Associated Earth Sciences, Inc.
Celebrating Over 25 Years of Service

April 20, 2009
Revised May 15, 2009
Project No. KV050654A

Pacific Topsoils, Inc.
805 80th Street SW
Everett, Washington 98203

Attention: Mr. Janusz Bajsarowicz

Subject: 10-Year Data Review Report
Everett Mill E/Koppers Site
Everett, Washington

Dear Mr. Bajsarowicz:

Associated Earth Sciences, Inc. (AESI) is pleased to provide this letter-report containing the 10-year data review for the above-referenced site as required by the 1998 Consent Decree between the Washington State Department of Ecology (Ecology) and Weyerhaeuser. AESI has been providing annual ground water monitoring and cap inspection for the site since 2006, following Pacific Topsoils, Inc.'s (Pacific Topsoils') purchase of the property from Weyerhaeuser.

AESI has completed the ground water monitoring schedule as specified in the Performance and Compliance Monitoring Plan (PCMP) included as Appendix E of the Consent Decree. Based on our evaluation of data collected over the past 10 years since completion of the remedial action, the containment is continuing to perform as intended and contaminant concentrations within the containment area continue to decline. AESI recommends continued annual monitoring for an additional 5 years, at which time the data be reviewed again and recommendations for modification to the monitoring schedule provided.

We appreciate the opportunity to be of service to Pacific Topsoils on this project. Should you require additional information or have questions regarding this letter-report, please call us at your earliest convenience.

Sincerely,
ASSOCIATED EARTH SCIENCES, INC.
Kirkland, Washington

Jon N. Sondergaard, P.G., P.E.G.
Principal Geologist

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1.0 INTRODUCTION

This 10-year data review has been prepared in compliance with Consent Decree No. 982087186 entered into between Ecology and the Weyerhaeuser Company. According to Part XIV of the Consent Decree, a data review is required at least every 5 years. The previous 5-year review was completed by Weyerhaeuser in 2003 (Shaw, 2003).

1.1 Site Description

The Everett Mill E/Koppers Site is located at 515 Marine View Drive in Everett, Washington. The property consists of approximately 8.4 acres that is zoned M-2 Heavy Industrial Manufacturing by the City of Everett (Figure1). The Site is located approximately 2 miles upstream of the mouth of the Snohomish River and is bordered on the north by the Port of Everett Riverside Industrial Park, on the west and south by other Port of Everett property, and on the east by the Snohomish River. The Mill E/Koppers Site is one of seven designated Ecology Model Toxics Control Act (MTCA) Operable Units located on current or former Weyerhaeuser property in Everett. The Mill E site is surrounded by the Weyerhaeuser Everett East site, which is also subject to periodic ground water monitoring due to past site activities that resulted in contamination of ground water. Ground water contaminants on the surrounding Everett East site include arsenic, petroleum hydrocarbons, and pentachlorophenol.

1.2 Site History

The current Everett Mill E/Koppers Site was once part of a larger sawmill complex known as Mill B or the East Site owned by Weyerhaeuser that began operation in Everett in 1902. The Everett Mill E/Koppers Site was used as a lumber storage area from 1915 until 1948 when American Lumber and Treating Company (ALTC) leased the property and built a wood treating facility. The Koppers Company (aka Beazer East, Inc.) acquired ALTC in 1954 and continued wood treatment at the site until 1963. Following the departure of Koppers, Weyerhaeuser resumed use of the property as an engine maintenance facility until 1984. Weyerhaeuser built a sawmill on the north end of the site (Mill E) that operated from 1971 until 1984.

1.3 Geology and Hydrogeology

The site is located in the flood plain of the Snohomish River approximately 2 miles upstream of Port Gardner Bay on Puget Sound. The site stratigraphy is generally as follows from the shallowest (youngest) to the deepest (oldest) sediments:

- **Fill:** Approximately 4 feet of sandy gravel, asphalt, crushed rock, wood debris, and bark that is permeable and generally continuous across the site.

- **Upper Sand Dredge Fill:** Approximately 1 to 10 feet (5 to 6 feet on average) of gray to black, fine to medium sand with trace coarse sand. Originated from dredging of the

adjacent Snohomish River. Dredge fill was deposited over estuarine tide flats. Shallow ground water typically occurs within this unit at an average depth of 4 feet below ground surface. This unit contains a shallow unconfined aquifer and exhibits minimal tidal influence from the Snohomish River.

- **Upper Estuarine Silt:** Approximately 1 to 17 feet (average 8 feet) of stiff, gray-brown to dark brown silt with abundant organic matter near the top of the unit. This unit is of relatively low permeability and acts to partially confine the aquifer below.

- **Lower Sand:** Approximately 63 feet (based on one deep boring) of medium to coarse sand with trace gravel and wood debris and zones of coarse gravel approximately 5 to 8 feet from the top of the unit. This unit is likely alluvial sand deposited by the ancestral Snohomish River. This unit is generally saturated and contains a semi-confined aquifer directly connected and influenced by tidal fluctuations in the Snohomish River.

1.4 Consent Decree

Ecology and Weyerhaeuser entered into a Consent Decree for remediation of the site in November 1989. The Consent Decree included requirements to implement a Cleanup Action Plan (CAP), perform compliance monitoring, and complete status reviews. The remedial action described in the CAP was started in November 1998 and completed in June 1999. Compliance monitoring was performed semi-annually for the first 2 years following remediation and has been performed annually since that time in accordance with the Consent Decree. Weyerhaeuser sold the property to MAP#2, LLC (MAP#2) in May 2005, so that Pacific Topsoils, who leases the site from MAP#2, took over annual monitoring activities starting in 2006. Weyerhaeuser performed the 5-year data review in November 2003 and this document presents the 10-year data review.

2.0 REMEDIAL ACTION

The remedial action consisted of the following elements:

- Removed 1,200 cubic yards of contaminated soil from the former "blow" pit area. The depth of excavation was approximately 4 to 4 ½ feet below ground surface. Excavated material was transported to the Chemical Waste Management facility in Arlington, Oregon for disposal.

- Backfilled all excavations with compacted, clean imported soil.

- Placed fill consisting of dredged sand from the Snohomish River across the site to facilitate drainage, cover contaminated soil, and provide a base for the asphalt cap.

- Installed a low permeability, vertical barrier around the area containing non-aqueous phase liquid (NAPL) and high residual soil contamination. The barrier was imbedded into the underlying, low permeability estuarine silt.

- Constructed an asphalt cap consisting of 4 inches of crushed rock under 4 inches of asphalt treated base (ATB) under a tackcoat impregnated geotextile under 2 inches of asphalt over the area enclosed by the vertical barrier.

- Placed 1 foot of lightly compacted clean soil over the ground surface around the asphalt cap to prevent direct contact with the underlying contaminated soil.

- Recorded a restrictive covenant for the property that describes permissible site activities.

- Installed six piezometers at the site: three inside of the vertical containment barrier (PZ-1A, PZ-2A, and PZ-3A) and three outside of the vertical containment barrier (PZ-1B, PZ-2B, and PZ-3B).

3.0 GROUND WATER MONITORING

Ground water monitoring has been performed at least annually since 2003 to provide a 10-year record of monitoring measurements at the site. Ground water monitoring consists of collecting water level measurements from all the wells and sampling well PZ-3A.

3.1 Ground Water Levels

A summary of ground water level measurements for the site is presented in Figure 2. Generally, the water levels outside of the containment (B wells) have been higher than the water levels inside of the containment (A wells). Exceptions to this occurred in well PZ-3B in April and June 1999 (during completion of the remedial action) and in March and June 2000, and in well PZ-1A in September 2007. The September 2007 event in well PZ-1A was the result of surface water getting into the well monument and submerging the well head. The normal trend was re-established in well PZ-1A in 2008 after the well monument was repaired and resealed.

3.2 Ground Water Sampling

Ground water samples have been collected from well PZ-3A every 2 years from 1999 to 2005 and annually from 2006 to 2008. Samples collected from well PZ-3A, which is located inside of the containment area, are analyzed for Total Petroleum Hydrocarbons as Gasoline, Diesel and Motor Oil, pentachlorophenol (PCP) and total arsenic (Figure 3). Since June 1999, the contaminants detected in ground water from well PZ-3A have exhibited the following trends:

- Pentachlorophenol: Pentachlorophenol (PCP) concentrations peaked at 1,200 micrograms per liter (ug/L) in November 1999 and have steadily decreased since that time. The latest PCP concentration measured in well PZ-3A in September 2008 was 0.47 ug/L. PCP concentrations have been below the MTCA Method C cleanup level of 7.3 ug/L (Weyerhaeuser, 2003) for carcinogenic PCP since June 2003. The September 2008 PCP concentration is also below the MTCA Method B cleanup level for carcinogenic PCP of 0.72 ug/L.

- Gasoline: Gasoline concentrations rose from June 1999 until June 2003 when they peaked at 6,300 ug/L. Gasoline concentrations decreased to 2,300 ug/L in September 2005 and remained in the 2,300 to 3,170 ug/L range until September 2008 when they decreased to 25 ug/L. The gasoline concentrations in ground water from well PZ-3A have never exceeded the MTCA Method C cleanup level of 10,000 ug/L (Weyerhaeuser, 2003). The September 2008 gasoline concentration is also below the MTCA Method A cleanup level of 800 ug/L.

- Diesel: Diesel concentrations increased from June 1999 to November 1999 to 2,300 ug/L then decreased to between 1,500 to 1,700 ug/L until September 2006 when they rose to 3,170 ug/L. After September 2006, diesel concentrations decreased to an all time low in September 2008 of 384 ug/L. The diesel concentrations in ground water from well PZ-3A have never exceeded the MTCA Method C cleanup level of 10,000 ug/L (Weyerhaeuser, 2003). The September 2008 diesel concentration is also below the MTCA Method A cleanup level of 500 ug/L.

- Motor Oil: Motor oil concentrations increased from June 1999 to June 2001 to 1,000 ug/L then decreased to between 250 to 619 ug/L until September 2007 when they rose to 1,190 ug/L. In September 2008, motor oil concentrations decreased to an all time low of 384 ug/L. The motor oil concentrations in ground water from well PZ-3A have never exceeded the MTCA Method C cleanup level of 10,000 ug/L (Weyerhaeuser, 2003). The September 2008 motor oil concentration is also below the MTCA Method A cleanup level of 500 ug/L.

- Arsenic: Total arsenic concentrations increased from June 1999 to November 1999 to 1,410 ug/L then decreased to 484 ug/L between November 1999 and September 2006. In September 2006 and September 2007, arsenic concentrations rose to 814 and 810 ug/L then decreased in September 2008 to 160 ug/L. The arsenic concentrations have never been below the MTCA Method A cleanup level of 5 ug/L.

4.0 ASPHALT CAP AND SOIL COVER

The condition of the asphalt cap and soil cover has been visually monitored annually over the past 10 years. With the exception of some minor cracking (which has been sealed) and minor settlement, the asphalt cap is performing well and is not in need of repair. The soil cover was

reseeded in 2007 to fill in some bare spots in the vegetation, but also continues to perform as intended.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on our review of 10 years of monitoring data for the Mill E site, in our opinion, the containment area continues to perform as intended. Ground water levels indicate that the barrier wall is intact, with ground water elevations inside of the barrier lower than those outside of the barrier. The asphalt cap is intact and continues to prevent precipitation or surface water from entering the containment area. Contaminant concentrations inside of the containment have decreased to their lowest levels since the remediation was completed. With the exception of total arsenic, all other contaminants are below their MTCA Method C cleanup levels. As reported in the Weyerhaeuser 1997 Feasibility Study, the arsenic concentrations at Mill E are below upgradient concentrations (0.443 mg/L) in the upper sand aquifer.

Based on the accumulated data, we recommend that the cap inspections continue annually and that the ground water monitoring be decreased to once every 2 years. The bases for reducing the ground water monitoring frequency are:

1. Annual water level measurements over the past 10 years have been relatively consistent, with little change in trend indicating the ground water cutoff is performing as intended. The need to monitor this on a yearly basis does not seem warranted and biennial monitoring would serve the same purpose without a decrease in confidence of system performance.

2. As of October 2008, the contaminant concentrations within the containment have dropped to their lowest concentrations since the implementation of the remediation indicating that the natural attenuation process is effective and still progressing. Natural attenuation is a long-term process that, unlike mechanical remediation systems, does not require frequent (annual) monitoring to make sure it is functioning.

3. No change in site use or development is planned in the foreseeable future.

Attachments: Figure 1 - Site Plan
Figure 2 - Mill E Ground Water Elevations
Figure 3 - Mill E Site Analyte Concentrations Well PZ-3A

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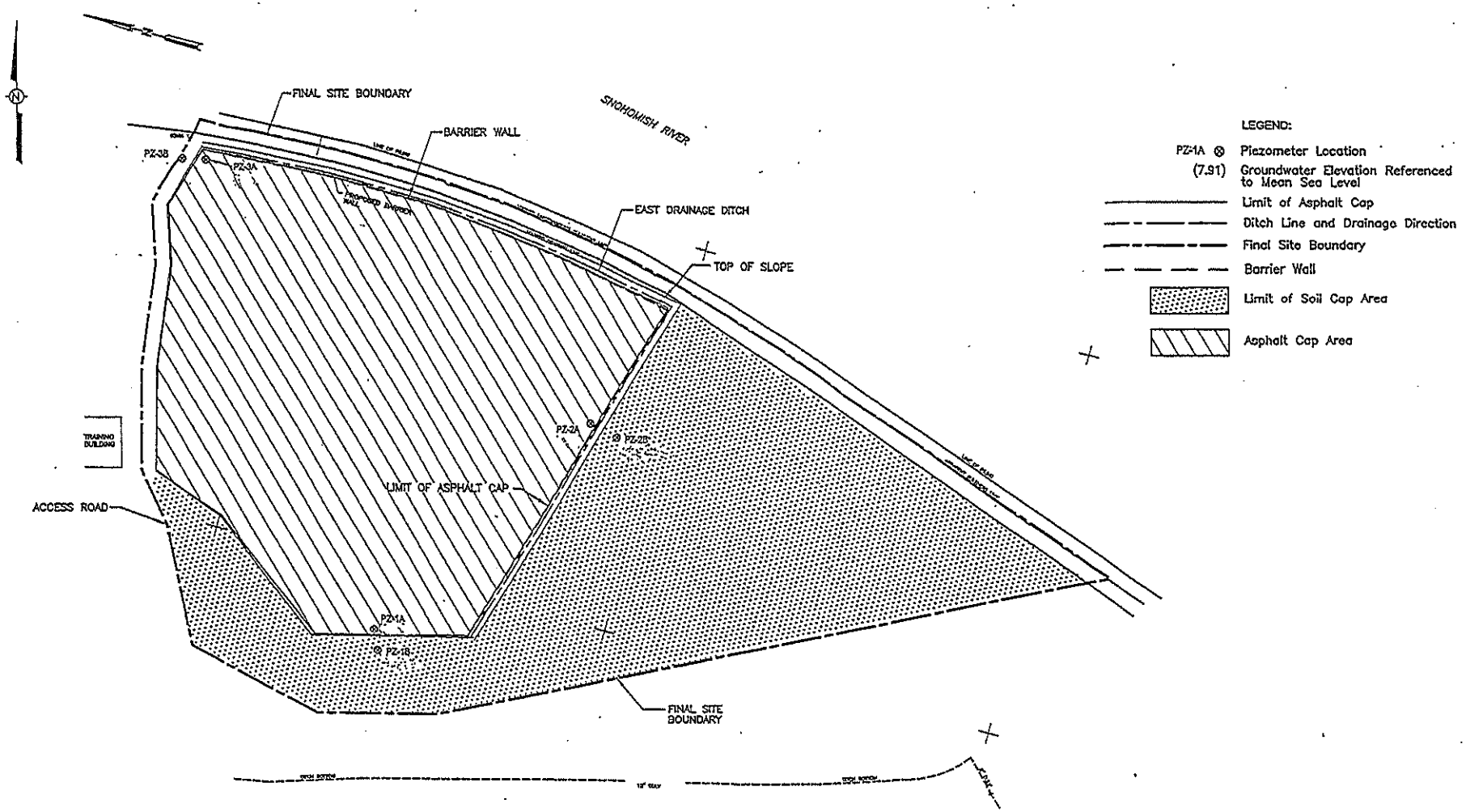

BASE MAP TOPOGRAPHY BASED ON AERIAL PHOTOGRAMMETRIC MAPPING BY RICHARD B. DAVIS CO., WITH CONTROL SURVEY BY CLARK M. LEEMAN SURVEYING, IN DECEMBER, 1997. **(SHAW, 2003)**

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FORMER MILL E/KOPPERS SITE PLAN

FIGURE 1

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Figure 2 Mill E Ground Water Elevations

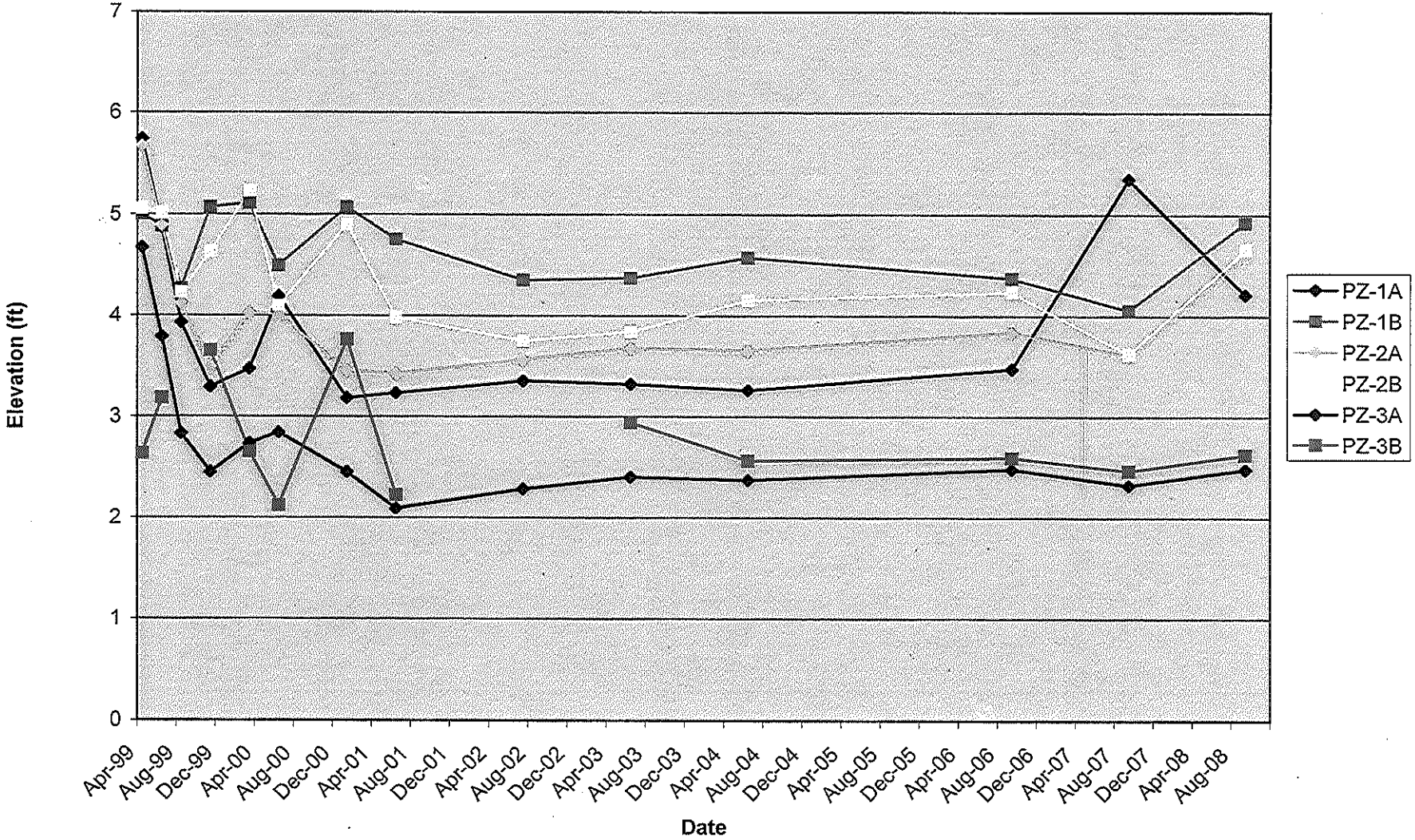

FIGURE 3 MILL E SITE
ANALYTE CONCENTRATIONS WELL PZ-3A