

**Final**

**July 8, 2011**

**Review of  
Leaking Underground Storage Tank Cases  
Not in Cleanup Fund and Open Over 15 Years**

**Riverside County  
Local Oversight Program**

**Prepared as in-kind task as part of Cooperative Agreement LS-  
96934701-1 between USEPA Region 9 and the California State Water  
Resources Control Board**

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## **Executive Summary**

The Draft version of this report was submitted on September 1, 2010, with a request for a follow-up meeting and input from Riverside County Local Oversight Program (LOP) into the “Next Steps for Agency” column of the case cleanup status spreadsheet.

U.S. Environmental Protection Agency (USEPA) Region 9 contractor, Sullivan International Group, Inc., contacted the agency via email on June 13, 2011 to discuss the draft report and their next steps for each case. The agency responded on June 23, 2011 with a formal response discussing the status and progress towards cleanup for each of the three aging Non-CUF cases that were reviewed. The agency noted that they did not fill out the “Next Steps for Agency” column of the excel spreadsheet that was provided to them because they did not believe any of the drop-down choices were applicable to them.

Of the three cases reviewed, one of the cases, Arco #9924 (T0606500950), was closed on 04/21/2011. For the remaining two cases the agency notes that the cases are stagnant because the RP and the consultant are not responsive. Additional details on these two cases are provided in the Case Summary Table on Page 4 of this document.

# Riverside County LOP

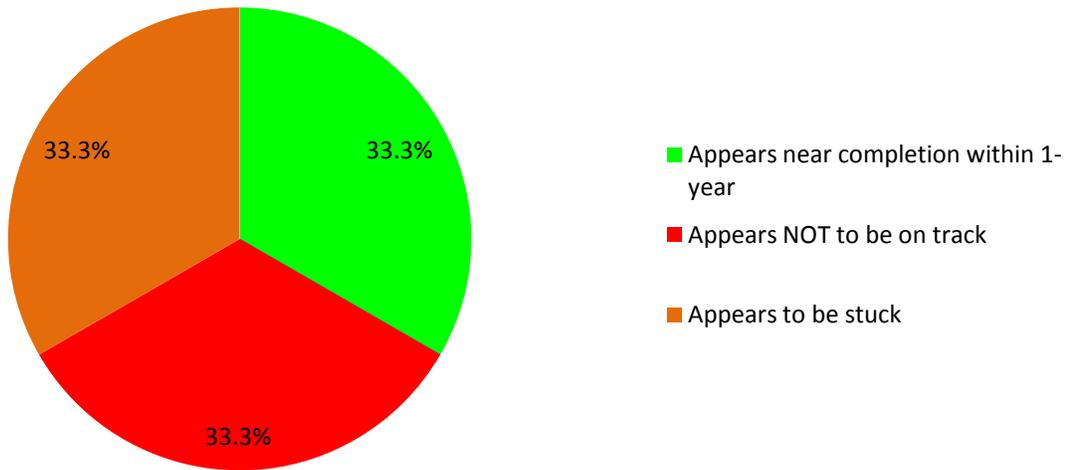
## Apparent Case Status – Initial and After

TOTAL NUMBER OF CASES REVIEWED = 3  
 NUMBER OF ACTIVE LUST CASES ON NOVEMBER 1, 2010 = 108 CASES  
 DRAFT REVIEW REPORT PREPARED AND SENT TO AGENCY ON SEPTEMBER 1, 2010  
 RESPONSE FROM AGENCY ON JUNE 23, 2011

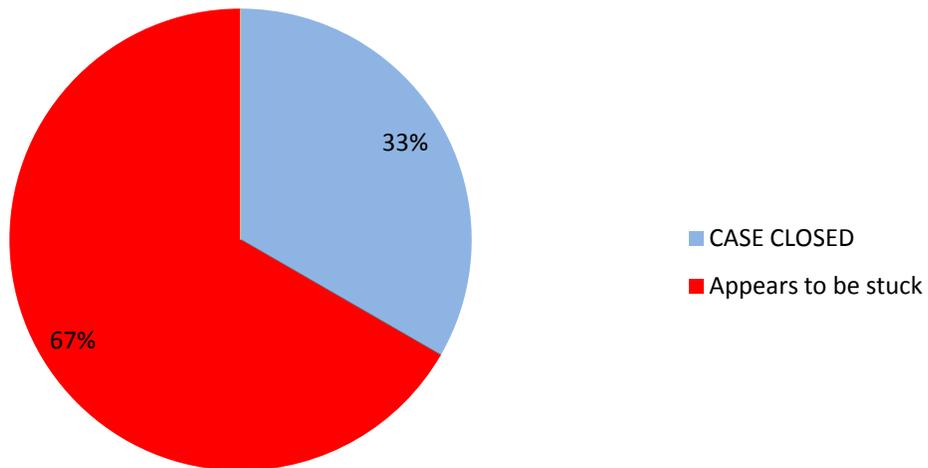
APPARENT STATUS OF CASES REVIEWED – INITIAL REVIEW AND AFTER MEETING TO DISCUSS CASES

Apparent Case Status	Initial Assessment Number of Cases (9-01-2010)	Post Meeting Assessment Number of Cases (06-23-2011)
CASE CLOSED	0	1
Appears close to completion	0	0
Appears near completion within 1-year	1	0
Appears to be on track	0	0
Appears NOT to be on track	1	0
Appears to be stuck	1	2
Unable to determine (Insufficient information in GeoTracker)	0	0
NOT FEDERAL UST CASE	0	0
OTHERS - Case has been transferred to another Agency	0	0

### Initial Assessment Percentage of Cases (9-01-2010)



### Post Meeting Assessment Percentage of Cases (06-23-2011)



## Aging Non-CUF Case Summary Review Table

ESTIMATED STATUS IN THE CLEANUP PIPELINE? (09-01-2010)	CHANGE IN STATUS IN THE CLEANUP PIPELINE (BASED ON AGENCY RESPONSE) ON 06-23-2011	SITE NAME (CASE LEAD AGENCY: RIVERSIDE COUNTY LOP)	GLOBAL ID	CASE WORKER	PRIMARY COC (in GeoTracker)	APPARENT TYPE OF RP	RELEASE DATE	DISCUSSION NOTES FROM AGENCY RESPONSES (06-23-2011)	NEXT STEP FOR AGENCY
Appears close to completion	Closed on 04/21/2011	Arco #9924	<a href="#">T0606500950</a>	LS	Gasoline	Z - Major Oil Company	8/24/1991	Case is closed.	No additional Steps: Case is closed
Appears NOT to be on track	Appears to be stuck	DESERT SANDS UNIFIED TRANSPORTATION	<a href="#">T0606500817</a>	LS	Multiple	G - Government Entity (include School, Hospital, Utility)	3/6/1986	Closure was requested in 2007 but closure denied due to concern that there may be a detached MTBE plume south of former well MW-9. A workplan to define the plume was requested in November 2007 and again in November 2008. In December 2008, a meeting was held with RWQCB, RP & consultant. To further support case closure, the Consultant proposed to prepare a report with additional groundwater information, including evaluation of groundwater plume migration. County did not receive document until May 2010. Document proposed conducting further testing on two recirculation wells to evaluate for vertical migration of MTBE impacts, unfortunately, wells have been abandoned and testing unable to be conducted. Consultant has not proposed an alternate plan. Case is stagnant. The agency said that its next steps is to send a letter again requesting plume delineation.	Push for new/additional remedial investigation (RI)/risk assessment
Appears to be stuck	Appears to be stuck	NORTH INDIO DRIVE THRU	<a href="#">T0606500817</a>	LS	Gasoline	S - Small Private Business	9/13/1989	In 2009 and again in 2010, the County requested supporting documents for 4th Quarter 2007 groundwater sampling or current groundwater sampling data, and a case closure document. To date, no responses have been received. Case is stagnant. The agency said that its next steps is to take enforcement action to obtain current groundwater data and case closure summary.	Ensure RP compliance (includes identify RP, enforcement, EAR account etc)

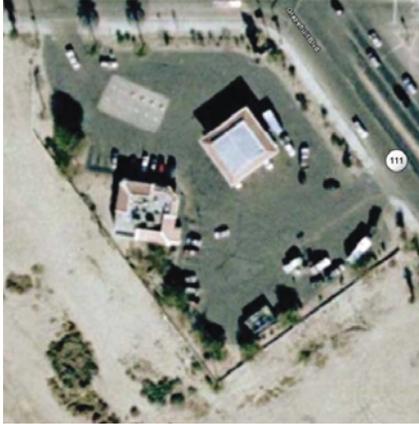
## **Attachment 1:**

### **Case Review Power Point Slides from Draft Report**

The contents of this attachment are provided in electronic format only.

# ARCO #9924 (T0606500950)

## 48055 GRAPEFRUIT BLVD., COACHELLA, CA 92236



Case Age: 19 Years  
 Primary COC: GASOLINE  
 RP Identified by Regulator: Atlantic Richfield Company  
 Current Land Use: Gas Station and retail store

#### CLEANUP OVERSIGHT AGENCIES

RIVERSIDE COUNTY LOP (LEAD) - CASE #: 91794

CASEWORKER: [LINDA SHURLOW](#) - SUPERVISOR: SHARON BOLTINGHOUSE

COLORADO RIVER BASIN RWQCB (REGION 7) - CASE #: 7T2236020

CASEWORKER: [KAI DUNN](#) - SUPERVISOR: AEDI HAILE

### Why Is This Case So Old

- Historical detections in soil: TPH-g at 20,000 mg/kg, TPH-D at 3,500 mg/kg, benzene at 74 mg/kg. Elevated concentrations in GW detected and free product observed in monitoring wells.
- Product recovery was conducted from 1993 to 2003; more than 35 gallons of free product were recovered.
- Rebound testing was conducted and levels were continuously detected above baseline.



NOTE: Data queried from GeoTracker and reviewed in August 2010

## Activities Conducted to Date Based on Geotracker Info T0606500950

### Assessment last 5 years

- Soil borings were advanced at the site in 2009
- Periodic groundwater monitoring is ongoing at the site since 1993, however, all but one well has gone dry since installation.

### Remediation last 5 years

- An AS/SVE system was operated on site from March 2004 through December 2005
- System restarted in December 2007 for rebound test activities: showed that SVE had reached a point of diminishing returns

### Assessment older than 5 years

- Soil sampling was conducted, monitoring wells installed and 15 soil borings advanced at the time of UST removal
- Additional soil borings were advanced in 1992, 1995, and 1997
- Additional monitoring wells were installed at the site in 1992, and 2000
- Soil samples were taken in 2001 during piping run upgrades
- Soil gas sample points were installed on the adjacent property to the south in 1997, and upgraded in 2001
- SVE pilot test was conducted in July 2001

### Remediation older than 5 years

- Seven USTs were removed from the site in 1991. Over excavation was performed at this time.
- Weekly removal of free product by vacuum truck was performed in 1992 and 1993, and from 1999 to 2003
- Passive skimmers were used on free product at the site from 1999 to 2003
- An AS/SVE system was operated on site from 2004 through 2009

# IMPEDIMENTS TO CLOSURE T0606500950

as reported by regulatory agency

## Procedural Impediments

Monitoring Wells Not Yet Abandoned – *Monitoring wells cannot be abandoned until RWQCB and County concur on determination that no further action is required at the site.*

## Benefits of Additional Work

Protect Designated Beneficial Uses - *Monitoring wells must be destroyed. Monitoring wells cannot be destroyed until RWQCB and County concur on determination that no further action is required at the site.*

Protect Existing Water Supply Wells – *City well located ~400' east of site. Monitoring wells must be destroyed. Monitoring wells cannot be destroyed until RWQCB and County concur on determination that no further action is required at the site.*

## Sensitive Receptors Likely To Be Impacted And Time Frame For Impact

SENSITIVE RECEPTOR	TIME FRAME FOR IMPACT	COMMENTS
Groundwater	Already Impacted	previously wells had up to 2.03" of free product. Currently only one well has water and had 1.8 ppb MTBE and 1.2J ppb DIPE during 3Q09

## Review Conclusions T0606500950

- Historically free product has been detected at the site.
- The Site has been well characterized, and has undergone active remediation, with over 23,000 lbs of Gasoline range organics recovered.
- 7 of 8 wells were not sampled during the most recent gw monitoring event because the wells were dry.
- Hydrocarbon concentrations have been declining over time and show that concentrations in both soil and groundwater will attenuate naturally.
- In the 2009 Soil Boring Report, indicated that the SVE system was no longer of beneficial use and that there was still approximately 300 square yards of hydrocarbons to be removed, approx 380 lbs
- A City of Coachella well is located approximately 400' east of the site
- The site is now in post remediation monitoring

*Discussion: 1) Could this case be considered for low-risk closure, and if not, what measures will be taken to move this case towards closure. 2) Waiting on the abandonment of wells is no longer reason to keep a site open and should not be considered a procedural impediment.*

**DESERT SANDS UNIFIED TRANSPORTATION (T0606500637)**

82879 HIGHWAY 111/AVENUE 46

INDIO , CA 92201 RIVERSIDE COUNTY



Case Age: 24

Primary COC: Gasoline/MTBE

RP Identified by Regulator: Desert Sands Unified School District

Current Land Use: School District and Residential Area

DATE	STATUS	CLEANUP OVERSIGHT AGENCIES
11/5/2003	Open - Verification Monitoring	RIVERSIDE COUNTY LOP (LEAD) - CASE #: 91288
9/6/2000	Open - Remediation	CASEWORKER: LINDA SHUROW - SUPERVISOR: SHARON BOLTINGHOUSE
1/13/1989	Open - Remediation	COLORADO RIVER BASIN RWQCB (REGION 7) - CASE #: 772201004
7/25/1986	Open - Site Assessment	CASEWORKER: KAI DUNN - SUPERVISOR: ABO HALE
3/6/1986	Open - Site Assessment	
3/6/1986	Open - Case Begin Date	



NOTE: Data queried from GeoTracker and reviewed in August 2010

**Possible Reasons Why This Case Is So Old**

- Case closure denied because determined necessary to investigate possible MTBE plume detachment migrating towards apartment complex: MTBE plume detachment recently assessed in 2009
- Determined MTBE needs to be remediated
- Site was inactive from 2007 to 2009 and RP was recalcitrant. School RP, possible funding issues?
- Contamination present above an aquifer that is source of drinking water for the community

**Activities Conducted to Date Based on GeoTracker Info (T0606500637)****Assessment last 5 years**

- 2/14/2007 three geoprobe borings drilled to 59' water samples collected
- Groundwater sampling: last samples collected in 2007

**Remediation last 5 years**

- NONE DOCUMENTED

**Assessment older than 5 years**

- Groundwater sampling
- 4 soil confirmation samples were geoprobed 4/30/01 and 5/3/01
- 11/19/2001 two soil borings drilled to 30' bgs and sampled
- 12/13/2001 three soil borings drilled to 15' and 20' bgs and sampled.
- 8/8/2002 wells R-1,R-2, MW-3 sampled
- 1/27/2003 hydropunch sample taken near MW-9
- 3/28/2003 hydropunch sample taken near MW-9
- 8/12/2003 hydropunch sample taken near MW-9
- 20 GW monitoring wells installed

**Remediation older than 5 years**

- 4/1/1986 UST piping repaired
- 1995 Air Sparge & Vapor Extraction pilot test
- 11/1998 5 UST's removed
- 9/6/2000 Air Sparging
- 10/19/2000 Vacuum Extraction
- 2001-2002 additional vapor extraction wells installed and vapor extraction was resumed
- 2002 Ozone recirculation

# IMPEDIMENTS TO CLOSURE (T0606500637)

as reported by regulatory agency

## Plume Instability

- Other - RCDEH requested a study to determine if the MTBE plume had detached and gone under a nearby apartment building.

## Ground Water Impacts

- Groundwater Impacted Above Background - Previously had a high of 1300 ppb TPHg, 1600 ppb MTBE, 11 ppb benzene, 11 ppb toluene, 76 ppb xylenes, and 16 ppb ethylbenzene. Up to 3500 ppb MTBE was detected during hydro-punching around MW-9 which had gone dry.

## BENEFITS OF ADDITIONAL WORK

- Complete CSM and Our Understanding of Hydrogeologic Regime and Fate and Transport of Contaminants - RCDEH requested a study to determine if the MTBE plume had detached and gone under a nearby apartment building
- Protect Designated Beneficial Uses - groundwater is sole source for drinking water
- Protect Existing Water Supply Wells - 2 community wells located within 1/2 mile of site

## SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR	TIME FRAME FOR IMPACT	COMMENTS
Groundwater	Already Impacted	Previously had a high of 1300 ppb TPHg, 1600 ppb MTBE, 11 ppb benzene, 11 ppb toluene, 76 ppb xylenes, and 16 ppb ethylbenzene. Up to 3500 ppb MTBE was detected during hydropunching around MW-9 which had gone dry.

## Review Conclusions T0606500637

- Data prior to 2005 does not appear in GeoTracker and regulatory agency has directed RP to submit data to GeoTracker
- In 2009 RP submitted MTBE status report recommending how to further evaluate MTBE: recommend evaluation of pressure transducer information and recommend confirming operational status of supply wells located close to the site. No active investigation has been reported yet.
- In 3<sup>rd</sup> Quarter 2009 status report RP claims that gw and soil plume delineation has been completed and they are awaiting closure on the site from the regulatory agency.
- Although current status of site is Verification Monitoring the site is currently inactive.
- *Discussion: (1)What are next steps after reviewing pressure transducer information and confirmation of supply wells, determine if additional assessment and/or remediation is necessary.*

**North Indio Drive Thru (T0606500657)**

43977 JACKSON STREET

INDIO , CA 92201 RIVERSIDE COUNTY

Case Age: 21

Primary COC: Gasoline

RP Identified by Regulator: Daniel Gautschi,  
Marcia DresserCurrent Land Use: Paved parking area previously  
a restaurant site

Cleanup Status History		OPEN - SITE ASSESSMENT
DATE	STATUS	CLEANUP OVERSIGHT AGENCIES
9/26/2007	Open - Site Assessment	RIVERSIDE COUNTY LOP (LEAD) - CASE #: 91718
10/24/1990	Open - Site Assessment	CASEWORKER: LINDA SHURLLOW - SUPERVISOR: SHARON BOLTINGHOUSE
9/13/1989	Open - Case Begin Date	COLORADO RIVER BASIN RWQCB (REGION 7) - CASE #: 772201024
9/13/1989	Open - Site Assessment	CASEWORKER: KAI DUNN - SUPERVISOR: ABDI HAILE

**Possible Reasons Why This Case Is So Old**

- Groundwater is considered possible source of drinking water
- Site has been redeveloped
- 3 community water wells are ½ mile from site location
- Further groundwater assessment must be done in order to submit for closure
- Site has remained inactive since 2007
- Unresponsive RP

NOTE: Data queried from GeoTracker and reviewed in August 2010

## Activities Conducted to Date Based on GeoTracker Info (T0606500657)

**Assessment last 5 years**

- 4/4/2007 MW-2 installed and drilling of B-1
- 4/5/2007 MW-3 & MW-4 drilled and installed
- 4/7/2007 Soil samples from B-1 collected at a depth of 5 ft till 40 ft in 5 ft intervals
- 4/7/2007 Soil samples collected from MW-2, MW-3, MW-4 at a depth of 5 ft till 50 ft in 5 ft intervals
- 4/17/2007 groundwater samples collected from MW-2, MW-3, MW-4

**Remediation last 5 years**

- NONE DOCUMENTED

**Assessment older than 5 years**

- Around 1990 two soil borings installed followed by converted one into a monitoring well (Unsure of date due to lack of data uploaded on GeoTracker prior to 2005)
- Around 1990 soil and groundwater samples collected (Unsure of date due to lack of data uploaded on GeoTracker prior to 2005)
- 1/1997 five soil samples collected from B-1 through B-5
- 1/1997 Groundwater samples collected from B-4, B-5, MW-1
- 5/2000 Groundwater samples collected after completion of 3 UST removals

**Remediation older than 5 years**

- April and May 2000-- 3 USTs were removed from the site.

# IMPEDIMENTS TO CLOSURE (T0606500657)

as reported by regulatory agency

## Ground Water Impacts

- Groundwater Impacted Above Background - *Up to 2440 ppb TPHg, 32 ppb benzene, 270 ppb toluene, 90 ppb ethylbenzene, 590 ppb xylenes and 240 ppb MTBE detected in the groundwater*

## Procedural Impediments

- Non-Responsive and / or Recalcitrant Responsible Party - *RP has not submitted last quarterly gw sampling from 2007 and request for closure.*

## BENEFITS OF ADDITIONAL WORK

- Protect Designated Beneficial Uses - *groundwater is the sole source of drinking water*
- Protect Existing Water Supply Wells - *There are 3 community water wells within 1/2 mile of the site.*

## SENSITIVE RECEPTORS LIKELY TO BE IMPACTED AND TIME FRAME FOR IMPACT

SENSITIVE RECEPTOR	TIME FRAME FOR IMPACT	COMMENTS
Groundwater	Already Impacted	Up to 2440 ppb TPHg, 32 ppb benzene, 270 ppb toluene, 90 ppb ethylbenzene, 590 ppb xylenes and 240 ppb MTBE detected in the groundwater.

# Review Conclusions T0606500657

- Data prior to 2005 does not appear in GeoTracker.
- More regulatory enforcement appears warranted.
- RP contacts listed as Daniel Gautschi & Marcia Dresser but no organization name listed. Documents uploaded on GeoTracker would suggest that Global EMS is RP organization. Regulatory Agency should clarify.
- Responsible Party must ensure that the 3 existing water wells which are ½ a mile from site area and groundwater is sole source of drinking water.
- RP has recommend an additional round of groundwater sampling and analysis to confirm the previous no-detect results so that groundwater quality confirmation may be received allowing submission of final report for closure. Although site has remained inactive since 2007.
- *Discussion: (1)Further enforcement by Regulatory Agency regarding RP failure to follow AB2886 and inactive site (2) Re-establish communications with Responsible Party. (3) Consider next steps to accelerate towards closure, as site now appears to be stuck.*