



Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 1257
San Ramon, CA 94583
Phone: (925) 275-3801
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April 29, 2009

Re: Addendum Soil and Ground-Water Investigation Work Plan
Atlantic Richfield Company Station #771
899 Rincon Avenue
Livermore, California
ACEH Case RO0000200

RECEIVED

10:48 am, May 01, 2009

Alameda County
Environmental Health



“I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.”

Submitted by:

Paul Supple
Environmental Business Manager

April 29, 2009

Project No. 06-82-608

Atlantic Richfield Company
P.O. Box 1257
San Ramon, California 94583
Submitted via ENFOS

Attn.: Mr. Paul Supple

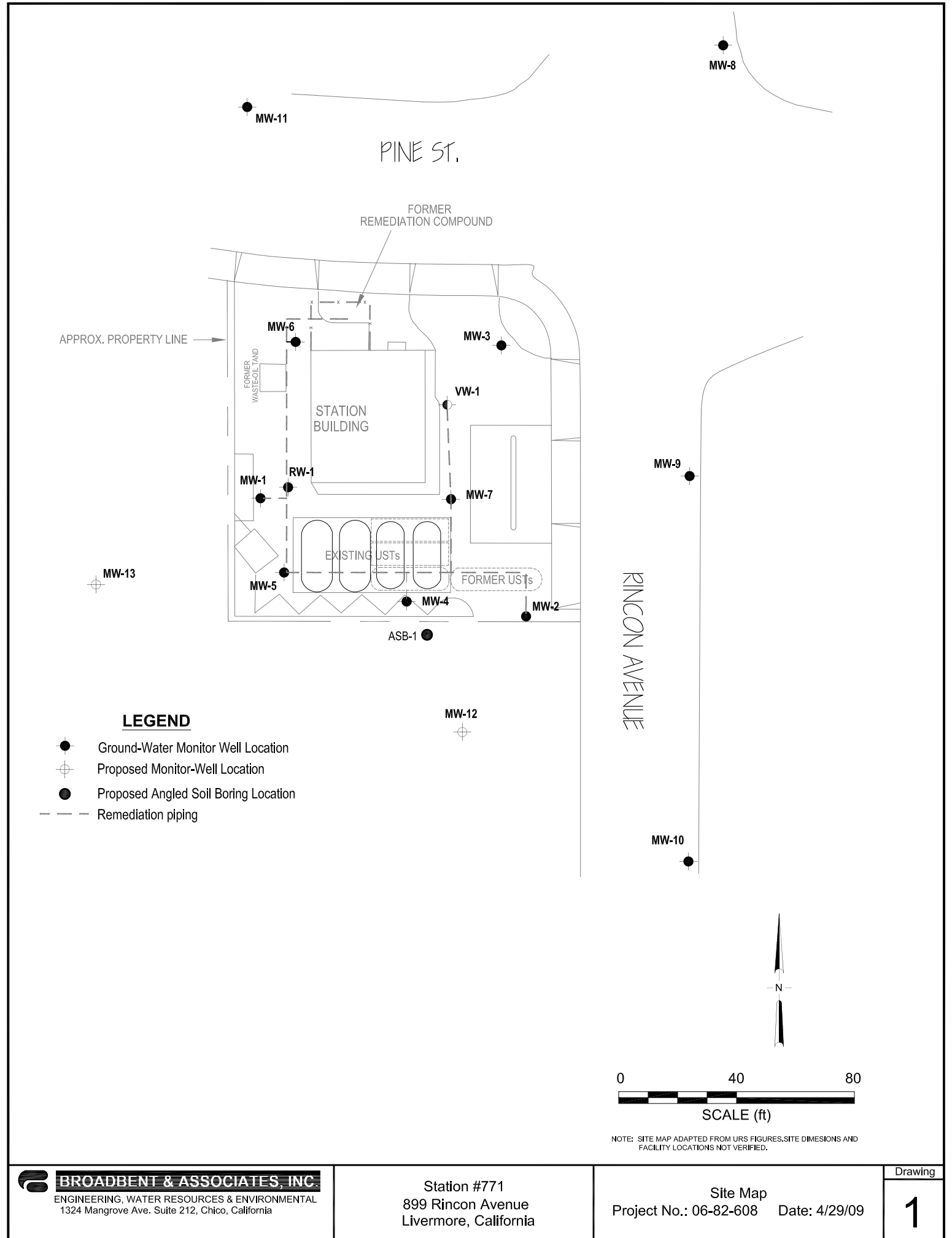
Re: Addendum Soil and Ground-Water Investigation Work Plan, Atlantic Richfield Company (a BP affiliated company) Station #771, 899 Rincon Avenue, Livermore, California. Case No. RO0000200.

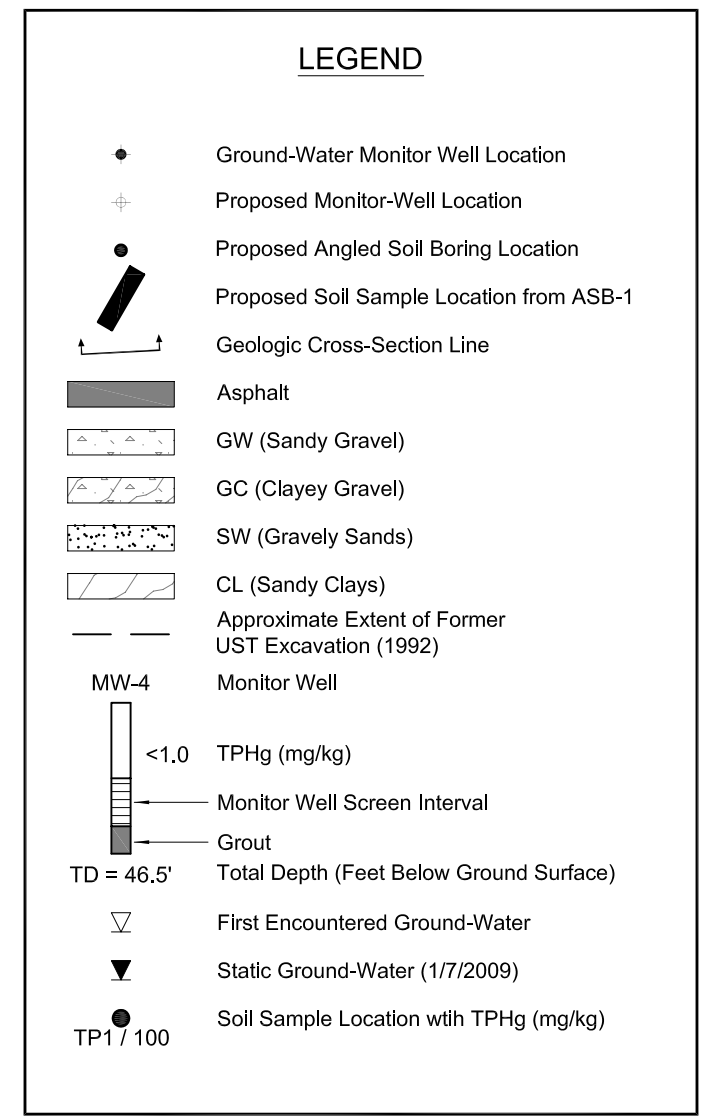
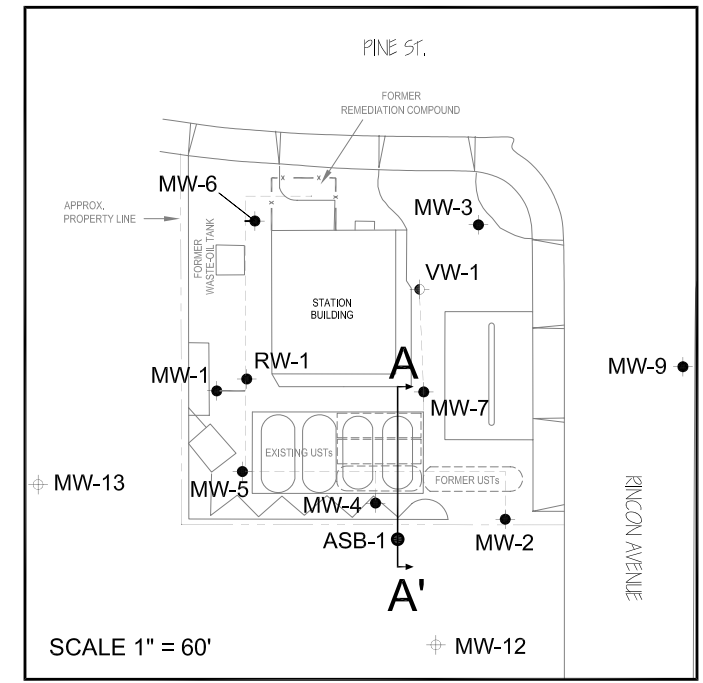
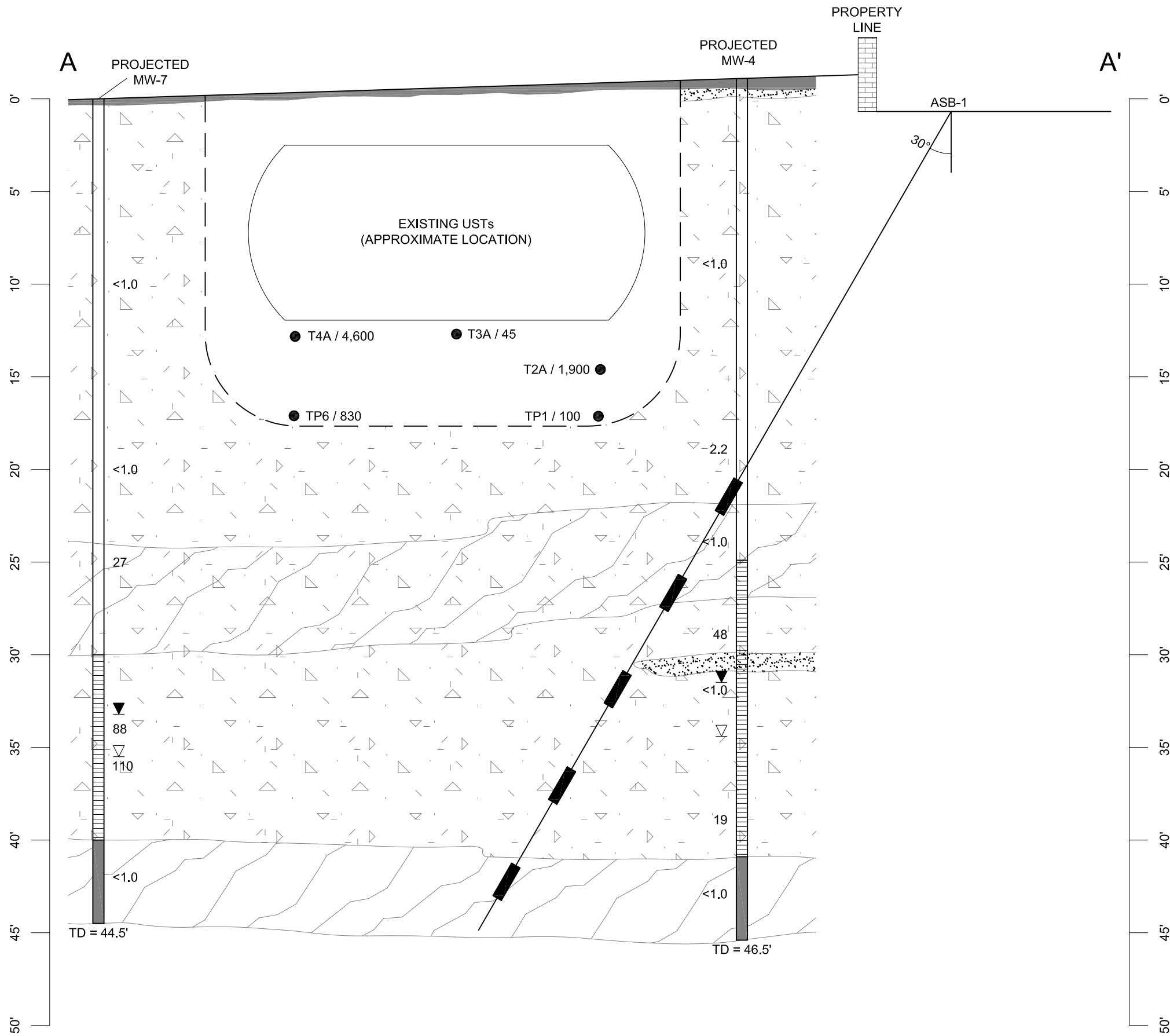
Dear Mr. Supple:

Provided herein is an addendum to the work plan that was included in the Broadbent and Associates, Inc. (BAI) February 10, 2009 *Initial Site conceptual Model and Soil and Ground-Water Investigation Work Plan* (herein referred to as the Work Plan). The Work Plan recommended that two additional ground-water monitor wells (MW-12 and MW-13) be installed off-site on the neighboring Shopping Center property to the south and west of the Station #771 to further characterize the extent of impacted ground water. The Work Plan further stated that the locations of the current underground storage tanks (USTs) and product lines prevents the safe collection of confirmation samples in the former UST area at this time. In response to the Work Plan, the Alameda County Environmental Health (ACEH) issued the March 16, 2009 letter stating, "it is conceivable that borings can be installed at a safe distance form the USTs and drilled at an angle to reach the target depths without compromising safety."

Accordingly, it is proposed that angled soil boring ASB-1 be initiated off-site on the neighboring Shopping Center property to the south at the location depicted in Drawing 1. The angled boring will trend in a northerly direction at an angle of approximately 20 and 30 degrees from vertical and proceed underneath the former and current UST location. The angled boring should facilitate the collection of soil samples post soil vapor extraction remedial activities (system operational in 1994 and 1995) and allow for further vertical definition of impacted soil below the former USTs. A geologic cross section depicting ASB-1, the current USTs and former UST excavation, and relevant historical soil sample analytical data is provided in Drawing 2. As shown in Drawing 2, the location of ASB-1 was determined based on the safety requirement to maintain a minimum distance of 10 feet between the current USTs and the boring.

Similar to proposed off-site ground-water monitor wells MW-12 and MW-13, ASB-1 will be installed using a hollow steam auger drilling technique. ASB-1 will proceed to a distance of approximately 50 feet which corresponds to a depth of 43 feet below land surface (bls) and extends the boring below the southerly portion of the former UST excavation. Soil samples will be collected at





Depth of boring: 46-1/2 feet Diameter of boring: 10 inches Date drilled: 6-28-91

Well depth: 42 feet Material type: Sch 40 PVC Casing diameter: 4 inches

Screen interval: 26 to 42 feet Slot size: 0.020-inch

Drilling Company: Exceltech Driller: Don & Kenny

Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional: 

Registration No.: CE044600 State: CA

| Depth | Sample No. | Blows | P.I.D. | USCS Code | Description | Well Const. |
|-------|------------|----------------|--------|-----------|---|-------------|
| 0 | | | | SW | Sand, with small gravel, yellow, damp, loose: fill. | |
| 2 | | | | GW | Sandy gravel with cobbles, brown, damp, medium dense: fill. | |
| 4 | | | | GW | Sandy gravel with clay, brown, damp, medium dense. | |
| 5.5 | S-5.5 | 3 4 10 | 0 | | | |
| 10 | S-10 | 18 16 21 | 0 | | Moist, dense. | |
| 15 | S-15 | 18 21 28 | 0 | | Gray, very moist. Noticeable product odor. | |
| 20 | S-20 | 18 26 35 | 82 | | Very dense. | |

(Section continues downward)

RESNA

LOG OF BORING B-7/MW-4

PLATE

ARCO Station 771
899 Rincon Avenue
Livermore, California

4

PROJECT: 60000.06

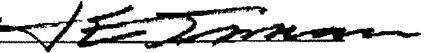
Depth of boring: 44-1/2 feet Diameter of boring: 10 inches Date drilled: 7-2-91

Well depth: 40 feet Material type: Sch 40 PVC Casing diameter: 4 inches

Screen interval: 30 to 40 feet Slot size: 0.020-inch

Drilling Company: Exceltech Driller: Don, Kenny, and Adam

Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional: 

Registration No.: CE 044600 State: CA

| Depth | Sample No. | Blows | P.I.D. | USCS Code | Description | Well Const. |
|------------------------------|------------|-----------------------|--------|-----------|--|-------------|
| 0 | | | | | Asphalt (4 inches) | |
| 2 | | | | GW | Sandy gravel, dark brown, damp, medium dense: fill. | |
| 4 | | | | GW | Sandy gravel with clay, brown, damp, medium dense; gravel up to 3-inches diameter. | |
| 6 | S-5.5 | 6 7 8 | 0 | | | |
| 10 | S-10.5 | 19 20 29 | 0 | | Moist, dense. | |
| 16 | | 35 50/1 | | | | |
| 20 | S-20.5 | 17 35 43 | 152 | | Very dense; obvious product odor. | |
| (Section continues downward) | | | | | | |

RESNA

LOG OF BORING B-10/MW-7
 ARCO Station 771
 899 Rincon Avenue
 Livermore, California

PLATE
 10

PROJECT: 60000.06

