Groundwater Monitoring and Progress Report
August 2006 Sampling Event

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Prepared for:

Sierra Pacific Industries

October 2006

Project No. 9329.000, Task 32

Geomatrix

Geomatrix

October 27, 2006
Project 9329.000

Executive Officer
California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Attention: Kasey Ashley

Subject: Groundwater Monitoring and Progress Report
August 2006 Sampling Event
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Dear Ms. Ashley:

As requested by Sierra Pacific Industries, we have enclosed a copy of the subject report.

Sincerely yours,
GEOMATRIX CONSULTANTS, INC.

Mike Keim
Senior Environmental Scientist

Edward P. Conti, CEG, CHG
Principal Geologist

RAS/EPC/jd
I:\Doc_Safe\9000s\9329\32 - Task\Groundwater Report August 2006\Cert & Xmtl\TransmittalLtr.doc

Enclosure

cc: Bob Ellery, Sierra Pacific Industries (with enclosure)
Gordie Amos, Sierra Pacific Industries (with enclosure)
Fred Evenson, Law Offices of Frederic Evenson (with enclosure)
Jim Lamport, Ecological Rights Foundation (with enclosure)

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August 2006 Sampling Event

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Prepared for:

Sierra Pacific Industries

Prepared by:

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October 2006

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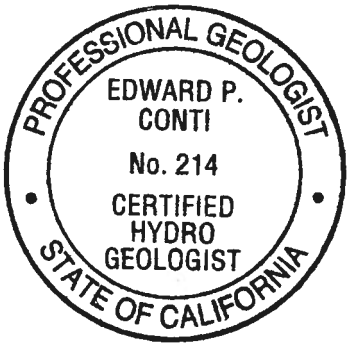
PROFESSIONAL CERTIFICATION

GROUNDWATER MONITORING AND PROGRESS REPORT
AUGUST 2006 SAMPLING EVENT
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

October 27, 2006
Project No. 9329.000, Task 23/32

This report was prepared by Geomatrix Consultants, Inc., under the professional supervision of Edward P. Conti. The findings, recommendations, specifications and/or professional opinions presented in this report were prepared in accordance with generally accepted professional hydrogeologic practice, and within the scope of the project. There is no other warranty, either express or implied.



Edward P. Conti, CEG, CHG
Principal Geologist

TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

TABLES

FIGURES

APPENDIXES

GROUNDWATER MONITORING AND PROGRESS REPORT
AUGUST 2006 SAMPLING EVENT

Sierra Pacific Industries
Arcata Division Sawmill
2593 New Navy Base Road
Arcata, California

1.0 INTRODUCTION

This report presents the methods and results of the August 2006 groundwater monitoring event at the Sierra Pacific Industries (SPI) Arcata Division Sawmill located in Arcata, California (the site, Figure 1). Groundwater monitoring in the area of the sawmill was performed in accordance with Monitoring and Reporting Program (MRP) No. R1-2003-0127, which was revised and reissued by the California Regional Water Quality Control Board, North Coast Region (RWQCB) on March 4, 2005. Groundwater monitoring in the area of the truck shop was performed in accordance with the *Work Plan for Installation of Monitoring Wells and Piezometer* (Work Plan; Geomatrix, 2005), which was approved by the RWQCB on July 14, 2005. This report was prepared by Geomatrix Consultants, Inc. (Geomatrix), on behalf of SPI.

This report is organized as follows: Site Background, including a discussion of site history, subsurface lithology, and hydrogeology (Section 2.0); August 2006 Groundwater Monitoring (Section 3.0); Wastewater Disposal (Section 4.0); Future Monitoring and Sampling Schedule (Section 5.0); and References (Section 6.0).

2.0 SITE BACKGROUND

This section provides background information regarding the site setting and history and discusses subsurface conditions at the site, including lithology and hydrogeology. Subsurface lithologic and hydrogeologic conditions at the site were previously investigated and described by EnviroNet Consulting (EnviroNet, 2002a).

2.1 HISTORY

The approximately 68-acre site is located on the Samoa Peninsula, along the northern shoreline of Humboldt Bay and approximately 4 miles west of the town of Arcata, California. The site is bounded to the east by the Mad River Slough, to the northwest by an old railroad grade, and to the south by New Navy Base Road and mud flats of Humboldt Bay (Figure 1).

The site is currently an active sawmill; features are shown on Figure 2. The sawmill has operated at the site since approximately 1950. Prior to construction of the mill facilities, the site consisted of undeveloped sand dunes and mud flats. During construction of mill facilities in the 1950s and 1960s, portions of the Mad River Slough on the eastern, northern, and southern sides of the site were filled. The current mill facility consists of an administrative building, a main sawmill building, numerous wood-processing buildings, log storage areas, milled lumber storage areas, and loading/unloading areas. A 140-foot-deep water supply well (Feature 48 on Figure 2) provides water for log sprinkling. An older, shallow water supply well is located adjacent to the 140-foot well, but has not been used since it began to produce sand.

Wood surface protection activities historically conducted at the site included the use of an anti-stain solution containing chlorinated phenols, including pentachlorophenol (PCP) and tetrachlorophenol, to control sap stain and mold on a small amount of milled lumber. The anti-stain solution was applied in an aboveground dip tank located in the middle of the former green chain, which was located immediately south of the eastern end of the current sorter building (Feature 49 on Figure 2). Use of the solution containing chlorinated phenols in the former green chain area of the site reportedly commenced in the early to mid-1960s and was discontinued in 1985 (EnviroNet, 2002b). At the direction of the RWQCB, SPI stopped purchasing anti-stain solution containing chlorinated phenols in 1985 and commenced a process of relocating the remaining solution containing chlorinated phenols to a new dip tank facility for recycling (MFG, 2003a). Due to the difficulty of disposing of the old solution containing chlorinated phenols, the remaining solution from the old dip tank was mixed with a new anti-stain solution that did not contain chlorinated phenols at the new dip tank facility (Feature 21 on Figure 2). Recycling of the solution containing chlorinated phenols in the new dip tank continued until 1987, at which time the drip basin adjacent to the old dip tank was cleaned out, filled with sand, and capped with 3 to 4 inches of concrete (MFG, 2003a). The new dip tank has been cleaned three times since 1987.

The potential effects of wood surface protection activities on soil and groundwater have been investigated to depths of approximately 20 feet below ground surface (bgs). In 2002, investigation activities included the installation of 19 monitoring wells at the site: 15 monitoring wells (MW-1 through MW-12, MW-14, MW-17, and MW-18) were constructed to monitor shallow groundwater between depths of approximately 2 and 8 feet bgs, and four monitoring wells (MW-13D, MW-15D, MW-16D, and MW-19D) were constructed to monitor deeper groundwater between depths of approximately 15 and 20 feet bgs (EnviroNet, 2003).

Two additional monitoring wells (MW-20 and MW-21) were installed in January and February 2004 to monitor shallow groundwater (Geomatrix, 2004). Monitoring well locations are illustrated on Figure 3. Monitoring well construction details are included in Table 1.

For an unknown period of time ending in the 1970s, an underground storage tank (UST) was used to store waste oil from vehicle maintenance activities (MFG, 2003b). The UST was located behind (north of) the truck shop building (Figure 4) and buried at a depth such that the waste oil would flow by gravity from drip pans inside the truck shop. Based on the personal accounts of employees from that period, use of the tank was discontinued during the 1970s, but the employees were not certain as to whether the UST had been removed. In April 2003, the UST was located and removed. In 2005, two monitoring wells (MW-22 and MW-23) and two piezometers (P-24 and P-25) were installed to monitor shallow groundwater in the truck shop area (Geomatrix, 2006). The monitoring well and piezometer locations are illustrated on Figure 4. Monitoring well and piezometer construction details are included in Table 1.

2.2 LITHOLOGY

The site is located adjacent to the Mad River Slough near the northern shoreline of Humboldt Bay. The eastern, northern, and southern portions of the site were filled in the 1950s and 1960s.

In the sawmill area, subsurface lithology within the shallow zone (less than 8 feet bgs) is predominantly fine- to medium-grained sand of apparent sand dune origin. Wood and fill material was locally observed in this shallow zone during activities such as the installation of monitoring wells MW-13D and MW-15D. Soil beneath the fine- to medium-grained sand consisted of more sand and locally of fine-grained material, classified as "Bay Mud." The fine-grained material was encountered during the installation of monitoring wells MW-3, MW-10, MW-15D, MW-16D, and MW-17 at depths of approximately 6 to 8 feet bgs and during the installation of monitoring well MW-15 at a depth of approximately 15 feet bgs. Soil described during the installation of a water supply well at the site (Feature 48 on Figure 2) suggests that subsurface soil between the ground surface and 140 feet bgs is predominately composed of sand (EnviroNet, 2001).

In the truck shop area, the subsurface lithology to 6 to 7.5 feet bgs consists generally of fine- to medium-grained sand that has been characterized as being of sand dune origin with varying amounts of clay, silt, and gravel (MFG, 2003b and Geomatrix, 2004). In general, silt was encountered beneath the sand layer. In two borings, WO-1 and WO-7, the sand extended to the total depth of exploration, 12 feet bgs. In four borings (WO-4, -5, -6 and -8), up to 1.0 foot of

peat was present beneath the sand and above the silt. In the boring for MW-22, a 1.5-foot-thick clay layer was present from depths of 6 to 7.5 feet bgs. Non-native materials (aggregate base beneath asphalt, wood debris, and/or other non-native fill soils) were encountered in the borings for MW-22, MW-23, P-24, and P-25 (Geomatrix, 2006). The non-native materials were encountered in these borings from the ground surface to depths of 1.0 feet bgs (MW-23) to 9.0 feet bgs (P-25).

2.3 HYDROGEOLOGY

The groundwater surface measured in 23 monitoring wells and two piezometers has ranged between approximately 0.5 and 5.5 feet bgs in the 21 shallow wells and piezometers (i.e., screened from 2 to 8 feet bgs, 2.5 to 9 feet bgs, or 3.5 to 9 feet bgs) and between approximately 4 and 6 feet bgs in the four deeper wells (i.e., screened from 15 to 20 feet bgs). In the eastern (sawmill) portion of the site, groundwater flow generally is to the east, toward the Mad River Slough (MFG and Geomatrix, 2003). In the southwestern (truck shop) portion of the site, groundwater flows to the south-southeast, toward Humboldt Bay (Geomatrix, 2006).

Tidal fluctuations in the Mad River Slough and nearby Humboldt Bay influence groundwater levels at the site in the vicinity of the slough. A 2002 tidal influence study conducted at the site suggested that tidal effects become negligible at distances greater than 100 feet from the slough shore (EnviroNet, 2003).

3.0 AUGUST 2006 GROUNDWATER MONITORING

This section presents field and laboratory methods and results of groundwater monitoring activities conducted during this period in accordance with the MRP and the Work Plan.

3.1 FIELD METHODS

On August 30, 2006, depth to water was measured in all site monitoring wells and piezometers (MW-1 through MW-23, P-24 and P-25; Figures 3 and 4) and at a monitoring point in the Mad River Slough using an electronic sounder (Table 2). Water levels were measured in the wells on the first day of sampling, before conducting groundwater sampling activities. Monitoring wells were gauged in sequence from lowest expected concentrations of constituents of concern (first) to highest expected concentrations (last), based on laboratory analytical results from the previous sampling event. Field personnel cleaned the meter used to measure the groundwater surface before use at each location. The equipment was washed in an Alconox® detergent solution and then rinsed with distilled water.

Nine monitoring wells (MW-2, MW-6 through MW-9, MW-20, MW-21, MW-22, and MW-23) were purged and sampled on August 30 and 31, 2006, in accordance with the site MRP and truck shop monitoring well installation work plan. Field personnel used dedicated, disposable Teflon® bailers to remove standing water in the well casings, except MW-21, where field personnel used a peristaltic pump and dedicated tubing and low-flow purging/sampling techniques. Field personnel measured and recorded temperature, pH, specific conductance, and total dissolved solids (TDS, for sawmill-area wells only) on field sampling records during groundwater purging using a bailer. Purging activities were ceased when a minimum of three well casing volumes of water had been removed and water quality parameters had stabilized to within 10 percent of specific conductance, 0.05 pH units for pH, and 1 degree Celsius for temperature. Copies of the field records for groundwater monitoring and sampling activities are included in Appendix A.

After purging, groundwater samples were collected using the dedicated Teflon® bailers or a peristaltic pump and dedicated tubing. A field sample of groundwater was monitored for temperature, pH, specific conductance, and TDS (for sawmill-area wells only) just prior to collecting the groundwater sample to record the water quality parameters of the groundwater being sampled. These field parameters are summarized in Table 3. Historical laboratory analytical results for TDS also are shown in this table.

Groundwater collected from each of the seven sawmill-area monitoring wells was placed in two 125-milliliter (ml) glass vials that were sealed with Teflon®-lined screw caps. Groundwater collected from each of the two truck shop-area monitoring wells was placed in a 1-liter amber bottle and three 40-ml vials preserved with hydrochloric acid and sealed with screw caps with Teflon®-lined septa. After filling, the vials and bottles were labeled and placed in an ice-cooled, insulated chest for transport to the laboratory for analysis. Chain-of-custody records were completed for the samples and accompanied the samples until received by the laboratory. Copies of the chain-of-custody records for the groundwater samples are included in Appendix B.

An additional groundwater sample was collected from monitoring well MW-21 and submitted to the laboratory as a blind duplicate sample, labeled BD-01-200803. This sample was placed in two additional 125-ml glass vials sealed with Teflon®-lined screw caps and sent to the laboratory as described above.

3.2 LABORATORY METHODS

Groundwater samples collected from monitoring wells MW-2, MW-6 through MW-9, MW-20, and MW-21 located in the sawmill area were analyzed at Alpha Analytical Laboratories, Inc. (Alpha), of Ukiah, California, a California Department of Health Services-certified analytical laboratory. These samples were analyzed for chlorinated phenols (including PCP; 2,3,5,6-tetrachlorophenol; 2,3,4,6-tetrachlorophenol; 2,3,4,5-tetrachlorophenol; and 2,4,6-trichlorophenol) in accordance with the Canadian Pulp method.

Groundwater samples collected from monitoring wells MW-22 and MW-23, located in the truck shop area, were analyzed by Friedman & Bruya, Inc. (Friedman & Bruya) of Seattle, Washington, a California Department of Health Services-certified analytical laboratory. These samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, and TPH as motor oil by modified EPA Method 8015 and for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B. A silica gel preparation procedure, based on EPA Method 3630B, was performed on the sample extracts prior to the TPH as diesel and TPH as motor oil analyses.

3.3 LABORATORY DATA QUALITY REVIEW

Geomatrix reviewed the quality of laboratory data generated for the groundwater sampling as discussed in Appendix C. Based on the procedures and data quality review, the analytical data quality is satisfactory and the sample results appear to be representative.

3.4 RESULTS OF GROUNDWATER MONITORING

Monitoring and sampling results from site wells and piezometers include groundwater elevation measurements, field measurements of water quality parameters, and laboratory analysis of groundwater samples. Groundwater elevation data provide information on subsurface hydraulic conditions, discussed below as occurrence and movement of groundwater. Groundwater quality is evaluated based on the laboratory analysis of chlorinated phenols, TPH as gasoline, TPH as diesel, TPH as motor oil, and BTEX. The results are presented below.

3.4.1 Occurrence and Movement of Groundwater

The groundwater surface measured in the sawmill-area shallow monitoring wells (i.e., screened from approximately 2 to 8 feet bgs) ranged from 0.91 to 5.33 feet below the well measuring points, and groundwater elevations ranged from 4.28 to 9.62 feet above mean sea level relative to the North American Vertical Datum of 1988. Groundwater elevation data from these monitoring wells indicate that the direction of shallow groundwater flow is generally to the east

(Figure 5). The magnitude of the lateral hydraulic gradient ranges from approximately 0.007 foot/foot in the former green chain vicinity to approximately 0.03 foot/foot beneath the sawmill and maintenance buildings. Groundwater elevations within 100 feet of the Mad River Slough shoreline are subject to tidal fluctuations (EnviroNet, 2003); consequently, the water level elevation in well MW-1 was not used to evaluate the lateral hydraulic gradient of shallow groundwater.

The groundwater surface measured in deep monitoring wells at the site (i.e., screened from approximately 15 to 20 feet bgs) ranged from 4.08 to 5.58 feet below the well measuring points, and groundwater elevations ranged from 5.61 to 6.53 feet above mean sea level, relative to the North American Vertical Datum of 1988. Groundwater elevation data from these monitoring wells indicate that the direction of deep groundwater flow is generally to the east (Figure 6). The magnitude of the lateral hydraulic gradient is approximately 0.006 foot/foot.

The groundwater surface measured in the truck shop-area shallow monitoring wells and piezometers ranged from 4.52 to 5.56 feet below the measuring points, and groundwater elevations ranged from 9.56 to 10.81 feet above mean sea level, relative to the North American Vertical Datum of 1988. Groundwater elevation data from these monitoring wells indicate that the direction of shallow groundwater flow is generally to the southeast (Figure 7). The magnitude of the lateral hydraulic gradient is approximately 0.02 foot/foot.

3.4.2 Groundwater Analytical Results

Seven sawmill-area groundwater monitoring wells were sampled during this period in accordance with the MRP (MW-2, MW-6 through MW-9, MW-20, and MW-21). Copies of the laboratory analytical report and sample chain-of-custody record are included in Appendix B. The results for the chlorinated phenol analyses are summarized in Table 4. These results also are illustrated on Figure 8 (shallow groundwater).

PCP, tetrachlorophenols, and 2,4,6-trichlorophenol were detected in groundwater samples from 2 of the 12 monitoring wells (MW-7 and MW-21; Table 4). The detected concentrations of PCP were 19,000 micrograms per liter (µg/L) in the sample from MW-7 and 6,000 µg/L and 2,500 µg/L in the samples collected from monitoring well MW-21 (primary and blind duplicate samples, respectively). Chlorinated phenols were not detected at or above the laboratory reporting limits in the samples collected from monitoring wells MW-2, MW-6, MW-8, MW-9, and MW-20.

Historical results for the analysis of natural attenuation parameters, chlorinated phenols and phenol, and dioxins and furans in sawmill-area groundwater monitoring wells are presented in Tables 5, 6, and 7, respectively.

Two truck shop-area groundwater monitoring wells (MW-22 and MW-23) were sampled during this period. Copies of the laboratory analytical report and sample chain-of-custody record are included in Appendix B. The results for the TPH as gasoline, TPH as diesel, TPH as motor oil, and BTEX analyses are summarized in Table 8.

In the samples collected from monitoring wells MW-22 and MW-23, TPH as gasoline, TPH as diesel, TPH as motor oil, and BTEX were not detected at or above laboratory reporting limits.

4.0 WASTEWATER DISPOSAL

The purge water and equipment wash water generated by the environmental activities conducted during August 2006 and discussed herein were placed in three steel, 55-gallon drums and labeled. The drums, which were partially filled, are being temporarily stored at the site and will be disposed of by SPI in accordance with applicable regulations.

5.0 FUTURE MONITORING AND SAMPLING SCHEDULE

For both the sawmill area and truck shop area, the next semi-annual groundwater monitoring event will be performed in February or March 2007.

6.0 REFERENCES

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TABLES

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TABLE 1

MONITORING WELL CONSTRUCTION DETAILS [1]

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Date Installed	Total Boring Depth (ft bgs)	Total Well Depth (ft bgs)	Well Diameter (inches)	Latitude[2]	Longitude[2]	Ground Level Elevation[2] (ft msl)	Top of Casing Elevation[2] (ft msl)	Screened Interval (ft bgs)	Screen Slot Size (inches)	Filter Pack Interval (ft bgs)	Bentonite Seal Interval (ft bgs)	Surface Seal Interval[3] (ft bgs)
Shallow Wells													
MW-1	5-Mar-02	8	8	2	40.8661595	124.1521395	10.12	9.69	2.0 – 8.0	0.01	1.5 – 8.0	1.0 – 1.5	0 – 1.0
MW-2	5-Mar-02	9	8	2	40.8661024	124.1525276	10.41	9.61	2.0 – 8.0	0.01	1.5 – 9.0	1.0 – 1.5	0 – 1.0
MW-3	5-Mar-02	8.5	8	2	40.8662689	124.1530739	11.67	11.22	2.0 – 8.0	0.01	1.5 – 8.5	1.0 – 1.5	0 – 1.0
MW-4	5-Mar-02	8	8	2	40.8662303	124.1533599	11.17	10.74	2.0 – 8.0	0.01	1.5 – 8.0	1.0 – 1.5	0 – 1.0
MW-5	7-Mar-02	8	8	2	40.8660945	124.1536734	11.26	10.74	2.0 – 8.0	0.01	1.5 – 8.0	1.0 – 1.5	0 – 1.0
MW-6	7-Mar-02	8	8	2	40.8660710	124.1531061	10.13	9.83	2.0 – 8.0	0.01	1.5 – 8.0	1.0 – 1.5	0 – 1.0
MW-7	7-Mar-02	8	8	2	40.8659980	124.1531187	10.09	9.74	2.0 – 8.0	0.01	1.5 – 8.0	1.0 – 1.5	0 – 1.0
MW-8	8-Mar-02	8	8	2	40.8657492	124.1535343	10.55	10.33	2.0 – 8.0	0.01	1.5 – 8.0	1.0 – 1.5	0 – 1.0
MW-9	8-Mar-02	8	8	2	40.8657520	124.1532218	10.36	9.91	2.0 – 8.0	0.01	1.5 – 8.0	1.0 – 1.5	0 – 1.0
MW-10	11-Nov-02	9.5	8	2	40.8656910	124.1530670	10.08	9.85	2.0 – 8.0	0.01	1.5 – 9.5	1.0 – 1.5	0 – 1.0
MW-11	12-Nov-02	8.5	8	2	40.8655740	124.1533817	10.51	10.28	2.0 – 8.0	0.01	1.5 – 8.5	1.0 – 1.5	0 – 1.0
MW-12	12-Nov-02	9.5	8	2	40.8656625	124.1537231	11.01	10.76	2.0 – 8.0	0.01	1.5 – 9.5	1.0 – 1.5	0 – 1.0
MW-14	13-Nov-02	8	8	2	40.8657622	124.1523580	9.60	9.15	2.0 – 8.0	0.01	1.5 – 8.0	1.0 – 1.5	0 – 1.0
MW-17	14-Nov-02	9	8	2	40.8656690	124.1526420	9.46	9.16	2.0 – 8.0	0.01	1.5 – 9.0	1.0 – 1.5	0 – 1.0
MW-18	13-Nov-02	9.5	8	4	40.8657448	124.1531649	10.12	9.92	2.0 – 8.0	0.01	1.5 – 9.5	1.0 – 1.5	0 – 1.0
MW-20[4]	23-Jan-04	8	7	4	40.8658416	124.1532563	10.92	11.87	3.2 – 6.8	0.01	2.0 – 7.0	1.0 – 2.0	0 – 1.0
MW-21	12-Feb-04	8.3	8.3	0.75	40.8660161	124.1530089	10.11	12.89	2.1 – 8.1	0.01	1.5 – 8.3	1.0 – 1.5	0 – 1.0
MW-22	1-Aug-05	10	9.5	2	40.8631428	124.1555472	15.37	15.12	3.5 – 9.0	0.02	3.0 – 10	2.5 – 3.0	0 – 2.5
MW-23	1-Aug-05	10	9.5	2	40.8632724	124.1553765	15.34	15.11	2.5 – 9.0	0.02	2.0 – 10	1.5 – 2.0	0 – 1.5
P-24	1-Aug-05	10	9.5	2	40.8634773	124.1557306	15.56	15.33	3.5 – 9.0	0.02	3.0 – 10	2.5 – 3.0	0 – 2.5
P-25	1-Aug-05	10	9.5	2	40.8632884	124.1556166	16.04	15.75	3.5 – 9.0	0.02	3.0 – 10	2.5 – 3.0	0 – 2.5
Deep Wells													
MW-13D	12-Nov-02	21	20	2	40.8660809	124.1525231	10.26	9.96	15.0 – 20.0	0.01	13.5 – 21.0	12.0 – 13.5	0 – 12.0
MW-15D	13-Nov-02	21	20	2	40.8662658	124.1528255	11.59	11.19	15.0 – 20.0	0.01	14.0 – 21.0	12.0 – 14.0	0 – 12.0
MW-16D	14-Nov-02	21.5	20	2	40.8655571	124.1530363	10.13	9.83	15.0 – 20.0	0.01	14.0 – 21.5	12.0 – 14.0	0 – 12.0
MW-19D	14-Nov-02	21.5	20	2	40.8662419	124.1532744	11.21	11.06	15.0 – 20.0	0.01	14.0 – 21.0	12.0 – 14.0	0 – 12.0

Notes:

1. Construction details for wells MW-1 through MW-9 were obtained from Report on Recent Hydrogeologic Investigations at Sierra-Pacific Industries, Arcata Division Sawmill, dated April 19, 2002 prepared by Environet Consulting. Construction details for wells MW-10 through MW-19D were obtained from Results of the Remedial Investigation for Sierra Pacific Industries – Arcata Division Sawmills, Arcata, California, dated January 30, 2003, prepared by EnviroNet Consulting. Construction details for wells MW-20 and MW-21 were obtained from the Monitoring Wells MW-20 and MW-21 Installation and Sampling Report dated April 7, 2004 prepared by Geomatrix, and details for wells and piezometers MW-22 through P-25 were obtained from the Truck Shop Area Monitoring Wells and Piezometers Installation and Sampling Report dated January 27, 2006 prepared by Geomatrix.
2. Monitoring wells MW-1 through MW-21 were resurveyed by Omsberg and Company of Eureka, California on February 13, 2004, and monitoring wells and piezometers MW-22 through P-25 were surveyed by Omsberg and Preston on August 11, 2005; latitude and longitude were surveyed relative to North American Datum (NAD) of 1983 and elevations were surveyed relative to North American Vertical Datum (NAVD) of 1988.
3. Surface seal interval consists of the concrete surface completion and a neat cement sanitary seal, if applicable.
4. Well installed on a raised concrete pad of the former green chain. Depth measurements (ft bgs) are relative to the local ground surface of the concrete pad, which is approximately 1 foot above the grade of the surrounding ground surface.

Abbreviations:

ft bgs = feet below ground surface
ft msl = feet mean sea level

Geomatrix

TABLE 2

SUMMARY OF WATER LEVEL MEASUREMENTS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Measurement [1] Date	MP Elevation [2] (ft NAVD 88)	Depth to Water (ft bMP)	Water Level Elevation (ft NAVD 88)
Shallow Wells				
MW-1	14-Mar-02	9.56	5.31	4.25
	18-Jul-02	9.56	4.52	5.04
	16-Sep-02	9.56	4.37	5.19
	02-Dec-02	9.56	4.18	5.38
	18-Mar-03	9.56	4.09	5.47
	31-Mar-03	9.56	4.48	5.08
	21-May-03	9.56	4.66	4.90
	27-Aug-03	9.56	4.55	5.01
	03-Nov-03	9.56	4.20	5.36
	23-Mar-04	9.69	4.47	5.22
	17-May-04	9.69	4.57	5.12
	30-Aug-04	9.69	4.55	5.14
	14-Dec-04	9.69	4.30	5.39
	09-Mar-05	9.69	4.13	5.56
	07-Sep-05	9.69	4.58	5.11
	22-Mar-06	9.69	4.17	5.52
	30-Aug-06	9.69	4.35	5.34
MW-2	14-Mar-02	9.49	4.52	4.97
	18-Jul-02	9.49	5.43	4.06
	16-Sep-02	9.49	5.28	4.21
	02-Dec-02	9.49	5.17	4.32
	18-Mar-03	9.49	5.16	4.33
	31-Mar-03	9.49	5.43	4.06
	21-May-03	9.49	5.45	4.04
	27-Aug-03	9.49	5.09	4.40
	03-Nov-03	9.49	5.17	4.32
	23-Mar-04	9.61	5.31	4.30
	17-May-04	9.61	5.43	4.18
	30-Aug-04	9.61	5.07	4.54
	14-Dec-04	9.61	5.10	4.51
	09-Mar-05	9.61	5.22	4.39
	07-Sep-05	9.61	5.36	4.25
	22-Mar-06	9.61	5.27	4.34
	30-Aug-06	9.61	5.33	4.28
MW-3	14-Mar-02	11.14	2.19	8.95
	18-Jul-02	11.14	2.79	8.35
	16-Sep-02	11.14	2.96	8.18
	02-Dec-02	11.14	2.75	8.39
	18-Mar-03	11.14	2.30	8.84
	31-Mar-03	11.14	1.96	9.18
	21-May-03	11.14	2.19	8.95
	27-Aug-03	11.14	2.08	9.06
	03-Nov-03	11.14	2.35	8.79
	23-Mar-04	11.22	2.24	8.98
	17-May-04	11.22	2.25	8.97
	30-Aug-04	11.22	2.42	8.80
	14-Dec-04	11.22	2.79	8.43
	09-Mar-05	11.22	2.77	8.45
	07-Sep-05	11.22	2.98	8.24
	22-Mar-06	11.22	2.13	9.09
	30-Aug-06	11.22	2.33	8.89

Geomatrix

TABLE 2

SUMMARY OF WATER LEVEL MEASUREMENTS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Measurement [1] Date	MP Elevation [2] (ft NAVD 88)	Depth to Water (ft bMP)	Water Level Elevation (ft NAVD 88)
MW-4	14-Mar-02	10.71	1.52	9.19
	18-Jul-02	10.71	1.84	8.87
	16-Sep-02	10.71	2.04	8.67
	02-Dec-02	10.71	1.80	8.91
	18-Mar-03	10.71	1.52	9.19
	31-Mar-03	10.71	0.93	9.78
	21-May-03	10.71	1.18	9.53
	27-Aug-03	10.71	1.36	9.35
	03-Nov-03	10.71	1.64	9.07
	23-Mar-04	10.74	1.17	9.57
	17-May-04	10.74	1.17	9.57
	30-Aug-04	10.74	1.37	9.37
	14-Dec-04	10.74	2.21	8.53
	09-Mar-05	10.74	1.95	8.79
	07-Sep-05	10.74	2.08	8.66
	22-Mar-06	10.74	1.55	9.19
	30-Aug-06	10.74	1.80	8.94
MW-5	14-Mar-02	10.69	0.95	9.74
	18-Jul-02	10.69	1.26	9.43
	16-Sep-02	10.69	1.35	9.34
	02-Dec-02	10.69	1.23	9.46
	18-Mar-03	10.69	0.87	9.82
	31-Mar-03	10.69	0.63	10.06
	21-May-03	10.69	0.69	10.00
	27-Aug-03	10.69	0.84	9.85
	03-Nov-03	10.69	0.92	9.77
	23-Mar-04	10.74	0.62	10.12
	17-May-04	10.74	0.78	9.96
	30-Aug-04	10.74	0.71	10.03
	14-Dec-04	10.74	1.50	9.24
	09-Mar-05	10.74	1.40	9.34
	07-Sep-05	10.74	1.43	9.31
	22-Mar-06	10.74	0.95	9.79
	30-Aug-06	10.74	1.12	9.62
MW-6	14-Mar-02	9.77	0.85	8.92
	18-Jul-02	9.77	1.27	8.50
	16-Sep-02	9.77	1.51	8.26
	02-Dec-02	9.77	1.30	8.47
	18-Mar-03	9.77	0.89	8.88
	31-Mar-03	9.77	0.37	9.40
	21-May-03	9.77	0.60	9.17
	27-Aug-03	9.77	0.70	9.07
	03-Nov-03	9.77	1.21	8.56
	23-Mar-04	9.83	0.69	9.14
	17-May-04	9.83	0.78	9.05
	30-Aug-04	9.83	0.99	8.84
	14-Dec-04	9.83	1.25	8.58
	09-Mar-05	9.83	1.17	8.66
	07-Sep-05	9.83	1.47	8.36
	22-Mar-06	9.83	0.56	9.27
	30-Aug-06	9.83	0.98	8.85

Geomatrix

TABLE 2

SUMMARY OF WATER LEVEL MEASUREMENTS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Measurement [1] Date	MP Elevation [2] (ft NAVD 88)	Depth to Water (ft bMP)	Water Level Elevation (ft NAVD 88)
MW-7	14-Mar-02	9.68	0.73	8.95
	18-Jul-02	9.68	1.15	8.53
	16-Sep-02	9.68	1.37	8.31
	02-Dec-02	9.68	1.19	8.49
	18-Mar-03	9.68	0.75	8.93
	31-Mar-03	9.68	0.26	9.42
	21-May-03	9.68	0.45	9.23
	27-Aug-03	9.68	0.61	9.07
	03-Nov-03	9.68	1.13	8.55
	23-Mar-04	9.74	0.44	9.30
	17-May-04	9.74	0.50	9.24
	30-Aug-04	9.74	0.84	8.90
	14-Dec-04	9.74	1.04	8.70
	09-Mar-05	9.74	0.96	8.78
	07-Sep-05	9.74	1.32	8.42
	22-Mar-06	9.74	0.42	9.32
	30-Aug-06	9.74	0.91	8.83
MW-8	14-Mar-02	10.30	0.92	9.38
	18-Jul-02	10.30	1.24	9.06
	16-Sep-02	10.30	1.52	8.78
	02-Dec-02	10.30	1.34	8.96
	18-Mar-03	10.30	0.95	9.35
	31-Mar-03	10.30	0.29	10.01
	21-May-03	10.30	0.49	9.81
	27-Aug-03	10.30	0.91	9.39
	03-Nov-03	10.30	1.36	8.94
	23-Mar-04	10.33	0.57	9.76
	17-May-04	10.33	0.54	9.79
	30-Aug-04	10.33	0.94	9.39
	14-Dec-04	10.33	1.29	9.04
	09-Mar-05	10.33	1.07	9.26
	07-Sep-05	10.33	1.41	8.92
	22-Mar-06	10.33	0.70	9.63
	30-Aug-06	10.33	1.29	9.04
MW-9	14-Mar-02	9.86	0.71	9.15
	18-Jul-02	9.86	1.13	8.73
	16-Sep-02	9.86	1.40	8.46
	02-Dec-02	9.86	1.18	8.68
	18-Mar-03	9.86	0.79	9.07
	31-Mar-03	9.86	0.11	9.75
	21-May-03	9.86	0.30	9.56
	27-Aug-03	9.86	0.81	9.05
	03-Nov-03	9.86	1.19	8.67
	23-Mar-04	9.91	0.40	9.51
	17-May-04	9.91	0.38	9.53
	30-Aug-04	9.91	0.89	9.02
	14-Dec-04	9.91	1.05	8.86
	09-Mar-05	9.91	0.85	9.06
	07-Sep-05	9.91	1.27	8.64
	22-Mar-06	9.91	0.45	9.46
	30-Aug-06	9.91	1.13	8.78

Geomatrix

TABLE 2

SUMMARY OF WATER LEVEL MEASUREMENTS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Measurement [1] Date	MP Elevation [2] (ft NAVD 88)	Depth to Water (ft bMP)	Water Level Elevation (ft NAVD 88)
MW-10	02-Dec-02	9.80	1.35	8.45
	18-Mar-03	9.80	0.95	8.85
	31-Mar-03	9.80	0.30	9.50
	21-May-03	9.80	0.52	9.28
	27-Aug-03	9.80	1.02	8.78
	03-Nov-03	9.80	1.43	8.37
	23-Mar-04	9.85	0.70	9.15
	17-May-04	9.85	0.61	9.24
	30-Aug-04	9.85	1.13	8.72
	14-Dec-04	9.85	1.24	8.61
	09-Mar-05	9.85	1.05	8.80
	07-Sep-05	9.85	1.43	8.42
	22-Mar-06	9.85	0.90	8.95
	30-Aug-06	9.85	1.35	8.50
MW-11	02-Dec-02	10.26	1.55	8.71
	18-Mar-03	10.26	1.12	9.14
	31-Mar-03	10.26	0.40	9.86
	21-May-03	10.26	0.64	9.62
	27-Aug-03	10.26	1.19	9.07
	03-Nov-03	10.26	1.56	8.70
	23-Mar-04	10.28	0.75	9.53
	17-May-04	10.28	0.69	9.59
	30-Aug-04	10.28	1.20	9.08
	14-Dec-04	10.28	1.44	8.84
	09-Mar-05	10.28	1.14	9.14
	07-Sep-05	10.28	1.57	8.71
	22-Mar-06	10.28	0.79	9.49
	30-Aug-06	10.28	1.52	8.76
MW-12	02-Dec-02	10.73	1.56	9.17
	18-Mar-03	10.73	1.15	9.58
	31-Mar-03	10.73	0.55	10.18
	21-May-03	10.73	0.70	10.03
	27-Aug-03	10.73	1.12	9.61
	03-Nov-03	10.73	1.68	9.05
	23-Mar-04	10.76	0.87	9.89
	17-May-04	10.76	0.76	10.00
	30-Aug-04	10.76	1.13	9.63
	14-Dec-04	10.76	1.55	9.21
	09-Mar-05	10.76	1.27	9.49
	07-Sep-05	10.76	1.57	9.19
	22-Mar-06	10.76	0.98	9.78
	30-Aug-06	10.76	1.44	9.32

Geomatrix

TABLE 2

SUMMARY OF WATER LEVEL MEASUREMENTS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Measurement [1] Date	MP Elevation [2] (ft NAVD 88)	Depth to Water (ft bMP)	Water Level Elevation (ft NAVD 88)
MW-14	02-Dec-02	9.02	2.40	6.62
	18-Mar-03	9.02	2.21	6.81
	31-Mar-03	9.02	1.77	7.25
	21-May-03	9.02	1.69	7.33
	27-Aug-03	9.02	2.27	6.75
	03-Nov-03	9.02	2.52	6.50
	23-Mar-04	9.15	2.08	7.07
	17-May-04	9.15	2.15	7.00
	30-Aug-04	9.15	2.48	6.67
	14-Dec-04	9.15	2.30	6.85
	09-Mar-05	9.15	2.10	7.05
	07-Sep-05	9.15	2.37	6.78
	22-Mar-06	9.15	2.38	6.77
	30-Aug-06	9.15	2.56	6.59
MW-17	02-Dec-02	8.98	1.27	7.71
	18-Mar-03	8.98	0.94	8.04
	31-Mar-03	8.98	0.32	8.66
	21-May-03	8.98	0.58	8.40
	27-Aug-03	8.98	1.06	7.92
	03-Nov-03	8.98	1.30	7.68
	23-Mar-04	9.16	0.83	8.33
	17-May-04	9.16	0.74	8.42
	30-Aug-04	9.16	1.21	7.95
	14-Dec-04	9.16	1.17	7.99
	09-Mar-05	9.16	1.00	8.16
	07-Sep-05	9.16	1.35	7.81
	22-Mar-06	9.16	0.79	8.37
	30-Aug-06	9.16	1.31	7.85
MW-18	02-Dec-02	9.53	0.94	8.59
	18-Mar-03	9.53	0.52	9.01
	31-Mar-03	9.53	--[3]	NC
	21-May-03	9.53	0.05	9.48
	27-Aug-03	9.53	0.55	8.98
	03-Nov-03	9.53	0.95	8.58
	23-Mar-04	9.92	0.52	9.40
	17-May-04	9.92	0.47	9.45
	30-Aug-04	9.92	0.98	8.94
	14-Dec-04	9.92	1.13	8.79
	09-Mar-05	9.92	0.94	8.98
	07-Sep-05	9.92	1.36	8.56
	22-Mar-06	9.92	0.59	9.33
	30-Aug-06	9.92	1.22	8.70
MW-20	23-Mar-04	11.87	2.36	9.51
	17-May-04	11.87	2.35	9.52
	30-Aug-04	11.87	2.70	9.17
	14-Dec-04	11.87	2.80	9.07
	09-Mar-05	11.87	2.72	9.15
	07-Sep-05	11.87	3.06	8.81
	22-Mar-06	11.87	2.22	9.65
	30-Aug-06	11.87	2.94	8.93

Geomatrix

TABLE 2

SUMMARY OF WATER LEVEL MEASUREMENTS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Measurement [1] Date	MP Elevation [2] (ft NAVD 88)	Depth to Water (ft bMP)	Water Level Elevation (ft NAVD 88)
MW-21	23-Mar-04	12.89	3.97	8.92
	17-May-04	12.89	3.99	8.90
	30-Aug-04	12.89	4.23	8.66
	14-Dec-04	12.89	4.36	8.53
	09-Mar-05	12.89	4.35	8.54
	07-Sep-05	12.89	4.65	8.24
	22-Mar-06	12.89	3.79	9.10
	30-Aug-06	12.89	4.02	8.87
MW-22	08-Sep-05	15.12	5.76	9.36
	23-Mar-06	15.12	4.38	10.74
	30-Aug-06	15.12	5.56	9.56
MW-23	08-Sep-05	15.11	5.44	9.67
	23-Mar-06	15.11	3.99	11.12
	30-Aug-06	15.11	5.19	9.92
P-24	08-Sep-05	15.33	4.84	10.49
	23-Mar-06	15.33	2.69	12.64
	30-Aug-06	15.33	4.52	10.81
P-25	08-Sep-05	15.75	5.47	10.28
	23-Mar-06	15.75	3.40	12.35
	30-Aug-06	15.75	5.29	10.46
Deep Wells				
MW-13D	02-Dec-02	9.84	4.18	5.66
	18-Mar-03	9.84	4.21	5.63
	31-Mar-03	9.84	4.26	5.58
	21-May-03	9.84	4.52	5.32
	27-Aug-03	9.84	4.45	5.39
	03-Nov-03	9.84	4.30	5.54
	23-Mar-04	9.96	4.42	5.54
	17-May-04	9.96	4.54	5.42
	30-Aug-04	9.96	4.57	5.39
	14-Dec-04	9.96	4.56	5.40
	09-Mar-05	9.96	4.26	5.70
	07-Sep-05	9.96	4.55	5.41
	22-Mar-06	9.96	3.98	5.98
	30-Aug-06	9.96	4.33	5.63
MW-15D	02-Dec-02	11.08	5.31	5.77
	18-Mar-03	11.08	5.44	5.64
	31-Mar-03	11.08	5.46	5.62
	21-May-03	11.08	5.74	5.34
	27-Aug-03	11.08	5.71	5.37
	03-Nov-03	11.08	5.51	5.57
	23-Mar-04	11.19	5.66	5.53
	17-May-04	11.19	5.77	5.42
	30-Aug-04	11.19	5.83	5.36
	14-Dec-04	11.19	5.75	5.44
	09-Mar-05	11.19	5.48	5.71
	07-Sep-05	11.19	5.83	5.36
	22-Mar-06	11.19	5.18	6.01
	30-Aug-06	11.19	5.58	5.61

Geomatrix

TABLE 2

SUMMARY OF WATER LEVEL MEASUREMENTS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Measurement [1] Date	MP Elevation [2] (ft NAVD 88)	Depth to Water (ft bMP)	Water Level Elevation (ft NAVD 88)
MW-16D	02-Dec-02	9.80	3.99	5.81
	18-Mar-03	9.80	4.17	5.63
	31-Mar-03	9.80	3.91	5.89
	21-May-03	9.80	4.11	5.69
	27-Aug-03	9.80	3.95	5.85
	03-Nov-03	9.80	4.26	5.54
	23-Mar-04	9.83	4.01	5.82
	17-May-04	9.83	4.13	5.70
	30-Aug-04	9.83	4.13	5.70
	14-Dec-04	9.83	4.38	5.45
	09-Mar-05	9.83	4.22	5.61
	07-Sep-05	9.83	4.23	5.60
	22-Mar-06	9.83	3.76	6.07
	30-Aug-06	9.83	4.08	5.75
MW-19D	02-Dec-02	11.00	4.31	6.69
	18-Mar-03	11.00	4.23	6.77
	31-Mar-03	11.00	4.02	6.98
	21-May-03	11.00	4.22	6.78
	27-Aug-03	11.00	4.26	6.74
	03-Nov-03	11.00	4.61	6.39
	23-Mar-04	11.06	4.13	6.93
	17-May-04	11.06	4.63	6.43
	30-Aug-04	11.06	4.60	6.46
	14-Dec-04	11.06	4.82	6.24
	09-Mar-05	11.06	4.46	6.60
	07-Sep-05	11.06	4.59	6.47
	22-Mar-06	11.06	4.26	6.80
	30-Aug-06	11.06	4.53	6.53

Geomatrix

TABLE 2

SUMMARY OF WATER LEVEL MEASUREMENTS

Sierra Pacific Industries

Arcata Division Sawmill

Arcata, California

Well No.	Measurement [1] Date	MP Elevation [2] (ft NAVD 88)	Depth to Water (ft bMP)	Water Level Elevation (ft NAVD 88)
Mad River Slough[4]	31-Mar-03	15.70	15.15	0.55
	31-Mar-03	15.70	15.84	-0.14
	21-May-03	15.70	17.23	-1.53
	21-May-03	15.70	16.75	-1.05
	27-Aug-03	15.70	16.20	-0.50
	27-Aug-03	15.70	12.60	3.10
	03-Nov-03	15.70	9.63	6.07
	03-Nov-03	15.70	10.53	5.17
	23-Mar-04	15.70	15.00	0.70
	23-Mar-04	15.70	12.16	3.54
	17-May-04	15.70	14.48	1.22
	17-May-04	15.70	12.50	3.20
	30-Aug-04	15.70	15.17	0.53
	30-Aug-04	15.70	12.20	3.50
	14-Dec-04	15.70	12.05	3.65
	14-Dec-04	15.70	9.90	5.80
	09-Mar-05	15.70	9.31	6.39
	09-Mar-05	15.70	8.43	7.27
	07-Sep-05	15.70	16.35	-0.65
	07-Sep-05	15.70	12.95	2.75
	22-Mar-06	15.70	12.55	3.15
	22-Mar-06	15.70	15.80	-0.10
	30-Aug-06	15.70	13.51	2.19
	30-Aug-06	15.70	13.12	2.58

Notes:

1. Data prior to March 18, 2003 were obtained from Results of the Remedial Investigation for Sierra Pacific Industries - Arcata Division Sawmill, Arcata, California, dated January 30, 2003, prepared by Environet Consulting.
2. Monitoring wells surveyed by Omsberg & Company of Eureka, California. Wells MW-1 through MW-21 were resurveyed on February 13, 2004, wells MW-22 through P-25 were surveyed on August 11, 2005; elevations shown are relative to the Northern American Vertical Datum of 1988.
3. Water level was above the top of casing measuring point.
4. Mad River Slough measuring point on railroad bridge. Water level measurements are obtained before and after the water level measurements in monitoring wells MW-1 through MW-21.

Abbreviations:

ft NAVD 88 = feet above North American Vertical Datum of 1988

ft bMP = feet below measuring point

-- = not measured or sample not collected for analysis

NC = not calculated

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TABLE 3

SUMMARY OF WATER QUALITY PARAMETERS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Date Sampled	Field Measurements[1] Temperature (°C)	Specific Conductance (µmohs/cm)	pH (pH Units)	TDS (mg/L)	Laboratory Measurement[2] TDS (mg/L)
Shallow Wells						
MW-1	20-Mar-03	14	2,600	6.5	--	--
	22-May-03	14	2,700	6.7	--	1,400
	27-Aug-03	18	2,500	6.7	1,800	1,400
	04-Nov-03	17	2,400	6.6	1,800	1,300
	17-May-04	15	2,600	6.3	1,900	1,400
	15-Dec-04	15	3,800	6.6	2,500	--
	11-Mar-05	14	2,100	6.5	1,400	--
	07-Sep-05	18	2,400	6.5	1,700	--
	23-Mar-06	13	2,700	6.5	1,700	--
MW-2	20-Mar-03	13	2,100	6.2	--	--
	22-May-03	14	1,700	6.4	1,100	860
	27-Aug-03	18	1,500	6.6	1,100	760
	03-Nov-03	16	1,590	6.3	1,100	760
	24-Mar-04	13	1,390	6.3	970	740
	17-May-04	15	1,400	6.2	980	730
	30-Aug-04	19	1,200	--[3]	850	680
	15-Dec-04	14	1,100	6.4	740	--
	11-Mar-05	13	1,200	6.2	790	--
	07-Sep-05	18	1,300	6.4	900	--
	23-Mar-06	13	1,300	6.4	860	--
	31-Aug-06	18	1,200	6.4	820	--
MW-3	20-Mar-03	13	1,100	6.4	--	--
	22-May-03	15	1,000	6.4	630	510
	27-Aug-03	20	1,000	6.5	720	470
	03-Nov-03	16	980	6.6	--	410
	17-May-04	16	1,100	6.2	750	510
	15-Dec-04	13	700	6.4	460	--
	10-Mar-05	13	600	6.4	390	--
	07-Sep-05	19	810	6.4	810	--
	23-Mar-06	12	540	6.7	350	--
MW-4	20-Mar-03	14	830	6.5	--	--
	22-May-03	16	730	6.4	440	420
	27-Aug-03	21	730	6.5	500	340
	03-Nov-03	18	760	6.6	520	310
	17-May-04	18	880	6.2	590	360
	15-Dec-04	14	640	6.4	410	--

Geomatrix

TABLE 3

SUMMARY OF WATER QUALITY PARAMETERS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Date Sampled	Field Measurements[1] Temperature (°C)	Specific Conductance (µmohs/cm)	pH (pH Units)	TDS (mg/L)	Laboratory Measurement[2] TDS (mg/L)
MW-5	20-Mar-03	14	670	6.6	--	--
	22-May-03	14	690	6.6	410	360
	27-Aug-03	18	670	6.7	450	360
	03-Nov-03	17	660	6.6	450	380
	17-May-04	15	660	6.3	440	360
	15-Dec-04	15	470	6.4	310	--
	10-Mar-05	14	570	6.3	390	--
	07-Sep-05	18	660	6.5	450	--
	24-Mar-06	11	190	6.6	130	--
MW-6	20-Mar-03	11	950	6.6	--	--
	22-May-03	14	1,000	6.3	620	430
	27-Aug-03	17	890	6.4	620	410
	04-Nov-03	13	920	6.6	630	430
	24-Mar-04	11	920	6.5	640	410
	17-May-04	14	930	6.3	640	420
	30-Aug-04	17	880	-- [3]	610	430
	15-Dec-04	11	700	6.4	460	--
	11-Mar-05	11	900	6.7	620	--
	07-Sep-05	16	900	6.4	610	--
	22-Mar-06	9	990	6.6	650	--
	31-Aug-06	16	1,000	6.6	700	--
MW-7	20-Mar-03	11	910	6.6	--	--
	22-May-03	11	960	6.5	--	460
	27-Aug-03	14	840	6.6	580	400
	03-Nov-03	12	870	6.6	600	460
	24-Mar-04	11	960	6.4	--	440
	18-May-04	12	730	6.6	490	370
	30-Aug-04	14	840	-- [3]	580	410
	15-Dec-04	11	700	6.4	460	--
	09-Mar-05	11	850	6.3	580	--
	07-Sep-05	13	920	6.4	630	--
	24-Mar-06	10	120	6.7	85	--
	31-Aug-06	13	970	6.6	670	--
MW-8	18-Mar-03	14	730	6.4	--	--
	21-May-03	16	740	6.3	460	390
	27-Aug-03	21	730	6.2	500	370
	04-Nov-03	17	740	6.4	510	380
	24-Mar-04	14	780	6.2	530	400
	17-May-04	18	800	6.1	530	390
	30-Aug-04	21	760	-- [3]	520	390
	14-Dec-04	14	650	6.3	420	--
	11-Mar-05	13	800	6.5	550	--
	07-Sep-05	20	810	6.4	540	--
	22-Mar-06	12	860	6.5	560	--
	31-Aug-06	20	820	6.5	560	--

Geomatrix

TABLE 3

SUMMARY OF WATER QUALITY PARAMETERS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Date Sampled	Field Measurements[1]				Laboratory Measurement[2]
		Temperature (ºC)	Specific Conductance (µmohs/cm)	pH (pH Units)	TDS (mg/L)	TDS (mg/L)
MW-9	18-Mar-03	14	820	6.4	--	--
	23-May-03	16	870	6.6	550	400
	27-Aug-03	20	830	6.2	570	350
	04-Nov-03	17	820	6.6	560	350
	24-Mar-04	14	880	6.4	600	380
	17-May-04	16	930	6.1	620	380
	30-Aug-04	20	860	-- [3]	550	440
	14-Dec-04	13	800	6.4	520	--
	11-Mar-05	13	900	6.7	620	--
	07-Sep-05	19	920	6.4	620	--
	22-Mar-06	12	930	6.6	600	--
	31-Aug-06	19	900	6.6	620	--
MW-10	18-Mar-03	14	920	6.4	--	--
	23-May-03	17	970	6.7	--	460
	27-Aug-03	22	860	6.3	600	400
	04-Nov-03	18	880	6.6	600	430
	17-May-04	19	920	6.2	610	420
	14-Dec-04	14	700	6.4	450	--
MW-11	20-Mar-03	14	870	6.4	--	--
	21-May-03	17	890	6.4	560	460
	27-Aug-03	23	870	6.2	600	440
	04-Nov-03	19	880	6.6	600	450
	17-May-04	18	880	6.2	590	430
	14-Dec-04	15	740	6.4	480	--
MW-12	18-Mar-03	15	830	6.3	--	--
	21-May-03	18	840	6.1	--	460
	27-Aug-03	23	870	6.2	600	480
	04-Nov-03	18	920	6.5	630	480
	17-May-04	20	900	6.0	600	490
	14-Dec-04	14	710	6.4	460	--
MW-14	20-Mar-03	14	3,200	6.7	--	--
	22-May-03	15	3,400	6.6	--	2,100
	27-Aug-03	20	3,600	6.6	2,300	1,900
	04-Nov-03	16	3,300	6.6	2,500	2,100
	17-May-04	17	2,800	6.4	2,000	1,800
	15-Dec-04	14	2,500	6.6	1,300	--
	09-Mar-05	13	2,400	6.6	1,600	--
	07-Sep-05	20	2,700	6.4	2,000	--
	23-Mar-06	13	2,900	6.7	1,900	--
MW-17	20-Mar-03	13	980	6.4	--	--
	22-May-03	15	1,000	6.5	--	450
	27-Aug-03	19	860	7.0	600	420
	04-Nov-03	15	920	6.6	640	450
	17-May-04	15	940	6.5	620	440
	14-Dec-04	12	830	6.4	540	--

Geomatrix

TABLE 3

SUMMARY OF WATER QUALITY PARAMETERS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Date Sampled	Field Measurements[1]				Laboratory Measurement[2]
		Temperature (ºC)	Specific Conductance (µmohs/cm)	pH (pH Units)	TDS (mg/L)	TDS (mg/L)
MW-18	18-Mar-03	14	1,000	6.5	--	--
	23-May-03	17	980	6.6	610	640
	27-Aug-03	23	1,100	6.3	780	520
	04-Nov-03	17	1,100	6.6	760	490
	17-May-04	19	1,000	6.3	670	430
	14-Dec-04	13	860	6.5	560	--
MW-20	24-Mar-04	14	420	6.9	280	250
	18-May-04	18	470	6.7	310	280
	30-Aug-04	21	500	-- [3]	330	300
	15-Dec-04	12	370	6.5	240	--
	09-Mar-05	13	320	6.6	220	--
	07-Sep-05	19	510	6.6	340	--
	24-Mar-06	11	310	6.8	200	--
	31-Aug-06	18	420	6.8	280	--
MW-21	24-Mar-04	12	990	6.3	680	460
	18-May-04	14	1,000	6.3	660	420
	30-Aug-04	16	960	-- [3]	660	450
	15-Dec-04	11	760	6.2	500	--
	10-Mar-05	11	930	6.3	640	--
	07-Sep-05	15	1,000	6.4	690	--
	24-Mar-06	10	1,000	6.6	670	--
	31-Aug-06	15	1,000	6.6	690	--
MW-22	08-Sep-05	19	740	6.6	--	--
	23-Mar-06	14	720	6.0	--	--
	30-Aug-06	19	900	6.1	--	--
MW-23	08-Sep-05	18	4,400	6.7	--	--
	23-Mar-06	14	4,100	6.6	--	--
	30-Aug-06	19	4,000	6.8	--	--
P-24	08-Sep-05	21	1,500	6.2	--	--
P-25	08-Sep-05	18	410	6.1	--	--
Deep Wells						
MW-13D	20-Mar-03	14	1,200	6.2	--	--
	22-May-03	14	1,100	6.2	--	--
	27-Aug-03	15	1,100	6.1	750	690
	04-Nov-03	15	1,000	6.1	--	580
	17-May-04	14	1,000	5.8	700	610
	15-Dec-04	14	620	6.1	400	--
	11-Mar-05	14	900	6.2	620	--
	22-Mar-06	14	1,200	6.2	770	--

Geomatrix

TABLE 3

SUMMARY OF WATER QUALITY PARAMETERS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Well No.	Date Sampled	Field Measurements[1] Temperature (ºC)	Specific Conductance (µmohs/cm)	pH (pH Units)	TDS (mg/L)	Laboratory Measurement[2] TDS (mg/L)
MW-15D	20-Mar-03	13	1,300	6.8	--	--
	22-May-03	13	1,300	6.8	--	800
	27-Aug-03	14	1,300	6.3	900	810
	04-Nov-03	14	1,300	6.8	--	790
	17-May-04	13	1,400	6.3	930	800
	15-Dec-04	14	1,000	6.7	650	--
	11-Mar-05	13	1,300	6.8	880	--
	22-Mar-06	13	1,300	6.6	840	--
MW-16D	18-Mar-03	14	5,200	7.7	--	--
	23-May-03	14	5,200	7.6	--	3,200
	27-Aug-03	16	5,000	7.4	3,400	3,000
	04-Nov-03	16	4,800	7.6	3,700	2,800
	17-May-04	15	4,600	7.3	3,500	2,800
	14-Dec-04	16	3,700	7.7	2,400	--
	11-Mar-05	15	4,400	7.8	3,400	--
	22-Mar-06	14	4,400	7.7	2,900	--
MW-19D	20-Mar-03	16	810	6.7	--	--
	22-May-03	16	860	6.6	520	480
	27-Aug-03	17	810	6.5	560	410
	03-Nov-03	17	760	6.7	520	370
	17-May-04	16	840	6.5	560	430
	15-Dec-04	17	490	6.5	320	--

Notes:
1. Water quality parameters measured in the field using an Ultrameter instrument or a YSI Model 556 instrument; reported measurements recorded towards end of purge after parameters stabilized or from the last purge volume if a well was repeatedly purged dry.
2. Water quality parameter analyzed in the laboratory; EPA Method 160.1. Laboratory analysis of TDS was discontinued during the fourth quarter 2004.
3. pH meter inoperable.

Abbreviations:
ºC = degrees Celsius
mmhos/cm = micromhos per centimeter at 25 ºC
mg/L = milligrams per liter
-- = not measured or sample not collected for analysis
TDS = total dissolved solids
EPA = U.S. Environmental Protection Agency

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TABLE 4

LABORATORY ANALYTICAL RESULTS FOR CHLORINATED PHENOLS
(CANADIAN PULP METHOD)
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in micrograms per liter (µg/L)

Monitoring Well Number	Date Sampled [1]	Penta-chlorophenol	2,4,6-trichloro-phenol	2,3,5,6-tetrachloro-phenol	2,3,4,6-tetrachloro-phenol	2,3,4,5-tetrachloro-phenol	Comments
Shallow Wells							
MW-1	14-Mar-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Jul-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	16-Sep-02	1.8	< 1.0	< 1.0	< 1.0	< 1.0	
	03-Oct-02 [2]	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	02-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	04-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	11-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	low flow sample
	23-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	low flow sample
MW-2	14-Mar-02	7.4	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Jul-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	16-Sep-02	2.5	< 1.0	< 1.0	< 1.0	< 1.0	
	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	24-Mar-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	30-Aug-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	11-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	low flow sample
	07-Sep-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	low flow sample
	23-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	low flow sample
	31-Aug-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-3	14-Mar-02	1.2	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Jul-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	16-Sep-02	5.0	< 1.0	< 1.0	< 1.0	< 1.0	
	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

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TABLE 4

LABORATORY ANALYTICAL RESULTS FOR CHLORINATED PHENOLS
(CANADIAN PULP METHOD)
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in micrograms per liter (µg/L)

Monitoring Well Number	Date Sampled [1]	Penta-chlorophenol	2,4,6-trichloro-phenol	2,3,5,6-tetrachloro-phenol	2,3,4,6-tetrachloro-phenol	2,3,4,5-tetrachloro-phenol	Comments
MW-4	14-Mar-02	8.6	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Jul-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	16-Sep-02	5.7	< 1.0	< 1.0	< 1.0	< 1.0	
	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-5	14-Mar-02	4.3	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Jul-02	9.1	< 1.0	< 1.0	< 1.0	< 1.0	
	16-Sep-02	25	< 1.0	< 1.0	< 1.0	< 1.0	
	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	duplicate sample
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-6	14-Mar-02	4.5	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Jul-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	16-Sep-02	6.3	< 1.0	< 1.0	< 1.0	< 1.0	
	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	24-Mar-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	30-Aug-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	11-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	07-Sep-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	31-Aug-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

TABLE 4

LABORATORY ANALYTICAL RESULTS FOR CHLORINATED PHENOLS
(CANADIAN PULP METHOD)
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in micrograms per liter (µg/L)

Monitoring Well Number	Date Sampled [1]	Penta-chlorophenol	2,4,6-trichloro-phenol	2,3,5,6-tetrachloro-phenol	2,3,4,6-tetrachloro-phenol	2,3,4,5-tetrachloro-phenol	Comments
MW-7	14-Mar-02	31,000	< 1.0	41	650	24	
	18-Jul-02	33,000	< 1.0	< 1.0	990	56	
	16-Sep-02	44,000	< 1.0	< 1.0	920	64	
	03-Dec-02	46,000	< 1.3	76	1,300	52	
	14-Jan-03 [3]	51,000	2.4	< 1.0	970	52	
	20-Mar-03	19,000	< 1.0	36	460	22	
	22-May-03	19,000	< 1.0	< 1.0	470	< 100	
	22-May-03	16,000	< 1.0	< 1.0	400	< 100	duplicate sample
	22-May-03	14,000	< 1.0	< 1.0	400	< 100	filtered
	27-Aug-03	31,000	< 1.5	41	710	39	
	27-Aug-03	18,000	< 1.0	28	450	26	duplicate sample
	3-Nov-03	28,000	< 5.0	36	580	35	bailer sample / unfiltered
	3-Nov-03	31,000	< 5.0	47	740	43	bailer sample / filtered
	3-Nov-03	20,000	< 5.0	28	450	24	low flow sample / unfiltered
	3-Nov-03	14,000	< 5.0	19	300	17	low flow sample / filtered
	24-Mar-04	19,000	< 1.5	19	450	19	
	24-Mar-04	7,400	< 1.0	8.7	150	9.9	duplicate sample
	18-May-04	25,000	< 2.5	86	480	41	
	30-Aug-04	13,000	< 1.0	54	200	17	
	15-Dec-04	22,000	1.7	57	310	42	
	09-Mar-05	24,000	< 1.0	39	420	32	low flow sample
	07-Sep-05	16,000	< 1.0	19	280	16	
	07-Sep-05	13,000	< 1.0	17	230	14	duplicate sample
	24-Mar-06	1,900	< 1.0	8.7	41	3.7	
	31-Aug-06	19,000	2.1	68	390	30	
MW-8	14-Mar-02	22	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Jul-02	31	< 1.0	< 1.0	< 1.0	< 1.0	
	16-Sep-02	4.8	< 1.0	< 1.0	< 1.0	< 1.0	
	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	21-May-03	1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	24-Mar-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	30-Aug-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	14-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	11-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	07-Sep-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	31-Aug-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

TABLE 4

LABORATORY ANALYTICAL RESULTS FOR CHLORINATED PHENOLS
(CANADIAN PULP METHOD)
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in micrograms per liter (µg/L)

Monitoring Well Number	Date Sampled [1]	Penta-chlorophenol	2,4,6-trichloro-phenol	2,3,5,6-tetrachloro-phenol	2,3,4,6-tetrachloro-phenol	2,3,4,5-tetrachloro-phenol	Comments
MW-9	14-Mar-02	94	3.1	21	130	5.5	
	18-Jul-02	2.1	< 1.0	< 1.0	< 1.0	< 1.0	
	16-Sep-02	3.1	< 1.0	< 1.0	< 1.0	< 1.0	
	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	23-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	04-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	24-Mar-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	30-Aug-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	14-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	11-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	07-Sep-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	31-Aug-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-10	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	23-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	14-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-11	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	21-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	14-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-12	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	21-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	14-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

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TABLE 4

LABORATORY ANALYTICAL RESULTS FOR CHLORINATED PHENOLS
(CANADIAN PULP METHOD)
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in micrograms per liter (µg/L)

Monitoring Well Number	Date Sampled [1]	Penta-chlorophenol	2,4,6-trichloro-phenol	2,3,5,6-tetrachloro-phenol	2,3,4,6-tetrachloro-phenol	2,3,4,5-tetrachloro-phenol	Comments
MW-14	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	09-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	low flow sample
	23-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	low flow sample
MW-17	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	14-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-18	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	23-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	14-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-20	24-Mar-04	35	< 1.0	< 1.0	5.1	3.8	
	18-May-04	3.6	< 1.0	< 1.0	1.1	< 1.0	
	30-Aug-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	09-Mar-05	71	3.4	27	< 1.0	4.6	low flow sample
	07-Sep-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	low flow sample
	31-Aug-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

TABLE 4

LABORATORY ANALYTICAL RESULTS FOR CHLORINATED PHENOLS
(CANADIAN PULP METHOD)
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in micrograms per liter (µg/L)

Monitoring Well Number	Date Sampled [1]	Penta-chlorophenol	2,4,6-trichloro-phenol	2,3,5,6-tetrachloro-phenol	2,3,4,6-tetrachloro-phenol	2,3,4,5-tetrachloro-phenol	Comments
MW-21	24-Mar-04	800	< 1.0	6.3	17	12	
	18-May-04	1,900	< 1.0	11	36	11	
	18-May-04	670	< 1.0	3.5	16	4.4	duplicate sample
	30-Aug-04	2,700	< 1.0	6.4	66	5.4	
	30-Aug-04	2,800	< 1.0	6.9	68	5.5	duplicate sample
	15-Dec-04	3,200	< 1.0	34	50	5.5	
	15-Dec-04	8,100	2.1	64	120	8.3	duplicate sample
	10-Mar-05	4,700	< 1.0	8.1	31	< 1.5	low flow sample
	10-Mar-05	4,600	2.7	26	86	6.5	low flow sample / duplicate
	07-Sep-05	4,900	< 1.0	11	170	4.8	
	24-Mar-06	13,000	1.5	41	180	8.9	low flow sample
	24-Mar-06	14,000	1.4	41	190	8.8	low flow sample / duplicate
	31-Aug-06	6,000	1.7	31	140	14	
	31-Aug-06	2,500	<1.0	23	86	11	duplicate sample
Deep Wells							
MW-13D	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	11-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-15D	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	11-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MW-16D	03-Dec-02	1.3	< 1.0	< 1.0	< 1.0	< 1.0	
	18-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	23-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	14-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	11-Mar-05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-Mar-06	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

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TABLE 4

LABORATORY ANALYTICAL RESULTS FOR CHLORINATED PHENOLS
(CANADIAN PULP METHOD)
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in micrograms per liter (µg/L)

Monitoring Well Number	Date Sampled [1]	Penta-chlorophenol	2,4,6-trichloro-phenol	2,3,5,6-tetrachloro-phenol	2,3,4,6-tetrachloro-phenol	2,3,4,5-tetrachloro-phenol	Comments
MW-19D	03-Dec-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	20-Mar-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	22-May-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	27-Aug-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	4-Nov-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	17-May-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	15-Dec-04	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

Notes:

1. Data prior to March 18, 2003 were obtained from Results of the Remedial Investigation for Sierra Pacific Industries, Arcata Division Sawmill, Arcata, California, dated January 30, 2003, prepared by EnviroNet Consulting.
2. Confirmation sample collected due to detection of pentachlorophenol on September 16, 2002.
3. Sample also contained 280 mg/L of 2,3,4-trichlorophenol and 190 mg/L of 2,4,5-trichlorophenol.

Abbreviation:
< = target analyte was not detected at or above the laboratory reporting limit shown.
-- = not measured or sample not collected for analysis.

TABLE 5

FIELD MEASUREMENTS AND LABORATORY ANALYTICAL RESULTS FOR NATURAL ATTENUATION PARAMETERS

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Sample Location	Sample Date	Field Measurements[1]					Laboratory Analysis[2]										
		Eh[3]	DO	Specific Conductance	Temperature	pH	Nitrate (N)	Manganese	Iron	Sulfate (SO_4)	Carbon Dioxide	Methane	TOC	Chloride	Total Alkalinity as $CaCO_3$	Calcium	Magnesium
		(mV)	(mg/L)	(µS/cm)	(°C)	(pH Units)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Shallow Monitoring Wells																	
MW-1	11/04/03	222	0.2	2,400	17	6.4	--	--	--	--	--	--	--	--	--	--	--
	03/24/04	173	0.1	2,400	15	6.5	0.42	1.8	42	0.71	255	6.9	36.6	320	830	41	63
	03/11/05	138	0.1	2,100	14	6.5	<0.20	1.6	50	<0.50	258	8.0	14.1	260	860	36	57
	03/23/06	94	1.2	2,700	13	6.5	<0.20	4.3	61	0.99	260	2.4	38.0	330	830	40	64
MW-2	11/03/03	226	0.4	1,600	16	6.2	2.8	6	30	<0.50	314	3.8	33.9	240	520	66	40
	03/24/04	219	0.2	1,400	13	6.2	<0.20	4	61	<0.50	232	4.5	35.7	160	550	65	39
	03/11/05	182	0.1	1,200	13	6.2	<0.20	4.6	53	<0.50	289	5.3	15.8	100	520	62	37
	03/23/06	132	0.5	1,300	13	6.4	<0.20	5.2	58	<0.50	272	2.0	31.7	100	480	77	39
MW-3	11/03/03	201	0.3	920	17	6.3	4.6	3.9	9.1	<0.50	174	5.4	18	37	460	55	36
	03/24/04	183	0.1	1,000	13	6.4	<0.20	5.3	66	<0.50	179	9.1	36.3	35	450	62	46
	03/10/05	169	0.1	600	13	6.4	<0.20	2.5	33	<0.50	116	5.7	16.5	33	280	31	28
	03/23/06	103	0.4	540	12	6.7	<0.20	1.9	25	2.2	84.5	2.8	12.3	25	210	24	18
MW-4	11/03/03	207	0.1	670	18	6.3	--	--	--	--	--	--	--	--	--	--	--
MW-5	11/03/03	255	0.3	660	17	6.3	<1.0	0.42	0.97	<0.50	125	9.2	9.36	25	350	28	45
	03/24/04	293	0.2	650	14	6.3	<0.20	0.48	4	<0.50	122	6.3	11.4	21	310	29	50
	03/10/05	232	0.1	570	14	6.3	<0.20	0.67	4.7	<0.50	136	6.4	7.34	18	320	29	48
	03/24/06	136	1.1	190	11	6.6	<0.20	0.29	2.2	<0.50	24.9	0.93	5.54	8.6	71	9.3	14
MW-6	11/04/03	236	0.2	890	13	6.3	--	--	--	--	--	--	--	--	--	--	--
MW-7	11/03/03	197	0.1	860	13	6.4	<1.0	13	2.3	<0.50	152	8.8	28.1	45	420	26	42
	03/24/04	189	0.2	880	11	6.4	<0.20	3	55	<0.50	147	10.6	20.8	46	410	31	47
	03/09/05	130	0.1	850	11	6.3	<0.20	3.5	56	<0.50	157	10.5	18.2	60	400	35	52
	03/24/06	197	3.4	120	10	6.7	<0.20	0.23	0.91	4.0	15	1.4	43.7	21	15	4.3	2.2
MW-8	11/04/03	237	0.3	740	17	6.2	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/04/03	211	0.2	810	17	6.4	--	--	--	--	--	--	--	--	--	--	--
MW-10	11/04/03	215	0.1	880	18	6.4	--	--	--	--	--	--	--	--	--	--	--
MW-11	11/04/03	196	0.2	870	19	6.4	--	--	--	--	--	--	--	--	--	--	--
MW-12	11/04/03	251	0.4	810	18	6.2	--	--	--	--	--	--	--	--	--	--	--
MW-14	11/04/03	234	0.2	2,700	16	6.3	--	--	--	--	--	--	--	--	--	--	--
	03/24/04	212	0.1	2,400	14	6.4	<0.20	1.5	41	<0.50	290	5.2	106	460	1,100	23	50
	03/09/05	109	0.1	2,400	13	6.6	<0.20	0.73	18	<0.50	270	0.16	60.9	390	1,100	25	55
	03/23/06	98	0.4	2,900	13	6.7	<0.20	0.98	38	<0.50	310	2.6	71.3	410	1,000	29	56
MW-17	11/04/03	240	0.2	970	15	6.4	--	--	--	--	--	--	--	--	--	--	--
MW-18	11/04/03	198	0.2	950	17	6.4	--	--	--	--	--	--	--	--	--	--	--
MW-20	03/24/04	252	0.1	440	13	6.8	<0.20	1	0.2	1.6	30.5	<0.00158	9.48	21	210	32	32
	03/09/05	182	0.2	320	13	6.6	<0.20	1.5	2.2	1.2	41.4	0.015	7.25	17	180	23	23
	03/24/06	164	0.6	310	11	6.8	<0.20	0.92	0.62	2.6	25.1	<0.00158	5.11	8.6	140	27	15
MW-21	03/24/04	162	0.3	990	11	6.4	<0.20	2.7	67	<0.50	135	0.0043	21.4	54	380	30	50
	03/10/05	146	0.1	930	11	6.3	<0.20	2.7	69	<0.50	179	7.4	18.6	62	430	29	50
	03/10/05[4]						<0.20	2.7	69	<0.50	165	7.8	16.4	62	420	29	49
	03/24/06	95	0.5	1,000	10	6.6	<0.20	2.7	70	<0.50	156	5.1	17.7	84	360	28	47
	03/24/06[4]						<0.20	2.7	70	<0.50	150	5.8	18.1	84	360	27	47
Deep Monitoring Wells																	
MW-13D	11/04/03	253	0.1	670	16	5.9	--	--	--	--	--	--	--	--	--	--	--
MW-15D	11/04/03	255	0.3	1,200	14	6.5	--	--	--	--	--	--	--	--	--	--	--
MW-16D	11/04/03	246	0.1	4,600	16	7.5	--	--	--	--	--	--	--	--	--	--	--
MW-19D	11/03/03	197	0.3	730	18	6.5	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. Water quality parameters measured in the field with a YSI model 556 in a flow-through cell.
2. Samples collected by Geomatrix and analyzed by EPA Method 415.1 (total organic carbon), EPA Method 200.7 (calcium and magnesium), EPA Method 300 (chloride, nitrate and sulfate), EPA Method 6010B (Iron (II) and Manganese (II)), Standard Methods 2320B (total alkalinity), RSK 175 (carbon dioxide and methane).
3. Reduction-oxidation potential standardized to hydrogen electrode for silver/silver-chloride electrode (199 millivolts was added to the field measurement).
4. Duplicate sample.

Abbreviations:

Eh = reduction-oxidation potential
DO = dissolved oxygen
TOC = total organic carbon
$CaCO_3$ = calcium carbonate
mV = millivolts
mg/L = milligrams per liter
µS/cm = microSiemens per centimeter
ºC = degrees Celsius
< = target analyte was not detected at or above the laboratory reporting limit shown.
-- = not measured or sample not collected for analysis.

TABLE 6

LABORATORY ANALYTICAL RESULTS FOR CHLORINATED PHENOLS AND PHENOL (8270 SIM METHOD)[1]

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in micrograms per liter (µg/L)

Monitoring Wells	Date Sampled	PCP	3,4,5-TCP	2,3,5,6-TeCP	2,3,4,5-TeCP	2,3,4,6-TeCP	3,4-DCP	2,3,6-TCP	3,5-DCP	2,3,4-TCP	2,4,5-TCP	2,4,6-TCP	2,3,5-TCP	2,5-DCP	3-CP + 4-CP[2]	2,6-DCP	2,3-DCP	2,4-DCP	2-CP	Phenol
MW-1	24-Mar-04	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1
	11-Mar-05	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	07-Sep-05 [3]	<1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	07-Sep-05 [3,4]	<1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	23-Mar-06	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<2	<1
MW-2	24-Mar-04	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	11-Mar-05	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	07-Sep-05 [3]	<1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	23-Mar-06	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<2	<1
MW-3	24-Mar-04	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	10-Mar-05	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	07-Sep-05 [3]	<1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	23-Mar-06	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<2	<1
MW-5	24-Mar-04	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	10-Mar-05	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	07-Sep-05 [3]	<1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	24-Mar-06	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<2	<1
MW-7	24-Mar-04	15,000	92	320	17	23	390	<1	18	1	56	<1	2	<1	460	<1	<1	4	<1	2
	09-Mar-05	12,000	290	490	37	17	610	1	28	2	75	1	2	<1	890	<1	1	5	<1	3
	24-Mar-06	1,200	15	24	4 J	8.9	41	<1	1.2	<1	4.5	<1	<1	<1	37	<1	<1	<1	<2	<1
MW-14	24-Mar-04	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	09-Mar-05	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<1
	07-Sep-05 [3]	<1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	23-Mar-06	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<2	<1
MW-20	24-Mar-04	9	2	2	2	<1	8	<1	<1	<1	1	<1	<1	<1	2	<1	<1	<1	<1	<1
	09-Mar-05	100	4	2	4	12	15	<1	9	<1	<1	4	5	<1	9	<1	<1	1	<1	<1
	23-Mar-06	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<2	<1
MW-21	24-Mar-04	520	52 ve	16	16	7	130	<1	9	<1	3	<1	<1	<1	200	<1	<1	<1	<1	<1
	24-Mar-04 [4]	570	50 ve	17	14	6	120	<1	9	<1	3	<1	<1	<1	200	<1	<1	<1	<1	<1
	10-Mar-05	5,500	250	109	4	27	310	<1	19	<1	5	<1	<1	<1	270	<1	<1	2	<1	<1
	10-Mar-05 [4]	5,500	250	110	4	27	310	<1	20	<1	5	<1	<1	<1	270	<1	<1	2	<1	<1
	24-Mar-06	7,700	260	170	17	39	420	<1	17	<1	9.3 ve	1.1	<1	<1	650	<1	2.1	<1	<2	1.8
	24-Mar-06 [4]	8,000	270	180	20	44	450	<1	19	<1	9.0 ve	1.2	<1	<1	700	<1	2.2	<1	<2	1.9

Notes:

1. Groundwater samples analyzed by EPA Method 8270 SIM.
2. Results shown are for both 3-CP and 4-CP (the sum of) since these compounds could not be separated for individual analysis in the laboratory.
3. Confirmation sample collected due to detection of pentachlorophenol on March 10 or 11, 2005.
4. Duplicate sample.

Abbreviations:

PCP = pentachlorophenol
TeCP = tetrachlorophenol
TCP = trichlorophenol
DCP = dichlorophenol
CP = chlorophenol
EPA = U.S. Environmental Protection Agency
SIM = select ion monitoring
-- = not measured or sample not collected for analysis.
< = target analyte was not detected at or above the laboratory reporting limit shown.
J = the result is below the reporting limit and represents an estimated value.
ve = value exceeded the calibration range established for the instrument and is therefore considered an estimate; result upon dilution and re-analysis was not detected at or above the laboratory reporting limit.

TABLE 7

LABORATORY ANALYTICAL RESULTS FOR DIOXINS AND FURANS[1]
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Concentrations in picograms per liter (pg/L)

Monitoring Well Number	Date Sampled	2, 3, 7, 8-TCDD	1, 2, 3, 7, 8-PeCDD	1, 2, 3, 4, 7, 8-HxCDD	1, 2, 3, 6, 7, 8-HxCDD	1, 2, 3, 7, 8, 9-HxCDD	1, 2, 3, 4, 6, 7, 8-HpCDD	OCDD	Total Dioxins	2, 3, 7, 8-TCDF	1, 2, 3, 7, 8-PeCDF	2, 3, 4, 7, 8-PeCDF	1, 2, 3, 4, 7, 8-HxCDF	1, 2, 3, 6, 7, 8-HxCDF	2, 3, 4, 6, 7, 8-HxCDF	1, 2, 3, 7, 8, 9-HxCDF	1, 2, 3, 4, 6, 7, 8-HpCDF	1, 2, 3, 4, 7, 8, 9-HpCDF	OCDF	Total Furans	Total Dioxins & Furans	TOTAL TEQ [2, 3]	Comments
Shallow Wells																							
MW-1	24-Mar-04	<1.69	<2.85	<5.19	<6.00	<5.29	<4.87	87.0	100.5	<1.10	<3.21	<2.84	<1.20	<1.61	<1.47	<1.91	<2.21	<2.57	<7.41	<16.20	100.5	0.00870	
	11-Mar-05	<1.77	<2.88	<3.27	<4.25	<3.70	6.39 J	136	157.3	<1.33	<3.57	<3.70	<1.42	<1.26	<1.13	<1.73	<1.74	<2.36	<4.44	<13.62	157.3	0.0775	
	23-Mar-06	<1.75	<1.66	<3.92	<4.06	<5.06	<3.64	11.7 J	11.7 J	<1.48	<2.48	<2.48	<1.15	<1.29	<1.35	<1.50	<1.28	<2.20	<5.58	<13.26	11.7 J	0.00117	
MW-2	24-Mar-04	<1.63	<2.60	<4.86	<5.67	<4.89	<7.48	61.1	61.1	<1.37	<3.65	<3.00	<1.30	<1.79	<1.73	<2.42	<3.01	<3.67	<7.05	9.62	70.72	0.00611	
	11-Mar-05	<1.61	<2.85	<2.75	<3.59	<3.03	<4.61	18.8 J	18.8 J	<1.39	<3.37	<3.02	<1.46	<1.30	<1.29	<1.88	<1.71	<2.32	<3.16	<12.12	18.8 J	0.00188	
	23-Mar-06	<0.891	<1.80	<3.57	<3.69	<4.70	<4.99	<7.44	<19.821	<1.52	<2.05	<2.05	<1.10	<1.17	<1.30	<1.38	<0.729	<1.21	<4.62	<10.80	<30.621	0	
MW-3	24-Mar-04	<1.90	<2.46	<4.74	<6.23	<4.81	74.6	976	1,195.14 J	<1.46	<3.76	<2.88	<1.15	<1.53	<1.44	<1.99	21.6 J	<2.22	33.9 J	142.93 J	1,338.07 J	1.06	
	10-Mar-05	<1.85	<4.50	<4.51	<5.56	<4.59	<5.31	31.6 J	31.6 J	<1.72	<2.91	<2.77	<1.65	<1.51	<1.52	<1.92	<1.88	<2.40	<6.19	<15.14	31.6 J	0.00316	
	23-Mar-06	<1.56	<2.23	<4.45	<4.39	<5.37	<3.77	23.5 J	23.5 J	<1.41	<1.99	<1.95	<1.08	<1.18	<1.28	<1.51	<2.14	<4.14	<8.13	<17.18	23.5 J	0.00235	
MW-5	24-Mar-04	<1.45	<2.24	<3.67	<4.31	<3.72	19.5 J	121	157.9	<1.29	<3.17	<2.80	<0.747	<1.02	<1.05	<1.38	7.60 J	<2.45	20.2 J	48.96 J	206.86 J	0.286	
	10-Mar-05	<1.65	<4.20	<3.50	<4.31	<3.47	<6.54	59.7	59.7	<1.48	<3.04	<3.01	<1.92	<1.80	<1.74	<2.36	<2.26	<2.60	<6.19	8.02 J	67.72 J	0.00597	
	24-Mar-06	<1.33	<2.64	<4.30	<4.52	<5.65	51.9	553	685.7 J	<1.69	<4.19	<4.01	<2.05	<2.19	<2.47	<3.01	36.3	<3.89	124	298.5	984.2 J	0.950	
MW-7	16-Sep-02	<3.12	<3.45	<5.82	<6.31	<5.32	32.4	144	194.0	<3.36	<4.21	<4.59	<2.38	<2.81	<2.86	<2.99	6.59	<6.67	22.2	103.63 J	297.63 J	0.407	
	22-May-03	<1.62	<4.05	22.6 J	<3.83	<3.10	30.2	449	550.5	<1.26	<2.04	<2.02	<1.02	<1.17	<1.19	<1.15	4.97 J	<0.807	20.7 J	69.14 J	619.64 J	2.66	
	22-May-03	<1.27	<2.00	7.89 J	<2.47	<1.97	16.3	231	281.0	<1.01	<1.66	<1.64	<1.09	<1.28	<1.4	<1.67	2.09 J	<1.19	7.05 J	39.68 J	320.68 J	0.997	filtered
	03-Nov-03	<2.22	<4.82	<9.48	<10.4	<9.25	<9.54	41.1 J	41.1 J	<2.29	<7.96	<5.93	<2.11	<2.51	<2.63	<3.12	<3.03	<4.42	<10.6	<33.64	41.1 J	0.00411	filtered
	24-Mar-04	<1.76	46.5	56.4	<5.29	<4.61	71.4	1,370	1,659.3 M	<1.41	<3.57	<2.67	<1.13	<1.57	<1.28	<1.95	8.00 J	<3.17	31.3 J	188.6 J	1,847.9 J,M	53.0	
	09-Mar-05	<3.21	<4.66	<11.7	<9.57	<7.78	42.4	1,600	1,688.6	<4.83	<4.92	<4.87	<5.41	<4.70	<5.00	<4.88	<5.91	<6.93	32.1 J	113.6 J	1,802.2 J	0.587	
	24-Mar-06	<1.32	<2.23	<3.69	<3.84	<4.70	35.9	347	447.2 J	<1.00	<1.87	<1.79	<1.57	<1.79	<1.94	<2.20	15.0 J	<2.41	47.3 J	142.96 J	590.16 J	0.548	
MW-14	24-Mar-04	<1.74	<3.36	<5.32	<5.84	<5.15	10.2 J	70.4	90.3 J	<1.31	<3.96	<3.01	<1.13	<1.64	<1.33	<1.97	<2.42	<2.97	<8.53	<18.74	90.3 J	0.109	
	09-Mar-05	<2.18	<4.31	<4.54	<5.51	<4.31	<7.26	46.2 J	46.2 J	<2.05	<2.89	<2.59	<2.29	<2.12	<2.09	<2.78	<2.57	<3.13	<8.18	<19.03	46.2 J	0.00462	
	23-Mar-06	<1.56	<2.04	<3.38	<3.43	<4.30	<2.98	<9.73	<20.61	<1.06	<1.72	<1.80	<0.841	<0.942	<1.00	<1.07	<1.38	<2.30	<5.03	<11.26	<31.87	0	
MW-20	24-Mar-04	4.05 J	22.7 J	60.2	2,060	466	93,600	1,240,000	1,450,367.2	6.50 F	19.5 J	15.3 J	52.6	226 D,M	57.6	11.4 J	3,220 D,M	251	13,600	39,840 D,M	1,490,207.2 D,M	1430	
	09-Mar-05	<2.05	<4.69	<8.75	111	17.8 J	3,850	50,500	59,727	<4.81	<7.00	<6.29	14.8 J	22.2 J	16.5 J	4.42	832	57.9	3,000	9,192 D,M	68,919 D,M	71.0	
	24-Mar-06	<1.47	4.83 J	<9.85	138	20.1 J	3,770	45,300	53,652.1	<1.33	<4.70	<4.57	20.4 J	<3.93	16.9 J	<4.95	1,090	105	4,910	11,782.5	65,434.6	79.0	
MW-21	24-Mar-04	<1.82	<2.92	8.76 J	56.1	9.46 J	1,050	12,800	15,342.8	<1.39	<7.15	<3.28	6.89 J	20.9 J	10.3 J	<2.55	605	32.6	1,960	5,407.1 D,M	20,749.9 D,M	29.6	
	10-Mar-05	<3.78	<14.7	64.6	<9.98	<9.90	79.4	223	497.5 M	<6.15 F	<6.27	<7.06	1,640	<9.63	<8.08	26.0 J	<8.57	177	<24.7	2,687.4	3,184.9 M	176	
	10-Mar-05	<1.19	<4.39	<4.13	<5.51	<4.29	20.4 J	522	560.0	<1.15	<2.10	<2.20	<1.40	<1.27	<1.25	<1.58	9.20 J	<1.72	23.4 J	58.41 J	618.41 J	0.351	duplicate
	24-Mar-06	<1.45	<3.70	<5.73	<5.40	<6.54	24.1 J	314	359.2	<1.35	<1.97	<2.05	<1.09	<1.11	<1.16	<1.27	7.84 J	<1.94	23.0 J	60.96 J	420.16 J	0.353	
	24-Mar-06	<1.68	<3.45	<6.38	<6.11	<7.43	16.8 J	326	353.9	<1.14	<4.02	<4.17	<1.57	<1.77	<1.87	<1.98	3.24 J	<2.27	15.7 J	42.9 J	396.8 J	0.235	duplicate
	TEF [4]:	1	1	0.1	0.1	0.1	0.01	0.0001	--	0.1	0.05	0.5	0.1	0.1	0.1	0.1	0.01	0.01	0.0001	--		--	

Notes:
1. Groundwater samples analyzed by EPA Method 1613.
2. Calculated as the sum of congener concentrations after each has been multiplied by its TEF.
3. Concentrations not detected above the laboratory reporting limit were assigned a concentration of 0 pg/g to calculate TEQ.
4. Toxicity equivalency factor (unitless) from the World Health Organization, 1997 (WHO-97), adopted from F.X.R. van Leeuwen, 1997.

Abbreviations:
TCDD = tetrachlorodibenzo-p-dioxin
PeCDD = pentachlorodibenzo-p-dioxin
HxCDD = hexachlorodibenzo-p-dioxin
HpCDD = heptachlorodibenzo-p-dioxin
OCDD = octachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
PeCDF = pentachlorodibenzofuran
HxCDF = hexachlorodibenzofuran
HpCDF = heptachlorodibenzofuran
TEQ = toxicity equivalence
TEF = toxicity equivalency factor (unitless)
EPA = U.S. Environmental Protection Agency
-- = not measured or sample not collected for analysis.
< = target analyte was not detected at or above the laboratory reporting limit shown.
J = concentration detected was below the calibration range, as flagged by the laboratory.
M = maximum possible concentration, as flagged by the laboratory.
F = analyte confirmation on secondary column, as flagged by laboratory.
D = presence of diphenyl ethers detected, as flagged by laboratory.

Geomatrix

TABLE 8

LABORATORY ANALYTICAL RESULTS FOR TRUCK SHOP MONITORING WELLS [1]

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

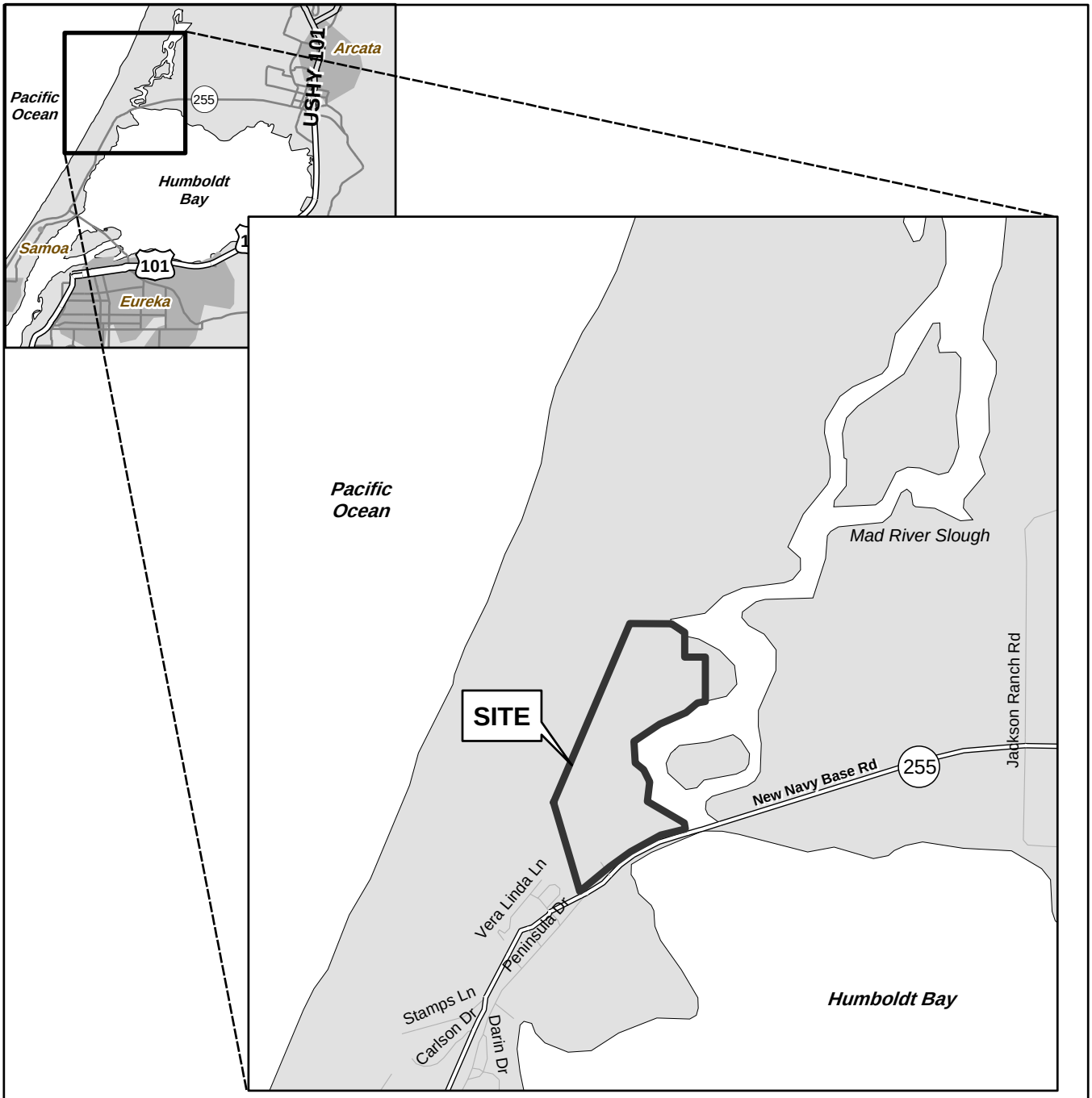
Monitoring Well Number	Date Sampled	TPH as Gasoline (µg/L)	TPH as Diesel[2] (µg/L)	TPH as Motor Oil[2] (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	VOCs[3] (µg/L)	Phenol (µg/L)	PAHs (µg/L)
MW-22	9/8/2005	<100	<50	<250	--	--	--	--	acetone 28 toluene 23	<10	ND[4]
	9/8/2005[5]	<100	<50	<250	--	--	--	--	acetone 36 toluene 29	<10	ND
	3/23/2006	66	<50	<175	<1	16	<1	<3	--	--	--
	8/30/2006	<50	<25	<125	<1	<1	<1	<3	--	--	--
MW-23	9/8/2005	<100	<50	280	--	--	--	--	ND	<10	ND
	3/23/2006	<50	<50	<175	<1	<1	<1	<3	--	--	--
	8/30/2006	<50	<25	<125	<1	<1	<1	<3	--	--	--
P-24	9/8/2005	<100	76	350	--	--	--	--	ND	<10	ND
P-25	9/8/2005	330	80	750	--	--	--	--	toluene 130	<10	ND

Notes:

1. Samples analyzed by Friedman & Bruya, Inc., in Seattle, Washington, for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, and TPH as motor oil by EPA Method 8015 Modified; for benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B; for volatile organic compounds (VOCs) by EPA Method 8260B; for phenol by EPA Method 8270C; and for polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270C SIM.
2. Sample extracts passed through a silica gel column prior to analysis.
3. Only detected compounds are presented.
4. ND = not detected at or above the analytical laboratory reporting limit. Reporting limits vary for each compound; see the analytical laboratory reports (Appendix F) for compound-specific reporting limits.
5. Duplicate sample.

Abbreviations:
µg/L = micrograms per liter; parts per billion
< = target analyte was not detected at or above the laboratory reporting limit shown
EPA = U.S. Environmental Protection Agency
-- = sample not collected for analysis

FIGURES



N

0 1,200 2,400 Feet

SITE LOCATION MAP
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

By: MAH	Date: 10/10/2006	Project No. 9329.000
Geomatrix		Figure 1

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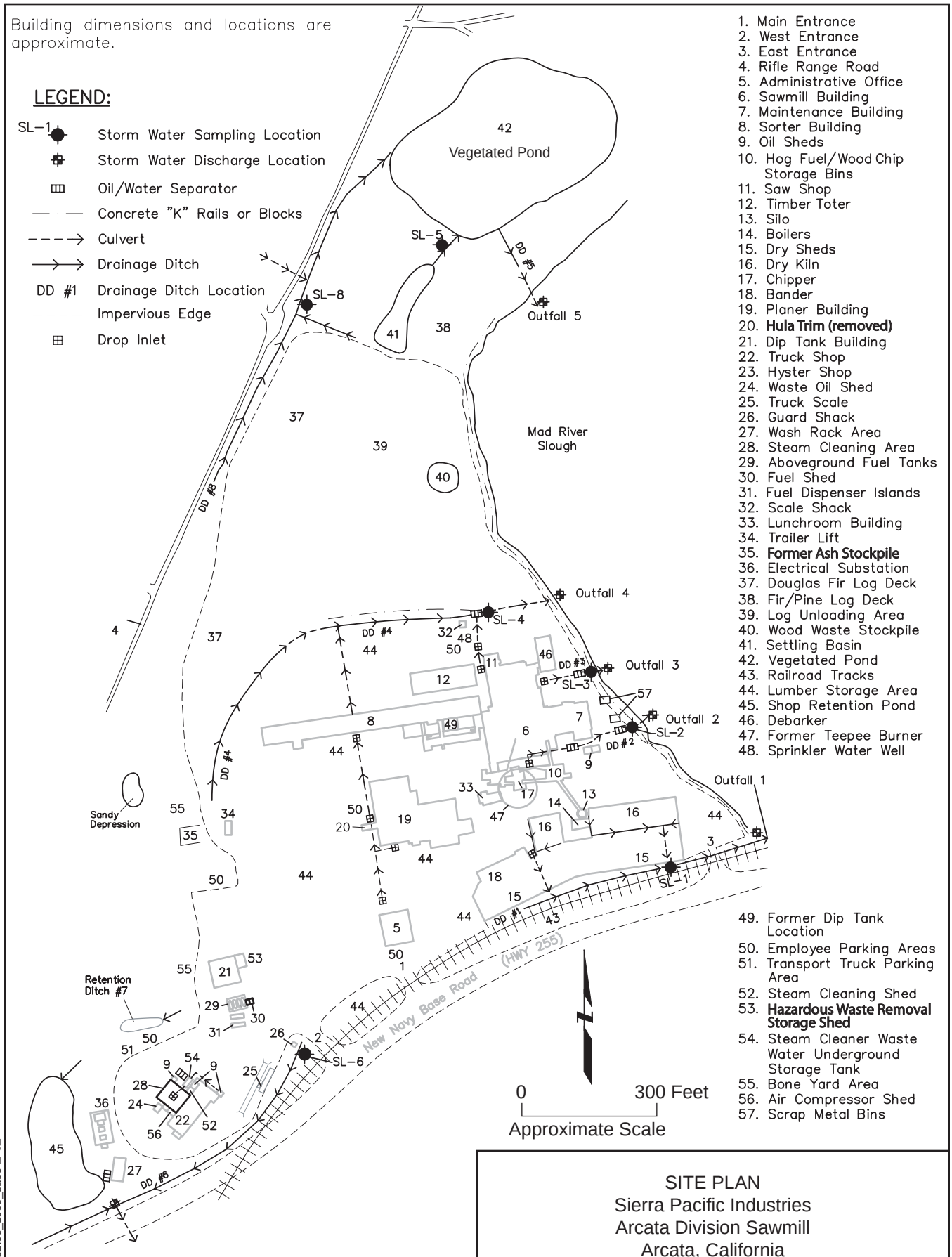

Site plan modified from Plate 2B in ***Results of the Remedial Investigation for Sierra Pacific Industries - Arcata Division Sawmills, Arcata, California,*** dated January 30, 2003, prepaerd by EnviroNet.

SITE PLAN
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

By: MAH	Date: 10-Oct-2006	Project No. 9329.000
Geomatrix		Figure 2

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SETTLING BASIN

STORMWATER DISCHARGE - OUTFALL 4

MAD RIVER SLOUGH BOUNDARY

SCALE SHACK

WELL HOUSE

MAD RIVER SLOUGH

MW-3

MW-15D

MW-4

MW-19D

B-65

SETTLING BASIN

STORMWATER DISCHARGE - OUTFALL 3

MW-5

B-66

MW-1

MW-2

MW-13D

MW-6

SAW MILL BUILDING

MW-21

MW-7

B-64

B-67

MAINTENANCE BUILDING

FORMER GREEN CHAIN AREA

SORTER

B-68

MW-20

STORMWATER DISCHARGE - OUTFALL 2

MW-8

MW-9

MW-18

MW-14

SETTLING BASIN

MW-10

MW-12

OIL SHED

MW-17

MW-11

MW-16D

CHIPPER

PLANER BUILDING

EXPLANATION

MW-1 MONITORING WELL (D = DEEP)

SITE BEST MANAGEMENT PRACTICES

APPROXIMATE LIMIT OF INTERIM REMEDIAL MEASURES SOURCE AREA REMOVAL (June - November 2003)

STORM DRAIN

N

0 50

Scale in Feet

BASEMAP SOURCE:
"SITE PLAN, SPI Arcata Mill" Sheet C-3 by Carlton Engineering, dated 5/6/02.

SAMPLE LOCATION DATA SOURCES:
Monitoring wells MW-20 and MW-21 surveyed and monitoring wells MW-1 through MW-19 re-surveyed on February 13, 2004 by Omsberg & Company Surveyors of Eureka, California. Horizontal and vertical control surveyed to North American Datum (NAD) of 1983 and National Geodetic Vertical Datum (NGVD) of 1929, respectively.

FORMER GREEN CHAIN AREA PLAN
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

By: MAH	Date: 27-OCT-2006	Project No. 9329.000
Geomatrix		Figure 3

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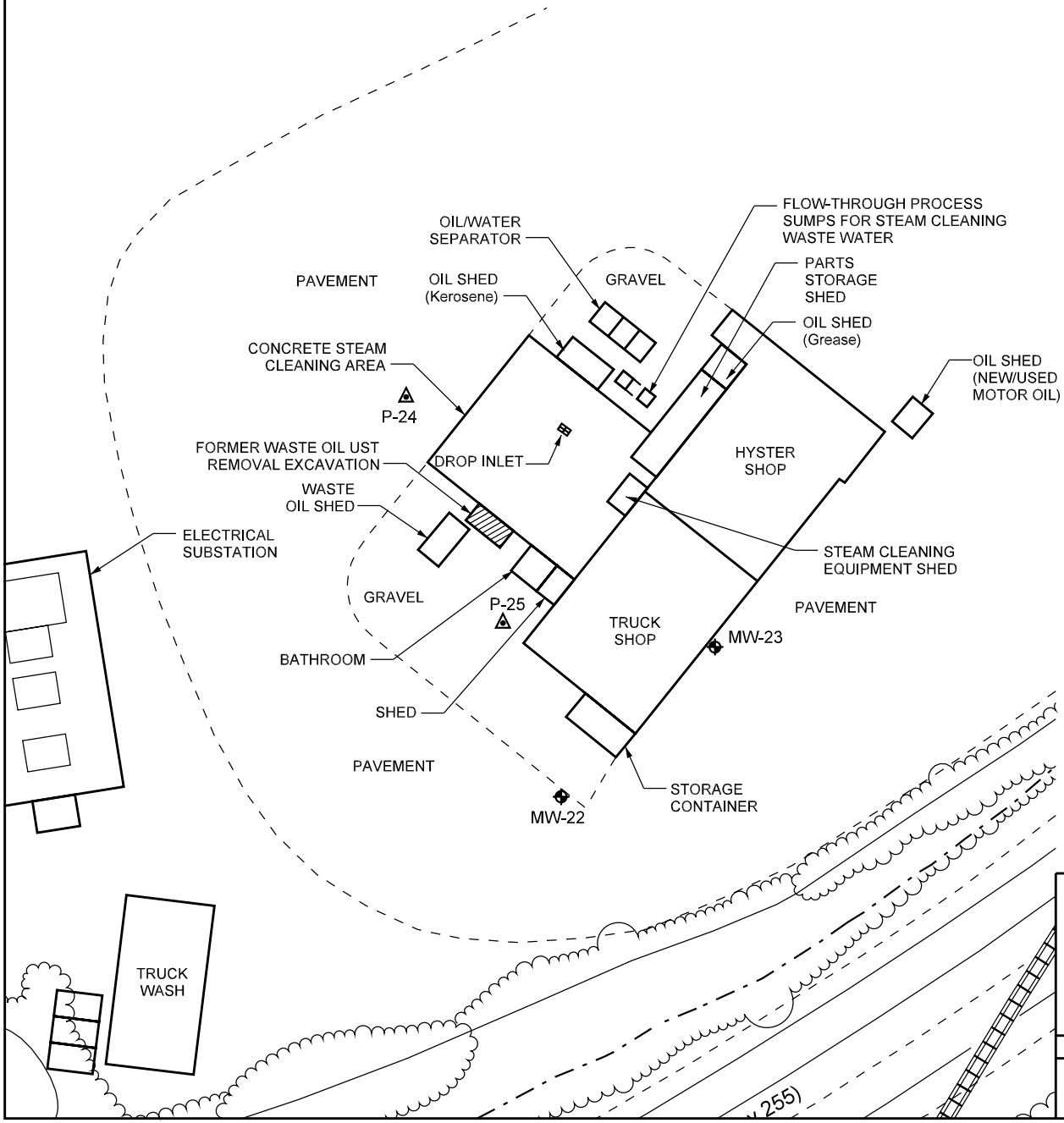

N

0 50

Scale in Feet

EXPLANATION

- P-24 — PIEZOMETER LOCATION
- MW-22 — MONITORING WELL LOCATION
- FORMER WASTE OIL UST EXCAVATION AREA
- VEGETATION
- PAVEMENT BOUNDARY
- DRAINAGE DITCH
- BUILDING OR STRUCTURE

SOURCES
Basemap:
Modified from Sheet C-3 of "Site Plan, SPI Arcata Mill," Carlton Engineers, May 6, 2002.

TRUCK SHOP AREA PLAN
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

By: MAH	Date: 10-OCT-2006	Project No. 9329.000
Geomatrix		Figure 4

N

0 50
Scale in Feet

SETTLING BASIN
STORMWATER DISCHARGE - OUTFALL 4
MAD RIVER SLOUGH BOUNDARY
MAD RIVER SLOUGH
SCALE SHACK
WELL HOUSE
SD
MW-3 8.89
MW-15D
MW-19D
MW-4 8.94
MW-5 9.62
MW-6 8.85
MW-21 8.87
MW-7 8.83
MW-20 8.93
MW-8 9.04
MW-9 8.78
MW-18 8.70
MW-10 8.50
MW-12 9.32
MW-11 8.76
MW-16D
MW-17 7.85
MW-1* 5.34
4.28 MW-2
MW-13D
6.59 MW-14
SETTLING BASIN
STORMWATER DISCHARGE - OUTFALL 3
STORMWATER DISCHARGE - OUTFALL 2
OIL SHED
SAW MILL BUILDING
MAINTENANCE BUILDING
FORMER GREEN CHAIN AREA
SORTER
PLANER BUILDING
CHIPPER
9.0
8.0
7.0
6.0
5.0

EXPLANATION

- MW-1 "SHALLOW" MONITORING WELL
- MW-13D "DEEP" MONITORING WELL
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- SITE BEST MANAGEMENT PRACTICES
- APPROXIMATE LIMIT OF INTERIM REMEDIAL MEASURES SOURCE AREA REMOVAL (June - November 2003)
- STORM DRAIN
- 8.94 GROUNDWATER ELEVATION IN FEET ABOVE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.
- 5.0 GROUNDWATER ELEVATION CONTOUR DRAWN TO APPROXIMATE THE GROUNDWATER POTENTIOMETRIC SURFACE. LINES OF EQUAL ELEVATION ARE SHOWN FOR CLARITY AND NOT MEANT TO IMPLY CERTAINTY; CONTOUR INTERVAL OF 1.0 FEET
- * MW-1 WATER-LEVEL DATA NOT USED FOR CONTOURING BECAUSE IT IS LOCATED WITHIN THE 100-foot TIDAL INFLUENCE ZONE (EnviroNet, 2003)

BASEMAP SOURCE:
"SITE PLAN, SPI Arcata Mill" Sheet C-3 by Carlton Engineering, dated 5/6/02.

SAMPLE LOCATION DATA SOURCES:
Monitoring wells MW-20 and MW-21 surveyed and monitoring wells MW-1 through MW-19 re-surveyed on February 13, 2004 by Omsberg & Company Surveyors of Eureka, California. Horizontal and vertical control surveyed to North American Datum (NAD) of 1983 and National Geodetic Vertical Datum (NGVD) of 1929, respectively. Elevations shown are based on the NAVD of 1988 coordinate system and are 3.35 feet higher than the NGVD of 1929 elevations.

POTENTIOMETRIC SURFACE MAP OF SHALLOW GROUNDWATER - SAWMILL AREA AUGUST 30, 2006

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

By: MAH	Date: 27-OCT-2006	Project No. 9329.000
Geomatrix		Figure 5

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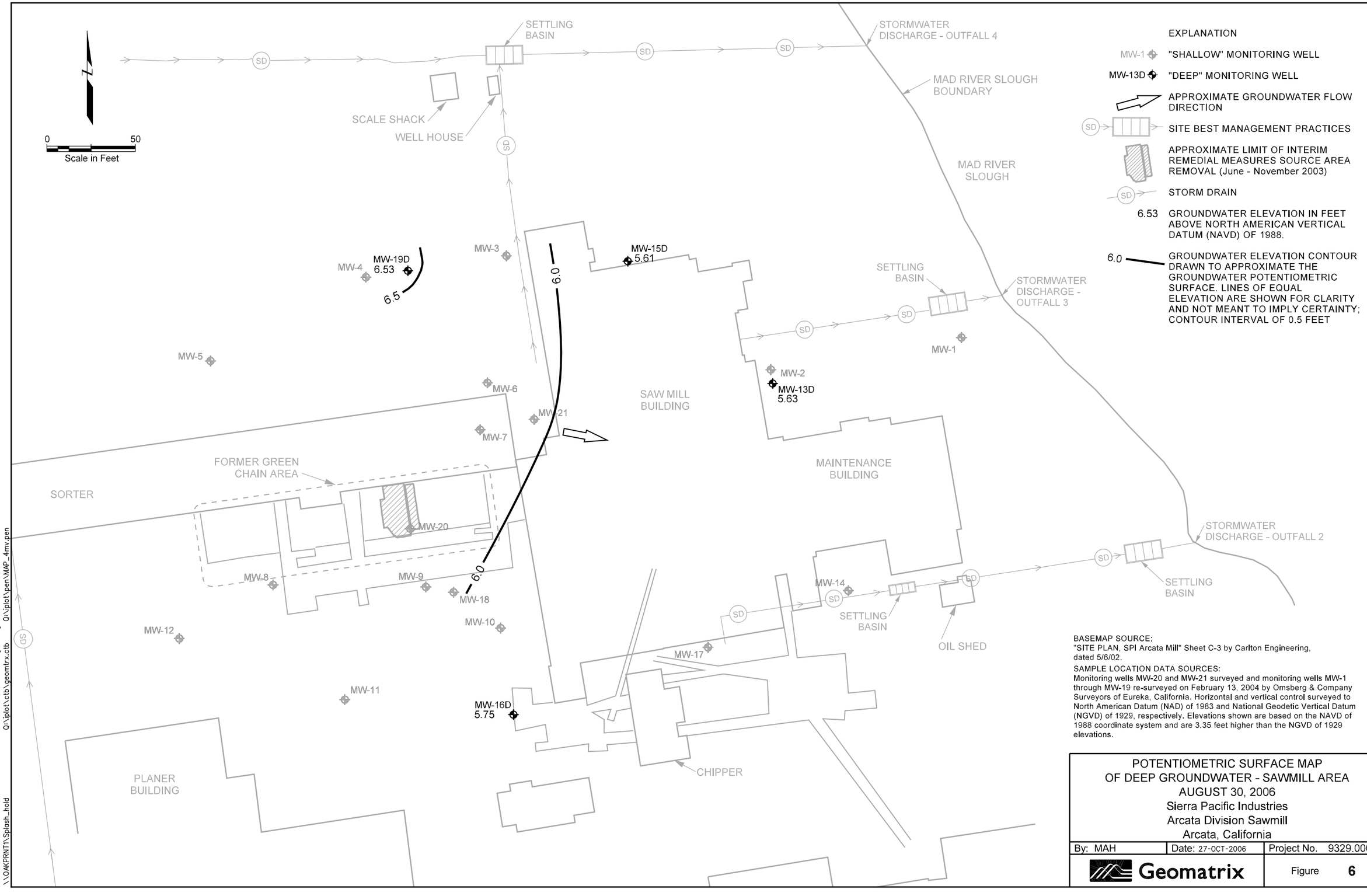

BASEMAP SOURCE:
"SITE PLAN, SPI Arcata Mill" Sheet C-3 by Carlton Engineering, dated 5/6/02.

SAMPLE LOCATION DATA SOURCES:
Monitoring wells MW-20 and MW-21 surveyed and monitoring wells MW-1 through MW-19 re-surveyed on February 13, 2004 by Omsberg & Company Surveyors of Eureka, California. Horizontal and vertical control surveyed to North American Datum (NAD) of 1983 and National Geodetic Vertical Datum (NGVD) of 1929, respectively. Elevations shown are based on the NAVD of 1988 coordinate system and are 3.35 feet higher than the NGVD of 1929 elevations.

POTENTIOMETRIC SURFACE MAP OF DEEP GROUNDWATER - SAWMILL AREA AUGUST 30, 2006

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

By: MAH	Date: 27-OCT-2006	Project No. 9329.000
Geomatrix		Figure 6

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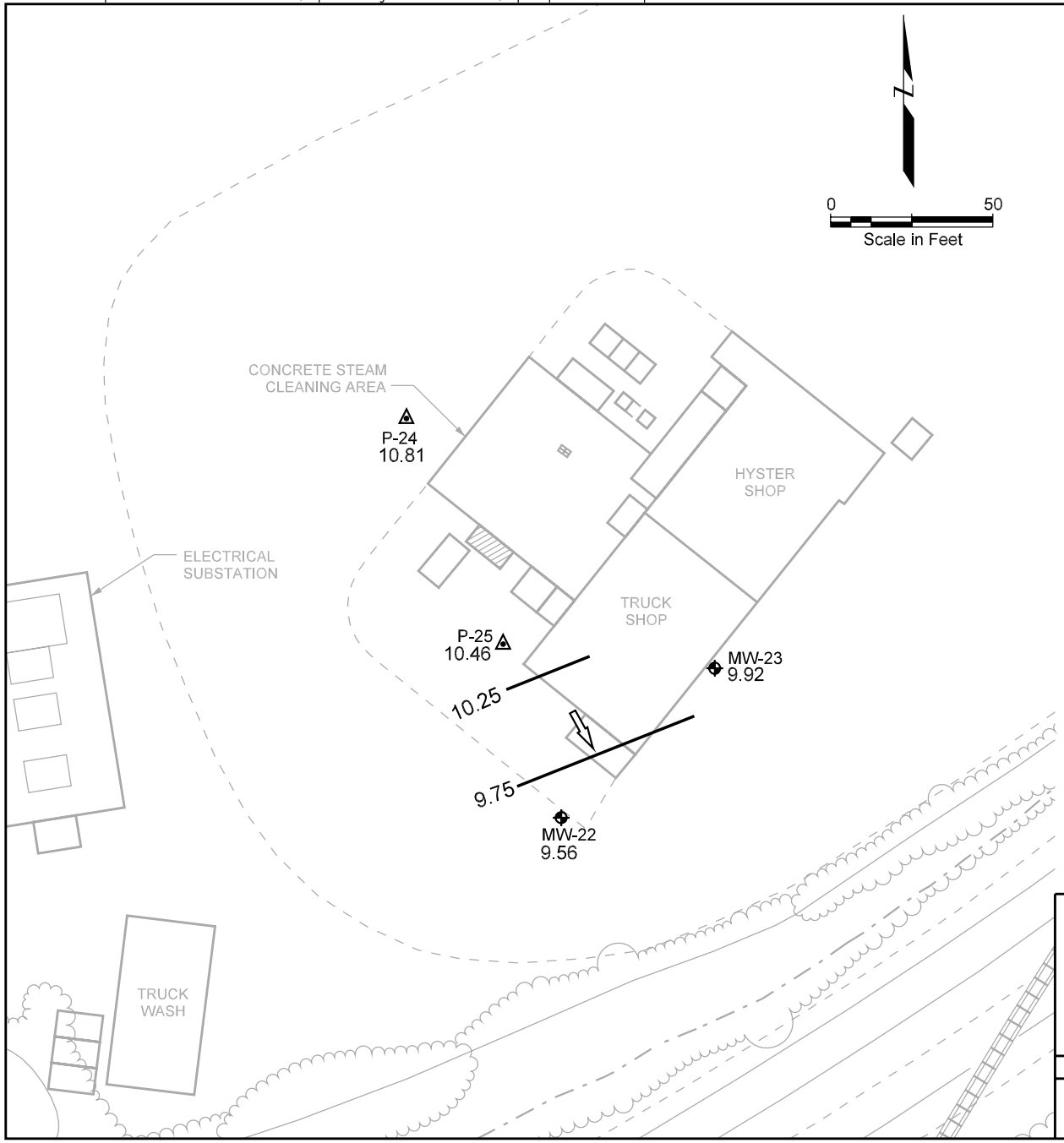

EXPLANATION

- P-24 — PIEZOMETER LOCATION
- MW-22 — MONITORING WELL LOCATION
- FORMER WASTE OIL UST EXCAVATION AREA
- VEGETATION
- PAVEMENT BOUNDARY
- DRAINAGE DITCH
- BUILDING OR STRUCTURE
- 10.81 — GROUNDWATER ELEVATION IN FEET ABOVE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.
- 10.25 — GROUNDWATER ELEVATION CONTOUR DRAWN TO APPROXIMATE THE GROUNDWATER POTENTIOMETRIC SURFACE. LINES OF EQUAL ELEVATION ARE SHOWN FOR CLARITY AND NOT MEANT TO IMPLY CERTAINTY; CONTOUR INTERVAL OF 0.5 FEET
- APPROXIMATE GROUNDWATER FLOW DIRECTION

SOURCES
Basemap:
Modified from Sheet C-3 of "Site Plan, SPI Arcata Mill," Carlton Engineers, May 6, 2002.

POTENTIOMETRIC SURFACE MAP - TRUCK SHOP AREA
AUGUST 30, 2006
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

By: MAH	Date: 10-OCT-2006	Project No. 9329.000
Geomatrix		Figure 7

SETTLING BASIN

STORMWATER DISCHARGE - OUTFALL 4

SCALE SHACK

WELL HOUSE

MAD RIVER SLOUGH BOUNDARY

MAD RIVER SLOUGH

MW-21	
PCP	6,000/2,500

MW-3

MW-15D

MW-4

MW-19D

MW-2	
PCP	<1

MW-6	
PCP	<1

MW-5

MW-1

MW-7	
PCP	19,000

MW-6

MW-2

MW-13D

MW-21

SAW MILL BUILDING

STORMWATER DISCHARGE - OUTFALL 3

SETTLING BASIN

MW-7

FORMER GREEN CHAIN AREA

B-61 B-62 B-63

MAINTENANCE BUILDING

SORTER

MW-20

STORMWATER DISCHARGE - OUTFALL 2

MW-8	
PCP	<1

MW-8

MW-9

MW-18

MW-14

SETTLING BASIN

SETTLING BASIN

MW-10

MW-12

MW-20	
PCP	<1

MW-9	
PCP	<1

MW-17

OIL SHED

MW-11

MW-16D

PLANER BUILDING

CHIPPER

EXPLANATION

MW-1 MONITORING WELL (D = DEEP)

SITE BEST MANAGEMENT PRACTICES

APPROXIMATE LIMIT OF INTERIM REMEDIAL MEASURES SOURCE AREA REMOVAL (June - November 2003)

STORM DRAIN

CONCENTRATIONS IN MICROGRAMS PER LITER (µg/L). "<" SYMBOL INDICATES NO DETECTION AT OR ABOVE THE LABORATORY REPORTING LIMIT SHOWN.

ABBREVIATIONS:
PCP = Pentachlorophenol, analyzed by Canadian Pulp Method.

BASEMAP SOURCE:
"SITE PLAN, SPI Arcata Mill" Sheet C-3 by Carlton Engineering, dated 5/6/02.

SAMPLE LOCATION DATA SOURCES:
Monitoring wells MW-20 and MW-21 surveyed and monitoring wells MW-1 through MW-19 re-surveyed on February 13, 2004 by Omsberg & Company Surveyors of Eureka, California. Horizontal and vertical control surveyed to North American Datum (NAD) of 1983 and National Geodetic Vertical Datum (NGVD) of 1929, respectively.

N

0 50
Scale in Feet

PENTACHLOROPHENOL IN SHALLOW GROUNDWATER AUGUST 2006

Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

By: MAH	Date: 27-OCT-2006	Project No. 9329.000
Geomatrix		Figure 8

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APPENDIX A

Field Documentation

WATER LEVEL MONITORING RECORD

GEOMATRIX

Project Name: SPI Arcata Project and Task Number: 9329.000.0 32

Date: 8/30/06 Measured by: MAH Instrument Used: ES #2

Note: For you convenience, the following abbreviations may be used.

P = Pumping I = Inaccessible D = Dedicated Pump
ST = Steel Tape ES = Electric Sounder MP = Measuring Point WL = Water Level

Well No.	Time	MP Elevation (feet)	Water Level Below MP (feet)	Water Level Elevation (feet)	Previous Water Level Below MP	Remarks
RR	953	15.70	13.51			
MW-12	957	10.76	1.44			
MW-8	959	10.33	1.29			
MW-11	1003	10.28	1.52			
MW-9	1007	9.91	1.13			
MW-18	1009	9.92	1.22			
MW-10	1018	9.85	1.35			
MW-16D	1022	9.83	4.06			
MW-17	1034	9.16	1.31			
MW-14	1037	9.15	2.56			
MW-1	1050	9.69	4.35			
MW-2	1056	9.61	5.33			
MW-13D	1058	9.96	4.33			
MW-15D	1109	11.19	5.58			
MW-3	1124	11.22	2.33			
MW-19D	1130	11.06	4.53			
MW-4	1132	10.74	1.80			
MW-5	1149	10.74	1.12			
MW-6	1155	9.83	0.98			
MW-20	1158	11.87	2.94			
MW-21	1202	12.89	4.02			
MW-7	1200	9.74	0.91			
RR	13.12	15.70	1211			
MW-22	1331		5.56			
MW-23	1333		5.19			
P-24	1335		4.52			
P-25	1337		5.29			

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-2
Sample ID: MW-02-200608 Duplicate ID: _____
Sample Depth: _____
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/31/06
Sampled By: MAH
Method of Purging: Disposable Teflon Bailer
Method of Sampling: Disposable Teflon Bailer

Initial Depth to Water: 5.33
Depth to Water after Sampling: _____
Total Depth to Well: 7.80
Well Diameter: 2"
1 Casing/Borehole Volume: 2.47 x 0.163 gal/ft = .40 (Circle one)
3 Casing/Borehole Volumes: 1.21 (Circle one)
Total Casing/Borehole Volumes Removed: 3.75

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
1013			0	17.8	6.51	1170	clear TDS=813ppm
1014			0.5	17.8	6.44	1180	" 820
1019			1.0	17.8	6.45	1180	" 820
1017			1.5	17.8	6.45	1184	" sample 823

pH CALIBRATION (choose two)				
Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C				
Instrument Reading				

Model or Unit No.: Ultrameter 6P

See MW-8

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION			
KCL Solution (µS/cm=µmhos/cm)			
Temperature C			
Instrument Reading			

Model or Unit No.: Ultrameter 6P

Notes:

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-6
Sample ID: MW-06-200608 Duplicate ID: _____
Sample Depth: _____
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/31/06
Sampled By: MAH
Method of Purging: DISPOSABLE TEFLON BAILER
Method of Sampling: DISPOSABLE TEFLON BAILER

Initial Depth to Water: 0.98
Depth to Water after Sampling: _____
Total Depth to Well: 7.98
Well Diameter: 2"
1 Casing/Borehole Volume: 1.14 (Circle one)
3 Casing/Borehole Volumes: 3.42 (Circle one)
Total Casing/Borehole Volumes Removed: 3.07

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
1052			0	16.0	6.80	956	Clear TDS = 660 ppm
1055			1.0	16.0	6.68	1005	" 695
1057			2.0	16.1	6.66	1015	" 705
1058			3.0	16.1	6.64	1009	" 698
1059			3.5	16.1	6.65	1006	" Sample 697

pH CALIBRATION (choose two)				
Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C				
Instrument Reading				

Model or Unit No.: Ultrameter 6P

See MW-8

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION			
KCL Solution (µS/cm=µmhos/cm)			
Temperature C			
Instrument Reading			

Model or Unit No.: Ultrameter 6P

Notes:

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-7
Sample ID: MW-07-200608 Duplicate ID: _____
Sample Depth: _____
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/31/06
Sampled By: MAH
Method of Purging: DISPOSABLE TEFLON BAILER
Method of Sampling: DISPOSABLE TEFLON BAILER

Initial Depth to Water: 0.91
Depth to Water after Sampling: _____
Total Depth to Well: 7.97
Well Diameter: 2"
1 Casing/Borehole Volume: 1.15
(Circle one)
3 Casing/Borehole Volumes: 3.45
(Circle one)
Total Casing/Borehole Volumes Removed: 3 0 4

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
1236			0	14.7	6.03	943	clear w/ orange particles, TDS: 657 ppm
1238			1	13.6	6.63	975	clear 675
1240			2	13.4	6.62	978	" 680
1241			3	13.3	6.61	971	" 674
1242			3.5	13.2	6.60	967	" Sample 670

pH CALIBRATION (choose two)				
Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C				
Instrument Reading				

Model or Unit No.: Ultrameter 6P

see MW-8

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION			
KCL Solution (µS/cm=µmhos/cm)			
Temperature C			
Instrument Reading			

Model or Unit No.: Ultrameter 6P

Notes:

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-8
Sample ID: MW-08-200608 Duplicate ID: _____
Sample Depth: _____
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/31/06
Sampled By: MAH
Method of Purging: DISPOSABLE TEFLON BAILER
Method of Sampling: DISPOSABLE TEFLON BAILER

Initial Depth to Water: 1.29
Depth to Water after Sampling: _____
Total Depth to Well: 8.15
Well Diameter: 2"
1 Casing/Borehole Volume: 1.12
(Circle one)
3 Casing/Borehole Volumes: 3.35
(Circle one)
Total Casing/Borehole Volumes Removed: 3125

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
908			0	19.7	6.44	840	clear TDS = 574 ppm
911			1	20.1	6.44	620	" 558
913			2	20.4	6.46	818	slightly cloudy 556
914			3	20.4	6.45	818	" " 556
915			3.5	20.3	6.46	817	" " 556
							sample

pH CALIBRATION (choose two)

Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C	11.6	11.5		
Instrument Reading	4.00	7.00	10.00	

Model or Unit No.: Ultrameter 6P

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION

KCL Solution (µS/cm=µmhos/cm)	445	2060	
Temperature C	16.0	12.4	
Instrument Reading	444	2060	

Model or Unit No.: Ultrameter 6P
calibrate 300ppm TDS
1500ppm TDS

Notes:

\\sf3\ppingree$\FORMATS\WELL SAMPLING Record.doc

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-9
Sample ID: MW-09-200608 Duplicate ID: _____
Sample Depth: _____
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/31/06
Sampled By: MAH
Method of Purging: DISPOSABLE TEFLON BAILER
Method of Sampling: DISPOSABLE TEFLON BAILER

Initial Depth to Water: 1.13
Depth to Water after Sampling: _____
Total Depth to Well: 7.97
Well Diameter: 2"
1 Casing/Borehole Volume: 1.11 (Circle one)
3 Casing/Borehole Volumes: 3.34 (Circle one)
Total Casing/Borehole Volumes Removed: 3.15

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
933			0	19.1	6.70	604	Clear w/ orange particles TDS: 605
935			1	19.4	6.62	596	" " " 614
936			2	19.1	6.63	594	" " " 612
938			3	19.0	6.63	595	" " " 613
939			3.5	19.0	6.63	599	slightly cloudy 616 Sample

pH CALIBRATION (choose two)				
Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C				
Instrument Reading				

Model or Unit No.: Ultrameter 6P

see MW-8

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION			
KCL Solution (µS/cm=µmhos/cm)			
Temperature C			
Instrument Reading			

Model or Unit No.: Ultrameter 6P

Notes:

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-20
Sample ID: MW-20-200608 Duplicate ID: _____
Sample Depth: _____
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/31/06
Sampled By: MAH
Method of Purging: DISPOSABLE TEFLON BAILER
Method of Sampling: DISPOSABLE TEFLON BAILER

Initial Depth to Water: 2.94
Depth to Water after Sampling: _____
Total Depth to Well: 6.72
Well Diameter: 4"
1 Casing/Borehole Volume: 3.78 x0.653 gal/ft = 2.47 (Circle one)
3 Casing/Borehole Volumes: 7.41 (Circle one)
Total Casing/Borehole Volumes Removed: 3.24

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
1157			0	19.2	6.93	395	clear TDS=264ppm
1159			2.0	18.6	6.77	420	slightly cloudy 281
1202			3.0	18.5	6.76	419	" " 280
1204			4.0	18.5	6.75	423	" " 284
1209			5.0	18.6	6.79	421	clear 283
1211			6.0	18.5	6.75	423	" 285
1212			7.0	18.5	6.72	426	" 286
1213			8.0	18.5	6.75	421	" Sample 283

pH CALIBRATION (choose two)				
Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C				
Instrument Reading				

Model or Unit No.: Ultrameter 6P

See MW-8

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION			
KCL Solution (µS/cm=µmhos/cm)			
Temperature C			
Instrument Reading			

Model or Unit No.: Ultrameter 6P

Notes: Sample volume doubled for MS/MSD.

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-21
Sample ID: MW-21-200608 Duplicate ID: BD-01-200608
Sample Depth: 10'
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/31/06
Sampled By: MAH
Method of Purging: Peristaltic Pump
Method of Sampling: Peristaltic Pump

Initial Depth to Water: 4.02
Depth to Water after Sampling: _____
Total Depth to Well: 10.97
Well Diameter: 0.75"
1 Casing/Borehole Volume: 6.95 x 0.023 gal/ft = 0.16 (Circle one)
3 Casing/Borehole Volumes: 0.48 (Circle one)
Total Casing/Borehole Volumes Removed: 6.25

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
1302		0.125	0	15.7	6.60	938	clear TDS=648 ppm
1304			.25	15.3	6.56	975	" 675
1306			.5	15.2	6.56	985	" 682
1308			.75	15.2	6.56	993	" 689
1310			1	15.1	6.55	997	" sample 691

pH CALIBRATION (choose two)

Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C				
Instrument Reading				

Model or Unit No.: Ultrameter 6P

see MW-8

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION

KCL Solution (µS/cm=µmhos/cm)			
Temperature C			
Instrument Reading			

Model or Unit No.: Ultrameter 6P

Notes: collect duplicate sample

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-22
Sample ID: MW-22-200608 Duplicate ID: _____
Sample Depth: _____
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/30/06
Sampled By: MAH
Method of Purging: Disposable Teflon Bailer
Method of Sampling: Disposable Teflon Bailer

Initial Depth to Water: 5.56
Depth to Water after Sampling: _____
Total Depth to Well: 9.31
Well Diameter: 2"
1 Casing/Borehole Volume: 0.61
(Circle one)
3 Casing/Borehole Volumes: 1.83
(Circle one)
Total Casing/Borehole Volumes Removed: _____

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
1420							
MH 1440 8/30			0	19.9	5.95	692	clear, lt yellow tint
1442			0.5	19.6	6.12	803	" " "
1424			1.0	18.7	6.12	883	" " "
1429			1.5	18.7	6.13	893	" " "
1427			2.0	18.7	6.14	898	" " Sample

pH CALIBRATION (choose two)				
Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C	29	→	→	
Instrument Reading	4.00	7.00	10.0	

Model or Unit No.: Ultrameter 6P

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION			
KCL Solution (µS/cm=µmhos/cm)	447	2000	2060
Temperature C	23.9	24.2	21.5
Instrument Reading	573	2000	2060

Model or Unit No.: Ultrameter 6P

Notes:

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-23
Sample ID: MW-23-200608 Duplicate ID: _____
Sample Depth: _____
Project and Task No.: 9329.000.0 32
Project Name: SPI ARCATA
Date: 08/30/06
Sampled By: MAH
Method of Purging: Disposable Teflon Bailer
Method of Sampling: Disposable Teflon Bailer

Initial Depth to Water: 5.19
Depth to Water after Sampling: _____
Total Depth to Well: 8.88
Well Diameter: 2"
1 Casing/Borehole Volume: 0.60
(Circle one)
3 Casing/Borehole Volumes: 1.80
(Circle one)
Total Casing/Borehole Volumes Removed: 3.33

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Remarks (color, turbidity, and sediment)
1458			0	20.5	6.71	3327	clear, yellowtint
1459			0.5	19.9	6.73	3580	cloudy, yellowish brown
1502			1.0	19.4	6.78	3870	cloudy, lt brown
1504			1.5	18.9	6.78	3970	" " "
1507			1.75	18.8	6.81	3960	" " "
1509			2.0	18.7	6.80	4004	" " " sample

pH CALIBRATION (choose two)

Model or Unit No.: Ultrameter 6P

see MW-2C

Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Temperature C				
Instrument Reading				

SPECIFIC ELECTRICAL CONDUCTANCE – CALIBRATION

Model or Unit No.: Ultrameter 6P

KCL Solution (µS/cm=µmhos/cm)			
Temperature C			
Instrument Reading			

Notes: low yield

\\sf3\ppingree$\FORMATS\WELL SAMPLING Record.doc

Geomatrix

APPENDIX B

Laboratory Reports and Chain-of-Custody Records for Groundwater Samples

Alpha Analytical Laboratories Inc. 208 Mason Street, Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

14 September 2006

Geomatrix Consultants
Attn: Matt Hillyard
513 2nd St.
Eureka, CA 95501
RE: SPI - Arcata
Work Order: A609015

Enclosed are the results of analyses for samples received by the laboratory on 09/01/06 11:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kelley M Thompson

Kelley M. Thompson For Sheri L. Speaks
Project Manager

Alpha Analytical Laboratories Inc.
208 Mason Street, Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
513 2nd St.
Eureka, CA 95501
Attn: Matt Hillyard

Report Date: 09/14/06 13:57
Project No: 9329 Task 32
Project ID: SPI - Arcata

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A609015	09/01/2006 11:30	GEOMAT	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-08-200608	A609015-01	Water	08/31/06 09:15	09/01/06 11:30
MW-09-200608	A609015-02	Water	08/31/06 09:39	09/01/06 11:30
MW-02-200608	A609015-03	Water	08/31/06 10:17	09/01/06 11:30
MW-06-200608	A609015-04	Water	08/31/06 10:59	09/01/06 11:30
MW-20-200608	A609015-05	Water	08/31/06 12:13	09/01/06 11:30
MW-07-200608	A609015-06	Water	08/31/06 12:42	09/01/06 11:30
MW-21-200608	A609015-07	Water	08/31/06 13:10	09/01/06 11:30
BD-01-200608	A609015-08	Water	08/31/06 00:00	09/01/06 11:30

Bruce Gove
Laboratory Director

9/14/2006

Alpha Analytical Laboratories Inc.
208 Mason Street, Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
513 2nd St.
Eureka, CA 95501
Attn: Matt Hillyard

Report Date: 09/14/06 13:57
Project No: 9329 Task 32
Project ID: SPI - Arcata

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A609015	09/01/2006 11:30	GEOMAT	

Alpha Analytical Laboratories, Inc.

	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT		PQL	NOTE
MW-08-200608 (A609015-01)			**Sample Type: Water**			**Sampled: 08/31/06 09:15**			
Chlorinated Phenols by Canadian Pulp Method									
2,4,6-Trichlorophenol	EnvCan	AI61220	09/07/06	09/08/06	1	ND ug/l		1.0	
2,3,5,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,5-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
Pentachlorophenol	"	"	"	"	"	ND "		1.0	
Surrogate: Tribromophenol	"	"	"	"		*102 %*	*70-124*		
MW-09-200608 (A609015-02)			**Sample Type: Water**			**Sampled: 08/31/06 09:39**			
Chlorinated Phenols by Canadian Pulp Method									
2,4,6-Trichlorophenol	EnvCan	AI61220	09/07/06	09/08/06	1	ND ug/l		1.0	
2,3,5,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,5-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
Pentachlorophenol	"	"	"	"	"	ND "		1.0	
Surrogate: Tribromophenol	"	"	"	"		*102 %*	*70-124*		
MW-02-200608 (A609015-03)			**Sample Type: Water**			**Sampled: 08/31/06 10:17**			
Chlorinated Phenols by Canadian Pulp Method									
2,4,6-Trichlorophenol	EnvCan	AI61220	09/07/06	09/08/06	1	ND ug/l		1.0	
2,3,5,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,5-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
Pentachlorophenol	"	"	"	"	"	ND "		1.0	
Surrogate: Tribromophenol	"	"	"	"		*91.6 %*	*70-124*		
MW-06-200608 (A609015-04)			**Sample Type: Water**			**Sampled: 08/31/06 10:59**			
Chlorinated Phenols by Canadian Pulp Method									
2,4,6-Trichlorophenol	EnvCan	AI61220	09/07/06	09/08/06	1	ND ug/l		1.0	
2,3,5,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,5-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

9/14/2006

Alpha Analytical Laboratories Inc.
208 Mason Street, Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
513 2nd St.
Eureka, CA 95501
Attn: Matt Hillyard

Report Date: 09/14/06 13:57
Project No: 9329 Task 32
Project ID: SPI - Arcata

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A609015	09/01/2006 11:30	GEOMAT	

Alpha Analytical Laboratories, Inc.

	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT		PQL	NOTE
MW-06-200608 (A609015-04)			**Sample Type: Water**			**Sampled: 08/31/06 10:59**			
Chlorinated Phenols by Canadian Pulp Method (cont'd)									
Pentachlorophenol	EnvCan	"	"	09/08/06	"	ND "		1.0	
Surrogate: Tribromophenol	"	"	"	"		*93.2 %*	*70-124*		
MW-20-200608 (A609015-05)			**Sample Type: Water**			**Sampled: 08/31/06 12:13**			
Chlorinated Phenols by Canadian Pulp Method									
2,4,6-Trichlorophenol	EnvCan	AI61220	09/07/06	09/08/06	1	ND ug/l		1.0	
2,3,5,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
2,3,4,5-Tetrachlorophenol	"	"	"	"	"	ND "		1.0	
Pentachlorophenol	"	"	"	"	"	ND "		1.0	
Surrogate: Tribromophenol	"	"	"	"		*100 %*	*70-124*		
MW-07-200608 (A609015-06)			**Sample Type: Water**			**Sampled: 08/31/06 12:42**			
Chlorinated Phenols by Canadian Pulp Method									
2,4,6-Trichlorophenol	EnvCan	AI61220	09/07/06	09/08/06	1	**2.1 ug/l**		**1.0**	
2,3,5,6-Tetrachlorophenol	"	"	"	09/11/06	10	**68 "**		**10**	
2,3,4,6-Tetrachlorophenol	"	"	"	09/11/06	100	**390 "**		**100**	
2,3,4,5-Tetrachlorophenol	"	"	"	09/11/06	10	**30 "**		**10**	
Pentachlorophenol	"	"	"	09/12/06	1000	**19000 "**		**1000**	
Surrogate: Tribromophenol	"	"	"	*09/08/06*		*91.2 %*	*70-124*		
MW-21-200608 (A609015-07)			**Sample Type: Water**			**Sampled: 08/31/06 13:10**			
Chlorinated Phenols by Canadian Pulp Method									
2,4,6-Trichlorophenol	EnvCan	AI61220	09/07/06	09/08/06	1	**1.7 ug/l**		**1.0**	
2,3,5,6-Tetrachlorophenol	"	"	"	09/11/06	10	**31 "**		**10**	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	**140 "**		**10**	
2,3,4,5-Tetrachlorophenol	"	"	"	09/08/06	1	**14 "**		**1.0**	
Pentachlorophenol	"	"	"	09/12/06	1000	**6000 "**		**1000**	
Surrogate: Tribromophenol	"	"	"	*09/08/06*		*93.6 %*	*70-124*		
BD-01-200608 (A609015-08)			**Sample Type: Water**			**Sampled: 08/31/06 00:00**			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

9/14/2006

Alpha Analytical Laboratories Inc.
208 Mason Street, Ukiah, California 95482
e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
513 2nd St.
Eureka, CA 95501
Attn: Matt Hillyard

Report Date: 09/14/06 13:57
Project No: 9329 Task 32
Project ID: SPI - Arcata

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A609015	09/01/2006 11:30	GEOMAT	

Alpha Analytical Laboratories, Inc.

	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT		PQL	NOTE
BD-01-200608 (A609015-08)			**Sample Type: Water**			**Sampled: 08/31/06 00:00**			
Chlorinated Phenols by Canadian Pulp Method									
2,4,6-Trichlorophenol	EnvCan	AI61220	09/07/06	09/09/06	1	ND ug/l		1.0	
2,3,5,6-Tetrachlorophenol	"	"	"	09/11/06	10	**23** "		**10**	
2,3,4,6-Tetrachlorophenol	"	"	"	"	"	**86** "		**10**	
2,3,4,5-Tetrachlorophenol	"	"	"	09/09/06	1	**11** "		**1.0**	
Pentachlorophenol	"	"	"	09/12/06	1000	**2500** "		**1000**	
Surrogate: Tribromophenol	"	"	"	*09/09/06*		*92.4 %*	*70-124*		

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Bruce Gove
Laboratory Director

9/14/2006

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CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
513 2nd St.
Eureka, CA 95501
Attn: Matt Hillyard

Report Date: 09/14/06 13:57
Project No: 9329 Task 32
Project ID: SPI - Arcata

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A609015	09/01/2006 11:30	GEOMAT	

SourceResult

Chlorinated Phenols by Canadian Pulp Method - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AI61220 - Solvent Extraction										
Blank (AI61220-BLK1)				Prepared: 09/07/06 Analyzed: 09/08/06						
2,4,6-Trichlorophenol	ND	1.0	ug/l							
2,3,5,6-Tetrachlorophenol	ND	1.0	"							
2,3,4,6-Tetrachlorophenol	ND	1.0	"							
2,3,4,5-Tetrachlorophenol	ND	1.0	"							
Pentachlorophenol	ND	1.0	"							
Surrogate: Tribromophenol	*21.6*		"	*25.0*		*86.4*	*70-124*			
LCS (AI61220-BS1)				Prepared: 09/07/06 Analyzed: 09/08/06						
2,4,6-Trichlorophenol	5.66	1.0	ug/l	5.00		113	81-120			
2,3,5,6-Tetrachlorophenol	5.60	1.0	"	5.00		112	78-112			
2,3,4,6-Tetrachlorophenol	5.55	1.0	"	5.00		111	76-111			
2,3,4,5-Tetrachlorophenol	5.23	1.0	"	5.00		105	80-116			
Pentachlorophenol	5.16	1.0	"	5.00		103	86-109			
Surrogate: Tribromophenol	*24.3*		"	*25.0*		*97.2*	*70-124*			
Matrix Spike (AI61220-MS1)	**Source: A609015-01**			Prepared: 09/07/06 Analyzed: 09/08/06						
2,4,6-Trichlorophenol	5.55	1.0	ug/l	5.00	ND	111	75-125			
2,3,5,6-Tetrachlorophenol	5.63	1.0	"	5.00	ND	113	69-115			
2,3,4,6-Tetrachlorophenol	5.50	1.0	"	5.00	ND	110	66-117			
2,3,4,5-Tetrachlorophenol	5.37	1.0	"	5.00	ND	107	70-115			
Pentachlorophenol	4.63	1.0	"	5.00	ND	92.6	55-124			
Surrogate: Tribromophenol	*24.7*		"	*25.0*		*98.8*	*70-124*			
Matrix Spike Dup (AI61220-MSD1)	**Source: A609015-01**			Prepared: 09/07/06 Analyzed: 09/08/06						
2,4,6-Trichlorophenol	5.81	1.0	ug/l	5.00	ND	116	75-125	4.58	20	
2,3,5,6-Tetrachlorophenol	5.90	1.0	"	5.00	ND	118	69-118	4.68	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

9/14/2006

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208 Mason Street, Ukiah, California 95482
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CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
513 2nd St.
Eureka, CA 95501
Attn: Matt Hillyard

Report Date: 09/14/06 13:57
Project No: 9329 Task 32
Project ID: SPI - Arcata

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A609015	09/01/2006 11:30	GEOMAT	

Chlorinated Phenols by Canadian Pulp Method - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AI61220 - Solvent Extraction										
Matrix Spike Dup (AI61220-MSD1)	**Source: A609015-01**			Prepared: 09/07/06 Analyzed: 09/08/06						
2,3,4,6-Tetrachlorophenol	5.78	1.0	"	5.00	ND	116	66-117	4.96	20	
2,3,4,5-Tetrachlorophenol	5.65	1.0	"	5.00	ND	113	70-115	5.08	20	
Pentachlorophenol	5.22	1.0	"	5.00	ND	104	55-124	12.0	20	
Surrogate: Tribromophenol	*24.5*		"	*25.0*		*98.0*	*70-124*			

Bruce Gove
Laboratory Director

9/14/2006

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CHEMICAL EXAMINATION REPORT

Geomatrix Consultants
513 2nd St.
Eureka, CA 95501
Attn: Matt Hillyard

Report Date: 09/14/06 13:57
Project No: 9329 Task 32
Project ID: SPI - Arcata

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
A609015	09/01/2006 11:30	GEOMAT	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
PQL	Practical Quantitation Limit

CHAIN-OF-CUSTODY RECORD

EUR 10036

PROJECT NAME: SPI Arcata			DATE: 8/31/06 PAGE 1 OF 1
PROJECT NUMBER: 9329 task 32	LABORATORY NAME: Alpha	CLIENT INFORMATION: SPI Arcata	REPORTING REQUIREMENTS:
RESULTS TO: Matt Hillyard	LABORATORY ADDRESS: 208 Mason St		Bill SPI Arcata Directly
TURNAROUND TIME: Std	Ukiah CA 95482		CC: Geomatrix
SAMPLE SHIPMENT METHOD: Courier	LABORATORY CONTACT: Sheri Speaks		GEOTRACKER REQUIRED (YES) NO
	LABORATORY PHONE NUMBER: 707-468-0401		SITE SPECIFIC GLOBAL ID NO. T0602393344

SAMPLERS (SIGNATURE): Matt Hillyard

ANALYSES

A609015

DATE	TIME	SAMPLE NUMBER	Acetone Carbon disulfide	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
8/31/06	915	MW-08-200608	X	125mL Amber	W			X		2	
8/31/06	939	MW-09-200608	X							2	
8/31/06	1017	MW-02-200608	X							2	
8/31/06	1059	MW-06-200608	X							2	
8/31/06	1213	MW-20-200608	X							2	
8/31/06	1242	MW-07-200608	X							2	
8/31/06	1310	MW-21-200608	X							2	
8/31/06		BD-01-200608	X							2	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE: Matt Hillyard	9/1/06	625	SIGNATURE: Tom Wilson	9/1/06	0825
PRINTED NAME: Matt Hillyard			PRINTED NAME: Tom Wilson		
COMPANY: Geomatrix			COMPANY: ALPHA		
SIGNATURE: Tom Wilson			SIGNATURE: Sheri Speaks	9/1	1130
PRINTED NAME:			PRINTED NAME: Sheri Speaks		
COMPANY:			COMPANY: ALPHA		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS: 16

SAMPLING COMMENTS:

513 ~~525~~ Second Street, ~~Suite 203~~
Eureka, California 95501-0488
Tel 707.444.7800 Fax 707.444.7848

Geomatrix

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

September 21, 2006

Matt Hillyard, Project Manager
Geomatrix Consultants, Inc.
513 2nd Street
Eureka, CA 95501-0488

Dear Mr. Hillyard:

Included are the results from the testing of material submitted on August 31, 2006 from the SPI Arcata, F&BI 608338 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
GMC0921R

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 31, 2006 by Friedman & Bruya, Inc. from the Geomatrix Consultants, Inc. SPI Arcata, F&BI 608338 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Geomatrix Consultants, Inc.
608338-01	MW-22-200608
608338-02	MW-23-200608

All quality control requirements were acceptable.

Date of Report: 09/21/06
Date Received: 08/31/06
Project: SPI Arcata, F&BI 608338
Date Extracted: 08/31/06
Date Analyzed: 08/31/06 and 09/01/06

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE XYLENES AND TPH AS GASOLINE USING EPA METHODS 8021B AND 8015M

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range (C_6-C_{10})	Surrogate (% Recovery) (Limit 52-124)
MW-22-200608 608338-01	<1	<1	<1	<3	<50	114
MW-23-200608 608338-02	<1	<1	<1	<3	<50	108
Method Blank	<1	<1	<1	<3	<50	114

Date of Report: 09/21/06
Date Received: 08/31/06
Project: SPI Arcata, F&BI 608338
Date Extracted: 09/01/06
Date Analyzed: 09/05/06

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Surrogate (% Recovery) (Limit 52-134)
MW-22-200608 608338-01	<25	99
MW-23-200608 608338-02	<25	94
Method Blank	<25	103

Date of Report: 09/21/06
Date Received: 08/31/06
Project: SPI Arcata, F&BI 608338
Date Extracted: 09/01/06
Date Analyzed: 09/05/06

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL USING EPA METHOD 8015M
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 52-134)
MW-22-200608 608338-01	<125	96
MW-23-200608 608338-02	<125	97
Method Blank	<125	92

Date of Report: 09/21/06
Date Received: 08/31/06
Project: SPI Arcata, F&BI 608338

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHODS 8021B AND 8015M

Laboratory Code: 608338-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	µg/L (ppb)	<1	<1	nm
Toluene	µg/L (ppb)	<1	<1	nm
Ethylbenzene	µg/L (ppb)	<1	<1	nm
Xylenes	µg/L (ppb)	<3	<3	nm
Gasoline	µg/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	µg/L (ppb)	50	88	69-119
Toluene	µg/L (ppb)	50	98	70-123
Ethylbenzene	µg/L (ppb)	50	100	78-112
Xylenes	µg/L (ppb)	150	100	74-112
Gasoline	µg/L (ppb)	1,000	87	63-129

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

Date of Report: 09/21/06
Date Received: 08/31/06
Project: SPI Arcata, F&BI 608338

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING EPA METHOD 8015M

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel	µg/L (ppb)	2,500	88	90	73-142	2

Date of Report: 09/21/06
Date Received: 08/31/06
Project: SPI Arcata, F&BI 608338

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL EXTENDED USING EPA METHOD 8015M

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery, LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Motor Oil	µg/L (ppb)	2,500	108	89	73-142	19

CHAIN-OF-CUSTODY RECORD 608338 ME 08/31/06 EUR 10035 V2/D04

PROJECT NAME: SPI Arcata			DATE: 8/30/06 PAGE 1 OF 1
PROJECT NUMBER: 9329 task 32	LABORATORY NAME: Friedman + Bruya	CLIENT INFORMATION:	REPORTING REQUIREMENTS:
RESULTS TO: Matt Hillyard	LABORATORY ADDRESS: 3012 16th Ave W Seattle WA 98119	Geomatrix	
TURNAROUND TIME: Std	LABORATORY CONTACT: Mike Erdahl		GEOTRACKER REQUIRED (YES) NO
SAMPLE SHIPMENT METHOD: FedEx	LABORATORY PHONE NUMBER: 206-285-8282		SITE SPECIFIC GLOBAL ID NO. T0602301628

SAMPLERS (SIGNATURE): Matt Hillyard

Lab ID	DATE	TIME	SAMPLE NUMBER	ANALYSES: TPH-D/MO	TPH-Silicagel	TPH-gas	BTEX	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
01A	8/30/06	1427	MW-22-200608	x	x			1-Liter amber	W			J		1	
01B-D	8/30/06	1427	MW-22-200608			x	x	40mL VOA	W		HCl			3	
02A	8/30/06	1509	MW-23-200608	x	x			1-Liter amber	W					1	
02B-D	8/30/06	1509	MW-23-200608			x	x	40mL VOA	W		HCl			3	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE: Matt Hillyard	8/30/06	1600	SIGNATURE: Nhan Phan	8/30/06	10:00
PRINTED NAME: Matt Hillyard			PRINTED NAME: Nhan Phan		
COMPANY: Geomatrix			COMPANY: FEBI		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS: 8

SAMPLING COMMENTS:

Samples received at 4 °C

573 ~~325~~ Second Street, ~~Suite 203~~
Eureka, California 95501-0488
Tel 707.444.7800 Fax 707.444.7848

Geomatrix

APPENDIX C

Laboratory Data Quality Review

APPENDIX C

LABORATORY DATA QUALITY REVIEW

Geomatrix reviewed quality assurance and quality control (QA/QC) procedures to assess the quality of the analytical results with respect to precision, accuracy, and completeness. Data quality was reviewed using U.S. Environmental Protection Agency *National Functional Guidelines for Organic Data Review* (U.S. EPA, 1999).

PRECISION

Geomatrix evaluated data precision by comparing analytical results for the following:

- primary and duplicate field samples
- matrix spikes (MS) and matrix spike duplicates (MSD)
- laboratory control samples (LCS) and laboratory control sample duplicates (LCSD)

We compared the concentrations detected in the primary or spiked samples with the respective concentrations in the duplicate or duplicate spiked samples. We then calculated relative percent differences (RPDs) using the following equation:

$$RPD = \frac{[S - D]}{(S + D)/2} \times 100$$

Where,

S = Sample concentration
D = Duplicate sample concentration

RPDs for primary and duplicate field samples are included in Table C-1. The RPDs for MS/MSD and LCS/LCSD analyses are reported in the laboratory analytical reports, included in Appendix B.

RPDs for the groundwater monitoring program data were acceptable even though the RPD between the primary (MW-21) and the duplicate (BD-01) field samples was relatively large. This situation has been observed from field duplicates collected at this and other locations previously.

ACCURACY

Geomatrix assessed data accuracy by evaluating holding times required by analytical methods, sample preservation, laboratory method blank results, recovery of laboratory surrogates, MS/MSD results, and LCS/LCSD results. The results of our evaluation are summarized below.

- **Holding times.** Samples were analyzed within the holding time for each analytical method.
- **Preservation.** Samples were collected in laboratory-supplied containers with preservatives, if applicable. Samples were stored and transported to analytical laboratories in chilled coolers.
- **Method blanks.** No detections were observed in any of the method blanks analyzed by the laboratory.
- **Surrogate recoveries.** Laboratory surrogates were recovered at concentrations within acceptable ranges.
- **MS/MSD analysis.** Percent recoveries were acceptable.
- **LCS/LCSD analysis.** Percent recoveries were acceptable.

COMPLETENESS

Laboratory completeness is a measure of the percent of valid measurements obtained from all the measurements taken in the project. Based on our laboratory data quality review, the data contained in this report are considered complete.

TABLE C-1

RELATIVE PERCENT DIFFERENCES
BETWEEN DUPLICATE SAMPLES
Sierra Pacific Industries
Arcata Division Sawmill
Arcata, California

Samples collected on August 31, 2006

Constituent	Reporting Limit	Sample Concentration MW-21	Duplicate Sample Concentration BD-01	Relative Percent Difference [1]
Chlorinated Phenols by Canadian Pulp Method (reported in micrograms per liter [µg/L]) [2]				
PCP	1,000	6,000	2,500	82.4%
2,3,4,5-TeCP	1.0	14	11	24.0%
2,3,4,6-TeCP	10	140	86	47.8%
2,3,5,6-TeCP	10	31	23	29.6%
2,4,6-TCP	1.0	1.7	<1.0	--

Notes:
1. RPD calculated as ([2(S-D)]/[S+D]) x 100 where S is the sample concentration and D is the duplicate sample concentration. No RPD is calculated if either S or D are not detected above the laboratory reporting limit.
2. Analyzed by Alpha Analytical Laboratory, of Ukiah, California.

Abbreviations:
PCP = pentachlorophenol
TeCP = tetrachlorophenol
TCP = trichlorophenol
-- = Not calculated
< = target analyte was not detected at or above the laboratory reporting limit shown.