CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

# TRANSMITTAL

**DATE:** April 1, 2013

**REFERENCE NO.:** 240734

**PROJECT NAME:** 285 Hegenberger Road, Oakland

**TO:** Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577



**Please find enclosed:**
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

**Sent via:**
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other GeoTracker and Alameda County FTP

| QUANTITY | DESCRIPTION |
|---|---|
| 1 | Well Destruction Report |
| | |
| | |

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

**COMMENTS:**
If you have any questions regarding the contents of this document, please call Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US (electronic copy)
Sam Anabi, CAR Enterprises (lessee), 1040 North Benson Avenue, Upland, CA 91786-2157
Larry Turner, CAR Enterprises (lessee) (electronic copy)
JT, Elizabeth G, WT, and Jeanette Watters Trust (fee title owners), Shell Oil, PO Box 4369, Houston, Texas, 77210

Completed by: Peter Schaefer Signed: Peter Schaefer

**Filing:** **Correspondence File**

**Denis L. Brown**
**Shell Oil Products US**
HSE – Environmental Services
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Tel (707) 865 0251
Fax (707) 865 2542
Email denis.l.brown@shell.com

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Shell-branded Service Station
285 Hegenberger Road
Oakland, California
SAP Code 135691
Incident No. 98995749
ACEH Case No. RO0000220

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Senior Program Manager

# WELL DESTRUCTION REPORT

## SHELL-BRANDED SERVICE STATION
## 285 HEGENBERGER ROAD
## OAKLAND, CALIFORNIA

| | |
|---|---|
| SAP CODE | 135691 |
| INCIDENT NO. | 98995749 |
| AGENCY NO. | RO0000220 |

**Prepared by:**
**Conestoga-Rovers & Associates**

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

Office: (510) 420-0700
Fax: (510) 420-9170

web: http://www.CRAworld.com

APRIL 1, 2013
REF. NO. 240734 (9)
This report is printed on recycled paper.

TABLE OF CONTENTS

## LIST OF FIGURES
(Following Text)



## LIST OF APPENDICES

## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent well destructions at the referenced site.

The well destructions are required for case closure per Alameda County Environmental Health's (ACEH's) December 12, 2012 letter. CRA followed the scope of work and procedures presented in our January 15, 2013 *Well Destruction Work Plan*, which was approved in ACEH's January 30, 2013 letter.

## 2.0 WELL DESTRUCTION

### 2.1 FIELD DATES

January 28 to 31, 2013.

### 2.2 PERSONNEL PRESENT

CRA field staff member Nathan Allen directed the well destructions under the supervision of California Professional Geologist Peter Schaefer.

### 2.3 DESTRUCTION METHOD

Eleven monitoring wells (MW-1 through MW-4, MW-6, and MW-8 through MW-13), seven vapor extraction wells (VEW-1 through VEW-7), three air sparge wells (AS-1 through AS-3), and three piezometers (VM-2 through VM-4) were destroyed by pressure grouting. As requested by the City of Oakland, the upper 5 feet of wells MW-11 through MW-13 were destroyed by over-drilling using an air-/water-knife drill rig. Copies of the Alameda County Public Works Agency well destruction permit and City of Oakland encroachment and excavation permits are included in Appendix A.

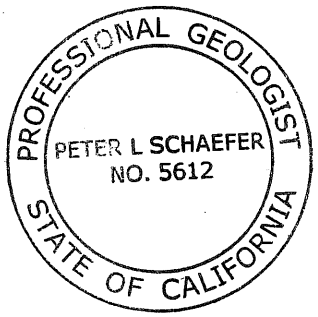
### 2.4 WASTE DISPOSAL

Soil and construction debris generated during the well destructions was stored on site in 55-gallon drums, tested, and profiled for disposal. CRA includes the laboratory report in Appendix B. On February 22, 2013, the soil was transported to American Integrated

Services, Inc.'s Keller Canyon Landfill in Pittsburg, California for disposal as non-hazardous waste. Disposal documentation is presented in Appendix C.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

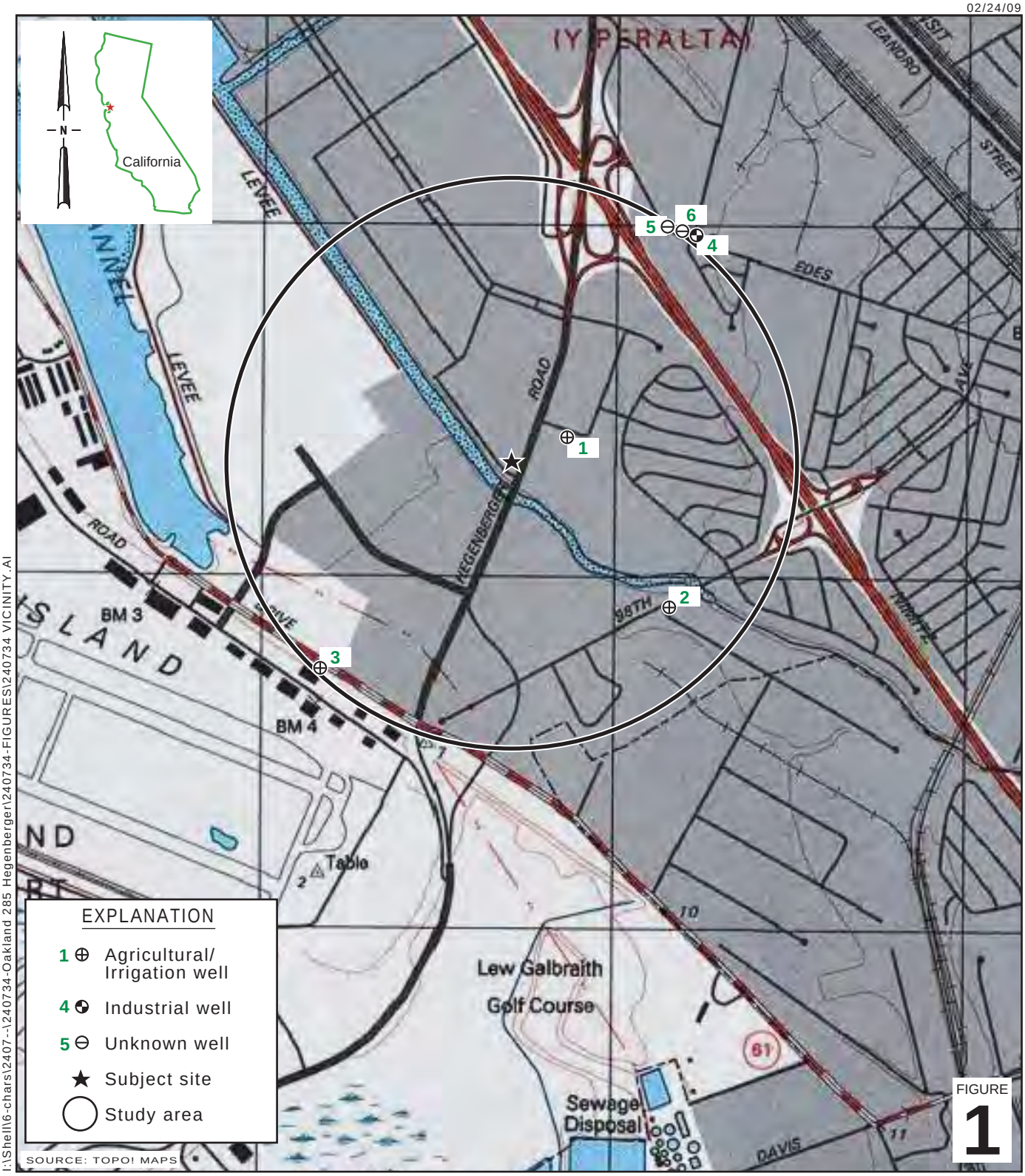



for:

Eric A. Syrstad, PG

# FIGURES

02/24/09




I:\Shell\6-chars\2407--\240734-Oakland 285 Hegenberger\240734-FIGURES\240734 VICINITY.AI

FIGURE
1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

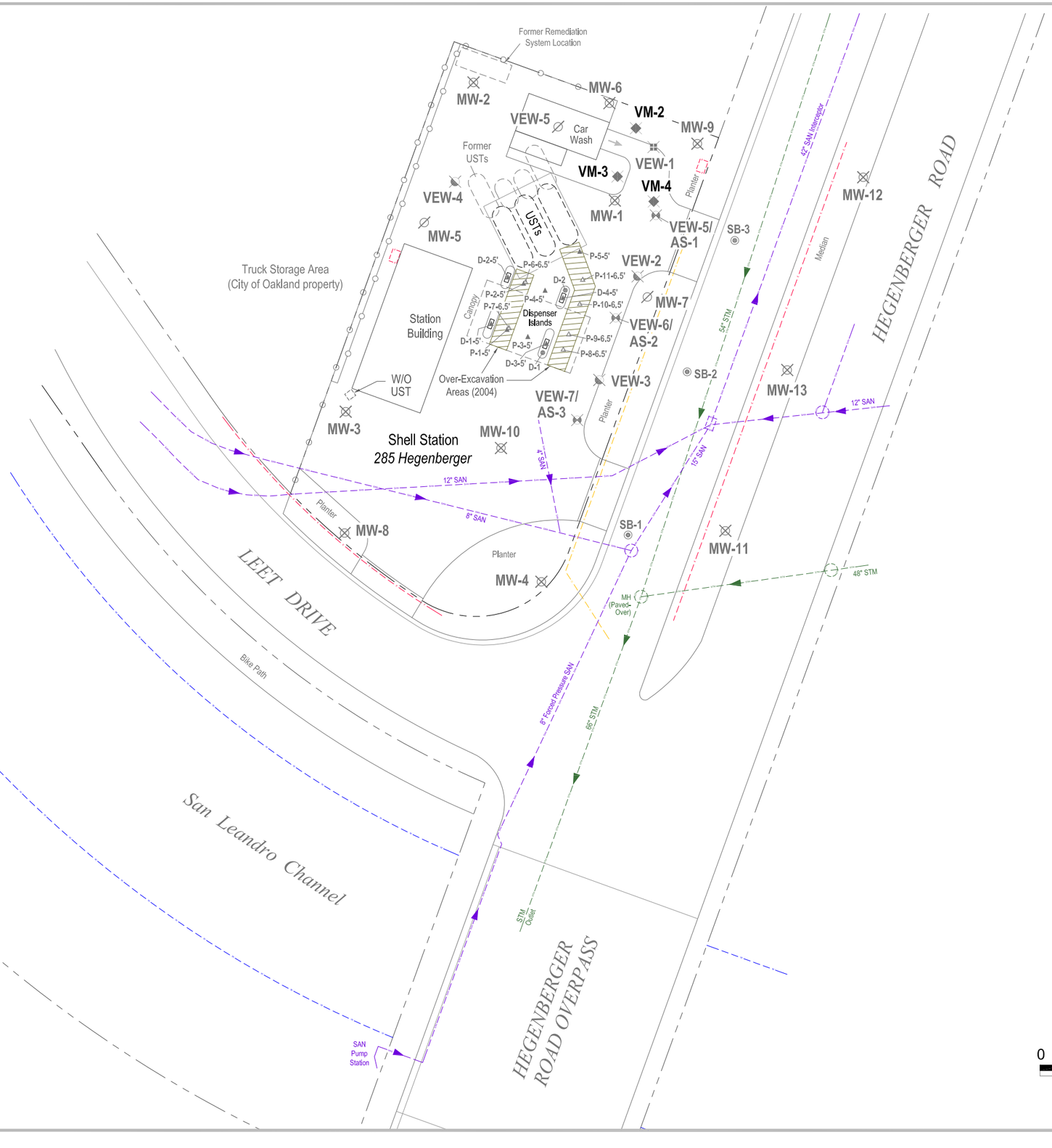
**Shell-branded Service Station**
285 Hegenberger Road
Oakland, California

CONESTOGA-ROVERS
& ASSOCIATES

**Vicinity Map**

02/05/2013

# Site Plan




## EXPLANATION

| | | |
|---|---|---|
| MW-1 | ⊠ | Destroyed monitoring well location |
| VEW-5/ AS-1 | ⊠ | Destroyed co-axial vapor and sparge well; air-sparge well not monitored or sampled |
| VEW-1 | ⊠ | Destroyed soil vapor extraction well |
| VEW-2 | ⊠ | Destroyed dual completion air sparging/soil vapor extraction well |
| VM-2 | ◆ | Destroyed vapor monitoring point |
| VEW-5 | ∅ | Previously abandoned well location |
| SB-1 | ◉ | Soil boring location |
| D-1 | • | Soil sample location |
| P-1-5' | ▲ | Soil sample location |
| P-7-6.5' | △ | Over-excavation soil sample location |

Electrical line (E)

Gas line (G)

Storm drain line (STM)

Sanitary sewer line (SAN)

Manhole (MH)

Utility vault

N

0 25 50 100

Scale (ft)

FIGURE

**2**

**Shell-branded Service Station**

285 Hegenberger Road

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\2407--\240734-Oakland 285 Hegenberger\240734-FIGURES\240734 SITE PLAN.DWG

# APPENDIX A

# PERMITS

# Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 01/03/2013 By jamesy**

**Permit Numbers: W2013-0004 to W2013-0018**
**Permits Valid from 01/29/2013 to 02/01/2013**

**Application Id:** 1356028866756 **City of Project Site:** Oakland
**Site Location:** 285 Hegenberger Road (AKA 291 Hegenberger Road)
Oakland, CA
**Project Start Date:** 01/29/2013 **Completion Date:** 02/01/2013
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

**Applicant:** Conestoga-Rovers and Associates - Nathan Allen **Phone:** 916-889-8900 x129
10969 Trade Center Drive Suite 107, Rancho Cordova, CA 95670
**Property Owner:** Anabi Real Estate Development LLC - Area Manager - Mojgan Anvari **Phone:** 510-224-6922
1040 North Benson Avenue, Upland, CA 91786
**Client:** ** same as Property Owner **
**Contact:** Nathan Allen **Phone:** 916-889-8900 x129 **Cell:** 916-919-0216

**Total Due:** $5955.00
**Receipt Number: WR2013-0002** **Total Amount Paid:** $5955.00
**Payer Name : Nathan Allen** Paid By: VISA **PAID IN FULL**

**Works Requesting Permits:**

Well Destruction-Monitoring - 15 Wells
Driller: Penecore Drilling - Lic #: 906899 - Method: hstem **Work Total: $5955.00**

**Specifications**

| Permit # | Issued Date | Expire Date | Owner Well Id | Hole Diam. | Casing Diam. | Seal Depth | Max. Depth | State Well # | Orig. Permit # | DWR # |
|---|---|---|---|---|---|---|---|---|---|---|
| W2013-0004 | 01/03/2013 | 04/29/2013 | MW-1 | 10.00 in. | 4.00 in. | 4.00 ft | 10.00 ft | 2S/3W28C1 | 91632 | Logs Only |
| W2013-0005 | 01/03/2013 | 04/29/2013 | MW-10 | 10.00 in. | 4.00 in. | 4.00 ft | 10.00 ft | 2S/3W28C5 | 91632 | Logs Only |
| W2013-0006 | 01/03/2013 | 04/29/2013 | MW-2 | 10.00 in. | 4.00 in. | 4.00 ft | 10.00 ft | 2S/3W28C2 | 91632 | Logs Only |
| W2013-0007 | 01/03/2013 | 04/29/2013 | MW-3 | 10.00 in. | 4.00 in. | 4.00 ft | 10.00 ft | 2S/3W28C3 | 91632 | Logs Only |
| W2013-0008 | 01/03/2013 | 04/29/2013 | MW-5 | 10.00 in. | 4.00 in. | 4.00 ft | 10.00 ft | 2S/3W28C | No Records | No Records |
| W2013-0009 | 01/03/2013 | 04/29/2013 | MW-6 | 10.00 in. | 4.00 in. | 4.00 ft | 10.00 ft | 2S/3W28C | No Records | No Records |
| W2013-0010 | 01/03/2013 | 04/29/2013 | MW-8 | 10.00 in. | 4.00 in. | 4.00 ft | 10.00 ft | 2S/3W28C | No Records | No Records |
| W2013-0011 | 01/03/2013 | 04/29/2013 | MW-9 | 10.00 in. | 4.00 in. | 4.00 ft | 10.00 ft | 2S/3W28C4 | 91632 | Logs Only |
| W2013-0012 | 01/03/2013 | 04/29/2013 | VEW-1 | 10.00 in. | 4.00 in. | 3.50 ft | 6.50 ft | 2S/3W28C | 91632 | 328829 |
| W2013-0013 | 01/03/2013 | 04/29/2013 | VEW-2 | 10.00 in. | 2.00 in. | 3.50 ft | 8.50 ft | 2S/3W28C | 91632 | 328829 |
| W2013-0014 | 01/03/2013 | 04/29/2013 | VEW-3 | 10.00 in. | 2.00 in. | 3.50 ft | 8.50 ft | 2S/3W28C | 91632 | 328829 |
| W2013-0015 | 01/03/2013 | 04/29/2013 | VEW-4 | 10.00 in. | 2.00 in. | 3.50 ft | 9.00 ft | 2S/3W28C | 91632 | 328829 |

# Alameda County Public Works Agency - Water Resources Well Permit

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| W2013-0016 | 01/03/2013 | 04/29/2013 | VEW-5/AS-1 | 10.00 in. | 4.00 in. | 2.00 ft | 15.00 ft | 2S/3W28C | No Records | No Records |
| W2013-0017 | 01/03/2013 | 04/29/2013 | VEW-6/AS-2 | 10.00 in. | 4.00 in. | 2.00 ft | 15.00 ft | 2S/3W28C | No Records | No Records |
| W2013-0018 | 01/03/2013 | 04/29/2013 | VEW-7/AS-3 | 10.00 in. | 4.00 in. | 2.00 ft | 15.00 ft | 2S/3W28C | No Records | No Records |

**Specific Work Permit Conditions**

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

8. Remove the Christy box or similar structure.

Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

10. VEW-5, 6, 7 Coaxial Wells. Remove 1 inch case, then pressure grout 4 inch well. If we cannot remove the 1 inch case, overdrill the entire well.

# Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 01/03/2013 By jamesy**

**Permit Numbers: W2013-0001 to W2013-0003**
**Permits Valid from 01/29/2013 to 02/01/2013**

**Application Id:** 1356025125378 **City of Project Site:** Oakland
**Site Location:** The Median Strip of Hegenberger Road, Across from the Shell Station at 291 Hegenberger Road. APN 042-4425-018-02
**Project Start Date:** 01/29/2013 **Completion Date:** 02/01/2013
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

**Applicant:** Conestoga-Rovers and Associates - Nathan Allen **Phone:** 916-889-8900 x129
10969 Trade Center Drive Suite 107, Rancho Cordova, CA 95670
**Property Owner:** City of Oakland Planning Department **Phone:** 510-238-3443
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612
**Client:** ** same as Property Owner **
**Contact:** Nathan Allen **Phone:** 916-889-8900 x129
**Cell:** 916-919-0216

**Total Due:** $1191.00
**Receipt Number: WR2013-0001** **Total Amount Paid:** $1191.00
**Payer Name : Nathan Allen** Paid By: VISA **PAID IN FULL**

**Works Requesting Permits:**

Well Destruction-Monitoring - 3 Wells
Driller: Penecore Drilling - Lic #: 906899 - Method: hstem **Work Total: $1191.00**

**Specifications**

| Permit # | Issued Date | Expire Date | Owner Well Id | Hole Diam. | Casing Diam. | Seal Depth | Max. Depth | State Well # | Orig. Permit # | DWR # |
|---|---|---|---|---|---|---|---|---|---|---|
| W2013-0001 | 01/03/2013 | 04/29/2013 | MW-11 | 10.00 in. | 4.00 in. | 3.50 ft | 14.00 ft | Logs Only | 93226 | 464315 |
| W2013-0002 | 01/03/2013 | 04/29/2013 | MW-12 | 10.00 in. | 4.00 in. | 4.50 ft | 15.00 ft | Logs Only | 93226 | 464315 |
| W2013-0003 | 01/03/2013 | 04/29/2013 | MW-13 | 10.00 in. | 4.00 in. | 4.50 ft | 15.00 ft | Logs Only | 93226 | 464315 |

**Specific Work Permit Conditions**

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and

mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

8. Remove the Christy box or similar structure. Destroy well by overdrilling the upper 5ft (bgs) & Tremie Grouting with Cement. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Appl# X1300210 Job Site 291 HEGENBERGER RD Parcel# 042 -4425-018-02

Descr Abandon 3 monitoring wells on Hegenberger Rd. Alameda County Permit Issued 01/17/13
docs encl. Call PWA INSPECTION prior to start: 510-238-3651 4th floor
Rescission needed to final permit.
Work Type EXCAVATION-PRIVATE P Non-Metered

USA # Util Co. Job # 240734 Acctg#:
Util Fund #:

| | | Applcnt | Phone# | Lic# | --License Classes-- |
|---|---|---|---|---|---|
| Owner | WATTERS J T & ELIZABETH G TRS | | | | |
| Contractor | CONESTOGA - ROVERS & ASSOCIATE | X | (510)420-0700 | 855376 | A |
| Arch/Engr | SHELL OIL CO. | | | | |
| Agent | PETER SCHAEFER | | (510)420-3319 | | |

Applic Addr 202 VAL DERWIN PARKWAY, STOCKTON, CA, 95206

JOB SITE

$436.05 FEES TO BE PAID AT ISSUANCE

| | |
|---|---|
| $71.00 Applic | $309.00 Permit |
| $.00 Process | $36.10 Rec Mgmt |
| $.00 Gen Plan | $.00 Invstg |
| $.00 Other | $19.95 Tech Enh |

Permit Issued By _____ Date: _____

Inspection Routing:

| Inits | Date | |
|---|---|---|
| | | FLD-CHK/Pre-Con |
| | | Excavation/Anchor Installation |
| | | Sidewalk repair mark-out |
| | | Concrete repair |
| | | Finalled |

ADDRESS:

DIST:

C I T Y O F O A K L A N D
Community & Economic Development Agency
250 Frank H. Ogawa Pl, Oakland CA, 94612
Phone: (510)238-4774 FAX: (510)238-2263

PAYMENT RECEIPT

Application#: OB130083 Payment#: 001

| | |
|---|---|
| APPLICATION FEE | $71.00 |
| OBSTRUCTION PERMIT | $690.00 |
| RECORDS MANAGEMENT FEE ( | $72.30 |
| TECHNOLOGY ENHANCEMENT | $39.95 |
| Subtotal: | $873.25 |

Application#: X1300210 Payment#: 001

| | |
|---|---|
| APPLICATION FEE | $71.00 |
| EXCAVATION PERMIT | $309.00 |
| RECORDS MANAGEMENT FEE | $36.10 |
| TECHNOLOGY ENHANCEMENT FE | $19.95 |
| Subtotal: | $436.05 |

| | |
|---|---|
| Sales Tax: | $.00 |
| ****** TOTAL PAID: | $1,309.30 |
| Check Payment: | $1,309.30 |

Payor: CONESTOGA ROVERS & ASSO
Date: 01/17/13 Time: 08:29:37
By: SYK Register R03 Receipt# 173183
**********
ORIGINAL RECEIPT REQUIRED FOR REFUND
**********

Date: 01/
By: SYK

250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Permit No. X1300210 Parcel #: 042 -4425-018-02 
Project Address: 291 HEGENBERGER RD

Licensed Contractors' Declaration
I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Construction Lending Agency Declaration
I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender_____ Address_____

Workers' Compensation Declaration

I hereby affirm under penalty of perjury one of the following declarations:

[ ] I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

[ ] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER:_____POLICY NO._____

[ ] I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy [ ] WILL [ ] WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.



PRINT NAME _____ Signature [ ] Contractor, or [ ] Agent _____ Date _____

ADDRESS: _____

DIST: _____

250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Appl# OB130083 Job Site 291 HEGENBERGER RD Parcel# 042 -4425-018-02

Divert traffic on Hegenberger Rd per TSD 13-004. No impact on sidewalk or parking. Abandon 3 monitoring wells. Rescission needed to final ENMI96043.

Permit Issued 01/17/13

Nbr of days: 2 Linear feet: 500
Effective: 01/28/13 Expiration: 01/29/13

SHORT TERM NON-METERED

| | | Applcnt | Phone# | Lic# | --License Classes-- |
|---|---|---|---|---|---|
| Owner | WATTERS J T & ELIZABETH G TRS | | | | |
| Contractor | CONESTOGA - ROVERS & ASSOCIATE | X | (510)420-0700 | 855376 | A |
| Arch/Engr | SHELL OIL CO. | | | | |
| Agent | PETER SCHAEFER | | (510)420-3319 | | |

Applic Addr 202 VAL DERWIN PARKWAY, STOCKTON, CA, 95206

$873.25 FEES TO BE PAID AT FILING $.00 FEES TO BE PAID AT ISSUANCE

| | | | |
|---|---|---|---|
| $71.00 | Applic | $690.00 | Permit |
| $.00 | Process | $72.30 | Rec Mgmt |
| $.00 | Gen Plan | $.00 | Invstg |
| $.00 | Other | $39.95 | Tech Enh |

JOB SITE

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

ADDRESS:

Applicant: _____ _____

Issued by: _____ _____

DIST:

CITY OF OAKLAND

Date: 01/17/13 Amt Paid $1,369.30
By: SVK Register 003 Receipt# 173183

# SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

Project Name: _____
Project Number: TSD-13-0004
Reviewed By: B.Chang
Date: 1/14/2013
Permit good from 1/26/2013
to 2/8/2013

1/28/13
1/29/13

ADD NEW SUBSECTION TO READ:
SP 7-10.1.4 Vehicular Traffic

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2006 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits).

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

Standard traffic control devices shall be placed at the construction zone according to the latest edition of the Work Area Traffic Control Handbook or Manual on Uniform Traffic Control Devices (MUTCD), Chapter 6 – "Traffic Controls for Construction and Maintenance Work Zone," or as directed by the Engineer.

All trenches and excavations in any public street or roadway shall be back filled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations unless otherwise permitted by the Engineer.

Each section of work shall be completed or temporarily paved and open to traffic in not more than 5 days after commencing work unless otherwise permitted in writing by the Engineer.

Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

The contractor shall conduct its operation in such a manner as to leave the following traffic lanes unobstructed and in a condition satisfactory for vehicular travel during the Obstruction Period. At all times traffic lanes will be restricted and reopened to travel. Emergency access shall be provided at all times.

| Street Name Limits | Obstruction Period | North Bound | South Bound | East Bound | West Bound |
|---|---|---|---|---|---|
| 291 Hegenberger Rd between Hegenberger Loop and Leet Dr | 9am – 4pm | Lane Closure<br>2-12' Min Lane Open | N/A | N/A | N/A |
| Please coordinate your work schedule with ongoing Bart Rail Extension Project.<br>Contact: Flatiron Construction Engineer, Meaghan Vanderpol (707) 704-6989 | | | | | |

**The Contractor Shall Also include all check item:**

1. ☐ Design a construction traffic control plan and submit (2) copies to the Engineer for approval prior to starting any work.
2. ☒ Replace all signs, pavement markings, and traffic detector loops damaged or removed due to construction within 3 days of completion of work or the final pavement lift.
3. ☒ Provide advance notice to Oakland Police at (510) 777-3333 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs) when a single lane of traffic or less is provided on any street.
4. ☒ Provide 72-hour advance notice to AC Transit at (510) 891-4750 when affecting a bus stop.
5. ☒ For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify the Traffic Management Center 24 hours in advance of any work.
6. ☒ Flagger control is required. Certified Flagger is required.
7. ☐ Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
8. ☒ Pedestrian traffic shall be maintained and guided through the project at all times.
9. ☒ Provide advance notice to Business and Residence within 72-hours.
10. ☒ Allow all traffic movement at intersection.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.

TSD 13-0064

# APPLICATION FOR TRAFFIC CONTROL PLAN

City of Oakland

RECEIVED
PUBLIC WORKS AGENCY
TRAFFIC ENGINEERING
13 JAN 10 PM 4:01

**Public Works Agency**
Transportation Services Division

**Transportation Services Fee: $123/hour**
**(Check or Money Order Only)**

Check the box that apply:
- ☑ **New Application** (Utility, Excavation)
- ☐ **Renewal Application**
- ☐ **New Development w/ Mgmt Plan**
- ☐ **City of Oakland Project**

## Please Read the Following Statements Below:

1. Processing time for a Traffic Control Application is a **minimum of 10 business days**.
2. Traffic Control review is scheduled **only** on **Tuesdays** and **Thursdays from 8:30am thru 11:30am by appointment only**.
3. A scheduled **appointment** by phone or email with a TSD staff member is necessary to discuss any and all traffic control application and plans.
4. Please **call ahead** to confirm that the traffic control application is ready for pickup @ 510-238-3467.
5. Businesses and residences adjacent to the work area must be provided **72 hour advance notice**.
6. **A completed** traffic control application may be faxed to (510) 238-7415.
7. **Incomplete** traffic control applications will not be processed and returned to applicant immediately.
8. The initial approval for a traffic control plan is 1 month, the renewal submittal may be approved up to 3 months.
9. The traffic control provision dates cannot be changed or extended if work has already commenced.
10. After receiving TSD approval of the traffic control application, contractor shall proceed to the Permit Center to obtain an obstruction permit. **"Obstruction**

Contact Person: PETER SCHAEFFER CHG, CEG Phone: (510) 420-3319

Name of Company: CONESTOGA-ROVERS & ASSOC. Fax: (510) 420-9170

Address of Company: 5900 HOLLIS ST, SUITE A, EMERYVILLE, CA 94608

Describe type of work to be performed: Well destruction (3 wells in median)

Location of work: 291 HEGENBERGER RD Between* LEET DR And* HEGENBERGER LOOP

Work date (s): 1/28/2013 ☒ Mon-Fri ☐ Sat-Sun Work Hours: 7:00 to 17:00

## Please Follow these Steps in Order to Complete a Traffic Control Plan:

A. **Drawing Area**: The full width of all streets adjacent to the site MUST be included in the drawing. Include the entire block in which your work is located for every street that is adjacent to your site.

B. **Include Street Names, Direction of Traffic on the Street, and North Arrow**

C. **Show Existing Number of Lanes in all Directions** (with any pavement arrows)

D. **Check the Box(s) that Apply:** All checked items **MUST** be shown on the drawing

- ☒ Lane Closure
- ☒ Use of Median
- ☐ Sidewalk Closure (must provide pedestrian walk way)
- ☐ Street Closures (must provide detour plan)
- ☐ Use Parking Lane

E. **Show All Dimensions** of street widths (curb to curb), lane widths, sidewalk widths, and work area dimension.
**(Note: Traffic Control Application / Plans missing the above information will not be accepted or processed.)**

F. **Show the Name and Locations** of all advanced warning devices, flaggers, delineators, warning and construction signs to be used.

**RENEWAL PROCESS:** Resubmit a completed Traffic Control Application with the old approved plan (with the necessary modifications / changes to the plans).

**FOR HELP** in preparing a traffic control plan, see Temporary Traffic Control Pocket Reference Guide 2007, Work Area Traffic Control Handbook 2006, or the California Manual on Uniform Traffic Control (MUTCD) 2003, Chapter 6.
http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm
For City website: http://www.oaklandpw.com/Page548.aspx

* Name the streets that are the boundaries of your work area.

# CITY OF OAKLAND

Public Works Agency • 250 Frank H. Ogawa Plaza • Suite 4344 • Oakland, California 94612-2033
Transportation Services Division
Office (510) 238-3466
FAX (510) 238-7415
TDD (510) 839-6451

## Traffic Engineering Services Analysis Fee Invoice

Date: January 14, 2013 **TSD Invoice # : 13-0004**

To: Peter Schaefer
Company: Conestoga Rovers and Associates
Address: 5900 Hollis St, Suite A, Emeryville CA 94608
Phone: 510-420-3319

Created/Received By: Bert Chang

| Location | Description of Work | Project Name / Permit # | # of Hours * |
|---|---|---|---|
| 291 Hegenberger Rd | Lane Closure for Work in Median | | 1.5 |
| | | | |
| | | | |
| | | | |

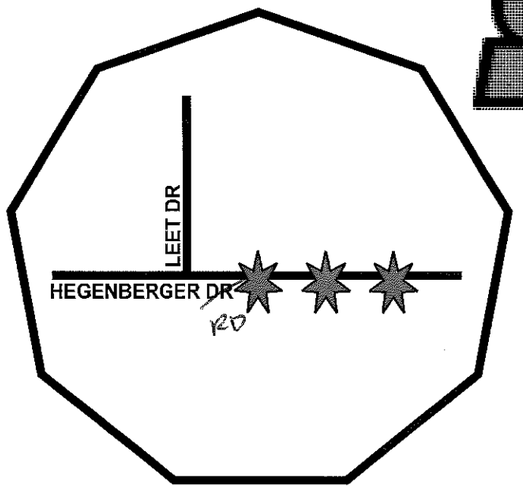
| | |
|---|---|
| **Total Hours** | **1.5** |
| **TSD Service Rate** | **$ 123.00** |
| **Total Fee** | **$ 184.50** |

* - minimum 1 hour service

| FOR CITY USE ONLY | |
|---|---|
| Cost Center No. | W045 |
| Organization No. | 30264 |
| Account No. | 45119 |
| Fund No. | 1750 |

Cc: Rosalie

# STATEWIDE™
## TRAFFIC SAFETY & SIGNS




# TRAFFIC CONTROL PLANS
# CRA
## 285 HEGENBERGER ~~DR~~ RD

**CONTRACTOR:**
**CRA**
**CONTACT:**
**PETER SCHAEFER 510-420-3319**

## PROJECT LOCATION

THIS PROJECT IS LOCATED ON HEGENBERGER DR NEAR LEET DR IN OAKLAND, CA. THIS PLAN WILL BE USED TO WORK IN THE STREET TO DESTROY THREE WELLS. WORK HOURS WILL BE 9AM TO 3PM MONDAY THRU FRIDAY. CONTRACTOR WILL COMPLY WITH THE CITY OF OAKLAND STANDARD SPECIFICATIONS.

CONTRACTOR WILL COMPLY WITH THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS (ARTICLE 10), CONTRACT SPECIAL SPECIFICATIONS, TRAFFIC CONTROL PLAN SUPPLEMENT AND CALTRANS SPECIFICATIONS, M.U.T.C.D 2012 EDITION. THIS PLAN MAY BE MODIFIED BY THE ENGINEER AT ANY TIME TO ELIMINATE OR AVOID TRAFFIC CONDITIONS THAT ARE HAZARDOUS TO THE SAFETY OF THE PUBLIC.

CONTINUAL MONITORING AND MAINTENANCE OF THE TRAFFIC CONTROL ZONE, EMERGENCY ACCESS, ACCOMMODATION FOR PEDESTRIANS, BICYCLE TRAFFIC AND THE DISABLED, PROPER TRAINING OF FLAGGERS, PROPER DEVICES AND DEVICE USAGE AND APPROPRIATE NOTIFICATIONS SHALL BE USED ON THIS PROJECT.

CONSTRUCTION ZONE TRAFFIC CONTROL
STATEWIDE TRAFFIC SAFETY & SIGNS
LICENSE # 975518
Adam Bennett
916-452-4855
STATE OF CALIFORNIA

## NOTES:

1. SIGN SPACING, CONE SPACING AND TAPER LENGTHS REFER TO TABLE.

2. THE LOCATION OF THE SIGNS AS SHOWN ON THE PLANS ARE GUIDELINES AND ACTUAL LOCATIONS WILL DEPEND UPON ALIGNMENT, GRADE, LOCATION OF STREET INTERSECTIONS, POSTED SPEED LIMITS, AND 85TH % TILE.

3. ALL HIGH LEVEL WARNING DEVICES WILL BE EQUIPPED WITH FLAGS FOR DAY CLOSURES.

4. IF THE WORK AREA ENCROACHES UPON A SIDEWALK OR WALKWAY, "SIDEWALK CLOSED, USE OTHER SIDE" SIGNS WILL BE USED TO GUIDE PEDESTRIANS TO CROSS TO ANOTHER MARKER CROSSWALK. PEDESTRIANS MAY NOT BE GUIDED ONTO PRIVATE PROPERTY OR THE TRAVELED WAY.

5. TRAFFIC LANES SHALL BE A MINIMUM OF TEN FEET IN WIDTH MIN CLR.

6. WHENEVER FEASIBLE AN ADDITIONAL 5 FEET SHALL BE PROVIDED FOR A BICYCLE LANE. IF IT IS NOT FEASIBLE TO PROVIDE A SEPARATE BICYCLE LANE, THE CONTRACTOR SHALL POST SIGNAGE BEFORE THE CONSTRUCTION AREA STATING: " SHARE the Road with Bicyclists". WHEN THE LANE IS SHARED, THE CONTRACTOR SHALL POST SIGNAGE FOR A MAXIMUM SPEED LIMIT OF 25 MPH IN THE SHARED LANE.

7. MONITOR AND MAINTAIN TRAFFIC CONTROL ZONE AT ALL TIMES.

8. MAINTAIN ACCESS FOR EMERGENCY VEHICLES.

9. ASSURE SAFE PASSAGE OF PEDESTRIANS & BICYCLISTS INCLUDING PERSONS WITH DISABILITIES IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA), TITLE II, PARAGRAPH 35.130.

10. ALL DEVICES TO CONFORM TO CALTRAN'S STANDARDS.

11. DEVICE PLACEMENT TO CONFORM TO CALTRAN'S GUIDELINES.

12. FLAGGERS TO BE TRAINED PER TITLE 8 CCR.

NOTE:
1.CONTRACTOR WILL ASSIST ALL ADA, PED FOOT TRAFFIC AS NEEDED THROUGH WORK AREA. (MIN 5')

2.MAINTAIN ACCESS TO BUSINESS & RESIDENTS AT ALL TIMES.

3.NOTIFY AND COORDINATE WITH REGIONAL TRANSIT RELOCATION, CLOSURE OR MAINTAIN ACCESS TO BUS STOPS.

4.NO PARKING SIGNS WILL BE PLACED 24HRSBEFORE WORK BEGINS.

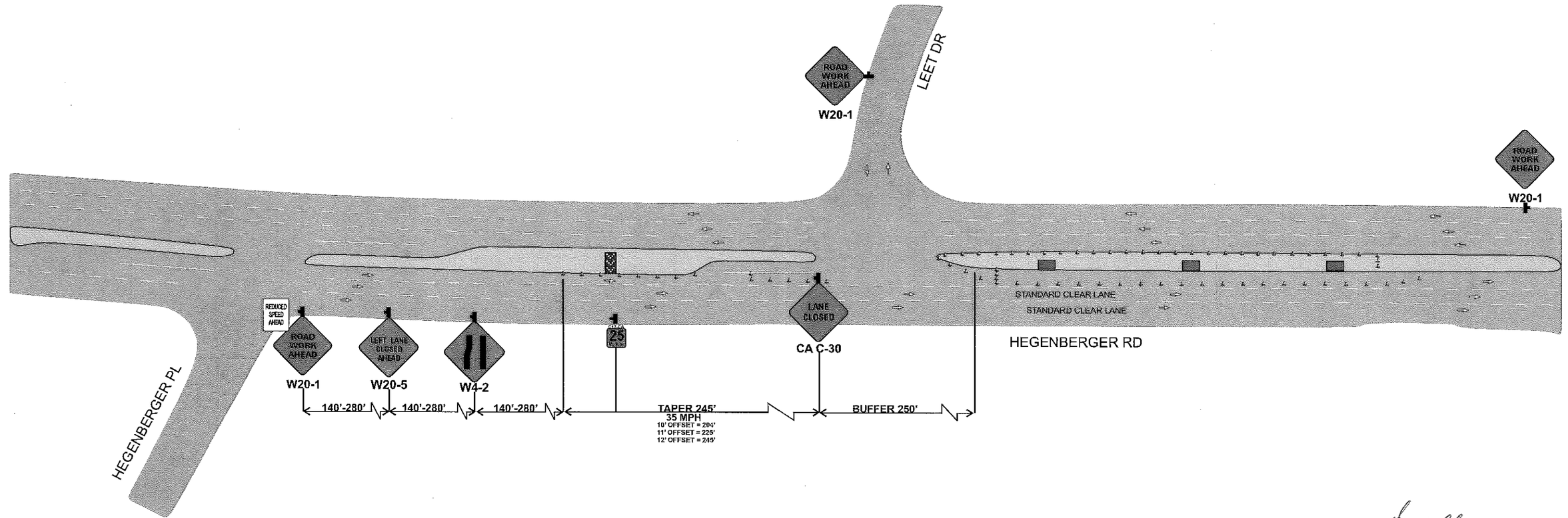
5.SIGNS SHALL BE 48X48".

6.SIDEWALKS WILL REMAIN OPEN AT ALL TIMES.

**BOTH ARE BASED ON.**
**1.) 85TH % TILE OR IF NOT AVAILABLE, THEN USE**
**2.) POSTED SPEED LIMIT (PSL)**
**L = TAPER LENGTH**
**S = SPEED**
**W = WIDTH (OFFST FROM PATH OF TRAVEL**

***CONES SHOWN ON THIS PLAN ARE ILLUSTRATION PURPOSE ONLY. EXACT NUMBER OF CONES REQUIRED SHALL BE BASED ON CONE SPACING, TAPER LENGTHS, ACTUAL FIELD, ACTUAL FIELD CONDITIONS, ECT....**

| POSTED SPEED | FORMULAS | BUFFER SPACE | MINNIMUM TAPER LENGTH | | | | | | | | | MAX CONE SPACING | SIGN SPACING |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10' OFFSET | | | 11' OFFSET | | | 12' OFFSET | | | | |
| | | | L MERGE | 1/2 L SHIFT | 1/3 L SHOULDER | L MERGE | 1/2 L SHIFT | 1/3 L SHOULDER | L MERGE | 1/2 L SHIFT | 1/3 L SHOULDER | | |
| 25 | | 155' | 104' | 52' | 35' | 115' | 57' | 38' | 125' | 63' | 42' | 25' | 100-200' |
| 30 | L= | 200' | 150' | 75' | 50' | 165' | 83' | 55' | 180' | 90' | 60' | 30' | 120-240' |
| 35 | (WS)(WS) | 250' | 204' | 102' | 68' | 225' | 112' | 75' | 245' | 123' | 82' | 35' | 140-280' |
| 40 | 60 | 305' | 267' | 133' | 89' | 293' | 147' | 98' | 320' | 160' | 107' | 40' | 160-320' |
| 45 | | 360' | 450' | 225' | 150' | 495' | 248' | 165' | 540' | 270' | 180' | 45' | 350-500' |
| 50 | | 425' | 50' | 250' | 167' | 550' | 275' | 183' | 600' | 300' | 200' | 50' | 525' MIN |
| 55 | L= (WS) | 495' | 550' | 275' | 183' | 605' | 303' | 202' | 660' | 330' | 220' | 50' | 550' MIN |
| 60 | | 570' | 600' | 300' | 200' | 660' | 330' | 220' | 720' | 360' | 240' | 50' | 575' MIN |
| 65 | | 645' | 650' | 325' | 217' | 715' | 358' | 780' | 780' | 390' | 260' | 50' | 600' MIN |
| 70 | | 730' | 700' | 350' | 233' | 770' | 385' | 840' | 840' | 420' | 280' | 50' | 650' MIN |




APPROVED: Bert Chang 1/15/2013
Transportation Services Division
CITY OF OAKLAND TSD 13-0004

CONSTRUCTION ZONE TRAFFIC CONTROL
STATEWIDE TRAFFIC SAFETY & SIGNS
LICENSE # 975518
Adam Bennett
(916) 452-4855
STATE OF CALIFORNIA

| POSTED SPEED: 35 MPH | TAPER LENGTH: 245' | CONE SPACING: 35' | SIGN SPACING: 140-280' | BUFFER ZONE: 250' |
|---|---|---|---|---|

| | | | |
|---|---|---|---|
| WORK ZONE | | LIGHT TOWER | |
| CERTIFIED FLAGGER | | BARRICADE | |
| REFLECTIVE CONE | | SAND FILLED CRASH CUSHION | |
| TEMPORARY C.A.S. | | ABSORB 350 ELEMENT | |
| ARROW BOARD | | WATER WALL/WATER FILLED K RAIL | |
| CHANGEABLE MESSAGE SIGN | | 20' CONCRETE K RAIL | |

| | |
|---|---|
| Owner: CITY OF OAKLAND | |
| Project Name: JOB# 240734 | |
| Prime Contractor: CRA | |
| Phone Number: 510-420-3319 | Date Prepared: 1/2/2013 |
| Prepared By: STATEWIDE TRAFFIC SAFETY & SIGNS | Project Sheet #: # 2061 |

12/14/2012

# Site Plan

## EXPLANATION

- MW-1 — Well location, proposed for destruction
- VEW-5 — Abandoned well location
- SB-1 — Soil boring location
- D-1 — Soil sample location
- P-1-5' — Soil sample location
- P-7-6.5' — Over-excavation soil sample location
- Electrical line (E)
- Gas line (G)
- Storm drain line (STM)
- Sanitary sewer line (SAN)
- Manhole (MH)
- Utility vault

Former Remediation System Location
MW-2
VEW-5
Car Wash
MW-6
MW-9
Former USTs
VEW-1
VEW-4
Planter
MW-1
VEW-5/ AS-1
MW-5
USTs
SB-3
MW-12
HEGENBERGER ROAD
42" SAN Interceptor
Median
Truck Storage Area (City of Oakland property)
D-2-5'
P-6-6.5'
P-5-5'
VEW-2
D-2
P-11-6.5'
P-2-5'
P-4-5'
D-4-5'
MW-7
Canopy
P-7-6.5'
Dispenser Islands
P-10-6.5'
Station Building
VEW-6/ AS-2
D-1-5'
P-3-5'
P-9-6.5'
P-1-5'
D-3-5'
D-1
P-8-6.5'
W/O UST
Over-Excavation Areas (7/04)
VEW-3
SB-2
MW-13
MW-3
VEW-7/ AS-3
MW-10
Planter
Shell Station
285 Hegenberger
12" SAN
8" SAN
15" SAN
MW-8
SB-1
MW-11
Planter
MW-4
MH (Paved-Over)
48" STM
LEET DRIVE
Bike Path
8" Treated Pressure SAN
66" STM
San Leandro Channel
STM Outfall
HEGENBERGER ROAD OVERPASS
SAN Pump Station

N

0 25 50 100
Scale (ft)

APPROVED: Dent Clay 1/15/2013
Transportation Services Division
CITY OF OAKLAND TSD 12-0004

FIGURE
**2**

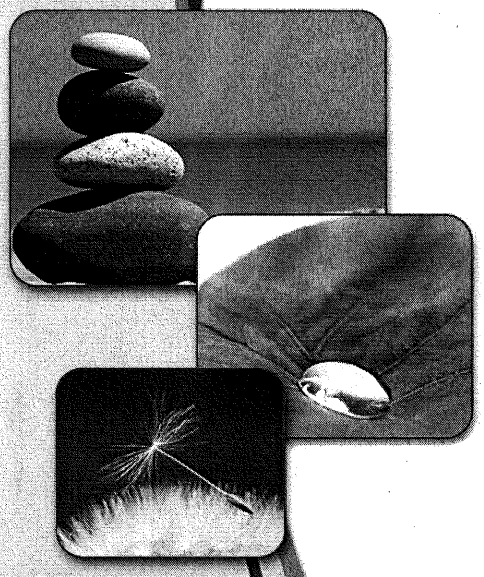
**Shell-branded Service Station**
285 Hegenberger Road
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell\6-chars\24207--\240734-Oakland 285 Hegenberger\240734-FIGURES\240734 SITE PLAN.DWG

# APPENDIX B

# TESTAMERICA LABORATORIES, INC. – 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: 440-37432-1
Client Project/Site: 285 Hegenberger Rd., Oakland

For:
Conestoga-Rovers & Associates, Inc.
5900 Hollis Street
Suite A
Emeryville, California 94608

Attn: Peter Schaefer

Philip Sanelle

*Authorized for release by:*
*2/20/2013 3:36:38 PM*

Philip Sanelle
Project Manager I
philip.sanelle@testamericainc.com

# Table of Contents

# Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 285 Hegenberger Rd., Oakland

TestAmerica Job ID: 440-37432-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-37432-4 | CRA-A | Solid | 01/31/13 12:00 | 02/07/13 09:50 |

## Job ID: 440-37432-1

**Laboratory: TestAmerica Irvine**

**Narrative**

**Job Narrative**
**440-37432-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 2/7/2013 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7° C.

**GC/MS VOA**
No analytical or quality issues were noted.

**GC Semi VOA**
No analytical or quality issues were noted.

**Metals**
Method(s) 6010B: The following sample(s) was diluted due to the nature of the sample matrix: 125976_PNT_S5 (440-37615-3). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Ag,As,Ba,Cd,Co,Mo,Ni,Pb,Sb,Se,Tl,Zn for batch 84799 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 84629 was outside control limits. The associated laboratory control sample / laboratory control (LCS) precision met acceptance criteria.

Method(s) 939-M: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 440-86400. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 939-M: The following sample(s) was prepared and/or analyzed outside the method defined holding time because the request for the test was made after the holding time for the sample expired: CRA-A (440-37432-4).

No other analytical or quality issues were noted.

**Organic Prep**
No analytical or quality issues were noted.

**VOA Prep**
No analytical or quality issues were noted.

## Client Sample ID: CRA-A

Lab Sample ID: 440-37432-4

Date Collected: 01/31/13 12:00
Date Received: 02/07/13 09:50

Matrix: Solid

### Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | 0.33 | | 0.099 | | mg/Kg | | | 02/13/13 22:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *92* | | *80 - 125* | | *02/13/13 22:44* | *1* |
| *Dibromofluoromethane (Surr)* | *83* | | *80 - 125* | | *02/14/13 14:08* | *1* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *80 - 120* | | *02/13/13 22:44* | *1* |
| *4-Bromofluorobenzene (Surr)* | *111* | | *80 - 120* | | *02/14/13 14:08* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *80 - 120* | | *02/13/13 22:44* | *1* |
| *Toluene-d8 (Surr)* | *112* | | *80 - 120* | | *02/14/13 14:08* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00099 | | mg/Kg | | | 02/13/13 22:44 | 1 |
| Ethylbenzene | ND | | 0.00099 | | mg/Kg | | | 02/13/13 22:44 | 1 |
| Toluene | ND | | 0.00099 | | mg/Kg | | | 02/13/13 22:44 | 1 |
| Xylenes, Total | ND | | 0.0020 | | mg/Kg | | | 02/13/13 22:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *80 - 120* | | *02/13/13 22:44* | *1* |
| *Dibromofluoromethane (Surr)* | *92* | | *80 - 125* | | *02/13/13 22:44* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *80 - 120* | | *02/13/13 22:44* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| DRO (C10-C28) | 12 | | 5.0 | | mg/Kg | | 02/12/13 07:31 | 02/12/13 19:28 | 1 |
| ORO (C29-C40) | 20 | | 5.0 | | mg/Kg | | 02/12/13 07:31 | 02/12/13 19:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *96* | | *40 - 140* | *02/12/13 07:31* | *02/12/13 19:28* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 10 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Arsenic** | **4.4** | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Barium** | **160** | | 1.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| Beryllium | ND | | 0.50 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Cadmium** | **0.92** | | 0.50 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Chromium** | **23** | | 1.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Cobalt** | **6.2** | | 1.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Copper** | **22** | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Lead** | **18** | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| Molybdenum | ND | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Nickel** | **24** | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| Selenium | ND | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| Thallium | ND | | 10 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Vanadium** | **32** | | 1.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| **Zinc** | **200** | | 5.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |
| Silver | ND | | 1.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 19:07 | 5 |

**Client Sample ID: CRA-A**
Date Collected: 01/31/13 12:00
Date Received: 02/07/13 09:50

**Lab Sample ID: 440-37432-4**
Matrix: Solid

**Method: 7471A - Mercury (CVAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.085 | | 0.020 | | mg/Kg | | 02/14/13 10:15 | 02/14/13 14:47 | 1 |

**Method: 939-M - Organic Lead (GFAA)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Organo-Lead | ND | H | 0.025 | | mg/Kg | | 02/19/13 23:36 | 02/20/13 12:16 | 1 |

**Client Sample ID: CRA-A**
**Date Collected: 01/31/13 12:00**
**Date Received: 02/07/13 09:50**

**Lab Sample ID: 440-37432-4**
**Matrix: Solid**

| 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 | 5.04 g | 10 mL | 84941 | 02/13/13 22:44 | BD | TAL IRV |
| Total/NA | Analysis | 8260B/CA_LUFTMS | | 1 | 5.04 g | 10 mL | 84942 | 02/13/13 22:44 | BD | TAL IRV |
| Total/NA | Analysis | 8260B/CA_LUFTMS | | 1 | 5.02 g | 10 mL | 85088 | 02/14/13 14:08 | YK | TAL IRV |
| Total/NA | Prep | CA LUFT | | | 29.99 g | 1 mL | 84480 | 02/12/13 07:31 | HN | TAL IRV |
| Total/NA | Analysis | 8015B | | 1 | | | 84267 | 02/12/13 19:28 | JR | TAL IRV |
| Total/NA | Prep | 3050B | | | 2.01 g | 50 mL | 84799 | 02/13/13 08:35 | DT | TAL IRV |
| Total/NA | Analysis | 6010B | | 5 | | | 85073 | 02/13/13 19:07 | VS | TAL IRV |
| Total/NA | Prep | 7471A | | | 0.49 g | 50 mL | 84958 | 02/14/13 10:15 | MM | TAL IRV |
| Total/NA | Analysis | 7471A | | 1 | | | 85471 | 02/14/13 14:47 | DB | TAL IRV |
| Total/NA | Prep | 939M | | | 50.03 mL | 100 mL | 86400 | 02/19/13 23:36 | CH | TAL IRV |
| Total/NA | Analysis | 939-M | | 1 | | | 86591 | 02/20/13 12:16 | DB | TAL IRV |

**Laboratory References:**

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

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

**Lab Sample ID: MB 440-84941/5**
**Matrix: Solid**
**Analysis Batch: 84941**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.0010 | | mg/Kg | | | 02/13/13 19:09 | 1 |
| Ethylbenzene | ND | | 0.0010 | | mg/Kg | | | 02/13/13 19:09 | 1 |
| Toluene | ND | | 0.0010 | | mg/Kg | | | 02/13/13 19:09 | 1 |
| Xylenes, Total | ND | | 0.0020 | | mg/Kg | | | 02/13/13 19:09 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* | | *02/13/13 19:09* | *1* |
| *Dibromofluoromethane (Surr)* | *105* | | *80 - 125* | | *02/13/13 19:09* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 120* | | *02/13/13 19:09* | *1* |

**Lab Sample ID: LCS 440-84941/6**
**Matrix: Solid**
**Analysis Batch: 84941**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.0478 | | mg/Kg | | 96 | 65 - 120 |
| Ethylbenzene | 0.0500 | 0.0478 | | mg/Kg | | 96 | 70 - 125 |
| m,p-Xylene | 0.100 | 0.0925 | | mg/Kg | | 92 | 70 - 125 |
| o-Xylene | 0.0500 | 0.0495 | | mg/Kg | | 99 | 70 - 125 |
| Toluene | 0.0500 | 0.0449 | | mg/Kg | | 90 | 70 - 125 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *109* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *106* | | *80 - 125* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 120* |

**Lab Sample ID: 440-37459-A-1 MS**
**Matrix: Solid**
**Analysis Batch: 84941**

**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 | | 0.0497 | 0.0538 | | mg/Kg | | 108 | 65 - 130 |
| Ethylbenzene | ND | | 0.0497 | 0.0535 | | mg/Kg | | 108 | 70 - 135 |
| m,p-Xylene | ND | | 0.0994 | 0.105 | | mg/Kg | | 105 | 70 - 130 |
| o-Xylene | ND | | 0.0497 | 0.0555 | | mg/Kg | | 112 | 65 - 130 |
| Toluene | ND | | 0.0497 | 0.0549 | | mg/Kg | | 110 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *103* | | *80 - 125* |
| *Toluene-d8 (Surr)* | *115* | | *80 - 120* |

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

**Lab Sample ID: 440-37459-A-1 MSD**
**Matrix: Solid**
**Analysis Batch: 84941**

**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 | | 0.0498 | 0.0494 | | mg/Kg | | 99 | 65 - 130 | 9 | 20 |
| Ethylbenzene | ND | | 0.0498 | 0.0506 | | mg/Kg | | 102 | 70 - 135 | 6 | 25 |
| m,p-Xylene | ND | | 0.0996 | 0.0930 | | mg/Kg | | 93 | 70 - 130 | 12 | 25 |
| o-Xylene | ND | | 0.0498 | 0.0472 | | mg/Kg | | 95 | 65 - 130 | 16 | 25 |
| Toluene | ND | | 0.0498 | 0.0482 | | mg/Kg | | 97 | 70 - 130 | 13 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *108* | | *80 - 125* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 120* |

## Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 440-84942/5**
**Matrix: Solid**
**Analysis Batch: 84942**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | ND | | 0.10 | | mg/Kg | | | 02/13/13 19:09 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *105* | | *80 - 125* | | *02/13/13 19:09* | *1* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* | | *02/13/13 19:09* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 120* | | *02/13/13 19:09* | *1* |

**Lab Sample ID: LCS 440-84942/7**
**Matrix: Solid**
**Analysis Batch: 84942**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | 1.00 | 1.19 | | mg/Kg | | 119 | 60 - 135 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *111* | | *80 - 125* |
| *4-Bromofluorobenzene (Surr)* | *118* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 120* |

**Lab Sample ID: 440-37459-A-1 MS**
**Matrix: Solid**
**Analysis Batch: 84942**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | 0.0387 | | 3.43 | 3.61 | | mg/Kg | | 105 | 55 - 140 |

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

**Lab Sample ID: 440-37459-A-1 MS**
**Matrix: Solid**
**Analysis Batch: 84942**

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

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *103* | | *80 - 125* |
| *4-Bromofluorobenzene (Surr)* | *113* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *115* | | *80 - 120* |

**Lab Sample ID: 440-37459-A-1 MSD**
**Matrix: Solid**
**Analysis Batch: 84942**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | 0.0387 | | 3.44 | 3.46 | | mg/Kg | | 101 | 55 - 140 | 4 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *108* | | *80 - 125* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 120* |

**Lab Sample ID: MB 440-85088/7**
**Matrix: Solid**
**Analysis Batch: 85088**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | ND | | 0.10 | | mg/Kg | | | 02/14/13 09:57 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *98* | | *80 - 125* | | *02/14/13 09:57* | *1* |
| *4-Bromofluorobenzene (Surr)* | *110* | | *80 - 120* | | *02/14/13 09:57* | *1* |
| *Toluene-d8 (Surr)* | *113* | | *80 - 120* | | *02/14/13 09:57* | *1* |

**Lab Sample ID: LCS 440-85088/6**
**Matrix: Solid**
**Analysis Batch: 85088**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | 1.00 | 0.902 | | mg/Kg | | 90 | 60 - 135 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *110* | | *80 - 125* |
| *4-Bromofluorobenzene (Surr)* | *112* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *114* | | *80 - 120* |

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

**Lab Sample ID: 440-37998-A-2 MS**
**Matrix: Solid**
**Analysis Batch: 85088**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | 1.1 | | 3.45 | 3.56 | | mg/Kg | | 73 | 55 - 140 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *98* | | *80 - 125* |
| *4-Bromofluorobenzene (Surr)* | *107* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *110* | | *80 - 120* |

**Lab Sample ID: 440-37998-A-2 MSD**
**Matrix: Solid**
**Analysis Batch: 85088**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Fuel Hydrocarbons (C4-C12) | 1.1 | | 3.44 | 3.68 | | mg/Kg | | 77 | 55 - 140 | 3 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 125* |
| *4-Bromofluorobenzene (Surr)* | *105* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *110* | | *80 - 120* |

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

**Lab Sample ID: MB 440-84480/1-A**
**Matrix: Solid**
**Analysis Batch: 84267**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 84480**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| DRO (C10-C28) | ND | | 5.0 | | mg/Kg | | 02/12/13 07:31 | 02/12/13 14:53 | 1 |
| ORO (C29-C40) | ND | | 5.0 | | mg/Kg | | 02/12/13 07:31 | 02/12/13 14:53 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *n-Octacosane* | *86* | | *40 - 140* | *02/12/13 07:31* | *02/12/13 14:53* | *1* |

**Lab Sample ID: LCS 440-84480/2-A**
**Matrix: Solid**
**Analysis Batch: 84267**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 84480**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| DRO (C10-C28) | 33.3 | 26.5 | | mg/Kg | | 80 | 45 - 115 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *n-Octacosane* | *87* | | *40 - 140* |

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

**Lab Sample ID: 440-37109-E-6-A MS**
**Matrix: Solid**
**Analysis Batch: 84267**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 84480**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| DRO (C10-C28) | ND | | 33.3 | 26.8 | | mg/Kg | | 81 | 40 - 120 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *n-Octacosane* | *92* | | *40 - 140* |

**Lab Sample ID: 440-37109-E-6-B MSD**
**Matrix: Solid**
**Analysis Batch: 84267**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 84480**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DRO (C10-C28) | ND | | 33.3 | 29.0 | | mg/Kg | | 87 | 40 - 120 | 8 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *n-Octacosane* | *101* | | *40 - 140* |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-84799/1-A ^5**
**Matrix: Solid**
**Analysis Batch: 85073**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 84799**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 9.9 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Arsenic | ND | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Barium | ND | | 0.99 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Beryllium | ND | | 0.49 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Cadmium | ND | | 0.49 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Chromium | ND | | 0.99 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Cobalt | ND | | 0.99 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Copper | ND | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Lead | ND | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Molybdenum | ND | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Nickel | ND | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Selenium | ND | | 2.0 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Thallium | ND | | 9.9 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Vanadium | ND | | 0.99 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Zinc | ND | | 4.9 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |
| Silver | ND | | 0.99 | | mg/Kg | | 02/13/13 08:35 | 02/13/13 18:17 | 5 |

**Lab Sample ID: LCS 440-84799/2-A ^5**
**Matrix: Solid**
**Analysis Batch: 85073**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 84799**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 49.5 | 47.8 | | mg/Kg | | 97 | 80 - 120 |
| Arsenic | 49.5 | 46.3 | | mg/Kg | | 94 | 80 - 120 |
| Barium | 49.5 | 44.9 | | mg/Kg | | 91 | 80 - 120 |

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

**Lab Sample ID: LCS 440-84799/2-A ^5**
**Matrix: Solid**
**Analysis Batch: 85073**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 84799**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Beryllium | 49.5 | 46.5 | | mg/Kg | | 94 | 80 - 120 |
| Cadmium | 49.5 | 45.3 | | mg/Kg | | 91 | 80 - 120 |
| Chromium | 49.5 | 47.5 | | mg/Kg | | 96 | 80 - 120 |
| Cobalt | 49.5 | 45.6 | | mg/Kg | | 92 | 80 - 120 |
| Copper | 49.5 | 46.2 | | mg/Kg | | 93 | 80 - 120 |
| Lead | 49.5 | 48.0 | | mg/Kg | | 97 | 80 - 120 |
| Molybdenum | 49.5 | 44.1 | | mg/Kg | | 89 | 80 - 120 |
| Nickel | 49.5 | 47.7 | | mg/Kg | | 96 | 80 - 120 |
| Selenium | 49.5 | 44.7 | | mg/Kg | | 90 | 80 - 120 |
| Thallium | 49.5 | 46.3 | | mg/Kg | | 93 | 80 - 120 |
| Vanadium | 49.5 | 47.2 | | mg/Kg | | 95 | 80 - 120 |
| Zinc | 49.5 | 42.8 | | mg/Kg | | 86 | 80 - 120 |
| Silver | 24.8 | 22.9 | | mg/Kg | | 92 | 80 - 120 |

**Lab Sample ID: 440-37615-A-3-D MS ^10**
**Matrix: Solid**
**Analysis Batch: 85073**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 84799**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 49.0 | ND | F | mg/Kg | | 37 | 75 - 125 |
| Arsenic | ND | | 49.0 | 35.8 | F | mg/Kg | | 73 | 75 - 125 |
| Barium | 97 | | 49.0 | 109 | F | mg/Kg | | 24 | 75 - 125 |
| Beryllium | ND | | 49.0 | 39.4 | | mg/Kg | | 80 | 75 - 125 |
| Cadmium | ND | | 49.0 | 35.6 | F | mg/Kg | | 73 | 75 - 125 |
| Chromium | 370 | | 49.0 | 207 | 4 | mg/Kg | | -343 | 75 - 125 |
| Cobalt | 14 | | 49.0 | 40.6 | F | mg/Kg | | 55 | 75 - 125 |
| Copper | ND | | 49.0 | 41.7 | | mg/Kg | | 79 | 75 - 125 |
| Lead | 4.1 | | 49.0 | 40.1 | F | mg/Kg | | 73 | 75 - 125 |
| Molybdenum | ND | | 49.0 | 33.9 | F | mg/Kg | | 69 | 75 - 125 |
| Nickel | 5.3 | | 49.0 | 40.8 | F | mg/Kg | | 73 | 75 - 125 |
| Selenium | 7.6 | | 49.0 | 42.6 | F | mg/Kg | | 71 | 75 - 125 |
| Thallium | ND | | 49.0 | 38.2 | F | mg/Kg | | 74 | 75 - 125 |
| Vanadium | 13 | | 49.0 | 53.9 | | mg/Kg | | 84 | 75 - 125 |
| Zinc | 170 | | 49.0 | 119 | F | mg/Kg | | -108 | 75 - 125 |
| Silver | ND | | 24.5 | 17.0 | F | mg/Kg | | 70 | 75 - 125 |

**Lab Sample ID: 440-37615-A-3-E MSD ^10**
**Matrix: Solid**
**Analysis Batch: 85073**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 84799**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 49.8 | ND | F | mg/Kg | | 35 | 75 - 125 | 4 | 20 |
| Arsenic | ND | | 49.8 | 35.0 | F | mg/Kg | | 70 | 75 - 125 | 2 | 20 |
| Barium | 97 | | 49.8 | 146 | F | mg/Kg | | 99 | 75 - 125 | 29 | 20 |
| Beryllium | ND | | 49.8 | 44.8 | | mg/Kg | | 90 | 75 - 125 | 13 | 20 |
| Cadmium | ND | | 49.8 | 41.2 | | mg/Kg | | 83 | 75 - 125 | 15 | 20 |
| Chromium | 370 | | 49.8 | 518 | 4 F | mg/Kg | | 288 | 75 - 125 | 86 | 20 |
| Cobalt | 14 | | 49.8 | 55.9 | F | mg/Kg | | 85 | 75 - 125 | 32 | 20 |
| Copper | ND | | 49.8 | 46.4 | | mg/Kg | | 88 | 75 - 125 | 11 | 20 |

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

**Lab Sample ID: 440-37615-A-3-E MSD ^10** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 85073** — **Prep Batch: 84799**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead | 4.1 | | 49.8 | 47.7 | | mg/Kg | | 88 | 75 - 125 | 17 | 20 |
| Molybdenum | ND | | 49.8 | 35.0 | F | mg/Kg | | 70 | 75 - 125 | 3 | 20 |
| Nickel | 5.3 | | 49.8 | 45.8 | | mg/Kg | | 82 | 75 - 125 | 12 | 20 |
| Selenium | 7.6 | | 49.8 | 44.9 | | mg/Kg | | 75 | 75 - 125 | 5 | 20 |
| Thallium | ND | | 49.8 | 43.3 | | mg/Kg | | 83 | 75 - 125 | 13 | 20 |
| Vanadium | 13 | | 49.8 | 56.2 | | mg/Kg | | 87 | 75 - 125 | 4 | 20 |
| Zinc | 170 | | 49.8 | 265 | F | mg/Kg | | 187 | 75 - 125 | 76 | 20 |
| Silver | ND | | 24.9 | 19.4 | | mg/Kg | | 78 | 75 - 125 | 13 | 20 |

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: MB 440-84958/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 85471** — **Prep Batch: 84958**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.020 | | mg/Kg | | 02/14/13 10:15 | 02/14/13 14:20 | 1 |

**Lab Sample ID: LCS 440-84958/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 85471** — **Prep Batch: 84958**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.800 | 0.687 | | mg/Kg | | 86 | 80 - 120 |

**Lab Sample ID: 440-37280-A-2-E MS** — **Client Sample ID: Matrix Spike**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 85471** — **Prep Batch: 84958**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.063 | | 0.784 | 0.917 | | mg/Kg | | 109 | 70 - 130 |

**Lab Sample ID: 440-37280-A-2-F MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 85471** — **Prep Batch: 84958**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.063 | | 0.816 | 0.954 | | mg/Kg | | 109 | 70 - 130 | 4 | 20 |

## Method: 939-M - Organic Lead (GFAA)

**Lab Sample ID: MB 440-86400/1-B** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 86591** — **Prep Batch: 86400**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Organo-Lead | ND | | 0.025 | | mg/Kg | | 02/19/13 23:36 | 02/20/13 11:35 | 1 |

## Method: 939-M - Organic Lead (GFAA) (Continued)

**Lab Sample ID: LCS 440-86400/2-B**
**Matrix: Solid**
**Analysis Batch: 86591**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 86400**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Organo-Lead | 0.100 | 0.105 | | mg/Kg | | 105 | 80 - 120 |

**Lab Sample ID: LCSD 440-86400/3-B**
**Matrix: Solid**
**Analysis Batch: 86591**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 86400**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Organo-Lead | 0.0999 | 0.101 | | mg/Kg | | 101 | 80 - 120 | 4 | 20 |

## GC/MS VOA

### Analysis Batch: 84941

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37432-4 | CRA-A | Total/NA | Solid | 8260B | |
| 440-37459-A-1 MS | Matrix Spike | Total/NA | Solid | 8260B | |
| 440-37459-A-1 MSD | Matrix Spike Duplicate | Total/NA | Solid | 8260B | |
| LCS 440-84941/6 | Lab Control Sample | Total/NA | Solid | 8260B | |
| MB 440-84941/5 | Method Blank | Total/NA | Solid | 8260B | |

### Analysis Batch: 84942

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37432-4 | CRA-A | Total/NA | Solid | 8260B/CA_LUFT MS | |
| 440-37459-A-1 MS | Matrix Spike | Total/NA | Solid | 8260B/CA_LUFT MS | |
| 440-37459-A-1 MSD | Matrix Spike Duplicate | Total/NA | Solid | 8260B/CA_LUFT MS | |
| LCS 440-84942/7 | Lab Control Sample | Total/NA | Solid | 8260B/CA_LUFT MS | |
| MB 440-84942/5 | Method Blank | Total/NA | Solid | 8260B/CA_LUFT MS | |

### Analysis Batch: 85088

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37432-4 | CRA-A | Total/NA | Solid | 8260B/CA_LUFT MS | |
| 440-37998-A-2 MS | Matrix Spike | Total/NA | Solid | 8260B/CA_LUFT MS | |
| 440-37998-A-2 MSD | Matrix Spike Duplicate | Total/NA | Solid | 8260B/CA_LUFT MS | |
| LCS 440-85088/6 | Lab Control Sample | Total/NA | Solid | 8260B/CA_LUFT MS | |
| MB 440-85088/7 | Method Blank | Total/NA | Solid | 8260B/CA_LUFT MS | |

## GC Semi VOA

### Analysis Batch: 84267

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37109-E-6-A MS | Matrix Spike | Total/NA | Solid | 8015B | 84480 |
| 440-37109-E-6-B MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015B | 84480 |
| 440-37432-4 | CRA-A | Total/NA | Solid | 8015B | 84480 |
| LCS 440-84480/2-A | Lab Control Sample | Total/NA | Solid | 8015B | 84480 |
| MB 440-84480/1-A | Method Blank | Total/NA | Solid | 8015B | 84480 |

### Prep Batch: 84480

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37109-E-6-A MS | Matrix Spike | Total/NA | Solid | CA LUFT | |
| 440-37109-E-6-B MSD | Matrix Spike Duplicate | Total/NA | Solid | CA LUFT | |
| 440-37432-4 | CRA-A | Total/NA | Solid | CA LUFT | |
| LCS 440-84480/2-A | Lab Control Sample | Total/NA | Solid | CA LUFT | |
| MB 440-84480/1-A | Method Blank | Total/NA | Solid | CA LUFT | |

## Metals

### Prep Batch: 84799

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37432-4 | CRA-A | Total/NA | Solid | 3050B | |
| 440-37615-A-3-D MS ^10 | Matrix Spike | Total/NA | Solid | 3050B | |
| 440-37615-A-3-E MSD ^10 | Matrix Spike Duplicate | Total/NA | Solid | 3050B | |
| LCS 440-84799/2-A ^5 | Lab Control Sample | Total/NA | Solid | 3050B | |
| MB 440-84799/1-A ^5 | Method Blank | Total/NA | Solid | 3050B | |

### Prep Batch: 84958

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37280-A-2-E MS | Matrix Spike | Total/NA | Solid | 7471A | |
| 440-37280-A-2-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 7471A | |
| 440-37432-4 | CRA-A | Total/NA | Solid | 7471A | |
| LCS 440-84958/2-A | Lab Control Sample | Total/NA | Solid | 7471A | |
| MB 440-84958/1-A | Method Blank | Total/NA | Solid | 7471A | |

### Analysis Batch: 85073

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37432-4 | CRA-A | Total/NA | Solid | 6010B | 84799 |
| 440-37615-A-3-D MS ^10 | Matrix Spike | Total/NA | Solid | 6010B | 84799 |
| 440-37615-A-3-E MSD ^10 | Matrix Spike Duplicate | Total/NA | Solid | 6010B | 84799 |
| LCS 440-84799/2-A ^5 | Lab Control Sample | Total/NA | Solid | 6010B | 84799 |
| MB 440-84799/1-A ^5 | Method Blank | Total/NA | Solid | 6010B | 84799 |

### Analysis Batch: 85471

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37280-A-2-E MS | Matrix Spike | Total/NA | Solid | 7471A | 84958 |
| 440-37280-A-2-F MSD | Matrix Spike Duplicate | Total/NA | Solid | 7471A | 84958 |
| 440-37432-4 | CRA-A | Total/NA | Solid | 7471A | 84958 |
| LCS 440-84958/2-A | Lab Control Sample | Total/NA | Solid | 7471A | 84958 |
| MB 440-84958/1-A | Method Blank | Total/NA | Solid | 7471A | 84958 |

### Prep Batch: 86400

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37432-4 | CRA-A | Total/NA | Solid | 939M | |
| LCS 440-86400/2-B | Lab Control Sample | Total/NA | Solid | 939M | |
| LCSD 440-86400/3-B | Lab Control Sample Dup | Total/NA | Solid | 939M | |
| MB 440-86400/1-B | Method Blank | Total/NA | Solid | 939M | |

### Analysis Batch: 86591

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-37432-4 | CRA-A | Total/NA | Solid | 939-M | 86400 |
| LCS 440-86400/2-B | Lab Control Sample | Total/NA | Solid | 939-M | 86400 |
| LCSD 440-86400/3-B | Lab Control Sample Dup | Total/NA | Solid | 939-M | 86400 |
| MB 440-86400/1-B | Method Blank | Total/NA | Solid | 939-M | 86400 |

## Qualifiers

### Metals

| Qualifier | Qualifier Description |
|---|---|
| H | Sample was prepped or analyzed beyond the specified holding time |
| F | MS or MSD exceeds the control limits |
| 4 | MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable. |
| F | RPD of the MS and MSD exceeds the control limits |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ☼ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| EDL | Estimated Detection Limit |
| EPA | United States Environmental Protection Agency |
| MDA | Minimum detectable activity |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| 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: Conestoga-Rovers & Associates, Inc.
Project/Site: 285 Hegenberger Rd., Oakland

TestAmerica Job ID: 440-37432-1

## 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 | 06-30-13 |
| Arizona | State Program | 9 | AZ0671 | 10-13-13 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 01-31-14 |
| California | NELAP | 9 | 1108CA | 01-31-14 |
| California | State Program | 9 | 2706 | 06-30-14 |
| Guam | State Program | 9 | Cert. No. 12.002r | 02-28-13 |
| Hawaii | State Program | 9 | N/A | 02-28-13 |
| Nevada | State Program | 9 | CA015312007A | 07-31-13 |
| New Mexico | State Program | 6 | N/A | 02-28-13 |
| Northern Mariana Islands | State Program | 9 | MP0002 | 02-28-13 |
| Oregon | NELAP | 10 | 4005 | 09-12-13 |
| USDA | Federal | | P330-09-00080 | 06-06-14 |
| USEPA UCMR | Federal | 1 | CA01531 | 01-31-15 |

# Shell Oil Products Chain Of Custody Record 440-37432-143874

LAB (LOCATION)
- ☐ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☒ XENCO (_____)
- ☒ TEST AMERICA (PLEASANTON)
- ☐ OTHER (_____)

Please Check Appropriate Box:
- ☐ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM
- ☒ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER _____

Print Bill To Contact Name: Peter Schaefer 241513

INCIDENT # (ENV SERVICES)

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 9/26/2011

PAGE: 1 of 1

PO #

SAP #

SAMPLING COMPANY: Conestoga-Rovers & Associates

LOG CODE: CRAW

SITE ADDRESS: Street and City: 285 Hegenberger Road, Oakland

State: CA

GLOBAL ID NO.: T0600101245

ADDRESS: 5900 Hollis Street, Suite A, Emeryville, CA 94608

EDF DELIVERABLE TO (Name, Company, Office Location): Brenda Carter, CRA, Emeryville

PHONE NO.: 510-420-3343

E-MAIL: 510-420-3343

CONSULTANT PROJECT NO.: 240734-95-12.02

PROJECT CONTACT (Hardcopy or PDF Report to): Peter Schaefer

TELEPHONE: 510-420-3319

FAX: 510-420-3394

E-MAIL: pschaefer@craworld.com

SAMPLER NAME(S) (Print): Nate Allen

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☒ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:

Call composite sample ID and field point name CRA-A

Marked TAT except for those contingent tests needed for Aquatic Bioassay determination (5 day TAT or better may apply)

cc: Derek Eisman, Deisman@craworld.com and Shell.Lab.Billing@craworld.com

☒ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☒ EDD NOT NEEDED
☒ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

TEMPERATURE ON RECEIPT C° 4.8 (CS)

| LAB USE ONLY | Field Sample Identification | SAMPLING DATE | SAMPLING TIME | MATRIX | PRESERVATIVE HCL | HNO3 | H2SO4 | NONE | OTHER | NO. OF CONT. | TPH - Purgeable (8260B) | TPH - Extractable (8015M) | BTEX (8260B) | 5 Oxygenates (8260B) | MTBE (8260B) | TBA (8260B) | DIPE (8260B) | TAME (8260B) | ETBE (8260B) | 1,2 DCA (8260B) | EDB (8260B) | Ethanol (8260B) | Methanol (8015M) | TPH - MO (8015M) | CAM 17 Metals - Total (6010) | SVOCs (8270C) | VOCs (8260) | PCBs (8082) | Container PID Readings or Laboratory Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WASTE-4 | 1/31/13 | 1200 | Soil | | | | - | | 1 | X | X | X | | | | | | | | | | | X | X | | | | Please call |
| | WASTE-2 | 1/31/13 | 1200 | Soil | | | | ✓ | | 1 | X | X | X | | | | | | | | | | | X | X | | | | composite |
| | WASTE-3 | 1/31/13 | 1200 | Soil | | | | - | | 1 | X | X | X | | | | | | | | | | | X | X | | | | sample |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | CRA-A |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Relinquished by: (Signature) | Received by: (Signature) | Date: | Time: |
|---|---|---|---|
| | | 2-5-13 | 1500 |
| | Tom Mullen | 2-5-13 | 1640 |
| TA 2/6/13 15:00 | | 2/7/13 | 9:50 |

05/2/06 Revision

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2/20/2013

5.3°C

## California Contingent Analyses - Metals 440-37432

| Metal | Trigger level TTLC (mg/kg) | Requirement (based on CCR 66261.24) [Both Solids and Liquids] |
|---|---|---|
| Antimony | 150 | STLC required if TTLC ≥ 150 mg/kg |
| Arsenic | 50/100 | STLC required if TTLC ≥ 50 mg/kg; TCLP required if TTLC ≥ 100 mg/kg |
| Barium | 1,000/2,000 | STLC required if TTLC ≥ 1,000 mg/kg; TCLP required if TTLC ≥ 2,000 mg/kg |
| Beryllium | 7.5 | STLC required if TTLC ≥ 7.5 mg/kg |
| Cadmium | 10/20 | STLC required if TTLC ≥ 10 mg/kg; TCLP required if TTLC ≥ 20 mg/kg |
| Chromium | 50/100 | STLC required if TTLC ≥ 50 mg/kg; TCLP required if TTLC ≥ 100 mg/kg |
| Cobalt | 800 | STLC required if TTLC ≥ 800 mg/kg |
| Copper | 250 | STLC required if TTLC ≥ 250 mg/kg |
| Lead | **13/50/100** | Organic lead required if TTLC lead ≥ 13 mg/kg STLC required if TTLC ≥ 50 mg/kg; TCLP required if TTLC ≥ 100 mg/kg |
| Mercury | 2/4 | STLC required if TTLC ≥ 2 mg/kg; TCLP required if TTLC ≥ 4 mg/kg |
| Molybdenum | 3,500 | STLC required if TTLC ≥ 350 mg/kg |
| Nickel | 200 | STLC required if TTLC ≥ 200 mg/kg |
| Selenium | 10/20 | STLC required if TTLC ≥ 10 mg/kg; TCLP required if TTLC ≥ 20 mg/kg |
| Silver | 50/100 | STLC required if TTLC ≥ 50 mg/kg; TCLP required if TTLC ≥ 100 mg/kg |
| Thallium | 70 | STLC required if TTLC ≥ 70 mg/kg |
| Vanadium | 240 | STLC required if TTLC ≥ 240 mg/kg |
| Zinc | 2,500 | STLC required if TTLC ≥ 2,500 mg/kg |

## California Contingent Analyses - Organics

| Organic Constituents | Trigger level TTLC (mg/kg) | Requirement (based on CCR 66261.24) [Both Solids and Liquids] |
|---|---|---|
| Pentachlorophenol | 1.7 | STLC required if TTLC ≥ 1.7 |
| Trichloroethylene | 10/204 | STLC required if TTLC ≥ 10 mg/kg; TCLP required if TTLC ≥ 204 mg/kg |

| Organic Constituents | (mg/kg) | Requirements based on TSDF permits **[ONLY for Solids if they meet the below criteria]** |
|---|---|---|
| TPHd | 20,000 | Requires fish bioassay (Acute Aquatic 96 hr LC 50) |
| TPHg | 5,900 | Requires fish bioassay (Acute Aquatic 96 hr LC 50) |
| TPHmo | 10,000 | Requires fish bioassay (Acute Aquatic 96 hr LC 50) |
| TRPH (tot rec pet hc) | 5,000 | Requires fish bioassay (Acute Aquatic 96 hr LC 50) |

# Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 440-37432-1

**Login Number: 37432**
**List Number: 1**
**Creator: Freitag, Kevin R**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| 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 | Nate Allen |
| 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 <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# APPENDIX C

# DISPOSAL DOCUMENTATION

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number |
|---|---|---|---|---|
| | NOT REQUIRED | 1 | 800-424-9300 | 0702371 |

**GENERATOR**

5. Generator's Name and Mailing Address
Shell Oil Products US
One Shell Plaza, 910 Louisiana, Room #855, Houston, TX 77002

Generator's Site Address (if different than mailing address)
285 Hegenberger Road
Oakland, CA 94621

Generator's Phone:

6. Transporter 1 Company Name: American Integrated Services, Inc.
U.S. EPA ID Number: CAR000148338

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Keller Canyon Landfill
901 Bailey Road
Pittsburg, CA 94565 925-458-9800
U.S. EPA ID Number: Not Required
Facility's Phone:

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | Non-Hazardous Waste Solid (Soil) | 002 | DM | 1000 | P | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information
Wear protective equipment while handling. Weights or volumes are approximate. 24 hour emergency number (800) 424-9300 Chemtrec.

RIPR#: 97113
SAP#: 135691
Incident#: 96905749
Profile#: 4212107702
Project #: 73006-2-22 CRA# 240734

2 x 55

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: AIS on behalf of SOPUS - K Dupler
Signature: Kai Dupler
Month: 2 Day: 22 Year: 13

**INT'L**

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: MARCO MARTINEZ
Signature: Marco Martinez
Month: 2 Day: 22 Year: 13

Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Ethel Cortez
Signature:
Month: 3 Day: 6 Year: 13