



COUNTY OF RIVERSIDE • COMMUNITY HEALTH AGENCY  
**DEPARTMENT OF ENVIRONMENTAL HEALTH**

August 26, 2010

Site #200420469

Andrea Wing  
Shell Oil Products US  
20945 S. Wilmington Ave.  
Carson CA 90810

Bruce Beyal  
Bureau of Indian Affairs  
P.O. Box 2245  
Palm Springs CA 92263

RE: Underground Storage Tank Cleanup at the former Shell Service Station located at 69010 Hwy. 111 in Cathedral City

Dear Responsible Parties:

This letter confirms the completion of a site investigation and corrective action for the underground storage tanks formerly located at the above described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on the information in the above-referenced file, and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release at the site is required.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code. If you have any questions regarding this matter, please contact Sharon Boltinghouse at (951) 955-8982.

Sincerely,

Steve Van Stockum  
Director, Environmental Health

Enclosure: Case Closure Summary

cc: Kai Dunn, CRRWQCB 73720 Fred Waring Dr., Ste 100 Palm Desert CA 92260  
Allan Patton, Acting Fund Manager, SWRCB USTCF, P.O. Box 944212, Sacramento, CA 94244  
Kathryn Ewing, Delta Consultants [kewing@deltaenv.com](mailto:kewing@deltaenv.com)

Local Oversight Program

**CASE CLOSURE SUMMARY  
LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM**

SITE NAME: Former Shell Cathedral City

SITE NO: 200420469

**I. Agency Information**

Date: March 15, 2010

<b>Agency Name:</b>	Riverside County LOP - Department of Environmental Health
<b>Address:</b>	4080 Lemon St, 9 <sup>th</sup> Floor. P.O. Box 1280 Riverside CA 92502 (951) 955-8982
<b>Agency Contact:</b>	Sharon Boltinghouse – Associate Public Health Professional Geologist

**II. Case Information**

<b>Site Name:</b> Former Shell Cathedral City				
<b>Site Address/City:</b> 69010 Hwy. 111, Cathedral City				
<b>RB Case No:</b> 712234032			<b>Lop/Local Case No:</b> 200420469	
<b>URR Filing Date:</b> 4/5/2004			<b>Global ID:</b> T0606512976	
Responsible Parties		Address		Phone Number
Andrea Wing-Shell Oil Products US		20945 S. Wilmington Ave.		
Bruce Beyal-Bureau of Indian Affairs		Carson CA 90810		
		P.O. Box 2245		
		Palm Springs CA 92263		
Tank #	Size	Contents	Removed/Closed In-Place?	Date
1-3	12K	Gasoline	Removed	2/23/2004
4	500	Waste oil	Removed	2/23/2004

**III. Release and Site Characterization Information**

<b>Cause &amp; Type Of Release:</b> gasoline release from tanks	
<b>Site Characterization Complete?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Date Approved By Oversight Agency:</b> 7/3/06	
<b>Monitoring Wells Installed?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Number: 4	
<b>Proper Screen Interval?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
<b>Historical Depth To GW:</b> 192.75 ft bgs to 208.47 ft bgs	<b>Current Depth To GW:</b> 208.47'
<b>Flow Direction:</b> SE	
<b>Most Sensitive Current GW Use:</b> domestic	
<b>Are Drinking Water Wells Affected?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <b>Nearest Water Well:</b> 3885' NW of site	
<b>Aquifer Name:</b> Coachella Valley-Indio	
<b>Surface Water Affected?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Nearest/Affected SW Name:</b> Whitewater River 997' N of site	
<b>Off-Site Beneficial Use Impacts (Address/Locations):</b>	
<b>Reports On File?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>Location Of Reports:</b> County of Riverside, Department of Environmental Health 4065 County Circle Dr, Rm 104 Riverside CA 92503 P.O. Box 7489 Riverside CA 92513 (951) 358-5055 / (951) 955-8982	

## CASE CLOSURE SUMMARY LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

SITE NAME: Former Shell Cathedral City

SITE NO: 200420469

### III. Release and Site Characterization Information (cont.)

Treatment & Disposal Of Affected Material			
Material	Amount	Action (Treatment or disposal & destination)	Date
Tank	4	4 tanks removed	2/23/2004
TPHg vapors	365.7 lbs	Removed by soil vapor extraction	6/23/08 to 6/27/08
MTBE vapors	21.9 lbs	Remove by soil vapor extraction	6/23/08 to 6/27/08

Maximum Documented Contaminant Concentrations – Before & After Cleanup						
Contaminant	Soil (mg/kg)				Groundwater (ug/L)	
	Maximum	Depth	Recent	Depth	Maximum	Recent
TPH (Gas)	2400	35'	<0.2		440	
TPH (Diesel)	53	10'	<5		<50	<50
Benzene	0.0046	40'	<0.001		<2.5	<0.5
Toluene	0.160	35'	<0.001		<5	<1
Xylene	0.040	30'	<0.002		<10	<1
Ethyl Benzene	0.0058	30'	<0.001		<5	<1
MTBE	13	35'	<0.002		730	<1
TBA	210	30'	<0.02		22	<10
TAME	0.018	35'			1.2	<2
NAPHTHALENE	0.0028	40'				
ACETONE	2	30'				
1,2,4-TMB	0.1	30'				
1,3,5-TMB	0.022	30'				
METHYLENE CHLORIDE	0.014	10'				

**Comments (soil types, depth of remediation, etc.):** poorly graded gravels, sands, silts and clays. Remediation 15-45'  
See Section VII for additional information.

### IV. Closure

<p><b>Does Completed Corrective Action Protect Existing Beneficial Uses As Per The Regional Board Basin Plan?</b> Yes [ ] No [ ]</p> <p><b>Does Completed Corrective Action Protect Potential Beneficial Uses Per The Regional Board Basin Plan?</b> Yes [ ] No [ ]</p> <p><b>Does The Corrective Action Protect Public Health For Current Land Use?</b> Yes [ ] No [ ]</p> <p><b>Site Management Requirements:</b></p>
<p><b>Should Corrective Action Be Reviewed If Land Use Changes?</b> Yes [ ] No [ ]</p>
<p><b>Monitoring Wells Decommissioned?</b> Yes [ * ] No [ ] None Installed [ ] *Prior to issuance of NFA letter.</p> <p><b>Number Decommissioned:</b> *      <b>Number Retained:</b></p>
<p><b>List Enforcement Actions Taken/Rescinded:</b></p>

**CASE CLOSURE SUMMARY**  
**LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM**

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SITE NO: 200420469

**V. Local Agency Representative**

<b>Staff Assigned To Case:</b>	
<b>Reviewed By:</b> Sharon Boltinghouse	<b>Title:</b> Associate Public Health Professional Geologist
<b>Signature:</b> 	<b>Date:</b> 8-24-10

**VI. RWQCB Notification**

<b>Date Submitted To RWQCB:</b>	<b>Date Signed By RWQCB:</b>
<b>RWQCB Staff Assigned To Case:</b>	
<b>RWQCB Response:</b>	
<b>Signature:</b> 	<b>Title:</b> SWRCE

**VII. Additional Comments, Data, Etc.**

Site History/Release Information:

On February 23, 2004, 3-12K gasoline and 1-500 gallon waste oil tank were removed. Up to 1400 ppm TPHg was detected at 3' under dispenser 5, 36 ppb MTBE at 14' in the tank pit, 42 ppm TBA at 14' in the tank pit and 1.5 ppm ethanol at 14' in the tank pit. On March 13, 2004 the tank pit was over excavated down to 19'. Up to 51 ppm TBA was detected at the bottom of the pit. The site was placed into LOP May 4, 2004.

Assessment:

5 borings were drilled October 24-28, 2005 to 100-140'. All borings had TPHd, up to 53 ppm. All borings had TPHg, up to 7.8 ppm. All borings had MTBE, up to 13 ppm, and all borings had TBA, up to 52 ppm. Detectable concentrations of hydrocarbons were detected to 140' where the boring was terminated. Two borings were converted to dual nested vapor wells. VE-1 was screened from 15-25' and 30-45'. VE-2 was screened from 15-30' and 35-45'.

Monitoring well MW-1 was drilled March 23-24, 2006. Groundwater was encountered at 193'. Up to 0.21 ppm MTBE was detected in the soil. A grab water sample was obtained prior to development and 48 ppb MTBE was detected. A water sample was taken on March 29, 2006 and showed 11 ppb MTBE. Based on the results of the grab sample, one additional boring and two additional wells were installed March 30 through April 5, 2006. Up to 8.6 ppm MTBE and 210 ppm TBA was detected in the soils.

An additional boring was drilled June 5, 2006 to 100' near the north property line. 10 ppm TPHd was detected at 10' and 2.5 ppm naphthalene was detected at 35'. Another boring was drilled in the old tank pit to 45' and a nested SVE well was installed, screened from 22-27 and 35-45'. A maximum of 2.4 ppm TPHg was detected at 35', MTBE was detected to a maximum of 0.82 to 30' and TBA was detected to a maximum of 90 ppm at 30'.

SVE-4 was installed April 14, 2006 as a dual nested SVE well screened from 15-30' and 35-45'. TPHg was detected in the 30-45' samples with a maximum of 4.8 ppm. Benzene was detected at 40' at 4.6 ppb. MTBE was detected from 25-45' with a maximum of 0.3 ppm. TBA was detected from 30-45' with a maximum of 2.4 ppb. Low levels of VOC's were detected.

One off-site well was installed Feb. 2-6 and 10-12, 2009 to 220' using mud rotary due to difficult drilling. The well was screened from 195 to 220'. Only select soil samples were analyzed. Only one sample showed any concentrations (MW4d195, below the water table) which had 0.012 ppm toluene and 0.010 ppm xylenes.

## CASE CLOSURE SUMMARY LEAKING UNDERGROUND FUEL STORAGE TANK PROGRAM

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### Groundwater Monitoring:

Groundwater was sampled quarterly from March, 2006 until November, 2009. MW-1 was ND for TPHg and BTEX. MTBE went from 11 to 37 to 1.8 to ND<1 ppb. MW-2 TPHg went from 190 to 160 ppb to ND<50 ppb. BTEX was ND. MTBE went from 260 to 210 to 43 to 9.7 to 6 ppb to ND<1 ppb. TBA was 16 ppb the first quarter and ND thereafter. MW-3 TPHg went from 440 to 360 to 250 to ND<50. BTEX was ND. MTBE went from 730 to 420 to 420 to 53 to ND<1 ppb. TBA went from 22 to ND<10. TAME went from 1.2 to ND<1 ppb. MW-4 was ND for TPHg, BTEX and oxygenates.

### Remediation:

The SVE system began operating September 25, 2006 using all 4 SVE wells and was run until June 25, 2007 when a rebound test was successfully completed. Influent TPHg went from 74 ppmv to ND<3 ppm. MTBE went from 56 ppmv to 0.07 ppmv. TBA went from 15 ppmv to ND<0.002 ppmv. Ethanol went from 0.014 to 0.0084 ppmv.

### Verification:

7 confirmation borings were drilled August 29-31, 2007. 6 borings were drilled to 60' and one to 110'; all were sampled every 5' starting at 10'. Borings CB-1, 2, 4, 6, and 7 were ND for TPHg, BTEX and oxygenates. Boring 3 had 34 ppm and 7 ppm TPHd at 10 and 15'. CB-5 had 140 ppm TPHd at 10' and TBA at 0.47 ppm, 9.1 ppm, 0.044 ppm, 0.2 ppm, 0.046 ppm, and 0.03 ppm from 30-55'.

Additional remediation was required near CB-5. One additional SVE well, VE-5 was installed Feb. 15, 2008, screened from 30-40'. The system was operated between June 23 and 27, 2008 when it was shut down due to low vapor levels. RCDEH approved shutting down the system and determined additional confirmation borings were not needed.

**NOTE: This closure summary does not include all of the data for this cleanup. It was prepared by the Riverside County DEH for the purpose of providing a brief summary for case closure evaluation. The *Low Risk Site Closure Request Report* (Delta, December 21, 2009) and all other environmental reports pertaining to this cleanup site as well as the RCDEH Local Oversight Program case file should be reviewed in their entirety to obtain further details regarding this cleanup.**