

CENTRAL COAST WATER BOARD CASE SUMMARY FORM

Leaking Underground Fuel Storage Tank Program

I. Agency Information

Agency Name: Central Coast Water Board	Address: 895 Aerovista Place, Suite 101
City/State/Zip: San Luis Obispo, CA 93401-7906	Phone: (805) 542-4648
Responsible Staff person: Dr. Wei Liu	Title: Engineering Geologist

II. Case Information

Site Facility Name: Former Mission Linen Supply	USTCF Claim No.	Water Board Case No. S143
Site Facility Address: 121 East Gabilan Street, Salinas	Assessor Parcel Nos: 002-192-018 / 002-192-019	
Responsible Parties	Address	Phone Number
Mission Linen Supply	702 East Montecito Street, Santa Barbara, CA 93103	805-730-3694
Property Owner		
Mission Linen Supply	702 East Montecito Street, Santa Barbara, CA 93103	805-730-3694

III. Tank Information

Tank #	Size in Gallons	Contents	Closed in Place/Removed	Date
1	550	Gasoline	Removed	July 1988
2	550	Diesel	Removed	July 1988
3	550	Stoddard Solvent	Removed	July 1988
4	1,500	Stoddard Solvent	Removed	July 1988

IV. Release and Site Characterization Information

Cause and type of release: TPHg, TPHd, TPHss and BTEX from leaking USTs and incidental releases of PCE in dry cleaning unit and still area.	Was source removed to extent practical: Yes. In 2002, ~1,577 cubic yards (cy) of TPH and BTEX-impacted soil from the USTs was excavated and disposed off-site. In 2001 through 2002, ~300 cy of PCE and CVOC (PCE degradation products) impacted soil from the dry cleaning still was treated onsite by bioremediation and backfilled in the excavation. These activities were conducted under Water Board review and approval and permits from appropriate local agencies.	
Site characterization complete? Yes. Site Investigation Report, Ogden, November 1999 and Subsurface Investigation and Evaluation of Remedial Alternatives, SGI, April 2006. Mission's consults were Ogden / AMEC from 1998 – 2004 and the team of Environmental Risk Solutions (ERS), Source Group, Inc. (SGI) and CGC Environmental from 2004 – 2016.	Local Oversight Agency concurrence? Yes. In 2013 at the direction of the Water Board, Mission discussed project status and requirements with Cory Welch, the Senior Hazardous Materials Specialist at the Monterey County Environmental Health Department (MCEHD) Site Mitigation Program. Mr. Welch indicated that a health risk assessment (HRA) was appropriate to assess potential controls associated with future land use; however, based on the current oversight agreement between MCEHD and the Water Board, he indicated that Mission should confer with the Water Board regarding the specific scope for a HRA.	
Monitoring Wells installed? Yes.	Number: 24	Proper screen interval? Yes. First and Second-Water Bearing Zone and Transitional Zone Downgradient.

CASE SUMMARY FORM

Highest GW depth below ground surface: ~9 feet bgs off-site and ~15 feet bgs on-site.	Lowest: ~22 feet bgs	Flow Direction: North - Northeast
Most Sensitive Current GW use: None on-site; drinking water and agricultural wells nearby. CGC completed Well Survey dated March 20, 2015 in coordination with Water Board. Data provided in the EDR report indicate that most of the water wells are constructed at depths ranging from approximately 350 to 600 feet below grade, although one well (EDR well ID 101) has a reported depth of 188 feet and well 102 is 266 feet deep. Both of these wells are located approximately one mile northeast of the Site.		
Are Water Wells affected? No.	Hydrologic Unit: The Site is situated within the 180 / 400-Foot Aquifer Sub-basin in the Salinas Valley Groundwater Basin located within the Northern Salinas Valley, as defined by the Department of Water Resources.	
Is the Site on Municipal Water? Yes – currently undeveloped. California Water Service or Alco Water Service will serve the property when developed.		
Distance to nearest Water Well(s): 2,000 feet	Well Type/Status: Water Supply Well	
Distance to nearest Surface Water(s): No significant surface water within a 2,500 feet of the site; municipal storm water systems serve local urban area.	Has Surface Water(s) been affected? No. Lower Salinas Valley Watershed.	
Off-site Beneficial use impacts (addresses/locations): None. Water well survey was completed and risk to residential properties across Soledad Street was evaluated.		
Is site an active fueling facility: No. Soil vapor intrusion risk has been evaluated using the Johnson & Ettinger (J&E) Model and a Site-specific Health Risk Assessment (HRA). The J&E modeling and HRA results led to the proposed deed restriction for a specific portion of the property above the former dry cleaning area.		
Conceptual Site Model complete? Yes.	Date of CSM: Site Investigation Report, Ogden, November 1999 and Subsurface Investigation and Evaluation of Remedial Alternatives, SGI, April 2006.	

V. Treatment/Disposal Methods (Attach any additional information)

Material	Amount (Include Units)	Action (Treatment or Disposal Method)	Date
Tanks	Four USTs noted above	Excavation and Off-Site Disposal	July 1988
Piping	UST-Related Piping	Excavation and Off-Site Disposal	July 1988
Free Product	None Detected	N/A	N/A
Soil	~1,577 cubic yards of TPH / BTEX impacted soil / ~300 cubic yards of PCE impacted soil	TPH and BTEX-impacted soil was excavated and disposed off-site / PCE-impacted soil was treated on-site via bioremediation and placed back in the excavation following addition of bioremediation substrate at the base of the excavation.	2001 and 2002
Groundwater	TPH and BTEX plume / CVOC plume	TPH / BTEX plume treated with ORC (2001-2002 and 2012) and HVDPE in 2013 / CVOC plume treated by EISB in 2001-2002, 2008, 2009, 2011 and 2015.	Multiple events as noted from 2001 – 2015.

CASE SUMMARY FORM

Maximum Documented Contaminant Concentrations--Before and After Cleanup

Contaminant	Soil (mg/kg)		Groundwater (µg/L)		Contaminant	Soil (mg/kg)		Groundwater (µg/L)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	540	110	82,000	3,200	PCE	4,100	20	13,000	2.0
TPH (Diesel)	580	8.7	61,000	610	TCE	ND	0.35	6,900	1.8
TPH (Stoddard)	1,500	NA	17,000	<1,500	cis-1,2-DCE	ND	3.9	45,000	50
Benzene	21	0.053	12,000	780	trans-1,2-DCE	ND	0.018	410	11
Toluene	21	0.013	16,000	ND	Vinyl Chloride	ND	0.083	4,000	6.1
Ethylbenzene	18	0.51	3,700	120	MTBE	3.1	NA	160	1.9
Xylenes	40	23.4	19,000	15	Naphthalene	59	1.3	NA	NA

Comments:

Soil Cleanup Goals for TPH / BTEX approved by the Water Board in 2001: TPHg = 100 mg/kg; TPHd and TPHss = 500 mg/kg; BTEX and MTBE = 1 mg/kg; Site meets SWRCB Low-Threat Closure Policy criteria for petroleum USTs.

Groundwater Cleanup Goals for TPH / BTEX approved by the Water Board in 2001 were MCLs

Soil Cleanup Goals for CVOCs approved by the Water Board in 2001 were USEPA Region IX PRGs

Groundwater Cleanup Goals for CVOCs approved by the Water Board in 2001 were MCLs

VI. Closure

Amount of contaminant(s) mass removed: ~1,577 cubic yards of TPH / BTEX impacted soil / ~300 cubic yards of PCE impacted soil; groundwater contamination reduced by combination of bioremediation injections, ORC injections and dual-phase high vacuum extraction.

Contaminant and media type: CVOCs and TPH in soil, soil gas and groundwater.

Location/depth of residual contaminant mass left-in-place: Northwest portion of Site in former dry cleaning area; elevated soil vapor remains at ~5 feet bgs. Land use covenant (deed restriction) will document and restrict certain uses above this area.

Is the plume stable and/or shrinking? Yes. Plume contracting based in EISB injections and MNA.

Does remaining plume extend off-site? Yes. No downgradient sensitive receptors identified.

Approximate length of CVOC plume (ft.): 125 feet. Former dry cleaning area to extent of saturated first water bearing zone.

Does completed corrective action protect existing and potential beneficial uses per the Basin Plan? Yes. Water quality objectives will be achieved within a reasonable timeframe, the extent of residual CVOC and TPH / BTEX-impacts is documented, and plumes are contracting.

Does corrective action protect public health for current land use? Yes. Land use covenant (deed restriction) will be recorded as part of the corrective action and document residual impacts.

Site Management Requirements: Deed restriction for use of a portion of the property and shallow groundwater underneath the site to be recorded as condition of case closure.

Should corrective action be reviewed if land uses change? Land use covenant (deed restriction) will be recorded as part of the corrective action and document residual impacts so land use changes can be evaluated relative to impacts.

Monitoring Wells destroyed? Pending

Number destroyed: Pending

Number retained: Pending

CASE SUMMARY FORM

VII. Local Agency Representative Data

Agency: Monterey County Environmental Health Department	Address: 1270 Natividad Road, Room 301
City/State/Zip: Salinas, CA 93906	Phone: 831-755-4505
Responsible Staff Person: Cory Welch	Title: Senior Hazardous Materials Specialist

VIII. Additional Comments

Site Management Requirements: Residual soil and groundwater contamination may still exist on-site that could pose an unacceptable risk under certain site development activities such as site grading, excavation, or de-watering. The Central Coast Water Board, the local health agency and the appropriate local planning and building departments must be notified prior to any changes in land use, grading activities, excavation, or dewatering. This notification must include a statement that residual soil and groundwater contamination underlie the property and nearby properties. The levels of residual contamination and any associated risks are expected to reduce with time.

IX. Central Coast Water Board Certification

John M. Robertson - Executive Officer	Date:
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CASE SUMMARY FORM

X. Additional Information

1. Listing of Reports

The following is a list of all investigative reports, monitoring data, corrective action alternatives analyses, and other consultant reports all of which have been submitted to the Regional Board.

The following represent key technical documents; additional Site-related documents such as work plans and regulatory correspondence can be found on the RWQCB Geotracker website.

http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL203281266

- Site Investigation Report, Ogden, November 1999
- Remedial Action Plan, AMEC, November 2000
- Interim Remedial Action Report, AMEC, September 2002
- Multiple Groundwater Monitoring Reports, AMEC, CGC and SGI, 2000 – 2015
- Subsurface Investigation and Evaluation of Remedial Alternatives, SGI, April 28, 2006
- Report for Soil Vapor Survey, Well Installation and Phase I EISB Injections, SGI, January 25, 2008
- Report for Additional Soil Vapor Investigation, SGI, August 31, 2010
- EISB Effectiveness Evaluation and Phase III EISB Injection Work Plan, SGI, November 3, 2010
- Report for Additional Soil Vapor Investigation, SGI, January 23, 2012
- Report for Additional Soil Vapor Investigation, SGI, November 27, 2012
- Remediation of Residual GRO and Benzene Concentrations near MW-9(1), SGI, June 24, 2013
- Low-Threat Closure Analysis for UST-Related Petroleum Hydrocarbons, CGC, July 17, 2014
- 2014 Soil Vapor Investigation and Human Health Risk Assessment, SGI, October 30, 2014
- Closure Request, ERS, October 30, 2014
- Well Survey Report, CGC, March 20, 2015
- Additional Soil Testing in Response to OEHHA and CRWQCB Comment on 2014 Soil Vapor Investigation and Human Health Risk Assessment, SGI, November 10, 2015
- Phase IV EISB Injection and Effectiveness Report, SGI November 13, 2015
- Closure Request, ERS, November 16, 2015

"I attest, under penalty of perjury, in accordance with Water Code section 13267, the following documents constitute the complete list of documents pertaining to waste discharged, hydrogeology and other information directly relevant to the characterization and cleanup of the waste discharged at the subject site."



February 25, 2016

Donald W. Moore, PG, ARM, Mission Environmental Manager, 2004 – 2016, Agent for Mission

The following items are optional as applicable to the review of the site for closure:

2. List of property owners or occupants within a 200 ft. radius of the Site

The attached PDF file map delineates a 200-foot radius from the edge of the Site and the attached Excel file includes a list of property owners and addresses within the 200-foot radius.

CASE SUMMARY FORM

Mission believes items #3 and #4 below have been addressed in the investigation, monitoring, remedial action and closure documentation reports for the Site that are listed above.

3. **Extent of Soil Contamination**

- a) Maps showing the extent of soil degradation by chemicals of concern in excess of guidelines, before and after remediation.
- b) Geologic log of the most highly degraded soil boring or monitoring well showing sample points with a list of contaminant concentrations.
- c) Summary table of all historic soil sampling results.

4. **Extent of Ground Water Contamination**

- a) Maps showing the extent of ground water degradation in excess of detection limits for chemicals of concern, before and after remediation.
- b) Geologic logs, including construction, for all wells.
- c) Representative geologic log identifying all aquifers.
- d) Two intersecting cross-sections of the site.
- e) Summary table of all historic ground water analyses and water levels.