Carryl MacLeod
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June 1, 2015

RECEIVED
By Alameda County Environmental Health 11:44 am, Jun 03, 2015

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Standard Oil Service Station 307233
2259 First Street
Livermore, California
ACEHS Case RO0002908

I accept the *Work Plan for Lead Delineation in Soil*.

I agree with the scope of work presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This document was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Carryl MacLeod
Project Manager

Attachment: *Work Plan for Lead Delineation in Soil*

CONESTOGA-ROVERS
& ASSOCIATES

10969 Trade Center Drive, Suite 107
Rancho Cordova, California 95670
Telephone: (916) 889-8900 Fax: (916) 889-8999
www.CRAworld.com

June 1, 2015 Reference No. 312264

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

Re: Work Plan for Lead Delineation in Soil
Former Chevron Service Station 307233
2259 First Street
Livermore, California
Agency Case RO2908

Dear Mr. Wickham:

Conestoga-Rovers & Associates (CRA) is submitting this *Work Plan for Lead Delineation in Soil* at the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (CEMC). The scope of work presented herein is based on discussion of Alameda County Environmental Health's (ACEH) requirements during a meeting between ACEH, the City of Livermore (City), and CEMC on May 5, 2015.

As requested by ACEH, CRA proposes the following work be completed: sample shallow soil onsite to adequately define the extent of lead in shallow soil such that shallow lead exceeding 80 milligrams per kilogram can be remediated by being excavated during park renovation scheduled for 2016. CRA also proposes that collection of a grab-groundwater sample downgradient of the site be completed to laterally define petroleum hydrocarbons in groundwater. This data will allow for evaluation of the site eligibility for low-threat closure.

PROPOSED SCOPE OF WORK

Collection of near-surface soil samples on an approximate 15-foot by 15-foot grid pattern onsite where past sampling was not previously conducted (Figure 2) to determine the extent of shallow lead contamination in soil. Sample locations that are in conflict with existing vegetation and/or subsurface utilities will be moved slightly to address the conflict. Additionally, one hydropunch boring will be advanced at the corner of First Street and South J Street to delineate the downgradient extent of petroleum hydrocarbons in shallow groundwater.

Site Health and Safety Plan

A site-specific health and safety plan (HASP) will be prepared to protect site workers during shallow soil and grab-groundwater sampling activities. The plan will be kept onsite, reviewed,

and followed during all field activities. The HASP will be signed by all site workers and visitors.

Permits

Necessary permits (if needed) from the City and Water Zone 7 will be obtained prior to beginning field operations. A minimum of 48 hours of notice will be given to ACEH prior to beginning activities.

Utility Location

The site will be marked for Underground Service Alert (USA) clearance a minimum of 48 hours prior to beginning field work. A private utility locator will also be used to identify any underground utilities prior to beginning field activities.

Soil Boring Advancement and Lead Sampling

A total of 21 soil broings (Figure 2) are proposed to delineate lead impact at the site. The soil borings will be advanced to total depth using an air knife and vacuum truck if possible. If total depth cannot be achieved, a direct push rig will be used to complete the boring. Proposed boring depths are presented below. Boring depths were calculated based on the approximate current elevation of each location, the planned finished grade of 490 feet amsl, and the planned excavation depth for new park features at each location.

Proposed Soil Boring ID	Approximate Elevation (current)	Excavation Depth Below Finish Grade (490 msl)	Proposed Soil Boring Depth
HA-8	489	2	2
HA-9	491	3	4
HA-10	492	3	4
HA-11	492	6	7
HA-12	492	6	7
HA-13	489	3	3
HA-14	489	2	2
HA-15	490	2	3
HA-16	490	2	3
HA-17	491	3	4
HA-18	492	6	7
HA-19	489	5	5
HA-20	489	2	2
HA-21	491	3	4
HA-22	491	6	7

Proposed Soil Boring ID	Approximate Elevation (current)	Excavation Depth Below Finish Grade (490 msl)	Proposed Soil Boring Depth
HA-23	489	3	3
HA-24	490	12	13
HA-25	489	5	5
HA-26	489	2	2
HA-27	490	3	4
HA-28	491	6	7

Two to three soil samples will be collected from each location depending on the total depth of each boring (two samples for borings less than 4 fbg and three samples for borings greater than 4 fbg). The first sample will be collected near the planned finished grade of 490 amsl. Subsequent samples will be collected at the mid-point (if depth is greater than 4 fbg) and at bottom of each boring.

Samples will be collected in either 6-inch long, 2-inch diameter brass or stainless steel sleeves driven into the ground using a slide hammer or in acetate sleeves. Soil sample containers submitted for analysis will be capped with Teflon squares and plastic end caps, labeled, entered onto a chain-of-custody form, packed on ice, and sent to a state certified laboratory for lead analysis by EPA Method 6010.

Sample locations will be backfilled with clean sand and/or grout and the grass will be replaced where needed.

Hydropunch Grab-Groundwater Sampling

In order to delineate the downgradient extent of petroleum hydrocarbons in shallow groundwater, one direct push soil boing will be placed in the landscaped area near the corner of First Street and South J Street (Figure 3). The boring will be hand cleared to 8 fbg with a hand auger and then advanced to approximately 30 fbg with a direct push rig for collection of a hydropunch grab-groundwater sample. Soil will be continuously logged and screened in the field with a photoionization detector. No soil samples will be collected for chemical analysis. The grab-groundwater sample will be collected in laboratory supplied containers labeled, entered onto a chain-of-custody form, packed on ice, and sent to a state certified laboratory for the following chemical analyses:

- Total Petroleum Hydrocarbons as Gasoline by EPA Method 8260
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by EPA Method 8260
- Methyl Tertiary Butyl Ether (MTBE) by EPA Method 8260

Reporting
Upon completion of the above activities, a report will be prepared that will includes the following:

- A summary of soil sampling activities
- Tabulated analytical results of soil and grab-groundwater sampling
- A map showing the extent of proposed shallow excavation
- Boring Logs
- Analytical reports and chain-of-custody forms
- CRA's conclusions and recommendations

Schedule: Proposed work will begin upon approval of this work plan by ACEH and acceptance of conditions of work by the City. A report of findings will be submitted approximately 60 days following the receipt of all final analytical data. A tentative schedule for completion of work up through the removal of lead impacted soil is presented in Attachment A.

Please contact Brian Silva at (916) 889-8908 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Brian Silva

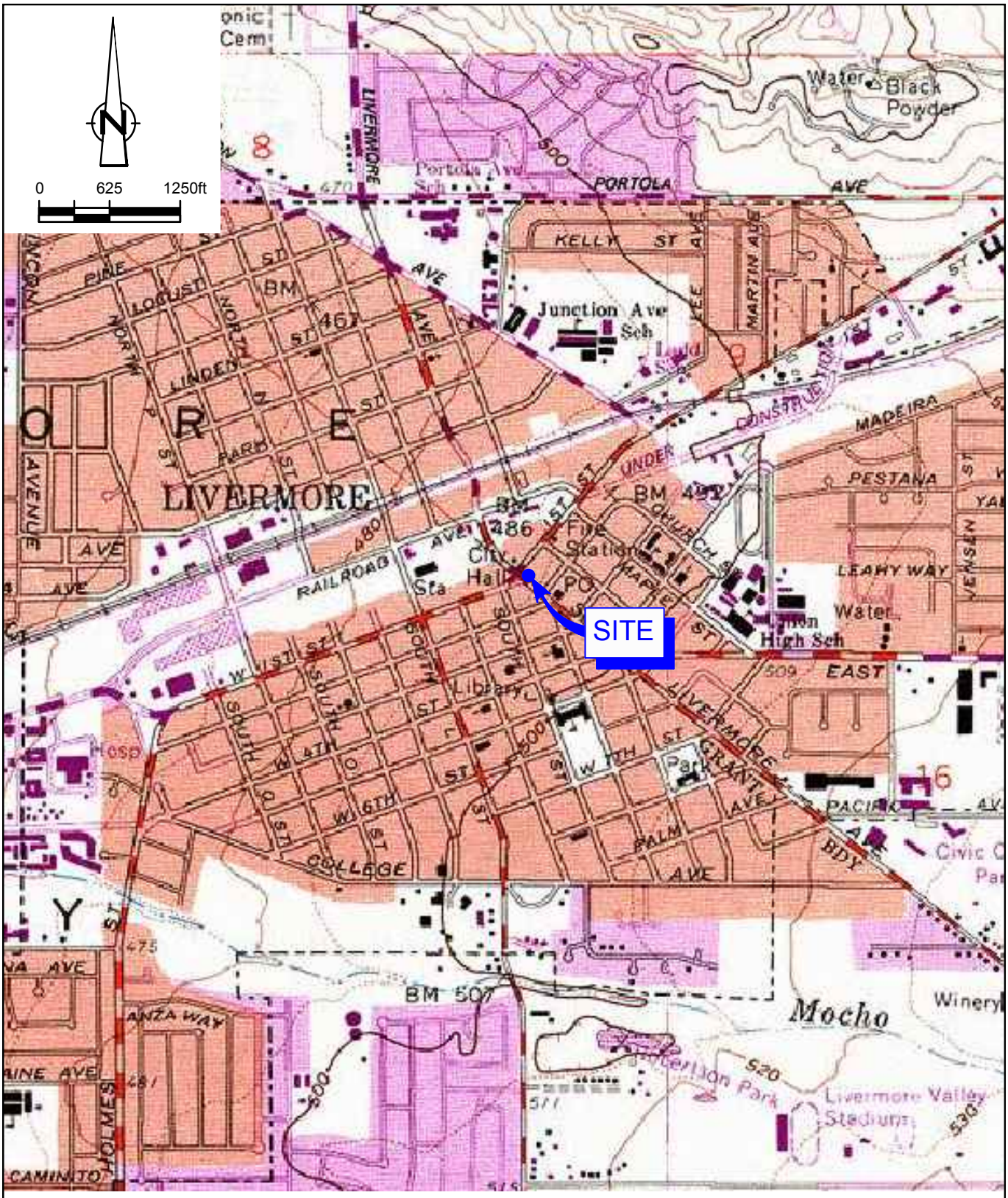
Greg Barclay, PG 6260

BJS/de/29
Encl.

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Extended Site Plan
Attachment A	Tentative Schedule

cc: Carryl MacLeod, Chevron Environmental Management Company (*electronic only)*
Eric Uranaga, City of Livermore Community Development

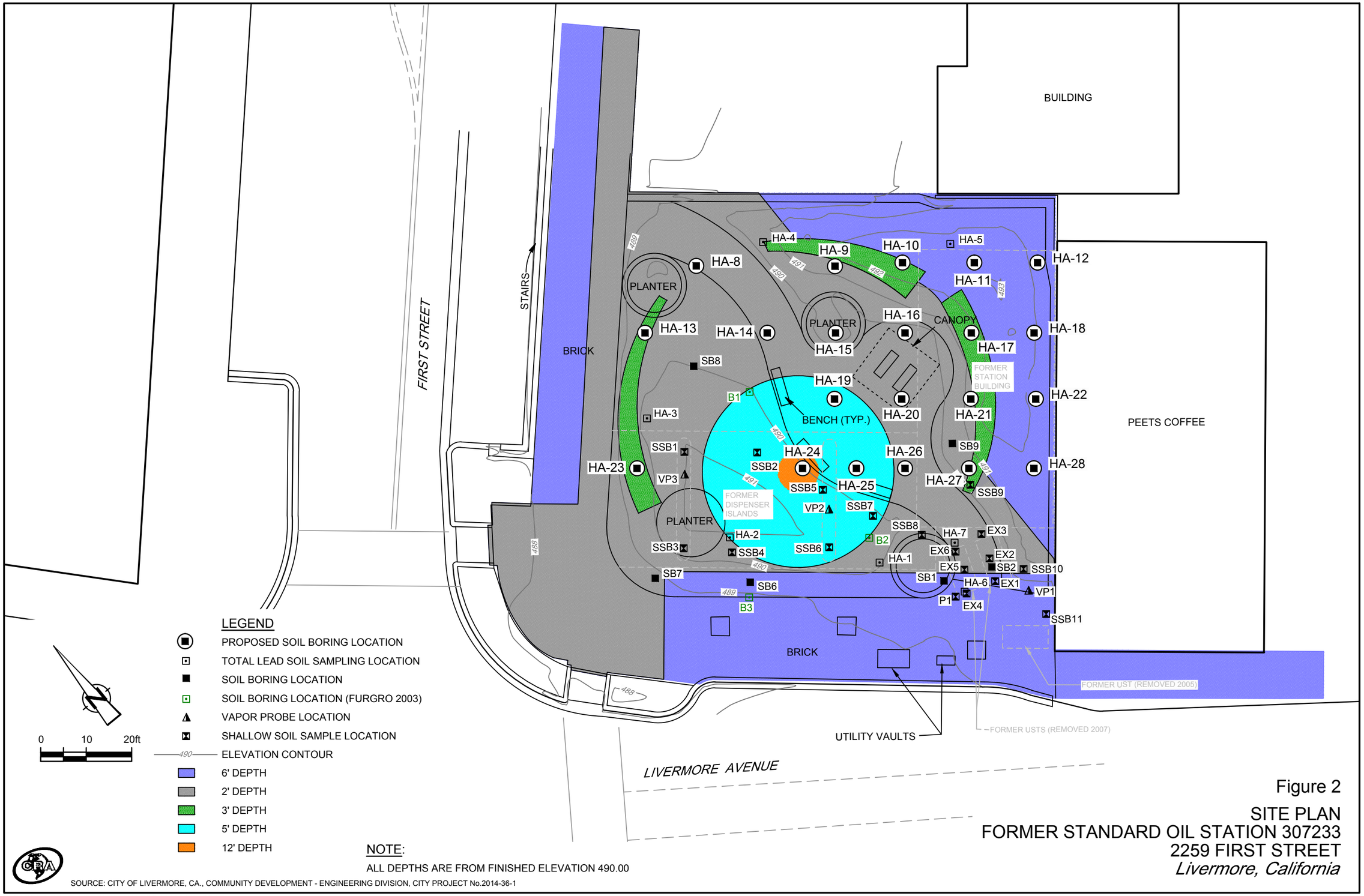
FIGURES



SOURCE: TOPO! MAPS.

Figure 1

VICINITY MAP
FORMER TEXACO STATION (CHEVRON SITE 307233)
2259 FIRST STREET
Livermore, California



NOTE:

ALL DEPTHS ARE FROM FINISHED ELEVATION 490.00

SOURCE: CITY OF LIVERMORE, CA., COMMUNITY DEVELOPMENT - ENGINEERING DIVISION, CITY PROJECT No.2014-36-1

Figure 2

SITE PLAN
FORMER STANDARD OIL STATION 307233
2259 FIRST STREET
Livermore, California

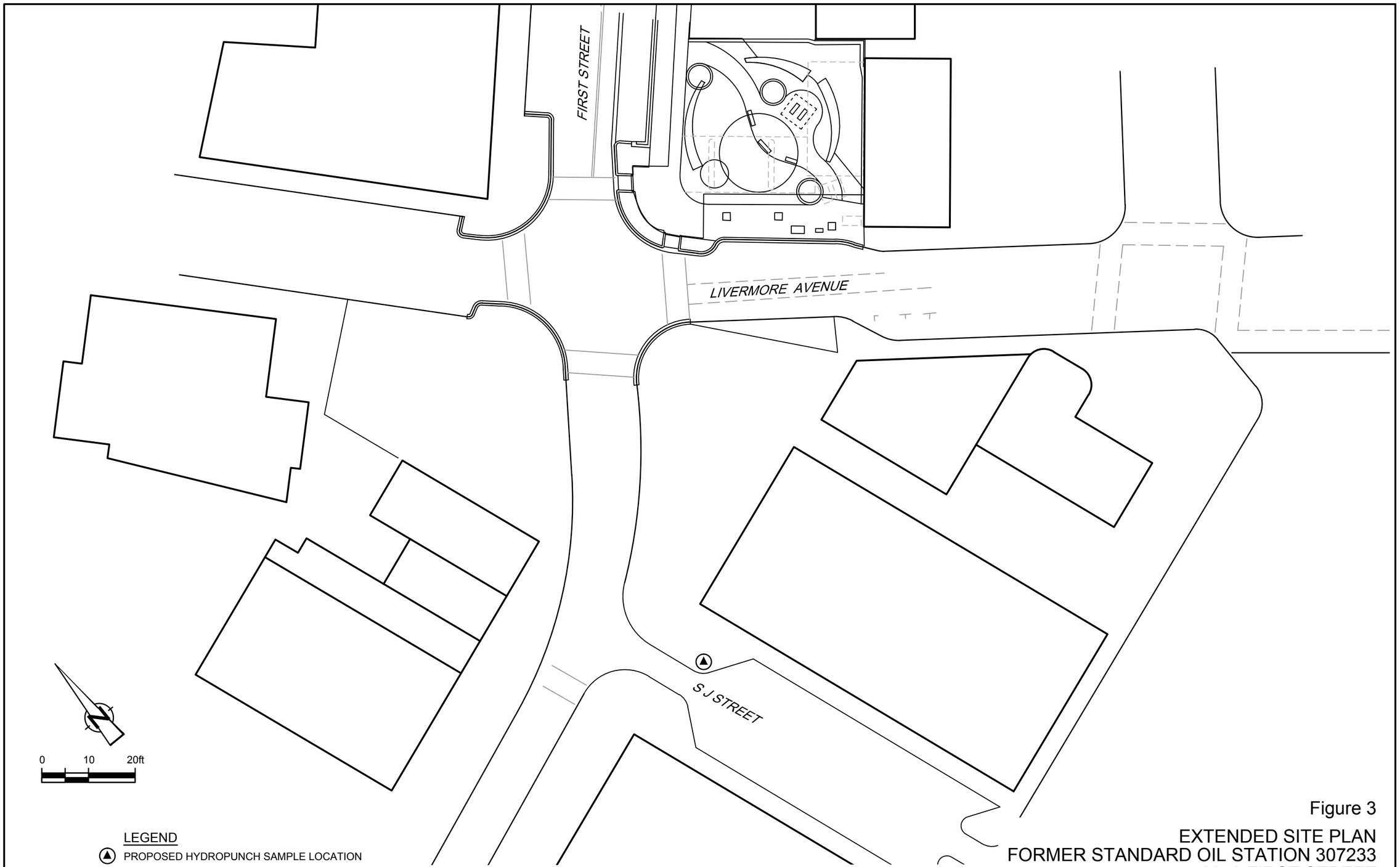


Figure 3

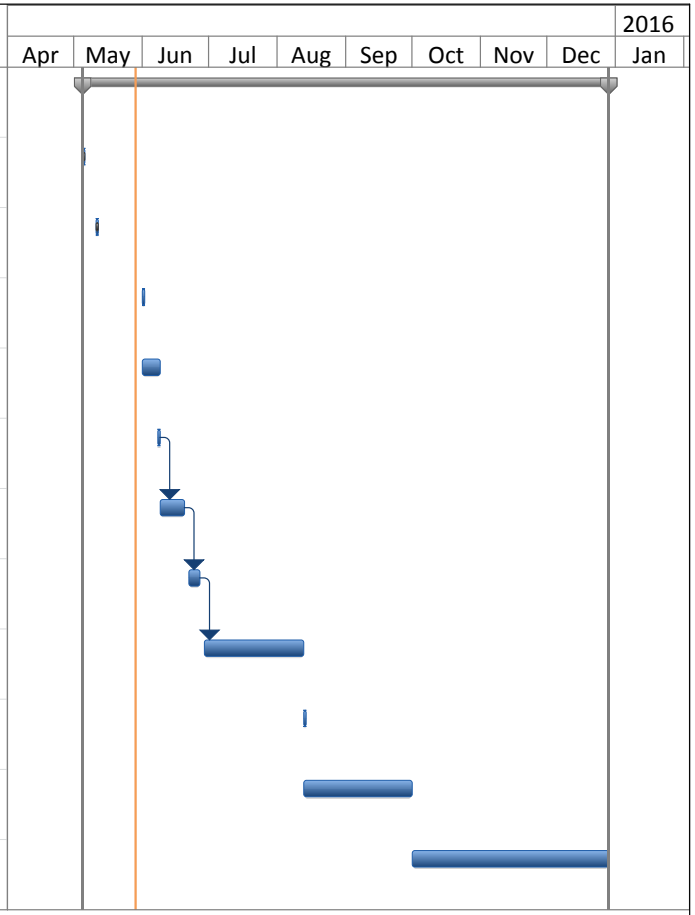
EXTENDED SITE PLAN
FORMER STANDARD OIL STATION 307233
2259 FIRST STREET
Livermore, California

SOURCE: CITY OF LIVERMORE, CA., COMMUNITY DEVELOPMENT - ENGINEERING DIVISION, CITY PROJECT No.2014-36-1

ATTACHMENT A

TENTATIVE SCHEDULE

ID	Task Name	Duration	Start	Finish
0	**Project 307233 Schedule**	**164 days**	**Tue 5/5/15**	**Mon 12/28/15**
1	Alameda County Environmental Health (ACEH) meeting with City of Livermore and Chevron	1 day	Tue 5/5/15	Tue 5/5/15
2	City of Livermore provides CAD files	1 day	Mon 5/11/15	Mon 5/11/15
3	Work plan for Soil Sampling submitted to ACEH	1 day	Mon 6/1/15	Mon 6/1/15
4	ACEH reviews Soil Sampling Work Plan	6 days	Mon 6/1/15	Mon 6/8/15
5	ACEH approves Soil Sampling Work Plan	1 day	Mon 6/8/15	Mon 6/8/15
6	Prefield activities begin	9 days	Tue 6/9/15	Fri 6/19/15
7	Soil Sampling field work begins	5 days	Mon 6/22/15	Fri 6/26/15
8	Prepare Interim Remedial Action Plan and Soil Sampling Data Report	32 days	Mon 6/29/15	Wed 8/12/15
9	Submit Soil Sampling data and Interim Remedial Action Plan (IRAP)	1 day	Thu 8/13/15	Thu 8/13/15
10	ACEH reviews IRAP	34 days	Thu 8/13/15	Wed 9/30/15
11	ACEH IRAP Public Notification	60 days	Thu 10/1/15	Mon 12/28/15



Project: Project 307233 Schedule
Date: Fri 5/29/15

Task	External Milestone	Manual Summary Rollup
Split	Inactive Task	Manual Summary
Milestone	Inactive Milestone	Start-only
Summary	Inactive Summary	Finish-only
Project Summary	Manual Task	Deadline
External Tasks	Duration-only	Progress