

# **EnviroTech**

## **Consultants, Inc.**

5400 Rosedale Highway  
Bakersfield, CA 93308

### **BELRIDGE ENERGY RESOURCES RESPONSE TO RWQCB SECTION 13267 ORDER POND INFORMATION AND SAMPLING RESULTS**

### **SOUTH BELRIDGE OIL FIELD MISSION LEASE SECTION 31 T28S/R21E MDB&M**

**JUNE 12, 2015**

**ADDENDUM:  
July 7, 2015**

**Prepared by:**

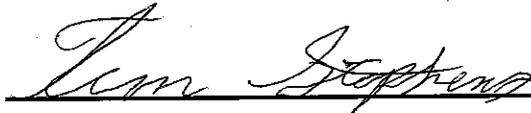
**EnviroTech Consultants, Inc.**

July 7, 2015

Certification Statement

RWQCB Order 13267, Pond Sampling Technical Report  
Belridge Energy

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.

A handwritten signature in cursive script, reading "Tim Stephens", is written over a solid horizontal line.

Tim Stephens, Operator

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## 1.0 IDENTIFICATION OF DISCHARGES OF PRODUCED WATER TO LAND

Two ponds were identified by the Regional Water Quality Control Board (RWQCB) 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 from the wash tank (Attachment B) by EnviroTech Consultants, Inc. (EnviroTech) from the pond on May 7, 2015 as required by Order 13267 dated April 1, 2015 (Attachment C). The two ponds are in series; only one fluid sample was collected. The samples were collected from the sample port on the wash tank, 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 Test America Laboratories, Inc. on May 07, 2015. EnviroTech received the laboratory analytical report on June 11, 2015. The analytical results are summarized in the following tables; complete laboratory reports are included in Attachment D.

**Table 3-1: General Chemistry**

| Sample ID             | Date Sampled | Total Dissolved Solids                             | Calcium    | Iron      | Magnesium  | Manganese   | Potassium  | Sodium        | Strontium | Alkalinity as CaCO <sub>3</sub> | Bicarbonate ion as HCO <sub>3</sub> | Carbonate as CO <sub>3</sub> | Hydroxide as OH |
|-----------------------|--------------|--|------------|-----------|------------|-------------|------------|---------------|-----------|---------------------------------|-------------------------------------|------------------------------|-----------------|
| EPA Analytical Method |              | 2540C_Calcd  | 6010B      |           |            |             |            |               | 2320B     |                                 |                                     |                              |                 |
| Units                 |              | mg/L   |            |           |            |             |            |               |           |                                 |                                     |                              |                 |
| Reporting limit       |              | Reporting limits vary, see full analytical report. |            |           |            |             |            |               |           |                                 |                                     |                              |                 |
| Mission               | 5/7/2015     | <b>Results</b>                                     |            |           |            |             |            |               |           |                                 |                                     |                              |                 |
|                       |              | <b>41,000</b>                                      | <b>400</b> | <b>16</b> | <b>670</b> | <b>0.45</b> | <b>570</b> | <b>15,000</b> | <b>16</b> | <b>2,800</b>                    | <b>3,400</b>                        | <b>&lt;2.4</b>               | <b>&lt;1.4</b>  |

**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_ORGFM_28D                                       |               | 300_ORGFMS     | 300_ORGFM_28D |
| Units                 |              | mg/L  |               |                |               |
| Reporting Limit       |              | Reporting limit varies, see full analytical report. |               |                |               |
| Mission               | 5/7/2015     | <b>590</b>  | <b>19,000</b> | <50            | <b>&lt;50</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. |         |            |           |           |         |              |         |        |         |
| Mission               | 5/7/2015     | <0.010  | <0.010  | <b>4.5</b> | <0.0020   | <b>45</b> | <0.0050 | <b>0.020</b> | <0.0100 | 0.023  | <0.0050 |

| 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. |            |              |          |        |           |          |          |              |          |
| Mission               | 5/7/2015     | <b>9.1</b>  | <0.020     | <b>0.016</b> | <0.010   | <0.010 | <b>16</b> | <0.010   | <0.010   | <b>0.021</b> | <0.00020 |

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

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

| Sample ID             | Date Sampled | Benzene                       | Ethylbenzene | Toluene | Xylenes, Total | Gasoline Range | TPH as Crude Oil: Diesel Range Organics (DRO) (GC) |         |
|-----------------------|--------------|-------------------------------|--------------|---------|----------------|----------------|--|---------|
|                       |              |                               |              |         |                | C4-C12         | C13-C22  | C23-C40 |
| EPA Analytical Method |              | 8015B_GRO                     |              |         |                | 8015B_DRO      |  |         |
| Units                 |              | ug/L                          |              |         | ug/L           | mg/L           |  |         |
| Reporting Limit       |              | Varies, see laboratory report |              |         |                | 24             |  |         |
| Mission               | 5/7/2015     | 11                            | 39           | <8.0    | <b>230</b>     | <b>4,500</b>   | <24  | <24     |

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

**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_SIM    |                |            |                    |                |                      |                      |                      |           |                       |              |           |                        |             |              |           |
| Units                 |              | ug/L         |                |            |                    |                |                      |                      |                      |           |                       |              |           |                        |             |              |           |
|                       |              |              |                |            |                    |                |                      |                      |                      |           |                       |              |           |                        |             |              |           |
| Mission               | 5/7/2015     | <9.7         | <9.7           | <9.7       | <9.7               | <9.7           | <9.7                 | <9.7                 | <9.7                 | <b>11</b> | <9.7                  | <9.7         | <b>34</b> | <9.7                   | <b>13</b>   | <b>81</b>    | <b>12</b> |

**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 | Gross Beta      | Radium-226         | Radium-228        | Uranium |
|------------------------------|--------------|-------------|-----------------|--------------------|-------------------|---------|
| <b>EPA Analytical Method</b> |              | 9310        | 9310            | 9315_Ra226         | 9320_Ra228        | 6020A   |
| <b>Units</b>                 |              | pCi/L       |                 |                    |                   |         |
| <b>Regulatory Threshold*</b> |              | 15          | --              | --                 | 5                 | 34      |
| Mission                      | 5/7/2015     | -58.1 ±267  | <b>258 ±141</b> | <b>35.0 ± 3.35</b> | <b>21.6 ±2.40</b> | <34     |

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

Reporting limit varies by sample. See full analytic report.

Results are expressed as  $2\sigma \pm$  total uncertainty

\* Title 22, Table 6443. MCL

-- No Regulatory Threshold

#### 4.0 INFORMATION FOR EACH SURFACE IMPOUNDMENT

The following table contains the required information for the Belridge Energy Resources Mission ponds.

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

| Pond Identification | Surface Impoundment Dimensions (feet) |       |       | Location (NAD 83)                                 | Assessor's Parcel Number of the Lease | Duration of Discharge (months)  | Volume of Wastewater Discharged per year |
|---------------------|---------------------------------------|-------|-------|---|---------------------------------------|---------------------------------|--|
|                     | Length                                | Width | Depth |   |                                       |                                 |  |
| Pond #1             | 65'                                   | 110'  | 4'    | Latitude:35.451830<br>Longitude:<br>-119.745851°  | 085-230-47                            | Continuously since 1980 or 1981 | ~50 BBLs/Month*<br>or<br>~600 BBLs/Year  |
| Pond #2             | 80'                                   | 110'  | 4'    | Latitude:35.451628°<br>Longitude:<br>-119.745821° | 085-230-05                            | Continuously since 1980 or 1981 | ~50 BBLs/Month*<br>or<br>~600 BBLs/Year  |

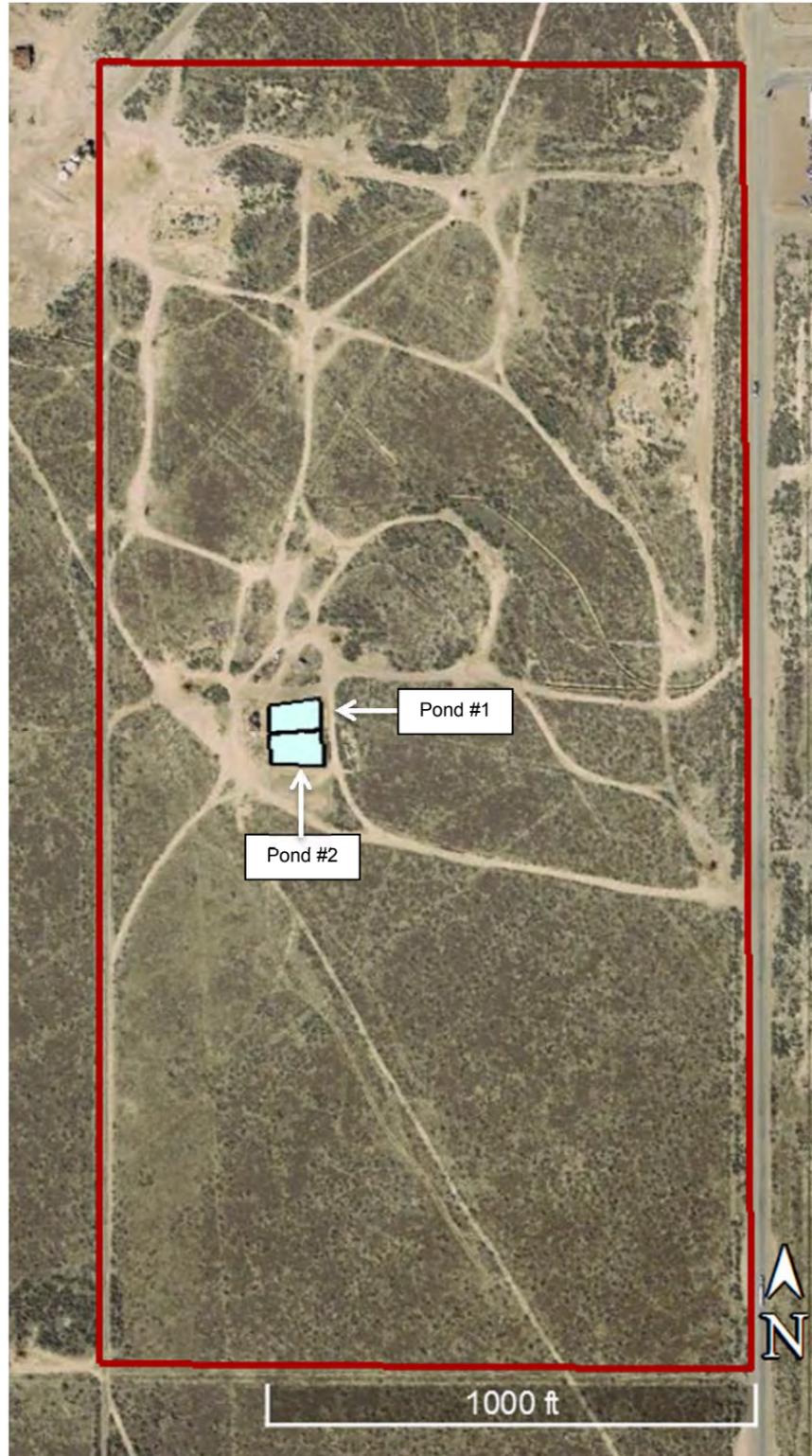
\* = Belridge Energy Resources, Inc. reported a combined discharge of 100 BBLs per month.

One pond is predominately used for Tank Clean-Out; the other pond is used for produced water.

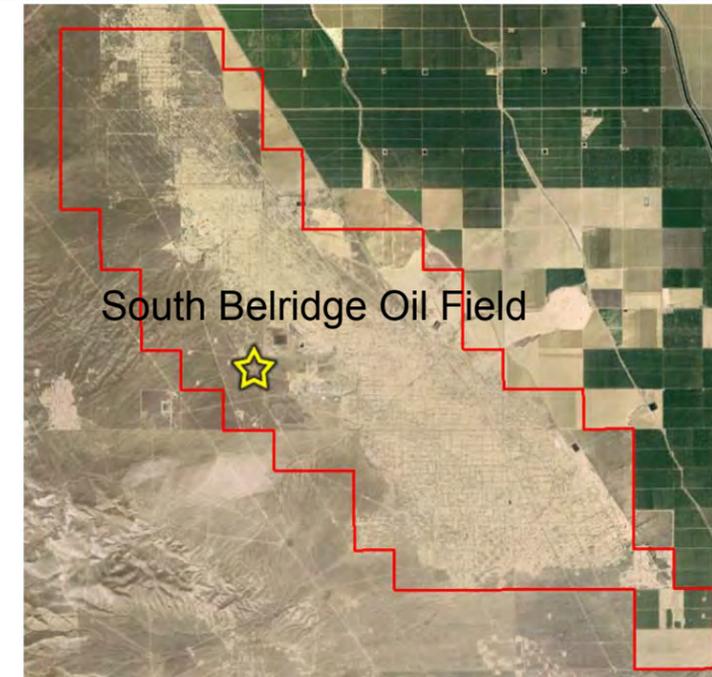
ATTACHMENT A

BELRIDGE ENERGY RESOURCES

MISSION PONDS MAP



## Belridge Energy Resources, Inc.



### Legend

|   |                     |  |  |
|---|---------------------|--|--|
|  | Mission Lease       | Pond #1:<br>Length – 65'<br>Width – 110'<br>Depth – 4' | Pond #2:<br>Length – 80'<br>Width – 110'<br>Depth – 4' |
|  | Mission Lease Ponds |  |  |

|   |                |                          |
|---|----------------|--------------------------|
| Prepared By:  | <b>TITLE:</b>  | Mission Lease Ponds      |
|  | <b>FIELD:</b>  | South Belridge Oil Field |
|   | <b>COUNTY:</b> | Kern                     |
| <b>Section/Township/Range</b>   | <b>DRN BY:</b> | Kelsey Padilla           |
| T28S/R21E – Section 31 MDB&M<br>(NE ½ of the NE ¼)                                    | <b>DATE:</b>   | May 28, 2015             |

ATTACHMENT B

BELRIDGE ENERGY RESOURCES

MISSION SITE PLAN

# Belridge Energy Resources

Site Plan



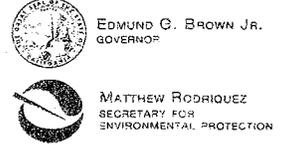
Sample taken from Wash Tank



ATTACHMENT C

BELRIDGE ENERGY RESOURCES

COPY OF RWQCB ORDER 13267, 1 APRIL, 2015



## Central Valley Regional Water Quality Control Board

1 April 2015

Roy A. Cox  
Belridge Energy Resources, Inc.  
P.O. Box 5566  
Bakersfield, CA 93380

**CERTIFIED MAIL**  
7014 3490 0001 7023 0070

**CALIFORNIA WATER CODE DIRECTIVE PURSUANT TO SECTION 13267. You are legally obligated to respond to this Order. Please read this Order carefully.**

Belridge Energy Resources, Inc. (hereafter Discharger) has been identified as the owner or operator of petroleum production wastewater disposal ponds (ponds). A list of the ponds (and the leases and oil fields where they are located) that the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) identifies as under your control is presented in Attachment A. Ponds for the disposal of wastewater generated during the course of petroleum production have the potential to affect the quality of groundwater (a water of the State). Groundwater underlying the areas where your ponds are located have beneficial uses as identified in the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan).

This order requires the collection and analysis of wastewater samples collected from each of the ponds listed in Attachment A to characterize the discharge. Each sample is to be analyzed for each of the constituents listed in Attachment B. These data are needed to comprehensively characterize wastewater in each pond and provide data needed to evaluate the threat to the quality of waters of the State. If more than one pond is connected in series (i.e., one pond drains directly to the next with no other source of inflow) then only the upstream pond must be sampled. This order is not intended to require the collection of duplicative data. If during the 12 months (one year) prior to the date of this order, samples required by this order have been analyzed from one or more of the ponds for the required constituents, that data can be submitted for the appropriate order requirements.

This order also requires Discharger to identify any discharge(s) of oil field wastewater to land that is not identified in Attachment A. Discharger must also collect and analyze wastewater samples in accordance with Attachment B from any additionally identified discharge to characterize the discharge.

The Central Valley Water Board's authority to require technical reports derives from Section 13267 of the California Water Code, which specifies, in part, that:

*(g) A regional Board ... in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the State within its region.*

*(b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefit to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.*

The Central Valley Water Board is concerned about the potential impacts to water quality posed by the discharge of oil field produced waters in surface ponds. The technical information and reports required by this order are necessary to assess the potential threat to water quality. The need to understand the potential impacts to water quality justify the need for the information and reports required by this order. Based on the nature and possible consequences of the discharges of waste, the burden of providing the required information, including the reporting costs, bears a reasonable relationship to the need for the report, and the benefits to be obtained. Discharger is required to submit this information and reports because it is the operator of the ponds listed in Attachment A of this order.

The unauthorized discharge of waste containing oil field waste constituents to land, including unlined ponds, may result in the degradation of water quality and creates or threatens to create, a condition of pollution in groundwater. Significant concentrations of salinity (measured as TDS and EC), significant contributors to salinity such as chloride and sulfate, and boron are present in oil field wastewater. Other potential constituents such as, but not limited to, metals, radionuclides, and organic compounds pose a threat to water quality. The concentrations of these waste constituents in wastewater being discharged needs to be known to evaluate the threat. In addition, all locations where these discharges are occurring needs to be known.

Underlying groundwater can be degraded if mixed with oil field wastewater. Elevated concentrations of oil field waste constituents could impair the groundwater for municipal and domestic supply and agricultural supply uses.

**Under the prescribed authority of California Water Code section 13267**, the Central Valley Water Board directs Discharger to:

1. **By 15 June 2015**, submit a technical report containing the following information:
  - A. Identification of any discharges of oil field produced waters to land, including but not limited to ponds, since April of 2014 that are not listed in Attachment A;
  - B. Collect representative samples of wastewater within each of the ponds. Samples must be analyzed in accordance with the water quality analysis and reporting requirements contained in Attachment B to this Order;<sup>1</sup>

If a representative sample cannot feasibly be collected from one or more of the sources discharging to a surface impoundment(s), then a comment will need to be added to the technical report required by this Order demonstrating that collection of a representative sample from a specific source is not feasible within the required timeframe, and propose an alternative sampling procedure and expeditious time schedule for obtaining a representative sample for each source. Alternative sampling procedures and time schedules are subject to approval by the Assistant Executive Officer of the Central Valley Regional Water Quality Control Board.
  - C. All available information for each of the surface impoundment(s), including dimensions (i.e., length, width, and depth), latitude and longitude, Assessor's Parcel Numbers of the lease, duration of the discharge (in months), and the volume of wastewater discharged per year.
  - D. A location map that includes the following information:
    - i. All surface impoundment(s) at the Facility,
    - ii. Include the boundary lines for all leases at the Facility, and
    - iii. Legend with the name of the surface impoundment(s).
2. **By 15 April 2015**, Discharger needs to contact Dane S. Johnson of this office at (559) 445-5525 if you have received this Order and cannot collect the required samples.

---

<sup>1</sup> All previously obtained analytical data for oil field produced wastewater samples collected at the Facility, if any, with a description of the source and location for each analysis may be submitted in the alternative for re-running tests if the sample(s) was collected and analyzed within 12 months (one year) of the date of this order.

The technical report required by this Order must be submitted to the attention of:

Ronald Holcomb  
Central Valley Water Board  
1685 E Street  
Fresno, CA 93706

Based on the information submitted in the technical report, additional information or action may be required.

With the report required by this Order, Discharger shall provide under penalty of perjury under the laws of California a "Certification" statement to the Central Valley Water Board. The "Certification" shall include the following signed statement:

*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 the 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.*

The Central Valley Water Board reserves the right to issue a Notice of Violation or pursue enforcement for Discharger's activities after reviewing the documentation provided in response to this Order.

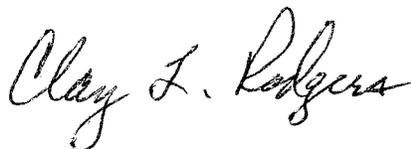
The Technical Report is to be signed and stamped by a California Professional Engineer (Registered as a Civil Engineer) or a registered California Professional Geologist. Any laboratory analyses shall be performed by an analytical laboratory certified by the State of California for the analyses performed. Submissions pursuant to this Order shall include a statement by Discharger, or an authorized representative of Discharger, certifying (as described above) that the information submitted is true, complete, and accurate.

The failure to furnish the required report, or the submission of a substantially incomplete report or false information, is a misdemeanor, and may result in additional enforcement actions being taken against Discharger, including issuance of an Administrative Civil Liability Complaint pursuant to California Water Code section 13268. Liability may be imposed pursuant to California Water Code section 13268 in an amount not to exceed one thousand dollars (\$1,000) for each day in which the violation occurs. All discharges to unpermitted ponds should cease pending review and submission of the technical information sought by this order.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with

California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 days after the date of this directive, except that if the thirtieth day following the date of this directive falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

If you have any questions regarding this matter, please contact Doug Patteson of this office at (559) 445-5577 or at [doug.patteson@waterboards.ca.gov](mailto:doug.patteson@waterboards.ca.gov).



Clay L. Rodgers  
Assistant Executive Officer

cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board, Sacramento  
Mike Toland, California Division of Oil, Gas, and Geothermal Resources, Bakersfield

**ATTACHMENT A**

**The following table contains the names of oil fields and lease(s) and the corresponding number of ponds that the Central Valley Water Board has identified as active and under your control:**

| <b>OPERATOR</b>                 | <b>OIL FIELD</b> | <b>LEASE</b> | <b>NO. OF PONDS</b> |
|---------------------------------|------------------|--------------|---------------------|
| Belridge Energy Resources, Inc. | Belridge, South  | Mission      | 2                   |

**ATTACHMENT B****Water Quality Analysis**

Wastewater samples collected from the ponds shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program using currently applicable United States Environmental Protection Agency-approved analytical methods for water for the following:

- A. Total dissolved solids;
- B. Metals listed in California Code of Regulations, title 22, section 66261.24. subdivision (a)(2)(A);
- C. Benzene, toluene, ethylbenzene, and xylenes;
- D. Total petroleum hydrocarbons as crude oil;
- E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorine, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene);
- F. Radionuclides listed under California Code of Regulations, title 22, Table 64442;
- G. Major and minor cations (including sodium, potassium, magnesium, and calcium);
- H. Major and minor anions (including nitrate, chloride, sulfate, carbonate, bicarbonate, and bromide);
- I. Trace elements (including lithium, strontium, boron, iron, and manganese).

**Reporting Requirements**

Water Quality information shall be submitted in a technical report that includes at a minimum:

- A. Site plan(s) with the location(s) of where the samples were collected;
- B. A description of how the samples, representative of the pond contents, were collected;

Table(s) of analytical results organized by pond number with the data also submitted electronically as an Excel spreadsheet.

ATTACHMENT D

BELRIDGE ENERGY RESOURCES  
LABORATORY ANALYTICAL REPORT

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-109141-1

TestAmerica SDG: Mission Lease, South Belridge Oil Field

Client Project/Site: RWQCB Pond Testing, 2015

Revision: 1

For:

Envirotech Consultants, Inc.

5400 Rosedale Highway

Bakersfield, California 93308

Attn: Jane McNaboe



Authorized for release by:

6/11/2015 10:12:03 AM

Janice Hsu, Project Manager I

(949)261-1022

[janice.hsu@testamericainc.com](mailto:janice.hsu@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Sample Summary

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 440-109141-1  | Mission          | Water  | 05/07/15 10:05 | 05/07/15 18:30 |
| 440-109141-2  | TB               | Water  | 05/07/15 00:01 | 05/07/15 18:30 |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Case Narrative

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

**Job ID: 440-109141-1**

**Laboratory: TestAmerica Irvine**

## Narrative

### Job Narrative 440-109141-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 5/7/2015 6:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.6° C.

#### GC/MS VOA

Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, pH=5 was outside the required criteria when verified by the laboratory, and corrective action was not possible: Mission (440-109141-1).

Method(s) 8260B: The following volatile sample was analyzed with significant headspace in the sample vial: Mission (440-109141-1). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: Mission (440-109141-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270C SIM: The internal standard response was below the 50% minimum QC limit for the following samples: Mission (440-109141-1). The chromatography showed some matrix interference that could have adversely affected the recovery of the affected internal standard. All affected target analytes were flagged with an asterisk (\*). If the matrix effect is isolated to the internal standards, then the affect on the associated target analyte results are potentially biased high.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-254413 and analytical batch 440-255228. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### HPLC/IC

Method(s) 300.0: The following sample was diluted for sulfate due to the nature of the sample matrix: Mission (440-109141-1). Elevated reporting limits (RL) are provided.

Method(s) 300.0: The following sample was diluted for nitrate due to the nature of the sample matrix: Mission (440-109141-1). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC Semi VOA

Method(s) 8015B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with 253724. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. (LCS 440-253724/2-A)

Method(s) 8015B: The following samples required dilutions due to the nature of the sample matrix: Mission (440-109141-1). Because of these dilutions, the surrogate spike concentration in the samples were reduced to a level where the recovery calculation does not provide useful information.

# Case Narrative

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Job ID: 440-109141-1 (Continued)

### Laboratory: TestAmerica Irvine (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method(s) 6010B: The following sample was diluted due to the nature of the sample matrix: Mission (440-109141-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

Method(s) SM 2320B: The method blank for 256614 contained alkalinity above the reporting limit (RL). Associated samples were not re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Narrative

### Job Narrative 440-109141-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 5/7/2015 6:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.6° C.

#### RAD

Method(s) 9310: Gross Alpha Beta Prep Batch 190445:

The gross alpha and beta detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: Mission (440-109141-1), (160-11674-A-3-B) and (160-11674-A-3-C DU). Analytical results are reported with the detection limit achieved.

Method(s) 9315: Ra-226 prep batch: 190226

The barium carrier recovery is above the 110% QC limit for the laboratory control sample duplicate (LCSD- 112 %) associated with 160-190226. The LCS/LCSD spike recoveries are within control limits, which demonstrates acceptable sample preparation and instrument performance. As such, this was an apparent anomaly in the sample preparation, isolated to the LCSD, which is not indicative of the entire batch. The samples have been truncated to 100% in order to minimize any potential bias a high carrier recovery may have on the results: Mission (440-109141-1), (LCS 160-190226/2-A), (LCSD 160-190226/3-A) and (MB 160-190226/1-A).

Method(s) 9320: Ra-228 prep batch: 190228

The barium carrier recovery is above the 110% QC limit for the laboratory control sample duplicate (LCSD- 112 %) associated with 160-190228. The LCS/LCSD spike recoveries are within control limits, which demonstrates acceptable sample preparation and instrument performance. As such, this was an apparent anomaly in the sample preparation, isolated to the LCSD, which is not indicative of the entire batch. The samples have been truncated to 100% in order to minimize any potential bias a high carrier recovery may have on the results: Mission (440-109141-1), (LCS 160-190228/2-A), (LCSD 160-190228/3-A) and (MB 160-190228/1-A).

Method(s) PrecSep-21, PrecSep\_0: radium-228 batch 190228 and radium-226 batch 190226

A deviation from the Standard Operating Procedure (SOP) occurred. The following samples were oily and had a strong odor: Mission (440-109141-1). A 500 mL aliquot was taken to dryness, muffled, and digested with acid. 440-109121-1 and 109141-1 had a large amount of solid material remaining after muffling and digestion. The samples were refluxed with nitric and hydrochloric acid and transferred to a tube and centrifuged. The acid was decanted into a beaker and preparation continued per the normal SOP. Due to the

# Case Narrative

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

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## Job ID: 440-109141-1 (Continued)

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### Laboratory: TestAmerica Irvine (Continued)

matrix of the samples, a LCS/LCSD was performed.

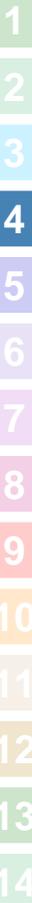
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### Metals

Method(s) 6020A: 190483 - water. A-batch - 191371.

The following samples were diluted due to the nature of the sample matrix. The samples were high in salts, which cause internal standard and QC failures when the samples are run at a lesser dilution: Mission (440-109141-1), (440-109149-S-1-A), (440-109149-S-1-B MS), (440-109149-S-1-C MSD) and (440-109149-S-1-A SD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Client Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Client Sample ID: Mission

Date Collected: 05/07/15 10:05

Date Received: 05/07/15 18:30

## Lab Sample ID: 440-109141-1

Matrix: Water

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte               | Result     | Qualifier | RL         | MDL | Unit        | D | Prepared | Analyzed              | Dil Fac  |
|-----------------------|------------|-----------|------------|-----|-------------|---|----------|-----------------------|----------|
| Benzene               | 11         |           | 8.0        |     | ug/L        |   |          | 05/11/15 14:46        | 4        |
| Ethylbenzene          | 39         |           | 8.0        |     | ug/L        |   |          | 05/11/15 14:46        | 4        |
| m,p-Xylene            | 160        |           | 8.0        |     | ug/L        |   |          | 05/11/15 14:46        | 4        |
| o-Xylene              | 71         |           | 8.0        |     | ug/L        |   |          | 05/11/15 14:46        | 4        |
| Toluene               | ND         |           | 8.0        |     | ug/L        |   |          | 05/11/15 14:46        | 4        |
| <b>Xylenes, Total</b> | <b>230</b> |           | <b>8.0</b> |     | <b>ug/L</b> |   |          | <b>05/11/15 14:46</b> | <b>4</b> |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)           | 104       |           | 80 - 128 |          | 05/11/15 14:46 | 4       |
| 4-Bromofluorobenzene (Surr) | 97        |           | 80 - 120 |          | 05/11/15 14:46 | 4       |
| Dibromofluoromethane (Surr) | 103       |           | 76 - 132 |          | 05/11/15 14:46 | 4       |

### Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

| Analyte                | Result      | Qualifier | RL         | MDL | Unit        | D | Prepared              | Analyzed              | Dil Fac   |
|------------------------|-------------|-----------|------------|-----|-------------|---|-----------------------|-----------------------|-----------|
| Acenaphthene           | ND          |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| Acenaphthylene         | ND          |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| Anthracene             | ND          |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| Benzo[a]anthracene     | ND          |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| Benzo[a]pyrene         | ND *        |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| Benzo[b]fluoranthene   | ND *        |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| Benzo[g,h,i]perylene   | ND *        |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| Benzo[k]fluoranthene   | ND *        |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| <b>Chrysene</b>        | <b>11</b>   |           | <b>9.7</b> |     | <b>ug/L</b> |   | <b>05/12/15 10:25</b> | <b>05/16/15 10:33</b> | <b>50</b> |
| Dibenz(a,h)anthracene  | ND *        |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| Fluoranthene           | ND          |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| <b>Fluorene</b>        | <b>34</b>   |           | <b>9.7</b> |     | <b>ug/L</b> |   | <b>05/12/15 10:25</b> | <b>05/16/15 10:33</b> | <b>50</b> |
| Indeno[1,2,3-cd]pyrene | ND *        |           | 9.7        |     | ug/L        |   | 05/12/15 10:25        | 05/16/15 10:33        | 50        |
| <b>Naphthalene</b>     | <b>13 *</b> |           | <b>9.7</b> |     | <b>ug/L</b> |   | <b>05/12/15 10:25</b> | <b>05/16/15 10:33</b> | <b>50</b> |
| <b>Phenanthrene</b>    | <b>81</b>   |           | <b>9.7</b> |     | <b>ug/L</b> |   | <b>05/12/15 10:25</b> | <b>05/16/15 10:33</b> | <b>50</b> |
| <b>Pyrene</b>          | <b>12</b>   |           | <b>9.7</b> |     | <b>ug/L</b> |   | <b>05/12/15 10:25</b> | <b>05/16/15 10:33</b> | <b>50</b> |

| Surrogate               | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 179       | X         | 31 - 120 | 05/12/15 10:25 | 05/16/15 10:33 | 50      |
| Nitrobenzene-d5         | 1721      | X *       | 25 - 133 | 05/12/15 10:25 | 05/16/15 10:33 | 50      |
| Terphenyl-d14           | 135       | X         | 10 - 120 | 05/12/15 10:25 | 05/16/15 10:33 | 50      |

### Method: 8015B - Gasoline Range Organics - (GC)

| Analyte             | Result      | Qualifier | RL         | MDL | Unit        | D | Prepared | Analyzed              | Dil Fac   |
|---------------------|-------------|-----------|------------|-----|-------------|---|----------|-----------------------|-----------|
| <b>GRO (C4-C12)</b> | <b>4500</b> |           | <b>500</b> |     | <b>ug/L</b> |   |          | <b>05/14/15 23:08</b> | <b>10</b> |

| Surrogate                   | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 91        |           | 65 - 140 |          | 05/14/15 23:08 | 10      |

### Method: 8015B - Diesel Range Organics (DRO) (GC)

| Analyte          | Result    | Qualifier | RL        | MDL | Unit        | D | Prepared              | Analyzed              | Dil Fac   |
|------------------|-----------|-----------|-----------|-----|-------------|---|-----------------------|-----------------------|-----------|
| C13-C22          | ND        |           | 24        |     | mg/L        |   | 05/08/15 06:32        | 05/11/15 09:11        | 50        |
| C23-C40          | ND        |           | 24        |     | mg/L        |   | 05/08/15 06:32        | 05/11/15 09:11        | 50        |
| <b>C13 - C40</b> | <b>50</b> |           | <b>24</b> |     | <b>mg/L</b> |   | <b>05/08/15 06:32</b> | <b>05/11/15 09:11</b> | <b>50</b> |

| Surrogate    | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------|-----------|-----------|----------|----------------|----------------|---------|
| n-Octacosane | 62        |           | 45 - 120 | 05/08/15 06:32 | 05/11/15 09:11 | 50      |

TestAmerica Irvine

# Client Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 300.0 - Anions, Ion Chromatography

| Analyte         | Result       | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------|--------------|-----------|------|-----|------|---|----------|----------------|---------|
| <b>Bromide</b>  | <b>590</b>   |           | 50   |     | mg/L |   |          | 05/08/15 15:08 | 100     |
| Nitrate as NO3  | ND           |           | 50   |     | mg/L |   |          | 05/08/15 00:30 | 100     |
| <b>Chloride</b> | <b>19000</b> |           | 1000 |     | mg/L |   |          | 05/08/15 00:47 | 2000    |
| Sulfate         | ND           |           | 50   |     | mg/L |   |          | 05/08/15 00:30 | 100     |

## Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte          | Result       | Qualifier | RL     | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|-----------|--------|-----|------|---|----------------|----------------|---------|
| Antimony         | ND           |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Arsenic          | ND           |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Barium</b>    | <b>4.5</b>   |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Beryllium        | ND           |           | 0.0020 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Cadmium          | ND           |           | 0.0050 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Chromium</b>  | <b>0.020</b> |           | 0.0050 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Cobalt           | ND           |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Copper</b>    | <b>0.023</b> |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Lead             | ND           |           | 0.0050 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Molybdenum       | ND           |           | 0.020  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Nickel</b>    | <b>0.016</b> |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Selenium         | ND           |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Thallium         | ND           |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Vanadium         | ND           |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Zinc</b>      | <b>0.021</b> |           | 0.020  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| Silver           | ND           |           | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Lithium</b>   | <b>9.1</b>   |           | 1.3    |     | mg/L |   | 05/12/15 14:03 | 05/14/15 12:31 | 25      |
| <b>Potassium</b> | <b>570</b>   |           | 0.50   |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Manganese</b> | <b>0.45</b>  |           | 0.020  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Magnesium</b> | <b>670</b>   |           | 0.50   |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:50 | 25      |
| <b>Iron</b>      | <b>16</b>    |           | 0.040  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Strontium</b> | <b>16</b>    |           | 0.020  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Sodium</b>    | <b>15000</b> |           | 13     |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:50 | 25      |
| <b>Calcium</b>   | <b>400</b>   |           | 0.10   |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:27 | 1       |
| <b>Boron</b>     | <b>45</b>    |           | 1.3    |     | mg/L |   | 05/12/15 14:03 | 05/13/15 20:50 | 25      |

## Method: 6020A - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|-------|---|----------------|----------------|---------|
| Uranium | <50    |           | 50 | 12  | ug/L  |   | 05/12/15 13:57 | 05/18/15 15:33 | 100     |
| Analyte | Result | Qualifier | RL | MDL | Unit  | D | Prepared       | Analyzed       | Dil Fac |
| Uranium | <34    |           | 34 | 7.7 | pCi/L |   | 05/12/15 13:57 | 05/18/15 15:33 | 100     |

## Method: 7470A - Mercury (CVAA)

| Analyte | Result | Qualifier | RL      | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|---------|-----|------|---|----------------|----------------|---------|
| Mercury | ND     |           | 0.00020 |     | mg/L |   | 05/08/15 14:36 | 05/11/15 16:45 | 1       |

## General Chemistry

| Analyte                        | Result       | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------------|-----------|------|-----|------|---|----------|----------------|---------|
| <b>Total Dissolved Solids</b>  | <b>41000</b> |           | 1000 |     | mg/L |   |          | 05/14/15 07:41 | 1       |
| Analyte                        | Result       | Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
| <b>Alkalinity as CaCO3</b>     | <b>2800</b>  | <b>B</b>  | 4.0  |     | mg/L |   |          | 05/18/15 05:59 | 1       |
| <b>Bicarbonate ion as HCO3</b> | <b>3400</b>  | <b>B</b>  | 4.8  |     | mg/L |   |          | 05/18/15 05:59 | 1       |
| Carbonate as CO3               | ND           |           | 2.4  |     | mg/L |   |          | 05/18/15 05:59 | 1       |
| Hydroxide as OH                | ND           |           | 1.4  |     | mg/L |   |          | 05/18/15 05:59 | 1       |

# Client Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

**Client Sample ID: Mission**

**Lab Sample ID: 440-109141-1**

**Date Collected: 05/07/15 10:05**

**Matrix: Water**

**Date Received: 05/07/15 18:30**

**Method: 9310 - Gross Alpha / Beta (GFPC)**

| Analyte           | Result     | Qualifier | Count<br>Uncert.<br>(2σ+/-) | Total<br>Uncert.<br>(2σ+/-) | MDC | Unit  | Prepared       | Analyzed       | Dil Fac |
|-------------------|------------|-----------|-----------------------------|-----------------------------|-----|-------|----------------|----------------|---------|
| Gross Alpha       | -58.1      | U G       | 267                         | 267                         | 516 | pCi/L | 05/12/15 09:49 | 05/14/15 18:50 | 1       |
| <b>Gross Beta</b> | <b>258</b> | <b>G</b>  | 139                         | 141                         | 210 | pCi/L | 05/12/15 09:49 | 05/14/15 18:50 | 1       |

**Method: 9315 - Radium-226 (GFPC)**

| Analyte           | Result        | Qualifier        | Count<br>Uncert.<br>(2σ+/-) | Total<br>Uncert.<br>(2σ+/-) | MDC   | Unit  | Prepared        | Analyzed        | Dil Fac        |
|-------------------|---------------|------------------|-----------------------------|-----------------------------|-------|-------|-----------------|-----------------|----------------|
| <b>Radium-226</b> | <b>35.0</b>   |                  | 1.13                        | 3.35                        | 0.236 | pCi/L | 05/11/15 08:57  | 06/04/15 10:40  | 1              |
| <b>Carrier</b>    | <b>%Yield</b> | <b>Qualifier</b> | <b>Limits</b>               |                             |       |       | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| Ba Carrier        | 108           |                  | 40 - 110                    |                             |       |       | 05/11/15 08:57  | 06/04/15 10:40  | 1              |

**Method: 9320 - Radium-228 (GFPC)**

| Analyte           | Result        | Qualifier        | Count<br>Uncert.<br>(2σ+/-) | Total<br>Uncert.<br>(2σ+/-) | MDC   | Unit  | Prepared        | Analyzed        | Dil Fac        |
|-------------------|---------------|------------------|-----------------------------|-----------------------------|-------|-------|-----------------|-----------------|----------------|
| <b>Radium-228</b> | <b>21.6</b>   |                  | 1.34                        | 2.40                        | 0.614 | pCi/L | 05/11/15 09:04  | 05/29/15 12:03  | 1              |
| <b>Carrier</b>    | <b>%Yield</b> | <b>Qualifier</b> | <b>Limits</b>               |                             |       |       | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| Ba Carrier        | 108           |                  | 40 - 110                    |                             |       |       | 05/11/15 09:04  | 05/29/15 12:03  | 1              |
| Y Carrier         | 90.1          |                  | 40 - 110                    |                             |       |       | 05/11/15 09:04  | 05/29/15 12:03  | 1              |

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

| Analyte                          | Result      | Qualifier | Count<br>Uncert.<br>(2σ+/-) | Total<br>Uncert.<br>(2σ+/-) | MDC   | Unit  | Prepared | Analyzed       | Dil Fac |
|----------------------------------|-------------|-----------|-----------------------------|-----------------------------|-------|-------|----------|----------------|---------|
| <b>Combined Radium 226 + 228</b> | <b>56.6</b> |           | 1.75                        | 4.121                       | 0.614 | pCi/L |          | 06/10/15 01:06 | 1       |

**Client Sample ID: TB**

**Lab Sample ID: 440-109141-2**

**Date Collected: 05/07/15 00:01**

**Matrix: Water**

**Date Received: 05/07/15 18:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                     | Result           | Qualifier        | RL            | MDL | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|-----------------------------|------------------|------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| Benzene                     | ND               |                  | 2.0           |     | ug/L |   |                 | 05/12/15 13:54  | 1              |
| Ethylbenzene                | ND               |                  | 2.0           |     | ug/L |   |                 | 05/12/15 13:54  | 1              |
| m,p-Xylene                  | ND               |                  | 2.0           |     | ug/L |   |                 | 05/12/15 13:54  | 1              |
| o-Xylene                    | ND               |                  | 2.0           |     | ug/L |   |                 | 05/12/15 13:54  | 1              |
| Toluene                     | ND               |                  | 2.0           |     | ug/L |   |                 | 05/12/15 13:54  | 1              |
| Xylenes, Total              | ND               |                  | 2.0           |     | ug/L |   |                 | 05/12/15 13:54  | 1              |
| <b>Surrogate</b>            | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |     |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| Toluene-d8 (Surr)           | 105              |                  | 80 - 128      |     |      |   |                 | 05/12/15 13:54  | 1              |
| 4-Bromofluorobenzene (Surr) | 106              |                  | 80 - 120      |     |      |   |                 | 05/12/15 13:54  | 1              |
| Dibromofluoromethane (Surr) | 106              |                  | 76 - 132      |     |      |   |                 | 05/12/15 13:54  | 1              |

TestAmerica Irvine

# Method Summary

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

| Method      | Method Description                         | Protocol | Laboratory |
|-------------|--|----------|------------|
| 8260B       | Volatile Organic Compounds (GC/MS)         | SW846    | TAL IRV    |
| 8270C SIM   | Semivolatile Organic Compounds (GC/MS SIM) | SW846    | TAL IRV    |
| 8015B       | Gasoline Range Organics - (GC)             | SW846    | TAL IRV    |
| 8015B       | Diesel Range Organics (DRO) (GC)           | SW846    | TAL IRV    |
| 300.0       | Anions, Ion Chromatography                 | MCAWW    | TAL IRV    |
| 6010B       | Metals (ICP)                               | SW846    | TAL IRV    |
| 6020A       | Metals (ICP/MS)                            | SW846    | TAL SL     |
| 7470A       | Mercury (CVAA)                             | SW846    | TAL IRV    |
| SM 2320B    | Alkalinity                                 | SM       | TAL IRV    |
| SM 2540C    | Solids, Total Dissolved (TDS)              | SM       | TAL IRV    |
| 9310        | Gross Alpha / Beta (GFPC)                  | SW846    | TAL SL     |
| 9315        | Radium-226 (GFPC)                          | SW846    | TAL SL     |
| 9320        | Radium-228 (GFPC)                          | SW846    | TAL SL     |
| Ra226_Ra228 | Combined Radium-226 and Radium-228         | TAL-STL  | TAL SL     |

#### Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.  
SM = "Standard Methods For The Examination Of Water And Wastewater",  
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.  
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

#### Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022  
TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Lab Chronicle

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

**Client Sample ID: Mission**

**Date Collected: 05/07/15 10:05**

**Date Received: 05/07/15 18:30**

**Lab Sample ID: 440-109141-1**

**Matrix: Water**

| Prep Type         | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA          | Analysis   | 8260B        |     | 4          | 10 mL          | 10 mL        | 254089       | 05/11/15 14:46       | MM1     | TAL IRV |
| Total/NA          | Prep       | 3520C        |     |            | 1030 mL        | 1 mL         | 254413       | 05/12/15 10:25       | IVA     | TAL IRV |
| Total/NA          | Analysis   | 8270C SIM    |     | 50         | 1030 mL        | 1 mL         | 255456       | 05/16/15 10:33       | AI      | TAL IRV |
| Total/NA          | Analysis   | 8015B        |     | 10         | 10 mL          | 10 mL        | 255014       | 05/14/15 23:08       | AT      | TAL IRV |
| Total/NA          | Prep       | 3510C        |     |            | 1025 mL        | 1 mL         | 253724       | 05/08/15 06:32       | AP      | TAL IRV |
| Total/NA          | Analysis   | 8015B        |     | 50         | 1025 mL        | 1 mL         | 254151       | 05/11/15 09:11       | KW      | TAL IRV |
| Total/NA          | Analysis   | 300.0        |     | 100        | 5 mL           | 1.0 mL       | 253537       | 05/08/15 00:30       | NN      | TAL IRV |
| Total/NA          | Analysis   | 300.0        |     | 100        | 5 mL           | 1.0 mL       | 253538       | 05/08/15 00:30       | NN      | TAL IRV |
| Total/NA          | Analysis   | 300.0        |     | 2000       | 5 mL           |              | 253538       | 05/08/15 00:47       | NN      | TAL IRV |
| Total/NA          | Analysis   | 300.0        |     | 100        | 5 mL           |              | 253787       | 05/08/15 15:08       | NN      | TAL IRV |
| Total Recoverable | Prep       | 3005A        |     |            | 25 mL          | 25 mL        | 254489       | 05/12/15 14:03       | APS     | TAL IRV |
| Total Recoverable | Analysis   | 6010B        |     | 25         | 25 mL          | 25 mL        | 255128       | 05/14/15 12:31       | EN      | TAL IRV |
| Total Recoverable | Prep       | 3005A        |     |            | 25 mL          | 25 mL        | 254489       | 05/12/15 14:03       | APS     | TAL IRV |
| Total Recoverable | Analysis   | 6010B        |     | 1          | 25 mL          | 25 mL        | 254900       | 05/13/15 20:27       | EN      | TAL IRV |
| Total Recoverable | Prep       | 3005A        |     |            | 25 mL          | 25 mL        | 254489       | 05/12/15 14:03       | APS     | TAL IRV |
| Total Recoverable | Analysis   | 6010B        |     | 25         | 25 mL          | 25 mL        | 254900       | 05/13/15 20:50       | EN      | TAL IRV |
| Total/NA          | Prep       | 3010A        |     |            | 50 mL          | 50 mL        | 190483       | 05/12/15 13:57       | DAS     | TAL SL  |
| Total/NA          | Analysis   | 6020A        |     | 100        | 50 mL          | 50 mL        | 191371       | 05/18/15 15:33       | CCB     | TAL SL  |
| Total/NA          | Prep       | 7470A        |     |            | 20 mL          | 20 mL        | 253868       | 05/08/15 14:36       | DB      | TAL IRV |
| Total/NA          | Analysis   | 7470A        |     | 1          | 20 mL          | 20 mL        | 254275       | 05/11/15 16:45       | DB      | TAL IRV |
| Total/NA          | Analysis   | SM 2320B     |     | 1          | 25 mL          | 25 mL        | 255614       | 05/18/15 05:59       | YZ      | TAL IRV |
| Total/NA          | Analysis   | SM 2540C     |     | 1          | 1 mL           | 100 mL       | 254980       | 05/14/15 07:41       | XL      | TAL IRV |
| Total/NA          | Prep       | Evaporation  |     |            | 1 mL           | 1.0 g        | 190445       | 05/12/15 09:49       | SCB     | TAL SL  |
| Total/NA          | Analysis   | 9310         |     | 1          | 1 mL           |              | 190768       | 05/14/15 18:50       | MLK     | TAL SL  |
| Total/NA          | Prep       | PrecSep-21   |     |            | 500.10 mL      | 1.0 g        | 190226       | 05/11/15 08:57       | LEM     | TAL SL  |
| Total/NA          | Analysis   | 9315         |     | 1          | 500.10 mL      |              | 193519       | 06/04/15 10:40       | MFM     | TAL SL  |
| Total/NA          | Prep       | PrecSep_0    |     |            | 500.10 mL      | 1.0 g        | 190228       | 05/11/15 09:04       | LEM     | TAL SL  |
| Total/NA          | Analysis   | 9320         |     | 1          | 500.10 mL      |              | 192829       | 05/29/15 12:03       | RTM     | TAL SL  |
| Total/NA          | Analysis   | Ra226_Ra228  |     | 1          |                |              | 194285       | 06/10/15 01:06       | RTM     | TAL SL  |

**Client Sample ID: TB**

**Date Collected: 05/07/15 00:01**

**Date Received: 05/07/15 18:30**

**Lab Sample ID: 440-109141-2**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B        |     | 1          | 10 mL          | 10 mL        | 254346       | 05/12/15 13:54       | MM1     | TAL IRV |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-254089/4**  
**Matrix: Water**  
**Analysis Batch: 254089**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

| Analyte        | MB Result | MB Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Benzene        | ND        |              | 2.0 |     | ug/L |   |          | 05/11/15 08:10 | 1       |
| Ethylbenzene   | ND        |              | 2.0 |     | ug/L |   |          | 05/11/15 08:10 | 1       |
| m,p-Xylene     | ND        |              | 2.0 |     | ug/L |   |          | 05/11/15 08:10 | 1       |
| o-Xylene       | ND        |              | 2.0 |     | ug/L |   |          | 05/11/15 08:10 | 1       |
| Toluene        | ND        |              | 2.0 |     | ug/L |   |          | 05/11/15 08:10 | 1       |
| Xylenes, Total | ND        |              | 2.0 |     | ug/L |   |          | 05/11/15 08:10 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)           | 105          |              | 80 - 128 |          | 05/11/15 08:10 | 1       |
| 4-Bromofluorobenzene (Surr) | 96           |              | 80 - 120 |          | 05/11/15 08:10 | 1       |
| Dibromofluoromethane (Surr) | 105          |              | 76 - 132 |          | 05/11/15 08:10 | 1       |

**Lab Sample ID: LCS 440-254089/5**  
**Matrix: Water**  
**Analysis Batch: 254089**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

| Analyte      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|-------------|------------|---------------|------|---|------|--------------|
| Benzene      | 25.0        | 24.9       |               | ug/L |   | 100  | 68 - 130     |
| Ethylbenzene | 25.0        | 25.3       |               | ug/L |   | 101  | 70 - 130     |
| m,p-Xylene   | 25.0        | 26.7       |               | ug/L |   | 107  | 70 - 130     |
| o-Xylene     | 25.0        | 26.2       |               | ug/L |   | 105  | 70 - 130     |
| Toluene      | 25.0        | 24.4       |               | ug/L |   | 97   | 70 - 130     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| Toluene-d8 (Surr)           | 101           |               | 80 - 128 |
| 4-Bromofluorobenzene (Surr) | 95            |               | 80 - 120 |
| Dibromofluoromethane (Surr) | 103           |               | 76 - 132 |

**Lab Sample ID: 440-109158-G-2 MS**  
**Matrix: Water**  
**Analysis Batch: 254089**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

| Analyte      | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Benzene      | ND            |                  | 25.0        | 25.6      |              | ug/L |   | 102  | 66 - 130     |
| Ethylbenzene | ND            |                  | 25.0        | 26.6      |              | ug/L |   | 106  | 70 - 130     |
| m,p-Xylene   | ND            |                  | 25.0        | 28.2      |              | ug/L |   | 111  | 70 - 133     |
| o-Xylene     | ND            |                  | 25.0        | 27.8      |              | ug/L |   | 111  | 70 - 133     |
| Toluene      | ND            |                  | 25.0        | 25.3      |              | ug/L |   | 101  | 70 - 130     |

| Surrogate                   | MS %Recovery | MS Qualifier | Limits   |
|-----------------------------|--------------|--------------|----------|
| Toluene-d8 (Surr)           | 102          |              | 80 - 128 |
| 4-Bromofluorobenzene (Surr) | 94           |              | 80 - 120 |
| Dibromofluoromethane (Surr) | 101          |              | 76 - 132 |

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-109158-G-2 MSD**

**Matrix: Water**

**Analysis Batch: 254089**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

| Analyte      | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Benzene      | ND            |                  | 25.0        | 27.1       |               | ug/L |   | 108  | 66 - 130     | 6   | 20        |
| Ethylbenzene | ND            |                  | 25.0        | 27.0       |               | ug/L |   | 108  | 70 - 130     | 2   | 20        |
| m,p-Xylene   | ND            |                  | 25.0        | 29.2       |               | ug/L |   | 115  | 70 - 133     | 3   | 25        |
| o-Xylene     | ND            |                  | 25.0        | 28.4       |               | ug/L |   | 114  | 70 - 133     | 2   | 20        |
| Toluene      | ND            |                  | 25.0        | 26.3       |               | ug/L |   | 105  | 70 - 130     | 4   | 20        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| Toluene-d8 (Surr)           | 104           |               | 80 - 128 |
| 4-Bromofluorobenzene (Surr) | 99            |               | 80 - 120 |
| Dibromofluoromethane (Surr) | 102           |               | 76 - 132 |

**Lab Sample ID: MB 440-254346/4**

**Matrix: Water**

**Analysis Batch: 254346**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

| Analyte        | MB Result | MB Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Benzene        | ND        |              | 2.0 |     | ug/L |   |          | 05/12/15 07:57 | 1       |
| Ethylbenzene   | ND        |              | 2.0 |     | ug/L |   |          | 05/12/15 07:57 | 1       |
| m,p-Xylene     | ND        |              | 2.0 |     | ug/L |   |          | 05/12/15 07:57 | 1       |
| o-Xylene       | ND        |              | 2.0 |     | ug/L |   |          | 05/12/15 07:57 | 1       |
| Toluene        | ND        |              | 2.0 |     | ug/L |   |          | 05/12/15 07:57 | 1       |
| Xylenes, Total | ND        |              | 2.0 |     | ug/L |   |          | 05/12/15 07:57 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)           | 107          |              | 80 - 128 |          | 05/12/15 07:57 | 1       |
| 4-Bromofluorobenzene (Surr) | 106          |              | 80 - 120 |          | 05/12/15 07:57 | 1       |
| Dibromofluoromethane (Surr) | 107          |              | 76 - 132 |          | 05/12/15 07:57 | 1       |

**Lab Sample ID: LCS 440-254346/5**

**Matrix: Water**

**Analysis Batch: 254346**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

| Analyte      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|-------------|------------|---------------|------|---|------|--------------|
| Benzene      | 25.0        | 25.9       |               | ug/L |   | 104  | 68 - 130     |
| Ethylbenzene | 25.0        | 28.0       |               | ug/L |   | 112  | 70 - 130     |
| m,p-Xylene   | 25.0        | 28.4       |               | ug/L |   | 114  | 70 - 130     |
| o-Xylene     | 25.0        | 26.1       |               | ug/L |   | 105  | 70 - 130     |
| Toluene      | 25.0        | 27.1       |               | ug/L |   | 108  | 70 - 130     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | Limits   |
|-----------------------------|---------------|---------------|----------|
| Toluene-d8 (Surr)           | 104           |               | 80 - 128 |
| 4-Bromofluorobenzene (Surr) | 109           |               | 80 - 120 |
| Dibromofluoromethane (Surr) | 105           |               | 76 - 132 |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-109214-B-1 MS**  
**Matrix: Water**  
**Analysis Batch: 254346**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

| Analyte      | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Benzene      | ND            |                  | 25.0        | 25.3      |              | ug/L |   | 101  | 66 - 130     |
| Ethylbenzene | ND            |                  | 25.0        | 28.3      |              | ug/L |   | 113  | 70 - 130     |
| m,p-Xylene   | ND            |                  | 25.0        | 28.1      |              | ug/L |   | 112  | 70 - 133     |
| o-Xylene     | ND            |                  | 25.0        | 26.2      |              | ug/L |   | 105  | 70 - 133     |
| Toluene      | ND            |                  | 25.0        | 27.4      |              | ug/L |   | 109  | 70 - 130     |

| Surrogate                   | MS %Recovery | MS Qualifier | MS Limits |
|-----------------------------|--------------|--------------|-----------|
| Toluene-d8 (Surr)           | 106          |              | 80 - 128  |
| 4-Bromofluorobenzene (Surr) | 107          |              | 80 - 120  |
| Dibromofluoromethane (Surr) | 103          |              | 76 - 132  |

**Lab Sample ID: 440-109214-B-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 254346**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

| Analyte      | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Benzene      | ND            |                  | 25.0        | 23.1       |               | ug/L |   | 92   | 66 - 130     | 9   | 20        |
| Ethylbenzene | ND            |                  | 25.0        | 25.7       |               | ug/L |   | 103  | 70 - 130     | 10  | 20        |
| m,p-Xylene   | ND            |                  | 25.0        | 25.8       |               | ug/L |   | 103  | 70 - 133     | 9   | 25        |
| o-Xylene     | ND            |                  | 25.0        | 24.0       |               | ug/L |   | 96   | 70 - 133     | 9   | 20        |
| Toluene      | ND            |                  | 25.0        | 25.2       |               | ug/L |   | 101  | 70 - 130     | 8   | 20        |

| Surrogate                   | MSD %Recovery | MSD Qualifier | MSD Limits |
|-----------------------------|---------------|---------------|------------|
| Toluene-d8 (Surr)           | 105           |               | 80 - 128   |
| 4-Bromofluorobenzene (Surr) | 105           |               | 80 - 120   |
| Dibromofluoromethane (Surr) | 102           |               | 76 - 132   |

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

**Lab Sample ID: MB 440-254413/1-A**  
**Matrix: Water**  
**Analysis Batch: 255228**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 254413**

| Analyte                | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|------|-----|------|---|----------------|----------------|---------|
| Acenaphthene           | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Acenaphthylene         | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Anthracene             | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Benzo[a]anthracene     | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Benzo[a]pyrene         | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Benzo[b]fluoranthene   | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Benzo[g,h,i]perylene   | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Benzo[k]fluoranthene   | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Chrysene               | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Dibenz(a,h)anthracene  | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Fluoranthene           | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Fluorene               | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Indeno[1,2,3-cd]pyrene | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: MB 440-254413/1-A**  
**Matrix: Water**  
**Analysis Batch: 255228**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 254413**

| Analyte      | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|--------------|-----------|--------------|------|-----|------|---|----------------|----------------|---------|
| Naphthalene  | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Phenanthrene | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Pyrene       | ND        |              | 0.20 |     | ug/L |   | 05/12/15 10:25 | 05/15/15 00:46 | 1       |

| Surrogate               | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|-------------------------|--------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl (Surr) | 51           |              | 31 - 120 | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Nitrobenzene-d5         | 49           |              | 25 - 133 | 05/12/15 10:25 | 05/15/15 00:46 | 1       |
| Terphenyl-d14           | 69           |              | 10 - 120 | 05/12/15 10:25 | 05/15/15 00:46 | 1       |

**Lab Sample ID: LCS 440-254413/2-A**  
**Matrix: Water**  
**Analysis Batch: 255228**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 254413**

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Acenaphthene           | 1.00        | 0.950      |               | ug/L |   | 95   | 47 - 103     |
| Acenaphthylene         | 1.00        | 0.955      |               | ug/L |   | 96   | 45 - 102     |
| Anthracene             | 1.00        | 0.964      |               | ug/L |   | 96   | 47 - 111     |
| Benzo[a]anthracene     | 1.00        | 0.993      |               | ug/L |   | 99   | 56 - 110     |
| Benzo[a]pyrene         | 1.00        | 0.937      |               | ug/L |   | 94   | 48 - 110     |
| Benzo[b]fluoranthene   | 1.00        | 0.995      |               | ug/L |   | 100  | 53 - 116     |
| Benzo[g,h,i]perylene   | 1.00        | 1.22       |               | ug/L |   | 122  | 44 - 130     |
| Benzo[k]fluoranthene   | 1.00        | 1.03       |               | ug/L |   | 103  | 51 - 127     |
| Chrysene               | 1.00        | 1.03       |               | ug/L |   | 103  | 52 - 118     |
| Dibenz(a,h)anthracene  | 1.00        | 1.00       |               | ug/L |   | 100  | 44 - 125     |
| Fluoranthene           | 1.00        | 1.04       |               | ug/L |   | 104  | 51 - 116     |
| Fluorene               | 1.00        | 0.940      |               | ug/L |   | 94   | 50 - 106     |
| Indeno[1,2,3-cd]pyrene | 1.00        | 1.03       |               | ug/L |   | 103  | 41 - 127     |
| Naphthalene            | 1.00        | 0.863      |               | ug/L |   | 86   | 40 - 100     |
| Phenanthrene           | 1.00        | 1.04       |               | ug/L |   | 104  | 49 - 110     |
| Pyrene                 | 1.00        | 0.979      |               | ug/L |   | 98   | 41 - 115     |

| Surrogate               | LCS %Recovery | LCS Qualifier | Limits   |
|-------------------------|---------------|---------------|----------|
| 2-Fluorobiphenyl (Surr) | 92            |               | 31 - 120 |
| Nitrobenzene-d5         | 88            |               | 25 - 133 |
| Terphenyl-d14           | 93            |               | 10 - 120 |

**Lab Sample ID: LCSD 440-254413/3-A**  
**Matrix: Water**  
**Analysis Batch: 255228**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 254413**

| Analyte              | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | Limit |
|----------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-------|
| Acenaphthene         | 1.00        | 0.860       |                | ug/L |   | 86   | 47 - 103     | 10  | 35    |
| Acenaphthylene       | 1.00        | 0.883       |                | ug/L |   | 88   | 45 - 102     | 8   | 35    |
| Anthracene           | 1.00        | 0.904       |                | ug/L |   | 90   | 47 - 111     | 6   | 35    |
| Benzo[a]anthracene   | 1.00        | 0.913       |                | ug/L |   | 91   | 56 - 110     | 8   | 35    |
| Benzo[a]pyrene       | 1.00        | 0.873       |                | ug/L |   | 87   | 48 - 110     | 7   | 35    |
| Benzo[b]fluoranthene | 1.00        | 0.902       |                | ug/L |   | 90   | 53 - 116     | 10  | 35    |
| Benzo[g,h,i]perylene | 1.00        | 1.13        |                | ug/L |   | 113  | 44 - 130     | 7   | 35    |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

**Lab Sample ID: LCSD 440-254413/3-A**  
**Matrix: Water**  
**Analysis Batch: 255228**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 254413**

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Benzo[k]fluoranthene   | 1.00        | 0.927       |                | ug/L |   | 93   | 51 - 127     | 10  | 35        |
| Chrysene               | 1.00        | 0.940       |                | ug/L |   | 94   | 52 - 118     | 9   | 35        |
| Dibenz(a,h)anthracene  | 1.00        | 0.953       |                | ug/L |   | 95   | 44 - 125     | 5   | 35        |
| Fluoranthene           | 1.00        | 0.906       |                | ug/L |   | 91   | 51 - 116     | 14  | 35        |
| Fluorene               | 1.00        | 0.836       |                | ug/L |   | 84   | 50 - 106     | 12  | 35        |
| Indeno[1,2,3-cd]pyrene | 1.00        | 0.947       |                | ug/L |   | 95   | 41 - 127     | 9   | 35        |
| Naphthalene            | 1.00        | 0.798       |                | ug/L |   | 80   | 40 - 100     | 8   | 35        |
| Phenanthrene           | 1.00        | 0.936       |                | ug/L |   | 94   | 49 - 110     | 10  | 35        |
| Pyrene                 | 1.00        | 0.893       |                | ug/L |   | 89   | 41 - 115     | 9   | 35        |

| Surrogate               | LCSD %Recovery | LCSD Qualifier | LCSD Limits |
|-------------------------|----------------|----------------|-------------|
| 2-Fluorobiphenyl (Surr) | 88             |                | 31 - 120    |
| Nitrobenzene-d5         | 82             |                | 25 - 133    |
| Terphenyl-d14           | 88             |                | 10 - 120    |

## Method: 8015B - Gasoline Range Organics - (GC)

**Lab Sample ID: MB 440-255014/5**  
**Matrix: Water**  
**Analysis Batch: 255014**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

| Analyte      | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------|-----------|--------------|----|-----|------|---|----------|----------------|---------|
| GRO (C4-C12) | ND        |              | 50 |     | ug/L |   |          | 05/14/15 10:59 | 1       |

| Surrogate                   | MB %Recovery | MB Qualifier | MB Limits | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|--------------|-----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 95           |              | 65 - 140  |          | 05/14/15 10:59 | 1       |

**Lab Sample ID: LCS 440-255014/3**  
**Matrix: Water**  
**Analysis Batch: 255014**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

| Analyte      | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|-------------|------------|---------------|------|---|------|--------------|
| GRO (C4-C12) | 800         | 837        |               | ug/L |   | 105  | 80 - 120     |

| Surrogate                   | LCS %Recovery | LCS Qualifier | LCS Limits |
|-----------------------------|---------------|---------------|------------|
| 4-Bromofluorobenzene (Surr) | 96            |               | 65 - 140   |

**Lab Sample ID: 440-109604-E-2 MS**  
**Matrix: Water**  
**Analysis Batch: 255014**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

| Analyte      | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| GRO (C4-C12) | ND            |                  | 800         | 876       |              | ug/L |   | 104  | 65 - 140     |

| Surrogate                   | MS %Recovery | MS Qualifier | MS Limits |
|-----------------------------|--------------|--------------|-----------|
| 4-Bromofluorobenzene (Surr) | 89           |              | 65 - 140  |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

**Lab Sample ID: 440-109604-E-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 255014**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

| Analyte                     | Sample Result    | Sample Qualifier     | Spike Added   | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|------------------|----------------------|---------------|------------|---------------|------|---|------|--------------|-----|-----------|
| GRO (C4-C12)                | ND               |                      | 800           | 851        |               | ug/L |   | 101  | 65 - 140     | 3   | 20        |
| <b>Surrogate</b>            | <b>%Recovery</b> | <b>MSD Qualifier</b> | <b>Limits</b> |            |               |      |   |      |              |     |           |
| 4-Bromofluorobenzene (Surr) | 106              |                      | 65 - 140      |            |               |      |   |      |              |     |           |

## Method: 8015B - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 440-253724/1-A**  
**Matrix: Water**  
**Analysis Batch: 253826**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 253724**

| Analyte          | MB Result        | MB Qualifier        | RL            | MDL | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|------------------|------------------|---------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| C13-C22          | ND               |                     | 0.50          |     | mg/L |   | 05/08/15 06:32  | 05/08/15 19:27  | 1              |
| C23-C40          | ND               |                     | 0.50          |     | mg/L |   | 05/08/15 06:32  | 05/08/15 19:27  | 1              |
| C13 - C40        | ND               |                     | 0.50          |     | mg/L |   | 05/08/15 06:32  | 05/08/15 19:27  | 1              |
| <b>Surrogate</b> | <b>%Recovery</b> | <b>MB Qualifier</b> | <b>Limits</b> |     |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| n-Octacosane     | 82               |                     | 45 - 120      |     |      |   | 05/08/15 06:32  | 05/08/15 19:27  | 1              |

**Lab Sample ID: LCS 440-253724/2-A**  
**Matrix: Water**  
**Analysis Batch: 253826**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 253724**

| Analyte          | Spike Added      | LCS Result           | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------|------------------|----------------------|---------------|------|---|------|--------------|
| C10-C28          | 1.00             | 0.768                |               | mg/L |   | 77   | 40 - 115     |
| <b>Surrogate</b> | <b>%Recovery</b> | <b>LCS Qualifier</b> | <b>Limits</b> |      |   |      |              |
| n-Octacosane     | 85               |                      | 45 - 120      |      |   |      |              |

**Lab Sample ID: LCSD 440-253724/3-A**  
**Matrix: Water**  
**Analysis Batch: 253826**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 253724**

| Analyte          | Spike Added      | LCSD Result           | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------|------------------|-----------------------|----------------|------|---|------|--------------|-----|-----------|
| C10-C28          | 1.00             | 0.793                 |                | mg/L |   | 79   | 40 - 115     | 3   | 25        |
| <b>Surrogate</b> | <b>%Recovery</b> | <b>LCSD Qualifier</b> | <b>Limits</b>  |      |   |      |              |     |           |
| n-Octacosane     | 84               |                       | 45 - 120       |      |   |      |              |     |           |

# QC Sample Results

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 440-253537/4**  
**Matrix: Water**  
**Analysis Batch: 253537**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

| Analyte        | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|-----|------|---|----------|----------------|---------|
| Nitrate as NO3 | ND        |              | 0.50 |     | mg/L |   |          | 05/07/15 12:17 | 1       |

**Lab Sample ID: LCS 440-253537/6**  
**Matrix: Water**  
**Analysis Batch: 253537**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|------|---|------|--------------|
| Nitrate as NO3 | 5.00        | 4.58       |               | mg/L |   | 92   | 90 - 110     |

**Lab Sample ID: 440-109072-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 253537**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Nitrate as NO3 | 26            |                  | 50.0        | 56.3      | F1           | mg/L |   | 60   | 80 - 120     |

**Lab Sample ID: 440-109072-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 253537**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

| Analyte        | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Nitrate as NO3 | 26            |                  | 50.0        | 55.1       | F1            | mg/L |   | 58   | 80 - 120     | 2   | 20        |

**Lab Sample ID: MB 440-253538/4**  
**Matrix: Water**  
**Analysis Batch: 253538**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

| Analyte  | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|-----------|--------------|------|-----|------|---|----------|----------------|---------|
| Bromide  | ND        |              | 0.50 |     | mg/L |   |          | 05/07/15 12:17 | 1       |
| Chloride | ND        |              | 0.50 |     | mg/L |   |          | 05/07/15 12:17 | 1       |
| Sulfate  | ND        |              | 0.50 |     | mg/L |   |          | 05/07/15 12:17 | 1       |

**Lab Sample ID: LCS 440-253538/6**  
**Matrix: Water**  
**Analysis Batch: 253538**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

| Analyte  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------|-------------|------------|---------------|------|---|------|--------------|
| Bromide  | 5.00        | 4.40       | *             | mg/L |   | 88   | 90 - 110     |
| Chloride | 5.00        | 4.75       |               | mg/L |   | 95   | 90 - 110     |
| Sulfate  | 5.00        | 4.54       |               | mg/L |   | 91   | 90 - 110     |

**Lab Sample ID: 440-109072-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 253538**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Bromide  | ND            | *                | 50.0        | 49.1      |              | mg/L |   | 98   | 80 - 120     |
| Chloride | 57            |                  | 50.0        | 89.9      | F1           | mg/L |   | 66   | 80 - 120     |
| Sulfate  | 440           |                  | 50.0        | 445       | 4            | mg/L |   | -0.7 | 80 - 120     |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 440-109072-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 253538**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

| Analyte  | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Bromide  | ND            | *                | 50.0        | 47.4       |               | mg/L |   | 95   | 80 - 120     | 3   | 20        |
| Chloride | 57            |                  | 50.0        | 88.1       | F1            | mg/L |   | 62   | 80 - 120     | 2   | 20        |
| Sulfate  | 440           |                  | 50.0        | 434        | 4             | mg/L |   | -22  | 80 - 120     | 2   | 20        |

**Lab Sample ID: MB 440-253787/4**  
**Matrix: Water**  
**Analysis Batch: 253787**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL   | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|------|-----|------|---|----------|----------------|---------|
| Bromide | ND        |              | 0.50 |     | mg/L |   |          | 05/08/15 11:47 | 1       |

**Lab Sample ID: LCS 440-253787/2**  
**Matrix: Water**  
**Analysis Batch: 253787**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Bromide | 5.00        | 5.20       |               | mg/L |   | 104  | 90 - 110     |

**Lab Sample ID: 440-109147-E-1 MS**  
**Matrix: Water**  
**Analysis Batch: 253787**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Bromide | ND            | F1               | 5.00        | 6.68      | F1           | mg/L |   | 134  | 80 - 120     |

**Lab Sample ID: 440-109147-E-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 253787**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Bromide | ND            | F1               | 5.00        | 6.35       | F1            | mg/L |   | 127  | 80 - 120     | 5   | 20        |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-254489/1-A**  
**Matrix: Water**  
**Analysis Batch: 254900**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 254489**

| Analyte    | MB Result | MB Qualifier | RL     | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------|-----------|--------------|--------|-----|------|---|----------------|----------------|---------|
| Antimony   | ND        |              | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Arsenic    | ND        |              | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Barium     | ND        |              | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Beryllium  | ND        |              | 0.0020 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Cadmium    | ND        |              | 0.0050 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Chromium   | ND        |              | 0.0050 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Cobalt     | ND        |              | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Copper     | ND        |              | 0.010  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Lead       | ND        |              | 0.0050 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Molybdenum | ND        |              | 0.020  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: MB 440-254489/1-A**  
**Matrix: Water**  
**Analysis Batch: 254900**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 254489**

| Analyte   | MB Result | MB Qualifier | RL    | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|-------|-----|------|---|----------------|----------------|---------|
| Nickel    | ND        |              | 0.010 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Selenium  | ND        |              | 0.010 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Thallium  | ND        |              | 0.010 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Vanadium  | ND        |              | 0.010 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Zinc      | ND        |              | 0.020 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Silver    | ND        |              | 0.010 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Lithium   | ND        |              | 0.050 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Potassium | ND        |              | 0.50  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Manganese | ND        |              | 0.020 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Magnesium | ND        |              | 0.020 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Iron      | ND        |              | 0.040 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Strontium | ND        |              | 0.020 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Sodium    | ND        |              | 0.50  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Calcium   | ND        |              | 0.10  |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |
| Boron     | ND        |              | 0.050 |     | mg/L |   | 05/12/15 14:03 | 05/13/15 19:23 | 1       |

**Lab Sample ID: LCS 440-254489/2-A**  
**Matrix: Water**  
**Analysis Batch: 254900**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 254489**

| Analyte    | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------|-------------|------------|---------------|------|---|------|--------------|
| Antimony   | 1.00        | 1.01       |               | mg/L |   | 101  | 80 - 120     |
| Arsenic    | 1.00        | 0.964      |               | mg/L |   | 96   | 80 - 120     |
| Barium     | 1.00        | 0.997      |               | mg/L |   | 100  | 80 - 120     |
| Beryllium  | 1.00        | 1.00       |               | mg/L |   | 100  | 80 - 120     |
| Cadmium    | 1.00        | 1.00       |               | mg/L |   | 100  | 80 - 120     |
| Chromium   | 1.00        | 0.997      |               | mg/L |   | 100  | 80 - 120     |
| Cobalt     | 1.00        | 0.994      |               | mg/L |   | 99   | 80 - 120     |
| Copper     | 1.00        | 0.975      |               | mg/L |   | 97   | 80 - 120     |
| Lead       | 1.00        | 1.01       |               | mg/L |   | 101  | 80 - 120     |
| Molybdenum | 1.00        | 0.981      |               | mg/L |   | 98   | 80 - 120     |
| Nickel     | 1.00        | 0.996      |               | mg/L |   | 100  | 80 - 120     |
| Selenium   | 1.00        | 0.921      |               | mg/L |   | 92   | 80 - 120     |
| Thallium   | 1.00        | 0.957      |               | mg/L |   | 96   | 80 - 120     |
| Vanadium   | 1.00        | 1.02       |               | mg/L |   | 102  | 80 - 120     |
| Zinc       | 1.00        | 0.959      |               | mg/L |   | 96   | 80 - 120     |
| Silver     | 0.500       | 0.478      |               | mg/L |   | 96   | 80 - 120     |
| Lithium    | 1.00        | 0.955      |               | mg/L |   | 96   | 80 - 120     |
| Potassium  | 10.0        | 9.77       |               | mg/L |   | 98   | 80 - 120     |
| Manganese  | 1.00        | 0.993      |               | mg/L |   | 99   | 80 - 120     |
| Magnesium  | 5.00        | 4.71       |               | mg/L |   | 94   | 80 - 120     |
| Iron       | 1.00        | 0.974      |               | mg/L |   | 97   | 80 - 120     |
| Strontium  | 1.00        | 0.984      |               | mg/L |   | 98   | 80 - 120     |
| Sodium     | 10.0        | 9.56       |               | mg/L |   | 96   | 80 - 120     |
| Calcium    | 5.00        | 4.93       |               | mg/L |   | 99   | 80 - 120     |
| Boron      | 1.00        | 0.926      |               | mg/L |   | 93   | 80 - 120     |

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 440-109370-K-1-B MS ^25**

**Matrix: Water**

**Analysis Batch: 254900**

**Client Sample ID: Matrix Spike**

**Prep Type: Total Recoverable**

**Prep Batch: 254489**

| Analyte    | Sample |           | Spike Added | MS MS  |           | Unit | D | %Rec | Limits   |
|------------|--------|-----------|-------------|--------|-----------|------|---|------|----------|
|            | Result | Qualifier |             | Result | Qualifier |      |   |      |          |
| Antimony   | ND     | F1        | 1.00        | 1.39   | F1        | mg/L |   | 139  | 75 - 125 |
| Arsenic    | ND     |           | 1.00        | 1.11   |           | mg/L |   | 111  | 75 - 125 |
| Barium     | ND     | F1        | 1.00        | 1.31   | F1        | mg/L |   | 131  | 75 - 125 |
| Beryllium  | ND     |           | 1.00        | 1.16   |           | mg/L |   | 116  | 75 - 125 |
| Cadmium    | ND     |           | 1.00        | 1.25   |           | mg/L |   | 125  | 75 - 125 |
| Chromium   | ND     |           | 1.00        | 1.21   |           | mg/L |   | 121  | 75 - 125 |
| Cobalt     | ND     |           | 1.00        | 1.18   |           | mg/L |   | 118  | 75 - 125 |
| Copper     | ND     |           | 1.00        | 1.11   |           | mg/L |   | 111  | 75 - 125 |
| Lead       | ND     |           | 1.00        | 1.24   |           | mg/L |   | 116  | 75 - 125 |
| Molybdenum | ND     |           | 1.00        | 1.08   |           | mg/L |   | 108  | 75 - 125 |
| Nickel     | ND     |           | 1.00        | 1.21   |           | mg/L |   | 121  | 75 - 125 |
| Selenium   | ND     |           | 1.00        | 1.14   |           | mg/L |   | 114  | 75 - 125 |
| Thallium   | ND     |           | 1.00        | 1.17   |           | mg/L |   | 101  | 75 - 125 |
| Vanadium   | ND     |           | 1.00        | 1.16   |           | mg/L |   | 116  | 75 - 125 |
| Zinc       | ND     | F1        | 1.00        | 1.27   | F1        | mg/L |   | 127  | 75 - 125 |
| Silver     | ND     |           | 0.500       | 0.559  |           | mg/L |   | 112  | 75 - 125 |
| Lithium    | ND     | F1        | 1.00        | 1.65   | F1        | mg/L |   | 165  | 75 - 125 |
| Potassium  | 260    |           | 10.0        | 289    | 4         | mg/L |   | 280  | 75 - 125 |
| Manganese  | 1.3    |           | 1.00        | 2.44   |           | mg/L |   | 114  | 75 - 125 |
| Magnesium  | 960    |           | 5.00        | 999    | 4         | mg/L |   | 757  | 75 - 125 |
| Iron       | 4.6    |           | 1.00        | 5.92   | 4         | mg/L |   | 130  | 75 - 125 |
| Strontium  | 5.6    |           | 1.00        | 7.03   | 4         | mg/L |   | 139  | 75 - 125 |
| Sodium     | 7400   |           | 10.0        | 7750   | 4         | mg/L |   | 3449 | 75 - 125 |
| Calcium    | 440    |           | 5.00        | 459    | 4         | mg/L |   | 468  | 75 - 125 |
| Boron      | 2.9    |           | 1.00        | 4.04   |           | mg/L |   | 112  | 75 - 125 |

**Lab Sample ID: 440-109370-K-1-C MSD ^25**

**Matrix: Water**

**Analysis Batch: 254900**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total Recoverable**

**Prep Batch: 254489**

| Analyte    | Sample |           | Spike Added | MSD MSD |           | Unit | D | %Rec | Limits   | RPD | Limit |
|------------|--------|-----------|-------------|---------|-----------|------|---|------|----------|-----|-------|
|            | Result | Qualifier |             | Result  | Qualifier |      |   |      |          |     |       |
| Antimony   | ND     | F1        | 1.00        | 1.25    |           | mg/L |   | 125  | 75 - 125 | 11  | 20    |
| Arsenic    | ND     |           | 1.00        | 1.04    |           | mg/L |   | 104  | 75 - 125 | 7   | 20    |
| Barium     | ND     | F1        | 1.00        | 1.26    | F1        | mg/L |   | 126  | 75 - 125 | 4   | 20    |
| Beryllium  | ND     |           | 1.00        | 1.15    |           | mg/L |   | 115  | 75 - 125 | 1   | 20    |
| Cadmium    | ND     |           | 1.00        | 1.18    |           | mg/L |   | 118  | 75 - 125 | 6   | 20    |
| Chromium   | ND     |           | 1.00        | 1.17    |           | mg/L |   | 117  | 75 - 125 | 3   | 20    |
| Cobalt     | ND     |           | 1.00        | 1.13    |           | mg/L |   | 113  | 75 - 125 | 4   | 20    |
| Copper     | ND     |           | 1.00        | 1.11    |           | mg/L |   | 111  | 75 - 125 | 0   | 20    |
| Lead       | ND     |           | 1.00        | 1.21    |           | mg/L |   | 113  | 75 - 125 | 2   | 20    |
| Molybdenum | ND     |           | 1.00        | 1.04    |           | mg/L |   | 104  | 75 - 125 | 4   | 20    |
| Nickel     | ND     |           | 1.00        | 1.14    |           | mg/L |   | 114  | 75 - 125 | 6   | 20    |
| Selenium   | ND     |           | 1.00        | 1.05    |           | mg/L |   | 105  | 75 - 125 | 9   | 20    |
| Thallium   | ND     |           | 1.00        | 1.09    |           | mg/L |   | 93   | 75 - 125 | 8   | 20    |
| Vanadium   | ND     |           | 1.00        | 1.16    |           | mg/L |   | 116  | 75 - 125 | 0   | 20    |
| Zinc       | ND     | F1        | 1.00        | 1.23    |           | mg/L |   | 123  | 75 - 125 | 3   | 20    |
| Silver     | ND     |           | 0.500       | 0.557   |           | mg/L |   | 111  | 75 - 125 | 0   | 20    |
| Lithium    | ND     | F1        | 1.00        | 1.61    | F1        | mg/L |   | 161  | 75 - 125 | 2   | 20    |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 440-109370-K-1-C MSD ^25**  
**Matrix: Water**  
**Analysis Batch: 254900**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total Recoverable**  
**Prep Batch: 254489**

| Analyte   | Sample | Sample    | Spike | MSD    | MSD       | Unit | D | %Rec | %Rec.    | RPD | Limit |
|-----------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
|           | Result | Qualifier | Added | Result | Qualifier |      |   |      | Limits   |     |       |
| Potassium | 260    |           | 10.0  | 274    | 4         | mg/L |   | 127  | 75 - 125 | 5   | 20    |
| Manganese | 1.3    |           | 1.00  | 2.39   |           | mg/L |   | 109  | 75 - 125 | 2   | 20    |
| Magnesium | 960    |           | 5.00  | 973    | 4         | mg/L |   | 240  | 75 - 125 | 3   | 20    |
| Iron      | 4.6    |           | 1.00  | 5.71   | 4         | mg/L |   | 108  | 75 - 125 | 4   | 20    |
| Strontium | 5.6    |           | 1.00  | 6.70   | 4         | mg/L |   | 106  | 75 - 125 | 5   | 20    |
| Sodium    | 7400   |           | 10.0  | 7470   | 4         | mg/L |   | 644  | 75 - 125 | 4   | 20    |
| Calcium   | 440    |           | 5.00  | 437    | 4         | mg/L |   | 35   | 75 - 125 | 5   | 20    |
| Boron     | 2.9    |           | 1.00  | 3.97   |           | mg/L |   | 105  | 75 - 125 | 2   | 20    |

## Method: 6020A - Metals (ICP/MS)

**Lab Sample ID: MB 160-190483/1-A**  
**Matrix: Water**  
**Analysis Batch: 191371**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 190483**

| Analyte | MB     | MB        | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
|         | Result | Qualifier |     |      |      |   |                |                |         |
| Uranium | <1.0   |           | 1.0 | 0.23 | ug/L |   | 05/12/15 13:57 | 05/18/15 14:15 | 2       |

| Analyte | MB     | MB        | RL   | MDL  | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|------|-------|---|----------------|----------------|---------|
|         | Result | Qualifier |      |      |       |   |                |                |         |
| Uranium | <0.67  |           | 0.67 | 0.15 | pCi/L |   | 05/12/15 13:57 | 05/18/15 14:15 | 2       |

**Lab Sample ID: LCS 160-190483/2-A**  
**Matrix: Water**  
**Analysis Batch: 191371**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190483**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits   |
|---------|-------------|------------|---------------|------|---|------|----------|
|         |             |            |               |      |   |      |          |
| Uranium | 1000        | 1000       |               | ug/L |   | 100  | 80 - 120 |

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit  | D | %Rec | Limits   |
|---------|-------------|------------|---------------|-------|---|------|----------|
|         |             |            |               |       |   |      |          |
| Uranium | 670         | 673        |               | pCi/L |   | 100  | 80 - 120 |

**Lab Sample ID: 440-109149-S-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 191371**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 190483**

| Analyte | Sample | Sample    | Spike | MS     | MS        | Unit | D | %Rec | %Rec.    | Limits |
|---------|--------|-----------|-------|--------|-----------|------|---|------|----------|--------|
|         | Result | Qualifier | Added | Result | Qualifier |      |   |      | Limits   |        |
| Uranium | <10    |           | 1000  | 963    |           | ug/L |   | 96   | 75 - 125 |        |

| Analyte | Sample | Sample    | Spike | MS     | MS        | Unit  | D | %Rec | %Rec.    | Limits |
|---------|--------|-----------|-------|--------|-----------|-------|---|------|----------|--------|
|         | Result | Qualifier | Added | Result | Qualifier |       |   |      | Limits   |        |
| Uranium | <6.7   |           | 670   | 645    |           | pCi/L |   | 96   | 75 - 125 |        |

**Lab Sample ID: 440-109149-S-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 191371**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 190483**

| Analyte | Sample | Sample    | Spike | MSD    | MSD       | Unit | D | %Rec | %Rec.    | RPD | Limit |
|---------|--------|-----------|-------|--------|-----------|------|---|------|----------|-----|-------|
|         | Result | Qualifier | Added | Result | Qualifier |      |   |      | Limits   |     |       |
| Uranium | <10    |           | 1000  | 995    |           | ug/L |   | 100  | 75 - 125 | 3   | 20    |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit  | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|-------|---|------|--------------|-----|-----------|
| Uranium | <6.7          |                  | 670         | 667        |               | pCi/L |   | 100  | 75 - 125     | 3   | 20        |

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 440-253868/1-A**  
**Matrix: Water**  
**Analysis Batch: 254275**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 253868**

| Analyte | MB Result | MB Qualifier | RL      | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|-----------|--------------|---------|-----|------|---|----------------|----------------|---------|
| Mercury | ND        |              | 0.00020 |     | mg/L |   | 05/08/15 14:36 | 05/11/15 15:56 | 1       |

**Lab Sample ID: LCS 440-253868/2-A**  
**Matrix: Water**  
**Analysis Batch: 254275**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 253868**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Mercury | 0.00800     | 0.00819    |               | mg/L |   | 102  | 80 - 120     |

**Lab Sample ID: 580-49347-E-2-F MS**  
**Matrix: Water**  
**Analysis Batch: 254275**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 253868**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Mercury | 0.00082       |                  | 0.0320      | 0.0332    |              | mg/L |   | 101  | 70 - 130     |

**Lab Sample ID: 580-49347-E-2-G MSD**  
**Matrix: Water**  
**Analysis Batch: 254275**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 253868**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Mercury | 0.00082       |                  | 0.0320      | 0.0334     |               | mg/L |   | 102  | 70 - 130     | 1   | 20        |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 440-255614/2**  
**Matrix: Water**  
**Analysis Batch: 255614**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

| Analyte                 | MB Result | MB Qualifier | RL  | RL | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|-----------|--------------|-----|----|------|---|----------|----------------|---------|
| Alkalinity as CaCO3     | 10.0      |              | 4.0 |    | mg/L |   |          | 05/18/15 05:59 | 1       |
| Bicarbonate ion as HCO3 | 12.2      |              | 4.8 |    | mg/L |   |          | 05/18/15 05:59 | 1       |
| Carbonate as CO3        | ND        |              | 2.4 |    | mg/L |   |          | 05/18/15 05:59 | 1       |
| Hydroxide as OH         | ND        |              | 1.4 |    | mg/L |   |          | 05/18/15 05:59 | 1       |

**Lab Sample ID: LCS 440-255614/1**  
**Matrix: Water**  
**Analysis Batch: 255614**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

| Analyte             | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------|-------------|------------|---------------|------|---|------|--------------|
| Alkalinity as CaCO3 | 85.4        | 80.0       |               | mg/L |   | 94   | 80 - 120     |

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: 440-109141-1 DU**  
**Matrix: Water**  
**Analysis Batch: 255614**

**Client Sample ID: Mission**  
**Prep Type: Total/NA**

| Analyte                 | Sample Result | Sample Qualifier | DU     |           | Unit | D | RPD | Limit |
|-------------------------|---------------|------------------|--------|-----------|------|---|-----|-------|
|                         |               |                  | Result | Qualifier |      |   |     |       |
| Alkalinity as CaCO3     | 2800          | B                | 2760   |           | mg/L |   | 0.4 | 20    |
| Bicarbonate ion as HCO3 | 3400          | B                | 3370   |           | mg/L |   | 0.4 | 20    |
| Carbonate as CO3        | ND            |                  | ND     |           | mg/L |   | NC  | 20    |
| Hydroxide as OH         | ND            |                  | ND     |           | mg/L |   | NC  | 20    |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 440-254980/1**  
**Matrix: Water**  
**Analysis Batch: 254980**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

| Analyte                | MB     |           | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|----|-----|------|---|----------|----------------|---------|
|                        | Result | Qualifier |    |     |      |   |          |                |         |
| Total Dissolved Solids | ND     |           | 10 |     | mg/L |   |          | 05/14/15 07:41 | 1       |

**Lab Sample ID: LCS 440-254980/2**  
**Matrix: Water**  
**Analysis Batch: 254980**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

| Analyte                | Spike Added | LCS    |           | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|--------|-----------|------|---|------|--------------|
|                        |             | Result | Qualifier |      |   |      |              |
| Total Dissolved Solids | 1000        | 966    |           | mg/L |   | 97   | 90 - 110     |

**Lab Sample ID: 440-109404-K-3 DU**  
**Matrix: Water**  
**Analysis Batch: 254980**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

| Analyte                | Sample Result | Sample Qualifier | DU     |           | Unit | D | RPD | Limit |
|------------------------|---------------|------------------|--------|-----------|------|---|-----|-------|
|                        |               |                  | Result | Qualifier |      |   |     |       |
| Total Dissolved Solids | 770           |                  | 755    |           | mg/L |   | 2   | 5     |

## Method: 9310 - Gross Alpha / Beta (GFPC)

**Lab Sample ID: MB 160-190445/1-A**  
**Matrix: Water**  
**Analysis Batch: 190766**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 190445**

| Analyte     | MB       |           | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | MDC   | Unit  | Prepared       | Analyzed       | Dil Fac |
|-------------|----------|-----------|-----------------------|-----------------------|-------|-------|----------------|----------------|---------|
|             | Result   | Qualifier |                       |                       |       |       |                |                |         |
| Gross Alpha | -0.09621 | U         | 0.635                 | 0.636                 | 1.26  | pCi/L | 05/12/15 09:49 | 05/14/15 15:36 | 1       |
| Gross Beta  | -0.1262  | U         | 0.488                 | 0.488                 | 0.900 | pCi/L | 05/12/15 09:49 | 05/14/15 15:36 | 1       |

**Lab Sample ID: LCS 160-190445/2-A**  
**Matrix: Water**  
**Analysis Batch: 190766**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190445**

| Analyte     | Spike Added | LCS    |      | Total Uncert. (2σ+/-) | MDC  | Unit  | %Rec | %Rec. Limits |
|-------------|-------------|--------|------|-----------------------|------|-------|------|--------------|
|             |             | Result | Qual |                       |      |       |      |              |
| Gross Alpha | 50.0        | 50.26  |      | 7.46                  | 2.07 | pCi/L | 100  | 73 - 133     |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 9310 - Gross Alpha / Beta (GFPC) (Continued)

**Lab Sample ID: LCSB 160-190445/3-A**  
**Matrix: Water**  
**Analysis Batch: 190766**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190445**

| Analyte    | Spike Added | LCSB Result | LCSB Qual | Total Uncert. (2σ+/-) | MDC  | Unit  | %Rec | %Rec. Limits |
|------------|-------------|-------------|-----------|-----------------------|------|-------|------|--------------|
| Gross Beta | 95.1        | 95.52       |           | 10.1                  | 1.04 | pCi/L | 100  | 75 - 125     |

**Lab Sample ID: 160-11674-A-3-D MS**  
**Matrix: Water**  
**Analysis Batch: 190766**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 190445**

| Analyte     | Sample Result | Sample Qual | Spike Added | MS Result | MS Qual | Total Uncert. (2σ+/-) | MDC  | Unit  | %Rec | %Rec. Limits |
|-------------|---------------|-------------|-------------|-----------|---------|-----------------------|------|-------|------|--------------|
| Gross Alpha | 20.9          | G           | 90.2        | 93.08     |         | 14.0                  | 3.09 | pCi/L | 80   | 60 - 140     |

**Lab Sample ID: 160-11674-A-3-E MSBT**  
**Matrix: Water**  
**Analysis Batch: 190766**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 190445**

| Analyte    | Sample Result | Sample Qual | Spike Added | MSBT Result | MSBT Qual | Total Uncert. (2σ+/-) | MDC  | Unit  | %Rec | %Rec. Limits |
|------------|---------------|-------------|-------------|-------------|-----------|-----------------------|------|-------|------|--------------|
| Gross Beta | 1.68          | U           | 171         | 173.1       |           | 18.3                  | 1.95 | pCi/L | 101  | 60 - 140     |

**Lab Sample ID: 160-11674-A-3-C DU**  
**Matrix: Water**  
**Analysis Batch: 190766**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 190445**

| Analyte     | Sample Result | Sample Qual | DU Result | DU Qual | Total Uncert. (2σ+/-) | MDC  | Unit  | RER  | RER Limit |
|-------------|---------------|-------------|-----------|---------|-----------------------|------|-------|------|-----------|
| Gross Alpha | 20.9          | G           | 21.02     | G       | 6.07                  | 6.36 | pCi/L | 0.01 | 1         |
| Gross Beta  | 1.68          | U           | 3.085     |         | 1.50                  | 1.95 | pCi/L | 0.49 | 1         |

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-190226/1-A**  
**Matrix: Water**  
**Analysis Batch: 193522**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 190226**

| Analyte    | MB Result | MB Qualifier | Count Uncert. (2σ+/-) | Total Uncert. (2σ+/-) | MDC   | Unit  | Prepared       | Analyzed       | Dil Fac |
|------------|-----------|--------------|-----------------------|-----------------------|-------|-------|----------------|----------------|---------|
| Radium-226 | 0.0000    | U            | 0.0794                | 0.0794                | 0.159 | pCi/L | 05/11/15 08:57 | 06/04/15 07:31 | 1       |

| Carrier    | MB %Yield | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------|-----------|--------------|----------|----------------|----------------|---------|
| Ba Carrier | 109       |              | 40 - 110 | 05/11/15 08:57 | 06/04/15 07:31 | 1       |

**Lab Sample ID: LCS 160-190226/2-A**  
**Matrix: Water**  
**Analysis Batch: 193522**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190226**

| Analyte    | Spike Added | LCS Result | LCS Qual | Total Uncert. (2σ+/-) | MDC   | Unit  | %Rec | %Rec. Limits |
|------------|-------------|------------|----------|-----------------------|-------|-------|------|--------------|
| Radium-226 | 22.3        | 24.33      |          | 2.39                  | 0.208 | pCi/L | 109  | 68 - 137     |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

## Method: 9315 - Radium-226 (GFPC) (Continued)

**Lab Sample ID: LCS 160-190226/2-A**  
**Matrix: Water**  
**Analysis Batch: 193522**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190226**

| Carrier    | LCS<br>%Yield | LCS<br>Qualifier | Limits   |
|------------|---------------|------------------|----------|
| Ba Carrier | 108           |                  | 40 - 110 |

**Lab Sample ID: LCSD 160-190226/3-A**  
**Matrix: Water**  
**Analysis Batch: 193522**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 190226**

| Analyte    | Spike<br>Added | LCSD<br>Result | LCSD<br>Qual | Total<br>Uncert.<br>(2σ+/-) | MDC   | Unit  | %Rec | %Rec.<br>Limits | RER  | RER<br>Limit |
|------------|----------------|----------------|--------------|-----------------------------|-------|-------|------|-----------------|------|--------------|
| Radium-226 | 22.3           | 23.92          |              | 2.36                        | 0.198 | pCi/L | 107  | 68 - 137        | 0.09 | 1            |

| Carrier    | LCSD<br>%Yield | LCSD<br>Qualifier | Limits   |
|------------|----------------|-------------------|----------|
| Ba Carrier | 112            | X                 | 40 - 110 |

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-190228/1-A**  
**Matrix: Water**  
**Analysis Batch: 192829**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 190228**

| Analyte    | MB<br>Result | MB<br>Qualifier | Count<br>Uncert.<br>(2σ+/-) | Total<br>Uncert.<br>(2σ+/-) | MDC   | Unit  | Prepared       | Analyzed       | Dil Fac |
|------------|--------------|-----------------|-----------------------------|-----------------------------|-------|-------|----------------|----------------|---------|
| Radium-228 | 0.2059       | U               | 0.404                       | 0.405                       | 0.690 | pCi/L | 05/11/15 09:04 | 05/29/15 12:02 | 1       |

| Carrier    | MB<br>%Yield | MB<br>Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------|--------------|-----------------|----------|----------------|----------------|---------|
| Ba Carrier | 109          |                 | 40 - 110 | 05/11/15 09:04 | 05/29/15 12:02 | 1       |
| Y Carrier  | 91.2         |                 | 40 - 110 | 05/11/15 09:04 | 05/29/15 12:02 | 1       |

**Lab Sample ID: LCS 160-190228/2-A**  
**Matrix: Water**  
**Analysis Batch: 192829**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190228**

| Analyte    | Spike<br>Added | LCS<br>Result | LCS<br>Qual | Total<br>Uncert.<br>(2σ+/-) | MDC   | Unit  | %Rec | %Rec.<br>Limits |
|------------|----------------|---------------|-------------|-----------------------------|-------|-------|------|-----------------|
| Radium-228 | 6.81           | 5.981         |             | 0.948                       | 0.663 | pCi/L | 88   | 56 - 140        |

| Carrier    | LCS<br>%Yield | LCS<br>Qualifier | Limits   |
|------------|---------------|------------------|----------|
| Ba Carrier | 108           |                  | 40 - 110 |
| Y Carrier  | 90.8          |                  | 40 - 110 |

**Lab Sample ID: LCSD 160-190228/3-A**  
**Matrix: Water**  
**Analysis Batch: 192829**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 190228**

| Analyte    | Spike<br>Added | LCSD<br>Result | LCSD<br>Qual | Total<br>Uncert.<br>(2σ+/-) | MDC   | Unit  | %Rec | %Rec.<br>Limits | RER  | RER<br>Limit |
|------------|----------------|----------------|--------------|-----------------------------|-------|-------|------|-----------------|------|--------------|
| Radium-228 | 6.81           | 6.656          |              | 1.00                        | 0.643 | pCi/L | 98   | 56 - 140        | 0.35 | 1            |

TestAmerica Irvine

# QC Sample Results

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-190228/3-A

Matrix: Water

Analysis Batch: 192829

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 190228

| Carrier    | LCSD   |           | Limits   |
|------------|--------|-----------|----------|
|            | %Yield | Qualifier |          |
| Ba Carrier | 112    | X         | 40 - 110 |
| Y Carrier  | 91.2   |           | 40 - 110 |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# QC Association Summary

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## GC/MS VOA

### Analysis Batch: 254089

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1       | Mission                | Total/NA  | Water  | 8260B  |            |
| 440-109158-G-2 MS  | Matrix Spike           | Total/NA  | Water  | 8260B  |            |
| 440-109158-G-2 MSD | Matrix Spike Duplicate | Total/NA  | Water  | 8260B  |            |
| LCS 440-254089/5   | Lab Control Sample     | Total/NA  | Water  | 8260B  |            |
| MB 440-254089/4    | Method Blank           | Total/NA  | Water  | 8260B  |            |

### Analysis Batch: 254346

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-2       | TB                     | Total/NA  | Water  | 8260B  |            |
| 440-109214-B-1 MS  | Matrix Spike           | Total/NA  | Water  | 8260B  |            |
| 440-109214-B-1 MSD | Matrix Spike Duplicate | Total/NA  | Water  | 8260B  |            |
| LCS 440-254346/5   | Lab Control Sample     | Total/NA  | Water  | 8260B  |            |
| MB 440-254346/4    | Method Blank           | Total/NA  | Water  | 8260B  |            |

## GC/MS Semi VOA

### Prep Batch: 254413

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1        | Mission                | Total/NA  | Water  | 3520C  |            |
| LCS 440-254413/2-A  | Lab Control Sample     | Total/NA  | Water  | 3520C  |            |
| LCSD 440-254413/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3520C  |            |
| MB 440-254413/1-A   | Method Blank           | Total/NA  | Water  | 3520C  |            |

### Analysis Batch: 255228

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|---------------------|------------------------|-----------|--------|-----------|------------|
| LCS 440-254413/2-A  | Lab Control Sample     | Total/NA  | Water  | 8270C SIM | 254413     |
| LCSD 440-254413/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8270C SIM | 254413     |
| MB 440-254413/1-A   | Method Blank           | Total/NA  | Water  | 8270C SIM | 254413     |

### Analysis Batch: 255456

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|---------------|------------------|-----------|--------|-----------|------------|
| 440-109141-1  | Mission          | Total/NA  | Water  | 8270C SIM | 254413     |

## GC VOA

### Analysis Batch: 255014

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1       | Mission                | Total/NA  | Water  | 8015B  |            |
| 440-109604-E-2 MS  | Matrix Spike           | Total/NA  | Water  | 8015B  |            |
| 440-109604-E-2 MSD | Matrix Spike Duplicate | Total/NA  | Water  | 8015B  |            |
| LCS 440-255014/3   | Lab Control Sample     | Total/NA  | Water  | 8015B  |            |
| MB 440-255014/5    | Method Blank           | Total/NA  | Water  | 8015B  |            |

## GC Semi VOA

### Prep Batch: 253724

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1        | Mission                | Total/NA  | Water  | 3510C  |            |
| LCS 440-253724/2-A  | Lab Control Sample     | Total/NA  | Water  | 3510C  |            |
| LCSD 440-253724/3-A | Lab Control Sample Dup | Total/NA  | Water  | 3510C  |            |

TestAmerica Irvine

# QC Association Summary

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## GC Semi VOA (Continued)

### Prep Batch: 253724 (Continued)

| Lab Sample ID     | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------|-----------|--------|--------|------------|
| MB 440-253724/1-A | Method Blank     | Total/NA  | Water  | 3510C  |            |

### Analysis Batch: 253826

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| LCS 440-253724/2-A  | Lab Control Sample     | Total/NA  | Water  | 8015B  | 253724     |
| LCSD 440-253724/3-A | Lab Control Sample Dup | Total/NA  | Water  | 8015B  | 253724     |
| MB 440-253724/1-A   | Method Blank           | Total/NA  | Water  | 8015B  | 253724     |

### Analysis Batch: 254151

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 440-109141-1  | Mission          | Total/NA  | Water  | 8015B  | 253724     |

## HPLC/IC

### Analysis Batch: 253537

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 440-109072-A-1 MS  | Matrix Spike           | Total/NA  | Water  | 300.0  |            |
| 440-109072-A-1 MSD | Matrix Spike Duplicate | Total/NA  | Water  | 300.0  |            |
| 440-109141-1       | Mission                | Total/NA  | Water  | 300.0  |            |
| LCS 440-253537/6   | Lab Control Sample     | Total/NA  | Water  | 300.0  |            |
| MB 440-253537/4    | Method Blank           | Total/NA  | Water  | 300.0  |            |

### Analysis Batch: 253538

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 440-109072-A-1 MS  | Matrix Spike           | Total/NA  | Water  | 300.0  |            |
| 440-109072-A-1 MSD | Matrix Spike Duplicate | Total/NA  | Water  | 300.0  |            |
| 440-109141-1       | Mission                | Total/NA  | Water  | 300.0  |            |
| 440-109141-1       | Mission                | Total/NA  | Water  | 300.0  |            |
| LCS 440-253538/6   | Lab Control Sample     | Total/NA  | Water  | 300.0  |            |
| MB 440-253538/4    | Method Blank           | Total/NA  | Water  | 300.0  |            |

### Analysis Batch: 253787

| Lab Sample ID      | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1       | Mission                | Total/NA  | Water  | 300.0  |            |
| 440-109147-E-1 MS  | Matrix Spike           | Total/NA  | Water  | 300.0  |            |
| 440-109147-E-1 MSD | Matrix Spike Duplicate | Total/NA  | Water  | 300.0  |            |
| LCS 440-253787/2   | Lab Control Sample     | Total/NA  | Water  | 300.0  |            |
| MB 440-253787/4    | Method Blank           | Total/NA  | Water  | 300.0  |            |

## Metals

### Prep Batch: 190483

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1         | Mission                | Total/NA  | Water  | 3010A  |            |
| 440-109149-S-1-B MS  | Matrix Spike           | Total/NA  | Water  | 3010A  |            |
| 440-109149-S-1-C MSD | Matrix Spike Duplicate | Total/NA  | Water  | 3010A  |            |
| LCS 160-190483/2-A   | Lab Control Sample     | Total/NA  | Water  | 3010A  |            |
| MB 160-190483/1-A    | Method Blank           | Total/NA  | Water  | 3010A  |            |

# QC Association Summary

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Metals (Continued)

### Analysis Batch: 191371

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1         | Mission                | Total/NA  | Water  | 6020A  | 190483     |
| 440-109149-S-1-B MS  | Matrix Spike           | Total/NA  | Water  | 6020A  | 190483     |
| 440-109149-S-1-C MSD | Matrix Spike Duplicate | Total/NA  | Water  | 6020A  | 190483     |
| LCS 160-190483/2-A   | Lab Control Sample     | Total/NA  | Water  | 6020A  | 190483     |
| MB 160-190483/1-A    | Method Blank           | Total/NA  | Water  | 6020A  | 190483     |

### Prep Batch: 253868

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1        | Mission                | Total/NA  | Water  | 7470A  |            |
| 580-49347-E-2-F MS  | Matrix Spike           | Total/NA  | Water  | 7470A  |            |
| 580-49347-E-2-G MSD | Matrix Spike Duplicate | Total/NA  | Water  | 7470A  |            |
| LCS 440-253868/2-A  | Lab Control Sample     | Total/NA  | Water  | 7470A  |            |
| MB 440-253868/1-A   | Method Blank           | Total/NA  | Water  | 7470A  |            |

### Analysis Batch: 254275

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 440-109141-1        | Mission                | Total/NA  | Water  | 7470A  | 253868     |
| 580-49347-E-2-F MS  | Matrix Spike           | Total/NA  | Water  | 7470A  | 253868     |
| 580-49347-E-2-G MSD | Matrix Spike Duplicate | Total/NA  | Water  | 7470A  | 253868     |
| LCS 440-253868/2-A  | Lab Control Sample     | Total/NA  | Water  | 7470A  | 253868     |
| MB 440-253868/1-A   | Method Blank           | Total/NA  | Water  | 7470A  | 253868     |

### Prep Batch: 254489

| Lab Sample ID            | Client Sample ID       | Prep Type         | Matrix | Method | Prep Batch |
|--------------------------|------------------------|-------------------|--------|--------|------------|
| 440-109141-1             | Mission                | Total Recoverable | Water  | 3005A  |            |
| 440-109370-K-1-B MS ^25  | Matrix Spike           | Total Recoverable | Water  | 3005A  |            |
| 440-109370-K-1-C MSD ^25 | Matrix Spike Duplicate | Total Recoverable | Water  | 3005A  |            |
| LCS 440-254489/2-A       | Lab Control Sample     | Total Recoverable | Water  | 3005A  |            |
| MB 440-254489/1-A        | Method Blank           | Total Recoverable | Water  | 3005A  |            |

### Analysis Batch: 254900

| Lab Sample ID            | Client Sample ID       | Prep Type         | Matrix | Method | Prep Batch |
|--------------------------|------------------------|-------------------|--------|--------|------------|
| 440-109141-1             | Mission                | Total Recoverable | Water  | 6010B  | 254489     |
| 440-109141-1             | Mission                | Total Recoverable | Water  | 6010B  | 254489     |
| 440-109370-K-1-B MS ^25  | Matrix Spike           | Total Recoverable | Water  | 6010B  | 254489     |
| 440-109370-K-1-C MSD ^25 | Matrix Spike Duplicate | Total Recoverable | Water  | 6010B  | 254489     |
| LCS 440-254489/2-A       | Lab Control Sample     | Total Recoverable | Water  | 6010B  | 254489     |
| MB 440-254489/1-A        | Method Blank           | Total Recoverable | Water  | 6010B  | 254489     |

### Analysis Batch: 255128

| Lab Sample ID | Client Sample ID | Prep Type         | Matrix | Method | Prep Batch |
|---------------|------------------|-------------------|--------|--------|------------|
| 440-109141-1  | Mission          | Total Recoverable | Water  | 6010B  | 254489     |

## General Chemistry

### Analysis Batch: 254980

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|-------------------|--------------------|-----------|--------|----------|------------|
| 440-109141-1      | Mission            | Total/NA  | Water  | SM 2540C |            |
| 440-109404-K-3 DU | Duplicate          | Total/NA  | Water  | SM 2540C |            |
| LCS 440-254980/2  | Lab Control Sample | Total/NA  | Water  | SM 2540C |            |

TestAmerica Irvine

# QC Association Summary

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## General Chemistry (Continued)

### Analysis Batch: 254980 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method   | Prep Batch |
|-----------------|------------------|-----------|--------|----------|------------|
| MB 440-254980/1 | Method Blank     | Total/NA  | Water  | SM 2540C |            |

### Analysis Batch: 255614

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 440-109141-1     | Mission            | Total/NA  | Water  | SM 2320B |            |
| 440-109141-1 DU  | Mission            | Total/NA  | Water  | SM 2320B |            |
| LCS 440-255614/1 | Lab Control Sample | Total/NA  | Water  | SM 2320B |            |
| MB 440-255614/2  | Method Blank       | Total/NA  | Water  | SM 2320B |            |

## Rad

### Prep Batch: 190226

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method     | Prep Batch |
|---------------------|------------------------|-----------|--------|------------|------------|
| 440-109141-1        | Mission                | Total/NA  | Water  | PrecSep-21 |            |
| LCS 160-190226/2-A  | Lab Control Sample     | Total/NA  | Water  | PrecSep-21 |            |
| LCSD 160-190226/3-A | Lab Control Sample Dup | Total/NA  | Water  | PrecSep-21 |            |
| MB 160-190226/1-A   | Method Blank           | Total/NA  | Water  | PrecSep-21 |            |

### Prep Batch: 190228

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method    | Prep Batch |
|---------------------|------------------------|-----------|--------|-----------|------------|
| 440-109141-1        | Mission                | Total/NA  | Water  | PrecSep_0 |            |
| LCS 160-190228/2-A  | Lab Control Sample     | Total/NA  | Water  | PrecSep_0 |            |
| LCSD 160-190228/3-A | Lab Control Sample Dup | Total/NA  | Water  | PrecSep_0 |            |
| MB 160-190228/1-A   | Method Blank           | Total/NA  | Water  | PrecSep_0 |            |

### Prep Batch: 190445

| Lab Sample ID        | Client Sample ID   | Prep Type | Matrix | Method      | Prep Batch |
|----------------------|--------------------|-----------|--------|-------------|------------|
| 160-11674-A-3-C DU   | Duplicate          | Total/NA  | Water  | Evaporation |            |
| 160-11674-A-3-D MS   | Matrix Spike       | Total/NA  | Water  | Evaporation |            |
| 160-11674-A-3-E MSBT | Matrix Spike       | Total/NA  | Water  | Evaporation |            |
| 440-109141-1         | Mission            | Total/NA  | Water  | Evaporation |            |
| LCS 160-190445/2-A   | Lab Control Sample | Total/NA  | Water  | Evaporation |            |
| LCSB 160-190445/3-A  | Lab Control Sample | Total/NA  | Water  | Evaporation |            |
| MB 160-190445/1-A    | Method Blank       | Total/NA  | Water  | Evaporation |            |

# Definitions/Glossary

Client: Envirotech Consultants, Inc.  
Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
SDG: Mission Lease, South Belridge Oil Field

## Qualifiers

### GC/MS Semi VOA

| Qualifier | Qualifier Description                                     |
|-----------|---|
| X         | Surrogate is outside control limits                       |
| *         | ISTD response or retention time outside acceptable limits |

### HPLC/IC

| Qualifier | Qualifier Description   |
|-----------|---|
| F1        | MS and/or MSD Recovery is outside acceptance limits.  |
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| *         | LCS or LCSD is outside acceptance limits.   |

### Metals

| Qualifier | Qualifier Description   |
|-----------|---|
| F1        | MS and/or MSD Recovery is outside acceptance limits.  |
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |

### General Chemistry

| Qualifier | Qualifier Description                       |
|-----------|---|
| B         | Compound was found in the blank and sample. |

### Rad

| Qualifier | Qualifier Description                            |
|-----------|--|
| G         | The Sample MDC is greater than the requested RL. |
| U         | Result is less than the sample detection limit.  |
| X         | Carrier is outside acceptance limits.            |

## Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| CFL            | Contains Free Liquid  |
| CNF            | Contains no Free Liquid   |
| DER            | Duplicate error ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision level concentration  |
| MDA            | Minimum detectable activity   |
| EDL            | Estimated Detection Limit   |
| MDC            | Minimum detectable concentration  |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| NC             | Not Calculated  |
| ND             | Not detected at the reporting limit (or MDL or EDL if shown)  |
| PQL            | Practical Quantitation Limit  |
| QC             | Quality Control   |
| RER            | Relative error ratio  |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |

# Certification Summary

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

## Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority                | Program                     | EPA Region | Certification ID  | Expiration Date |
|--------------------------|-----------------------------|------------|-------------------|-----------------|
| Alaska                   | State Program               | 10         | CA01531           | 06-30-15        |
| Arizona                  | State Program               | 9          | AZ0671            | 10-13-15        |
| California               | LA Cty Sanitation Districts | 9          | 10256             | 01-31-16 *      |
| California               | State Program               | 9          | 2706              | 06-30-16        |
| Guam                     | State Program               | 9          | Cert. No. 12.002r | 01-23-16        |
| Hawaii                   | State Program               | 9          | N/A               | 01-29-16        |
| Nevada                   | State Program               | 9          | CA015312007A      | 07-31-15        |
| New Mexico               | State Program               | 6          | N/A               | 01-29-15 *      |
| Northern Mariana Islands | State Program               | 9          | MP0002            | 01-29-15 *      |
| Oregon                   | NELAP                       | 10         | 4005              | 01-29-16        |
| USDA                     | Federal                     |            | P330-09-00080     | 06-06-15        |

## Laboratory: TestAmerica St. Louis

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority         | Program       | EPA Region | Certification ID | Expiration Date |
|-------------------|---------------|------------|------------------|-----------------|
| Alaska            | State Program | 10         | MO00054          | 06-30-15 *      |
| California        | ELAP          | 9          | 2886             | 03-31-16        |
| Connecticut       | State Program | 1          | PH-0241          | 03-31-17        |
| Florida           | NELAP         | 4          | E87689           | 06-30-15 *      |
| Illinois          | NELAP         | 5          | 200023           | 11-30-15        |
| Iowa              | State Program | 7          | 373              | 12-01-16        |
| Kansas            | NELAP         | 7          | E-10236          | 10-31-15        |
| Kentucky (DW)     | State Program | 4          | 90125            | 12-31-15        |
| L-A-B             | DoD ELAP      |            | L2305            | 01-10-16        |
| Louisiana         | NELAP         | 6          | 04080            | 06-30-15 *      |
| Louisiana (DW)    | NELAP         | 6          | LA150017         | 12-31-16        |
| Maryland          | State Program | 3          | 310              | 09-30-15        |
| Missouri          | State Program | 7          | 780              | 06-30-15 *      |
| Nevada            | State Program | 9          | MO000542013-1    | 07-31-15 *      |
| New Jersey        | NELAP         | 2          | MO002            | 06-30-15 *      |
| New Mexico        | State Program | 6          |                  | 06-30-10 *      |
| New York          | NELAP         | 2          | 11616            | 03-31-16        |
| North Dakota      | State Program | 8          | R207             | 06-30-15 *      |
| NRC               | NRC           |            | 24-24817-01      | 12-31-22        |
| Oklahoma          | State Program | 6          | 9997             | 08-31-15        |
| Pennsylvania      | NELAP         | 3          | 68-00540         | 02-28-16        |
| South Carolina    | State Program | 4          | 85002001         | 06-30-15 *      |
| Texas             | NELAP         | 6          | T104704193-13-6  | 07-31-15 *      |
| USDA              | Federal       |            | P330-07-00122    | 01-09-17        |
| Utah              | NELAP         | 8          | MO000542013-5    | 07-31-15        |
| Virginia          | NELAP         | 3          | 460230           | 06-14-15 *      |
| Washington        | State Program | 10         | C592             | 08-30-15        |
| West Virginia DEP | State Program | 3          | 381              | 08-31-15        |

\* Certification renewal pending - certification considered valid.

|   |  |  |  |                                   |  |                                     |  |
|---|--|--|--|-----------------------------------|--|-------------------------------------|--|
| <b>Client Contact</b>                         |  | <b>Project Manager: Jane McNaboe</b>   |  | <b>Site Contact: Jane McNaboe</b> |  | <b>Date:</b>                        |  |
| EnviroTech Consultants, Inc.                  |  | Tel/Fax: 661-377-0073 X 11   |  | Lab Contact: Janice Hsu           |  | COC No: _____ of _____ COCs         |  |
| 5400 Rosedale Highway                         |  | Analysis Turnaround Time   |  | Carrier:                          |  | Sampler:                            |  |
| Bakersfield, CA 93308                         |  | <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS |  | SM 2320B Alkalinity all forms ion |  | For Lab Use Only:                   |  |
| (661) 377-0073 Phone                          |  | TAT if different from Below _____  |  | 300.0 Nitrate NO3                 |  | Walk-in Client:                     |  |
| (661) 377-0074 FAX                            |  | <input type="checkbox"/> 2 weeks   |  | 300.0 Chloride, Bromide, Sulfate  |  | Lab Sampling:                       |  |
| Project Name: RWQCB Pond Testing, 2015        |  | <input type="checkbox"/> 1 week  |  | PAH List 8270C SIM SVOC           |  | Job / SDG No.:                      |  |
| Site: Mission Lease, South Belridge Oil Field |  | <input type="checkbox"/> 2 days  |  | 8015B C13-C22/C23-C40(Crude oil)  |  | Sample Specific Notes: See Attached |  |
| P O #: BLR100                                 |  | <input type="checkbox"/> 1 day   |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
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|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
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|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
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|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
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|   |  |  |  | 8260B BTEX                        |  |                                     |  |
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|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
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|   |  |  |  | 8260B BTEX                        |  |                                     |  |
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|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
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|   |  |  |  | 8260B BTEX                        |  |                                     |  |
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|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
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|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
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|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
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|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
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|   |  |  |  | 8260B BTEX                        |  |                                     |  |
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|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
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|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (Y / N)           |  |                                     |  |
|   |  |  |  | SM 2320B Alkalinity all forms ion |  |                                     |  |
|   |  |  |  | 300.0 Nitrate NO3                 |  |                                     |  |
|   |  |  |  | 300.0 Chloride, Bromide, Sulfate  |  |                                     |  |
|   |  |  |  | PAH List 8270C SIM SVOC           |  |                                     |  |
|   |  |  |  | 8015B C13-C22/C23-C40(Crude oil)  |  |                                     |  |
|   |  |  |  | 8260B BTEX                        |  |                                     |  |
|   |  |  |  | 7470A Mercury (CVA)               |  |                                     |  |
|   |  |  |  | 6010B CAM Metals                  |  |                                     |  |
|   |  |  |  | SM 2640C TDS                      |  |                                     |  |
|   |  |  |  | Perform MS / MSD (Y / N)          |  |                                     |  |
|   |  |  |  | Filtered Sample (                 |  |                                     |  |

**ATTACHMENT B****Water Quality Analysis**

Wastewater samples collected from the ponds shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program using currently applicable United States Environmental Protection Agency-approved analytical methods for water for the following:

- A. Total dissolved solids;
- B. Metals listed in California Code of Regulations, title 22, section 66261.24. subdivision (a)(2)(A);
- C. Benzene, toluene, ethylbenzene, and xylenes;
- D. Total petroleum hydrocarbons as crude oil;
- E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorine, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene);
- F. Radionuclides listed under California Code of Regulations, title 22, Table 64442;
- G. Major and minor cations (including sodium, potassium, magnesium, and calcium);
- H. Major and minor anions (including nitrate, chloride, sulfate, carbonate, bicarbonate, and bromide);
- I. Trace elements (including lithium, strontium, boron, iron, and manganese).

**Reporting Requirements**

Water Quality information shall be submitted in a technical report that includes at a minimum:

- A. Site plan(s) with the location(s) of where the samples were collected;
  - B. A description of how the samples, representative of the pond contents, were collected;
- Table(s) of analytical results organized by pond number with the data also submitted electronically as an Excel spreadsheet.

## Login Sample Receipt Checklist

Client: Envirotech Consultants, Inc.

Job Number: 440-109141-1

SDG Number: Mission Lease, South Belridge Oil Field

**Login Number: 109141**

**List Number: 1**

**Creator: Kim, Guerry**

**List Source: TestAmerica Irvine**

| Question  | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.      | True   |         |
| The cooler's custody seal, if present, is intact.   | True   |         |
| Sample custody seals, if present, are intact.   | True   |         |
| The cooler or samples do not appear to have been compromised or tampered with.                      | True   |         |
| Samples were received on ice.   | True   |         |
| Cooler Temperature is acceptable.   | True   |         |
| Cooler Temperature is recorded.   | True   |         |
| COC is present.   | True   |         |
| COC is filled out in ink and legible.   | True   |         |
| COC is filled out with all pertinent information.   | True   |         |
| Is the Field Sampler's name present on COC?   | True   |         |
| There are no discrepancies between the containers received and the COC.                             | True   |         |
| Samples are received within Holding Time.   | True   |         |
| Sample containers have legible labels.  | True   |         |
| Containers are not broken or leaking.   | True   |         |
| Sample collection date/times are provided.  | True   |         |
| Appropriate sample containers are used.   | True   |         |
| Sample bottles are completely filled.   | True   |         |
| Sample Preservation Verified.   | N/A    |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs                    | True   |         |
| Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4"). | True   |         |
| Multiphasic samples are not present.  | True   |         |
| Samples do not require splitting or compositing.  | True   |         |
| Residual Chlorine Checked.  | N/A    |         |

## Tracer/Carrier Summary

Client: Envirotech Consultants, Inc.  
 Project/Site: RWQCB Pond Testing, 2015

TestAmerica Job ID: 440-109141-1  
 SDG: Mission Lease, South Belridge Oil Field

### Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

#### Percent Yield (Acceptance Limits)

| Lab Sample ID       | Client Sample ID       | Ba<br>(40-110) |
|---------------------|------------------------|----------------|
| 440-109141-1        | Mission                | 108            |
| LCS 160-190226/2-A  | Lab Control Sample     | 108            |
| LCSD 160-190226/3-A | Lab Control Sample Dup | 112 X          |
| MB 160-190226/1-A   | Method Blank           | 109            |

**Tracer/Carrier Legend**

Ba = Ba Carrier

### Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

#### Percent Yield (Acceptance Limits)

| Lab Sample ID       | Client Sample ID       | Ba<br>(40-110) | Y<br>(40-110) |
|---------------------|------------------------|----------------|---------------|
| 440-109141-1        | Mission                | 108            | 90.1          |
| LCS 160-190228/2-A  | Lab Control Sample     | 108            | 90.8          |
| LCSD 160-190228/3-A | Lab Control Sample Dup | 112 X          | 91.2          |
| MB 160-190228/1-A   | Method Blank           | 109            | 91.2          |

**Tracer/Carrier Legend**

Ba = Ba Carrier

Y = Y Carrier