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Lehigh Hanson West Region

Revised Closure Plan

Former Hanson Aggregates Radum Facility
3000 Busch Road, Pleasanton, California
(ACEH Case #RO0002941 and
Geotracker Global ID #SLT19719376)

December 12, 2011

ARCADIS

Ron Goloubow, P.G.
Principal Geologist

Revised Closure Plan

Former Hanson Aggregates
Radum Facility
3000 Busch Road, Pleasanton, California

Prepared for:
Lehigh Hanson West Region
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Our Ref.:
EM009567.0011

Date:
December 12, 2011

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12667 Alcosta Blvd., Suite 400
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December 9, 2011

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

Subject: Revised Closure Plan Former Hanson Aggregates Radum Facility, 3000 Busch Road, Pleasanton, California (ACEH Case #RO0002941 and Geotracker Global ID #SLT19719376)

Dear Mr. Wickham:

The attached Revised Closure Plan was prepared by ARCADIS-US (ARCADIS) on behalf of Lehigh Hanson West Region ("Hanson") and Legacy Partners, for the former Hanson Aggregates Radum Facility located at 3000 Busch Road, Pleasanton, California. This Revised Closure Plan replaces the closure plan submitted to the LPFD and ACEH on May 28, 2010 and addresses comments received from the LPFD on April 7, 2011 and from ACEH on April 12, 2011.

As a result of the property transfer of the former Hanson Radum property to Legacy Partners ("Legacy"), the responsibilities to implement the scope(s) of work provided in this Revised Closure Plan belong to Legacy.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, 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.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge. If you have any questions or comments concerning this revised closure plan, please call me at (925) 244-6584 or Ron Goloubow of ARCADIS at (510) 596-9550.

Sincerely,

Lee W. Cover
Environmental Manager
Lehigh Hanson West Region

Attachment

cc: Mike Roth – Hanson Aggregates
John Gillan – Lehigh Hanson
Steve Dunn – Legacy Partners
Bridget Metz – Metz Real Estate Consulting
Voytek Bajsarowicz – Haley & Aldrich, Inc.

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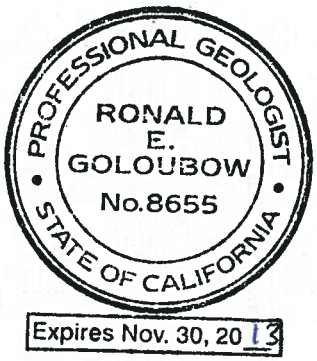
Certification

ARCADIS U.S., Inc. (ARCADIS) has prepared this revised closure plan for the Former Hanson Aggregates Radum Facility, located at 3000 Busch Road, Pleasanton, California, on behalf of Lehigh Hanson West Region in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists. This report was prepared under the technical direction of the undersigned California Professional Geologist.

12/12/11

Ron Goloubow, P.G. Date
Principal Geologist
California Professional Geologist No. 8655



1. Introduction

ARCADIS has prepared this revised closure plan at the request of the Livermore-Pleasanton Fire Department (LPFD) and Alameda County Environmental Health (ACEH), on behalf of Lehigh Hanson West Region (Hanson) and Legacy Partners (Legacy), for Area of Concern (AOC) #2, AOC #3, AOC#4, and AOC#5 at the former Hanson Aggregates Radum Facility located at 3000 Busch Road, Pleasanton, California (the Site; Figures 1 and 2).

This revised closure plan replaces the closure plan submitted to the LPFD and ACEH on May 28, 2010 (May 2010 Closure Plan; ARCADIS 2010) and addresses comments received from the LPFD on April 7, 2011 and from ACEH on April 12, 2011. Copies of these letters are included as Appendix A. The May 2010 Closure Plan included a summary of cleanup and closure-related activities completed during 2008 in the idle truck maintenance area (AOC #2) and the heavy equipment maintenance and wash pad area (AOC #3), conducted as part of the property transfer from Hanson to Legacy. The information and documentation regarding closure activities conducted in AOCs #2 and #3 were included in the May 2010 Closure Plan in order to transmit the relevant documentation to the LPFD.

Closure of the Site includes addressing both aboveground and subsurface features and environmental concerns. This revised closure plan includes descriptions of the general scope of work recommended to address comments provided by the ACEH and the LPFD. Previous environmental work conducted under the oversight of ACEH is described in more detail in the previously submitted documents and correspondence identified in the reference list. Hanson and Legacy provided a portion of those documents to the LPFD in 2008.

In general, the recommended scope of work to respond to ACEH and LPFD comments and to achieve regulatory closure of this Site consists of the following activities, which are described in more detail in this report.

- Completion of additional subsurface investigation
- Removal of concrete and asphalt, and excavation of underlying soils affected by petroleum hydrocarbons in select areas of the Site to be determined by the results of additional assessment
- Abandonment of existing groundwater monitoring wells

2. Closure Plan for AOC #2

LFR Inc. (LFR; now ARCADIS) prepared closure plans for the Site dated June 19, 2009 (LFR 2009c) and January 29, 2010 (LFR 2010). The June 2009 Closure Plan included a summary of cleanup and closure-related activities completed by Hanson during 2008 in the idle truck maintenance shop and former idle truck maintenance area that are part of AOC #2. The closure-related activities completed by Hanson during 2008 were conducted as part of the property transfer from Hanson to Legacy. The information and documentation regarding closure activities conducted in AOC #2 were included in the June 2009 Closure Plan in order to transmit the relevant documentation to the LPFD. The areas of AOC #2 discussed above were not included in the January 2010 Revised Closure Plan and are the subject of this closure plan.

Environmental work previously conducted at the Site under the oversight of ACEH has been described in more detail in various work plans and reports, a list of which is provided as the references to this closure plan. A selection of these reports has previously been provided to the LPFD for their review and reference.

This closure plan addresses the following features of AOC #2:

- The idle truck maintenance shop
- The former underground storage tanks (USTs)
- The former idle truck maintenance area

These site features are illustrated on Figure 3. The ACEH requested a formal closure plan for this area in their letter to Hanson dated April 6, 2010 (ACEH 2010). Please note that this closure plan documents the closure activities previously conducted at AOC #2 and no additional fieldwork or closure activities are required for AOC #2.

2.1 The Idle Truck Maintenance Shop

The former idle truck maintenance area is located in the west-central portion of the Site (AOC #2; Figure 3). The eastern portion of AOC #2 contains several structures, including the idle truck maintenance shop currently used by the Pleasanton Garbage Service Inc. Seven former USTs have been removed from this AOC; these have been investigated and closed to the satisfaction of regulatory oversight agencies as further described below. An inactive 640-foot-deep water supply well owned by Zone 7, well

3E/1S 15F3, also known as well Kaiser #6, is located southwest of the idle truck maintenance shop and was sampled by ENV America Inc. (ENV) in February 2007 (sample name W-1; Figure 3).

2.2 The Former Underground Storage Tanks

As summarized in the report titled: "Site Investigation Report for the Eastern Portion of AOC #2 and AOCs #3 through #9 ACEH Case #RO0002952 and Geotracker Global ID #SL0600101555 Hanson Aggregates Radum Facility 3000 Busch Road Pleasanton, Alameda County, California" dated October 26, 2007, a total of seven USTs were removed from AOC #2 between 1990 and 2003 (LFR 2007c).

Three USTs (two 12,000-gallon diesel and one 10,000-gallon gasoline) were removed from the east side of the truck maintenance shop in November 1990. Total petroleum hydrocarbons as diesel (TPHd) was detected in confirmation soil samples from the former UST excavation at concentrations up to 1,600 milligrams per kilogram (mg/kg); further excavation was deemed impractical due to the presence of the aboveground water tank and building (Figure 3). Analytical results for groundwater samples collected annually from well MW-KP1 installed adjacent to the former UST excavation were below laboratory reporting limits for TPHd during 1994 through 1996. Well MW-KP1 was properly abandoned in 1998. This former UST area received regulatory closure in 1998. ENV subsequently collected six soil samples from between 5.5 and 29 feet below ground surface (bgs) and one grab groundwater sample from 29 feet bgs from soil boring EB-2. TPHd, total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as motor oil (TPHmo), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and polychlorinated biphenyls (PCBs) were below analytical reporting limits in the soil samples; the groundwater sample contained TPHd at 79 milligrams per liter (mg/l), below the Regional Water Quality Control Board (RWQCB) environmental screening level (ESL) for TPHd (RWQCB 2008).

Two USTs (one 1,000-gallon waste oil and one 1,000-gallon new oil) were removed from the west side of the truck maintenance shop in February 1995 (Figure 3). Two USTs (one 12,000-gallon diesel and one 10,000-gallon gasoline) were removed from an area north of the truck maintenance shop in June or July 2003 (Figure 3). A total of four soil samples (two from beneath each UST) were collected from the base of the excavation for the former USTs, at approximately 11 feet bgs. ENV subsequently collected one soil sample from former soil boring EB-6 (20 feet bgs) and three soil samples from both EB-7 and EB-8 (2, 6, and 15 feet bgs). TPHd, TPHmo, and BTEX

were not detected above analytical reporting limits. This former UST area received regulatory closure in 1998.

As previously reported, results from investigations conducted by LFR (now ARCADIS) during July 2007, evaluated in conjunction with results from previous investigations, indicate that AOC #2 has been sufficiently characterized. ARCADIS does not recommend any additional investigations be conducted in this area. Confirmation soil samples collected from the base of the excavations for the former USTs contained low concentrations of TPHd (between 10 and 210 mg/kg). Subsequent investigations by ENV and by Brown and Caldwell Engineers included the collection of soil and grab groundwater from up to five temporary soil borings and showed that TPHd, TPHg, TPHmo, BTEX, and PCBs were not detected above analytical reporting limits and/or the ESLs.

2.3 The Former Idle Truck Maintenance Area

The following description is intended to respond to the following comments provided by the ACEH and LPFD, specifically Comment #2 of the ACEH Letter:

- ACEH and LPFD request a description of the types and/or source of the wastes that may have been placed in the area of boring EB-31

- Describe the basis for selecting a location for boring EB-31

- Provide the rationale as to why data from that boring is representative of the conditions in the former waste pit or disposal pond

This area of AOC #2 was primarily used to store “heavy equipment” including loaders and overhead cranes. Details regarding the volume of materials removed from this portion of the Site were not recorded and are not available. As part of the closure activities for this part of the Site, this equipment was either sold or relocated. The area is currently vacant.

Based on previous investigations, a Potential Environmental Condition (PEC) was identified near the northeastern corner of the maintenance yard during the Phase II Environmental Site Assessment (ESA) conducted by ENV. Specifically, the analytical results from soil samples collected from temporary soil boring EB-31. Soil boring EB-31 was advanced by ENV reportedly because a former “waste pit” or disposal pond existed in this portion of the Site (ENV 2006a and b). Analytical results identified that

the soil sample collected from approximately 10 feet bgs slightly exceeded the ESL for TPHd. Other soil samples collected from above and below the 10-foot interval did not exceed the ESLs.

Soil boring EB-31 was drilled to approximately 55 feet below grade. Analytical results for the soil sample collected approximately 10 feet below grade from this soil boring showed relatively low concentrations of TPH-d and TPHmo. Other soil samples collected from this soil boring did not contain constituents above laboratory reporting limits. Additional soil samples and a grab groundwater sample were collected from three other soil borings, EB-31A, B, and C, located within approximately 15 feet of soil boring EB-31. Observations made during the drilling of the three soil borings did not indicate evidence of petroleum-affected soil or groundwater during drilling of these three soil borings. TPHd and TPHmo were detected in several soil samples at concentrations up to 14 mg/kg and 140 mg/kg, respectively. These concentrations are significantly below their respective ESLs of 100 mg/kg for TPHd and 1,000 mg/kg for TPHmo (LFR 2007c). All concentrations of TPHd and TPHmo detected in the soil samples were qualified by the laboratory, indicating that the hydrocarbons detected in the soil samples did not resemble the standards for TPHd or TPHmo.

2.3.1 Well Abandonment

The wells will be abandoned by pumping a cement grout mixture consisting of one 94-pound sack of cement for every 10 gallons of water into each well casing. The grout will be pumped into the well until the groundwater within is displaced by the cement grout and the grout flows out from the top of the well casing. The well casing will then be capped with a cap equipped with a pressure gage. The grout in the well casing will then be pressurized to approximately 25 pounds per square inch for a period of approximately 5 to 15 minutes to push the grout through the well casing screen and into the surrounding sand pack. The well casing will be topped-off with more grout. The concrete well seal surrounding each well box was will be removed and the well box at each well will be filled with concrete and finished to match the grade of the ground surface.

3. Closure Plan for AOC #3

LFR (now ARCADIS) prepared closure plans for the Site dated June 19, 2009 and January 29, 2010. The June 2009 Closure Plan included a summary of cleanup and closure-related activities completed by Hanson during 2008 in the heavy equipment maintenance and wash pad area that are part of AOC #3. These closure-related

activities were conducted as part of the property transfer from Hanson to Legacy. The information and documentation regarding closure activities conducted in AOC #3 were included in the June 2009 Closure Plan in order to transmit the relevant documentation to the LPFD. The areas of AOC #3 discussed above (the former wash pad system, the former lube shed, and the area located east of the office building and parking lot) were not included in January 2010 Revised Closure Plan and are the subject of this closure plan.

Environmental work previously conducted at the Site under the oversight of ACEH has been described in more detail in various work plans and reports, a list of which is provided as the references to this closure plan. A selection of these reports has previously been provided to the LPFD for their review and reference.

This closure plan addresses the following features of AOC #3:

- The area located east of the office building and parking lot
- The former wash pad system and lube shed piping
- The former aboveground waste oil tanks (WOTs)
- The area east of the lube shed
- The former plant lube storage shed/warehouse
- The two former power substations
- The transformers

These site features are illustrated on Figures 4A and 4B. The LPFD requested a formal closure plan for these areas located in AOC #3 in their letter to Hanson dated September 25, 2009 (LPFD 2009).

3.1 The Area Located East of the Office Building and Parking Lot

The LPFD identified the area located east of the office building and parking lot as an area of interest. This area is illustrated on Figure 4A. As indicated on Figure 4A, three soil samples were collected from this area during investigations conducted by ENV in 2006. The sample locations were targeted based on previous site usage. One soil

sample identified as DR was collected near a former drum storage area; the soil sample identified as WH was collected near a former warehouse building; and the other sample identified as PL was near the former plant lube storage area. As indicated, each of these samples did not contain chemicals of concern at concentrations above the laboratory reporting limits (see Figure 4A).

In addition, two figures of this area are included as Appendix B to this report. These figures are from the 2005 Baseline Environmental Consulting (Baseline) Closure Plan that was previously submitted to the LPFD (Baseline 2005). Each figure in Appendix B illustrates the Site as it was configured while the aggregate plant was operating and depicts the Site using an aerial photograph.

Based on discussions with Hanson, this area of the Site was decommissioned in accordance with standard industry practices. Waste oil was handled using the facilities' standard operating procedures. No waste oil was stored in this area. All waste oil was handled at the former maintenance shop and was manifested and disposed of properly. Unused oil was distributed to other operating Hanson facilities, and demolition debris was recycled where appropriate. Details regarding the volume of materials removed from this portion of the Site are not available.

3.2 Former Wash Pad System and Lube Shed Piping

The configuration of the former wash pad and lube shed are illustrated on Figure 4B. Photographs of these features are included as Appendix C to this revised closure plan. As part of the closure-related activities that were conducted as part of the property transfer from Hanson to Legacy, the steam cleaner, water storage tank, oil-water separator, recycle trap, filters, and pump were all removed. The double containment aboveground waste oil and waste antifreeze tanks were also removed from the Site and are being reused at another Hanson facility. Each of these features was aboveground and did not include any subsurface features. The subsurface grease trap and double weir are still in place. These are the only subsurface features associated with the former steam cleaning operation. As requested by the LPFD, the grease trap and double weir and the subsurface piping formerly associated with the lube shed will be removed as described below.

3.2.1 Pre-Field Activities

Prior to removal of the grease trap, double weir, and subsurface piping formerly associated with the lube shed, the selected contractor will contact Underground

Service Alert (USA) to notify them of the work, and will subcontract a private underground utility clearance contractor to clear the proposed excavation locations and nearby areas. As requested, the selected contractor will contact representatives of the LPFD and ACEH at least 72 hours prior to commencing the fieldwork. Representatives of the LPFD and ACEH will be provided updates as project milestones are achieved.

A site-specific Health and Safety Plan (HSP) will be prepared by the selected contractor to address health and safety concerns specific to the planned field activities. Daily health and safety tailgate meetings will be conducted by the selected contractor field personnel prior to beginning any fieldwork and fieldwork will be monitored to ensure that appropriate health and safety procedures are followed during the fieldwork.

The selected contractor will retain a California-licensed General Engineering Contractor to provide equipment and experienced personnel to conduct the excavation work. The personnel will have the appropriate Occupational Safety and Health Administration (OSHA) training for sites with affected soil and groundwater (HAZWOPER). Excavation activities will be directed by the selected contractor representative working under the direct supervision of a California Professional Geologist or Professional Engineer.

3.2.2 Grease Trap and Double Weir Removal

Removal and disposal of oil, water, and sediment from the grease trap and double weir was discussed in the January 2010 Revised Closure Plan. Prior to removal of the subsurface feature, any remaining liquid will be removed from the grease trap and double weir and structures will be cleaned for off-site disposal or removal (LPFD Letter: Wash Pad Comment #1). It is anticipated that a third party contractor will be retained to profile, remove, and recycle the material to a permitted treatment, storage, and disposal facility (TSDF). Following the cleaning of the structures, the contractor will remove the concrete-walled grease trap and double weir using appropriate earthmoving equipment.

In accordance with requests from the ACEH and LPFD, concrete in an area extending approximately 5 feet west and 5 feet north and to the southern edge of the concrete south of the double weir will be removed for inspection and sampling (ACEH Letter: Comment #4). The resulting exposed areas will be visually inspected and screened using a photoionization detector (PID). Areas exhibiting staining, odor, and/or elevated PID will be over-excavated followed by collection of confirmation soil samples (ACEH Letter: Comment #4). Removed concrete will be segregated and disposed of as a

Class II or III nonhazardous solid waste at an appropriate disposal facility, in accordance with the facility's waste soil disposal criteria. If necessary, samples of the concrete will be collected and submitted to a California-state-certified laboratory for the analysis of TPHd and TPHmo using U.S. Environmental Protection Agency (EPA) test Method 8015, modified, after silica-gel cleanup. Other laboratory analyses may be requested by the disposal facility in order to profile the concrete for disposal.

3.2.3 Former Lube Shed Piping

Currently, 10 one-inch-diameter pipes are present in the area between the former lube shed and the maintenance shop (see Figure 4B). It is anticipated that each pipe has been purged of liquid. In order to verify this, inert compressed air (helium) will be injected into each pipe at approximately 10 to 20 pounds per square inch. A container consisting of a 5-gallon bucket or the like will be set on the opposite end of each pipe to contain any liquid that is in the subsurface pipe. The pipes will be monitored for flammable vapors prior to removal.

Once each pipe is purged with inert compressed air, the concrete overlaying the pipes will be saw cut, removed, and segregated for recycling or disposal (LPFD Letter: Lube Shed Comment #2). The soil overlying the pipes and the pipes will be removed and recycled or disposed of as a Class II or III non-hazardous solid waste at an appropriate disposal facility, in accordance with the disposal facility's waste soil disposal criteria.

3.2.4 Excavation Activities

Following the removal of the concrete overlying the concrete walls of the grease trap and weir and the pipes associated with the former lube shed, the exposed soil will be visually inspected and screened in the field using a PID, a flame ionization detector (FID), or a similar instrument, to evaluate the presence of hydrocarbons. Given the close proximity of the grease trap and the double weir, it is anticipated that the features will be combined into one area of excavation.

Field observations, including approximate excavation dimensions, locations and depths of confirmation soil samples, and field screening results, will be recorded on field reports.

If warranted by field observations, the walls of the open excavation for the grease trap and weir and lube pipes will be over-excavated using appropriate earthmoving equipment. The excavation will continue until field observations indicate that no further

excavation is warranted. To document that the TPH-affected soil has been removed, confirmation soil samples will be collected as described below.

3.2.5 Confirmation Soil Sampling

One soil sample will be collected for laboratory analyses from the midpoint of the sidewall approximately every 20 linear feet along each sidewall. One soil sample will also be collected from the base of the excavated area, approximately one soil sample for every 400 square feet (20 feet by 20 feet).

The soil samples will be collected in clean, laboratory-supplied containers from soil collected from the backhoe bucket or directly from the sidewall or base of excavation. The sample containers will be labeled with the sample identification, the time and date of collection, the analysis requested, and the initials of the sampler. The samples will be stored in ice-chilled coolers and submitted to the laboratory under chain-of-custody protocols.

The selected contractor will submit the confirmation soil samples to a state-certified laboratory when the limits of the excavation are achieved. If appropriate, soil samples will be analyzed on a rapid turnaround schedule so that analytical results can be reviewed and the need for additional soil excavation can be evaluated and conducted while the excavation contractor is at the Site.

- It is anticipated that the excavation for the grease trap and weir will result in one area of excavation that will require the collection and analysis of four sidewall confirmation soil samples and one bottom sample. In addition, a minimum of one confirmation soil sample be collected from exposed soil below the removed concrete north and west of the grease trap (ACEH Letter: Comment #5).

- All confirmation soil samples from the grease trap area will be analyzed for TPHd and TPHmo using EPA Method 8015 and the following metals: cadmium (Cd), chromium (Cr), lead (Pb), nickel (Ni), and zinc (Zn) using EPA Method 6010B. ACEH also requests that the soil sample collected from the bottom of the excavation be analyzed for TPHg, TPHd, and TPHmo using EPA Method 8015, full scan target list for volatile organic compounds (VOCs), BTEX, methyl tertiary-butyl ether (MTBE), and lead scavengers (ethylene dibromide [EDB] and 1,2-dichloroethane [1,2-DCA]) using EPA Method 8260B, PCBs using EPA Method 8082, polycyclic aromatic hydrocarbons (PAHs) using EPA Method 8270 in

selective ion monitoring (SIM) mode, and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B (ACEH Letter: Comment #5).

- It is anticipated that the excavation for the ten 1-inch-diameter pipes will require the collection and analysis of eight sidewall confirmation soil samples and two bottom samples. These confirmation soil samples will be submitted for the analysis of TPHd and TPHmo using EPA test Method 8015, modified, after silica-gel cleanup. In addition, ACEH requests that the two bottom confirmation soil samples also be analyzed for full scan target list for VOCs, BTEX, MTBE, and lead scavengers (EDB and 1,2-DCA) using EPA Method 8260B (ACEH Letter: Comment #3).

Additional confirmation soil samples may be required if requested during field inspection by ACEH or the LPFD or if the excavations are expanded beyond the currently estimated extent.

3.2.6 Southern Edge of the Wash Pad Area

In order to assess whether soil along the southern edge of the Wash Pad Area has been impacted by activities at the wash pad, a minimum of three soil samples will be collected from soil immediately beyond the edge of the concrete at the southern edge of the wash pad (ACEH Letter: Comment #6). The confirmation soil samples from the edge of the wash pad area will be analyzed for TPHd and TPHmo using EPA Method 8015, PCBs using EPA Method 8082, PAHs using EPA Method 8270 in SIM mode, and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B.

3.3 Former Aboveground Waste Oil and Waste Coolant Tanks

A 300-gallon capacity portable aboveground waste oil storage tank and a 55-gallon capacity portable aboveground antifreeze storage tank formerly located adjacent to the warehouse facility were emptied, cleaned, and transferred to a Hanson facility located in San Luis Obispo, California for reuse (LFR 2010). These portable aboveground tanks were removed from the Site during closure-related activities that were conducted as part of the property transfer from Hanson to Legacy. No subsurface piping or sumps were associated with these tanks. The ACEH and LPFD have requested additional characterization of this area (ACEH Letter: Comment #8). The recommended scope of work to address that request is described below.

3.3.1 Excavation Activities

Concrete from the area of the former aboveground waste oil tank and boring EB5 will be removed for inspection and sampling (ACEH Letter: Comment #8). The exposed areas will be visually inspected and screened using a PID. Soil exhibiting visible staining, odor, or elevated PID readings will be excavated prior to performing confirmation soil sampling.

3.3.2 Confirmation Soil Sampling

A minimum of two confirmation soil samples be collected from exposed soil below the removed concrete (ACEH Letter: Comment #8). The confirmation soil samples will be analyzed for TPHd and TPHmo using EPA Method 8015 and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B.

3.4 The Area East of the Lube Shed

3.4.1 Background

As presented in the May 2010 Closure Plan, TPHd and TPHmo were detected in soil samples collected from boring B-1 located east of the lube shed at concentrations of 890 and 680 mg/kg, respectively (see Figure 4A). The concentration of 890 mg/kg of TPHd exceeds the ESL for commercial land use of 83 mg/kg. Asphalt has been reported in the subsurface in this area (ENV 2006a and b). The ACEH and LPFD have requested additional characterization of this area (ACEH Letter: Comment #9). The recommended scope of work to respond to that request is presented below.

3.4.2 Characterization Sampling

One soil boring will be advanced to a maximum depth of 15 feet below grade in the near vicinity of former soil borings B-1 and B-1(A) to characterize the vertical extent of hydrocarbons in soil (see Figure 4B). Soil samples will be collected during advancement of each boring at approximate 5-foot intervals for lithologic logging, visual inspection, and screening with a PID. A minimum of two soil samples will be collected from each boring and submitted for chemical analysis.

Soil samples collected from these borings will be analyzed for TPHg, TPHd, and TPHmo using EPA Method 8015.

3.5 Former Plant Lube Storage Shed/Warehouse

3.5.1 Background

In September 2006, two soil samples were collected from approximately 2 and 8 feet bgs from soil boring PL that was located near the demolished plant lube storage shed (see Figure 4A; ENV 2006a). These two soil samples were analyzed for TPHd and TPHmo and did not contain these compounds above analytical reporting limits (see Figure 4A). This area is also identified as the "Oil Shed C," on a figure labeled "Hazardous Materials Storage Areas," which is located in Appendix B of the January 28, 2005 Baseline Closure Plan Report (Baseline 2005). Soil samples were also collected from a soil boring (SS105) advanced in January 2007. This figure labeled, "Hazardous Materials Storage Areas," is also included in the ACEH Comment Letter that is included in Appendix A.

The ACEH and LPFD have requested additional characterization of this portion of the Site (ACEH Letter: Comment #13). In response to that request, ARCADIS has developed the following scope of work.

3.5.2 Characterization Sampling

A minimum of three and a maximum of six soil borings will be advanced to a maximum depth of 15 feet below grade in the vicinity of the former plant lube storage area. Should impacts be observed in the soil sample collected 15 feet below grade, the depth of the boring will be extended until impacts are no longer observed or to a maximum of 30 feet below grade The location of these borings will be determined in the field based on site topography, any observable features, and input from ACEH and/or LPFD personnel (if present) during a site walk. Soil samples will be collected during advancement of each boring at approximate 5-foot intervals for lithologic logging, visual inspection, and screening with a PID. A minimum of two soil samples will be collected from each boring and submitted for chemical analysis.

Soil samples collected from these borings will be analyzed for TPHd and TPHmo using EPA Method 8015, and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B.

3.6 Former Power Substations

Two power substations were reportedly present in the central portion of the Site. The location of the substations are based on a figure which was part of the Hazardous

Materials Business Plan dated 1995 that was included as Appendix B of the January 28, 2005 Baseline Closure Plan Report (Baseline 2005). The ACEH and LPFD have requested additional background and investigation of this portion of the Site (ACEH Letter: Comment #15). As indicated above, the figure labeled "Hazardous Materials Storage Areas" is also included in the ACEH Comment Letter that is included in Appendix A. Hanson does not have any records documenting the types or quantities of the materials that may have been stored at these power substations.

3.6.1 Characterization Sampling

A minimum of three and a maximum of six soil borings will be advanced to a maximum depth of 10 feet below grade in the vicinity of each of the two former power substations. The location of these borings will be determined in the field based on site topography, any observable features, and input from ACEH and/or LPFD personnel (if present) during a site walk. Soil samples will be collected during advancement of each boring at approximate 5-foot intervals for lithologic logging, visual inspection, and screening with a PID. A minimum of two soil samples will be collected from each boring and submitted for chemical analysis. The soil samples will be analyzed for TPHd and TPHmo using EPA Method 8015, full scan target list for PCBs using EPA Method 8082.

3.7 Transformers

According to the January 28, 2005 Baseline Closure Report, 14 oil-filled transformers were formerly located at the Site (Baseline 2005). As part of the September and October 2006 Phase II ESA (ENV 2006b), soil samples were collected from five locations labeled TRANS-A, B, C, D, and E. The ACEH and LPFD have requested additional characterization of this portion of the Site (ACEH Letter: Comment #16).

The transformers were removed from the Site during the decommissioning of the plant that took place in 2004 to 2005. As such, the specific location(s) of the former transformers can no longer be determined due to the lack of landmarks or surveyed locations for the former transformers.

The areas and concrete surrounding Transformers A through E will be visually inspected during the proposed site walk. After agreement with ACEH and the LPFD, characterization soil boring locations will be determined. The approximate boring locations will be mapped in the closure report.

3.7.1 Characterization Sampling

To further characterize the areas surrounding Transformers A through E, a minimum of one and a maximum of three soil borings will be advanced up to 10 feet bgs at each transformer area with at least one location down slope and/or downgradient of each transformer.

The soil samples will be analyzed for PCBs using EPA Method 8082.

3.8 Storm Drain near Wash Pad

According to the Phase I ESA (Brown and Caldwell 2006a), a storm water inlet is located near the heavy equipment shop and adjacent to the former wash pad and wash area sump. This drain is designed to catch storm water and route it to Cope Pond, located on the eastern side of the property.

The ACEH and LPFD have requested additional work to confirm that the storm drain(s) near the heavy equipment shop route water to Cope Pond (ACEH Letter: Comment #7). In response to that request, as-built drawings and other site plans (if available) will be reviewed and a site visit will be conducted to map storm drain inlets near the wash pad area. Based on the results of this mapping, it will be determined whether it is likely that water from the wash pad entered the storm drain inlet(s). The areas that provide runoff to the storm drain inlet(s) will also be mapped.

3.9 Additional Chemical Analysis of Groundwater at ENV-1

In response to a request from the ACEH and LPFD, a groundwater sample will be collected from well ENV-1 and analyzed for TPHg and TPHd using EPA Methods 8015 and full scan target list VOCs using EPA Method 8260 (ACEH Letter: Comment #11).

4. Closure Plan for AOC #4

4.1 Former Concrete Batch Plant Area

In response to a request from the ACEH and the LPFD, additional fieldwork will be conducted to assess the potential for surface material in the former concrete batch plant area to contain high pH material that could contribute to elevated pH in surface runoff (see Figure 5; ACEH Letter: Comment #17). In September 2006, three soil samples were collected approximately 0.2, 0.5, and 5 feet below grade from one test

pit excavated near four plastic tanks suspected to contain plasticizers (see Figure 5; ENV 2006a and b; LFR 2010). The soil sample collected 0.2 feet below grade was analyzed for PCBs (only) and PCBs were not present above laboratory reporting limits. The other two samples were submitted for semivolatile organic compounds (SVOCs; only) and SVOCs were not present above laboratory reporting limits (ENV 2006a and b).

4.1.1 Characterization Sampling

To respond to Comment #17 of the ACEH Letter, field testing of surface soils will be conducted using a field pH test kit at locations along the nearest down slope drainage. Specific locations will be determined in the field based on site observations, topography, and input from the ACEH and LPFD (if present) during a site walk. Results of field testing will be used to determine the location and number of confirmation samples to be collected and submitted to a laboratory for analysis for pH. If field testing indicates pH with expected neutral range (6-8 pH units) then a minimum of three confirmation samples will be collected for laboratory analysis including metals, VOCs, and SVOCs.

5. Closure Plan for AOC #5

This closure plan addresses the following features of AOC #5:

- The former rock crusher
- The former aboveground waste oil tank
- The former rod mill
- The former plant lube
- Abandoned drums

These site features are part of the former mining operations area and are illustrated on Figure 6.

5.1 The Former Rock Crusher

In September 2006, one soil sample was collected from approximately 8 feet bgs from test pit CR excavated near the former rock crusher (Figure 6; ENV 2006a and b). TPHd, TPHmo, and BTEX were not detected above reporting limits. Further characterization of the subsurface in this area will be conducted in response to requests from the ACEH and the LPFD, as described below (ACEH Letter: Comment #18).

5.1.1 Characterization Sampling

A minimum of three and a maximum of six soil borings will be advanced to a depth of 15 feet below grade in the vicinity of the former rock crusher. Should impacts be observed in the 15-foot soil sample, the boring will be extended until impacts are no longer observed or to a maximum of 30 feet below grade. The location of these borings will be determined in the field based on site topography, any observable features, and input from ACEH and/or LPFD personnel (if present) during a site walk. Soil samples will be collected during advancement of each boring at approximate 5-foot intervals for lithologic logging, visual inspection, and screening with a PID. A minimum of two soil samples will be collected from each boring and submitted for chemical analysis. The soil samples will be analyzed for TPHd and TPHmo using EPA Method 8015 modified, and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B.

5.2 The Former Aboveground Waste Oil Tank

In September 2006, one soil sample was collected from approximately 8 feet bgs from test pit WO excavated near the former aboveground waste oil tank (Figure 6; ENV 2006a and b). TPHd, TPHmo, and BTEX were not detected above reporting limits. Further characterization of the subsurface in this area will be conducted in response to requests from the ACEH and the LPFD (ACEH Letter: Comment #19).

5.2.1 Characterization Sampling

A minimum of three and a maximum of six soil borings will be advanced to a depth of 15 feet below grade in the vicinity of the aboveground waste oil tank area. Should impacts be observed in the 15-foot soil sample, the boring will be extended until impacts are no longer observed or to a maximum of 30 feet below grade. The location of these borings will be determined in the field based on site topography, any observable features, and input from ACEH and/or LPFD personnel (if present) during a

site walk. Soil samples will be collected during advancement of each boring at approximate 5-foot intervals for lithologic logging, visual inspection, and screening with a PID. A minimum of two soil samples will be collected from each boring and submitted for chemical analysis.

The soil samples will be analyzed for TPHg, TPHd, and TPHmo using EPA Method 8015B, full scan target list for VOCs, BTEX, lead scavengers (EDB and 1,2-DCA), and MTBE using EPA Method 8260B, and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B.

5.3 The Former Rod Mill

In September 2006, three soil samples were collected from approximately 2, 8, and 14 feet bgs from soil boring RM near the former rod mill (ENV 2006a and b). TPHd was detected at concentrations less than 20 mg/kg and TPHmo and PAHs were not detected above reporting limits. The ACEH and LPFD have requested additional investigation of this portion of the Site (ACEH Letter: Comment #20). In response to that request, ARCADIS has developed the following scope of work.

5.3.1 Characterization Sampling

A minimum of three and a maximum of six soil borings will be advanced to a depth of 15 feet below grade in the vicinity of the former rod mill. Should impacts be observed in the 15-foot soil sample, the boring will be extended until impacts are no longer observed or to a maximum of 30 feet below grade. The location of these borings will be determined in the field based on site topography, any observable features, and input from ACEH and/or LPFD personnel (if present) during a site walk. Soil samples will be collected during advancement of each boring at approximate 5-foot intervals for lithologic logging, visual inspection, and screening with a PID. A minimum of two soil samples will be collected from each boring and submitted for chemical analysis.

The soil samples will be analyzed for TPHd and TPHmo using EPA Method 8015, full scan target list for VOCs, BTEX, and MTBE using EPA Method 8260B, PAHs using EPA Method 8270 in SIM mode, and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B.

5.4 Former Plant Lube Shed

A “California Hazardous Materials Reporting Form” indicates that various oils, greases, and cleaning solvents were stored at the former plant lube shed. The ACEH and LPFD have requested additional background and investigation of this portion of the Site (ACEH Letter: Comment #21). No additional information regarding the types or quantities of material that was stored in this area is available. In response to the ACEH and LPFD request for additional investigation at of this portion of the Site, ARCADIS has developed the following scope of work.

5.4.1 Characterization Sampling

A minimum of three and a maximum of six soil borings will be advanced to a depth of 15 feet below grade in the vicinity of the former plan lube storage area. Should impacts be observed in the 15-foot soil sample, the boring will be extended until impacts are no longer observed or a maximum of 30 feet below grade. The location of these borings will be determined in the field based on site topography, any observable features, and input from ACEH and/or LPFD personnel (if present) during a site walk. Soil samples will be collected during advancement of each boring at approximate 5-foot intervals for lithologic logging, visual inspection, and screening with a PID. A minimum of two soil samples will be collected from each boring and submitted for chemical analysis.

The soil samples will be analyzed for TPHd and TPHmo using EPA Method 8015, full scan target list for VOCs, BTEX, and MTBE using EPA Method 8260B, PAHs using EPA Method 8270 in SIM mode, and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B.

5.5 Abandoned Drums

In September 2006, one soil sample was collected from approximately 0.5 feet bgs near some abandoned drums in AOC #5 (ENV 2006 and b). TPHg, TPHd, TPHmo, and BTEX were not detected above reporting limits. Per the request of ACEH, additional investigation of this portion of the Site will be conducted as follows.

5.5.1 Characterization Sampling

A minimum of three and a maximum of six soil borings will be advanced to a depth of 15 feet below grade in the vicinity of the abandoned drums. Should impacts be observed in the 15-foot sample, the boring will be extended until impacts are no longer

observed or to a maximum of 30 feet below grade. The location of these borings will be determined in the field based on site topography, any observable features, and input from ACEH and/or LPFD personnel (if present) during a site walk (see Figure 6). Soil samples will be collected during advancement of each boring at approximate 5-foot intervals for lithologic logging, visual inspection, and screening with a PID. A minimum of two soil samples will be collected from each boring and submitted for chemical analysis.

The soil samples will be analyzed for TPHg, TPHd, and TPHmo using EPA Method 8015, full scan target list for VOCs, BTEX, and MTBE using EPA Method 8260B, and metals (Cd, Cr, Pb, Ni, and Zn) using EPA Method 6010B.

Groundwater samples, if any, will be analyzed for TPHg, TPHd, and TPHmo using EPA Method 8015, and full scan target list for VOCs, BTEX, and MTBE using EPA Method 8260B.

6. Soil Disposal

Excavated TPH-affected soil will be profiled for disposal at an appropriate landfill. Based on the analytical results of the soil samples collected at the Site to date, excavated soils are expected to be disposed of as a Class II or III nonhazardous solid waste at an appropriate disposal facility, in accordance with the facility's waste soil disposal criteria. Once the waste is disposed of, signed TSDF documents will be obtained and provided in the closure report, per the request of the LPFD (LPFD Letter: Additional Comment #1).

In October 2010, ARCADIS coordinated the removal of twenty-two 55-gallon drums of water and two drums of waste soil from the Site. The locations of the drums that were removed are illustrated on Figure 7. The water was transported to and recycled at the INSTRAT Inc. facility in Rio Vista, California. The soil was transported and disposed of as a non-hazardous material at Recolgy Inc.'s Class 2 Hay Road Landfill located in Vacaville, California.

7. Backfill

Per the request of ACEH, the source of the backfill to be used after excavation activities proposed in this revised closure plan has been identified as follows (ACEH Letter: Comment #10).

After the excavation has been advanced at least to the depth necessary and analytical results from the confirmation soil samples indicate that the excavation has been advanced sufficiently to remove TPH-affected soil, the excavation will be backfilled with clean fill material. Fill material proposed to be used for this project will be imported from stockpiles of gravel located near AOC #1 at the Site. According to Lee Cover of Hanson, the material is from previous mining activities at the Site.

ARCADIS conducted a site visit with representatives of Hanson on March 17, 2010, during which the five existing soil stockpiles at AOC #1 were identified. ARCADIS collected representative composite soil samples from each stockpile for laboratory analyses. TPHd and TPHmo were detected in concentrations under 50 mg/kg. BTEX and MTBE were not detected above laboratory reporting limits in any of the stockpiles. The laboratory report for these samples is included as Appendix D.

Based on the results of ARCADIS' evaluation of the five soil stockpiles identified by Hanson, a sufficient volume of clean soil material appears to be available at the Site for potential use as backfill material for the proposed excavations.

8. Site Closure Schedule

It is anticipated that the various scopes of work presented of this revised closure plan will be completed within approximately five months following approval of the plan by the LPFD and ACEH. The report documenting the closure activities (described below) will be submitted to the LPFD and ACEH approximately one month after the closure activities are completed.

9. Reporting

A report will be prepared under the direct supervision of a California Professional Geologist or Professional Engineer, summarizing the closure activities conducted at the Site for submittal to ACEH and the LPFD, which will include a summary of the following (ACEH Letter: Comment #1; LPFD Letter: Additional Comment #2):

- field observations made at the time of excavation and/or structure removal
- the volume and disposition of soil removed from the Site
- the volume and disposition of material that was recycled and disposed of

- a summary of the analytical results of the confirmation soil samples
- field forms
- chain-of-custody forms and certified laboratory analytical reports

10. Limitations

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ARCADIS and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, expressed or implied, is intended or given. To the extent that ARCADIS relied upon any information prepared by other parties not under contract to ARCADIS, ARCADIS makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

All excavation and sampling activities will be directed by the selected contractor representative working under the direct supervision of a California Professional Geologist or Professional Engineer. Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when ARCADIS's investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the Site may vary from those at the locations where data were collected. ARCADIS's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental investigation conclusions cannot reasonably be achieved.

ARCADIS, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

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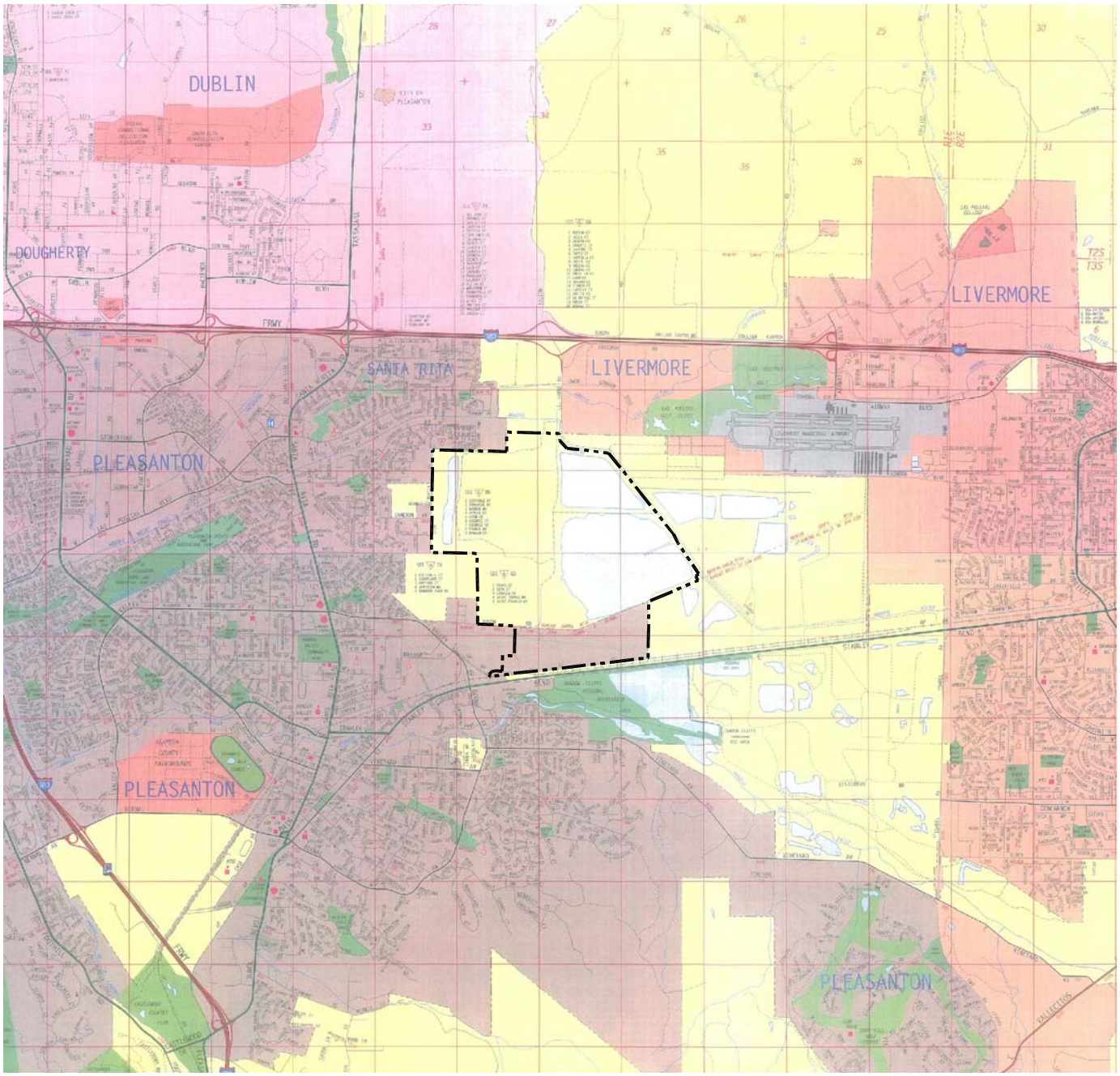

EXPLANATION

Approximate Property Boundary

Source: Thomas Guide

N

0 5,000 FEET

APPROXIMATE SCALE

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

SITE LOCATION MAP

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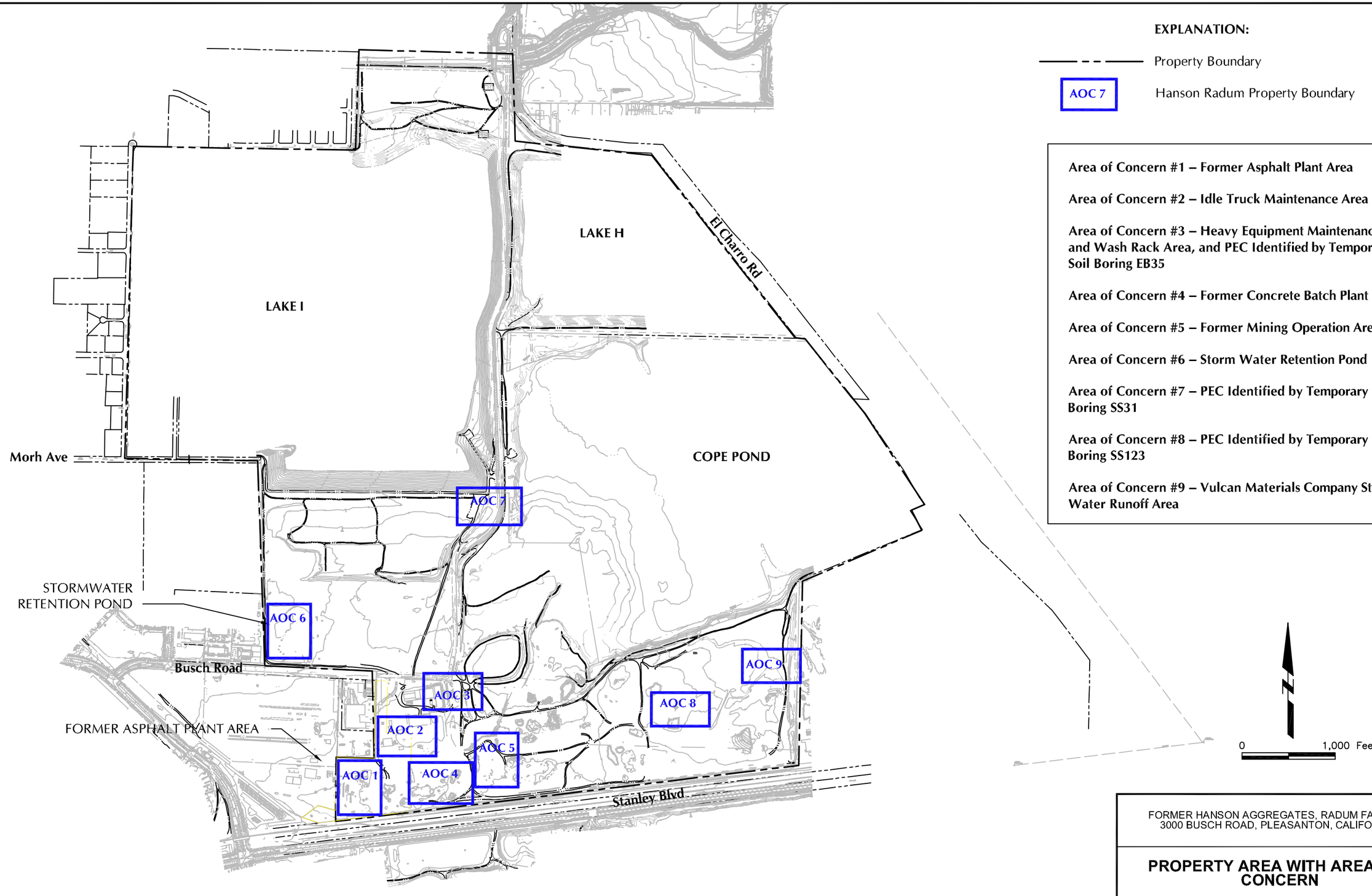
FIGURE
1



EXPLANATION:

Property Boundary

AOC 7 — Hanson Radum Property Boundary

Area of Concern #1 – Former Asphalt Plant Area

Area of Concern #2 – Idle Truck Maintenance Area

Area of Concern #3 – Heavy Equipment Maintenance and Wash Rack Area, and PEC Identified by Temporary Soil Boring EB35

Area of Concern #4 – Former Concrete Batch Plant

Area of Concern #5 – Former Mining Operation Area

Area of Concern #6 – Storm Water Retention Pond

Area of Concern #7 – PEC Identified by Temporary Soil Boring SS31

Area of Concern #8 – PEC Identified by Temporary Soil Boring SS123

Area of Concern #9 – Vulcan Materials Company Storm Water Runoff Area

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

PROPERTY AREA WITH AREAS OF CONCERN

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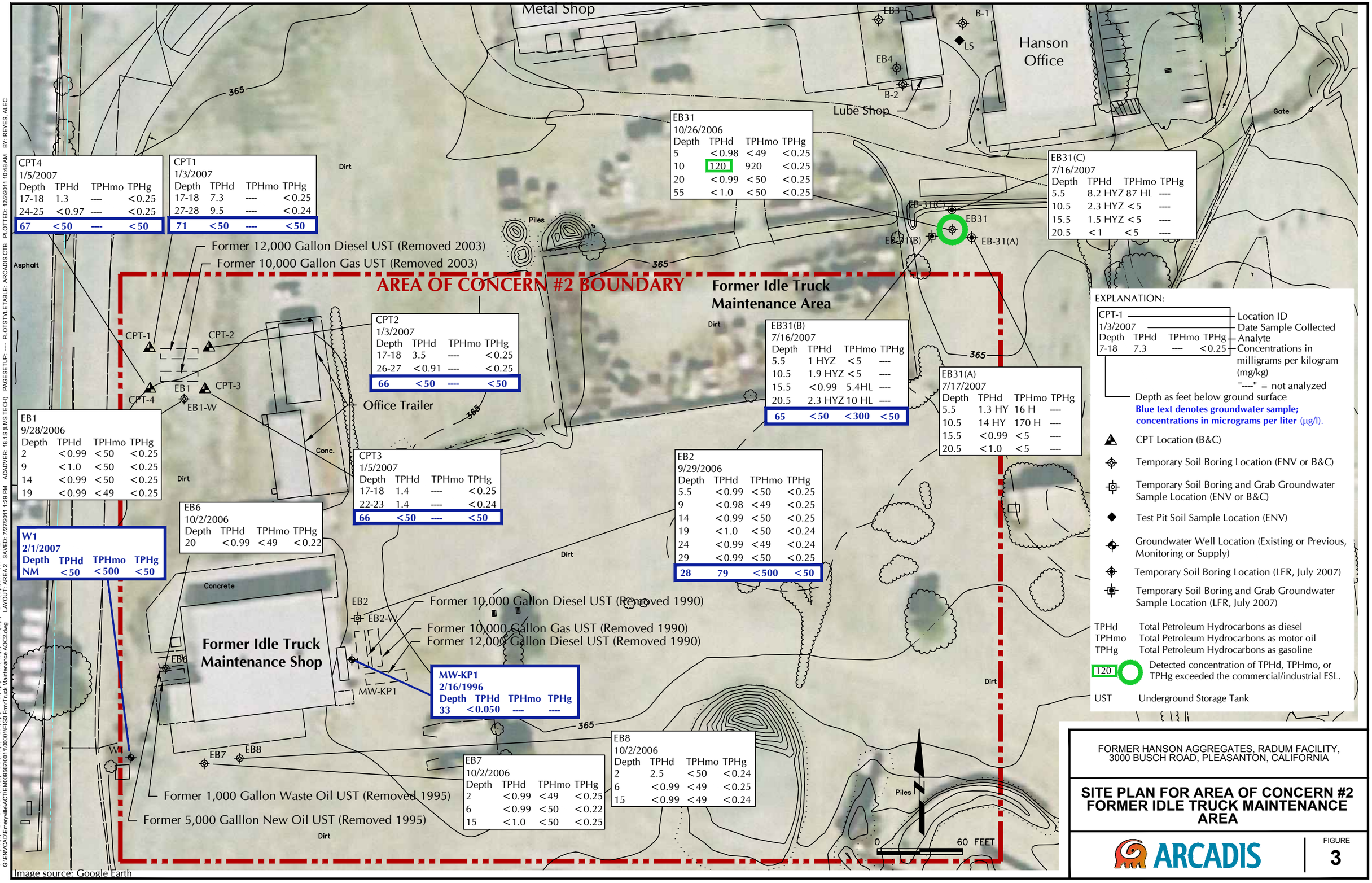
FIGURE
2



CPT4
1/5/2007

Depth	TPHd	TPHmo	TPHg
17-18	1.3	----	<0.25
24-25	<0.97	----	<0.25
67	**<50**	**----**	**<50**

CPT1
1/3/2007

Depth	TPHd	TPHmo	TPHg
17-18	7.3	----	<0.25
27-28	9.5	----	<0.24
71	**<50**	**----**	**<50**

EB31
10/26/2006

Depth	TPHd	TPHmo	TPHg
5	<0.98	<49	<0.25
10	120	920	<0.25
20	<0.99	<50	<0.25
55	<1.0	<50	<0.25

EB31(C)
7/16/2007

Depth	TPHd	TPHmo	TPHg
5.5	8.2 HYZ	87 HL	----
10.5	2.3 HYZ	<5	----
15.5	1.5 HYZ	<5	----
20.5	<1	<5	----

CPT2
1/3/2007

Depth	TPHd	TPHmo	TPHg
17-18	3.5	----	<0.25
26-27	<0.91	----	<0.25
66	**<50**	**----**	**<50**

EB31(B)
7/16/2007

Depth	TPHd	TPHmo	TPHg
5.5	1 HYZ	<5	----
10.5	1.9 HYZ	<5	----
15.5	<0.99	5.4HL	----
20.5	2.3 HYZ	10 HL	----
65	**<50**	**<300**	**<50**

EB31(A)
7/17/2007

Depth	TPHd	TPHmo	TPHg
5.5	1.3 HY	16 H	----
10.5	14 HY	170 H	----
15.5	<0.99	<5	----
20.5	<1.0	<5	----

EB1
9/28/2006

Depth	TPHd	TPHmo	TPHg
2	<0.99	<50	<0.25
9	<1.0	<50	<0.25
14	<0.99	<50	<0.25
19	<0.99	<49	<0.25

CPT3
1/5/2007

Depth	TPHd	TPHmo	TPHg
17-18	1.4	----	<0.25
22-23	1.4	----	<0.24
66	**<50**	**----**	**<50**

EB2
9/29/2006

Depth	TPHd	TPHmo	TPHg
5.5	<0.99	<50	<0.25
9	<0.98	<49	<0.25
14	<0.99	<50	<0.25
19	<1.0	<50	<0.24
24	<0.99	<49	<0.24
29	<0.99	<50	<0.25
28	**79**	**<500**	**<50**

EB6
10/2/2006

Depth	TPHd	TPHmo	TPHg
20	<0.99	<49	<0.22

W1
2/1/2007

Depth	TPHd	TPHmo	TPHg
NM	<50	<500	<50

MW-KP1
2/16/1996

Depth	TPHd	TPHmo	TPHg
33	<0.050	----	----

EB8
10/2/2006

Depth	TPHd	TPHmo	TPHg
2	2.5	<50	<0.24
6	<0.99	<49	<0.25
15	<0.99	<49	<0.24

EB7
10/2/2006

Depth	TPHd	TPHmo	TPHg
2	<0.99	<49	<0.25
6	<0.99	<50	<0.22
15	<1.0	<50	<0.25

EXPLANATION:

CPT-1 — Location ID
1/3/2007 — Date Sample Collected

Depth	TPHd	TPHmo	TPHg	Analyte
7-18	7.3	----	<0.25	Concentrations in milligrams per kilogram (mg/kg)

"----" = not analyzed
Depth as feet below ground surface
Blue text denotes groundwater sample; concentrations in micrograms per liter (µg/l).

- CPT Location (B&C)
- Temporary Soil Boring Location (ENV or B&C)
- Temporary Soil Boring and Grab Groundwater Sample Location (ENV or B&C)
- Test Pit Soil Sample Location (ENV)
- Groundwater Well Location (Existing or Previous, Monitoring or Supply)
- Temporary Soil Boring Location (LFR, July 2007)
- Temporary Soil Boring and Grab Groundwater Sample Location (LFR, July 2007)

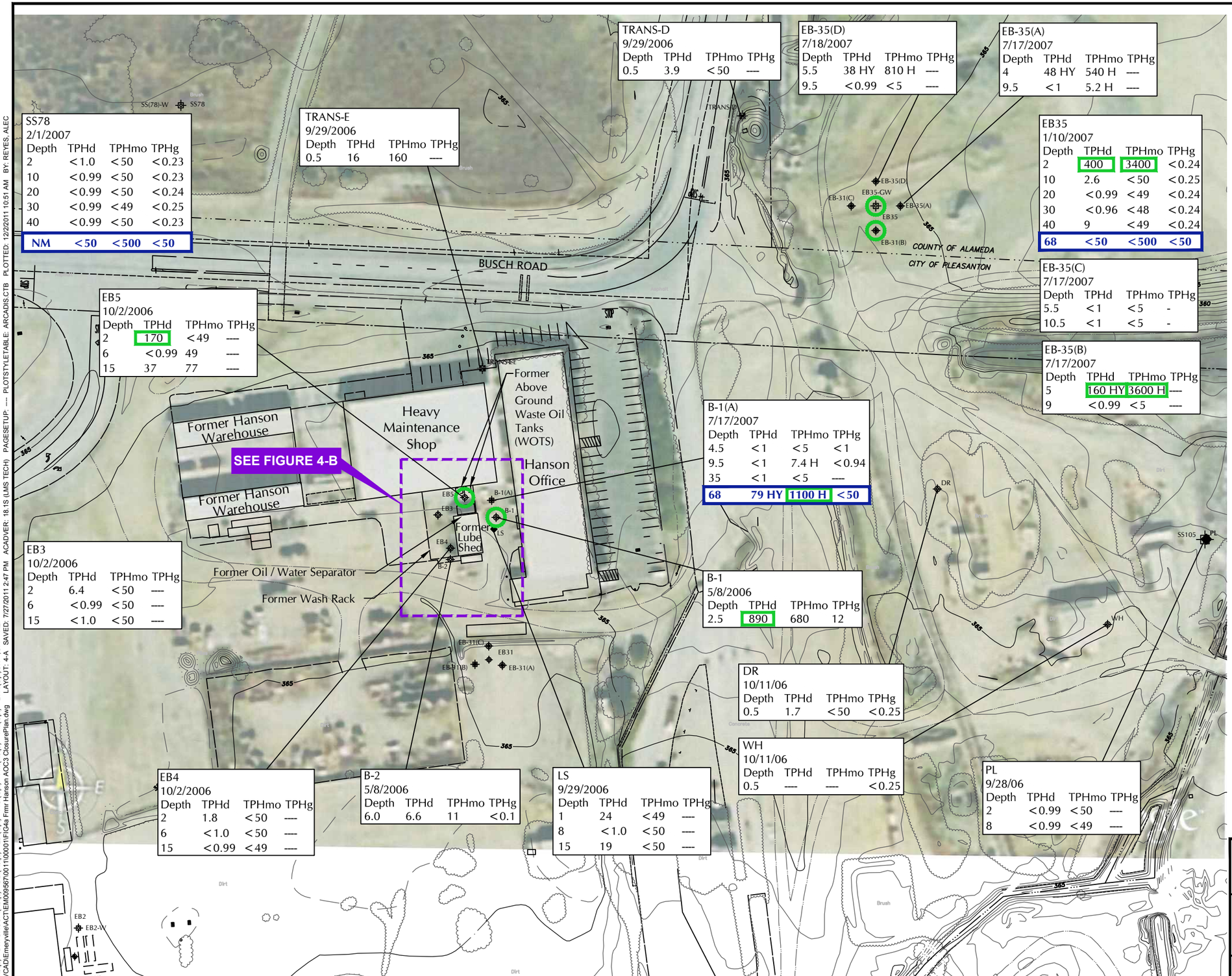
TPHd — Total Petroleum Hydrocarbons as diesel
TPHmo — Total Petroleum Hydrocarbons as motor oil
TPHg — Total Petroleum Hydrocarbons as gasoline
120 — Detected concentration of TPHd, TPHmo, or TPHg exceeded the commercial/industrial ESL.
UST — Underground Storage Tank

FORMER HANSON AGGREGATES, RADUM FACILITY, 3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

SITE PLAN FOR AREA OF CONCERN #2 FORMER IDLE TRUCK MAINTENANCE AREA

ARCADIS

FIGURE 3



EXPLANATION:

EB-3 — Location ID
10/2/2007 — Date Sample Collected

Depth	TPHd	TPHmo	TPHg
2	6.4	<50	----

Analyte
Concentrations in milligrams per kilogram (mg/kg)
"----" = not analyzed
Depth as feet below ground surface
Blue text denotes groundwater sample; concentrations in micrograms per liter (µg/l).

- Temporary Soil Boring Location (ENV or B&C)
- Temporary Soil Boring and Grab Groundwater Sample Location (ENV or B&C)
- Test Pit Soil Sample Location (ENV)
- Groundwater Well Location (Existing or Previous, Monitoring or Supply)
- Temporary Soil Boring Location (LFR, July 2007)
- Temporary Soil Boring and Grab Groundwater Sample Location (LFR, July 2007)

TPHd Total Petroleum Hydrocarbons as diesel
TPHmo Total Petroleum Hydrocarbons as motor oil
TPHg Total Petroleum Hydrocarbons as gasoline

400 — Detected concentration of TPHd, TPHmo, or TPHg exceeded the commercial/industrial ESL.

N

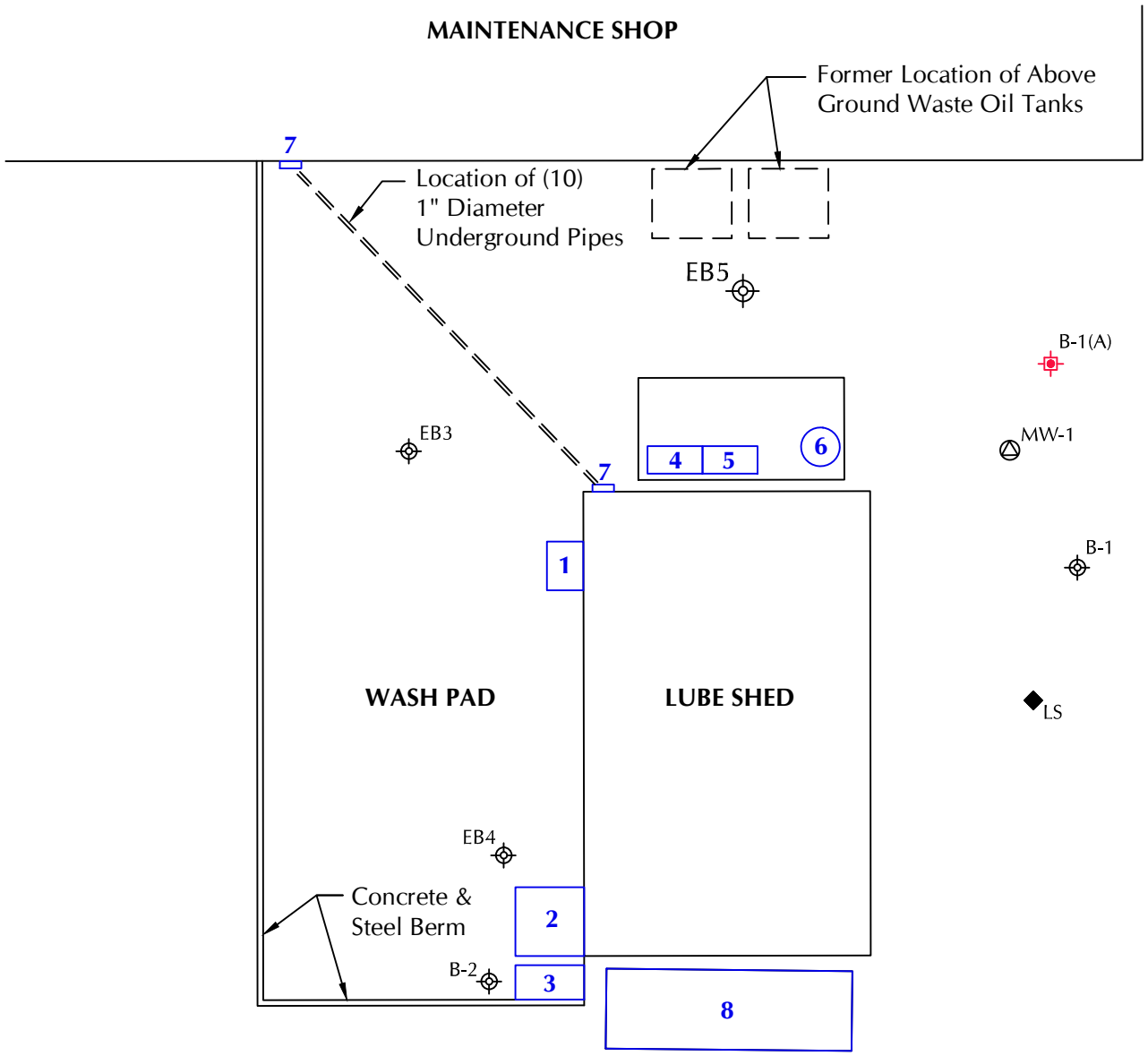
0 80 FEET

FORMER HANSON AGGREGATES, RADUM FACILITY, 3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

SITE PLAN FOR AREA OF CONCERN #3 FORMER MAINTENANCE, WASH RACK AREA, AND OFFICE AREA

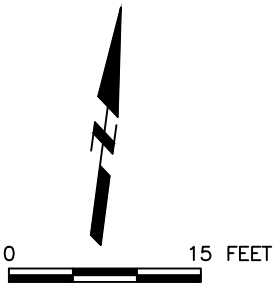
ARCADIS

FIGURE 4-A



EXPLANATION:

1. FORMER LOCATION OF STEAM CLEANER
2. GREASE TRAP
3. DOUBLE WEIR
4. FORMER LOCATION OF RECYCLE TRAP
5. FORMER LOCATION OF RECYCLE FILTERS & PUMP
6. FORMER LOCATION OF WATER STORAGE FROM RECYCLE
7. PIPING MANIFOLD
8. ABOVE GROUNDWATER TANK



- Temporary Soil Boring Location (ENV or B&C)
- Test Pit Soil Sample Location (ENV)
- Temporary Soil Boring and Grab Groundwater Sample Location (LFR, July 2007)
- Groundwater Monitoring Well

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

DETAILED SITE PLAN FOR AREA OF CONCERN #3 FORMER MAINTENANCE AND WASH PAD AREA

ARCADIS

FIGURE
4-B

EXPLANATION:

TRANS-B — Location ID
9/29/2007 — Date Sample Collected
Depth TPHd TPHmo TPHg — Analyte
0.5 1.8 < 50 NA — Concentrations in milligrams per kilogram (mg/kg); NAs = not analyzed

Depth as feet below ground surface

Blue text denotes groundwater sample; concentrations in micrograms per liter (µg/l).

- Temporary Soil Boring and Grab Groundwater Sample Location (ENV or B&C)
- Test Pit Soil Sample Location (ENV)
- Shallow Near Surface Grab Soil Sample Location (ENV or B&C)

TPHd Total Petroleum Hydrocarbons as diesel
TPHmo Total Petroleum Hydrocarbons as motor oil
TPHg Total Petroleum Hydrocarbons as gasoline

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

AREA OF CONCERN #4
FORMER CONCRETE BATCH PLANT

ARCADIS

FIGURE
5

CITY:(Reqd) DIV/GROUP:(Reqd) DB:(Reqd) LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Emeryville\ACT\EM009567\0011\00001\FIG6 FrmrConcreteBatch AOC5.dwg LAYOUT: AREA 5 SAVED: 7/27/2011 3:23 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 12/2/2011 11:44 AM BY: REYES, ALEC
XREFS: IMAGES: PROJECTNAME:
basemap image5b.jpg

EB-35(D)
EB35-GW
EB-31(C)
EB-35(A)
EB35
EB-31(B)
COUNTY OF ALAMEDA
CITY OF PLEASANTON
ROAD
Asphalt
Dirt
Brush
Concrete
Gate
STOP
365
360
355
370

SS105
1/10/2007

Depth	TPHd	TPHmo	TPHg
2	1.1	<48	<0.23
10	<0.96	<48	<0.24
20	<0.96	<48	<0.25
30	<0.96	<48	<0.25
40	1.2	<49	<0.24
NM	**<50**	**<500**	**<50**

DR
10/11/2006

Depth	TPHd	TPHmo	TPHg
0.5	1.7	<50	<0.25

PL
9/28/2006

Depth	TPHd	TPHmo	TPHg
2	<0.99	<50	NA
8	<0.99	<49	NA
16	<0.99	<49	NA

RM
9/28/2006

Depth	TPHd	TPHmo	TPHg
2	2.9	<49	NA
8	1.6	<49	NA
15	15	60	NA

WO
9/27/2006

Depth	TPHd	TPHmo	TPHg
8	<0.99	<50	NA

TRANS-A
9/27/2006

Depth	TPHd	TPHmo	TPHg
0.5	2.6	<50	NA

CR
9/27/2006

Depth	TPHd	TPHmo	TPHg
8	<0.99	<49	NA

SS130
1/30/2007

Depth	TPHd	TPHmo	TPHg
2	7.3	<50	<0.25
10	2.4	<50	<0.25
20	<1.0	<50	<0.24
30	8.6	<50	<0.24
40	11	<50	<0.25
NM	**<78**	**<780**	**<50**

EXPLANATION:

WO — Location ID
9/27/2006 — Date Sample Collected

Depth	TPHd	TPHmo	TPHg
8	<0.99	<50	NA

Analyte
Concentrations in milligrams per kilogram (mg/kg); NAs not analyzed
Depth as feet below ground surface
Blue text denotes groundwater sample; concentrations in micrograms per liter (µg/l).

- Temporary Soil Boring and Grab Groundwater Sample Location (ENV or B&C)
- Test Pit Soil Sample Location (ENV)
- Shallow Near Surface Grab Soil Sample Location (ENV or B&C)
- Temporary Soil Boring Location (LFR, July 2007)

TPHd Total Petroleum Hydrocarbons as diesel
TPHmo Total Petroleum Hydrocarbons as motor oil
TPHg Total Petroleum Hydrocarbons as gasoline

100 FEET

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

AREA OF CONCERN #5
FORMER MINING OPERATION AREA

ARCADIS

FIGURE
6

EXPLANATION:

- MW-1 — Groundwater Monitoring Well
- B13 — Temporary Soil Boring (LFR)
- EB28 — Temporary Soil Boring (ENV or B&C)
- B6 — Temporary Soil Boring and Grab Groundwater Sample (LFR)
- EB19 — Temporary Soil Boring and Grab Groundwater Sample (ENV or B&C)
- SR3 — Test Pit Soil Sample (ENV)
- RR3 — Shallow Near Surface Grab Soil Sample (ENV or B&C)
- Hanson Property Boundary
- Hanson Property Leased by Pleasanton Garage Service

2 DRUMS AT THIS LOCATION

2 DRUMS AT THIS GENERAL AREA

2 DRUMS AT THIS GENERAL AREA

2 DRUMS NOTED OUTSIDE OF FENCE

2 DRUMS NEAR MW 3&4 IN AOC-8

2 DRUMS AT THIS LOCATION

1 DRUM AT THIS LOCATION

2 DRUMS AT THIS LOCATION

2 DRUMS AT THIS LOCATION

1 DRUM AT THIS LOCATION

1 DRUM OUTSIDE FENCE

3 DRUMS IN THIS GENERAL AREA

ESCAPE TUNNEL (60 FEET)

MAIN TUNNEL (130 FEET)

350'

40'

140'

PLEASANTON GARBAGE SERVICE PROPERTY
HANSON PROPERTY (LEASED BY PLEASANTON GARBAGE)

HANSON PROPERTY (LEASED BY PLEASANTON GARBAGE)
HANSON PROPERTY

KIEWIT PROPERTY
HANSON PROPERTY

CITY OF PLEASANTON
COUNTY OF ALAMEDA

UNION PACIFIC RAILROAD

0 100 FEET

FORMER HANSON AGGREGATES RADUM FACILITY
3000 BUSCH ROAD, PLEASANTON,CALIFORNIA

DRUM LOCATION MAP

ARCADIS

FIGURE 7

ARCADIS

Appendix A

Letters from Livermore-Pleasanton Fire Department dated April 7, 2011, and Alameda County Environmental Health dated April 12, 2011

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 12, 2011

Mr. Lee Cover (*Sent via E-mail to: Lee.Cover@hanson.biz*)
Hanson Aggregates West Region
12667 Alcosta Blvd., Suite 400
San Ramon, CA 94583

Mr. Steven Dunn
Legacy Partners
4000 East Third Avenue, Suite 600
Foster City, CA 94404-4805

Subject: Review of Closure Plan for SLIC Case RO0002952 and Geotracker Global ID SL0600101555, Hanson Aggregates Radum Plant, 3000 Busch Road, Pleasanton, CA 94566

Dear Mr. Cover and Mr. Dunn:

Alameda County Environmental Health (ACEH) staff has reviewed the Spills, Leaks, Investigations, and Cleanups (SLIC) case file for the above referenced site including the reports entitled, "*Closure Plan Report, Radum Facility*," (Baseline Environmental) dated January 28, 2005, "*Phase II Environmental Site Assessment*," (ENV America) dated November 2006, "*Work Plan for Additional Site Characterization at the Hanson Aggregates Radum Facility*," (LFR) dated May 16, 2007, and "*Closure Plan for Area of Concern #2 and #3, Former Hanson Aggregates Radum Facility*," (ARCADIS) dated May 28, 2010. These reports include information on AOC 2 and 3 as well as other areas of the site.

We have several technical comments that require additional research and revision of the "*Closure Plan for Area of Concern #2 and #3,*" dated May 28, 2010 (referred to as Closure Plan in the remainder of this correspondence). In addition, our review of the case file indicates that additional assessment activities are also required in several areas of the site outside AOCs 2 and 3. Therefore, we request that you revise and expand the Closure Plan to address the technical comments below for AOCs 2 through 5 and several transformers in other areas of the site. The Closure Plan is also to be revised to address all technical comments on the Closure Plan to be provided under separate cover by the Livermore-Pleasanton Fire Department. Please submit the Revised Closure Plan for AOCs 2 through 5 to both ACEH and the Livermore-Pleasanton Fire Department **no later than May 28, 2011**.

GENERAL TECHNICAL COMMENTS ON CLOSURE PLAN

1. **Contractor Selection and Report Preparation**. In the Revised Closure Plan requested below, please include the requirement that all excavation and sampling activities will be directed by the selected contractor representative working under the direct supervision of a California Professional Geologist or Professional Engineer. Please also include the requirement that all report preparation will be conducted by or under the direct supervision of a California Professional Geologist or Professional Engineer.

TECHNICAL COMMENTS ON AOC 2 (IDLE TRUCK MAINTEANCE AREA)

2. **EB-31 Waste Pit**. Soil boring EB-31 was advanced near the northeastern corner of the maintenance yard reportedly to investigate a waste pit or disposal pond in this portion of the site. Soil borings EB-31 (A, B, and C) were later advanced to investigate the detection of petroleum hydrocarbons in soil from EB-31. In the Revised Closure Plan requested below, please describe the types and/or source of the wastes that may have been placed in the area of boring EB-31. In addition, please describe the basis for selecting a location for boring EB-31. This information will help to assess the likelihood that the EB-31 borings are representative of conditions in the former waste pit or disposal pond.

TECHNICAL COMMENTS ON AOC 3 (HEAVY EQUIPMENT MAINTENANCE SHOP AREA)

3. **Confirmation Soil Sampling Beneath Lube Shed Piping**. The proposed collected of eight sidewall and two confirmation soil samples beneath the Lube Shed piping is generally acceptable. Additional confirmation soil samples may be required if requested during field inspection by ACEH or Livermore Pleasanton Fire Department or if the excavations are expanded beyond the currently estimated extent. In addition to the proposed laboratory analyses for TPH as diesel and TPH as motor oil using EPA Method 8015 we request that the two bottom confirmation soil samples also be analyzed for full scan target list for VOCs, BTEX, MTBE, and lead scavengers (ethylene dibromide and 1,2-dichloroethane) using EPA Method 8260B. Additional laboratory analyses may be requested if additional information on the contents of the piping indicates that the piping may have carried other chemicals.

4. **Concrete Removal and Excavation in Wash Rack Area**. The Closure Plan currently proposes the removal of the grease trap and double weir in the southern portion of the wash rack. In order to assess whether soils beneath the wash rack area have been impacted, we request that the concrete be removed for inspection and sampling over an area extending five feet west, five feet north, and to the southern edge of the concrete south of the double weir. We also request that the concrete be removed for inspection and sampling from any areas where the concrete is cracked or shows signs of infiltration along expansion joints. The exposed areas are to be visually inspected and screened using a photoionization detector. Any areas with visible staining, odor, or elevated PID readings are to be overexcavated to remove the contaminated soil and perform confirmation soil sampling. Please include these plans in the Revised Closure Plan requested below.

5. **Confirmation Soil Sampling in Wash Rack Area**. The collection of four sidewall confirmation soil samples and one bottom confirmation soil sample in the area of the grease trap and double weir is acceptable. In addition, we request that a minimum of one confirmation soil sample be collected from exposed soil below the removed concrete north and west of the grease trap. Additional confirmation soil samples may be required if requested during field inspection by ACEH or Livermore Pleasanton Fire Department or if the excavations are expanded beyond the currently estimated extent. We request that all confirmation soil samples from the Wash Rack Area be analyzed for TPH as diesel and

TPH as motor oil using EPA Method 8015 and metals (Cd, Cr, Pb, Ni, Zn) using EPA Method 6010B. We also request that the soil sample collected from the bottom of the excavation be analyzed for TPH as gasoline, TPH as diesel and TPH as motor oil using EPA Method 8015, full scan target list for VOCs, BTEX, MTBE, and lead scavengers (ethylene dibromide and 1,2-dichloroethane) using EPA Method 8260B, PCBs using EPA Method 8082, polycyclic aromatic hydrocarbons (PAHs) using EPA Method 8270 in selective ion monitoring (SIM) mode using EPA method 8270, and metals (Cd, Cr, Pb, Ni, Zn) using EPA Method 6010B.

6. **Southern Edge of Wash Rack.** In order to assess whether soil along the southern edge of the Wash Rack Area has been impacted by activities at the Wash Rack, we request that a minimum of three soil samples be collected from soil immediately beyond the edge of the concrete at the southern edge of the Wash Rack. We request that the confirmation soil samples from the edge of the Wash Rack Area be analyzed for TPH as diesel and TPH as motor oil using EPA Method 8015, PCBs using EPA Method 8082, PAHs using EPA Method 8270 in selective ion monitoring (SIM) mode using EPA method 8270, and metals (Cd, Cr, Pb, Ni, Zn) using EPA Method 6010B.

7. **Storm Drain near Wash Rack.** The Phase I Environmental Site Assessment (Brown and Caldwell, June 15, 2006) describes, "an on-site storm water inlet located near the heavy equipment shop and adjacent to the former wash pad and wash area sump. The drain is designed to catch storm water and route it to Cope Pond, located on the eastern side of the property." A later report (ENV America, November 2006) indicates that, "water from the wash rack appears to be entering the storm drain inlet." In the Revised Closure Plan requested below, please show the location of all storm drain inlets near the wash rack area, indicate whether it is likely that water from the wash rack entered the storm drain inlet(s), and show the areas that provide runoff to the storm drain inlet(s). Please also confirm that the storm drain(s) near the Heavy Equipment Shop route water to Cope Pond.

8. **Former Aboveground Waste Oil Tanks**. TPHd was detected in soil from boring EB5 located south of the Former Aboveground Waste Oil Tanks at a concentration of 170 mg/kg. No sampling was conducted in the area of the Former Aboveground Waste Oil Tanks. We request that the concrete be removed for inspection and sampling from the area of the Former Aboveground Waste Oil Tank and boring EB5. The exposed areas are to be visually inspected and screened using a photoionization detector. Any areas with visible staining, odor, or elevated PID readings are to be overexcavated to remove the contaminated soil prior to confirmation soil sampling. We request that a minimum of two confirmation soil samples be collected from exposed soil below the removed concrete. The confirmation soil samples are to be analyzed for TPH as diesel and TPH as motor oil using EPA Method 8015 and metals (Cd, Cr, Pb, Ni, Zn) using EPA Method 6010B. Please include these plans in the Revised Closure Plan requested below.

9. **Area East of Lube Shed.** TPHd and TPHmo were detected in soil from boring B-1 located east of the Lube Shed at concentrations of 890 and 680 mg/kg, respectively. The concentration of 890 mg/kg of TPHd exceeds the Environmental Screening Level for commercial land use of 83 mg/kg. Asphalt has been reported in the subsurface in this area also (ENV America, November 2006). Additional investigation and/or cleanup will be

required in the area east of the Lube Shed. In the Revised Closure Plan requested below, please propose additional investigation activities, such as test pits, to help evaluate the area east of the Lube Shed.

10. **Backfilling with Imported Fill.** The Closure Plan indicates that the AOC 3 excavation will be backfilled with material imported from stockpiles of gravel located near AOC 1. AOC 1 has several areas of surface and subsurface soil contamination. In the Revised Closure Plan requested below, please provide sufficient information on the source of the gravel stockpiles to be used for imported fill to assure that the stockpiles do not contain contaminated soil, construction debris, or other types of debris. If the origin and history of the stockpile is unknown, please propose sampling to confirm that the material is clean fill.

11. **Groundwater in AOC 3**. During our review of the case file, we became aware that solvents were stored and presumably used in AOC 3. We request that you collect a groundwater samples from well ENV-1 for analysis of TPHg and TPHd using EPA Methods 8015 and full scan target list VOCs using EPA Method 8260. Please include these plans in the Revised Closure Plan requested below.

TECHNICAL COMMENTS ON AREA EAST OF AOC 3 AND TRANSFORMERS

12. **2006 Sampling Results.** A Phase II Environmental Site Assessment was conducted at the site in September and October 2006 by ENV America Incorporated for Legacy Partners Commercial, LLC. The results are presented in a report entitled, "*Phase II Environmental Site Assessment*," dated November 2006. This work was planned and performed independently and not under the regulatory oversight of Livermore-Pleasanton Fire Department or ACEH. The November 2006 ENV America report listed known or suspected environmental conditions at several locations throughout the facility and presented results from the 2006 investigation. Within the November 2006 report, sampling locations are shown on two base maps with scales of one inch equals 1,200 feet or one inch equals 100 feet, respectively. Laboratory analytical results are presented on tables labeled "Draft." Maps that spatially depict analytical results, maps showing site features, boring logs, test pit logs, or cross sections were not presented in the report. Given the scale of the sampling location maps, it is not possible to view the distance between the sample locations and site features and assess the proximity of the sample locations to potential releases. In correspondence dated March 16, 2007, ACEH provided comments on the November 2006 ENV America report requesting that maps be prepared for each area at an appropriate scale to depict site features, sampling locations, and the area of any proposed investigation or demolition activities. For locations with a significant amount of sampling data, we requested detailed maps depicting analytical results. In response to the March 16, 2007 ACEH correspondence, a "*Work Plan for Additional Site Characterization at the Hanson Aggregates Radum Facility*," dated May 16, 2007 and prepared for Hanson Aggregates by LFR Environmental Management & Consulting Engineering was submitted. The May 16, 2007 Work Plan included a table summarizing investigation activities with maps for each AOC. However, the maps for each AOC were presented at scales of one inch equals approximately 75 to more than 150 feet and site features could not be identified. In addition, the accuracy of the sampling locations was approximate. Due to these limitations,

the information is not adequate to fully characterize the recognized and potential environmental concerns in each of these areas.

13. **Former Plant Lube Storage Shed/Warehouse (Oil Shed).** In September 2006, three soil samples were collected from approximately 2, 8, and 16 feet bgs near the demolished Plant Lube Storage Shed (ENV America 2006). This area is also identified as the "Oil Shed C," on a figure labeled, "*Hazardous Materials Storage Areas*," which is located in Appendix B of the January 28, 2005 Baseline Environmental Consulting Closure Plan Report. Soil samples were also collected from a soil boring (SS105) advanced in January 2007. As discussed in technical comment 12, the results presented in the November 2006 ENV America Report and March 16, 2007 LFR Work Plan are not adequate to assess the potential environmental concerns for the Former Plant Lube Storage Shed. Therefore, additional investigation of this area will be required. Please include plans to investigate this area in the Revised Closure Plan requested below.

14. **Abandoned Drums.** In September 2006, one soil sample was collected from approximately 0.5 feet bgs near some abandoned drums in AOC 5 (ENV America 2006). TPHg, TPHd, TPHmo, and BTEX were not detected above reporting limits. The final disposition of the abandoned drums is not clear. As discussed in technical comment 12, the results presented in the November 2006 ENV America Report and March 16, 2007 LFR Work Plan are not adequate to assess the potential environmental concerns for the Abandoned Drums. Therefore, additional investigation of this area will be required. Please include plans to investigate this area in the Revised Closure Plan requested below.

15. **Substations**. Two power substations were formerly present in the central portion of the site as shown on a figure labeled, "*Hazardous Materials Storage Areas*," which is located in Appendix B of the January 28, 2005 Baseline Environmental Consulting Closure Plan Report. Recognized or potential environmental concerns at these two substations do not appear to be addressed in any of the existing Work Plans or Reports for this site. In the Revised Closure Plan requested below, please propose investigation activities to assess whether any releases occurred in the areas of the two substations.

16. **Transformers.** The January 28, 2005 Baseline Environmental Consulting report entitled, "*Closure Plan Report, Radum Plant*," indicates that 14 oil-filled transformers were formerly located at the site. As part of the September and October 2006 Phase II Environmental Site Assessment (EMV America, November 2006), soil samples were collected from five locations labeled TRANS-A, B, C, D, and E. However, the specific locations of the soil samples in relation to the former transformers cannot be determined from the information presented in the November 2006 ENV America report or the March 16, 2007 LFR Work Plan. Either clarification regarding the locations of the five soil samples (TRANS-A through E) with respect to the former transformers or collection of additional soil samples with proper documentation will be required. In addition, we request that you include plans to investigate the transformers shown on Figure 3 of the January 28, 2005 Baseline Environmental Consulting Closure Plan Report that are outside the areas of Transformers A through E. Please include plans to investigate this area in the Revised Closure Plan requested below.

TECHNICAL COMMENTS ON AOC 4 (FORMER CONCRETE BATCH PLAN AREA)

17. **Former Concrete Batch Plant**. In September 2006, three soil samples were collected from one test pit excavated near four plastic tanks suspected to contain plasticizers (ENV America November 2006). No other areas of the Former Concrete Batch Plant appear to have been investigated. The potential for the surface material in the Former Concrete Batch Plant Area to contain high pH material that could contribute to elevated pH in surface runoff has not been investigated. The disposition of the four plastic tanks is also not clear. Due to these potential conditions and the limitations discussed in technical comment 12, further investigation will be required in the Former Concrete Batch Plant Area. Please include plans to investigate this area in the Revised Closure Plan requested below.

TECHNICAL COMMENTS ON AOC 5 (FORMER MINING OPERATIONS AREA)

18. **Former Rock Crusher.** In September 2006, one soil sample was collected from approximately 8 feet bgs from test pit CR excavated near the Former Rock Crusher (ENV America 2006). TPHd, TPHmo, and BTEX were not detected above reporting limits. No other areas of the Former Rock Crusher appear to have been investigated. As discussed in technical comment 12, the results presented in the November 2006 ENV America Report and March 16, 2007 LFR Work Plan are not adequate to assess the potential environmental concerns in the Former Rock Crusher Area. Therefore, additional investigation of this area will be required. Please include plans to investigate this area in the Revised Closure Plan requested below.

19. **Former Aboveground Waste Oil Tank.** In September 2006, one soil sample was collected from approximately 8 feet bgs from test pit WO excavated near the Former Aboveground Waste Oil Tank (ENV America 2006). TPHd, TPHmo, and BTEX were not detected above reporting limits. We note that this area also appears to be labeled, "Plant Lube," on a figure labeled, "*Hazardous Materials Storage Areas*," which is located in Appendix B of the January 28, 2005 Baseline Environmental Consulting Closure Plan Report. No other areas of the Plant Lube or Former Aboveground Waste Oil Tank appear to have been investigated. As discussed in technical comment 12, the results presented in the November 2006 ENV America Report and March 16, 2007 LFR Work Plan are not adequate to assess the potential environmental concerns for the Aboveground Waste Oil Tank. Therefore, additional investigation of this area will be required. Please include plans to investigate this area in the Revised Closure Plan requested below.

20. **Former Rod Mill.** In September 2006, three soil samples were collected from approximately 2, 8, and 14 feet bgs from soil boring RM near the Former Rod Mill (ENV America 2006). TPHd was detected at concentrations less than 20 mg/kg and TPHmo and PAHs were not detected above reporting limits. As discussed in technical comment 12, the results presented in the November 2006 ENV America Report and March 16, 2007 LFR Work Plan are not adequate to assess the potential environmental concerns for the Former Rod Mill. Therefore, additional investigation of this area will be required. Please include plans to investigate this area in the Revised Closure Plan requested below.

21. **Former Plant Lube.** A building labeled, "Plant Lube D," is shown in AOC 5 on a figure labeled, "*Hazardous Materials Storage Areas*," which is located in Appendix B of the January 28, 2005 Baseline Environmental Consulting Closure Plan Report (Attachment 1 to this correspondence). A "California Hazardous Materials Reporting Form," indicates that various oils, greases, and cleaning solvents were stored at the Former Plant Lube. In the Revised Closure Plan, please provide background information and propose investigation of this area.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **May 28, 2011** – Revised Closure Plan for AOCs 2 through 5

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: 1) Figure labeled "*Hazardous Materials Storage Areas*," from Appendix B of the January 28, 2005 Baseline Environmental Consulting Closure Plan Report
2) Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Danielle Stefani, Livermore Pleasanton Fire Department, 3560 Nevada St, Pleasanton, CA 94566 (*Sent via E-mail to: dstefani@lpfire.org*)

Cheryl Dizon (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551 (*Sent via E-mail to: cdizon@zone7water.com*

John Rigter, Livermore-Pleasanton Fire Department, 3560 Nevada Street, Pleasanton, CA 94566 (*Sent via E-mail to: jrigter@lpfire.org*)

Bridget Metz, Legacy Partners, 4000 East Third Avenue, Suite 600
Foster City, CA 94404-4805 (*Sent via E-mail to: BMetz@legacypartners.com*

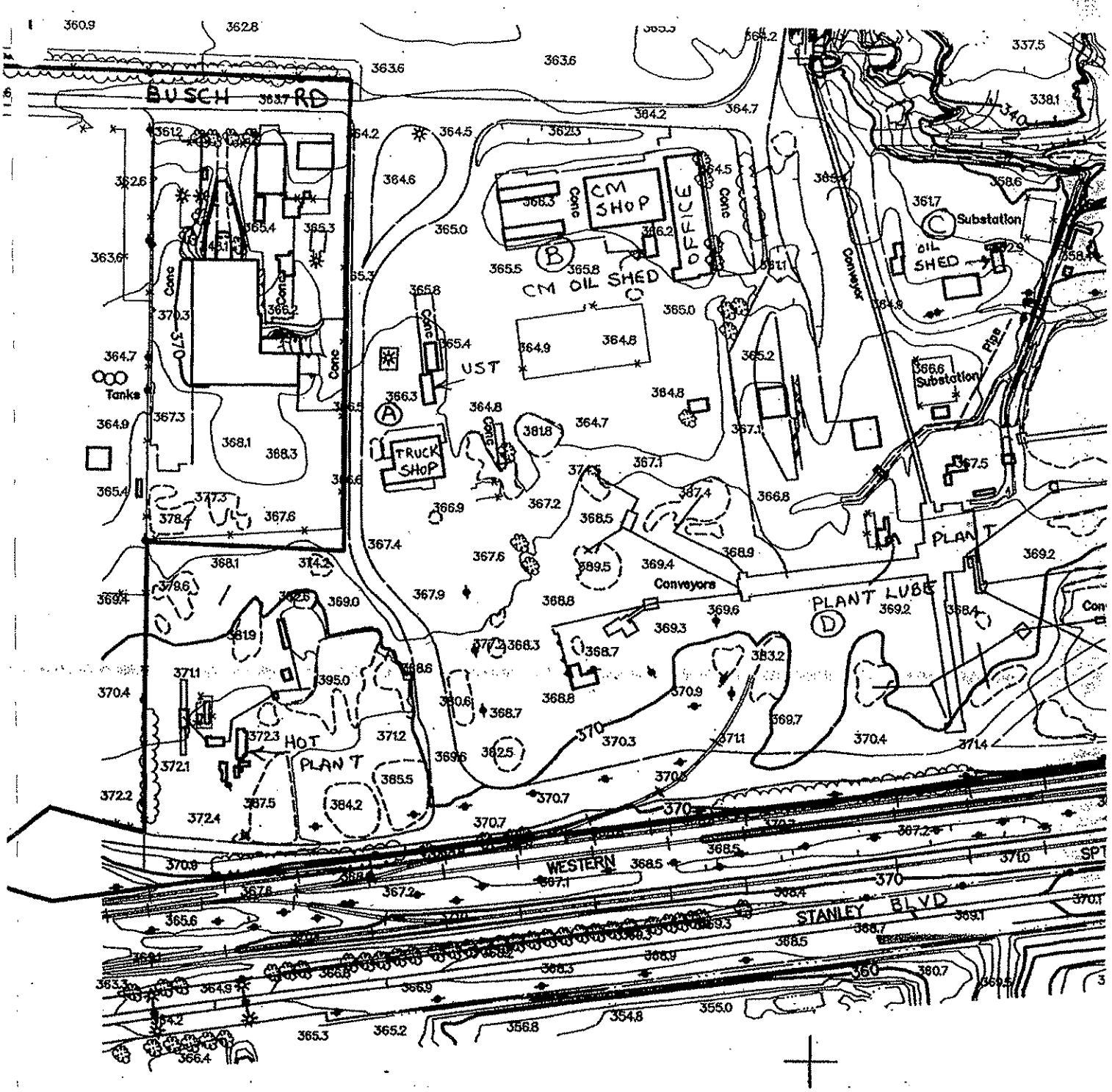
Voytek Bajsarowicz, Haley & Aldrich, 9040 Friars Road, Suite 220, San Diego, CA 92108-5860 (*Sent via E-mail to: VBajsarowicz@haleyaldrich.com*)

Ron Goloubow, LFR, 1900 Powell Street, 12th Floor
Emeryville, CA 94608-1827 (*Sent via E-mail to: Ron.Goloubow@lfr.com*)

Jonathan P. Lowell, City Attorney, City of Pleasanton, P.O. Box 520, Pleasanton, CA 94566 (*Sent via E-mail to: jlowell@ci.pleasanton.ca.us*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH *(Sent via E-mail to: jerry.wickham@acgov.org)*

GeoTracker, e-File



HAZARDOUS MATERIALS STORAGE AREAS

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

April 7, 2011

Mr. Lee W. Cover
Hanson Aggregates Northern California
12667 Alcosta Blvd, Suite 400
San Ramon, CA 94583

Mr. Steven Dunn
Legacy Partners
4000 East Third Ave, Suite 600
Foster City, CA 94404-4805

Subject: Review and Comments for Revised Closure Plan, Area of Concern 2 and 3, Hanson Aggregates Radium Facility, 3000 Busch Road, Pleasanton California 94566

Dear Mr. Cover and Mr. Dunn:

The Livermore-Pleasanton Fire Department (LPFD) has reviewed the Revised Facility Closure Plan (Closure Plan), dated May 28, 2010, prepared by ARCADIS U.S., Inc. Thank you for submitting this closure plan document.

In November 2009, Lee Cover of Hanson, provided a document entitled Closure Plan Report, Radum Plant, dated January 2005, prepared by Baseline Environmental (Baseline Report). Prior to November 2009, LPFD had not received the Baseline Report. The Baseline Report has been reviewed, and along with the Closure Plan, is referenced in this letter.

LPFD's comments for each Area of Concern (AOC) follow:

Comments for AOC 2

Based on your representation that the information you have provided is accurate, and the current use of the Idle Truck Maintenance Shop by Pleasanton Garbage Service continues, the LPFD does not have any comments at this time. LPFD will defer to Alameda County Environmental Health (ACEH) for this part of the site closure.

Comments for AOC 3

Wash Rack System (grease trap, weir and wash area):

1. Will the structures be cleaned prior to demolition and removal? (This might help with the stained concrete and related disposal concerns discussed in the Plan). If so, please update the Plan accordingly.

2. Provide a list of the materials and wastes conveyed and/or contained in this wash rack system.

3. Based upon the #2 above, please provide the specific laboratory analysis that will be used to determine the proper disposal path(s) for the materials to be removed from this system.

4. Please review the historical configuration(s) of this wash rack system. Confirm that the system was always a closed system, and did not discharge to any other surface or subsurface location (Cope Pond, etc.).

5. LPFD will defer to ACEH for any required soil and/or ground water sample locations, frequencies and analysis.

Lube Shed and Related Piping:

1. Provide a list of the specific materials and wastes, if any, conveyed in these piping systems.

2. The Plan states that compressed air will be used to purge the piping of any remaining materials. Since some of the materials included combustible liquids and lubricants, the piping must be purged with an inert compressed gas (i.e., nitrogen, helium, etc.). Compressed air may not be used. Please update the Plan accordingly.

3. LPFD will defer to ACEH for any required soil and/or ground water sample locations, frequencies and analysis.

Comments for Area East of AOC 3 (east of office building and parking lot):

The Plan submitted, along with the Baseline Report, provides more site details including locations of previous hazardous materials and waste activity at the site. Based upon the documents submitted, LPFD has the following concerns:

1. The electrical transformer locations and disposal information in the Baseline Report (section 2.1.5) was helpful, but there are two (2) additional substations not addressed. These additional substations were located east of the large conveyer system, one to the north and one to the south. For locations, please see the site map in the Baseline Report (Appendix B, page 4 of 13).

   Please provide additional information on these substations and the related transformer units. Include transformer and oil disposal documentation, related PCB concentrations, and soil sampling of the areas adjacent to these substations.

2. The hazardous materials inventory from the Mach 1998 Hazardous Materials Business Plan (Baseline Report, Appendix B) indicates lubricants and cleaning solvent were stored in Plant Lube Storage Area (C/C1). Please provide additional information on

the type of solvent that was stored in this area and any soil sample results obtained adjacent to this structure.

3. Currently LPFD will defer to ACEH for any required soil and/or ground water sample locations, frequencies and analysis.

Additional Comments:

1. Many of the Hazardous Waste Manifests included with the Baseline Report do not have signed Treatment, Storage and Disposal Facility (TSDF) copies. These need to be provided to confirm the waste reached the facility. (The TSDF's indicated on the documents should be able to provide these.)

2. Please clarify who will directly supervise this facility closure including, but not limited to, excavation activities, field sampling and analysis, material disposal, documentation, and the related closure report. LPFD concurs with ACEH that this individual should be a California Professional Geologist or Professional Engineer.

3. LPFD concurs with the May 28, 2010 date (stated in ACEH's comments letter) for submitting the Revised Closure Plan.

If you have any questions, I can be reached directly at (925) 454-2333.

Sincerely,

John Rigter
Fire Inspector
Livermore Pleasanton Fire Department

Cc: Jonathan P. Lowell, City Attorney, City of Pleasanton, P.O. Box 520, Pleasanton CA 94566 (Sent via E-mail to: jlowell@ci.pleasanton.ca.us)

Jerry Wickham, Alameda County Health Care Services 1131 Harbor Bay Pkwy., Suite 250, Alameda CA 94502 (Sent via E-mail to: jerry.wickham@acgov.org)

Cheryl Dizon, Zone 7 Water Agency, 100 North Canyons Pkwy., Livermore CA 94551 (Sent via E-mail to: cdizon@zone7water.com)

Bridget Metz, Legacy Partners, 4000 East Third Ave., Suite 600, Foster City CA 94404 (Sent via E-mail to: BMETZ@legacypartners.com)

Ron Goloubow, Arcadis, U.S., Inc., 1900 Powell St., 12th Floor, Emeryville, CA 94608
(Sent via E-mail to: Ron.Goloubow@lfr.com)

Voytek Bajsarowicz, Haley & Aldrich, 9040 Friars Rd, Suite 220, San Diego, CA 92108
(Sent via E-mail to: VBajsarowicz@haleyaldrich.com)

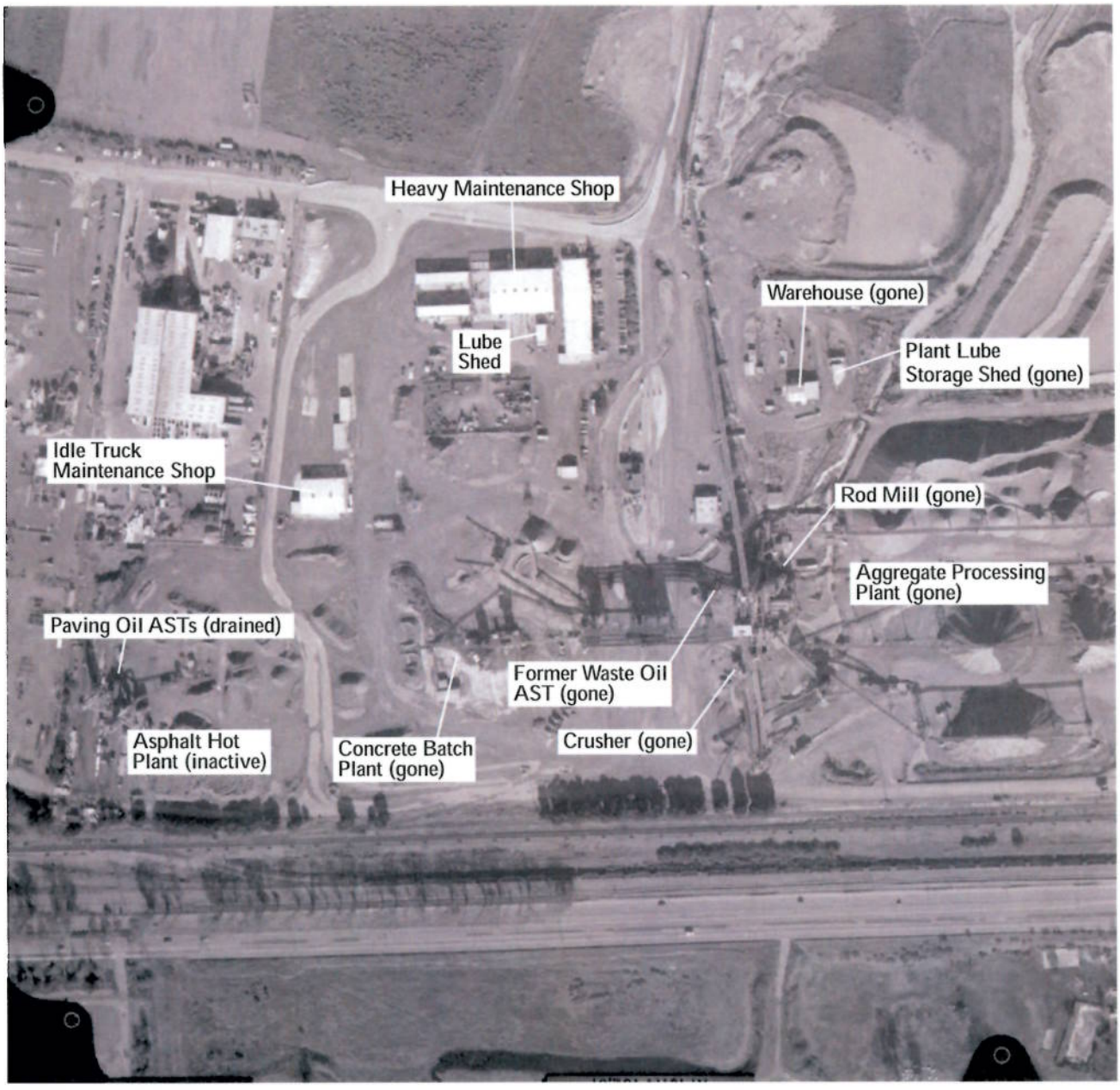
ARCADIS

Appendix B

Two Figures from the 2005 Baseline Environmental Consulting Closure Plan

SITE FACILITIES

Figure 2



Hanson Aggregates Mid-Pacific Region
3000 Busch Road, Pleasanton

Source: Aerial Photo Base: 11/26/01

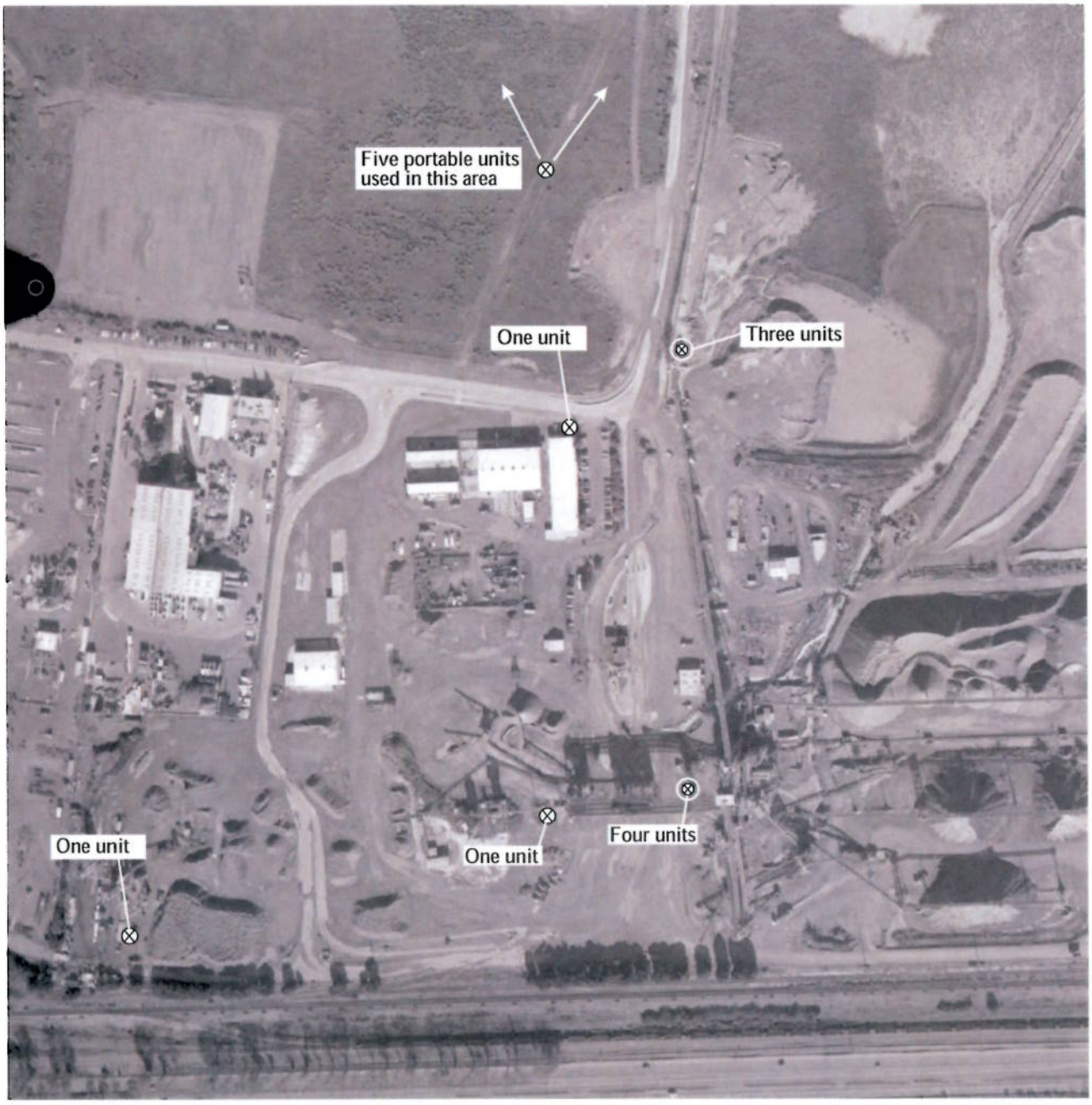
0 425 Feet

BASELINE

D:\Graphics\Y4377\Figure 2 Site Facilities.cdr 1/25/05

FORMER LOCATIONS OF ELECTRICAL TRANSFORMERS

Figure 3



Legend

- ⊗ Former transformer location
- ⊗ Laboratory testing of oil in transformer at this location found detectable levels of PCBs

Hanson Aggregates Mid-Pacific Region
3000 Busch Road, Pleasanton

Source: Aerial Photo Base: 11/26/01

0 425 Feet

BASELINE

D:\Graphics\Y4377\Figure 3 Former Locations.cdr 1/25/05

Appendix C

Photo Log

FORMER LUBE SHED LOOKING EAST

GREASE TRAP

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

PHOTOLOG

ARCADIS

DATE-DIV-ORIGINATOR
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DOUBLE WEIR

SOIL BORING EB-4 NEAR GREASE TRAP

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

PHOTOLOG

ARCADIS

DATE-DIV-ORIGINATOR
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10 - 1-INCH DIAMETER PIPES AT THE FORMER HEAVY MAINTENANCE SHOP

10 - 1-INCH DIAMETER PIPES AT THE LUBE SHOP

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

PHOTOLOG

ARCADIS

DATE-DIV-ORIGINATOR
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GROUNDWATER MONITORING WELL MW-1

INSIDE THE FORMER LUBE SHED

FORMER HANSON AGGREGATES, RADUM FACILITY,
3000 BUSCH ROAD, PLEASANTON, CALIFORNIA

PHOTOLOG

ARCADIS

DATE-DIV-ORIGINATOR
G:\ENVCAD\Emeryville\ACTIVE\M009567\00000\PHOTOLOG\HANSON Photolog May2010.cdr

Appendix D

Laboratory Report for Composite Soil Samples Collected from the Stockpiled Material

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 218903
ANALYTICAL REPORT

Arcadis	Project : EM00956700.00011
1900 Powell St.	Location : Hanson Radum
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
AOC-1-SP-1	218903-001
AOC-1-SP-2	218903-002
AOC-1-SP-3	218903-003
AOC-1-SP-4	218903-004
AOC-1-SP-5	218903-005

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 03/26/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**218903**
Client:	**Arcadis**
Project:	**EM00956700.00011**
Location:	**Hanson Radum**
Request Date:	**03/18/10**
Samples Received:	**03/18/10**

This data package contains sample and QC results for five soil samples, requested for the above referenced project on 03/18/10. The samples were received cold and intact. All data were e-mailed to Katrin Schliewen on 03/26/10.

TPH-Extractables by GC (EPA 8015B):

Matrix spikes QC536971,QC536972 (batch 161146) were not reported because the parent sample required a dilution that would have diluted out the spikes. AOC-1-SP-1 (lab # 218903-001) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

High recoveries were observed for m,p-xylenes and o-xylene in the BSD for batch 161303; the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated samples. No other analytical problems were encountered.

Metals (EPA 6010B):

No analytical problems were encountered.

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

C & T LOGIN #: 218903

Sampler: Michael Sullivan

Project No.: EM009567 00, 00011

Report To: Katrin

Project Name: Hanson Radum

Company: Arcadis

Project P.O.:

Telephone: 510-652-4500

Turnaround Time: Standard

Fax: 510-652-2246

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Analysis: TPH diesel (8015B) silica gel cleanup	Analysis: TPH Motor oil (8015B) silica gel cleanup	Analysis: BTEX (8260)	Analysis: Lead (6010)
1	AOC-1-SP-1	3/17/10 958	x			1					x	x	x	x
2	AOC-1-SP-2	1022	x			1					x	x	x	x
3	AOC-1-SP-3	1110	x			1					x	x	x	x
4	AOC-1-SP-4	1130	x			1					x	x	x	x
5	AOC-1-SP-5		x			1					x	x	x	x
~~6~~	~~AOC-1-SP-6~~										NOT SAMPLED			

Notes: Samples composited in the field

Silica gel cleanup for all TPH samples

SAMPLE RECEIPT
☐ Intact ☒ Cold
☒ On Ice ☐ Ambient
Preservative Correct?
☐ Yes ☐ No ☐ N/A

RELINQUISHED BY:
5/17/10 1410 DATE / TIME
DATE / TIME
DATE / TIME

RECEIVED BY:
3/17/10 1410 DATE / TIME
DATE / TIME
DATE / TIME

SIGNATURE

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 218905 Date Received 3/17/10 Number of coolers 1
Client ARCADIS Project HANSON RADUM

Date Opened 3/17/10 By (print) M. VILLARREAL (sign)
Date Logged in 3/19/10 By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
Shipping info

2A. Were custody seals present? ... ☐ YES (circle) on cooler on samples (NO)
How many Name Date
2B. Were custody seals intact upon arrival? YES NO (N/A)
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 6.0

☐ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are samples in the appropriate containers for indicated tests? (YES) NO
11. Are sample labels present, in good condition and complete? (YES) NO
12. Do the sample labels agree with custody papers? (YES) NO
13. Was sufficient amount of sample sent for tests requested? (YES) NO
14. Are the samples appropriately preserved? YES NO (N/A)
15. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
16. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? By Date:

COMMENTS
#5 SAMPLING TIME 12:00

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 3550B
Project#:	EM00956700.00011	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	03/17/10
Units:	mg/Kg	Received:	03/18/10
Basis:	as received	Prepared:	03/22/10
Batch#:	161146		

Field ID:	AOC-1-SP-1	Diln Fac:	5.000
Type:	SAMPLE	Analyzed:	03/23/10
Lab ID:	218903-001	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	5.0
Motor Oil C24-C36	41	25

Surrogate	%REC	Limits
o-Terphenyl	78	16-164

Field ID:	AOC-1-SP-2	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	03/23/10
Lab ID:	218903-002	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	85	16-164

Field ID:	AOC-1-SP-3	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	03/23/10
Lab ID:	218903-003	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	1.2 Y	1.0
Motor Oil C24-C36	11	5.0

Surrogate	%REC	Limits
o-Terphenyl	85	16-164

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 3550B
Project#:	EM00956700.00011	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	03/17/10
Units:	mg/Kg	Received:	03/18/10
Basis:	as received	Prepared:	03/22/10
Batch#:	161146		

Field ID:	AOC-1-SP-4	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	03/23/10
Lab ID:	218903-004	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	2.7 Y	0.99
Motor Oil C24-C36	19	5.0

Surrogate	%REC	Limits
o-Terphenyl	91	16-164

Field ID:	AOC-1-SP-5	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	03/23/10
Lab ID:	218903-005	Cleanup Method:	EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	7.3	5.0

Surrogate	%REC	Limits
o-Terphenyl	36	16-164

Type:	BLANK	Analyzed:	03/22/10
Lab ID:	QC536969	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	83	16-164

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

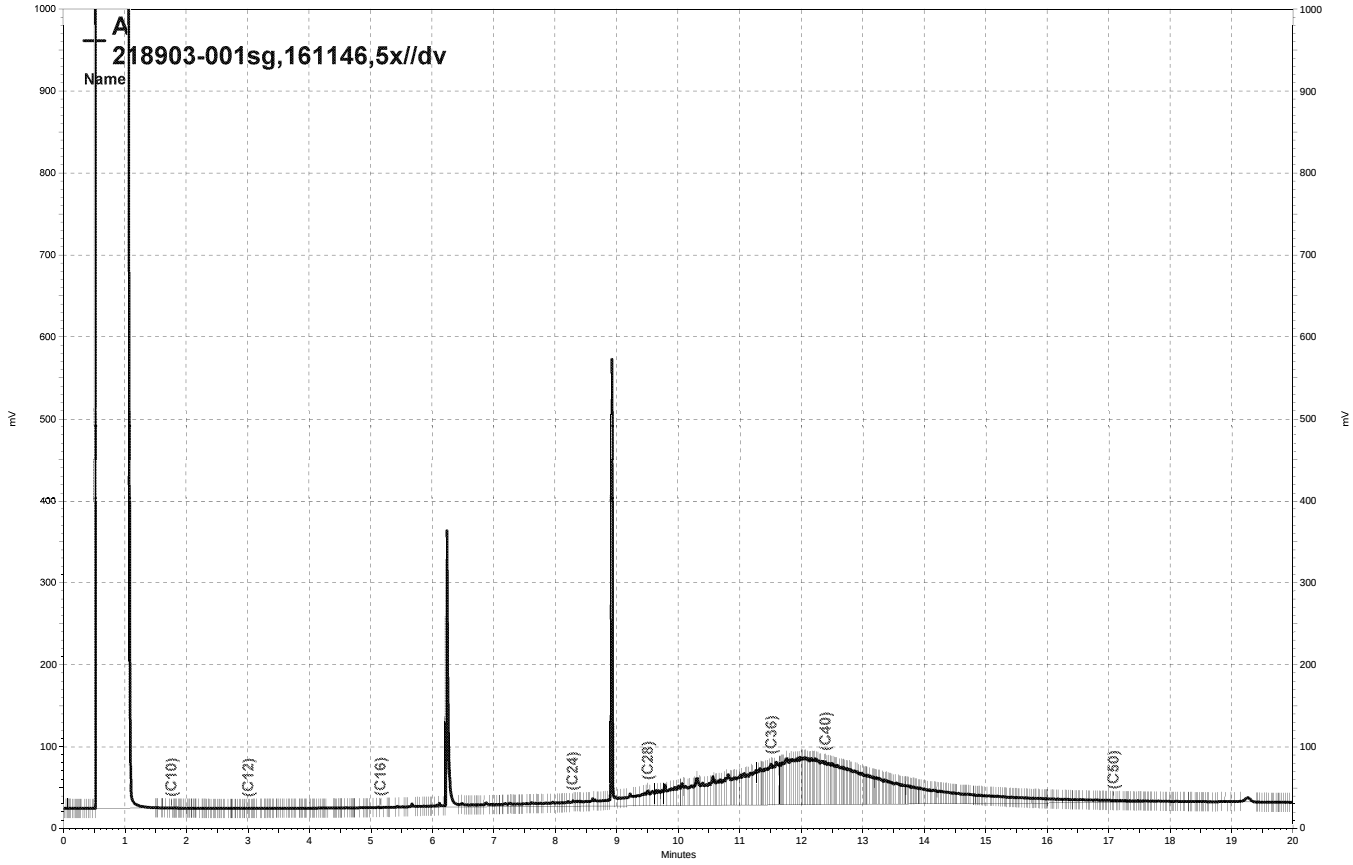
Total Extractable Hydrocarbons

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 3550B
Project#:	EM00956700.00011	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC536970	Batch#:	161146
Matrix:	Soil	Prepared:	03/22/10
Units:	mg/Kg	Analyzed:	03/22/10

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.75	42.16	85	36-151

Surrogate	%REC	Limits
o-Terphenyl	92	16-164



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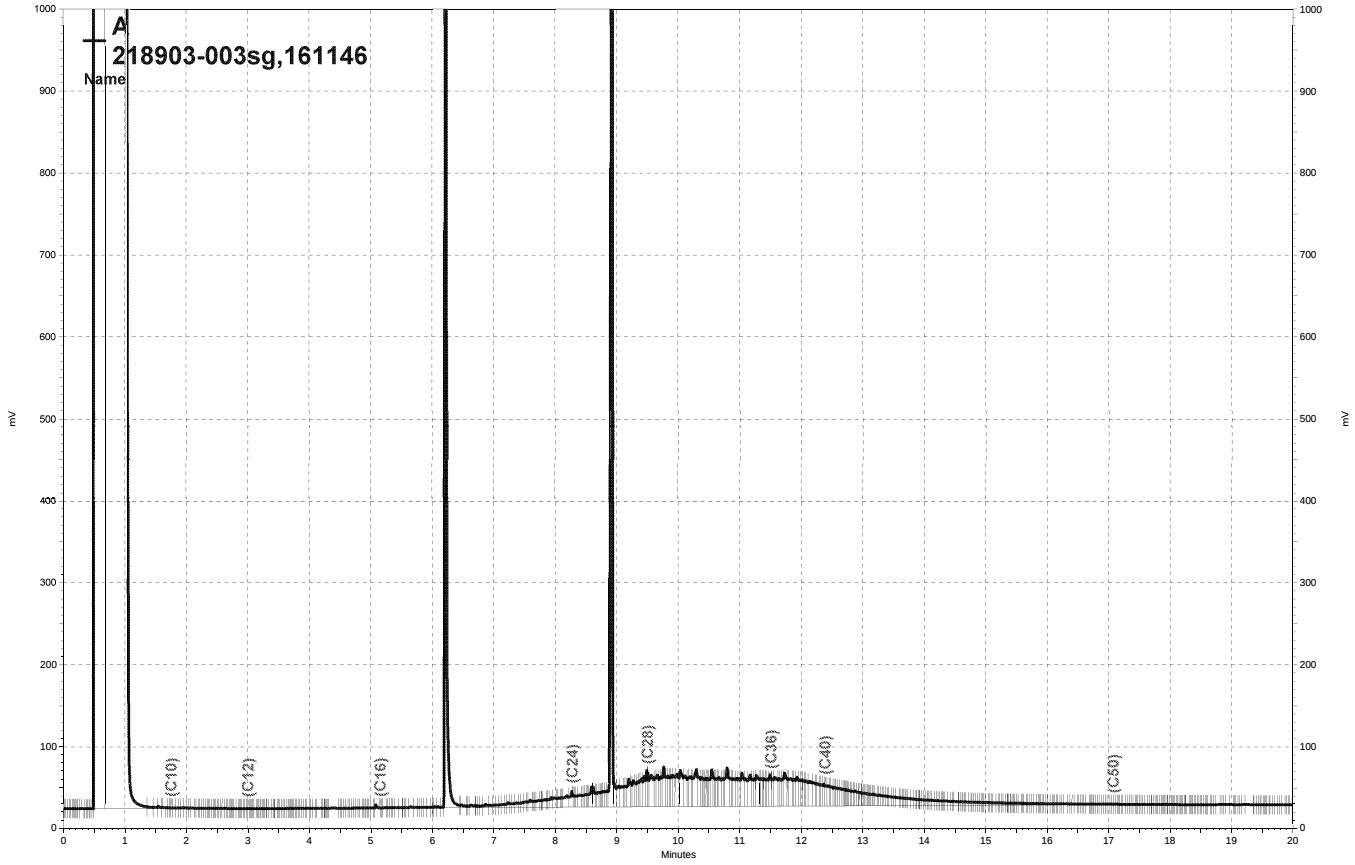

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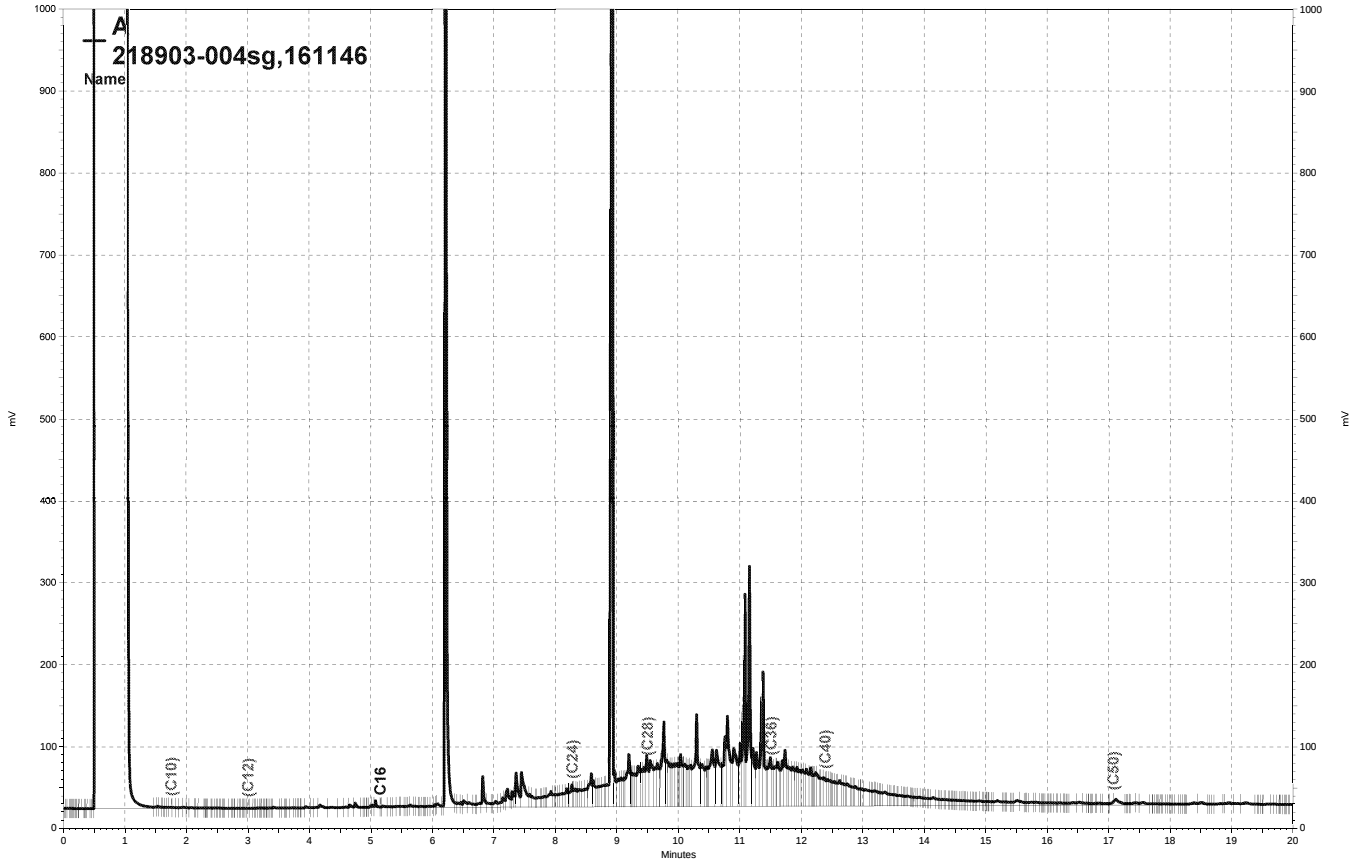

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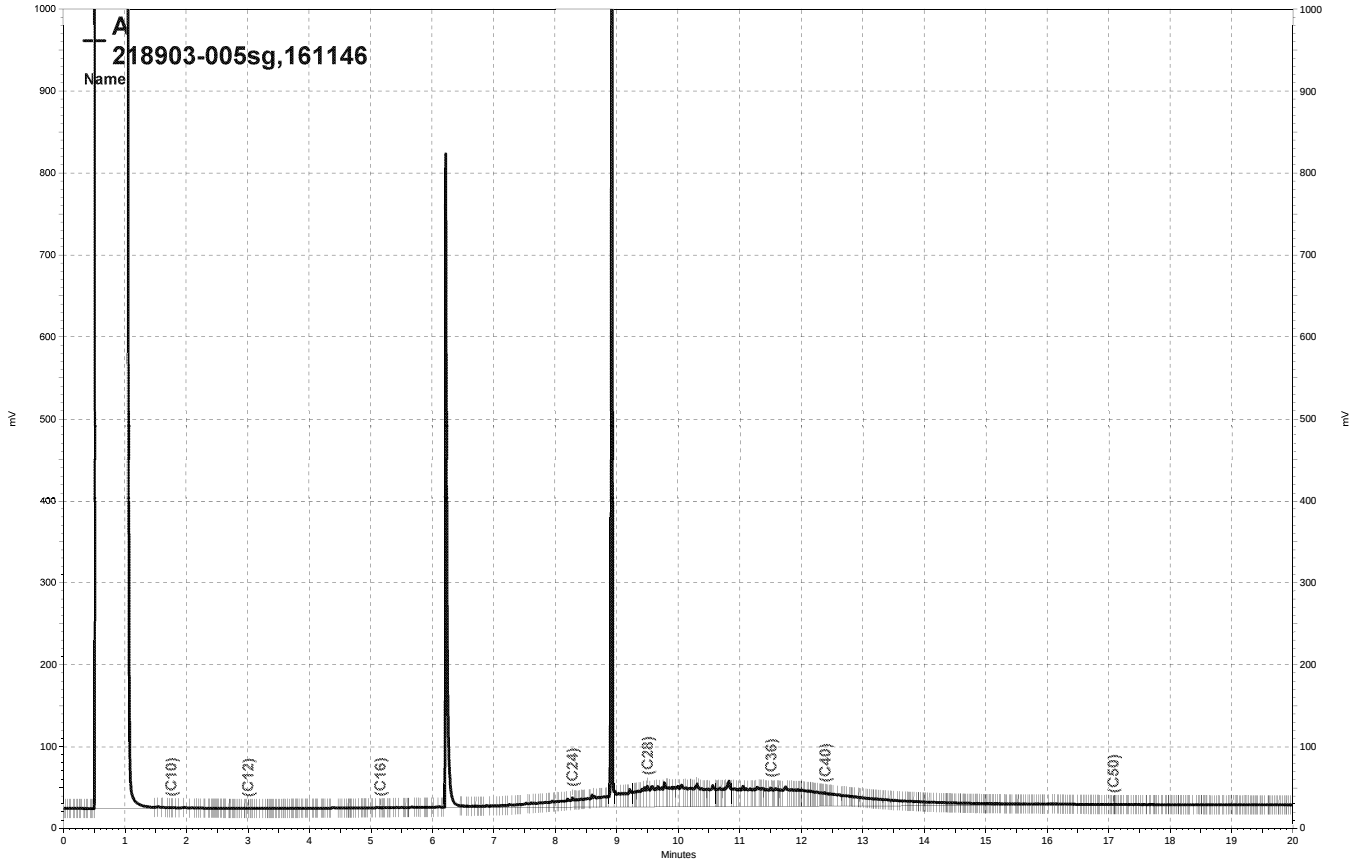

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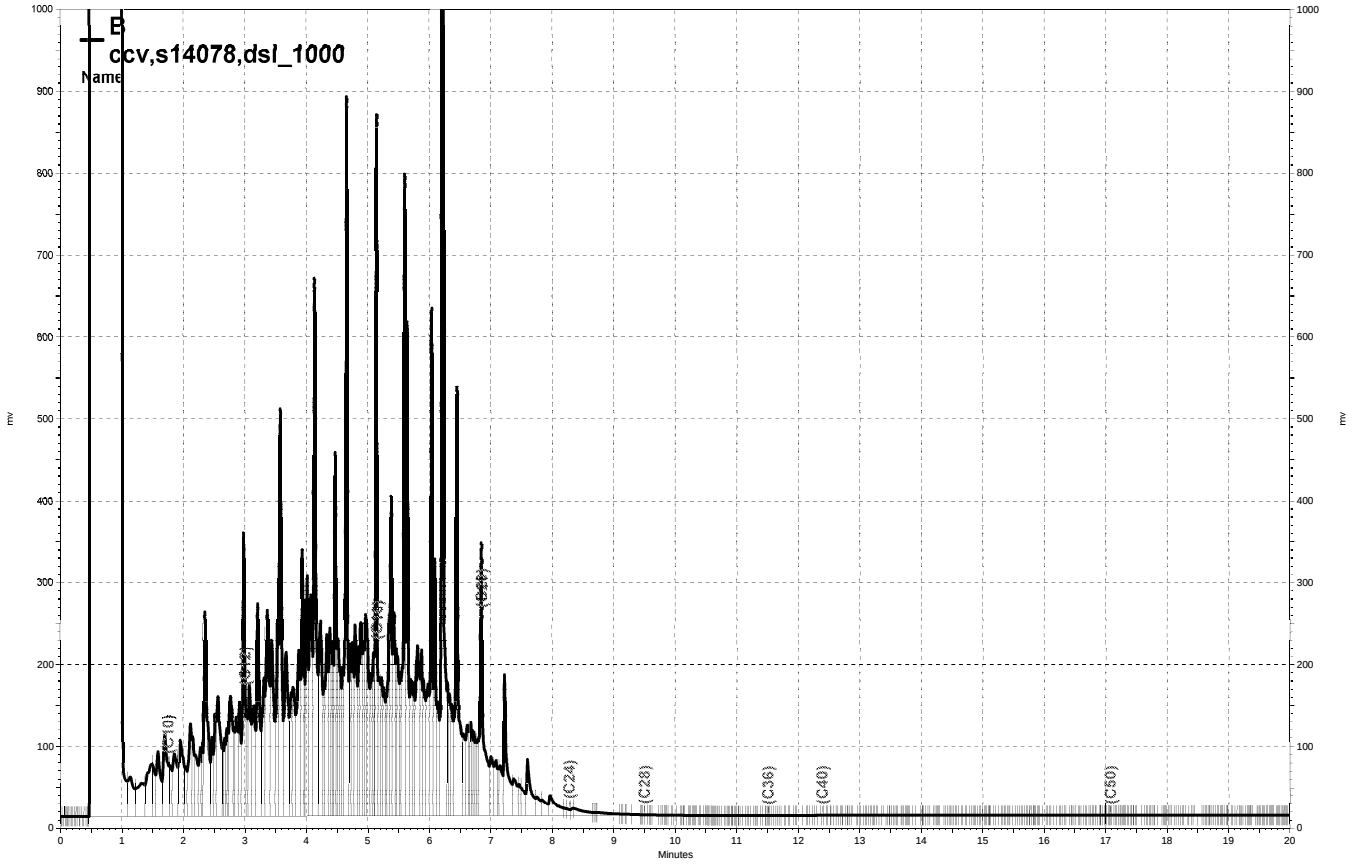

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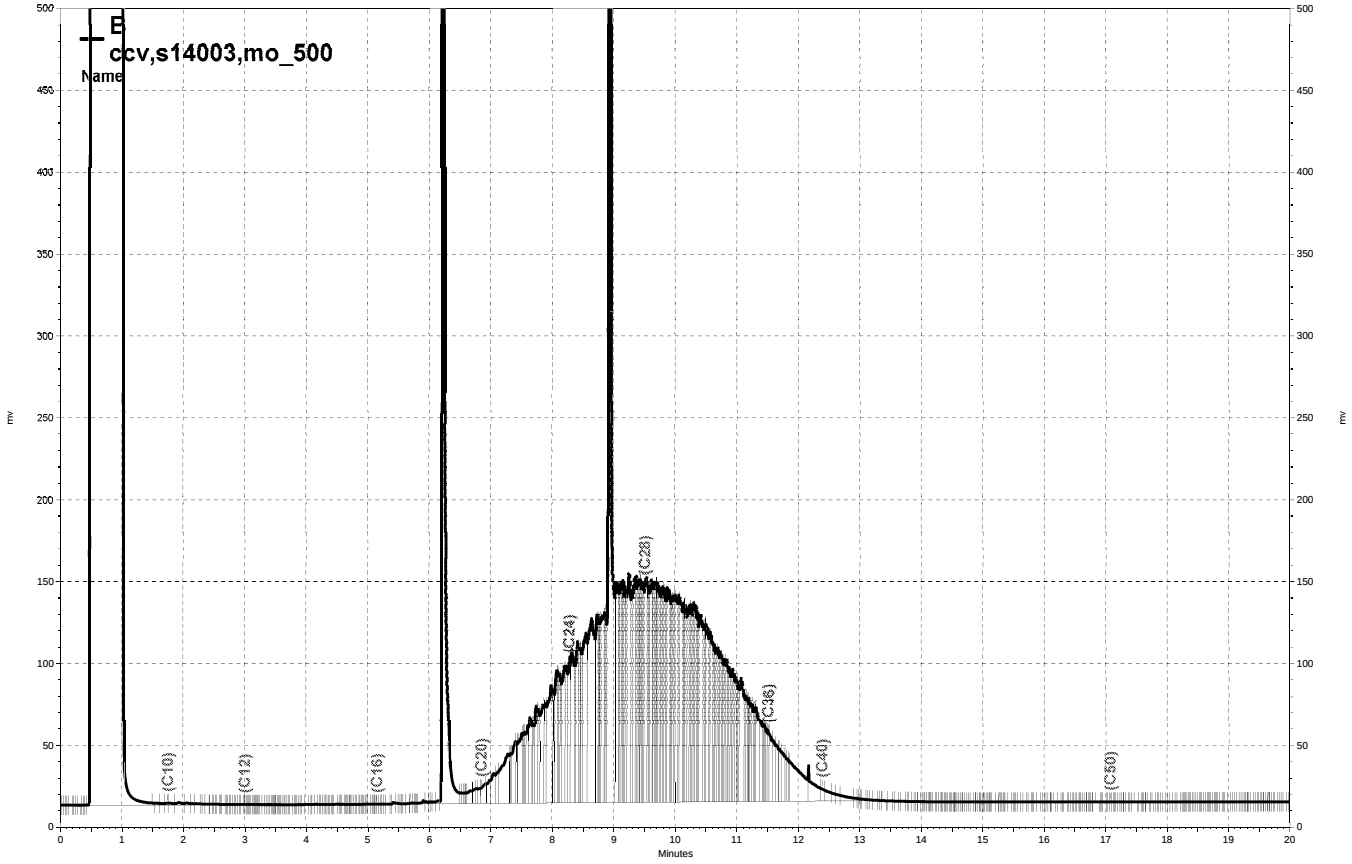

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Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Field ID:	AOC-1-SP-1	Diln Fac:	0.9690
Lab ID:	218903-001	Batch#:	161303
Matrix:	Soil	Sampled:	03/17/10
Units:	ug/Kg	Received:	03/18/10
Basis:	as received	Analyzed:	03/25/10

Analyte	Result	RL
MTBE	ND	4.8
Benzene	ND	4.8
Toluene	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	121	54-153
Toluene-d8	94	83-118
Bromofluorobenzene	98	61-146

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Field ID:	AOC-1-SP-2	Diln Fac:	0.9804
Lab ID:	218903-002	Batch#:	161303
Matrix:	Soil	Sampled:	03/17/10
Units:	ug/Kg	Received:	03/18/10
Basis:	as received	Analyzed:	03/25/10

Analyte	Result	RL
MTBE	ND	4.9
Benzene	ND	4.9
Toluene	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	118	54-153
Toluene-d8	92	83-118
Bromofluorobenzene	96	61-146

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Field ID:	AOC-1-SP-3	Diln Fac:	0.9488
Lab ID:	218903-003	Batch#:	161303
Matrix:	Soil	Sampled:	03/17/10
Units:	ug/Kg	Received:	03/18/10
Basis:	as received	Analyzed:	03/25/10

Analyte	Result	RL
MTBE	ND	4.7
Benzene	ND	4.7
Toluene	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	118	54-153
Toluene-d8	97	83-118
Bromofluorobenzene	97	61-146

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Field ID:	AOC-1-SP-4	Diln Fac:	0.9398
Lab ID:	218903-004	Batch#:	161303
Matrix:	Soil	Sampled:	03/17/10
Units:	ug/Kg	Received:	03/18/10
Basis:	as received	Analyzed:	03/25/10

Analyte	Result	RL
MTBE	ND	4.7
Benzene	ND	4.7
Toluene	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	117	54-153
Toluene-d8	92	83-118
Bromofluorobenzene	96	61-146

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Field ID:	AOC-1-SP-5	Diln Fac:	0.9470
Lab ID:	218903-005	Batch#:	161139
Matrix:	Soil	Sampled:	03/17/10
Units:	ug/Kg	Received:	03/18/10
Basis:	as received	Analyzed:	03/22/10

Analyte	Result	RL
MTBE	ND	4.7
Benzene	ND	4.7
Toluene	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	120	54-153
Toluene-d8	101	83-118
Bromofluorobenzene	108	61-146

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC536941	Batch#:	161139
Matrix:	Soil	Analyzed:	03/22/10
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	26.20	105	47-136
Benzene	25.00	24.00	96	73-134
Toluene	25.00	24.75	99	72-134
Ethylbenzene	25.00	23.91	96	74-134
m,p-Xylenes	50.00	42.67	85	74-133
o-Xylene	25.00	21.15	85	73-127

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	120	54-153
Toluene-d8	108	83-118
Bromofluorobenzene	116	61-146

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC536942	Batch#:	161139
Matrix:	Soil	Analyzed:	03/22/10
Units:	ug/Kg		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	131	54-153
Toluene-d8	101	83-118
Bromofluorobenzene	115	61-146

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Field ID:	AOC-1-SP-5	Batch#:	161139
MSS Lab ID:	218903-005	Sampled:	03/17/10
Matrix:	Soil	Received:	03/18/10
Units:	ug/Kg	Analyzed:	03/22/10
Basis:	as received		

Type: MS Diln Fac: 0.9615
Lab ID: QC536963

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.3128	48.08	52.31	109	38-136
Benzene	<0.3848	48.08	48.16	100	53-139
Toluene	<1.053	48.08	45.91	95	49-139
Ethylbenzene	<0.3070	48.08	47.98	100	38-145
m,p-Xylenes	<0.5884	96.15	90.05	94	38-145
o-Xylene	<0.3344	48.08	47.35	98	38-141

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	119	54-153
Toluene-d8	100	83-118
Bromofluorobenzene	98	61-146

Type: MSD Diln Fac: 0.9294
Lab ID: QC536964

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	46.47	48.08	103	38-136	5	36
Benzene	46.47	43.70	94	53-139	6	35
Toluene	46.47	41.22	89	49-139	7	33
Ethylbenzene	46.47	41.53	89	38-145	11	36
m,p-Xylenes	92.94	81.97	88	38-145	6	37
o-Xylene	46.47	43.22	93	38-141	6	36

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	113	54-153
Toluene-d8	99	83-118
Bromofluorobenzene	97	61-146

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC537643	Batch#:	161303
Matrix:	Soil	Analyzed:	03/25/10
Units:	ug/Kg		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	115	54-153
Toluene-d8	95	83-118
Bromofluorobenzene	94	61-146

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 5030B
Project#:	EM00956700.00011	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	161303
Units:	ug/Kg	Analyzed:	03/25/10
Diln Fac:	1.000		

Type: BS Lab ID: QC537644

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	24.48	98	47-136
Benzene	25.00	30.42	122	73-134
Toluene	25.00	27.53	110	72-134
Ethylbenzene	25.00	31.71	127	74-134
m,p-Xylenes	50.00	66.24	132	74-133
o-Xylene	25.00	30.52	122	73-127

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	112	54-153
Toluene-d8	90	83-118
Bromofluorobenzene	96	61-146

Type: BSD Lab ID: QC537645

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	24.83	99	47-136	1	23
Benzene	25.00	30.86	123	73-134	1	19
Toluene	25.00	32.01	128	72-134	15	19
Ethylbenzene	25.00	33.08	132	74-134	4	22
m,p-Xylenes	50.00	69.89	140 *	74-133	5	22
o-Xylene	25.00	33.00	132 *	73-127	8	22

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	115	54-153
Toluene-d8	93	83-118
Bromofluorobenzene	96	61-146

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Lead

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 3050B
Project#:	EM00956700.00011	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	161168
Matrix:	Soil	Sampled:	03/17/10
Units:	mg/Kg	Received:	03/18/10
Basis:	as received	Prepared:	03/22/10
Diln Fac:	1.000	Analyzed:	03/24/10

Field ID	Type	Lab ID	Result	RL
AOC-1-SP-1	SAMPLE	218903-001	6.7	0.25
AOC-1-SP-2	SAMPLE	218903-002	2.1	0.25
AOC-1-SP-3	SAMPLE	218903-003	4.6	0.25
AOC-1-SP-4	SAMPLE	218903-004	4.4	0.25
AOC-1-SP-5	SAMPLE	218903-005	4.9	0.25
	BLANK	QC537053	ND	0.25

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Lead

Lab #:	218903	Location:	Hanson Radum
Client:	Arcadis	Prep:	EPA 3050B
Project#:	EM00956700.00011	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	161168
MSS Lab ID:	218893-001	Sampled:	03/16/10
Matrix:	Soil	Received:	03/17/10
Units:	mg/Kg	Prepared:	03/22/10
Basis:	as received	Analyzed:	03/24/10

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC537054		100.0	94.43	94	73-117		
BSD	QC537055		100.0	95.11	95	73-117	1	24
MS	QC537056	4.673	96.15	93.91	93	27-147		
MSD	QC537057		97.09	97.74	96	27-147	3	54

RPD= Relative Percent Difference