CAMBRIA

July 1, 2001

Ms. Eva Chu
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Remediation Piping Layout and Design**
ARCO Service Station # 6041
7249 Village Parkway
Dublin, California
Cambria Project #436-1610

Dear Ms. Chu:

As you requested, please find the enclosed *Remediation Piping Plans* document dated February 26, 2001 and *Proposed Remediation Piping Trench* figure.

If you have any questions, please give me a call.

Sincerely,
Cambria Environmental Technology, Inc.

Ron Scheele, RG
Senior Geologist

Attachments: *Remediation Piping Plans,* dated February 26, 2001
Figure 1 – Proposed Remediation Piping Trench

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

February 26, 2001

Mr. Tom Schoenstin
TAIT & Associates,
1001 Galaxy Way, Suite 304,
Concord, CA 94520

Re: **Remediation Piping Plans**
ARCO Service Station 6041
7249 Village Parkway
Dublin, California

Dear Mr. Schoenstin:

On behalf of ARCO, Cambria Environmental Technology, Inc. (Cambria) has prepared the attached remediation piping plans to facilitate future remediation activities at the above reference site. These remediation piping plans shall be included with the initial *Station Construction Bid Request* documents. Described below are the requirements for installing the remediation piping and tank backfill wells. The attached Figure 1 - Proposed Remediation Piping Trenches and Figure 2 - Trench Cross Sections illustrate these requirements.

Remediation Piping

1. All trenches shall be 12-inch wide and a minimum of 18 inches deep (See Figure 2).

2. A total of four pipes (two 4-inch diameter, sch. 40 PVC, and two 2-inch diameter, sch. 80 PVC) shall be installed in a trench that goes along the perimeter of the site.

3. The first 4-inch diameter pipe "trunk line" shall be installed from the proposed remediation system enclosure to the planter adjacent to MW-2. It shall be stubbed up and capped where it enters and exits each junction box.

4. The first 4-inch diameter pipe "trunk line" shall be capped and buried in the planter with its ending location marked with a white steel stake as well as a nail in the concrete curb or pavement.

5. The second 4-inch diameter pipe shall be installed from the proposed remediation system enclosure to wells MW-7 and MW-8. It shall be stubbed up and capped where it enters and exits each junction box and where it enters each well vault (MW-7 and MW-8).

6. The third and fourth 2-inch diameter "homerun" pipes shall be installed from the proposed remediation system enclosure to each of the proposed backfill wells MW-7 and MW-8 (See Figure 1).

7. A dedicated 2-inch diameter pipe shall enter each well vault and tee into a 4-inch diameter tank backfill well.

8. A 2-inch ball valve shall be installed within each well vault where the remediation pipe connects to the tank backfill well.

9. All 2-inch diameter piping shall have a minimum 1/8 " slope from the remediation enclosure back to the proposed tank backfill well.

10. All 4-inch diameter piping shall contain a nylon pull rope.

11. All remediation piping stubbed-up in the remediation enclosure shall be spaced a minimum of 8-inches apart from one another in a straight line, along the edge of the curb/wall.

Well Vaults

1. The subcontractor shall supply and install four 24-inch square junction boxes (Boart Longyear Model 300494) and two 24-inch square well vaults (Boart Longyear Model 300494) for proposed backfill wells MW-7 and MW-8 (see Figure 1).

Tank Backfill Wells

1. The subcontractor will install <u>two</u> 4-inch diameter tank backfill wells in the locations shown on Figure 1.

2. Each tank backfill well shall be constructed with schedule 40 Triloc 0.010-inch slot screen well casing from 4 to 14 ft below grade surface (Boart Longyear, TLS4-201) and with schedule 40 Triloc blank well casing (Boart Longyear, TriLoc TL4-200) from 0 to 4 ft bgs.

3. A minimum 1-foot thick concrete seal shall be placed inside the well vault surrounding the well casing but below the remediation piping.

4. Each tank backfill well shall have a threaded well bottom cap installed (Boart Longyear, TL4-400).

5. Each tank backfill well shall have a 4-inch diameter locking well cap (Boart Longyear, TC-104).

Existing Monitoring Wells

1. The subcontractor is expected to "work around" all existing wells at the site and maintain the integrity of the wells and well vaults. The subcontractor must immediately notify the Cambria Project Manager (Mr. Ron Scheele) or the ARCO Environmental Engineer (Mr. Paul Supple) if they anticipate that a monitoring well may interfere with construction activities and require removal/abandonment. Any well abandonment activities will require Cambria to obtain permits from Zone 7 Water Agency, prior to the abandonment of the well.

2. The subcontractor will be responsible for the costs to repair/replace any wells or well vaults that were unnecessarily damaged during station construction activities or removed without prior approval from the Cambria Project Manager or the ARCO Environmental Engineer.

If you should have any questions, please call me at (510) 450-1983.

Sincerely,
Cambria Environmental Technology, Inc.

Ron Scheele, RG
Senior Project Manager

Attachments: Figure 1 - Proposed Remediation Piping Trenches
Figure 2 - Trench Cross Sections

cc: Mr. Paul Supple, ARCO, P.O. Box 6549, Moraga, California 94570

PVC remediation piping stub-ups
Electrical conduit and Sewer stub-up
Proposed Remediation System Enclosure
Proposed Station Building
MW-5
MW-6
2
D
Proposed USTs
92 OCT.
87 OCT.
87 OCT.
dispenser islands
VW-1
MW-1
AS-1
VW-5
MW-7
2
B
Station Building
Proposed dispenser islands
existing USTs
TP-2
TP-1
VW-2
dispenser islands
VW-3
MW-8
2
B
AS-2
VW-4
MW-3
2
A
MW-2
MW-4
planter
planter
planter
2
C
VILLAGE PARKWAY
AMADOR VALLEY BOULEVARD

EXPLANATION

- MW-6 — Monitoring Well Location
- TP-2 — Well Proposed for Abandonment
- Proposed New Tank Backfill Well
- 36" Square Well Box
- Proposed Remediation Piping Trench
- Cross Section View Direction
- Page / Detail — Cross Section Designator

0 10 20 40
Scale (ft)

Proposed Remediation Piping Trench

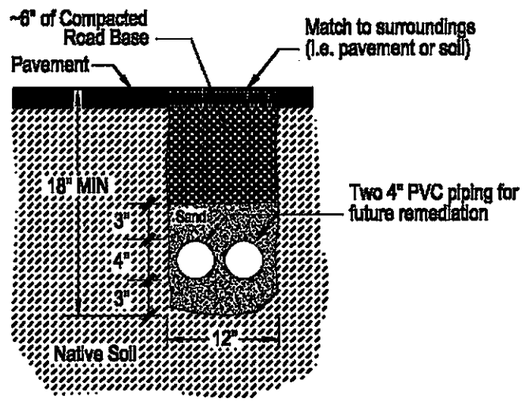
CAMBRIA

ARCO Service Station 6041
7249 Village Parkway
Dublin, California

FIGURE
1

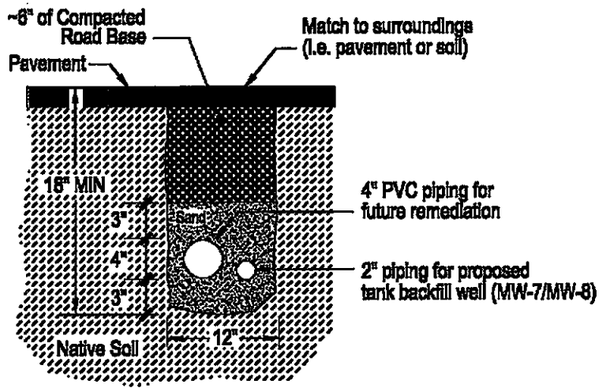
2/A Trench Cross Section A

Not to Scale



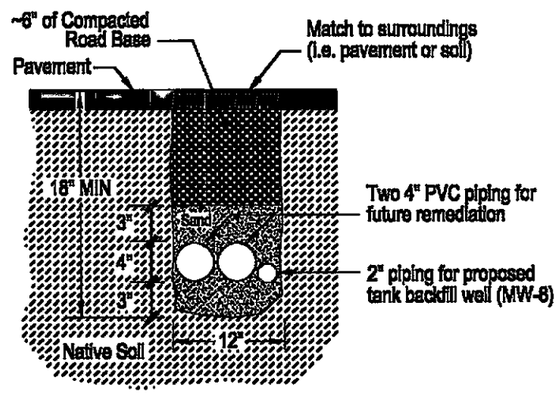
2/B Trench Cross Section B

Not to Scale



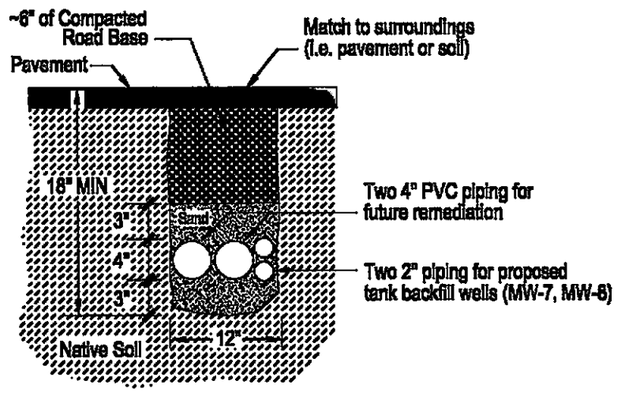
2/C Trench Cross Section C

Not to Scale



2/D Trench Cross Section D

Not to Scale



FIGURE

2

Trench Cross Sections

ARCO Service Station 6041

7249 Village Parkway

Dublin, California

CAMBRIA