No

Did discharger collect split samples?  Yes  No

**SAMPLE COLLECTION INFORMATION AND OBSERVATIONS**

SAMPLE ID	SAMPLE DESCRIPTION/OBSERVATIONS	SAMPLE TIME (hours)	PHOTO NO.

**DISCUSSION OF SAMPLING RESULTS**

Discuss sampling results (e.g., discuss whether sampling results show compliance with WDRs).

## **CONCLUSIONS**

Summarize the conclusions of the inspection(s) below.

1. One unlined earthen pond used to discharge wastewater.
2. The pond is not regulated.



Photo 1. A tank and small earthen pond



Photo 2. Wet soil at pond bottom

# ATTACHMENT 1 - Facility Map

Vaughn, LLC

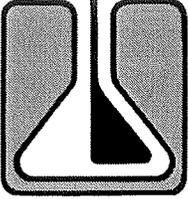
Midway-Sunset Oil Field, USL 15 Lease



ATTACHMENT D

VAUGHN, LLC

LABORATORY ANALYTICAL REPORT



ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

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June 26, 2015

Kal Vaughn  
Vaughn LLC  
909 Twenty One Canyon Road  
Taft, CA 93268

TEL: (661) 342-2838  
FAX: -

Project ID:  
RE: 1504120

Dear Kal Vaughn:

Zalco Laboratories, Inc. received 1 samples on 4/13/2015 for the analyses presented in the following report.

We appreciate your business and look forward to serving you in the future. Please feel free to call our office if you have any questions regarding these test results.

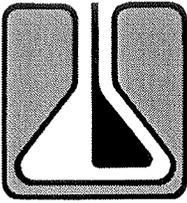
Sincerely,

A handwritten signature in cursive script, reading "Juan Magana".

Juan Magana  
Project Manager  
CC:

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



# ZALCO LABORATORIES, INC.

Analytical & Consulting Services

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Bakersfield, California 93308

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FAX (661) 395-3069

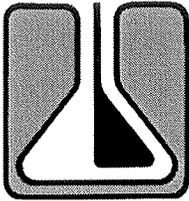
Vaughn LLC 909 Twenty One Canyon Road Taft, CA 93268	Project: RWQCB Oilfield Ponds - 2Q2015 Project #: Attention: Kal Vaughn	Work Order No.: 1504120 Reported: 06/26/2015 Received: 04/13/2015 11:00
--	---	---

Lab Sample ID: 1504120-01 Client Sample ID: USL 15 Lease	Collected By: Kal Vaughn Date Collected: 4/13/2015 7:00:00AM
---	---

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Alkalinity</b>									
Total Alkalinity	1800	10		mg/L		SM 2320B	4/13/15	4/13/15	MRF
Bicarbonate (HCO3)	1800	10		mg/L		SM 2320B	4/13/15	4/13/15	MRF
Carbonate (CO3)	<10	10		mg/L		SM 2320B	4/13/15	4/13/15	MRF
Hydroxide (OH)	<10	10		mg/L		SM 2320B	4/13/15	4/13/15	MRF
<b>CAM, Toxicity (17 Metals)</b>									
<i>TTLC Limits</i>									
Antimony	<0.20	0.20	500	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Arsenic	<0.020	0.020	500	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Barium	0.83	0.10	10000	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Beryllium	<0.010	0.010	75	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Cadmium	<0.010	0.010	100	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Chromium	<0.050	0.050	2500	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Cobalt	<0.10	0.10	8000	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Copper	<0.050	0.050	2500	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Lead	<0.050	0.050	1000	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Mercury	<0.0020	0.0020	20	mg/L		SW846 7470A	4/14/15	4/14/15	SS
Molybdenum	<0.10	0.10	3500	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Nickel	0.059	0.050	2000	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Selenium	<0.05	0.05	100	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Silver	<0.020	0.020	500	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Thallium	<0.50	0.50	700	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Vanadium	<0.10	0.10	2400	mg/L		SW846 6010B	4/17/15	4/21/15	SS
Zinc	<0.050	0.050	5000	mg/L		SW846 6010B	4/17/15	4/21/15	SS
<b>General Chemistry</b>									
<i>MCL Limits</i>									
Fluoride	<1.0	1.0	2	mg/L		EPA 300.0	4/16/15	4/16/15	MSS
Nitrate as NO3	<20.0	20.0	45	mg/L		EPA 300.0	4/16/15	4/16/15	MSS
Electrical Conductivity	12	0.010		mmhos/cm		SM 2510B	4/13/15	4/13/15	SAM
Bromide	15	1.0		mg/L		EPA 300.0	4/16/15	4/16/15	MSS
Chloride	2700	500		mg/L		EPA 300.0	4/16/15	4/16/15	MSS
pH	7.50			pH Units		EPA 150.1	4/13/15	4/13/15	MRF
Sulfate as SO4	23	5.0		mg/L		EPA 300.0	4/16/15	4/16/15	MSS
Total Dissolved Solids	6600	10		mg/L		SM 2540C	4/14/15	4/14/15	MSS
<b>Hardness</b>									

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative  
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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# ZALCO LABORATORIES, INC.

Analytical & Consulting Services

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Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Vaughn LLC 909 Twenty One Canyon Road Taft, CA 93268	Project: RWQCB Oilfield Ponds - 2Q2015 Project #: Attention: Kal Vaughn	Work Order No.: 1504120 Reported: 06/26/2015 Received: 04/13/2015 11:00
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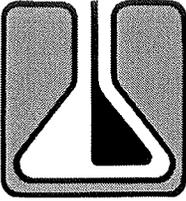
Lab Sample ID: 1504120-01 Client Sample ID: USL 15 Lease	Collected By: Kal Vaughn Date Collected: 4/13/2015 7:00:00AM
---	---

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Hardness</b>								
Hardness (as CaCO3)	200	2.0	mg/L		SM 2340B	4/13/15	4/13/15	SS
<b>Metals - As Received</b>								
Lithium	1.0	0.10	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Magnesium	27	0.050	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Potassium	36	0.50	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Sodium	2700	70	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Calcium	37	0.050	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Iron	<0.10	0.10	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Boron	22	0.10	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Barium	0.36	0.10	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Copper	<0.050	0.050	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Silica (SiO2)	58	4.0	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Strontium	2.0	0.10	mg/L		EPA 200.7	4/13/15	4/13/15	SS
Manganese	0.22	0.030	mg/L		EPA 200.7	4/13/15	4/13/15	SS
<b>Oil &amp; Grease Testing</b>								
TRPH	5.00	5.00	mg/L		EPA 1664	4/24/15	4/24/15	BIG
<b>Semivolatile Organic Compounds</b>								
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Acenaphthylene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Acenaphthene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Anthracene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Benzo (a) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Benzo (b) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Benzo (a) pyrene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



# ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue  
Bakersfield, California 93308

(661) 395-0539  
FAX (661) 395-3069

Vaughn LLC 909 Twenty One Canyon Road Taft, CA 93268	Project: RWQCB Oilfield Ponds - 2Q2015 Project #: Attention: Kal Vaughn	Work Order No.: 1504120 Reported: 06/26/2015 Received: 04/13/2015 11:00
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Lab Sample ID: 1504120-01 Client Sample ID: USL 15 Lease	Collected By: Kal Vaughn Date Collected: 4/13/2015 7:00:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
<b>Semivolatile Organic Compounds</b>								
Benzo (g,h,i) perylene	<10.0	10.0	ug/L		SW846 8270C	4/17/15	4/20/15	JMM
Surrogates		% Recovery	Recovery Limits	Flag				

Nitrobenzenc-d5		47.0	0-95				4/20/15 14:56	
2-Fluorobiphenyl		43.6	0-92				4/20/15 14:56	
Terphenyl-d14		20.8	0-100				4/20/15 14:56	

### Subcontracted Analyses

Gross Alpha	1.69			pCi/L	SM 7110C	4/17/15	4/17/15	JMM
Radium-226	<0.470	0.470		pCi/L	E903.1	4/17/15	4/17/15	JMM
Radium-228	<0.400	0.400		pCi/L	E904.0	4/28/15	4/28/15	JMM
Uranium (ug/L)	0.396			pCi/L	E908	4/29/15	4/29/15	JMM

### Volatile Organic Compounds

m,p-Xylene	<5.00	5.00		ug/L	SW846 8260B	4/21/15	4/21/15	HLP
Benzene	<5.00	5.00		ug/L	SW846 8260B	4/21/15	4/21/15	HLP
Xylenes, total	0.00			ug/L	SW846 8260B	4/21/15	4/21/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00		ug/L	SW846 8260B	4/21/15	4/21/15	HLP
Ethylbenzene	<5.00	5.00		ug/L	SW846 8260B	4/21/15	4/21/15	HLP
Toluene	<5.00	5.00		ug/L	SW846 8260B	4/21/15	4/21/15	HLP
o-Xylene	<5.00	5.00		ug/L	SW846 8260B	4/21/15	4/21/15	HLP
Surrogates		% Recovery	Recovery Limits	Flag				

1,2-Dichloroethane-d4		106	89-165				4/21/15 13:40	
Toluene-d8		106	65-124				4/21/15 13:40	
4-Bromofluorobenzene		105	94-114				4/21/15 13:40	

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level \*: See Case Narrative

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