SOIL REMEDIAL ACTION REPORT

Pacific Coast Pipeline Superfund Site

Fillmore, California

Approved By:

John Lyons

John Lyons, Acting Assistant Director
Superfund Site Cleanup and Enforcement Branch
U.S. EPA, Region 9

August 28, 2016

Date

Table of Contents

Tables

Figures

Appendix

Abbreviations and Acronyms

ARARs	applicable or relevant and appropriate requirements
AOC	area of concern
bgs	below ground surface
CA	consolidation area
COCs	chemicals of concern
CQAP	Construction Quality Assurance Plan
cy	cubic yards
DTSC	Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
ICs	institutional controls
MCL	maximum contaminant level
µg/dL	micrograms per deciliter
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NPL	National Priorities List
PAHs	polycyclic aromatic hydrocarbons
PCPL	Pacific Coast Pipeline
QAPP	Quality Assurance Project Plan
RA	remedial action
RD	remedial design
RAO	remedial action objectives
ROD	Record of Decision
RWQCB	State of California Regional Water Quality Control Board
SLERA	screening level ecological risk assessment
SWPPP	storm water pollution prevention plan
VOCs	volatile organic chemicals

1. BACKGROUND

This Remedial Action Report documents completion of the soil remedial action (RA) at the Pacific Coast Pipeline (PCPL) Superfund Site (Site) in Fillmore, California. The RA was completed in accordance with the 2011 Record of Decision Amendment and the 2013 First Amended Consent Decree (CD). The soil cleanup was conducted by Chevron Environmental Management Company (Chevron), with the U.S Environmental Protection Agency (EPA) providing oversight and the California Department of Toxic Substances Control (DTSC) providing state review. This Remedial Action Report was prepared consistent with the EPA guidance, *Close Out Procedures for National Priorities List Sites* (EPA 2011). The EPA site identification number is CAD980636781.

This Remedial Action Report does not document the groundwater cleanup, which is being conducted as a separate, long-term RA.

1.1. General Description

The PCPL Site is located just east of the City of Fillmore in Ventura County, California (Figure 1). It is at 67 East Telegraph Road, north of State Highway 126 and east of Pole Creek (latitude 34.400152; longitude -118.903954) and covers approximately 55 acres. The area is a mix of residences, businesses, and agricultural land. West of the Site is Pole Creek and south of the Site is the Santa Clara River.

1.2. Site History and Contamination

Texaco operated an oil refinery at the Site from 1915 until 1950, at which time the refinery was dismantled. The property was converted into a crude oil storage and pumping station in 1952 and operated until 2002, when the remaining facilities were removed. Texaco merged with Chevron in 2001 and Chevron took over the cleanup. The primary products of the refinery were gasoline, diesel, and fuel oil. Process units included a hydrogen sulfide fractionator, agitators, various stills for refining petroleum, and a depropanizer.

Refinery wastes were disposed of on the former refinery property (Property) in a large main waste pit located along the western boundary and in eight smaller unlined sumps and pits distributed throughout the Property. As a result of refinery operations, soil and groundwater became contaminated. The chemicals of concern (COCs) in soil are lead and polycyclic aromatic hydrocarbons (PAHs) and the COCs in soil gas are benzene, ethylbenzene, and naphthalene. The COCs in groundwater in 1992 were benzene, toluene, ethylbenzene, 1,2-dichloroethane, and methylene chloride. By 2000 the only COCs in groundwater above drinking water standards were benzene and toluene. Figure 2 presents the locations of the two plumes of contaminated groundwater.

1.3. Summary of Past Investigations

The first cleanup activities began in 1980. The Regional Water Quality Control Board, Los Angeles Region (RWQCB), directed Texaco to investigate the groundwater at the Site. More investigations followed, with oversight by both the California Department of Health Services and EPA. Due to a suite of hazardous petroleum chemicals (benzene, toluene, ethylbenzene, and xylene) in groundwater, EPA placed the Site on the National Priorities List in 1989.

1.4. Record of Decision

EPA issued a groundwater Record of Decision (ROD) in 1992; the selected remedy was groundwater pump and treat and soil vapor extraction. The treatment systems operated from 1993 until 2002, when they reached the limits of their effectiveness and were shut off. A focused Remedial Investigation/Feasibility Study was completed in 2011 to address the remaining groundwater contamination and soil contamination.

1.4.1. *ROD Amendment*

EPA issued a sitewide Record of Decision Amendment on September 29, 2011. The remedial actions presented in the ROD Amendment address both soil and groundwater contamination. The selected remedy for soil includes excavation of contaminated soil and disposal in a consolidation area on the Property, with a cap over the consolidation area. The selected remedy for contaminated groundwater includes air sparging, followed by enhanced bioremediation with sulfate, followed by monitored natural attenuation. The selected remedy also includes Institutional controls (ICs) to restrict the property to industrial and recreational uses, limit actions that could interfere with the remedy (e.g., cap), and prohibit groundwater use until groundwater cleanup levels are met.

1.4.2. *Remedial Action Objectives*

As identified in the ROD Amendment, the overall goal of the RA at the PCPL Site is to protect human health and the environment from risks presented by contaminated soil and groundwater. Based on the current and projected land use and zoning for the Property, EPA determined that cleanup standards could be consistent with continued industrial/commercial use of the Property. The remedial action objectives listed in the ROD Amendment are:

- Prevent human exposure through direct dermal contact, ingestion, and inhalation of shallow soil and soil vapor contaminated above threshold levels for commercial land use, construction activities, and recreational activities.

- Prevent use of contaminated groundwater and restore the aquifer to the most beneficial use, i.e., drinking water, within a reasonable time frame.

- Prevent contaminants in waste pit (lead, PAHs) from migrating into underlying groundwater.

- Reduce contamination in soil below toxicity threshold levels so it is not toxic to the plants and animals of the existing scrub habitat.

1.4.3. *Cleanup Levels*

The National Contingency Plan (40 CFR 300.430(e)(2)(i)) requires remediation goals be established by considering applicable or relevant and appropriate requirements (ARARs) and by establishing acceptable exposure levels that are protective of human health and the environment. Chemical specific ARARs may be used to establish cleanup levels. Where chemical-specific ARARs are not protective or are not available, site-specific, risk-based estimates of concentrations that are predicted to be protective of human health and the environment are used to develop numerical cleanup levels. For the COCs in Site groundwater, California drinking water standards were used. For the COCs in Site soil, risk-based concentrations were used.

For ecological receptors, the Screening Level Ecological Risk Assessment (SLERA) presented lead as the only contaminant of ecological concern in surface and subsurface soil. Lead exceeded the ecological risk benchmarks of 11 mg/kg for birds (surface soil, top 6 inches) and 56 mg/kg for mammals (subsurface soil, 6 inches to 6 feet). The benchmark for surface soil was lower than the Site background concentration of 26 mg/kg so EPA selected 26 mg/kg as the cleanup level for surface soil because it is Agency policy to not clean up soil below background levels. EPA selected the benchmark concentration of 56 mg/kg as the cleanup level for lead in subsurface soil in order to protect burrowing mammals.

Table 1 shows the ROD Amendment cleanup levels for all COCs.

Table 1: Cleanup Levels

Chemical of Concern	Cleanup Level	Basis for Cleanup Level	Risk at Cleanup Level
HUMAN RECEPTORS			
GROUNDWATER	**µg/L**		
Benzene	1	California MCL	cancer, 2.4×10^{-6}
Toluene	150	California MCL	non-cancer, Hazard Index < 1
SOIL	**mg/kg**		
Metals			
Lead	320	Risk Assessment	Blood-lead = 1 µg/dL
Polycyclic Aromatic Hydrocarbons			
Benzo(a)anthracene	1.2	Risk Assessment	Cancer, 1×10^{-6}

Chemical of Concern	Cleanup Level	Basis for Cleanup Level	Risk at Cleanup Level
Benzo(a)pyrene	0.12	Risk Assessment	
Benzo(b)fluoranthene	1.2	Risk Assessment	
Benzo(k)fluoranthene	1.2	Risk Assessment	
Chrysene	12	Risk Assessment	
Dibenz(a,h)anthracene	0.35	Risk Assessment	
Indeno(1,2,3-cd)pyrene	1.2	Risk Assessment	
Naphthalene	13	Risk Assessment	
SOIL GAS	**µg/L**		
Benzene	0.62	Risk Assessment	Cancer, 1 x 10^{-6}
Ethylbenzene	7.8	Risk Assessment	
Naphthalene	0.65	Risk Assessment	
ECOLOGICAL RECEPTORS – SOIL			
Lead in surface soil, top 6 inches	26 mg/kg	SLERA	acceptable
Lead in subsurface soil, down to 6 feet	56 mg/kg	SLERA	acceptable

µg/L – micrograms per liter
mg/kg – milligrams per kilogram
µg/dL – micrograms per deciliter
SLERA – screening level ecological risk assessment

1.4.4. *Selected Remedy*

The soil remedy focused on all contaminants down to 10 feet below ground surface (bgs) that exceeded the selected cleanup levels. The remedy included

- excavation of contaminated soil;
- consolidation of the soil in the area of the former main waste pit;
- construction of an engineered cap over the consolidation area;
- backfilling of excavated areas with clean soil;
- institutional controls; and
- a long-term monitoring and maintenance program to ensure the integrity of the cap.

Dust monitoring and dust suppression were conducted during implementation of this remedy. The cleanup would reduce the lead risk to humans to a blood-lead concentration of 1 µg/dL and would reduce the PAH cancer risk to 1 x 10^{-6}. ICs would ensure that the residential and other sensitive uses of the Property are prohibited and would protect the cap integrity. The Property may not be used for any of the following purposes:

- a residence;
- a hospital;
- a school for persons under the age of 18; and
- a day care center for children.

Cap inspection and maintenance are the only ongoing operation and maintenance activities for this RA. Inspections are conducted bi-annually.

The remedy required ten feet of clean fill above any soil with a COC that exceeds its cleanup level. In the 60 years since the refinery shut down, lead and PAHs have not migrated down to groundwater. EPA, with DTSC concurrence, determined that lead and PAH-contaminated soils located at depths greater than 10 feet bgs do not pose a threat to human health or the environment because there is not a completed exposure pathway. Long-term groundwater monitoring will enable EPA to confirm these COCs are not migrating down to groundwater.

1.4.5. *Institutional Controls*

ICs are a key component of the remedy. ICs are non-engineered controls applied to property to minimize the potential for exposure to contamination left on a property, to minimize the potential for exposure during a long-term treatment before cleanup levels are reached, and/or to protect the remedy after it is completed. The soil ICs are:

- Types of control: Deed restrictions, a land use covenant between the State and property owner, and City zoning requirements;
- Relationship of control to remedy: To protect Property users from long-term exposure to contaminated soil; to protect the remedy (waste pit cap) from construction activities;
- Objectives obtained by ICs: Prevent long-term exposure to contaminants in soil; prevent migration of contaminants in soil;
- Performance standards: Prohibit residential and other sensitive uses of the Property;
- Monitoring: To ensure the ICs are implemented and enforced; and
- Responsible entities: Deed restrictions included by Chevron when property is conveyed; a restrictive covenant to be signed by Chevron and California DTSC, with EPA as third party beneficiary, and filed at the Ventura County Recorder's office; zoning by the City of Fillmore.

1.5. Remedial Design

Chevron conducted remedial design (RD) activities from 2011 to 2013 that included additional soil sampling to further delineate the lateral extent of contamination and to determine if the historical soil berms throughout the Property had contamination exceeding ROD Amendment cleanup levels. Other activities included notifying the public and obtaining necessary permits. The following documents were submitted for Agency review and approval prior to and during the RA:

- *Soil Delineation Sampling and Infrastructure Removal Report* (URS, December 2011)
- *Storm Water Pollution Prevention Plan* (URS, January 2013)
- *Dust Suppression and Air Monitoring Plan* (URS, March 2013)

- *Final Soil Remedial Design* (URS, April 2013)
- *Quality Assurance Project Plan* (URS, April 2013, updated February 2014)
- *Quality Assurance Project Plan* (RECON, March 2013)
- *Final Soil Remedial Action Work Plan* (URS, April 2013)
- *Work Plan for Post-Remediation Soil Vapor Sampling* (URS, July 2014)
- *Infrastructure Removal Report Phase 2* (URS, April 2013)

The RD included a project completion strategy, design criteria, final plans and specifications, construction drawings, and project schedule. The Remedial Action Work Plan documented the procedures to be followed during RA implementation such as obtaining permits, subsurface utility clearance, earthwork activities, field sampling, quality assurance and quality control, dust suppression, air monitoring, grading plans and specifications, and schedule.

Prior to finalizing the RD, Chevron and EPA conferred on the location for the soil consolidation area (CA). The former main waste pit, excavated in 1986 with state oversight, was identified in the ROD as the CA location, but to minimize noise and dust impacts to residents along the west side, other areas on the Property were considered. After further analysis, EPA concluded that the expansion of the former main waste pit was still the best option. The main CA was designed to accommodate 23,500 cubic yards (cy) of soil; however, a supplemental CA was designed as a contingency in case more volume was needed than the original estimate of 19,600 cy.

2. CONSTRUCTION ACTIVITIES

The soil RA was conducted by Chevron Environmental Management Company pursuant to the 2013 First Amended Consent Decree, with EPA as lead oversight agency and DTSC providing state oversight. The RA activities were conducted in accordance with the EPA-approved Remedial Action Work Plan. Major components of the RA were:

- Excavation and segregated stockpiling of clean and contaminated soil from the planned CA;
- Excavation of contaminated soil exceeding the cleanup levels established in the ROD Amendment;
- Air monitoring;
- Confirmation analytical testing;
- Placement of contaminated soil in the CA;
- Construction of an engineered cap; and
- Mass grading across the Property to backfill excavation areas, remove historic earthen berms, build drainage features, and prepare the Property for reuse.

Construction activities took place during two construction seasons, from May 2013 to November 2013 and March 2014 to November 2014. The terms of the permit issued by the RWQCB required that construction cease in November of both years.

2.1. Pre-Construction Activities

Chevron conducted additional, post-ROD field work to prepare for the RA. Concrete pads and subsurface pipes were removed to eliminate obstructions to excavation and grading. Spectrum Geophysics (Burbank, California) conducted geophysical surveys in 2010 and 2012 with an EM-61 magnetometer to determine pipeline locations. The majority of the pipelines (93,564 feet) were removed in several phases between 2011 and 2013. An additional 1,846 feet were removed in 2014. During removal, the piping was "cold-tapped" to verify the pipeline was not under pressure. If pressure was detected in the pipe, the bleeder valve was opened momentarily to evaluate the concentration of hydrogen sulfide, carbon monoxide and oxygen. Residual oil was removed from the pipeline and stored in 55-gallon drums and disposed of appropriately. The pipeline was removed after being fully depressurized. Abestos-containing material associated with historical infrastructure debris was uncovered in a few locations in 2013 and 2014 and removed under the direction of a California Certified Asbestos Consultant. It was trucked to Clean Harbors' Buttonwillow, California, landfill for disposal as a hazardous waste.

EPA coordinated community outreach activities with support from Chevron. EPA held a community meeting on February 28, 2013, and conducted two tours of the Property on March 19, 2013. During two years of construction activities, letter and flyers notifying the community of the upcoming construction activities were distributed to nearby residents and school, city, and county officials.

Areas on the Property were identified as sources for clean backfill and sampled in accordance with the approved Quality Assurance Project Plan (QAPP) and Construction Quality Assurance Plan (CQAP). The majority of the clean fill was taken from the northern portion of the Property, where no historical refinery operations occurred, or from the overburden for the excavation of the two CAs.

As required by California law, Underground Service Alert of Southern California (USA) was contacted prior to initiating fieldwork. USA requested utility clearance by parties with underground utilities in the area adjacent to the former refinery property. Following notification, utility owners marked the approximate location of each subsurface utility.

2.2. Site Preparation Activities

Prior to the onset of soil construction activities, a kick-off meeting was held on March 20, 2013, and included all key project team members. The purpose of the meeting was to introduce team members and explain roles and responsibilities. Project schedule, reporting requirements, and

provisions of the CQAP were highlighted. Also discussed were community outreach and Ventura County field inspection activities. Chevron led a second kick-off meeting on April 15, 2013, which focused on remediation construction activities, CA design, soil sampling objectives, and dust emission control.

Property vegetation (trees, brush) was removed by Quality AG, Inc. in March 2013. The majority of the removed vegetation was chipped and mulched for reuse on the Property. The remainder was transported to Santa Clara Organics in Fillmore or Calwood in Ventura for green waste recycling. Representative samples of wood chips and roots were tested to assure the vegetation was not contaminated and was suitable for reuse.

2.2.1. Mobilization

Temporary facilities were established on the Property and included field trailers, portable generators, portable toilets, hand washing stations, storage units for tools/instruments, and a parking area. Storm Water Pollution Prevention Plan (SWPPP) best management practices included the installation of a silt fence and wind screen along Pole Creek channel. Heavy equipment (excavators, dump trucks, dozers, compactors, water trucks) was brought on the Property. Water required for the project was obtained from a deep, uncontaminated, pre-existing industrial water supply well located on the Property and stored in two 10,000 gallon above-ground storage tanks. Property roadways were marked and the construction area entrance had gravel and rumble strips laid down to prevent dirt track out. Chevron Project Manager contact information was posted on the perimeter fence and security measures included hiring night and weekend security.

A Davis Instruments VantagePro2 weather station was set up on the property. The weather station was equipped with a rain collector, temperature and humidity sensors, and an anemometer. The weather station was connected to a wireless transmitter that sent weather measurements once per minute to a data logger in the project trailer. A wind sock was also installed on the perimeter fence as a visual wind direction indicator, and used to verify the wind direction recorded by the weather station data logger.

2.3. Consolidation Area Construction

Construction started on May 14, 2013. CA excavation was concurrent with excavation of contaminated soil. The main CA was constructed along the western property boundary, just east of Pole Creek, in the vicinity of the former main waste pit. The main CA was designed as a long, narrow underground repository running parallel to Pole Creek, with the intention that the cap could be covered by an asphalt road as part of property redevelopment. The main CA was excavated to approximately 25 ft bgs with a final dimension of 1,040’ x 55’. However, by July 2013, the quantity of contaminated soil generated was greater than initially estimated and Chevron determined that a Supplemental CA would be required. The Supplemental CA, which

was also constructed to 25 ft bgs, is located in the central portion of the property just east of the main CA (Figure 3), with a final dimension of 225' x 175'.

2.4. Soil Excavation Activities

Contaminated soil was removed from locations with chemical concentrations above ROD cleanup levels including: 39 locations with elevated lead, 40 locations with elevated PAHs, and 17 locations with elevated levels of both lead and PAHs (Figure 4). Three volatile organic chemicals (VOCs), benzene, ethylbenzene, and naphthalene, were identified during the remedial investigation in soil gas analytical samples above risk-based levels (cancer risk of 10^{-6}). The VOCs were located in Area of Concern 6 (the former refinery property was divided into Areas of Concern, AOCs, based on historical uses, chemical releases, or geography) and co-located with PAHs. Excavation of the PAH-contaminated soil in AOC 6 also removed these VOCs.

The majority of the excavation work was completed in 2013. However, due to time constraints and the RWCQB requirement that field work cease by November 2013, excavation point #83 could not be excavated before the Property was secured for the winter. Excavation work resumed in March 2014.

2.4.1. Summary of Contaminated Soil Excavation

Substantially more contaminated soil was encountered than estimated in the RD. The RD contaminated soil volume estimate was 19,600 cy and the final amount of contaminated soil excavated was 43,612 cy. The reasons for this increase were that several of the excavation locations merged in the subsurface with the adjoining locations; Chevron's decision to grade the property into numerous flat parcels required additional excavation to meet the 10' clean fill requirement; and additional buried debris was discovered during the grading.

Approximately 43,612 cy of soil were excavated during the RA. 41,899 cy were placed in the two CAs: 22,425 cy in the main CA and 19,474 cy in the Supplemental CA. The remaining 1,713 cy, encountered and excavated after the two CA caps were in place, were disposed of as a non-hazardous waste at Clean Harbors' Buttonwillow, California, landfill. The soil was characterized as non-hazardous because it did not meet the characteristics of a hazardous waste defined in 40 CFR (i.e., ignitability, corrosivity, reactivity, or toxicity) and was not a RCRA listed waste.

Chevron's construction contractor used GPS-enabled heavy equipment, allowing the operator to accurately define the excavator's bucket position by both location and depth relative to soil contamination.

2.4.2. Confirmation Soil Sampling

Soil samples were collected from each excavation location and analyzed to confirm that ROD cleanup levels had been met. Sidewall samples were collected every 20 linear feet and one bottom sample was collected every 400 square feet. The confirmation sampling program focused on lead and PAHs; the VOCs in AOC 6, as described above, were removed concurrently with the PAHs. Once analytical results from the lab confirmed that ROD soil cleanup levels had been met, the excavations were backfilled with clean fill.

To evaluate the presence of VOCs, soil samples were placed in plastic bags and allowed to equilibrate for 15 minutes, after which time soil vapor headspace was sampled with a calibrated PID. If headspace concentrations exceeded 50 parts per million, a discrete soil sample was collected.

2.4.3. Soil Fill and Compaction

A bulldozer was used to spread fill soils in areas of excavation and consolidation. The fill material was primarily a blend of silty sand and clayey sand with varying percentages of gravel and trace cobble-sized fragments. Prior to placement, the fill soils were stripped of remnant vegetation and historical construction debris (pipeline, brick, concrete, and other abandoned infrastructure), placed in 6- to 8 inch lifts, watered or air dried as necessary to achieve optimum moisture content, compacted, and tested in accordance with ASTM Standard D1557- to verify that the RD soil compaction requirements (e.g., 90 to 95% of the soil maximum dry density) were achieved.

2.5. Engineered Cap

A 5-foot-thick engineered cap was placed on each CA. Each cap consists of several layers designed to prevent penetration and vertical water infiltration. Each cap, from top to bottom, includes:

1. engineered clean fill, a minimum thickness of three feet;
2. a protective layer of orange indicator mesh identifying the presence of the underlying low permeability cap elements;
3. a one-foot thick layer of engineered structural fill material;
4. a 6-inch layer of protective granular buffer material;
5. an 80-ml thick geosynthetic clay liner; and
6. another 6-inch thick layer of protective granular buffer material

Soil samples were submitted for grain size analysis to Environmental Geotechnology Laboratory, Inc., in Arcadia, California to demonstrate compliance with RD specifications.

An erosion control barrier of cellular confinement geotextile mat (Geoweb GW40V8) was constructed along the western side of the main CA. This protective layer was installed to avoid potential erosion adjacent to the Pole Creek channel. The existing grade along the Pole Creek property line was maintained and the Property grade was raised, resulting in a minor slope (generally less than 2 feet high and at a slope of less than 3:1) to ensure the existing Pole Creek flow characteristics were not altered by construction of the main CA.

2.6. Property Grading

Upon completion of excavation and construction of the CAs, the Property was graded in accordance with the RD. The goal of the grading was to prepare the Property for beneficial reuse. Grading included removal of historic building pads and earthen berms, construction of 16 lots, building of interior roadways, modification of eastern slopes (AOC 1), and installation of draining control features including lined ditches, swales, piping, and retention/detention basins (Figure 5).

Two six-foot-deep stormwater detention basins were constructed and lined with woven fabric and rock. The Northern Detention Basin is located west of Lot MI-13 and captures storm water runoff from the northern half of the east slope, from areas off the Property, and from Lots MI-13 and MI-14. Any Northern Basin overflow is split between Pole Creek and the Southern Detention Basin. The Southern Detention Basin, located between Lots CH-2 and SH-5, captures stormwater runoff from the southern half of the Property and half of any overflow from the Northern Detention Basin. Both detention basins provide piped connections to Pole Creek. Both basins have overbank emergency spillway features to convey excess flows over cellular confinement erosion control mats and over the Pole Creek wall. All drainage control features were approved and permitted by the Ventura County Watershed Protection District.

2.7. Air and Dust Monitoring

Due to the proximity of homes and San Cayetano Elementary School to the Site, EPA required Chevron to conduct extensive air monitoring and dust suppression during the RA. Air monitoring was conducted according to the *Dust Suppression and Air Monitoring Plan* (URS, April 2013). Goals and requirements of the monitoring plan were to:

- prevent visible emissions beyond the property boundary;
- prevent dust emissions with opacity greater than 20%;
- limit dust tracking to no more than 25 feet off the Property; and
- discontinue earthwork in high wind conditions, defined as 25 mph sustained for 5 minutes in a 1-hour period

Air monitoring was conducted daily and analytical sampling was conducted weekly at ten air monitoring stations along the Property perimeter. Seven were installed along the western boundary east of Pole Creek, two were installed at the southeast boundary, and one was installed on the northeast boundary (Figure 6). Perimeter dust monitoring was conducted daily during remedial activities using handheld dust meters. When dust was detected above the target air concentration, additional dust suppression methods were used, including potable water or a soil stabilizer (Soil Sement®) on windier days. This soil stabilizer was also applied at the end of each work day.

During excavation, mostly occurring during the hottest days in August and September when there was no breeze, nearby residents sometimes reported "a very strong tar odor" which was from historic petroleum hydrocarbons in the Property soil. Naphthalene was the petroleum chemical with the highest concentration and the most likely source of the smell. Even though the odor was reported at times to be "strong", detected concentrations of naphthalene were never reported above its health-based screening level of 0.072 µg/m^3.

2.8. Storm Water Pollution Prevention Inspections

In accordance with the SWPPP, a qualified SWPPP professional completed weekly inspections to document the compliance and effectiveness of erosion control "best management" practices. Perimeter fencing was inspected, sediment barriers were verified, and any damaged erosion control materials were replaced. The Property entrance was inspected to verify that soil track-out did not extend 25 feet beyond the entrance.

2.9. Documenting Locations

The locations of construction features including the CAs, pipelines, excavations, drainage ditches, and retention basins were documented during this project. Survey activities were conducted by California Professional Land Surveyors employed by Cannon Corp. Soil sampling locations were documented with a handheld Trimble GeoXT sub-meter GPS receiver. These locations were also sketched in field logs.

2.10. Waste Disposal

Waste generated during the RA included asbestos-containing material, oil-stained concrete, trees and mulch, scrap metal, and municipal waste. Waste was handled as described in QAPP SOP 013, Management of Investigation Derived Waste. A summary of waste generated during the project:

- Approximately 2,420 tons of asbestos-containing debris was transported as hazardous waste to Clean Harbors in Buttonwillow, California
- Approximately 1,449 tons of soil was transported as non-hazardous waste to Clean Harbors, Buttonwillow

- Approximately 96 tons of scrap metal was transported for recycling to Standard Industries in Ventura, California
- Approximately 11 tons of green waste was transported for recycling by E.J. Harrison and Sons and Gold Coast Recycling and Transfer Station, Ventura, California
- One drum of oily waste items (rags with hydraulic fluids, etc.) was transported as a hazardous waste to Clean Harbors in Wilmington, California

2.11. Deviations from the Remedial Design

During the remedial action, cleanup deviations from the RD and RA Work Plan were discussed with the EPA Project Manager, documented in bi-weekly status updates, and summarized in the *Soil Remedial Action Report (Part 2), Section 4.1* (URS, January 2015). The key deviations are identified in the subsections below.

2.11.1. *Schedule Changes*

The RD schedule indicated that all soil remedial action would be completed during 2013. Due to a variety of factors, the remedial work was not completed until 2014. Reasons include:

- More contaminated soil than calculated in the RI;
- More subsurface pipeline removed than anticipated;
- More subsurface debris encountered than anticipated;
- Historical fill areas required excavation, filling, and compaction to meet redevelopment geotechnical requirements

2.11.2. *Hillside Excavation*

The eastern side of the Property (AOC 1), approximately 15 acres, is dominated by a hill with scrub habitat. Soil in AOC 1 was sampled during the RI but approximately one acre of the steepest section was not sampled at that time. Contaminated soil was excavated from areas at the base and top of the hill and in a few areas on the slope in 2013. To confirm that hillside soil met ecological cleanup levels, the previously unsampled area was sampled in the spring of 2014. Soil with lead above the SLERA cleanup levels was removed from two additional areas on the slope (Figure 7). The lead cleanup levels for this AOC were selected to protect burrowing animals and small birds. EPA selected the background lead concentration (26 mg/kg) as the cleanup level for surface soil, and a slightly higher value (56 mg/kg, based on potential lead toxicity to burrowing mammals) as the cleanup level for soils deeper than 6 inches bgs. Because the excavated soil had lead concentrations less than 320 mg/kg (the human health risk-based cleanup level used for the remainder of the Property), this soil was used as backfill for Property areas without ecological receptors. For more information, see *AOC 1 Soil Lead Evaluation at the Pacific Coast Pipeline Site* (Geomega, September 2014)

2.11.3. *Additional Excavation Locations*

In 2014 additional contaminated soil was detected in several areas at the southwest end of the Property, resulting in unplanned excavations, including a former rail spur underlain with PAH-contaminated soils. The locations of these additional soil excavation are presented in Figure 4.

2.11.4. *Soil Trucked Off-Site*

As described above, the two CAs were capped at the conclusion of field work in November 2013. In order to dispose of the contaminated soils generated during 2014, EPA determined that Chevron should truck and dispose the soil instead of opening the capped Supplemental CA. 1,713 cy of soil was trucked to Buttonwillow.

2.12. Post-Remedial Soil Vapor Sampling

Analysis of soil vapor samples collected during the remedial investigation of AOC 6 reported concentrations of benzene, ethylbenzene, and naphthalene above the respective risk-based screening levels. Post-remediation soil vapor sampling was conducted to confirm that ROD cleanup levels had been met. Vapor sampling was also conducted in areas where VOC-impacted soil was detected at the bottom of excavations at 10 feet bgs, even if bottom sample concentrations were below soil cleanup levels.

A total of 81 temporary vapor monitoring probes were installed with a direct push drill rig to a depth of approximately five feet bgs. Probe installation started on October 20, 2014. Time for equilibration was allowed and sample collection began the week of November 10. During sample collection the probes were purged, then vapor samples were collected in 1-liter Summa canisters. Sample collection was considered complete when the vacuum in the canister registered approximately 5 inHg. The samples were analyzed by ALS Environmental in Simi Valley, California. All but one location, VP-OS-18-02, had soil vapor concentrations below the ROD cleanup levels. This location was resampled in January and again in July. July results showed all COCs below their cleanup levels.

Date	Benzene Concentration (µg/m^3)	Benzene cleanup level
11/11/2014	2,100	620 µg/m^3
01/18/2015	690	
07/27/2015	<2.5	

Complete sampling details are in the *Post-Remediation Soil Vapor Sampling Report,* August 28, 2015.

3. Chronology of Events

Table 2: Chronology of Events

Event	Date
ROD Amendment	09/29/2011
First Amended CD negotiations begin	06/26/2012
EPA issues fact sheet and postcards on upcoming field work	Feb 2013
EPA holds community meeting	02/28/2013
Site mobilization	03/18/2013
EPA conducts public site tours	03/19/2013
Kickoff meeting with EPA, Chevron, Ventura County, contractors	03/20/2013
EPA approves QAPP	04/30/2013
First Amended CD lodged	05/03/2013
EPA approves Remedial Action Work Plan, Remedial Design, Construction Quality Assurance Plan	05/09/2013
Soil excavation begins	05/14/2013
Technical Assistance Services for Communities (TASC), Discussion Series #1	05/21/2013
TASC, Discussion Series #2	07/18/2013
Order approving entry of First Amended CD	08/07/2013
Chevron issues postcard on field work status	09/03/2013
Final excavation work for 2013	10/18/2013
Consolidation area caps completed	11/05/2013
Completion of 2013 field work, demobilization finished	11/08/2013
2014 field activities begin	03/03/2014
EPA provides update at community meeting	03/27/2014
Hillside soil sampling and excavation	Mar 2014 – May 2014
Chevron submits Soil Remedial Action Report (Part 1)	04/17/2014
EPA issues postcard on status of additional soil cleanup	08/22/2014
Chevron notifies EPA of Soil Construction Completion	09/23/2014
EPA and DTSC conduct Pre-final Soil Construction Inspection	09/24/2014
Chevron submits Pre-Final Inspection Report	10/08/2014
Property drainage features completed	11/01/2014
EPA conducts Final Soil Construction Inspection	11/13/2014
Demobilization completed	11/21/2014
Post-remediation soil vapor sampling	Oct 2014 – July 2015
Chevron submits Soil Operation, Maintenance & Monitoring Plan	05/07/2015
Chevron submits Soil Remedial Action Report (Part 2)	08/28/2015
Chevron submits Post Remediation Soil Vapor Sampling Report	10/30/2015
Land Use Covenants recorded, Ventura County Recorder's Office	08/19/2016

4. Performance Standards and Construction Quality

The overall goal of the RA at the PCPL Site is to protect human health and the environment from risks presented by contaminated soil and groundwater.

4.1. Consolidation Areas

In 2013, 41,899 cy of soil were excavated and placed in two CAs, with 22,425 cy in the main CA and 19,474 in the supplemental CA. An additional 1,713 cy were trucked to the Clean Harbor landfill in Buttonwillow in 2014 for disposal as non-hazardous material. Section 2.10 of this report identifies other material and waste that was trucked off-site and disposed.

4.2. Quality Assurance

EPA approved a Quality Assurance Project Plan (QAPP), consisting of a Field Sampling Plan and a Sampling and Analysis Plan, which covered project management, data acquisition and measurements, project assessment, and data review. Field instruments were maintained and calibrated as described in the QAPP and in accordance with manufacturers' directions. A Construction Quality Assurance Plan (CQAP) was also developed and subsequently approved by EPA, which covered inspection activities, field screening, excavation sample collection and analysis, materials and compaction testing, and record keeping.

EPA reviewed and approved the QA/QC procedures used by Chevron's contractors for environmental sampling collection and analysis. The QA/QC plan covered field replicates, trip blanks, equipment decontamination, temperature blanks, and laboratory QC samples. Bi-weekly status reports were submitted to EPA and any issues that arose were brought to the attention of the EPA Project Manager for resolution. A total of 4,527 soil samples were analyzed by TestAmerica for lead, PAHs, and VOCs. In the field, a total of 2,164 samples were screened for lead using XRF. Those samples that were at or near lead cleanup level were sent to TestAmerica for confirmation. The XRF field results closely aligned with the TestAmerica results.

Soil density testing was conducted to confirm that all compacted fill met the requirements established in the RD (based on California building codes). The standard used for the CAs was 95% relative compaction; this level was selected in order to reduce porosity and increase the quantity of soil that could be deposited in the CAs. The standard for the excavation areas was 90% relative compaction. Prior to the RA, consultants for Chevron developed soil density curves for the different Property soil types. During soil backfilling and compaction in 6" to 8" lifts, a nuclear density gauge was used to calculate the percentage of compaction. A total of 58 compaction tests were performed on soil materials placed within removed pipeline trenches, and 365 compaction tests were performed on soil materials placed within the CAs and excavation areas.

4.3. Dust Monitoring

EPA also reviewed and approved a *Dust Suppression and Air Monitoring Plan* (DSAMP). Due to the proximity of residents and a school, it was essential that dust be controlled during the RA and that no visible dust leave the Property. Contact information was posted along the fence line so residents could report dust. Air monitoring conducted during the RA indicated that fugitive dust particles with a diameter of 10 micrometers or less did not migrate off the Property. Perimeter air sample analysis was conducted at the TestAmerica lab in Phoenix, Arizona and ALS Environmental in Cincinnati, Ohio.

A total of 331 air samples were analyzed for PM_{10} and lead. Several samples had PM_{10} concentrations above the National Ambient Air Quality Standards screening level but the net ground level site contribution was calculated to be less than 50 µg/^{3} on each of those days (the maximum allowed at the perimeter per the DSAMP). Lead was detected in two samples at 0.14 µg/m^3, which was below the NAAQS screening level of 0.15 µg/m^3. A total of 223 air samples were analyzed by for PAHs. No PAHs were detected above the laboratory reporting limits, which ranged from 0.000216 to 0.00297 mg/m^3, well below Regional Screening Levels.

If wind speeds exceeded 25 miles per hour for over five minutes, the DSAMP required that all earthwork stop. The wind speed was only once above 25 mph (26.6 mph on October 4, 2013). On days when dust was visible due to wind, soil-moving activity was stopped and Soil Sement was applied. Earthwork was shut down due to windy conditions on seven days.

4.4. Data Validation

All soil data was validated following the EPA National Functional Guidelines. The QAPP required two types of data validation, Level III, which is a cursory review of data and Level IV, which is a more stringent review using raw data. Level III was performed on all data and Level IV was required on at least 10% of the data. (Level III and Level IV are comparable to EPA Stage 2A and Stage 4A, respectively.) Table 3 below presents the number of samples that received Level IV review.

Table 3: Level IV Data Validation Samples

	Lead	PAHs	VOCs
Total number of samples	2,147	1,740	640
Total Level IV	287	173	79
Percentage	13	10	12

Asbestos-containing material analysis was conducted by LA Testing in Pasadena, California and EMSL Analytical in San Leandro, California. A total of 11 bulk samples were analyzed by polarized light microscopy, 107 air samples analyzed by CARB/AHERA, and 97 air samples analyzed by NIOSH Method 7400. The data was validated in accordance with the QAPP.

4.5. Field Oversight

EPA contractor Gilbane, Inc., conducted field oversight and collected split samples on July 9 and 10, 2013. Subsequent split samples were collected by URS on seven dates from July 12 through October 2, 2013; the samples were analyzed by Curtis & Tompkins Analytical Laboratories in Berkeley, California. After comparing the results, Gilbane determined that agreement of lead results between the two laboratories for split sample pairs is acceptable for the heterogeneous medium of soil. The Split Sample Report is Appendix S in the URS *Soil Remedial Action Report (Part 1).*

Gilbane conducted field oversight on November 13, 2014, to observe and record URS field methods in performing post-remediation soil vapor sampling. Only very minor discrepancies between the QAPP and Work Plan were noted (e.g., QAPP stated 6-liter canisters would be used; Work Plan stated 1-liter canisters would be used.). The field observations are included in the References in this Report.

5. Final Inspection and Certifications

As required by the Consent Decree, Chevron notified EPA on September 22, 2014, that the construction of the soil RA was complete and that the only incomplete item was Property drainage controls.

5.1. Pre-Final Inspection

In order to document that the construction activities associated with the soil excavation, capping, and grading were completed in accordance with the ROD Amendment and Remedial Design, EPA, DTSC, Chevron, and its contractors conducted a pre-final inspection on September 24, 2014. The only item identified as incomplete during this inspection was drainage controls (concrete v-ditches, gravel-lined drainage swales and storm water retention basins, and upgraded drainage connections to Pole Creek) for protection of the capped areas and for compliance with county and state permits.

5.2. Final Inspection

EPA conducted a final inspection on November 13, 2014. The drainage features, which had been the only items noted during the pre-final inspection, had been completed. EPA determined that

all construction activities associated with the RA were complete and in accordance with the RA Work Plan.

5.3. Certification

Chevron submitted a Soil Remedial Action Report (Part 2), dated August 28, 2015, with a certification of the completion of the soil remedial action at the Pacific Coast Pipeline Superfund Site (Appendix A). EPA agrees that the soil remedial action is complete.

6. Operation, Maintenance, and Monitoring Activities

The operation, maintenance, and monitoring of the soil remedy includes periodic inspections of the CA caps and performance of any necessary maintenance. The *Final Soil Operation, Maintenance, and Monitoring Plan* establishes an inspection, monitoring, and maintenance program and a schedule of activities for the first five years following completion of the soil remedial action. Chevron is responsible for OM&M activities and EPA is responsible for oversight.

6.1. Site Inspections

Routine cap inspections will note the following:

- Presence and location of any areas of cap erosion;
- Presence and location of burrowing animal holes;
- Areas of settlement, cracking, or ponding; and
- Any other visual disturbances that might affect the integrity of the caps.

Routine drainage system inspections will note the following:

- Presence and location of any areas of drainage system that have eroded;
- Areas lacking free drainage;
- The condition of the erosion control features; and
- Any other disturbances that might impede the functionality of the drainage system.

Inspections will be conducted annually for the first two years following completion of the RA and every other year thereafter. A cap settlement survey will be conducted as part of the 2017 inspection. After five years, EPA can reduce the frequency of inspections, if appropriate.

Emergency inspections are required within 10 calendar days of any of the following:

- 100-year flood (now referred to as 1-percent annual exceedance probability), 24-hour rainfall event;
- When an earthquake of magnitude 6.0 or greater occurs within 50 miles of the Site and EPA notifies Chevron that an inspection is necessary;
- When a severe surface drainage problem occurs; or

- When there is catastrophic flooding.

6.2. Institutional Control Implementation

The soil remedy for the PCPL Site includes institutional controls to restrict future Property use to commercial and recreational purposes, and to limit actions that could interfere with the remedy (the caps). Pursuant to the CD, Chevron submitted an *Access and Institutional Controls Work Plan.* This plan describes IC program components and activities for implementing access and IC requirements. EPA, DTSC, and Chevron developed two land use covenants, one to restrict the use of the Property and one to restrict groundwater use until cleanup levels are achieved. The covenants are between Texaco Downstream Properties Inc. (an indirect subsidiary of Chevron) and DTSC, with EPA as a third party beneficiary. Both were recorded at the Ventura County Recorder's Office on August 19, 2016, and "run with the land", meaning the restrictions are binding on current and subsequent property owners and remain in effect until they are formally removed or modified.

7. Contact Information

Following is the contact information for the project managers for EPA, DTSC, and Chevron, and for the major contractors associated with implementation of the PCPL soil remedy:

Firm	Role/Responsibility	Contact Information
EPA	Federal Oversight	Holly Hadlock, Project Manager 75 Hawthorne Street (SFD-7-3) San Francisco, CA 94105 415-972-3171 Hadlock.holly@epa.gov
DTSC	State Oversight	Jessy Fierro, Project Manager 9211 Oakdale Avenue Chatsworth, CA 91311 818-717-6563 jfierro@dtsc.ca.gov
Gilbane	EPA Oversight Contractor	Jim Schollard 55 Hawthorne Street, Suite 445 San Francisco, CA 94105 925-250-8800 jschollard@gilbaneco.com
Chevron Environmental Management Co.	Responsible Party	Leslie Klinchuch, Project Manager P.O. Box 1392 Bakersfield, CA 93302 661-632-1408 leslieklinchuch@chevron.com

Firm	Role/Responsibility	Contact Information
URS (now AECOM)	Chevron Contractor	Jon Sanks, Project Manager 999 Town & Country Road Orange, CA 92868 714-689-7354 Jonathan.sanks@aecom.com
URS	Project Engineer	Tom Sweet, P.E. One Montgomery Street, Suite 900 San Francisco, CA 94104 415-896-5858 Tom.sweet@aecom.com
URS	Field Manager	Maz Ahvari 999 Town & Country Road Orange, CA 92868 714-567-2490 Maz.ahvari@aecom.com
RECON	Construction Contractor	Chad Evenson 9977 W. Sam Houston Pkwy N, Suite 100 Houston, TX 77064 949-237-7223

8. References

Chevron, 2010. *PCPL Fillmore Reuse Assessment*, January 12, 2010.

England and Associates (E&A), 1994. *Final Phase 2 Design Report, Pacific Coast Pipeline (PCPL) Superfund Site, Fillmore, California*, December 16, 1994.

ENSR, 1990. *Site Summary Background Report*. March 2, 1990.

ENSR, 1991. *Final Remedial Investigation Report*. June 1991.

ENSR, 1992. *Remedial Investigation / Feasibility Study*. 1992.

EPA, 1993. *Consent Decree – Pacific Coast Pipeline Site*. February 1993, Entered August 1993.

EPA, 2011. *Close Out Procedures For National Priorities List Sites.* OSWER Directive 9320.2-22, May 2011.

EPA, 2011. *Record of Decision Amendment, Pacific Coast Pipeline,* September 2011.

EPA, 2013. *First Amended Consent Decree, Case No. CV 93-2990-JSL (SHx),* Filed May 3, 2013.

Texaco Environmental Services (Texaco), 1994. *First Quarter 1994 Quarterly Status Report.* April 20, 1994.

URS Corporation (URS), 2006. *Soil Sampling Report Phase 1—Former Tank Areas, Pacific Coast Pipeline (PCPL) Superfund Site Fillmore, California,* Revised September 8, 2006.

URS, 2008. *Soil Sampling Report, Phase 2 – Historical Operations, PCPL Superfund Site Fillmore, California,* April 15, 2008.

URS, 2009. *Phase 3—Shallow Soil Investigation: Data Gap Sampling and Human Health Risk Assessment, Pacific Coast Pipeline (PCPL) Superfund Site, Fillmore, California.* May 8, 2009.

URS, 2011. *Remedial Investigation / Focused Feasibility Study (RI/FS), Pacific Coast Pipeline (PCPL) Superfund Site, Fillmore, California*. January 14, 2011.

URS, 2011. *Soil Delineation Sampling and Infrastructure Removal Report, Pacific Coast Pipeline (PCPL) Superfund Site, Fillmore, California*. December 16, 2011.

URS, 2013. *Storm Water Pollution Prevention Plan (SWPPP), Pacific Coast Pipeline (PCPL) Superfund Site*. March 26, 2013.

URS, 2013. *Dust Suppression and Air Monitoring Plan, Pacific Coast Pipeline (PCPL) Superfund Site*. Revised April 11, 2013.

URS, 2013. *Quality Assurance Project Plan (Field Sampling Plan and Sampling and Analysis Plan), Pacific Coast Pipeline (PCPL) Superfund Site*. Revised April 16, 2013.

URS, 2013. *Final Soil Remedial Action Work Plan, Pacific Coast Pipeline (PCPL) Superfund Site*. April 26, 2013.

URS, 2013. *Final Soil Remedial Design, Pacific Coast Pipeline (PCPL) Superfund Site*. April 29, 2013.

URS, 2013. *Infrastructure Removal Report (Phase 2), Pacific Coast Pipeline (PCPL) Superfund Site*. May 10, 2013.

URS, 2013. *Construction Quality Assurance Plan, Pacific Coast Pipeline (PCPL) Superfund Site*. August 29, 2013.

URS, 2014. *Storm Water Pollution Prevention Plan (SWPPP), Pacific Coast Pipeline (PCPL) Superfund Site*. February 20, 2014.

URS, 2014. *Soil Remedial Action Report (Part 1), Pacific Coast Pipeline (PCPL) Superfund Site*. April 17, 2014.

URS, 2014. *Work Plan for Post-Remediation Soil Vapor Sampling, Pacific Coast Pipeline (PCPL) Superfund Site*. July 9, 2014.

URS, 2014. *Draft Access and Institutional Controls Work Plan, Pacific Coast Pipeline (PCPL) Superfund Site.* October 8, 2014.

URS, 2015. *Final Soil Operation, Maintenance, and Monitoring Plan, Pacific Coast Pipeline (PCPL) Superfund Site.* Revised May 7, 2015.

URS, 2015. *Soil Remedial Action Report (Part 2), Pacific Coast Pipeline (PCPL) Superfund Site.* August 28, 2015.

URS, 2015. *Post-Remediation Soil Vapor Sampling Report, Pacific Coast Pipeline (PCPL) Superfund Site.* October 30, 2015.

SITE LOCATION MAP

Project No.: 30990336	Date: August 26, 2013	Project: Texaco PCPL (Fillmore Refinery)	Figure 1

K:\2012\Site Maps\Chevron PCPL\Fig 1 - Site Loc Map.ai

URS

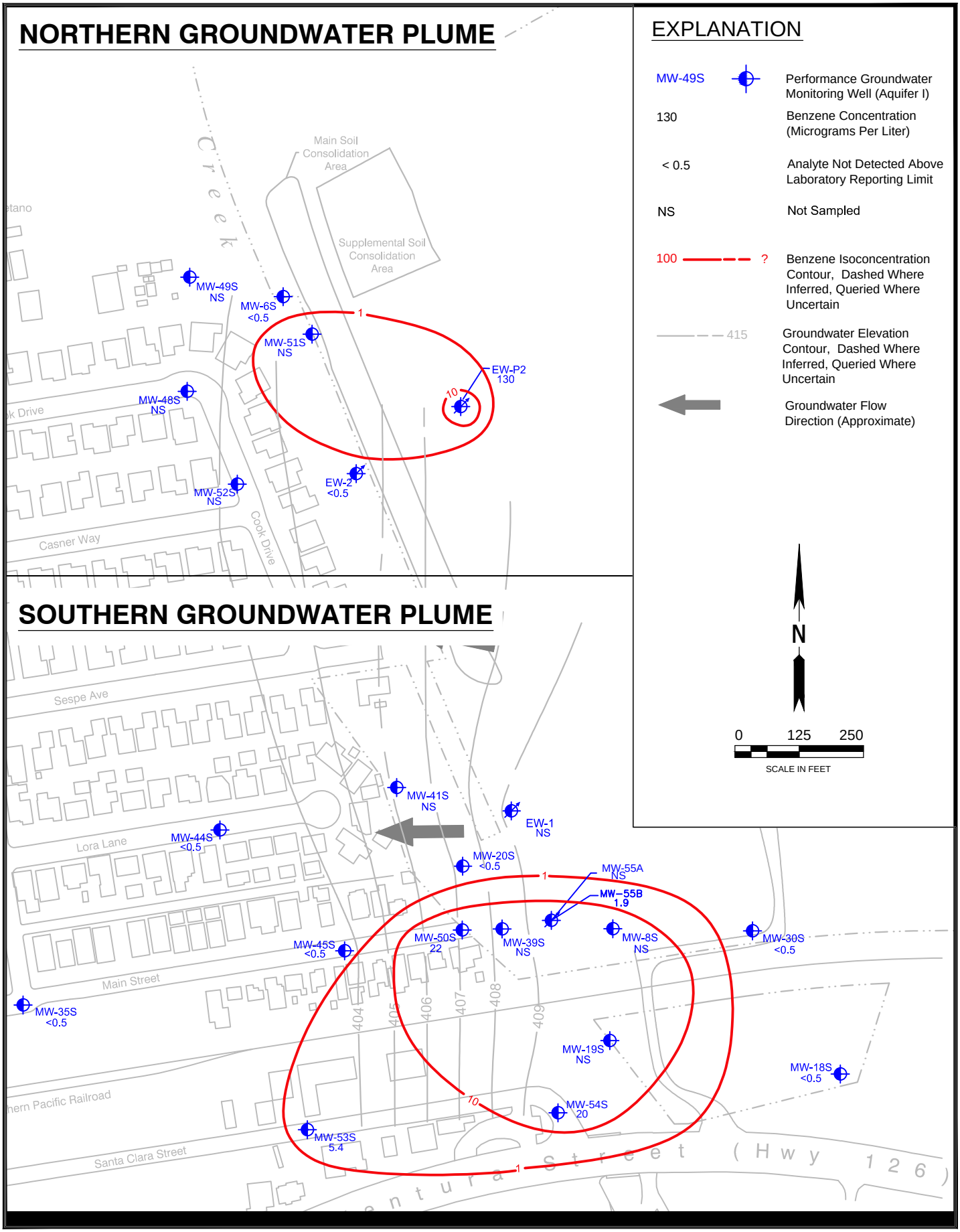

Figure 2
Groundwater Plumes
Texaco PCPL Superfund Site, Fillmore, California
Project No.: 30990440

AECOM

Figure 3
Consolidation Areas
Texaco PCPL Superfund Site, Fillmore, California
Project No.: 30990440

AECOM

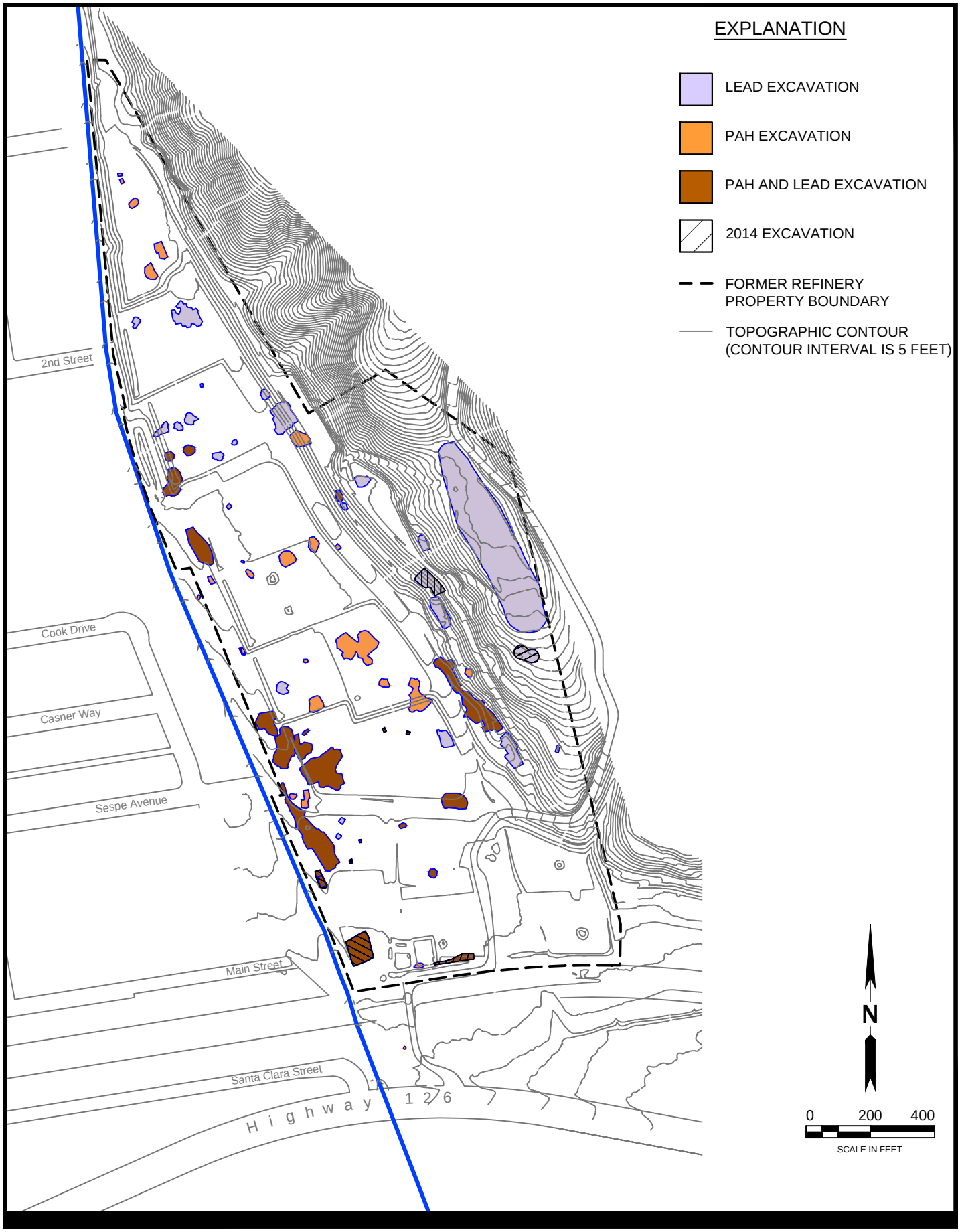

Figure 4
Excavation Areas
Texaco PCPL Superfund Site, Fillmore, California
Project No.: 30990440

AECOM

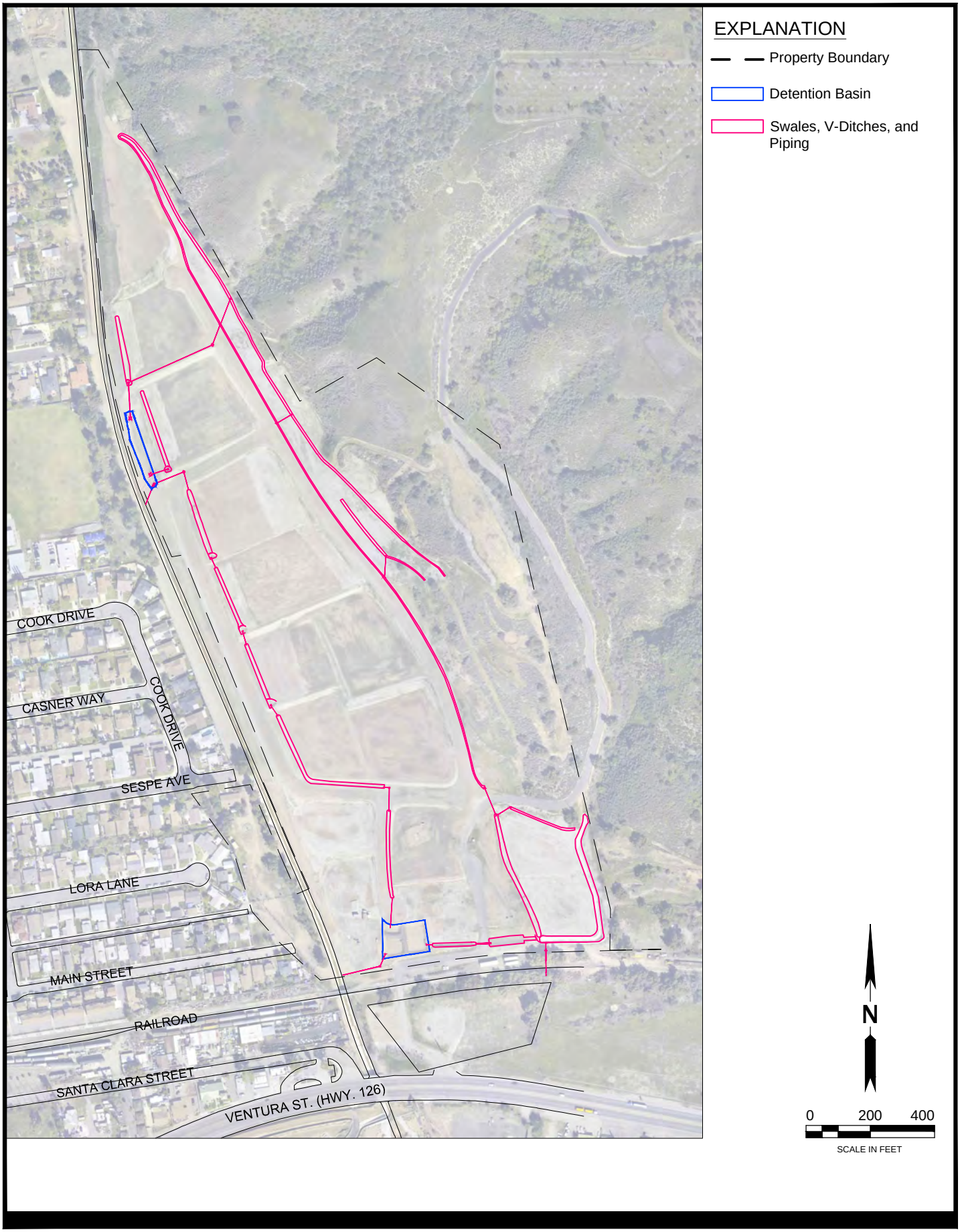

Figure 5
Drainage Feature Locations
Texaco PCPL Superfund Site, Fillmore, California
Project No.: 30990440

AECOM

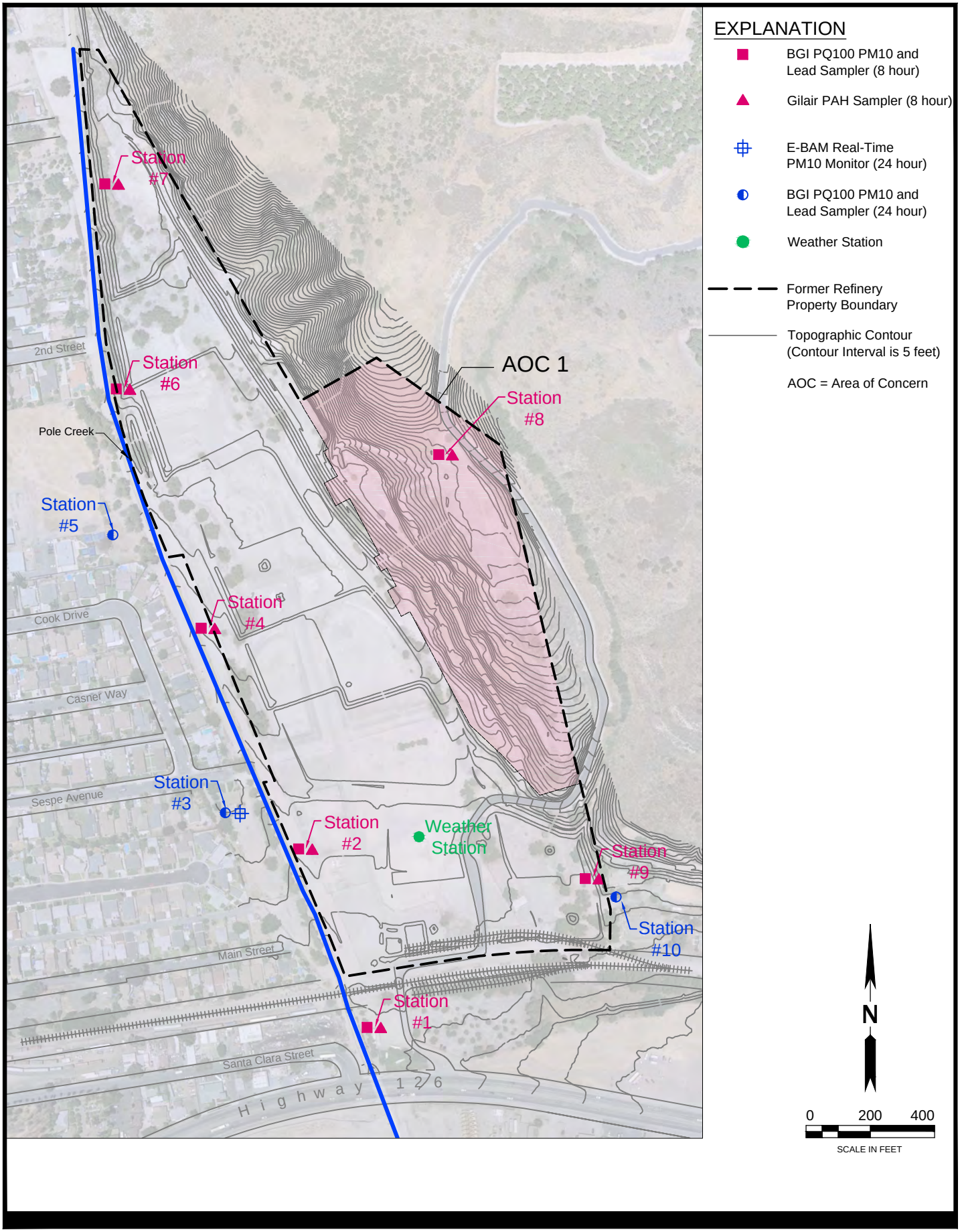

Figure 6
Air Monitoring Stations
Texaco PCPL Superfund Site, Fillmore, California
Project No.: 30990440

AECOM

Figure 7
AOC 1 Excavations
Texaco PCPL Superfund Site, Fillmore, California
Project No.: 30990440

AECOM

Leslie A. Klinchuch
PG, CHg, CGWP

Chevron Environmental
Management Company
P.O. Box 1392
Bakersfield, CA 93302
Tel 661-412-6351
lesliеklinchuch@chevron.com

August 28, 2015

Ms. Holly Hadlock (SFD-8-2)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105-3901

Certification of Completion of the Soil Remedial Action
Pacific Coast Pipeline (PCPL) Superfund Site
67 E. Telegraph Road, Fillmore, California

Dear Ms. Hadlock,

In accordance with the First Amended Consent Decree, completion of soil remedial action on behalf of Texaco for the PCPL site is documented in the enclosed *Soil Remedial Action Report (Part 2)*, revised August 28, 2015 to incorporate agency comments and include soil vapor confirmation sampling results.

To the best of my knowledge, after thorough investigation, I certify that the information contained in the above-listed soil remedial action reports is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Respectfully submitted,

Leslie A. Klinchuch

cc: Jessy Fierro, California Department of Toxic Substances Control
Eric McLaughlin, Chevron Environmental & Safety Law Group
Brian Partington, AECOM