

**ASARCO EL PASO COPPER SMELTER
PHASE II REMEDIAL INVESTIGATION REPORT
EL PASO, TEXAS**

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JUL 10 2000

REMEDIAL DIVISION
Corrective Action Section

Prepared For:

ASARCO

2301 West Paisano Drive
El Paso, Texas 79922

Prepared By:



Hydrometrics, Inc.®

consulting scientists, engineers and contractors



**VOLUME
II of IV**

July 2000

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APPENDIX A

ASARCO RESPONSES TO TNRCC COMMENTS ON PHASE I RI

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Following submittal of the Phase I RI report (Hydrometrics, 1998) TNRCC provided comments (TNRCC, 1999) that were addressed in the Phase II RI. TNRCC comments have been incorporated into the Phase II RI, and are summarized below along with ASARCO's responses as follows:

Comment 1: For Investigation Area 1, the TNRCC agrees with ASARCO's proposal for additional soil borings to groundwater, however, since this area is near the property boundary additional attention should be focused toward the property boundary or the groundwater pathway. ASARCO has stated that the primary hydrogeologic feature of Area 1 is a slag and soil backfill arroyo and that higher metals concentrations in the groundwater are associated with the arroyos. Since the higher metal concentrations in groundwater are associated with the arroyos, ASARCO may want to focus their investigation on all the backfilled arroyos at the site. The TNRCC believes there is evidence that the old slag in the arroyos may be contributing to the metals in the groundwater. In addition, the old slag may not have the same chemical or physical characteristics as the recently produced slag.

Response: *Asarco agrees with the TNRCC regarding the issue that the slag-filled arroyos influence the collection and transport mechanism for metals affected groundwater. However, Asarco does not agree with the TNRCC on the issue*

that the slag within the arroyos directly contributes to metals in groundwater. As discussed in the Phase I RI Report of (Hydrometrics, 1998), it has been documented that the surface operations of the Facility are the major contributor to metals in groundwater. Slag deposits in the arroyos do not intercept groundwater. Based on the results from Phase I and II RIs, metals from surface sources migrate to groundwater through relatively high hydraulic conductivity of fractures in the slag.

Asarco is continuing investigation of groundwater flow paths associated with the arroyos which underlie the Facility. Six monitor wells have been installed in the proximity of the mouths of the arroyos along Paisano Drive during the Phase I and II RIs. As discussed in Sections 2.0 and 3.0 of this Phase II RI Report, data from these monitor wells supports the concept that the impacts of metals from surface source areas to groundwater is influenced by the historic arroyos beneath the Facility.

Comment 2: ASARCO proposes to conduct six additional borings in the Investigation Area 2 (Boneyard/Slag Storage Area), however Exhibit 2 (Proposed Soil, Monitor Well and Surface Water Locations) displays 8 proposed soil borings for Area 2. The TNRCC requests clarification on the number of borings. Also, the TNRCC recommends that a ground water monitoring well be installed northwest of well EP-53. Groundwater from Area 2 has been impacted above background concentrations and appears to migrate toward the northern arroyo. Please establish if this is a potential pathway for the groundwater for this area.

Response: *The number of borings proposed should have been six soil borings as described in the sample matrix, rather than the eight soil borings indicated on the map. Asarco has installed monitor well EP-99 (see Exhibit 1) in the area between EP-53 and EP-85 to continue the investigation of potential pathways in the area of the Boneyard.*

Comment 3: ASARCO has proposed an additional eight soil borings for Area 3. The TNRCC agrees with the additional borings but believes a detailed groundwater investigation is needed for Area 3. Area 3 contains some of the highest arsenic concentrations in groundwater at the Facility and is potentially over an old arroyo which is adjacent to the property boundary. The TNRCC believes that the ground water from Area 3 has the potential to migrate offsite, which the TNRCC considers a potential point of exposure for contaminants. Also, the TNRCC is concerned with surface metals concentrations in soils along the western property boundary which is included as Investigation Area 4. Once again, the TNRCC considers areas that are adjacent to the property boundary, which have the potential to migrate offsite, potential points of exposure. ASARCO is required to delineate the extent of contamination for site closure or remediation under the TNRCC's Risk Reduction Rules.

Response: *Comment 3 from the TNRCC requesting a detailed groundwater investigation of Investigation Area No.3 makes no mention of the eight monitor wells currently located within the investigation area, which were utilized during the RIs. With the current eight monitor wells, Asarco believes that there are a sufficient number of wells to provide adequate control regarding a groundwater investigation. Asarco will continue with the proposed soils investigation of this area. Eight borings were advanced in IA-3 during the Phase II RI. The data collected from these borings further delineate source materials as described in Section 3.0 of this report.*

Comment 4: ASARCO has proposed excavating Category I materials (residual by-products typically associated with specific current and past smelter operations), however, ASARCO's reference to the proposed disposal sites of those materials as "repository sites" may be inaccurate. ASARCO proposes to excavate the pond sediments in Ponds 5 and 6 and recover copper in the

sediments by recycling through the smelter. Pond 1 sediments will be dried, compacted, and placed in on-site "repositories", which ASARCO proposes to form by excavating and lining of Ponds 5 and 6. Please describe in detail the classification procedure and regulations that ASARCO will use to classify proposed Category I materials to be excavated and of the "repository" concept. For any excavated material generated, including the pond sediments which occur in Ponds 1, 5 and 6, ASARCO should first classify the material before disposal.

Response: *Asarco believes that adequate information and description of the "Category System" has been provide in Section 3.0 of the Phase I RI Report (Hydrometrics, 1998), and reiterated in Section 3.0 of this Phase II RI Report. An excerpt from Section 3.0 is as follows: "Category I soils are those most likely to cause impacts or have caused impacts to groundwater". The "Category System" was developed to provide a basis for Corrective Action that uses soils and groundwater metals concentration, related with past or current operations at the Facility. The issue regarding the "Category System" is not to develop a specific fixed cleanup target, but to actually investigate whether potential source areas impact groundwater. The "Category System" method of delineating areas for specific Corrective Actions is protective of the public, the environment, and the workers at the Facility.*

As summarized in a recent document provided to TNRCC by Hydrometrics (Hydrometrics et al., 2000), and in Sections 1.0 and 4.0 of this Phase II RI Report area of contamination (AOC) is a concept by which soils which impact groundwater in certain broad areas may be deposited in an on-site lined RCRA landfill unit. Significantly, consideration of these AOCs as a landfill unit would allow hazardous waste to be moved within the boundaries of the AOC without triggering RCRA land disposal restrictions or minimum

technology requirements. As noted in the March 13, 1996 guidance titled "Use of the Area of Contamination (AOC) Concept During RCRA Cleanups," the AOC concept was first discussed in detail in the Preamble to the National Contingency Plan (55 Fed. Reg. 8758-8760, 3/8/90).

Advanced approval at the federal level is not required for private parties to take advantage of the AOC concept, but EPA encourages parties to consult with the appropriate agency (be it state or federal) to ensure they implement the AOC concept appropriately. The guidance goes on to discuss the similarities and differences between AOCs and Corrective Action management units (CAMUs) and states that "the AOC concept is particularly useful for consolidation of contiguous units or areas of contaminated soil.

As TNRCC is aware, Asarco has committed to close certain non-synthetically-lined surface impoundments on their Facility property under the existing Agreed Order (see Section 4.0 of this document and Section 4.0 of the Phase I RI (Hydrometrics, 1998)). In the course of exploring available regulatory options that were protective of human health and the environment and not cost-prohibitive, Asarco has evaluated utilization of the AOC concept by proposing to place certain impacted soils (Category I) as fill material in conjunction with engineered systems to close the ponds.

Asarco is aware that the AOC concept was used in a similar manner to fill ponds with hazardous waste that were being closed as part of a slurry wall construction project at the Dow Freeport, Texas facility. Further, in response to questions from agency representatives, we have confirmed that a facility may have more than one AOC designated (see EPA Directive 9347.3-05FS, July 1989).

In addition, we have conferred with EPA Headquarters (Ms. Dawn Messier, 202/564-5517) that AOC guidance does not preclude utilizing an AOC that is bisected by a roadway, body of water, or the like. Finally, based on discussions with Dave Fagan of EPA Headquarters Office of Solid Waste, an entire site can be designated as an AOC if there are site-wide impacts. Mr. Fagan indicated that he thought such had been the case at the Reichold Chemical Site in the State of Washington (you may confirm this with Mr. Fagan at 703/308-0603).

Comment 5: ASARCO has indicated that surface water flow in the American Canal during periods of low flow in the Rio Grande is restricted. ASARCO contends that during these low flow events, the surface water is not representative of the overall water in the American Canal. The TNRCC does not agree with ASARCO's assessment of the American Canal. The TNRCC considers the water in the American Canal surface water in which ASARCO's groundwater is discharging during these low flow periods. Please reevaluate the American Canal based upon a potential pathway for contaminant migration.

Response: *During the relevant period covered by the Phase I RI Report (Hydrometrics, 1998), water in the American Canal was typically one to two inches deep during the November 1997 and February 1998 events. This atypical flow was a result of the American Canal improvements occurring downstream of the Asarco Facility, in which water normal diverted, to the American Canal, was left in the Rio Grande. In addition, during these periods of atypical low flow, the Rio Grande is restricted by seasonal controls from Elephant Butte Dam (high releases from April to September, restrictive releases from October to March). In regards to groundwater impacts to the American Canal, ASARCO has documented in the Phase I RI Report (October 1998) that the groundwater does not intersect the bottom of the American Canal during periods of low flow. Since the final quarterly event (May 1998) of the Phase I*

RI Report, water flow in the American Canal has been more indicative of typical seasonal fluctuations. And as expected, metals concentrations during these typical higher flow volumes resulted in no impacts to the water of the American Canal.

During periods of high flow when ground water only intercepts portions the American Canal adjacent to ASARCO, a concept based on hydrostatic pressure explains why no elevated metals are found when water is present in the American Canal. When the canal is full, the pressure the water exerts prevents water from seeping into the canal.

A potential source of metals during low flow conditions in the canal may be from wind blown sediments. Please refer to Section 2.0 of this report for a discussion of the flow and analytical data regarding the American Canal. Long-term continued monitoring has been proposed by Asarco. Another issue that needs to be addressed is the future plans for the American Canal. The International Boundary and Water Commission (IBWC) is currently evaluating several designs to replace, upgrade or retrofit those sections of the American Canal adjacent to the Asarco Facility. All designs have the goal of sealing the water within the canal and reducing water losses based on evaporation and leakage.

Comment 6: ASARCO used low and high flow purging rates for groundwater sampling then filtered the groundwater before placement into the sample containers. For future reference, please use one type of monitor well purging technique for all of the wells to be sampled. TNRCC has developed a "Consistency Document" dated July 23, 1998 which provides guidance for the use of purging methods and for the use of filters for groundwater samples. In general, the TNRCC discourages the use of filtered groundwater samples and will only allow filtering under certain conditions described in the

“Consistency Document.” Please refer to this document when sampling groundwater in the future. Information concerning implementation of the regulations may be accessed via Internet at:

<http://www.tnrcc.state.tx.us/waste/consimem.html>.

Response: *The procedures for collection, preparation and preservation of groundwater samples conducted for the Phase I RI followed the TNRCC approved RI Work Plan (Hydrometrics, 1996), the Agency approved modifications to that Work Plan, and those procedures found and referenced in the TNRCC Consistency Document (1998).*

In response to the first issue (ASARCO using high and low flow purge rates), ASARCO contends that it followed the definitions for an adequate purge which are located in the TNRCC referenced 1996 USEPA document “Environmental Investigations Standard Operating Procedures and Quality Assurance Manual”. The procedures for an adequate purge are as follows:

“With respect to volume, an adequate purge is normally achieved when three to five times the volume of standing water in the well has been removed.” or

“With respect to groundwater chemistry, an adequate purge is achieved when the pH, specific conductance, and temperature of the groundwater has stabilized and the turbidity has either stabilized or is below 10 NTU’s...”. In addition, stabilization is defined in the same paragraph as “Stabilization occurs when the pH measurements remain constant within 0.1 Standard Unit, specific conductance within 10 percent, and the temperature is constant for at least 3 readings.” The guidance provides no definition for what is considered to be “stable” in regards to turbidity or “constant” for temperature.

In regards to the expressed concern that Asarco used high and low purging rates during groundwater sampling, we assume (based on the definition in the TNRCC Consistency Document) that the issue is over using the above definitions for adequate purge (high) versus the use of micro-purging techniques (low). During all 11 sampling events, ASARCO used "high" purging techniques rather than the "low" purging techniques.

The flow rate for achieving an adequate purge will usually vary at each well and such was the case here. The varying flow rates for purging the groundwater monitor wells occur because the site has several different types of groundwater producing formations. Individual monitor wells respond or recharge at varying rates depending on the specific geologic setting in which they are constructed. In addition, varying purge rates were utilized in an attempt to minimize the amount of water level drawdown so as not to aerate the groundwater and avoid purging the well dry. When collecting groundwater samples, the flow rate is reduced to a rate lower than the purge rate, which minimizes aeration of the sample.

As requested by the TNRCC, and consistent with the TNRCC Consistency Document, ASARCO modified its Sampling Parameter list from the sample parameter list that was approved in the RI Work Plan (1996). The modification eliminated dissolved metals analysis and total recoverable metals analysis from the original work plan and required analysis for total metals. The modification was required to resolve the issue of filtration of ground water using a 0.45-micron filter for dissolved metals analysis. The TNRCC Consistency Document discourages the use of filtered ground water samples and indicates the Agency will only allow filtering under certain conditions. The condition agreed to by ASARCO and TNRCC Representatives called for the utilization of filtering groundwater for analysis of total metals

when groundwater turbidity exceeded 10 NTU's. The first sampling event during which the modification was implemented was August 1999.

Comment 7: ASARCO contends that their employee biomonitoring program is an institutional control, which precludes any further remedial action at the Facility to protect employees' health. The TNRCC disagrees with the assessment that monitoring receptors precludes evaluation of exposure pathways for human or ecological exposure. The TNRCC refers ASARCO to the TNRCC's "Consistency Document" for further explanation on this matter and on the implementation of the TNRCC's Risk Reduction Rules.

Response: *The Consistency Document is assumed to be the July 23, 1998 TNRCC Interoffice Memorandum to Remediation Division Staff. Asarco recognizes, generally and in regard to the memorandum, that a baseline risk assessment evaluates present risk in the absence of any proposed controls. Asarco also recognizes that the memorandum does give TNRCC flexibility to account for institutional controls in special circumstances.*

The risk assessment Appendix L, (Hydrometrics 1998) does address on-site exposures in the absence of institutional controls as follows:

- *Figure L-1 indicates that on-site soil exposures are addressed quantitatively.*
- *Table L-4 provides a comparison of on-site soil concentrations with SAI-Ind levels and other benchmark concentrations.*
- *Appendix L, Section 3.2.2. Indicates that "Elevated metals concentrations predominate throughout the investigation areas."*

The RI Report (Section 4.1.1) concludes, based on information regarding the biomonitoring program provided in the Risk Assessment, that despite elevated on-site metals concentrations, there are no present imminent health risks.

Information regarding a biomonitoring program provided in the Risk Assessment is relevant and should be accounted for in the development of Corrective Action Goals and Objectives. These objectives (Section 4.1.2) include: "Reduce the potential for exposure to metals by Facility workers and the public." In addition to the aforementioned biomonitoring program in place at the Facility, the following additional institutional controls are in place to further reduce risk:

- Hazard communication program.*
- Personal protective and safety equipment requirements.*
- Controlled ingress and egress to the Facility.*
- Facility operation areas are secured with perimeter fencing and 24-hour security.*

ASARCO has evaluated the on-site exposure pathways without undo expense, and is further addressing the issues as required.

APPENDIX B

**BACK UP DETAIL FOR COST ESTIMATES,
CORRECTIVE ACTION MEASURES**

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**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	LABOR AND EQUIPMENT COST	SUBTOTAL COST
Investigation Area #1 -- Converter Building/Baghouse Area							
Engineering Controls for system leaks							
Engineering controls to reduce or eliminate the occurrence of releases from Operations.	1	LS	\$0.00	\$0.00	\$4,500.00	\$4,500.00	\$4,500.00
Cap Over Excavated Areas							
<i>Assumed percentage of pavement to be repaired/replaced: 80%</i>							
2" Asphalt Concrete Overlay	2,133	SY	\$2.52	\$5,365.08	\$0.63	\$1,335.88	\$6,700.96
Petromat sealant	2,133	SY	\$0.54	\$1,151.81	\$0.25	\$533.24	\$1,685.05
Tac oil	2,133	SY	\$0.42	\$900.76	\$0.48	\$1,032.57	\$1,933.33
Air Monitoring/Dust Control							
Dust Control	1	WEEKS	\$0.00	\$0.00	\$2,000.00	\$2,000.00	\$2,000.00
Air Monitoring Stations	1	WEEKS	\$25.00	\$25.00	\$500.00	\$500.00	\$525.00
Drainage Control Features							
Temporary Construction Erosion & Sediment Controls	1	LS	\$0.00	\$0.00	\$5,000.00	\$5,000.00	\$5,000.00
Subtotal Base Construction				\$7,442.64		\$10,401.70	\$17,844.35
Mobilization	1	LS			3.00%		\$535
Texas State Sales Tax	1	LS			8.25%		\$614
Scope Contingency	1	LS			30%		\$5,353
Health and Safety Premium (Modified Level D protection)	1	LS			10%		\$1,040
Subtotal Construction							\$25,387
QC/Bonds and other Misc.							
Bond and Insurance					3.00%		\$762
Compliance Testing/Lab Analysis					2.50%		\$635
Total Other Costs							\$1,396
Engineering Design/Oversight							
Investigation					10.00%		\$2,539
Design					15.00%		\$3,808
Construction Management					10.00%		\$2,539
Administration/Meetings					2.50%		\$635
Total Engineering							\$6,981
Subtotal Remediation Work @ Investigation Area #1							\$33,765
Annual Inspections and O&M							
Site Inspections (once per year)				Annual Present worth cost (i=0.05, n=15)		\$500	\$5,190
Annual O&M				Annual Present worth cost (i=0.05, n=15)	0.50%	\$127	\$1,318
Total Monitoring and O&M							\$6,507
TOTAL CAPITAL OUTLAY							\$40,272

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CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #2 -- Bone Yard/Slag Area							
<u>Drainage Control Features</u>							
Construction Erosion & Sediment Controls	1	LS	\$0.00	\$0	\$5,000.00	\$5,000	\$5,000
<u>Air Monitoring/Dust Control</u>							
Dust Control	8	WEEKS	\$ -	\$0	\$ 2,000.00	\$16,000	\$16,000
Air Monitoring Stations	8	WEEKS	\$ 25.00	\$200	\$ 500.00	\$4,000	\$4,200
<u>Excavation</u>							
Excavate Soils-Category I	23,712	CY	\$ -	\$0	\$ 3.10	\$73,449	\$73,449
Load and Haul to On-site Repository	23,712	CY	\$ -	\$0	\$ 3.75	\$88,890	\$88,890
Excavate Slag	63,843	CY	\$ -	\$0	\$ 6.60	\$421,364	\$421,364
Post-Remedial Soil Sampling	8.00	ACRE	\$ 500.00	\$4,000	\$ 3,000.00	\$23,999	\$27,999
Subtotal Base Construction				\$4,200		\$632,702	\$636,901
Mobilization	1	LS			3.00%		\$19,107
Texas State Sales Tax	1	LS			8.25%		\$346
Scope Contengency	1	LS			30%		\$191,070
Health and Safety Premium (Modified Level D protection)	1	LS			10%		\$63,270.16
Subtotal Construction							\$910,696
<u>Other Misc. Costs</u>							
Bond and Insurance					3.00%		\$27,321
Compliance Testing/Lab Analysis					10.00%		\$91,070
Total Other Costs							\$118,390
<u>Engineering Design/Oversight</u>							
Investigation					10.00%		\$91,070
Design					10.00%		\$91,070
Construction Management					10.00%		\$91,070
Administration/Meetings					5.00%		\$45,535
Total Engineering							\$318,743
Subtotal Remediation Work @ Investigation Area #2							\$1,347,829
<u>Annual Inspections and O&M</u>							
Site Inspections (once per year)				Annual Present worth cost (i=0.05, n=15)		\$500	\$5,190
Annual O&M				Annual Present worth cost (i=0.05, n=15)	0.50%	\$4,553	\$47,264
Total Monitoring and O&M							\$52,453
TOTAL CAPITAL OUTLAY							\$1,400,283

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TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	LABOR AND EQUIPMENT COST	SUBTOTAL COST
Investigation Area #3 -- Acid Plants							
<u>Engineering Controls for system leaks</u>							
Engineering Controls for system leaks	1	LS	\$0	\$0	\$4,500	\$4,500	\$4,500
<u>Demolition/Debris Clean-up</u>							
Remove Existing Asphalt Pavement	4,667	SY	\$0	\$0	\$3	\$15,811	\$15,811
Structure Demolition							
Modify Existing Sump	13	CY	\$0	\$0	\$71	\$945	\$945
Remove Existing Concrete Sill Wall	11	CY	\$0	\$0	\$71	\$787	\$787
Crush Concrete Slabs/Walls/floors	24	CY	\$0	\$0	\$113	\$2,753	\$2,753
Load and Haul to On-Site Repository	336	CY	\$0	\$0	\$3.75	\$1,258	\$1,258
<u>Excavation</u>							
Excavate Soils-Cat I to construct secondary containment	1,867	CY	\$0	\$0	\$3.10	\$5,782	\$5,782
Load and Haul to On-Site Repository	1,867	CY	\$0	\$0	\$3.75	\$6,998	\$6,998
<u>Secondary Containment Walls/sides</u>							
Concrete sill wall	104	CY	\$133	\$13,790	\$91	\$9,389	\$23,180
Floor Crack Sealant	831	SY	\$2.15	\$1,787	\$2.64	\$2,196	\$3,983
FML -60 mil (Acid Mist Precip Bldg floor)	831	SY	\$ 3.22	\$2,676	\$ 0.74	\$613	\$3,289
<u>Cap Secondary containment area floors</u>							
Site Grading	1	ACRES	\$0.00	\$0	\$2,640	\$2,036	\$2,036
Fine Grade for paving	4,667	SY	\$0.00	\$0	\$2.64	\$12,320	\$12,320
Subgrade Preparation	4,667	SY	\$0.00	\$0	\$0.30	\$1,396	\$1,396
Compacted subgrade base course	1,244	CY	\$35.01	\$43,565	\$6	\$7,029	\$50,594
Geotextile	3,733	SY	\$0.84	\$3,154	\$0.21	\$788	\$3,942
60 mil HDPE (flexible-FML)	3,733	SY	\$ 3.22	\$12,028	\$ 0.74	\$2,756	\$14,784
Crushed Limestone Aggregate	622	CY	\$ 35.01	\$21,783	\$ 5.65	\$3,514	\$25,297
Asphalt Pavement	3,733	SY	\$ 3.26	\$12,155.73	\$ 0.70	\$2,595	\$14,751
<u>Replace Structures</u>							
Modify Existing Acid Plant #2 Sump	13	CY	\$133	\$1,773	\$91	\$1,207	\$2,980
<u>Air Monitoring/Dust Control</u>							
Dust Control	4	WEEKS	\$0	\$0	\$2,000	\$8,000	\$8,000
Air Monitoring Stations	4	WEEKS	\$25	\$100	\$500	\$2,000	\$2,100
<u>Drainage Control Features</u>							
Temporary Construction Erosion & Sediment Controls	1	LS	\$0	\$0	\$5,000	\$5,000	\$5,000
Subtotal Base Construction				\$112,812		\$99,675	\$212,487
Mobilization	1	LS			3.00%		\$6,375
Texas State Sales Tax	1	LS			8.25%		\$9,307
Scope Contengency	1	LS			30%		\$63,746
Health and Safety Premium (Modified Level D protection)	1	LS			10%		\$9,967.53
Subtotal Construction							\$301,883

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TASK DESCRIPTION	NO UNITS	UNIT COST	MATERIAL UNIT COST	LABOR AND EQUIPMENT UNIT COST	SUBTOTAL COST
Investigation Area #3 -- Acid Plants					
Other Misc. Costs					
Bond and Insurance				3.00%	\$9,056
Compliance Testing/Lab Analysis				2.50%	\$7,547
Total Other Costs					<u>\$16,604</u>
Engineering Design/Oversight					
Investigation				10.00%	\$30,188
Design				15.00%	\$45,282
Construction Management				10.00%	\$30,188
Administration/Meetings				2.50%	\$7,547
Total Engineering					<u>\$113,206</u>
Subtotal Remediation Work @ Investigation Area #3					<u><u>\$431,692</u></u>
Annual Inspections and O&M					
Site Inspections (once per year)			Annual Present worth cost (i=0.05, n=15)	\$500	\$5,190
Annual O&M			Annual Present worth cost (i=0.05, n=15)	0.50%	\$1,509
Total Monitoring and O&M					<u>\$20,857</u>
TOTAL CAPITAL OUTLAY					<u><u>\$452,549</u></u>

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TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	LABOR AND EQUIPMENT COST	SUBTOTAL COST
Investigation Area #4 -- Front Slope							
<u>Air Monitoring/Dust Control</u>							
Dust Control	10	WEEK	\$0	\$0	\$2,000	\$20,000	\$20,000
Air Monitoring Stations	10	WEEK	\$25	\$250	\$500	\$5,000	\$5,250
<u>Demolition/Debris Clean-up</u>							
Debris Clean-up	9	ACRE	\$0	\$0	\$5,000	\$45,593	\$45,593
Load and Haul to On-Site Repository	114	CY	\$0	\$0	\$4	\$428	\$428
<u>Excavate Soils-Category I</u>							
IA-4.1	513	CY					
IA-4.2	2,038	CY					
IA-4.3	7,554	CY					
IA-4.4	4,103	CY					
IA-4.5	937	CY					
IA-4.6	2,770	CY					
IA-4.7	6,074	CY					
Excavate Soils-Category I	23,989	CY	\$0	\$0	\$3	\$74,309	\$74,309
Load and Haul to On-Site Repository	23,989	CY	\$0	\$0	\$4	\$89,931	\$89,931
Post-Remedial Soil Sampling	5.71	ACRE	\$500	\$2,855	\$3,000	\$17,127	\$19,982
Remove and replace RR tracks as needed for soil removal	4,500	LF	\$10	\$46,895	\$34	\$151,105	\$198,000
<u>Backfill Excavated Areas</u>							
Provide backfill - on-site source	23,989	CY	\$0	\$0	\$2	\$41,799	\$41,799
Spread/Site Grading	23,989	CY	\$0	\$0	\$2	\$41,799	\$41,799
Place and compact backfill	23,989	CY	\$0	\$0	\$2	\$51,932	\$51,932
<u>Cap and Stabilize Slope</u>							
Site Grading/Bench as needed	6.85	CRES	\$0	\$0	\$2,640	\$18,090	\$18,090
Provide backfill - on-site source	4,179	CY	\$0	\$0	\$4	\$16,330	\$16,330
Spread/Site Grading	6.85	CRES	\$0	\$0	\$2,640	\$18,090	\$18,090
Gravel Surfacing	2,090	CY	\$35	\$73,156	\$6	\$11,803	\$84,960
<u>Stabilize Area at Toe of Surface</u>							
Site Grading	3.41	ACRE	\$0	\$0	\$2,640	\$9,001	\$9,001
Fine Grade for paving	16,501.67	SY	\$	\$	\$ 2.64	\$43,564	\$43,564
Subgrade Preparation	16,501.67	SY	\$	\$	\$ 0.30	\$4,937	\$4,937
Asphalt Pavement	16,501.67	SY	\$ 3.26	\$53,729	\$ 0.70	\$11,472	\$65,201
Gravel Surfacing	228.00	CY	\$	\$	\$ 22.00	\$5,016	\$5,016
<u>Utility Issues</u>							
Utility Relocations	15	EA	\$1,000	\$15,000	\$1,000	\$15,000	\$30,000
<u>Drainage Control Features</u>							
Sump @ US 20	1	LS	\$3,000	\$3,000	\$3,000	\$3,000	\$6,000
Temporary Construction Erosion & Sediment Controls	1	LS	\$0	\$0	\$5,000	\$5,000	\$5,000
Subtotal Base Construction				\$194,885		\$700,326	\$895,211

ASARCO EL PASO COPPER SMELTER
 REMEDIAL INVESTIGATION REPORT - PHASE II
 CONCEPTUAL COST ESTIMATE SUMMARY TABLE

TASK DESCRIPTION	NO UNITS	UNIT	MATERIAL UNIT COST	LABOR AND EQUIPMENT UNIT COST	SUBTOTAL COST
Investigation Area #4 -- Front Slope					
Mobilization	1	LS		3.00%	\$26,856
Texas State Sales Tax	1	LS		8.25%	\$16,078
Scope Contengency	1	LS		30%	\$268,563
Health and Safety Premium (Modified Level D protection)	1	LS		10%	\$70,032.63
Subtotal Construction					<u>\$1,276,742</u>
Other Misc. Costs					
Bond and Insurance				3.00%	\$38,302
Compliance Testing/Lab Analysis				5.00%	\$63,837
Total Other Costs					<u>\$102,139</u>
Engineering Design/Oversight					
Investigation				10.00%	\$127,674
Design				10.00%	\$127,674
Construction Management				5.00%	\$63,837
Administration/Meetings				5.00%	\$63,837
Total Engineering					<u>\$383,023</u>
Subtotal Remediation Work @ Investigation Area #4					<u>\$1,761,904</u>
Annual Inspections and O&M					
Site Inspections (once per year)			Annual	\$500	\$5,190
			Present worth cost (i=0.05, n=15)		
Annual O&M			Annual	0.50%	\$6,384
			Present worth cost (i=0.05, n=15)		\$66,261
Total Monitoring and O&M					<u>\$71,451</u>
TOTAL CAPITAL OUTLAY					<u>\$1,833,354</u>

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #5 -- Historic Smelter Town							
<u>Air Monitoring/Dust Control</u>							
Dust Control	2	WEEKS	\$0	\$0	\$2,000	\$4,000	\$4,000
Air Monitoring Stations	2	WEEKS	\$25	\$50	\$500	\$1,000	\$1,050
<u>Excavation</u>							
Excavate Soils-Category I	2,150	CY	\$0	\$0	\$3	\$6,659	\$6,659
Load and Haul to On-Site Repository	2,150	CY	\$0	\$0	\$4	\$8,060	\$8,060
Post-Remedial Soil Sampling	7.61	ACRE	\$500	\$3,806	\$3,000	\$22,833	\$26,639
Provide backfill - on-site source	2,150	CY	\$0	\$0	\$2	\$3,746	\$3,746
Place and compact backfill	2,150	CY	\$0	\$0	\$2	\$4,654	\$4,654
Seed, Fertilize & Mulch	7.61	ACRE	\$410	\$3,118	\$1,147	\$8,730	\$11,848
Deep Till	7.61	ACRE	\$0	\$0	\$1,193	\$9,077	\$9,077
<u>Replace Structures</u>							
Remove and Reset Existing Fence	1,500	LF	\$0	\$0	\$14	\$21,120	\$21,120
<u>Drainage Control Features</u>							
Temporary Construction Erosion & Sediment Controls	1	LS	\$0	\$0	\$5,000	\$5,000	\$5,000
Subtotal Base Construction				\$ 6,974		\$ 94,879	\$ 101,853
Mobilization	1	LS			3.00%		\$3,056
Texas State Sales Tax	1	LS			8.25%		\$575
Scope Contingency	1	LS			30%		\$30,556
Health and Safety Premium (Modified Level D protection)	1	LS			10%		\$9,488
Subtotal Construction							\$145,528
<u>Other Misc. Costs</u>							
Bond and Insurance					3.00%		\$4,366
Compliance Testing/Lab Analysis					2.50%		\$3,638
Total Other Costs							\$8,004
<u>Engineering Design/Oversight</u>							
Investigation					10.00%		\$14,553
Design					10.00%		\$14,553
Construction Management					10.00%		\$14,553
Administration/Meetings					2.50%		\$3,638
Total Engineering							\$47,297
Subtotal Remediation Work @ Investigation Area #5							\$200,828
<u>Annual Inspections and O&M</u>							
Site Inspections (once per year)				Annual Present worth cost (i=0.05, n=15)		\$500	\$5,190
Annual O&M				Annual Present worth cost (i=0.05, n=15)	0.50%	\$728	\$7,553
Total Monitoring and O&M							\$12,742
TOTAL CAPITAL OUTLAY							\$213,571

**ASARCO EL PASO COPPER SMELTER
 REMEDIAL INVESTIGATION REPORT - PHASE II
 CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	MATERIAL UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	LABOR AND EQUIPMENT COST	SUBTOTAL COST
Investigation Area #6 -- Groundwater Issues							
Investigation Area #7 -- Surface Water Issues							
ANNUAL LONG-TERM MONITORING							
Groundwater Monitoring (4 events per year)							
Labor	900	HR		\$0	\$65	\$58,500	\$58,500
Equipment	4	LS		\$0	\$1,200	\$4,800	\$4,800
Lab analysis	400	EA		\$0	\$260	\$104,000	\$104,000
Report	120	HR		\$0	\$75	\$9,000	\$9,000
Well Maintenance	100	EA		\$0	\$100	\$10,000	\$10,000
Surface Water Monitoring (4 events per year)							
Labor	120	HR		\$0	\$65	\$7,800	\$7,800
Equipment	4	LS		\$0	\$600	\$2,400	\$2,400
Lab analysis	48	EA		\$0	\$260	\$12,480	\$12,480
Report	96	HR		\$0	\$75	\$7,200	\$7,200
Subtotal Base Monitoring Services				<u>\$0</u>		<u>\$216,180</u>	<u>\$216,180</u>
Scope Contingency	1	LS			30%		\$64,854
Subtotal Annual Long-Term Monitoring							<u><u>\$281,034</u></u>
Present worth cost (i=0.05, n=15)							Present worth cost <u><u>\$ 2,917,037</u></u>

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #8 -- Bedding and Unloading Facility							
<u>Air Monitoring/Dust Control</u>							
Dust Control	8	WEEK	\$0	\$0	\$2,000	\$16,000	\$16,000
Air Monitoring Stations	8	WEEK	\$25	\$200	\$500	\$4,000	\$4,200
<u>Structure Demolition</u>							
Remove Existing Asphalt Pavement	5,500	SY	\$0	\$0	\$3	\$18,635	\$18,635
<u>Structure Demolition</u>							
Existing Control Structures	10	CY	\$0	\$0	\$71	\$708	\$708
Other	10	CY	\$0	\$0	\$71	\$708	\$708
Crush Concrete Slabs/Walls/floors	20	CY	\$0	\$0	\$113	\$2,253	\$2,253
Load and Haul to On-Site Repository	478	CY	\$0	\$0	\$4	\$1,793	\$1,793
Remove Railroad Tracks and Reinstall	12,600	LF	\$10	\$131,305	\$34	\$423,095	\$554,400
Remove & Replace Elevated Railroad Tracks	2,000	LF	\$10	\$20,842	\$34	\$67,158	\$88,000
<u>Excavation</u>							
Excavate Soils for RR pad installation	4,667	CY	\$0	\$0	\$3	\$14,455	\$14,455
Grade under asphalt cap area	4,667	CY	\$0	\$0	\$4	\$18,234	\$18,234
<u>Compacted Backfill</u>							
Provide backfill - on-site source	0	CY	\$0	\$0	\$2	\$0	\$0
Provide backfill - imported	0	CY	\$7	\$0	\$1	\$0	\$0
Place and compact backfill	0	CY	\$0	\$0	\$2	\$0	\$0
<u>Area Cap</u>							
Site Grading	11	ACRE	\$0.00	\$0	\$2,640.00	\$30,002	\$30,002
Compacted Subgrade (road mix)	14,601	CY	\$35.01	\$511,145	\$5.65	\$82,471	\$593,616
Subgrade Preparation	43,803	SY	\$0.00	\$0	\$0.30	\$13,106	\$13,106
60 mil HDPE (flexible-FML)	43,803	SY	\$3.22	\$141,128	\$0.74	\$32,331	\$173,459
Geotextile	43,803	SY	\$1.34	\$58,682	\$0.23	\$9,931	\$68,613
Crushed Limestone Aggregate	7,300	CY	\$0.00	\$0	\$22.00	\$160,610	\$160,610
Subgrade Preparation	43,803	SY	\$0.00	\$0	\$0.30	\$13,106	\$13,106
Fine Grade for paving	43,803	SY	\$0.00	\$0	\$2.64	\$115,639	\$115,639
Asphalt Pavement	3,650	CY	\$2.52	\$9,181	\$0.63	\$2,286	\$11,468
Concrete ballast under RR tracks	4,667	CY	\$93.72	\$437,346	\$7.92	\$36,974	\$474,320
<u>Drainage Control Features</u>							
Temporary Construction Erosion & Sediment Controls	1	LS	\$0	\$0	\$5,000	\$5,000	\$5,000
Enlarge Sump	10	CY	\$133	\$1,330	\$91	\$905	\$2,235
Drainage improvements/grading	1.14	CY	\$0	\$0	\$2,640	\$3,000	\$3,000
Surface Water Control Structures	1	LS	\$3,000	\$3,000	\$3,000	\$3,000	\$6,000
Subtotal Base Construction				\$1,314,160		\$ 1,075,401	\$ 2,389,561
Mobilization	1	LS			3.00%		\$71,687
Texas State Sales Tax	1	LS			8.25%	\$	108,418
Scope Contingency	1	LS			30%	\$	716,868
Health and Safety Premium (Modified Level D protection)	1	LS			10%	\$	107,540
Subtotal Construction							\$ 3,394,074

ASARCO EL PASO COPPER SMELTER
 REMEDIAL INVESTIGATION REPORT - PHASE II
 CONCEPTUAL COST ESTIMATE SUMMARY TABLE

TASK DESCRIPTION	NO UNITS	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #8 -- Bedding and Unloading Facility						
Other Misc. Costs						
Bond and Insurance				3.00%		\$101,822
Compliance Testing/Lab Analysis				2.50%		\$84,852
Total Other Costs						<u>\$186,674</u>
Engineering Design/Oversight						
Investigation				3.00%		\$101,822
Design				7.00%		\$237,585
Construction Management				2.50%		\$84,852
Administration/Meetings				0.50%		\$16,970
Total Engineering						<u>\$441,230</u>
Subtotal Remediation Work @ Investigation Area #8						<u><u>\$4,021,978</u></u>
Annual Inspections and O&M						
Site Inspections (once per year)			Annual Present worth cost (i=0.05, n=15)		\$500	\$5,190
Annual O&M			Annual Present worth cost (i=0.05, n=15)	0.25%	\$8,485	\$88,073
Total Monitoring and O&M						<u>\$93,263</u>
TOTAL CAPITAL OUTLAY						<u><u>\$4,115,241</u></u>

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #9 -- Ponds 1, 5 and 6 (On-Site Repository - OSR)							
<u>Air Monitoring/Dust Control</u>							
Dust Control	15	WEEKS	\$0	\$0	\$2,000	\$30,000	\$30,000
Air Monitoring Stations	15	WEEKS	\$25	\$375	\$500	\$7,500	\$7,875
<u>Structure Demolition</u>							
Remove structures and piping in Pond 1	1	LS	\$500	\$500	\$4,500	\$4,500	\$5,000
Remove structures and piping in Pond 5	1	LS	\$500	\$500	\$4,500	\$4,500	\$5,000
Remove structures and piping in Pond 6	1	LS	\$500	\$500	\$4,500	\$4,500	\$5,000
<u>Excavate Sediments</u>							
Pond 1	9,765	CY					
Pond 5	4,903	CY					
Pond 6	13,177	CY					
Excavate Soils-Category 1	27,846	CY	\$0	\$0	\$3.10	\$86,255	\$86,255
Haul to Drying Area	27,846	CY	\$0	\$0	\$ 3.75	\$104,388	\$104,388
Prepare Sediment Air dry pad	1	ACRE	\$ -	\$0	\$ 2,640.00	\$2,727	\$2,727
Air Dry Sediments	27,846	CY	\$0	\$0	\$2.47	\$68,857	\$68,857
Load and Haul to On-Site Repository	27,846	CY	\$0	\$0	\$3.07	\$85,519	\$85,519
<u>Volume Placed in OSR</u>							
Excavated soils	156,384	CY					
Demolition Debris	1,000	CY					
Compact Volume Placed in On-Site Repository	157,384	CY	\$ -	\$0	\$ 2.16	\$340,705	\$340,705
<u>On-Site Repository (includes all 3 ponds)</u>							
Excavate to Subgrade Elevations	85,508	CY	\$ -	\$0	\$ 3.10	\$264,870	\$264,870
Place Excavated Material in Stockpile	85,508	CY	\$ -	\$0	\$ 2.47	\$211,444	\$211,444
<u>Bottom Preparation</u>							
Site Grading	6.1	ACRE	\$ -	\$0	\$ 2,640.00	\$15,998	\$15,998
Prep Subgrade (compact w/ sheep's foot roller)	29,330	SY	\$ -	\$0	\$ 0.30	\$8,776	\$8,776
<u>Bottom Liner</u>							
Subgrade Preparation for GCL	29,330	SY	\$ -	\$0	\$ 2.64	\$77,431	\$77,431
GCL	29,330	SY	\$12.76	\$51,621	\$1.41	\$41,297	\$92,917
12" Gravel Layer	9,777	CY	\$12.41	\$121,319	\$1.51	\$14,787	\$136,107
Geotextile	29,330	SY	\$ 1.34	\$39,293	\$ 0.23	\$6,650	\$45,943
Leachate collection piping	1,472	CY	\$9.95	\$14,646	\$4.00	\$5,887	\$20,533
Leachate collection sump	3	SY	\$2,000	\$6,000	\$2,000	\$6,000	\$12,000
<u>Cap</u>							
Place Asphalt Pavement	27,933	SY	\$ 3.26	\$90,951	\$ 0.70	\$19,419	\$110,370
Fine Grade for paving	27,933	SY	\$ -	\$0	\$ 2.64	\$73,744	\$73,744
Subgrade Preparation	27,933	SY	\$ -	\$0	\$ 0.30	\$8,358	\$8,358
Base Course	4,656	CY	\$35	\$162,980	\$6	\$26,296	\$189,276
Fine Grade for Base Course	27,933	SY	\$ -	\$0	\$ 2.64	\$73,744	\$73,744
Geotextile	27,933	SY	\$1.34	\$37,422	\$1.75	\$48,883	\$86,305
Base Course	4,656	CY	\$ 35	\$162,980	\$ 6	\$26,296	\$189,276
Geotextile	27,933	SY	\$1.34	\$37,422	\$1.75	\$48,883	\$86,305
Cap - GCL or 60 mil HDPE (flexible-FML)	27,933	SY	\$1.76	\$49,163	\$3.25	\$90,783	\$139,946
Cap Lateral Drainage collection piping	3,740	LF	\$10	\$37,218	\$4.00	\$14,960	\$52,178
Cap Lateral Drainage sump	3	EA	\$2,000	\$6,000	\$2,000	\$6,000	\$12,000
<u>Drainage Control Features</u>							
Temporary Construction Erosion & Sediment Controls	3	LS	\$0	\$0	\$5,000	\$15,000	\$15,000
Connect Sumps to plant surface water system	3	EA	\$3,000	\$9,000	\$3,000	\$9,000	\$18,000
Subtotal Base Construction				\$827,890		\$1,853,957	\$2,681,847

ASARCO EL PASO COPPER SMELTER
 REMEDIAL INVESTIGATION REPORT - PHASE II
 CONCEPTUAL COST ESTIMATE SUMMARY TABLE

TASK DESCRIPTION	NO UNITS	UNIT	MATERIAL UNIT COST	COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #9 -- Ponds 1, 5 and 6 (On-Site Repository - OSR)							
Mobilization	1	LS			3.00%		\$80,455
Texas State Sales Tax	1	LS			8.25%	\$	68,301
Scope Contingency	1	LS			30%	\$	804,554
Health and Safety Premium (Modified Level D protection)	1	LS			10%	\$	185,396
Subtotal Construction							\$ 3,820,554
Other Misc. Costs							
Bond and Insurance					1.50%		\$57,308
Compliance Testing/Lab Analysis					2.50%		\$95,514
Total Other Costs							\$152,822
Engineering Design/Oversight							
Investigation					3.00%		\$114,617
Design					7.00%		\$267,439
Construction Management					5.00%		\$191,028
Administration/Meetings					1.00%		\$38,206
Total Engineering							\$611,289
Subtotal Remediation Work @ Investigation Area #9							\$4,584,665
Annual Inspections and O&M							
Site Inspections (once per year)					Annual Present worth cost (i=0.05, n=15)	\$500	\$5,190
Annual O&M					Annual Present worth cost (i=0.05, n=15)	0.50%	\$19,103
Total Monitoring and O&M							\$203,470
TOTAL CAPITAL OUTLAY							\$4,788,135

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #10 -- Plant Entrance							
Drainage Control Features							
Landscaping Improvements	0.43	ACRE	\$ 2,000.00	\$851	\$ 5,000.00	\$2,128	\$2,979
Temporary Construction Erosion & Sediment Controls	1	LS	\$0	\$0	\$5,000	\$5,000	\$5,000
Subtotal Base Construction				\$ 851		\$ 7,128	\$ 7,979
Mobilization	1	LS			3.00%		\$239
Texas State Sales Tax	1	LS			8.25%		\$70
Scope Contingency	1	LS			30%		\$2,394
Health and Safety Premium (Modified Level D protection)	1	LS			10%		\$798
Subtotal Construction							\$11,480
Other Misc. Costs							
Bond and Insurance					3.00%		\$344
Compliance Testing/Lab Analysis					2.50%		\$287
Total Other Costs							\$631
Engineering Design/Oversight							
Design					15.00%		\$1,722
Construction Management					2.50%		\$287
Administration/Meetings					2.50%		\$287
Total Engineering							\$2,296
Subtotal Remediation Work @ Investigation Area #5							\$14,407
Annual Inspections and O&M							
Site Inspections (once per year)				Annual Present worth cost (i=0.05, n=15)		\$500	\$5,190
Annual O&M				Annual Present worth cost (i=0.05, n=15)	0.50%	\$57	\$596
Total Monitoring and O&M							\$5,786
TOTAL CAPITAL OUTLAY							\$20,193

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	LABOR AND EQUIPMENT COST	SUBTOTAL COST
Investigation Area #11 -- East of I-10 Arroyos (Asarco Property)							
<u>Air Monitoring/Dust Control</u>							
Dust Control	8	WEEK	\$ -	\$0	\$ 2,000.00	\$16,000	\$16,000
Air Monitoring Stations	8	WEEK	\$ 25.00	\$200	\$ 500.00	\$4,000	\$4,200
Old unlined process material and equipment storage area (South Arroyos)							
<u>Debris Clean-up</u>							
Debris Clean-up	0.99	AC	\$ -	\$0	\$ 510.40	\$503	\$503
Load and Haul to Staging Area	20	CY	\$ -	\$0	\$ 2.47	\$49	\$49
<u>Slag Consolidation</u>							
Remove and replace Power Pole (Temporary Reset)	1	EA	\$ 582.45	\$582	\$ 517.55	\$518	\$1,100
Excavate Slag Piles - South	2,000	CY	\$ -	\$0	\$ 6.60	\$13,200	\$13,200
Excavate Slag Piles - North	2,000	CY	\$ -	\$0	\$ 6.60	\$13,200	\$13,200
Load and Haul to Parker Bros	4,000	CY	\$ -	\$0	\$ 3.75	\$14,995	\$14,995
Site Grading	10	AC	\$ -	\$0	\$ 2,640.00	\$25,344	\$25,344
Reclaim Existing Landfills (North Arroyos)							
<u>Debris Clean-up</u>							
Debris Clean-up	7	AC	\$ -	\$0	\$ 255.20	\$1,784	\$1,784
Load and Haul to Staging Area	140	CY	\$ -	\$0	\$ 2.47	\$346	\$346
<u>Excavation</u>							
Excavate Soils-Category I	3,179	CY	\$ -	\$0	\$ 3.10	\$9,847	\$9,847
Load and Haul to On-Site Repository	3,179	CY	\$ -	\$0	\$ 3.75	\$11,917	\$11,917
Post-Remedial Soil Sampling	1	LS	\$ 500.00	\$500	\$ 3,000.00	\$3,000	\$3,500
Provide backfill - on-site source	3,179	CY	\$ -	\$0	\$ 1.74	\$5,539	\$5,539
Place and compact backfill	3,179	CY	\$ -	\$0	\$ 2.16	\$6,882	\$6,882
<u>Install Cap over Existing Landfill</u>							
Vegetative Cover	7	AC	\$ 409.66	\$2,863	\$ 1,147.06	\$8,017	\$10,881
Soil Cap-Place and Compact	16,915	CY	\$ 12.78	\$216,119	\$ 0.91	\$15,343	\$231,462
Soil Cap-Haul	16,915	CY	\$ -	\$0	\$ 1.09	\$18,457	\$18,457
Soil Cap-Provide Borrow on-site	16,915	CY	\$ -	\$0	\$ 2.47	\$41,827	\$41,827
Geotextile	33,830	SY	\$ 1.34	\$45,321	\$ 0.23	\$7,670	\$52,991
12 " Gravel Layer	11,277	CY	\$ 12.41	\$139,931	\$ 1.51	\$17,056	\$156,987
Geotextile	33,830	SY	\$ 1.34	\$45,321	\$ 0.23	\$7,670	\$52,991
60 mil HDPE (flexible-FML)	33,830	SY	\$ 3.22	\$108,995	\$ 0.74	\$24,970	\$133,965
Subgrade Preparation	33,830	SY	\$ -	\$0	\$ 0.30	\$10,122	\$10,122
Site Grading	7	AC	\$ -	\$0	\$ 2,640.00	\$18,453	\$18,453
Cap Lateral Drainage collection piping	1,398	LF	\$ 9.95	\$13,911	\$ 4.68	\$6,546	\$20,458
Cap Lateral Drainage sump	1	LS	\$ 2,000.00	\$2,000	\$ 2,000.00	\$2,000	\$4,000
<u>Transport to Disposal Site/Disposal Fees</u>							
Subtitle D Landfill Facility-dump charges							
Trees, brush, lumber	250	TON	\$ -	\$0	\$ 40.00	\$10,000	\$10,000
Rubbish only	250	TON	\$ -	\$0	\$ 45.00	\$11,250	\$11,250
<u>Drainage Control Features</u>							
Temporary Construction Erosion & Sediment Controls	1	0	\$ -	\$0	\$ 5,000.00	\$5,000	\$5,000
Drainage Control Features	1	LS	\$ 10,000.00	\$10,000	\$ 5,000.00	\$5,000	\$15,000
Subtotal Base Construction				\$585,745		\$336,504	\$922,249

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	MATERIAL UNIT COST	LABOR AND EQUIPMENT UNIT COST	SUBTOTAL COST
Investigation Area #11 -- East of I-10 Arroyos (Asarco Property)					
Mobilization	1	LS		3.00%	\$27,667
Texas State Sales Tax	1	LS		8.25%	\$48,324
Scope Contengency	1	LS		30.00%	\$276,675
Health and Safety Premium (Modified Level D protection)	1	LS		10.00%	\$33,650.42
Subtotal Construction					\$1,308,566
Other Misc. Costs					
Bond and Insurance				3.00%	\$39,257
Compliance Testing/Lab Analysis				5.00%	\$65,428
Total Other Costs					\$104,685
Engineering Design/Oversight					
Investigation				5.00%	\$65,428
Design				10.00%	\$130,857
Construction Management				5.00%	\$65,428
Administration/Meetings				2.50%	\$32,714
Total Engineering					\$294,427
Subtotal Remediation Work @ Investigation Area #10					\$1,707,679
Annual Inspections and O&M					
Site Inspections (once per year)			Annual Present worth cost (i=0.05, n=15)	\$500	\$5,190
Annual O&M			Annual Present worth cost (i=0.05, n=15)	0.50%	\$6,543
Total Monitoring and O&M					\$73,102
TOTAL CAPITAL OUTLAY					\$1,780,781

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #12 -- Ephemeral Pond/Pond Sediment Storage Area							
<u>Air Monitoring/Dust Control</u>							
Dust Control	12	WEEK	\$ -	\$0	\$ 2,000.00	\$24,000	\$24,000
Air Monitoring Stations	12	WEEK	\$ 25.00	\$300	\$ 500.00	\$6,000	\$6,300
<u>Demolition/Debris Clean-up</u>							
Debris Clean-up (light)	10.00	ACRE	\$ -	\$0	\$ 255.20	\$2,552	\$2,552
Load and Haul to On-Site Repository	100.00	CY	\$ -	\$0	\$ 3.75	\$375	\$375
<u>Excavation</u>							
Sediment Stockpile	15,496	CY	\$ -	\$0	\$ 3.10	\$48,000	\$48,000
Excavate Soils-Category I	6,794	CY	\$ -	\$0	\$ 3.10	\$21,046	\$21,046
Load and Haul to On-Site Repository	22,290	CY	\$ -	\$0	\$ 3.75	\$83,562	\$83,562
Post-Remedial Soil Sampling	1.92	ACRE	\$ 500.00	\$960	\$ 3,000.00	\$5,763	\$6,723
Excavate lined impoundment	35,556	CY	\$ -	\$0	\$ 2.07	\$73,529	\$73,529
Haul Excavated soil from impoundment	35,556	CY	\$ -	\$0	\$ 2.47	\$87,922	\$87,922
Line Impoundment	4,889	SY	\$ 3.22	\$15,751	\$ 0.74	\$3,609	\$19,360
Culverts under RR tracks	2	EACH	\$ 10,000.00	\$20,000	\$ 5,000.00	\$10,000	\$30,000
Concrete channels and drainage controls	1,630	CY	\$ 132.98	\$216,707	\$ 90.54	\$147,548	\$364,255
Site grade for structures	5,333	SY	\$ -	\$0	\$ 2.64	\$14,080	\$14,080
<u>Cover Soil site graded area</u>							
Site Grading	1.92	ACRE	\$ -	\$0	\$ 2,640.00	\$5,071	\$5,071
<u>Stabilize Surface</u>							
Site Grading	8.00	ACRE	\$ -	\$0	\$ 2,640.00	\$21,120	\$21,120
Culverts under RR tracks	2.00	LS	\$ 10,000.00	\$20,000	\$ 5,000.00	\$10,000	\$30,000
Surface Water Drainage Improvements	1.00	LS	\$ 10,000.00	\$10,000	\$ 5,000.00	\$5,000	\$15,000
Seed, Fertilize & Mulch	8.00	ACRE	\$ 409.66	\$3,277	\$ 1,147.06	\$9,176	\$12,454
<u>Drainage Control Features</u>							
Temporary Construction Erosion & Sediment Controls	1	LS	\$ -	\$0	\$ 5,000.00	\$5,000	\$5,000
Subtotal Base Construction				\$286,996		\$583,353	\$870,350
Mobilization	1	LS			3.00%		\$26,110
Texas State Sales Tax	1	LS			8.25%		\$23,677
Scope Contingency	1	LS			30.00%		\$261,105
Health and Safety Premium (Modified Level D protection)	1	LS			10.00%		\$58,335.32
Subtotal Construction							\$1,239,577

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT COST	MATERIAL UNIT COST	COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #12 -- Ephemeral Pond/Pond Sediment Storage Area							
Other Misc. Costs							
Bond and Insurance					3.00%		\$37,187
Compliance Testing/Lab Analysis					2.50%		\$30,989
Total Other Costs							\$68,177
Engineering Design/Oversight							
Investigation					5.00%		\$61,979
Design					15.00%		\$185,937
Construction Management					5.00%		\$61,979
Administration/Meetings					2.50%		\$30,989
Total Engineering							\$340,884
Subtotal Remediation Work @ Investigation Area #12							\$1,648,638
Annual Inspections and O&M							
Site Inspections (once per year)				Annual Present worth cost (i=0.05, n=15)		\$500	\$5,190
Annual O&M				Annual Present worth cost (i=0.05, n=15)	0.50%	\$6,198	\$64,332
Total Monitoring and O&M							\$69,522
TOTAL CAPITAL OUTLAY							\$1,718,160

ASARCO EL PASO COPPER SMELTER
 REMEDIAL INVESTIGATION REPORT - PHASE II
 CONCEPTUAL COST ESTIMATE SUMMARY TABLE

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #13 -- Sample Mill Area (Chlorine Leaching Operation Area)							
<u>Air Monitoring/Dust Control</u>							
Dust Control	6	WEEK	\$ -	\$0	\$ 2,000.00	\$12,000	\$12,000
Air Monitoring Stations	6	WEEK	\$ 25.00	\$150	\$ 500.00	\$3,000	\$3,150
<u>Demolition/Debris Clean-up</u>							
Remove Railroad Tracks	750	LF	\$ -	\$0	\$ 22.88	\$17,160	\$17,160
Remove Existing Asphalt Pavement	3,779	SY	\$ -	\$0	\$ 3.39	\$12,804	\$12,804
Structure Demolition							
Modify Existing Sump	13	CY	\$ -	\$0	\$ 70.84	\$921	\$921
Load Asphalt and Haul to On-Site Repository	353	CY	\$ -	\$0	\$ 3.75	\$1,323	\$1,323
Load Cat I Materials and Haul to On-Site Repository	7,873	CY	\$ -	\$0	\$ 3.75	\$29,515	\$29,515
<u>Excavation</u>							
Excavate Soils-Category I	7,873	CY	\$ -	\$0	\$ 3.10	\$24,388	\$24,388
Load and Haul to On-Site Repository	7,873	CY	\$ -	\$0	\$ 3.75	\$29,515	\$29,515
Post-Remedial Soil Sampling	0.98	ACRES	\$ 500.00	\$488	\$ 3,000.00	\$2,928	\$3,416
<u>Cap Area</u>							
Site Grading	0.98	ACRES	\$ -	\$0	\$ 2,640.00	\$2,577	\$2,577
Fine Grade for paving	4,724	SY	\$ -	\$0	\$ 2.64	\$12,471	\$12,471
Subgrade Preparation	4,724	SY	\$ -	\$0	\$ 0.30	\$1,413	\$1,413
Compacted subgrade base course	4,724	SY	\$ -	\$0	\$ 0.42	\$1,995	\$1,995
Crushed Limestone Aggregate	787	CY	\$ -	\$0	\$ 22.00	\$17,321	\$17,321
Asphalt Pavement	4,724	SY	\$ 3.26	\$15,381	\$ 0.70	\$3,284	\$18,665
<u>Replace Structures</u>							
Concrete ballast under RR tracks	222	CY	\$ 132.98	\$29,551	\$ 90.54	\$20,120	\$49,671
Modify Existing Sample Mill Sump	13	CY	\$ -	\$0	\$ 70.84	\$921	\$921
Reinstall Railroad Tracks	750	LF	\$ 10.42	\$7,816	\$ 33.58	\$25,184	\$33,000
<u>Engineering Controls for system leaks</u>							
Engineering Controls for system leaks	1	LS	\$ -	\$0	\$ 4,500.00	\$4,500	\$4,500
<u>Drainage Control Features</u>							
Temporary Construction Erosion & Sediment Controls	1	LS	5,000	\$5,000	5,000	\$5,000	\$10,000
Subtotal Base Construction				\$58,386		\$228,340	\$286,725
Mobilization	1	LS			3.00%		\$8,602
Texas State Sales Tax	1	LS			8.25%		\$4,817
Scope Contengency	1	LS			30.00%		\$86,018
Health and Safety Premium (Modified Level D protection)	1	LS			10.00%		\$22,833.96
Subtotal Construction							\$408,996

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT COST	MATERIAL UNIT COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #13 -- Sample Mill Area (Chlorine Leaching Operation Area)						
Other Misc. Costs						
Bond and Insurance				2.50%		\$10,225
Compliance Testing/Lab Analysis				2.50%		\$10,225
Total Other Costs						<u>\$20,450</u>
Engineering Design/Oversight						
Investigation				5.00%		\$20,450
Design				10.00%		\$40,900
Construction Management				2.50%		\$10,225
Administration/Meetings				2.50%		\$10,225
Total Engineering						<u>\$61,349</u>
Subtotal Remediation Work @ Investigation Area #13						<u>\$490,795</u>
Annual Inspections and O&M						
Site Inspections (once per year)			Annual		\$500	\$5,190
			Present worth cost (i=0.05, n=15)			
Annual O&M			Annual	0.50%	\$2,045	\$21,226
			Present worth cost (i=0.05, n=15)			
Total Monitoring and O&M						<u>\$26,416</u>
TOTAL CAPITAL OUTLAY						<u>\$517,211</u>

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT	UNIT COST	MATERIAL COST	LABOR AND EQUIPMENT UNIT COST	COST	SUBTOTAL COST
Investigation Area #14 -- South Terrace Area							
<u>Air Monitoring/Dust Control</u>							
Dust Control	6	WEEK	\$ -	\$0	\$ 2,000.00	\$12,000	\$12,000
Air Monitoring Stations	6	WEEK	\$ 25.00	\$150	\$ 500.00	\$3,000	\$3,150
<u>Demolition/Debris Clean-up</u>							
Debris Clean-up	3.71	ACRE	\$ -	\$0	\$ 510.40	\$1,896	\$1,896
Load and Haul to On-Site Repository	37	CY	\$ -	\$0	\$ 3.75	\$139	\$139
<u>Excavation</u>							
Excavate Soils-Category I	732	CY	\$ -	\$0	\$ 3.10	\$2,267	\$2,267
Load and Haul to On-Site Repository	732	CY	\$ -	\$0	\$ 3.75	\$2,744	\$2,744
Post-Remedial Soil Sampling	0.50	ACRE	\$ 500.00	\$250	\$ 3,000.00	\$1,500	\$1,750
<u>Compacted Backfill</u>							
Provide backfill - on-site source	732	CY	\$ -	\$0	\$ 1.74	\$1,275	\$1,275
Spread	732	CY	\$ -	\$0	\$ 1.74	\$1,275	\$1,275
Place and compact backfill	732	CY	\$ -	\$0	\$ 2.16	\$1,585	\$1,585
<u>Stabilize Surface</u>							
Site Grading	0.50	ACRE	\$ -	\$0	\$ 2,640.00	\$1,320	\$1,320
Fine Grade for paving	2,420.00	SY	\$ -	\$0	\$ 2.64	\$6,389	\$6,389
Subgrade Preparation	2,420.00	SY	\$ -	\$0	\$ 0.30	\$724	\$724
Asphalt Pavement	2,420.00	SY	\$ 2.52	\$6,087	\$ 0.63	\$1,516	\$7,603
Gravel Surfacing	201.00	CY	\$ 12.41	\$2,494	\$ 1.51	\$304	\$2,798
<u>Utility Issues</u>							
Utility Relocations	5	EA	\$ 1,000.00	\$5,000	\$ 1,000.00	\$5,000	\$10,000
<u>Drainage Control Features</u>							
Temporary Construction Erosion & Sediment Controls	1	LS	\$ 3,000.00	\$3,000	\$ 3,000.00	\$3,000	\$6,000
Subtotal Base Construction				\$16,981		\$45,934	\$62,916
Mobilization	1	LS			3.00%		\$1,887
Texas State Sales Tax	1	LS			8.25%		\$1,401
Scope Contengency	1	LS			30.00%		\$18,875
Health and Safety Premium (Modified Level D protection)	1	LS			10.00%		\$4,593.44
Subtotal Construction							\$89,672

**ASARCO EL PASO COPPER SMELTER
REMEDIAL INVESTIGATION REPORT - PHASE II
CONCEPTUAL COST ESTIMATE SUMMARY TABLE**

TASK DESCRIPTION	NO UNITS	UNIT COST	MATERIAL UNIT COST	LABOR AND EQUIPMENT UNIT COST	SUBTOTAL COST
Investigation Area #14 -- South Terrace Area					
Other Misc. Costs					
Bond and Insurance				3.00%	\$2,690
Compliance Testing/Lab Analysis				2.50%	\$2,242
Total Other Costs					<u>\$4,932</u>
Engineering Design/Oversight					
Investigation				15.00%	\$13,451
Design				15.00%	\$13,451
Construction Management				10.00%	\$8,967
Administration/Meetings				2.50%	\$2,242
Total Engineering					<u>\$38,111</u>
Subtotal Remediation Work @ Investigation Area #14					<u><u>\$132,715</u></u>
Annual Inspections and O&M					
Site Inspections (once per year)			Annual Present worth cost (i=0.05, n=15)	\$500	\$5,190
Annual O&M			Annual Present worth cost (i=0.05, n=15)	0.50% \$448	\$4,654
Total Monitoring and O&M					<u>\$9,844</u>
TOTAL CAPITAL OUTLAY					<u><u>\$142,559</u></u>

APPENDIX C

BOREHOLE AND WELL DATA

APPENDIX C

BOREHOLE AND WELL DATA

APPENDIX C

BOREHOLE AND WELL DATA

TABLE OF CONTENTS

TABLE C-1	BOREHOLE DATA
TABLE C-2	WELL CONSTRUCTION DETAILS

This appendix contains the individual lithologic logs for each borehole and well diagrams for each well listed in Tables C-1 and C-2.

TABLE C-1

BOREHOLE DATA

**TABLE C-1
BOREHOLE DATA**

Borehole Identifier	Depth (feet)	Elevation (feet mean sea level)	Date Started	Date Finished	Drilling Method	Borehole Diameter (inches)
BH1-1	57	3774.40	08/31/99	09/01/99	Sonic	6
BH1-2	47	3774.70	09/01/99	09/01/99	Sonic	6
BH2-1	77	3809.10	08/09/99	08/10/99	Sonic	6
BH2-2	37	3798.40	08/10/99	08/11/09	Sonic	6
BH2-3	76	3805.00	08/12/99	08/13/99	Sonic	6
BH2-4	59	3805.20	08/13/99	08/16/99	Sonic	6
BH2-5	26	3786.00	08/15/99	08/16/99	Sonic	6
BH2-6	49	3779.10	08/16/99	08/17/99	Sonic	6
BH2-7	46	3777.60	08/17/99	08/17/99	Sonic	6
BH3-1	57	3789.20	08/18/99	08/23/99	Sonic	6
BH3-2	52	3788.90	08/23/99	08/23/99	Sonic	6
BH3-3	52	3789.00	08/24/99	08/24/99	Sonic	6
BH3-4	57	3787.20	08/24/99	08/25/99	Sonic	6
BH3-5	57		08/25/99	08/25/99	Sonic	6
BH3-6	70	3786.60	08/25/99	08/26/99	Sonic	6
BH3-7	72	3787.20	08/26/99	08/27/99	Sonic	6
BH3-8	68	3786.00	08/31/99	08/31/99	Sonic	6
BH4-1	17	3723.80	11/17/99	11/17/99	Hollow Stem Auger	8
BH4-2	22	3727.40	11/18/99	11/18/99	Hollow Stem Auger	8
BH4-3	17	3725.80	11/18/99	11/18/99	Hollow Stem Auger	8
BH4-4	17	3727.00	11/18/99	11/18/99	Hollow Stem Auger	8
BH4-5	17	3726.40	11/18/99	11/18/99	Hollow Stem Auger	8
BH4-6	17	3729.10	11/18/99	11/18/99	Hollow Stem Auger	8
BH8-1	75	3777.20	10/29/99	10/30/99	Sonic	6
BH8-2	67	3775.50	11/01/99	11/01/99	Sonic	6
BH8-3	62	3775.20	11/01/99	11/02/99	Sonic	6
BH8-4	67	3776.40	11/02/99	11/02/99	Sonic	6
BH9-5-1	11	3763.90	02/09/00	02/09/00	Geoprobe	2
BH9-5-2	8	3764.80	02/09/00	02/09/00	Geoprobe	2
BH9-5-3	4	3765.80	02/09/00	02/09/00	Geoprobe	2
BH9-5-4	6	3764.90	02/09/00	02/09/00	Geoprobe	2
BH9-5-5	4	3765.50	02/09/00	02/09/00	Geoprobe	2
BH9-5-6	4	3766.10	02/09/00	02/09/00	Geoprobe	2
BH9-5-7	4	3766.90	02/09/00	02/09/00	Geoprobe	2
BH11-1	5	3871.26	07/21/99	07/21/99	Hollow Stem Auger	8
BH11-2	42	3783.30	08/04/99	08/05/99	Sonic	6
BH11-3	12	3783.70	08/05/99	08/05/99	Sonic	6
BH11-4	20	3795.70	08/05/99	08/06/99	Sonic	6
BH12-1	17	3770.40	11/03/99	11/03/99	Sonic	6

**TABLE C-1
BOREHOLE DATA**

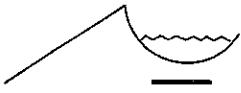
Borehole Identifier	Depth (feet)	Elevation (feet mean sea level)	Date Started	Date Finished	Drilling Method	Borehole Diameter (inches)
BH12-2	17	3769.60	11/03/99	11/03/99	Sonic	6
BH12-3	22	3771.80	11/03/99	11/03/99	Sonic	6
BH12-4	24	3773.20	11/03/99	11/03/99	Sonic	6
BH12-5	17	3776.20	11/04/99	11/04/99	Sonic	6
BH12-6	17	3770.70	11/04/99	01/04/99	Sonic	6
BH12-7	17	3769.90	11/04/99	11/04/99	Sonic	6
BH12-8	17	3770.70	11/04/99	11/04/99	Sonic	6
BH12-9	14	3772.80	11/04/99	11/04/99	Sonic	6
BH14-1	76	3774.30	11/05/99	11/08/99	Sonic	6
BH14-2	64	3775.00	12/16/99	12/16/99	Sonic	6
BH14-3	67	3774.20	12/15/99	12/15/99	Sonic	6
SSIA11-1	5	3789.90	07/19/99	07/19/99	Hand Auger	4
SSIA11-2	5	3790.40	07/19/99	07/19/99	Hand Auger	4
SSIA11-3	5	3856.50	07/20/99	07/20/99	Hollow Stem Auger	8
SSIA11-4	5	3858.90	07/20/99	07/20/99	Hollow Stem Auger	8
SSIA11-5	5	3866.80	07/20/99	07/20/99	Hollow Stem Auger	8
SSIA11-6	5	3844.50	07/20/99	07/20/99	Hollow Stem Auger	8
SSIA11-7	5	3847.80	07/20/99	07/20/99	Hollow Stem Auger	8
SSIA11-8	5	3821.30	07/21/99	07/21/99	Hollow Stem Auger	8
SSIA11-9	5	3798.10	07/21/99	07/21/99	Hollow Stem Auger	8
SSIA11-10	34	3788.50	08/04/99	08/04/99	Hollow Stem Auger	8
SSIA11-11	5	3785.70	08/04/99	08/04/99	Hollow Stem Auger	8
SSIA11-12	5	3785.30	08/04/99	08/04/99	Hollow Stem Auger	8
SSIA11-13	5	3781.10	08/05/99	08/05/99	Sonic	6
SSIA11-14	5	3795.70	08/06/99	08/06/99	Sonic	6
SSIA11-15	5	3785.20	08/06/99	08/06/99	Sonic	6
SSIA11-16	5	3789.10	08/06/99	08/06/99	Sonic	6
SSIA11-17	5	3779.10	11/04/99	11/04/99	Sonic	6
SSIA11-18	3	3779.00	11/05/99	11/05/99	Hand Auger	4

TABLE C-2

WELL CONSTRUCTION DETAILS

**TABLE C-2
WELL CONSTRUCTION DETAILS**

Well Identifier	Depth (feet)	Measuring Pt. Elevation (feet MSL)	Date Started	Date Finished	Drilling Method	Borehole Diameter (inches)	Well Description	Screened Interval (bgs)		Sand Pack Interval (bgs)		Annular Seal Interval (bgs)	
								Top	Bottom	Top	Bottom	Top	Bottom
EP-93	62	3855.99	07/21/99	07/21/99	Hollow Stem Auger	10.25	4-inch, flush threaded, Sch 40, PVC	37	57	35	57	3	35
EP-94	65	3831.00	07/26/99	07/26/99	Hollow Stem Auger	10	4-inch, flush threaded, Sch 40, PVC	45	65	43	65	2	43
EP-95	67	3802.21	10/18/99	10/20/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	35	60	31	60	3	31
EP-96	62	3873.26	07/20/99	07/20/99	Hollow Stem Auger	10.25	4-inch, flush threaded, Sch 40, PVC	42	62	40	62	3	40
EP-97	13	3792.43	08/04/99	08/04/99	Hollow Stem Auger	10.25	4-inch, flush threaded, Sch 40, PVC	2.5	12.5	1	13	0	1
EP-98	27	3789.92	08/06/99	08/09/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	7	27	5	27	3	5
EP-99	77	3801.51	05/11/99	05/12/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	57.5	72.5	55	73.5	3	55
EP-100	60	3776.99	09/08/99	09/28/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	32	52	29.5	53	3	29.5
EP-101	82	3780.38	09/29/99	09/30/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	52	72	50	72	3	50
EP-102	72	3776.28	09/30/99	10/04/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	52	72	49	72	3	49
EP-103	72	3778.71	10/04/99	10/05/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	51	71	49	72	3	49
EP-104	77	3779.71	10/05/99	10/07/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	52	77	53	77	3	53
EP-105	77	3780.22	10/07/99	10/08/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	44	74	39	77	3	39
EP-106	80	3780.40	10/16/99	10/18/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	50	80	48	80	3	48
EP-107	80	3782.71	10/11/99	10/12/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	59	79	46	80	2	46
EP-108	42	3774.26	10/14/99	10/14/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	20	40	16.5	40	3	16.5
EP-109	42	3776.67	10/15/99	10/15/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	17	42	12.5	42	3	12.5
EP-110	25	3722.03	10/18/99	10/18/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	5	25	3	25	2	3
EP-111	20	3716.75	10/27/99	10/27/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	3	18	2	18	1	2
EP-112	20	3718.58	10/27/99	10/27/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	3	18	2	18	1	2
EP-113	20	3718.67	10/28/99	10/28/99	Sonic	8	4-inch, flush threaded, Sch 40, PVC	2.5	17.5	1.5	17.5	1	1.5
EP-114	29	3728.64	11/15/99	11/15/99	Hollow Stem Auger	10.25	4-inch, flush threaded, Sch 40, PVC	8.5	28.5	6.5	29	2	6.5
EP-115	25	3728.59	11/16/99	11/16/99	Hollow Stem Auger	10.25	4-inch, flush threaded, Sch 40, PVC	10	15	8	15	3	8
EP-116	25	3724.64	11/16/99	11/16/99	Hollow Stem Auger	10.25	4-inch, flush threaded, Sch 40, PVC	5	25	3	25	1	3
EP-117	30	3726.46	11/16/99	11/17/99	Hollow Stem Auger	10.25	4-inch, flush threaded, Sch 40, PVC	8	28	6	28	2	6
EP-118	36	3726.21	11/17/99	11/17/99	Hollow Stem Auger	10.25	4-inch, flush threaded, Sch 40, PVC	6	36	5	36	2	5



Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 125 feet South of Medford Sump

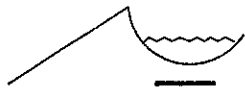
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 57

Recorded By: H Kutz

Remarks: Sampled from 0.5 feet to 47 feet BGS.
 Static water level 47 feet BGS.
 Boring abandoned with Bentonite Chips to 15 feet and cuttings to surface.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH1-1-A	CONT		1.00	0.5 - 1.5'		0.0 - 0.2' ASPHALT
	BH1-1-B				1.5 - 2.5'		0.2 - 0.8' GRAVEL, Sandy, Silty Fine to coarse grained, well graded, dry, moderate yellowish brown, 10 YR 5/4, no odor (Base Course).
5							0.8 - 2.5' SAND, Silty Fine to medium grained, poorly graded, moist, moderate yellowish brown, 10 YR 5/4, no odor.
10	BH1-1-C				10.0 - 12.0'		2.5 - 9.0' GRAVEL, Sandy, Silty, Clayey Fine to coarse grained, poorly graded, medium dense, dusky yellowish brown, 10 YR 2/2, moist, no odor, with intermixed slag gravel.
15	BH1-1-D				15.0 - 17.0'		9.0 - 19.0' GRAVEL, Sandy, Silty, Clayey Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, medium dense, moist, no odor.
20	BH1-1-E				20.0 - 22.0'		19.0 - 48.0' SAND, Silty, Clayey Fine grained, poorly graded, moderately yellowish brown, 10 YR 5/4, dry to moist, no odor, with calcareous material with fine to coarse gravel below 39 feet.
25	BH1-1-F				25.0 - 27.0'		
30							

SOIL_BORE_REV1 1095.GPJ HYD-TUC.GDT 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH1-1-G	CONT			30.0 - 32.0'		
35	BH1-1-H				35.0 - 37.0'		
40	BH1-1-I				40.0 - 42.0'		
45	BH1-1-J				45.0 - 47.0'		
50							48.0 - 51.0' GRAVEL, Sandy, Clayey Fine to coarse grained, poorly graded, moderately yellowish brown, 10 YR 5/4, moist to wet, dense, no odor.
55							51.0 - 57.0' CLAY, Sandy, Silty Moderate yellowish brown, 10 YR 5/4, dry, hard, no odor.
60							
65							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH1-2

Date Hole Started: 9/1/99 Date Hole Finished: 9/2/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 25 feet East of Medford Sump

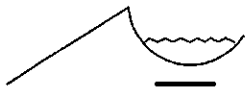
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 6
 Total Depth Drilled (ft): 47

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 42 feet BGS.
 Static water level 43 feet BGS.
 Boring abandoned with Bentonite Chips to 20 feet and cuttings to surface.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION		
	BH1-2-A	CONT		1.00	0.0 - 1.0'		0.0 - 25.0' SAND, Silty, Clayey Fine to medium grained, poorly graded, moderately yellowish brown, 10 YR 5/4, with some fine to coarse gravel, dry, no odor - with andesite cobbles below 12 feet.		
	BH1-2-B				1.0 - 2.0'				
	BH1-2-C				2.0 - 3.0'				
	BH1-2-D				3.0 - 4.0'				
5	BH1-2-E				4.0 - 5.0'				
10	BH1-2-F				10.0 - 12.0'				
15	BH1-2-G				15.0 - 17.0'				
20	BH1-2-H				20.0 - 22.0'				
25	BH1-2-I				25.0 - 27.0'				
30	BH1-2-J				30.0 - 32.0'				
35	BH1-2-K				35.0 - 37.0' K2 Sample Duplicate				
40	BH1-2-L				40.0 - 42.0'				
45									25.0 - 47.0' SAND, Clayey Fine to medium grained, poorly graded, moderate yellowish brown, 10 YR 5/4, with some coarse gravel, dry to moist, no odor.
50									

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



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Soil Boring Log

Hole Name: BH2-1

Date Hole Started: 8/9/99 Date Hole Finished: 8/10/99

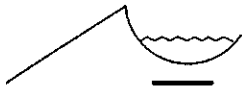
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 10 feet Southwest of No. 9A Gate in
 Boneyard/Slag Area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 77

Remarks: Sampled from 63 feet to 75 feet BGS.
 Static water level 70 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 63.0'							0.0 - 63.0' SLAG Black, angular, fractured.
63.0 - 65.0'	BH2-1-A	CONT		1.00	63.0 - 65.0'		63.0 - 69.0' FILL Gravelly Sand, some cobbles, loose, fine to coarse grained, gap graded pale yellow brown, 11 YR 6/2, dry, no odor. Some brick, andesite gravels and cobbles, andesite weathered.
68.0 - 70.0'	BH2-1-B			1.00	68.0 - 70.0'		69.0 - 74.0' SAND, Gravelly No more fill material at 69 feet; but still gravelly sand, fine grained, loose to medium dense, gap graded, greater percentage of fines than 63 - 69 feet. Interval pale yellow brown, 10 YR 6/2, dry, no odor.
73.0 - 75.0'	BH2-1-C			1.00	73.0 - 75.0'		74.0 - 77.0' SAND Fine to coarse grained, medium dense, gap graded, pale yellow brown, 10 YR 6/2, wet, no odor, wet at 74 feet.

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



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 El Paso, Texas

Soil Boring Log

Hole Name: BH2-2

Date Hole Started: 8/10/99 Date Hole Finished: 8/11/99

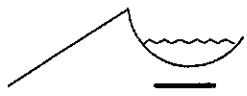
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 22 feet Northwest of EP-99 on Slag Haul Road in Boneyard/Slag Area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 37

Remarks: No Sample Taken.
 Slopes were beginning to deteriorate, hole was abandoned (9:15 a.m. 5/11/99).

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
5							0.0 - 37.0' SLAG Black, angular, fractured.
10							
15							
20							
25							
30							
35							
40							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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Soil Boring Log

Hole Name: BH2-3

Date Hole Started: 8/12/99 Date Hole Finished: 8/13/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 20 feet Northeast of EP-53 in Boneyard/Slag Area
 Recorded By: H Kutz

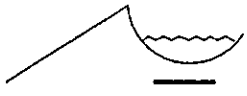
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 76



Remarks: Sampled from 40 feet to 76 feet BGS.
 Static water level 67 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 36.0'							0.0 - 36.0' SLAG Black, angular, fractured.
36.0 - 41.0'							36.0 - 41.0' SAND, Gravelly, Silty Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, rounded to subrounded, poorly graded, moist.
41.0 - 44.0'							41.0 - 44.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, moist.
44.0 - 72.0'							44.0 - 72.0' SAND, Silty, Gravelly Fine to medium grained, moderate yellowish brown, 10YR 5/4, moist, with cobbles, Andesite boulders below 69 feet (Alluvium).
40.0 - 42.0'	BH2-3-A	CONT		2.00			
45.0 - 47.0'	BH2-3-B			2.00			
50.0 - 52.0'	BH2-3-C			2.00			
55.0 - 57.0'	BH2-3-D			2.00			
60.0 - 62.0'	BH2-3-E			2.00	E2 Sample Duplicate		
65.0 - 67.0'	BH2-3-F			2.00			
70.0 - 72.0'	BH2-3-G			2.00			
75.0 - 76.0'	BH2-3-H			1.00			
72.0 - 76.0'							72.0 - 76.0' SAND, Silty, Clayey Fine grained, pale yellowish orange, 10 YR 8/6, hard, cemented, poorly graded, dry.

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log









Hole Name: BH2-4

Date Hole Started: 8/13/99 Date Hole Finished: 8/16/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 165 feet East of EP-53 in Boneyard/Slag Area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 59

Remarks: Sampled from 54 feet to 55 feet BGS.
 Static water level 55 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
5							0.0 - 53.0' SLAG Black, angular, fractured.
10							
15							
20							
25							
30							
35							
40							
45							
50							
55	BH2-4-A	CONT		54.0 - 55.0'			53.0 - 59.0' SAND, Silty, Gravelly Fine to medium grained, moderate yellowish brown, 10 YR 5/4, poorly graded with cobbles.
60							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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Soil Boring Log

Hole Name: BH2-5

Date Hole Started: 8/16/99 Date Hole Finished: 8/16/99

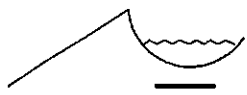
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 310 feet North of Contop Control Building in
 Boneyard/Slag Area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 26

Remarks: Sampled from 16 feet to 26 feet BGS.
 Static water level 18 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 16.0'							0.0 - 16.0' SLAG Black, angular, fractured.
16.0 - 18.0'	BH2-5-A	CONT		2.00	16.0 - 18.0' Moist, Water		16.0 - 21.0' SAND, Gravelly, Silty Fine to coarse grained, poorly graded, moderate yellowish brown, 10 YR 5/4, moist to wet.
20.0 - 22.0'	BH2-5-B			2.00	20.0 - 22.0' Bearing		21.0 - 26.0' SAND, Silty Fine grained, poorly graded moderate yellowish brown, 10 YR 5/4, moist with some fine gravel.
24.0 - 26.0'	BH2-5-C			2.00	24.0 - 26.0' C2 Sample Duplicate		

SOIL BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH2-6

Date Hole Started: 8/16/99 Date Hole Finished: 8/17/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 80 feet North of North-West corner of Acid Tank Farm in Boneyard/Slag Area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 49

Remarks: Sampled from 9 feet to 26 feet BGS.
 Static water level 43 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0 - 5							0.0 - 8.0' SLAG, Sand Black, angular, fractured - Fine grained.
9.0 - 11.0	BH2-6-A	CONT		2.00			8.0 - 16.0' SAND, Silty Fine to medium grained, poorly graded, moderately yellowish brown, 10 YR 5/4, with some gravel, dry.
15.0 - 17.0	BH2-6-B			2.00			16.0 - 49.0' SAND, Silty, Clayey Fine to medium grained, poorly graded, moderate yellowish brown, 10 YR 5/4, with gravel - with andesite gravel and cobbles below 38 feet.
20.0 - 22.0	BH2-6-C			2.00			
24.0 - 26.0	BH2-6-D			2.00	24.0 - 26.0' D2 Sample Duplicate		
30.0 - 32.0	BH2-6-E			2.00			
35.0 - 37.0	BH2-6-F			2.00			
40.0 - 42.0	BH2-6-G			2.00			
45.0 - 47.0	BH2-6-H			2.00			

SOIL BORE REV1 1036.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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Soil Boring Log

Hole Name: BH2-7

Date Hole Started: 8/17/99 Date Hole Finished: 8/17/99

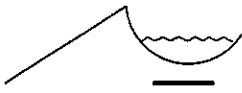
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 110 feet North and 50 feet West of
 North-East corner of Acid Tank Farm in Boneyard/Slag Area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 46

Remarks: Sampled from 10 feet to 46 feet BGS.
 Static water level 36 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 10.0'							0.0 - 10.0' SLAG Black, angular, fractured.
10.0 - 12.0'	BH2-7-A	CONT		2.00			10.0 - 12.0' GRAVEL, Silty, Sandy Fine to coarse, poorly graded moderate yellowish brown, 10 YR 5/4, moist to wet, dense.
12.0 - 19.0'							12.0 - 19.0' SAND, Clayey Fine grained, poorly graded, moderately yellowish brown, 10 YR 5/4, moist, dense.
15.0 - 17.0'	BH2-7-B			2.00			
20.0 - 22.0'	BH2-7-C				20.0 - 22.0' C2 Sample Duplicate		19.0 - 46.0' SAND, Clayey, Silty Fine to coarse grained, poorly graded, moderate yellowish brown, 10 YR 5/4, moist dense, with andesite gravel.
25.0 - 27.0'	BH2-7-D			2.00			
30.0 - 32.0'	BH2-7-E			2.00			
35.0 - 37.0'	BH2-7-F			1.00			
40.0 - 41.0'	BH2-7-G						
45.0 - 46.0'	BH2-7-H			1.00			

SOIL_BORE_REV1 1035.GPJ HYD.TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH3-1

Date Hole Started: 8/18/99 Date Hole Finished: 8/23/99

Client: ASARCO, Inc.

Drilling Company: Alliance Environmental

Project: Remedial Investigation Phase II

Driller: Oscar Medrano

County: El Paso State: Texas

Drilling Method: Sonic

Property Owner: ASARCO, Inc.

Drilling Fluids Used: Water

Legal Description: ASARCO El Paso Plant

Purpose of Hole: Collect Soil Samples

Descriptive Location: 150 feet East and 40 feet North of
 North-East corner of Acid Plant Control Building

Hole Diameter (in): 6

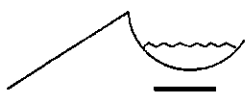
Total Depth Drilled (ft): 57

Recorded By: L Johnson & H Kutz

Remarks: Sampled from 0 feet to 51 feet BGS.
 Static water level 49 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 1.0'	BH3-1-A	CONT		1.00			0.0 - 9.0' SAND, Gravelly Fine to coarse grained, loose, medium dense, gap graded pale yellow brown, 10 YR 6/2, gravel 3/4" crushed limestone, dry, no odor. (Fill)
1.0 - 2.0'	BH3-1-B			1.00			
2.0 - 3.0'	BH3-1-C			1.00			
3.0 - 4.0'	BH3-1-D			1.00			
4.0 - 5.0'	BH3-1-E			1.00			
9.0 - 23.0'							9.0 - 23.0' SLAG Black, angular, fractured.
25.0 - 27.0'	BH3-1-F						23.0 - 38.0' SAND, Silty, Clayey Fine to medium grained, poorly graded, moderate yellowish brown, 10 YR 5/4, dry, no odor, with cobbles at depth.
30.0 - 32.0'	BH3-1-G						
35.0 - 37.0'	BH3-1-H						
40.0 - 42.0'	BH3-1-I						38.0 - 47.0' GRAVEL, Sandy, Silty, Clayey Fine to coarse, poorly graded, moderate yellowish brown, 10 YR 5/4, dry, no odor, with andesite cobbles.
45.0 - 47.0'	BH3-1-J				45.0 - 47.0' J2 Sample Duplicate		
49.0 - 51.0'	BH3-1-K						47.0 - 57.0' SAND, Clayey Fine grained, poorly graded, dusky yellowish brown, 10 YR 2/2, moist, no odor - pale yellowish brown, dry below 52 feet.

SOIL_BORE_REV1_1035.GPJ_HYD.TUC.GDT_4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH3-2

Date Hole Started: 8/23/99 Date Hole Finished: 8/23/99

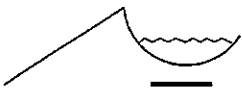
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 140 feet Northeast of South-East corner of
 Acid Plant Control Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 52

Remarks: Sampled from 0 feet to 2 feet BGS and 25 feet to 47 feet BGS.
 Diesel affected below 49 feet BGS.
 Unaffected soils returned to boring.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0	BH3-2-A	CONT		1.00	0.0 - 1.0'		0.0 - 2.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, poorly graded, with some fine gravel, dry, no odor.
2	BH3-2-B			1.00	1.0 - 2.0' B2 Sample Duplicate		2.0 - 14.0' SLAG Black, angular, fractured - with some soil.
5							
10							
15							14.0 - 23.0' CONCRETE Fine to coarse aggregate, highly cemented.
20							
25	BH3-2-C			1.00	25.0 - 26.0'		23.0 - 26.5' GRAVEL, Sandy Fine to coarse, poorly gaded, moderate yellowish brown, 10 YR 5/4, dry, no odor.
26.5							26.5 - 28.0' SAND, Clayey Fine grained, poorly graded, moderately yellowish brown, 10 YR 5/4.
28							28.0 - 32.0' SAND, Clayey Fine grained, poorly graded, moderate yellowish brown, 10 YR 5/4, dry, no odor.
30	BH3-2-D				30.0 - 32.0'		
35	BH3-2-E				35.0 - 37.0'		32.0 - 52.0' SAND, Gravelly, Silty Fine to medium grained, poorly graded, multicolored, moderate yellowish brown, 10 YR 5/4, dry, no odor with interbedded clay lenses - 2' thick - dusky yellowish brown zone at 42 feet (suspect H2O) to 49 feet. Diesel staining and odor below 49 feet.
40	BH3-2-F				40.0 - 42.0'		
45	BH3-2-G				45.0 - 47.0'		
50							
55							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH3-3

Date Hole Started: 8/24/99 Date Hole Finished: 8/24/99

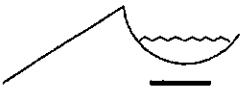
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 180 feet East of South-East corner of Acid Plant Control Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 52

Remarks: Sampled from 40 feet to 47 feet BGS.
 Diesel affected at 48 feet to 52 feet.
 Static water level 48 feet BGS.
 Unaffected soils returned to boring.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0							0.0 - 2.0' SLAG Black, angular, fractured.
2.0							2.0 - 2.5' SAND, Clayey Fine grained, poorly graded, moderate yellowish brown, 10 YR 5/4, moist with red brick debris, no odor.
2.5							2.5 - 40.0' SLAG Black, angular, fractured.
40.0	BH3-3-A	CONT			40.0 - 42.0'		40.0 - 42.5' SAND, Clayey Fine grained, poorly graded, pale yellowish orange, 10 YR 5/4, no odor with some fine gravel.
42.5							42.5 - 45.0' SAND, Silty Fine to medium grained, poorly graded, multi-colored, dusky yellowish brown, 10 YR 2/2, no odor, dry.
45.0	BH3-3-B				45.0 - 47.0'		45.0 - 52.0' GRAVEL, Sandy, Silty, Clayey Fine to coarse, poorly graded, moderate yellowish brown, 10 YR 5/4, no odor, dry, with andesite cobbles - Diesel affected at 48 feet to 52 feet.

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH3-4

Date Hole Started: 8/24/99 Date Hole Finished: 8/25/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 40 feet North and 60 feet East of
 South-East corner of Acid Plant Control Building
 Recorded By: H Kutz

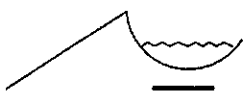
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 6
 Total Depth Drilled (ft): 57



Remarks: Sampled from 0 feet to 52 feet BGS. 4-oz soil sample at 54 feet for BTEX & TPH.
 Diesel affected at 52 feet to 57 feet BGS.
 Static water level 52 feet BGS.
 Unaffected soils returned to boring.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH3-4-A	CONT		1.00	0.0 - 1.0'		0.0 - 2.5' SAND, Silty Fine to medium grained, poorly graded, grayish orange, 10 YR 7/4, dry, no odor, with some gravel. 2.5 - 37.0' SLAG Black, angular, fractured.
	BH3-4-B			1.00	1.0 - 2.0'		
5							
10							
15							
20							
25							
30							
35							
40	BH3-4-C			1.00	39.0 - 41.0'		37.0 - 39.0' CLAY, Sandy Moderately yellowish brown, 10 YR 5/4, moist, no odor, hard.
45	BH3-4-D			1.00	45.0 - 47.0'		39.0 - 57.0' GRAVEL, Sandy Fine to coarse, poorly graded, moderately yellowish brown, 10 YR 5/4, no odor, moist, - wet at 52 feet - affected soil below 52 feet (Diesel) very dusky red, 10 YR 2/2.
50	BH3-4-E			1.00	50.0 - 52.0'		
55							
60							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH3-5

Date Hole Started: 8/25/99 Date Hole Finished: 8/25/99

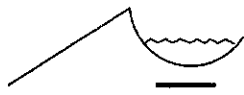
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 210 feet Southeast of South-East corner of
 Acid Plant Control Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 57

Remarks: Sampled from 3 feet to 52 feet BGS. 4-oz soil sample at 54 feet for BTEX & TPH.
 Diesel affected at 52 feet to 57 feet BGS.
 Static water level 55 feet BGS.
 Unaffected soils returned to boring.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 0.2'							0.0 - 0.2' ASPHALT
0.2 - 0.8'							0.2 - 0.8' GRAVEL, Sandy, Silty Well graded, moderately yellowish brown, 10 YR 5/4, dry, no odor.
0.8 - 3.0'							0.8 - 3.0' SLAG Black, angular, fractured.
3.0 - 4.5'	BH3-5-A	CONT		1.00	3.0 - 4.5'		3.0 - 4.5' SAND, Silty, Clayey, Gravelly Fine to medium grained, poorly graded, moderately yellowish brown, 10 YR 5/4, dry, dense, no odor.
4.5 - 31.0'							4.5 - 31.0' SLAG Black, angular, fractured.
31.0 - 34.0'	BH3-5-B			1.00	31.0 - 33.0'		31.0 - 34.0' CLAY, Sandy Soft, moderately yellowish brown, 10 YR 5/4, moist, no odor.
34.0 - 43.0'	BH3-5-C				35.0 - 37.0'		34.0 - 43.0' SAND, Silty Fine to medium grained, poorly graded, moderately yellowish brown, 10 YR 5/4, moist, no odor, medium dense.
40.0 - 42.0'	BH3-5-D				40.0 - 42.0'		
45.0 - 47.0'	BH3-5-E				45.0 - 47.0'		43.0 - 48.0' GRAVEL, Sandy, Silty Fine to coarse, poorly graded, pale yellowish brown, 10 YR 6/2, dry, dense, with cobbles. (Alluvium)
50.0 - 52.0'	BH3-5-F				50.0 - 52.0'		48.0 - 57.0' SAND, Silty, Clayey Fine to coarse grained, poorly graded, moderately yellowish brown, 10 YR 5/4, dry, no odor - H.C. affected soil below 52 feet, very dusky red, 10 YR 2/2 - Unaffected soils returned to boring.
55'							Static water level 55 feet BGS.

SOIL_BORE_REV1 1035.GPJ HYD-TLUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH3-6

Date Hole Started: 8/25/99 Date Hole Finished: 8/26/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 10 feet East and 35 feet South of the
 South-West corner of Acid Mist Precipitator
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 70



Remarks: Sampled from 18 feet to 67 feet BGS.
 Static water level 64 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0							0.0 - 0.2' ASPHALT
0.2							0.2 - 16.0' SLAG Black, angular, fractured.
18.0	BH3-6-A	CONT		1.00	18.0 - 20.0'		16.0 - 54.0' SAND Fine to medium grained, poorly graded, multicolored, moderately yellowish brown, 10 YR 5/4, with some silt and gravel, no odor - with interbedded clay lenses below 30 feet - dark yellowish orange, 10 YR 6/6 below 43 feet.
25.0	BH3-6-B			1.00	25.0 - 27.0'		
30.0	BH3-6-C			1.00	30.0 - 32.0'		
35.0	BH3-6-D			1.00	35.0 - 37.0'		
40.0	BH3-6-E				40.0 - 42.0'		
45.0	BH3-6-F				45.0 - 47.0'		
50.0	BH3-6-G				50.0 - 52.0' G2 Sample Duplicate		
55.0	BH3-6-H				55.0 - 57.0'		54.0 - 63.0' GRAVEL, Sandy, Clayey Fine to coarse, poorly graded, dark yellowish orange, 10 YR 6/6, moist, dense, no odor - with cobbles below 57 feet - andesite boulder at 62 - 64 feet.
60.0	BH3-6-I				60.0 - 62.0'		
65.0	BH3-6-J				65.0 - 67.0'		63.0 - 70.0' CLAY, Silty, Sandy With some fine gravel, multicolored, pale yellowish orange, 10 YR 8/6, banding, in dark yellowish brown - H2O at 64 - 65 feet - dry below 65 1/2 feet.
70.0							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH3-7

Date Hole Started: 8/26/99 Date Hole Finished: 8/27/99

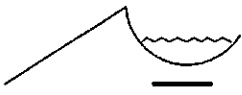
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 180 feet Northwest of North-East corner of
 Acid Plant Control Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 72

Remarks: Sampled from 30 feet to 70 feet BGS. 4-oz soil sample at 67 feet for BTEX & TPH.
 Hydrocarbon affected clay layers from 65 feet to 72 feet BGS.
 Static water level 70 feet BGS.
 Boring abandoned with Bentonite chips to 30 feet and cuttings to surface.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0 - 5							0.0 - 0.2' GRAVEL Fine to coarse, poorly graded, very pale orange, 10 YR 8/2, dry, no odor. 0.2 - 30.0' SLAG Black, angular, fractured.
30	BH3-7-A	CONT		30.0 - 32.0'			30.0 - 54.0' GRAVEL, Sandy, Silty Fine to coarse, poorly graded, moderate yellowish brown, 10 YR 5/4, dry, no odor, with interbedded clay lenses, dense - with cobbles below 45 feet
35	BH3-7-B			35.0 - 37.0'			
40	BH3-7-C			40.0 - 42.0' C2 Sample Duplicate			
45	BH3-7-D			45.0 - 47.0'			
50	BH3-7-E			50.0 - 52.0'			
55	BH3-7-F			55.0 - 57.0'			54.0 - 56.0' SAND, Gravelly, Silty Fine to medium grained, poorly graded, pale yellowish orange, 10 YR 8/6, dry, no odor, dense. 56.0 - 58.0' SILT, Sandy Pale yellowish brown, 10 YR 6/2, dry, hard, no odor.
60	BH3-7-G			60.0 - 62.0'			58.0 - 65.0' SAND, Gravelly, Silty Fine to medium grained, poorly graded, pale yellowish orange, 10 YR 8/6, dry, no odor, dense.
65	BH3-7-H			65.0 - 67.0'			65.0 - 69.0' CLAY, Sandy Dark yellowish orange, 10 YR 6/6, dry, hard, with grey streaks and slight hydrocarbon odor.
70	BH3-7-I			69.0 - 70.0'			69.0 - 72.0' GRAVEL, Sandy, Silty Fine to coarse, poorly graded, pale yellowish orange, 10 YR 8/6, dry to wet, dense, no odor - slight hydrocarbon staining and odor in clay layer (65-69').

SOIL BORE REV1 1085.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH3-8

Date Hole Started: 8/31/99 Date Hole Finished: 8/31/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant

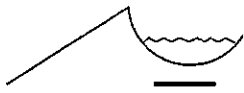
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 68

Recorded By: H Kutz

Remarks: Sampled from 55 feet to 62 feet BGS.
 Static water level 64.5 feet BGS.
 Boring abandoned with Bentonite Chlps to 50 feet and cuttings to surface.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 53.0'							0.0 - 53.0' SLAG Black, angular, fractured.
53.0 - 54.5'							53.0 - 54.5' CLAY, Sandy, Gravelly Moderate yellowish brown, 10 YR 5/4, moist, hard, no odor.
54.5 - 63.0'	BH3-B-A	CONT		1.00	55.0 - 57.0'		54.5 - 63.0' GRAVEL, Sandy, Silty Fine to coarse, poorly graded moderate yellowish brown, 10 YR 5/4, moist, dense, no odor - with interbedded sand lenses - with cobbles below 60 feet.
60.0 - 62.0'	BH3-B-B			1.00	60.0 - 62.0' B2 Sample Duplicate		63.0 - 68.0' SAND, Clayey, Silty Fine grained, poorly graded, pale brown, 5 YR 5/2, moist to wet, no odor.

SOIL_BORE_REV1 1036.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH4-1

Date Hole Started: 11/17/99 Date Hole Finished: 11/17/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front slope, by railroad tracks below former lunch room
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: D Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 17

Remarks: Sampled from 0 feet to 12 feet BGS.
 Static water level 14 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH4-1-A	SS		1.00	0.0 - 1.0' A2 Sample Duplicate		0.0 - 4.0' SAND, Silty Fine to medium grained, pale yellowish brown, 10 YR 6/2, dry, no odor, poorly graded, dense.
	BH4-1-B			1.00	1.0 - 2.0'		
	BH4-1-C			1.00	2.0 - 3.0'		
	BH4-1-D			1.00	3.0 - 4.0'		
	BH4-1-E			1.00	4.0 - 5.0'		4.0 - 9.0' GRAVEL, Sandy, Silty Fine to coarse, pale yellowish brown, 10 YR 6/2, dry, no odor, poorly graded, dense.
5							
	BH4-1-F			2.00	10.0 - 12.0'		9.0 - 17.0' SAND Fine to medium grained, moderate yellowish brown, 10 YR 6/2, dry to wet, dense, no odor, poorly graded.
10							
15							
20							

SOIL BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH4-2

Date Hole Started: 11/18/99 Date Hole Finished: 11/18/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front slope, by railroad tracks, below former lunch room
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: D Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 22

Remarks: Sampled from 0 feet to 17 feet BGS.
 Static water level 20 feet BGS.
 Boring abandoned with Bentonite Chips to 22 feet and cuttings to surface.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH4-2-A	SS		1.00	0.0 - 1.0'		0.0 - 1.5' SAND, Silty Fine to medium grained, dark yellowish orange, 10 YR 6/6, dry, no odor, dense.
	BH4-2-B			1.00	1.0 - 2.0'		1.5 - 4.0' GRAVEL, Sandy Fine to coarse grained, dark yellowish brown, 10 YR 4/2, poorly graded, no odor, dry, very dense (RR BALLAST).
	BH4-2-C			1.00	2.0 - 3.0'		
	BH4-2-D			1.00	3.0 - 4.0'		
5	BH4-2-E			1.00	4.0 - 5.0'		4.0 - 13.0' SAND, Gravelly, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, dense.
10	BH4-2-F			2.00	10.0 - 12.0'		
15	BH4-2-G			2.00	15.0 - 17.0'		13.0 - 22.0' GRAVEL, Sandy, Silty Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry to moist, poorly graded, very dense, with cobbles - hydrocarbon staining at 19 feet.
20							
25							

SOIL_BORE_REV1 1035.GPJ HYD-TJC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH4-3

Date Hole Started: 11/18/99 Date Hole Finished: 11/18/99

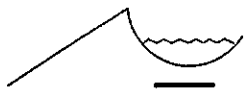
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front slope, by railroad tracks, below
 Sample Mill
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: C Bearor
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 17

Remarks: Sampled from 10 feet BGS.
 Static water level 11.5 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 7.0'							0.0 - 7.0' SLAG Black, angular, fractured. Gravel to cobble size.
7.0 - 11.5'							7.0 - 11.5' GRAVEL, Sandy, Silty Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, poorly graded, dry, with cobbles, very dense.
10.0 - 11.0'	BH4-3-A	SS		2/12'	10.0 - 11.0' Very dense / little recovery		
11.5 - 17.0'							11.5 - 17.0' SAND, Silty, Clayey Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry to wet, poorly graded, loose.

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH4-4

Date Hole Started: 11/18/99 Date Hole Finished: 11/18/99

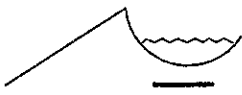
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front slope, by railroad tracks, below DNL bag house
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: D Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 17

Remarks: Sampled from 0 feet to 12 feet BGS.
 Static water level 15 feet BGS.
 Boring abandoned with Bentonite Chips to 17 feet and cuttings to surface.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH4-4-A	SS		1.00	0.0 - 1.0' A2 Sample Duplicate		0.0 - 1.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, poorly graded, no odor, dense.
	BH4-4-B			1.00	1.0 - 2.0'		1.0 - 3.0' SAND, Silty Fine to medium grained, dusky yellowish brown, 10 YR 2/2, dry, poorly graded, no odor, dense.
	BH4-4-C			1.00	2.0 - 3.0'		
	BH4-4-D			1.00	3.0 - 4.0'		
	BH4-4-E			1.00	4.0 - 5.0'		3.0 - 17.0' SAND, Silty, Gravelly Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry, poorly graded, no odor, dense, with gravel.
5							
	BH4-4-F			2.00	10.0 - 12.0'		
10							
15							
20							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH4-5

Date Hole Started: 11/18/99 Date Hole Finished: 11/18/99

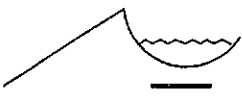
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front slope, by railroad tracks, below Roasters
 Recorded By: H Kutz

Drilling Company: Allance Environmental
 Driller: D Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 17

Remarks: Sampled from 0 feet to 12 feet BGS.
 Static water level 13 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH4-5-A	SS		1.00	0.0 - 1.0' A2 Sample Duplicate		0.0 - 12.0' SAND, Silty Fine to medium grained, dark yellowish brown, 10 YR 4/2, dry to wet, poorly graded, no odor, dense. - pale reddish brown, 10 YR 5/4, below 7 feet -- gravelly below 11 feet.
	BH4-5-B			1.00	1.0 - 2.0'		
	BH4-5-C			1.00	2.0 - 3.0'		
	BH4-5-D			1.00	3.0 - 4.0'		
	BH4-5-E			1.00	4.0 - 5.0'		
5							
	BH4-5-F			2.00	10.0 - 12.0'		12.0 - 14.0' GRAVEL, Sandy, Silty Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, moist to wet, no odor, dense.
10							
							14.0 - 17.0' CLAY, Sandy Medium plasticity, dark yellowish brown, 10 YR 5/4, moist, hard, no odor.
15							
20							

SOIL_BORING_REV1_1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: BH4-6

Date Hole Started: 11/18/99 Date Hole Finished: 11/18/99

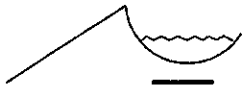
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front slope, by railroad tracks, below
 Thickner
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: D Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 17

Remarks: Sampled from 0 feet to 12 feet BGS.
 Static water level 13.5 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH4-6-A	SS		1.00	0.0 - 1.0'		0.0 - 9.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, dense, poorly graded, no odor.
	BH4-6-B			1.00	1.0 - 2.0'		
	BH4-6-C			1.00	2.0 - 3.0'		
	BH4-6-D			1.00	3.0 - 4.0'		
	BH4-6-E			1.00	4.0 - 5.0' E2 Sample Duplicate		
5							
							9.0 - 13.0' GRAVEL, Sandy, Silty Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry to wet, poorly graded, dense, hydrocarbon odor & staining at water table.
10	BH4-6-F			2.00	10.0 - 12.0'		
							13.0 - 17.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, moist to wet, dense, poorly graded, no odor.
15							
20							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: BH8-1

Date Hole Started: 10/29/99 Date Hole Finished: 10/30/99

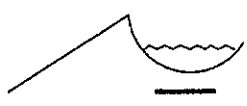
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 450 feet South and 45 feet West of
 South-West corner of the Unloading Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 75

Remarks: Sampled from 31 feet to 72 feet BGS.
 Static water level 37 feet to 35 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0							0.0 - 0.2' ASPHALT
0.2							0.2 - 33.0' SLAG Black, angular, fractured.
31.0	BH8-1-A	CONT		2.00	31.0 - 33.0'		
35.0	BH8-1-B			2.00	35.0 - 37.0'		33.0 - 75.0' SAND, Gravelly, Silty, Clayey Moderate yellowish brown, 10 YR 5/4, fine to coarse grained, moist to wet, no odor, - with cobbles below 45 feet, very dense - perched zone 32-37 feet - with boulders below 55 - with andesite cobbles/boulders below 70 feet.
40.0	BH8-1-C			2.00	40.0 - 42.0'		
45.0	BH8-1-D			2.00	45.0 - 47.0'		
50.0	BH8-1-E			2.00	50.0 - 52.0'		
55.0	BH8-1-F			2.00	55.0 - 57.0' F2 Sample Duplicate		
60.0	BH8-1-G			2.00	60.0 - 62.0'		
65.0	BH8-1-H			2.00	65.0 - 67.0'		
70.0	BH8-1-I			2.00	70.0 - 72.0'		

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH8-2

Date Hole Started: 11/1/99 Date Hole Finished: 11/1/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 930 feet Southeast of the South-West
 corner of the Unloading Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 67

Remarks: Sampled from 10 feet to 67 feet BGS.
 Static water level 66 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 10.0'							0.0 - 10.0' SLAG Black, angular, fractured.
10.0 - 12.0'	BH8-2-A	CONT		2.00			10.0 - 15.0' SAND Fine to medium grained, grayish orange, 10 YR 7/4, dry, no odor, with fine gravel, poorly graded, medium dense.
15.0 - 17.0'	BH8-2-B			2.00			15.0 - 40.0' SAND, Clayey, Silty Fine grained, dark yellowish orange, 10 YR 6/6, dry to moist, no odor, with fine gravel, dense.
20.0 - 22.0'	BH8-2-C			2.00			
25.0 - 27.0'	BH8-2-D			2.00	25.0 - 27.0' D2 Sample Duplicate		
30.0 - 32.0'	BH8-2-E			2.00			
35.0 - 37.0'	BH8-2-F			2.00			
40.0 - 42.0'	BH8-2-G			2.00			40.0 - 67.0' GRAVEL, Sandy, Silty, Clayey Fine to coarse, dark yellowish orange, 10 YR 6/6, dry, no odor with cobbles, (Alluvium), very dense. Andesite-cobbles below 49 feet.
45.0 - 47.0'	BH8-2-H			2.00			
50.0 - 52.0'	BH8-2-I			2.00	50.0 - 52.0' I2 Sample Duplicate		
55.0 - 57.0'	BH8-2-J						
60.0 - 62.0'	BH8-2-K			?			
65.0 - 67.0'	BH8-2-L			2.00			

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH8-3

Date Hole Started: 11/1/99 Date Hole Finished: 11/2/99

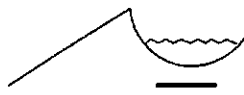
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 480 feet South and 100 feet East of the
 South-East corner of the Unloading Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 62

Remarks: Sampled from 14 feet BGS.
 Static water level 59 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 14.0'							0.0 - 14.0' SLAG Black, angular, fractured.
14.0 - 16.0'	BH8-3-A	CONT		2.00	14.0 - 16.0'		14.0 - 28.0' SAND, Gravelly Medium to coarse grained, moderate yellowish brown, 10 YR 5/4, poorly graded, dry, no odor, dense.
20.0 - 22.0'	BH8-3-B			2.00	20.0 - 22.0'		
25.0 - 27.0'	BH8-3-C			2.00	25.0 - 27.0' C2 Sample Duplicate		
30.0 - 32.0'	BH8-3-D			2.00	30.0 - 32.0'		28.0 - 35.0' CLAY, Sandy, Gravelly Moderate yellowish brown, 10 YR 5/4, dry, no odor, dense.
35.0 - 37.0'	BH8-3-E			2.00	35.0 - 37.0'		35.0 - 62.0' GRAVEL, Clayey, Silty Grayish orange, 10 YR 7/4, dry, no odor, very dense, with cobbles at various depths.
40.0 - 42.0'	BH8-3-F			2.00	40.0 - 42.0'		
45.0 - 47.0'	BH8-3-G			2.00	45.0 - 47.0'		
50.0 - 52.0'							
55.0 - 57.0'							
60.0 - 62.0'							

SOIL_BORING_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH8-4

Date Hole Started: 11/2/99 Date Hole Finished:

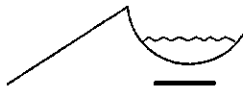
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 90 feet Northeast of the South-East corner of the Unloading Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 67

Remarks: Sampled from 0 feet to 67 feet BGS.
 Moist at 22 feet to 25 feet and 30 feet to 35 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH8-4-A	CONT		1.00	0.0 - 1.0'		0.0 - 1.0' SAND, Silty Fine grained, brownish black, 5 YR 2/1, with fine gravel, dry, no odor, poorly graded, dense.
	BH8-4-B			1.00	1.0 - 2.0'		
	BH8-4-C			1.00	2.0 - 3.0'		
	BH8-4-D			1.00	3.0 - 4.0'		
	BH8-4-E			1.00	4.0 - 5.0'		
	BH8-4-F			2.00	10.0 - 12.0'		1.0 - 15.0' SAND, Gravelly Fine to coarse grained, pale yellowish brown, 10 YR 6/2, poorly graded, dry, no odor, dense.
	BH8-4-G			2.00	15.0 - 17.0' G2 Sample Duplicate		
	BH8-4-H			2.00	20.0 - 22.0'		15.0 - 38.0' SAND, Clayey, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, with some gravel.
	BH8-4-I			2.00	25.0 - 27.0'		
	BH8-4-J			2.00	30.0 - 32.0'		
	BH8-4-K			2.00	35.0 - 37.0'		38.0 - 67.0' GRAVEL, Sandy, Clayey Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, very dense, with cobbles at various depths -- andesite cobbles and boulders below 48 feet.
	BH8-4-L				40.0 - 42.0'		
	BH8-4-M				45.0 - 47.0' M2 Sample Duplicate		
	BH8-4-N			2.00	50.0 - 52.0'		
	BH8-4-O			2.00	55.0 - 57.0'		
	BH8-4-P			2.00	60.0 - 62.0'		
	BH8-4-Q			2.00	65.0 - 67.0'		

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Hole Name: BH9-5-1

Date Hole Started: 2/9/00 Date Hole Finished: 2/9/00

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: North end of Pond No. 5

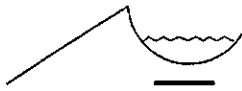
Drilling Company: Alliance Environmental
 Driller: C Bearor
 Drilling Method: Geoprobe
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 2
 Total Depth Drilled (ft): 11

Recorded By: M Miles

Remarks: Sampled from 0 feet to 11 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH9-5-1-A	CONT		1.00	0.0 - 1.0'		0.0 - 1.0' CLAY High plasticity, very fine, black, moist, no odor.
	BH9-5-1-B			1.00	1.0 - 2.0'		1.0 - 10.0' CLAY High plasticity, fine, pale yellowish brown, 10 YR 6/2, wet, no odor.
	BH9-5-1-C			1.00	2.0 - 3.0'		
	BH9-5-1-D			1.00	3.0 - 4.0'		
	BH9-5-1-E			1.00	4.0 - 5.0'		
5	BH9-5-1-F			1.00	5.0 - 6.0'		
10	BH9-5-1-G			1.00	10.0 - 11.0'		10.0 - 11.0' SAND, Gravelly Medium grained, sand mixed with gravel, 3 - 10 cm, pale yellowish brown no odor, moist.
15							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Hole Name: BH9-5-2

Date Hole Started: 2/9/00 Date Hole Finished: 2/9/00

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: North end of Pond No. 5

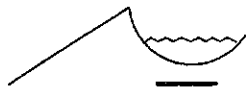
Drilling Company: Alliance Environmental
 Driller: C Bearor
 Drilling Method: Geoprobe
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 2
 Total Depth Drilled (ft): 8

Recorded By: M Miles

Remarks: Sampled from 0 feet to 8 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH9-5-2-A	CONT		1.00	0.0 - 1.0'		0.0 - 1.0' CLAY, Sandy Fine grained sand in pale yellowish brown clay with lenses of black fine clay, no odor, dry.
	BH9-5-2-B			1.00	1.0 - 2.0'		1.0 - 5.0' CLAY High plasticity, fine grained, moist, no odor, black.
	BH9-5-2-C			1.00	2.0 - 3.0'		
	BH9-5-2-D			1.00	3.0 - 4.0'		
	BH9-5-2-E			1.00	4.0 - 5.0'		
5	BH9-5-2-F			1.00	5.0 - 6.0'		5.0 - 7.0' CLAY, Sandy High plasticity, fine grained, with pale yellowish brown medium grained sand, black clay with lenses of pale yellowish brown clay.
	BH9-5-2-G			1.00	7.0 - 8.0'		7.0 - 8.0' SAND Fine grained, pale yellowish brown with some gravel < 5%, moist, no odor.
10							

SOIL_BORE_REV1_1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Hole Name: BH9-5-3



Date Hole Started: 2/9/00 Date Hole Finished: 2/9/00

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Center of Pond No. 5

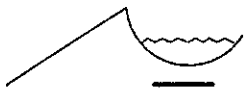
Drilling Company: Alliance Environmental
 Driller: C Bearor
 Drilling Method: Geoprobe
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 2
 Total Depth Drilled (ft): 4

Recorded By: M Miles

Remarks: Sampled from 0 feet to 4 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH9-5-3-A	CONT			0.0 - 1.0'		0.0 - 1.0' CLAY Pale yellowish brown, 10 YR 6/2, very dry, laminated, consolidated.
	BH9-5-3-B				1.0 - 2.0'		1.0 - 4.0' SAND, Gravelly Fine grained, pale yellowish brown, 10 YR 6/2, with some gravel, moist, no odor.
	BH9-5-3-C			2.0 - 3.0'			
	BH9-5-3-D			3.0 - 4.0'			
5							
10							

SOIL BORE REV1 1095.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Hole Name: BH9-5-4

Date Hole Started: 2/9/00 Date Hole Finished: 2/9/00

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Center of Pond No. 5

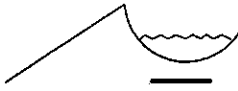
Drilling Company: Alliance Environmental
 Driller: C Bearor
 Drilling Method: Geoprobe
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 2
 Total Depth Drilled (ft): 6

Recorded By: M Miles

Remarks: Sampled from 0 feet to 6 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION	
	BH9-5-4-A	CONT		1.00	0.0 - 1.0'		0.0 - 2.0' CLAY Fine grained, pale, yellowish gray, 5 YR 8/1, consolidated, very dry, no odor.	
	BH9-5-4-B			1.00	1.0 - 2.0'			
	BH9-5-4-C			1.00	2.0 - 3.0'			2.0 - 5.5' CLAY High plasticity, fine grained, black, moist, with lenses of yellowish clay, no odor.
	BH9-5-4-D			1.00	3.0 - 4.0'			
	BH9-5-4-E			1.00	4.0 - 5.0'			
5	BH9-5-4-F			1.00	5.0 - 6.0'			
							5.5 - 6.0' SAND Medium grained, pale yellowish brown, moist, no odor.	
10								

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Hole Name: BH9-5-5

Date Hole Started: 2/9/00 Date Hole Finished: 2/9/00

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Center of Pond No. 5

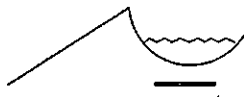
Drilling Company: Alliance Environmental
 Driller: C Bearor
 Drilling Method: Geoprobe
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 2
 Total Depth Drilled (ft): 4

Recorded By: M Miles

Remarks: Sampled from 0 feet to 4 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH9-5-5-A	CONT			0.0 - 1.0'		0.0 - 3.5' CLAY Fine grained, pale yellowish brown, 10 YR 6/2, consolidated, no odor, dry
	BH9-5-5-B			1.0 - 2.0'			
	BH9-5-5-C			2.0 - 3.0'			
	BH9-5-5-D			3.0 - 4.0'			
							3.5 - 4.0' SAND Medium grained sand, moist, light brown, 5 YR 5/6, no odor, gravel <5%.
5							
10							

SOIL BORE REV1 1035.GPJ HYD.TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Hole Name: BH9-5-6

Date Hole Started: 2/9/00 Date Hole Finished: 2/9/00

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: South end of Pond No. 5

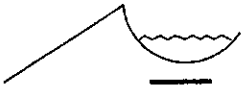
Drilling Company: Alliance Environmental
 Driller: C Bearor
 Drilling Method: Geoprobe
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 2
 Total Depth Drilled (ft): 4

Recorded By: M Miles

Remarks: Sampled from 0 feet to 4 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH9-5-6-A	CONT			0.0 - 1.0'		0.0 - 2.5' CLAY Fine grained pale yellowish brown, 10 YR 6/2, consolidated, very dry, no odor.
	BH9-5-6-B				1.0 - 2.0'		
	BH9-5-6-C				2.0 - 3.0'		
	BH9-5-6-D				3.0 - 4.0'		
							2.5 - 4.0' SAND Fine grained, pale yellowish brown, 10 YR 6/2, with less than 5% gravel, moist, no odor.
5							
10							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Hole Name: BH9-5-7

Date Hole Started: 2/9/00 Date Hole Finished: 2/9/00

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: South end of Pond No. 5

Drilling Company: Alliance Environmental
 Driller: C Bearor
 Drilling Method: Geoprobe
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 2
 Total Depth Drilled (ft): 4

Recorded By: M Miles

Remarks: Sampled from 0 feet to 4 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH9-5-7-A	CONT			0.0 - 1.0'		0.0 - 2.5' CLAY Fine grained, pale yellowish brown, 10 YR 6/2, consolidated, very dry, no odor.
	BH9-5-7-B				1.0 - 2.0'		
	BH9-5-7-C				2.0 - 3.0'		
	BH9-5-7-D				3.0 - 4.0'		
5							2.5 - 4.0' SAND Coarse grained, moist, no odor, light brown, 5 YR 5/6, gravel < 5%.
10							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: BH11-1

Date Hole Started: 7/21/99 Date Hole Finished: 7/21/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, East side of Terrace

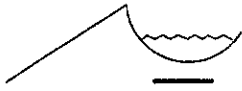
Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Monitor Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 62

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 62 feet BGS.
 Static water level 58 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH11-1-A	SS			0.0 - 1.0'		0.0 - 1.3' SAND, Gravelly Fine to coarse grained, gap graded, loose to medium dense in some places, pale yellow brown (10YR 6/2), dry, no odor, limestone gravel and slag.
	BH11-1-B				1.0 - 2.0'		1.3 - 2.0' SILT, Sandy Fine grained, lean, medium brown 5YR 5/6, dry, no odor some black/grey fines.
	BH11-1-C				2.0 - 3.0'		2.0 - 3.1' SAND Fine to coarse grained, uniform, well graded, loose pale yellow brown, YR 6/2, dry, no odor.
	BH11-1-D				3.0 - 4.0'		3.1 - 4.6' SILT, Sandy, Clayey Fine grained, medium plasticity when wet, stiff, medium brown (5YR 5/6), dry, no odor.
5	BH11-1-E				4.0 - 5.0'		4.6 - 8.0' SILT Fine grained, uniform, loose, very pale orange (10YR 8/2), dry, no odor.
							8.0 - 14.5' SAND Fine grained, loose, uniform, pale yellow brown (10YR 6/2), dry, no odor.
10	BH11-1-F				10.0 - 12.0'		
15	BH11-1-G				15.0 - 17.0'		14.5 - 48.0' SAND, Silty Fine grained, medium dense, uniform, pale yellow brown (10YR 6/2), dry, no odor, some clay with depth.
20	BH11-1-H				20.0 - 22.0'		
25	BH11-1-I				25.0 - 27.0'		
30	BH11-1-J				30.0 - 32.0'		
35							

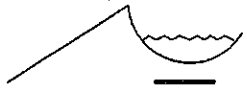
SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH11-1-K	SS			35.0 - 37.0'		
40	BH11-1-L				40.0 - 42.0'		
45	BH11-1-M				45.0 - 47.0'		
50	BH11-1-N				50.0 - 52.0'		48.0 - 62.0' SAND, Silty Fine grained, medium dense, uniform, moderate yellow brown (10YR 5/4), moist, no odor, with clay and fine gravel.
55	BH11-1-O				55.0 - 57.0'		
60	BH11-1-P				60.0 - 62.0'		
65							
70							
75							

SOIL_BORE_REV1_1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH11-2

Date Hole Started: 8/4/99 Date Hole Finished: 8/5/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, West end of Southern arroyo

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 42

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 42 feet BGS.
 Static water level 6 feet BGS.
 Boring abandoned with Bentonite Chips from 42 feet to 10 feet and cuttings to surface.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 5.5'							0.0 - 5.5' SLAG Black, angular, fractured.
5.5 - 9.0'							5.5 - 9.0' SAND, Clayey, Silty Fine grained, moderate yellowish brown, 10 YR 5/4, moist, dense.
10.0 - 12.0'	BH11-2-F	CONT		2.00			9.0 - 42.0' GRAVEL, Silty, Sandy Fine to coarse, with cobbles, very pale orange, 10 YR 8/2, calcareous, (Alluvium) moist to dry, no odor, - with interbedded clay lenses, dry, hard below 35 feet.
15.0 - 17.0'	BH11-2-G			2.00			
20.0 - 22.0'	BH11-2-H			2.00	Moist, but not dripping.		
25.0 - 27.0'	BH11-2-I			2.00			
30.0 - 32.0'	BH11-2-J			2.00			
35.0 - 37.0'	BH11-2-K			2.00	Interbedded clay lenses dry. K2 Sample Duplicate		
40.0 - 42.0'	BH11-2-L			2.00			

SOIL_BORE_REV1 1036.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH11-3



Date Hole Started: 8/5/99 Date Hole Finished: 8/5/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, West end of Southern arroyo

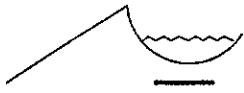
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 12

Recorded By: H Kutz

Remarks: Sampled from 10 feet to 12 feet BGS.
 Static water level 7 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 7.0'							0.0 - 7.0' SLAG Black, angular, fractured.
7.0 - 12.0'							7.0 - 12.0' SAND, Clayey, Silty Fine grained, wet, moderate yellowish brown, 10 YR 5/4, no odor.
10.0 - 12.0'	BH11-3-F	CONT		2.00	10.0 - 12.0' Soil.		

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH11-4

Date Hole Started: 8/5/99 Date Hole Finished: 8/6/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center portion of Southern arroyo
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 20

Remarks: Sampled from 1 foot to 17 feet BGS.
 Static water level 12 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
							0.0 - 1.0' SLAG Black, angular, fractured.
	BH11-4-B	CONT			1.0 - 2.0'		1.0 - 2.5' SAND, Clayey Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor.
	BH11-4-C				2.0 - 3.0'		
	BH11-4-D				3.0 - 4.0'		
	BH11-4-E				4.0 - 5.0'		
5							2.5 - 5.0' SAND, Silty Fine grained, moderate yellowish brown, 10 YR 5/4, dry, calcareous.
							5.0 - 20.0' GRAVEL, Sandy, Silty Fine to coarse, moderate yellowish brown, 10 YR 5/4, calcareous, dry, no odor, with cobbles (Alluvium). - interbedded clay lenses below 10 feet.
10							
	BH11-4-F				10.0 - 12.0'		
15							
	BH11-4-G				15.0 - 17.0'		
20							

SOIL_BORE_REV1_1035.GPJ HYD-TUC.GDT 4/24/00



Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 150 Northeast of EP-109

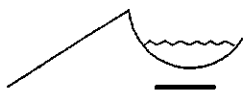
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 17

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 16 feet BGS.
 Static water level 16 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH12-1-A	CONT		1.00	0.0 - 1.0'		0.0 - 2.0' SAND, Silty Fine grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, loose.
							2.0 - 3.0' SLAG Black, angular, fractured.
	BH12-1-B			1.00	3.0 - 4.0'		3.0 - 9.0' SAND Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, medium dense.
	BH12-1-C			1.00	4.0 - 5.0'		
5							
							9.0 - 17.0' GRAVEL, Sandy, Clayey Fine to coarse grained, grayish orange, 10 YR 7/4, dry to wet, no odor, dense.
10	BH12-1-D			2.00	10.0 - 12.0'		
15	BH12-1-E			1.00	15.0 - 16.0' E2 Sample Duplicate		
20							

SOIL_BORE_REV1_1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH12-2

Date Hole Started: 11/3/99 Date Hole Finished: 11/3/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 150 feet East of EP-109

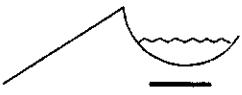
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 17

Recorded By: H Kutz

Remarks: Sampled from 6 feet to 12 feet BGS.
 Static water level 15 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0							0.0 - 0.3' SAND, Silty Fine grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, loose.
0.3							0.3 - 5.5' SLAG Black, angular, fractured.
5							5.5 - 11.0' SAND Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, medium dense.
6.0	BH12-2-A	CONT		1.00	6.0 - 7.0'		
10							11.0 - 17.0' SAND, Clayey, Silty Fine to coarse grained, grayish orange, 10 YR 7/4, dry to wet, no odor, dense, with gravel.
10.0	BH12-2-B			2.00	10.0 - 12.0'		
15							
20							

SOIL_BORE_REV1_1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH12-3

Date Hole Started: 11/3/99 Date Hole Finished: 11/3/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 210 feet East and 70 feet North of EP-109

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 22

Recorded By: H Kutz

Remarks: Sampled from 6 feet to 17 feet BGS.
 Static water level 13 feet BGS,
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0							0.0 - 0.7' SAND, Silty Fine grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, with slag gravel.
0.7							0.7 - 5.5' SLAG Black, angular, fractured.
5							
6	BH12-3-A	CONT		1.00	6.0 - 7.0'		5.5 - 9.0' SAND Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, medium dense.
10							
10	BH12-3-B				10.0 - 12.0'		9.0 - 22.0' GRAVEL, Sandy, Clayey Fine to coarse, grayish orange, 10 YR 7/4, dry, no odor, very dense, with cobbles below 13 feet (Alluvium), andesite cobbles below 15 feet.
15							
15	BH12-3-C				15.0 - 17.0'		
20							
25							

SOIL_BORE_REV1 1095.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH12-4

Date Hole Started: 11/3/99 Date Hole Finished: 11/3/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 120 feet East and 150 feet North of EP-109

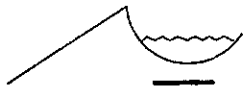
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 24

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 17 feet BGS.
 Static water level 19 to 20 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH12-4-A	CONT		1.00	0.0 - 1.0'		0.0 - 2.0' SILT, Sandy Very pale orange, 10 YR 8/2, dry, no odor, loose.
	BH12-4-B			1.00	1.0 - 2.0'		
	BH12-4-C			1.00	2.0 - 3.0'		2.0 - 3.0' SAND, Silty Fine to medium grained, grayish orange, 10 YR 7/4, dry, no odor, loose, poorly graded. 3.0 - 9.0' SLAG Black, angular, fractured.
5							
10	BH12-4-D			2.00	10.0 - 12.0' D2 Sample Duplicate		9.0 - 12.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, dense.
							12.0 - 14.0' SAND, Gravelly Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, dense.
15	BH12-4-E			2.00	15.0 - 17.0'		14.0 - 24.0' GRAVEL, Sandy, Clayey Fine to coarse grained, grayish orange, 10 YR 7/4, dry to moist, no odor, very dense, with cobbles at various depths.
20							
25							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH12-5

Date Hole Started: 11/4/99 Date Hole Finished: 11/4/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East end of ephemeral pond arroyo

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 6
 Total Depth Drilled (ft): 17

Recorded By: H Kutz

Remarks: Sampled from 8 feet to 10 feet BGS.
 Static water level 10 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 2.0'							0.0 - 2.0' SAND Fine grained, black to brown, slag fines, dry, no odor, loose (sediments).
2.0 - 6.0'							2.0 - 6.0' SAND, Silty, Clayey Fine to medium grained, moderate yellowish brown, 10 YR 5/4, moist, with interbedded slag gravel and dust.
6.0 - 8.0'							6.0 - 8.0' SLAG Black, angular, fractured.
8.0 - 10.0'	BH12-5-A	CONT		2.00			8.0 - 17.0' GRAVEL, Sandy, Clayey Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry to moist, no odor. Water at 10 feet -- dry below 12 feet.
10.0 - 17.0'							

SOIL BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH12-6

Date Hole Started: 11/4/99 Date Hole Finished: 11/4/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Center area of ephemeral pond arroyo

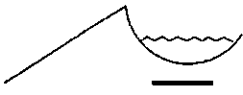
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 17

Recorded By: H Kutz

Remarks: Sampled from 12 feet to 13 feet BGS.
 Static water level 12 feet BGS.
 Boring abandoned with Bentonite Chlps.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 1.0'							SAND, Silty Fine grained, black to gray slag fines, dry to moist (sediment), no odor.
1.0 - 12.0'							SLAG Black, angular, fractured.
12.0 - 13.0'	BH12-6-A	CONT		1.00	12.0 - 13.0'		GRAVEL, Sandy, Clayey Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, moist to wet, no odor, poorly graded with cobbles.

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH12-7

Date Hole Started: 11/4/99 Date Hole Finished: 11/4/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: West end of ephemeral pond arroyo

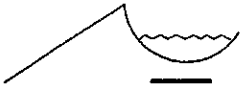
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 17

Recorded By: H Kutz

Remarks: Sampled from 6 feet to 12 feet BGS.
 Static water level 13 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 6.0'							0.0 - 6.0' SAND, Silty Fine to medium grained, black to brown, dry, no odor, with slag gravel and fines.
6.0 - 8.0'	BH12-7-A	CONT		2.00	6.0 - 8.0'		6.0 - 9.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor.
10.0 - 12.0'	BH12-7-B			2.00	10.0 - 12.0' B2 Sample Duplicate		9.0 - 12.0' SLAG Black, angular, fractured.
12.0 - 17.0'							12.0 - 17.0' SAND, Silty, Clayey Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry to wet, no odor, poorly graded.

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH12-8

Date Hole Started: 11/4/99 Date Hole Finished: 11/4/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Center area of ephemeral pond arroyo

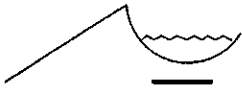
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 17

Recorded By: H Kutz

Remarks: Sampled from 2 feet to 5 feet BGS.
 Static water level 14 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
							0.0 - 3.0' SAND, Silty Fine grained, black to brown, dry, no odor, slag gravel and fines.
	BH12-8-A	CONT			2.0 - 3.0'		
	BH12-8-B				3.0 - 4.0'		3.0 - 5.0' SAND, Silty, Clayey Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded.
	BH12-8-C				4.0 - 5.0'		
5							5.0 - 14.0' SLAG Black, angular, fractured.
10							
15							14.0 - 17.0' SAND Fine to medium grained, moderate yellowish brown to gray, 10 YR 5/4, dry to wet, septic odor, poorly graded.
20							

SOIL_BORE_REV1_1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: BH12-9


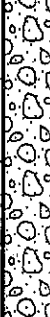
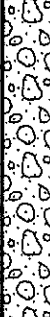
Date Hole Started: 11/4/99 Date Hole Finished: 11/4/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East end of ephemeral pond arroyo

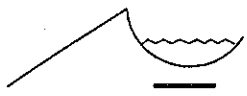
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 14

Recorded By: H Kutz

Remarks: Sampled from 4 feet to 9 feet BGS.
 Static water level 9 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
							0.0 - 4.0' SAND Fine grained, black to brown, dry, no odor, slag fines, poorly graded, loose (sediment).
5	BH12-9-A	CONT			4.0 - 5.0' A2 Sample Duplicate		4.0 - 14.0' GRAVEL, Sandy, Clayey Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, very dense.
	BH12-9-B				8.0 - 9.0'		
10							
15							

SOIL_BOPE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: BH14-1

Date Hole Started: 11/5/99 Date Hole Finished: 11/8/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 175 feet Northwest of EP-70, near new storm drainage basin
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 72

Remarks: Sampled from 13.5 feet to 72 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 13.5'							0.0 - 13.5' SLAG Black, angular, fractured.
13.5 - 15.0'	BH14-1-A	CONT		1.50			13.5 - 18.0' SAND Fine to medium grained, dark yellowish orange, 10 YR 8/6, dry, no odor, poorly graded, with fine to coarse gravel, dense -- cobbles below 14 feet.
15.0 - 17.0'	BH14-1-B			2.00			18.0 - 20.0' GRAVEL, Sandy, Clayey Fine to coarse grained, moderately yellowish brown, 10 YR 5/4, dry, no odor, dense.
20.0 - 22.0'	BH14-1-C			2.00			20.0 - 28.0' SAND, Silty, Gravelly Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, dense, with cobbles.
25.0 - 27.0'	BH14-1-D			2.00			28.0 - 32.0' SAND, Clayey, Silty Fine grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, medium dense.
30.0 - 32.0'	BH14-1-E			2.00			32.0 - 72.0' SAND, Silty, Gravelly Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dry, no odor, poorly graded, dense, with cobbles and interbedded highly cemented sand layers.
35.0 - 37.0'	BH14-1-F			2.00	F2 Sample Duplicate		
40.0 - 42.0'	BH14-1-G			2.00			
45.0 - 47.0'	BH14-1-H			2.00			
50.0 - 52.0'	BH14-1-I			2.00			
55.0 - 57.0'	BH14-1-J			2.00			
60.0 - 62.0'	BH14-1-K			2.00			
65.0 - 67.0'	BH14-1-L			2.00	L2 Sample Duplicate		
70.0 - 72.0'	BH14-1-M			2.00			

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: BH14-2

Date Hole Started: 12/16/99 Date Hole Finished: 12/16/99

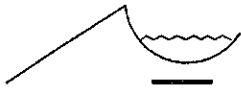
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 200 feet East of EM-02, near new storm drainage basin
 Recorded By: W Wilson

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 64

Remarks: Sampled from 0 feet to 60 feet BGS.
 Static water level 60 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH14-2-A	CONT			0.0 - 1.0'		0.0 - 2.0' SAND, Silty, Gravelly Dark gray, Sand 50%; fine to coarse; Fines 30%; silt non-plastic, Gravel 20%; fine, N3, angular slag brick & lithics; medium dense, dry.
	BH14-2-B				1.0 - 2.0'		[Fill]
	BH14-2-C				2.0 - 3.0'		2.0 - 3.0' GRAVEL, Silty, Sandy Light gray, N7, Gravel 40%; Fine to medium brick fragments; Silt 30% non-plastic; Sand 30% fine; loose, dry.
	BH14-2-D				3.0 - 4.0'		[Fill]
5	BH14-2-E				4.0 - 5.0'		3.0 - 8.0' SAND, Gravelly, Silty Pale yellowish brown, 10 YR 6/2, Sand 50% fine to coarse grained; Gravel 30% fine to medium subangular to subround quartzite and igneous; Fines 20% non-plastic; medium dense, dry. [Alluvium]
10	BH14-2-F				10.0 - 12.0'		8.0 - 20.0' SAND, Gravelly Light yellowish brown, Sand 60%, Fine to coarse; Gravel ~ 40% Fine to coarse subround quartzite and igneous max 2"; Fines < 5%; medium dense, dry. [Alluvium]
15	BH14-2-G				15.0 - 17.0'		
20	BH14-2-H				20.0 - 22.0'		20.0 - 32.0' SAND, Gravelly Light yellowish brown, Sand 60%, Fine to coarse; Gravel ~ 30% fine to coarse subround quartzite and igneous max 2"; Fine < 20%; medium dense, dry. [Alluvium]
25	BH14-2-I				25.0 - 27.0' 12 Sample Duplicate		
30	BH14-2-J				30.0 - 32.0'		
35							32.0 - 35.0' SAND, Clayey, Gravelly Yellowish brown, Sand 50% fine to coarse Angular - Subangular; Fines 30% Plastic in 2-3" layer occasionally; Gravel 20%, fine to coarse subangular quartzite and igneous; medium dense, moist. [Colluvium]

SOIL BORE REV: 1035.GPJ HYD-TUC.GDT 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	BH14-2-K	CONT			35.0 - 37.0'		35.0 - 64.0' GRAVEL, Sandy, Clayey Yellowish brown to grayish brown, Gravel 20%, fine to coarse subangular Cobbles 30%; Clay 20% Slightly plastic; Sand 30%, fine to coarse grained, subangular; very dense, moist.
40	BH14-2-L			40.0 - 42.0'			
45	BH14-2-M			45.0 - 47.0'			
50	BH14-2-O			50.0 - 52.0'			
55	BH14-2-P			55.0 - 57.0'			
60	BH14-2-Q			60.0 - 62.0' Q2 Sample Duplicate 13:32			
65							
70							
75							

SOIL BORE_REV1_1095.GPJ_HYD-TUC.GDT_4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: BH14-3

Date Hole Started: 12/15/99 Date Hole Finished: 12/15/99

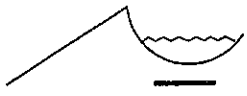
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 120 feet South of EM-02, near new storm drainage basin
 Recorded By: W Wilson

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 67

Remarks: Sampled from 0 feet to 65 feet BGS.
 Static water level 60 feet BGS.
 Boring abandoned with Bentonite Chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 1.0'	BH14-3-A	CONT					0.0 - 8.0' SAND, Gravelly Light yellowish brown, Sand 60%, fine to medium; Gravel ~ 40%, fine to coarse, subrounded quartzite and igneous; medium dense, dry. [Fill]
1.0 - 2.0'	BH14-3-B						
2.0 - 3.0'	BH14-3-C						
3.0 - 4.0'	BH14-3-D						
4.0 - 5.0'	BH14-3-E						
10.0 - 12.0'	BH14-3-F						8.0 - 14.0' SAND, Gravelly Light yellowish brown, Sand 90% fine; Gravel ~ 10%, fine to medium grained round to subround, medium dense, dry. [Alluvium]
15.0 - 17.0'	BH14-3-G						14.0 - 20.0' CLAY, Sandy Pale Brown, Clay 80%, firm moderately plastic, silty with stringers of gypsum; Sand 20% fine to coarse grained, subangular; firm, moist, ~10%, Gravels from 18 - 20 feet. [Alluvium]
20.0 - 22.0'	BH14-3-H						20.0 - 24.5' SAND, Gravelly, Clayey Pale yellowish brown, Sand 50%, fine to coarse; Gravel 30% fine to medium, subangular; Fines 20%, non-plastic; medium dense, dry. [Alluvium]
25.0 - 27.0'	BH14-3-I						24.5 - 28.0' CLAY, Sandy, Silty Dark yellowish brown, Clay 80%, slightly plastic, silty; Sand 20%, very fine to fine grained; firm, moist. [Alluvium]
30.0 - 32.0'	BH14-3-J				J2 Sample Duplicate		28.0 - 34.0' CLAY, Gravelly, Sandy Clay 50%, medium plastic, firm; silty; Gravel 30%, fine to coarse angular to subangular igneous; Sand 20%, fine to coarse grained, subangular to subround; firm to very firm, moist. [Colluvium]
35.0 - 37.0'	BH14-3-K						34.0 - 50.0' CLAY, Gravelly, Sandy Clay 30%, medium plastic, firm; silty; Gravel 50%, fine to coarse angular to subangular igneous; Sand 20%, fine to coarse grained, subangular to subround; firm to very firm, moist. Granitic cobbles at 45 feet. [Colluvium]
40.0 - 42.0'	BH14-3-L						
45.0 - 47.0'	BH14-3-M						
50.0 - 52.0'	BH14-3-N						50.0 - 55.0' CLAY, Gravelly, Sandy Clay 30%, medium plastic, firm; silty; Gravel 20%, fine to coarse grained, angular to subangular igneous; Sand 20%, fine to coarse grained, subangular to subround; Cobbles 30% andesite; firm to very firm, moist. [Colluvium]
55.0 - 57.0'	BH14-3-O						
60.0 - 62.0'	BH14-3-P						55.0 - 67.0' CLAY, Gravelly, Sandy Clay 30%, medium plastic, firm; silty; Gravel 30%, fine to coarse grained, angular to subangular igneous; Sand 20%, fine to coarse, subangular to subround; Cobbles 40% andesite; Fines 10%; firm to very firm, moist. [Colluvium]
65.0 - 67.0'	BH14-3-Q				Q2 Sample Duplicate		

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-1

Date Hole Started: 7/19/99 Date Hole Finished: 7/19/99

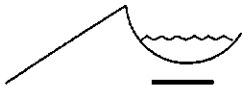
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Southern arroyo, in
 pasture area
 Recorded By: H Kutz

Drilling Company: Hydrometrics, Inc.
 Driller: H Kutz
 Drilling Method: Hand Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 4
 Total Depth Drilled (ft): 5

Remarks: Sampled from 0 feet to 3 feet BGS.
 Static water level 2.75 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-1-A	GRAB		1.00	0.0 - 1.0'		0.0 - 5.0' SAND, Silty Fine grained, clayey, dusky yellowish brown, 10 YR 2/2, moist, with organic material.
	SSIA11-1-B			1.00	1.0 - 2.0'		
	SSIA11-1-C			1.00	2.0 - 3.0'		
5						5	

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-2

Date Hole Started: 7/19/99 Date Hole Finished: 7/19/99

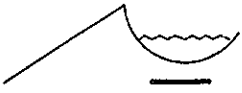
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Southern arroyo, in
 pasture area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: H Kutz
 Drilling Method: Hand Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 4
 Total Depth Drilled (ft): 5

Remarks: Sampled from 0 feet to 3 feet BGS.
 Static water level 2.75 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-2-A	GRAB		1.00	0.0 - 1.0'	5	0.0 - 5.0' SAND, Silty Fine grained, clayey, dusky yellowish brown, 10 YR 2/2, moist, with organic material.
	SSIA11-2-B			1.00	1.0 - 2.0'		

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: SSI A11-3

Date Hole Started: 7/20/99 Date Hole Finished: 7/20/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Terrace

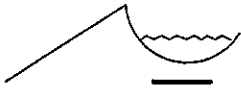
Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 5

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-3-A	SS		1.00	0.0 - 1.0'		0.0 - 5.0' SAND Fine to coarse grained, uniform, 0 - 4" pale yellow brown, 10 YR 6/2, 4" - dark yellow brown, 10 YR 4/2, dry, no odor. On surface - slag brick, wood misc. debris, limestone gravel (fill and reworked soil).
	SSIA11-3-C			0.50	2.0 - 3.0'		
	SSIA11-3-D			0.50	3.0 - 4.0'		
	SSIA11-3-E			0.20	4.0 - 5.0'		
5							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-4

Date Hole Started: 7/20/99 Date Hole Finished: 7/20/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Terrace

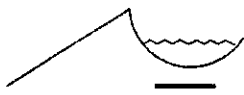
Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used:
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 8
 Total Depth Drilled (ft): 5

Recorded By: L. Johnson

Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-4-A	SS		4'	0.0 - 1.0' Rock in shoe		0.0 - 3.5' SAND, Gravelly Fine to coarse grained, gap graded, loose, limestone gravel (15%) pale yellow brown, 10 YR 6/2, changing to dark yellow brown, 10 YR 4/2, dry, no odor, back to pale yellow brown, 10 YR 6/2, at 1.4'.
	SSIA11-4-B				1.0 - 2.0'		
	SSIA11-4-C				2.0 - 3.0'		
	SSIA11-4-D				3.0 - 4.0'		
	SSIA11-4-E				4.0 - 5.0'		
							3.5 - 5.0' SAND Fine to coarse grained, uniform, loose, pale yellow brown, dry no odor.

SOIL BORE REV1 1005.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-5

Date Hole Started: 7/20/99 Date Hole Finished: 7/20/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, East end of Terrace

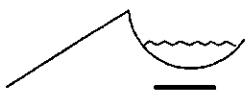
Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 5

Recorded By: L Johnson

Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-5-A	SS		1.00	0.0 - 1.0' A2 Sample Duplicate		0.0 - 5.0' SAND, Gravelly Fine to coarse grained, gap graded, limestone gravel 1/2 - 4", loose pale yellow brown, 10 YR 6/2, dry no odor.
	SSIA11-5-C				2.0 - 3.0'		
	SSIA11-5-E				4.0 - 5.0'		

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: **SSIA11-6**

Date Hole Started: 7/20/99 Date Hole Finished: 7/20/99

Client: ASARCO, Inc.

Drilling Company: Alliance Environmental

Project: Remedial Investigation Phase II

Driller: Jorge Herald

County: El Paso State: Texas

Drilling Method: Hollow Stem Auger

Property Owner: ASARCO, Inc.

Drilling Fluids Used: None

Legal Description: ASARCO El Paso Plant

Purpose of Hole: Collect Soil Samples

Descriptive Location: East of I-10, West end of Terrace

Hole Diameter (In): 8

Total Depth Drilled (ft): 5

Recorded By: H Kutz

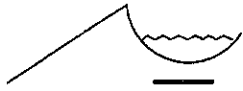
Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-6-A	SS			0.0 - 1.0'		0.0 - 5.0' SAND, Silty Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, with gravel medium dense, surface weathered andesite and debris piles with andesite cobbles-boulders, brick debris from 4 - 5 feet bgs.
	SSIA11-6-B				1.0 - 2.0'		
	SSIA11-6-C				2.0 - 3.0'		
	SSIA11-6-D				3.0 - 4.0' Rock in Shoe		
	SSIA11-6-E				4.0 - 5.0'		

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00

5

5



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 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-7

Date Hole Started: 7/20/99 Date Hole Finished: 7/20/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, West end of Terrace

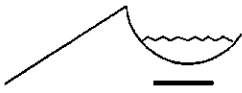
Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 5

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-7-A	SS			0.0 - 1.0' A2 Sample Duplicate		0.0 - 5.0' SAND, Silty Brown to black, fine to medium grained with fine gravel, dry, medium dense, with brick debris. Surface andesite piles, cobbles and boulders.
	SSIA11-7-B			0.25	1.0 - 2.0'		
	SSIA11-7-C			0.25	2.0 - 3.0'		
	SSIA11-7-D			0.25	3.0 - 4.0'		
	SSIA11-7-E				4.0 - 5.0'		
5							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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Soil Boring Log

Hole Name: SSIA11-8

Date Hole Started: 7/21/99 Date Hole Finished: 7/21/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, on West toe of Terrace

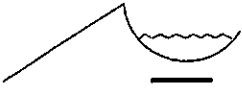
Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 5

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-8-A	SS		1.00	0.0 - 1.0' Red Brick/Debris		0.0 - 5.0' SAND, Silty Fine to medium grained, dusky yellowish brown, 10 YR 2/2, moist, with some brick and some fine gravel. Moderate yellowish brown 10 YR 5/4 below 1 foot.
	SSIA11-8-B			0.50	1.0 - 2.0'		
	SSIA11-8-C			0.50	2.0 - 3.0'		
	SSIA11-8-D			0.50	3.0 - 4.0'		
	SSIA11-8-E			0.20	4.0 - 5.0' Brick in Shoe		
5							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-9

Date Hole Started: 7/21/99 Date Hole Finished: 7/21/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, West end of Southern arroyo,
 on Slag area by electric station
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 5



Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.
 No samples taken.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
5							0.0 - 5.0' Slag Black, angular, fractured.

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



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Soil Boring Log

Hole Name: SSIA11-10

Date Hole Started: 8/4/99 Date Hole Finished: 8/4/99

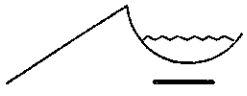
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Southern arroyo,
 North edge
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 8
 Total Depth Drilled (ft): 4

Remarks: Sampled from 0 feet to 4 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-10-A	SS		1.00	0.0 - 1.0'		0.0 - 0.1' SLAG Black, angular, fractured. 0.1 - 2.5' SAND, Silty Fine to medium grained, dark yellowish brown, 10 YR 4/2, moist, medium dense, no odor, moderate yellowish brown, 10 YR 5/4, and fine grained below 1 foot.
	SSIA11-10-B			1.00	1.0 - 2.0'		
	SSIA11-10-C			0.25	2.0 - 3.0' Rock in Shoe		
	SSIA11-10-D			1.00	3.0 - 4.0'		3.0 - 4.0' SAND, Silty, Clayey Fine grained, dry, very dense, yellowish brown, 10 YR 4/2, no odor.
							Auger Refusal at 4 feet

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-11

Date Hole Started: 8/4/99 Date Hole Finished: 8/4/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Southern arroyo

Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 8
 Total Depth Drilled (ft): 5

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-11-A	SS		0.50	0.0 - 1.0' Rock in Shoe		0.0 - 5.0' SAND, Silty Fine coarse grained, dusky yellowish brown, 10 YR 2/2, dry, dense, no odor, moderate yellowish brown, 10 YR 5/4, below 1 foot with fine gravel with calcareous material below 2 1/2 feet.
	SSIA11-11-B			0.50	1.0 - 2.0' Rock in Shoe		
	SSIA11-11-C			1.00	2.0 - 3.0'		
	SSIA11-11-D			1.00	3.0 - 4.0' Calcareous Material		
	SSIA11-11-E			0.50	4.0 - 5.0' Bouncing		

SOIL_BORE_REV1_1035.GPJ_HYO-TUC.GDT_4/24/00



HYDROMETRICS INC.
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Soil Boring Log


Hole Name: SSI11-12

Date Hole Started: 8/4/99 Date Hole Finished: 8/4/99

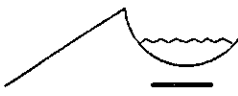
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Southern arroyo,
 South edge
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 5

Remarks: Static water level 2.5 feet BGS.
 Boring abandoned with cuttings.
 No samples taken.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
							0.0 - 0.2' SAND, Silty
							0.2 - 5.0' SLAG Black, angular, fractured.
5							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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Soil Boring Log

Hole Name: SSI11-13

Date Hole Started: 8/5/99 Date Hole Finished: 8/5/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, West end of Southern arroyo

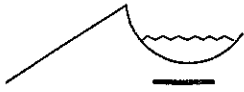
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (In): 6
 Total Depth Drilled (ft): 5

Recorded By: H Kutz

Remarks: Boring abandoned with cuttings.
 No samples taken.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
5							0.0 - 5.0' SAND, Silty, Clayey Fine grained, moderate yellowish brown, 10 YR 5/4, with Slag Gravel.

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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Soil Boring Log

Hole Name: **SSIA11-14**

Date Hole Started: 8/6/99 Date Hole Finished: 8/6/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, East end of Southern arroyo

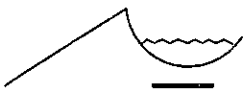
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 5

Recorded By: H Kutz

Remarks: Sampled from 1 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
							0.0 - 0.5' SLAG Black, angular, fractured.
							0.5 - 5.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor - calcareous below 3 feet with gravel.
	SSIA11-14-B	CONT			1.0 - 2.0'		
	SSIA11-14-C				2.0 - 3.0'		
	SSIA11-14-D				3.0 - 4.0'		
	SSIA11-14-E				4.0 - 5.0'		
5							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-15

Date Hole Started: 8/6/99 Date Hole Finished: 8/6/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Southern arroyo

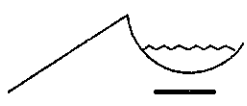
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 5

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-15-A	CONT		1.00	0.0 - 1.0' Some Slag		0.0 - 5.0' SAND, Silty Fine to medium grained moderate yellowish brown, 10 YR 5/4, moist to dry, no odor - pale yellowish orange, 10 YR 8/6, material at 2 1/2 - 3 feet, - with gravel below 3 feet.
	SSIA11-15-B			1.00	1.0 - 2.0'		
	SSIA11-15-C			1.00	2.0 - 3.0'		
	SSIA11-15-D			1.00	3.0 - 4.0'		
	SSIA11-15-E			1.00	4.0 - 5.0'		

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log

Hole Name: SSIA11-16



Date Hole Started: 8/6/99 Date Hole Finished: 8/6/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Southern arroyo

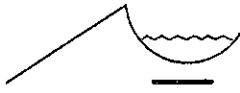
Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 5

Remarks: Sampled from 1 feet to 5 feet BGS.
 Boring abandoned with cuttings.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
							0.0 - 0.5' SLAG Black, angular, fractured.
	SSIA11-16-B	CONT		1.00	1.0 - 2.0'		0.5 - 5.0' SAND, Silty, Clayey Fine grained, pale yellowish brown, 10 YR 6/2, dry, no odor, very dense.
	SSIA11-16-C			1.00	2.0 - 3.0'		
	SSIA11-16-D			1.00	3.0 - 4.0'		
	SSIA11-16-E			1.00	4.0 - 5.0' E2 Sample Duplicate		
5							
10							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Soil Boring Log

Hole Name: **SSIA11-17**



Date Hole Started: 11/4/99 Date Hole Finished: 11/4/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Southern arroyo

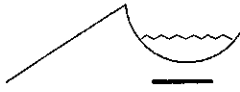
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 6
 Total Depth Drilled (ft): 6

Recorded By: H Kutz

Remarks: Sampled from 0 feet to 1 foot BGS.
 Boring abandoned with Bentonite chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-17-A	Cont		1.00	0.0 - 1.0'		0.0 - 1.0' SAND, Silty, Clayey Fine grained, moderate yellowish brown, 10 YR 5/4, dry to moist, loose, (sediment).
							1.0 - 5.0' SLAG Black, angular, fractured.

SOIL BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Soil Boring Log



Hole Name: SSIA11-18

Date Hole Started: 11/5/99 Date Hole Finished: 11/5/99

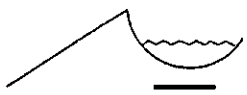
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, Center of Capture Basin
 behind flood control dam
 Recorded By: H Kutz & M Cons

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Hand Auger
 Drilling Fluids Used: Water
 Purpose of Hole: Collect Soil Samples
 Hole Diameter (in): 4
 Total Depth Drilled (ft): 3

Remarks: Sampled from 0 feet to 3 feet BGS.
 Static water level 2.5 feet BGS.
 Boring abandoned with Bentonite chips.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	SSIA11-18-A	CONT		1.00	0.0 - 1.0'		0.0 - 2.0' SAND, Silty Fine grained, pale yellowish brown, 10 YR 6/2, dry, no odor, poorly graded, loose.
	SSIA11-18-B			1.00	1.0 - 2.0'		
	SSIA11-18-C			1.00	2.0 - 3.0'		2.0 - 3.0' SAND, Clayey, Silty Fine grained, pale yellowish brown, 10 YR 6/2, moist to wet, no odor, poorly graded, loose.
6							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 6/23/00



HYDROMETRICS INC.
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 El Paso, Texas

Monitor Well Log

Hole Name: EP-93

Date Hole Started: 7/21/99 Date Hole Finished: 7/21/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, center of Terrace

Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 62

Recorded By: H Kutz

Remarks: Initial boring 6.25 inches in diameter for sample collection. Hole reamed to 10.25 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-93-A	SS		1.00	0.0 - 1.0'		0.0 - 3.0' SAND, Silty Pate yellowish brown, 10 YR 8/2, fine to medium grained, dry, medium dense, with some calcareous nodules.
	EP-93-B	SS		1.00	1.0 - 2.0'		
	EP-93-C	SS		1.00	2.0 - 3.0'		
	EP-93-D	SS		1.00	3.0 - 4.0' Color Change		
5	EP-93-E	SS		0.20	4.0 - 5.0' Rock in Shoe	5	
10	EP-93-F*	SS		0.20	10.0 - 12.0'	10	3.0 - 25.0' SAND, Silty Fine to medium grained, dark yellowish brown, 10 YR 4/2, dry, medium fill, dense with fine gravel and calcareous nodules - slag in sample (10 - 12 feet), burnt odor below 10 feet.
15	EP-93-G	SS		0.20	15.0 - 17.0'	15	
20	EP-93-H*	SS		0.20	20.0 - 22.0'	20	
25	EP-93-I	SS		1.00	25.0 - 27.0'	25	
30	EP-93-J	SS			30.0 - 32.0'	30	25.0 - 62.0' SAND, Silty Fine grained, dense, clayey with depth, moderate yellowish brown, 10 YF 5/4, moist, natural soil.
	EP-93-J2	SS			30.5 - 32.5'		
35	EP-93-K	SS			35.0 - 37.0'	35	
40	EP-93-L	SS			40.0 - 42.0'	40	
45	EP-93-M	SS			45.0 - 47.0'	45	
50	EP-93-N	SS			50.0 - 52.0' H2O = 48'	50	
55						55	
60						60	
65						65	

SOIL_BORE_FEV1 1095.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-94

Date Hole Started: 7/26/99 Date Hole Finished: 7/26/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10 on west toe of Terrace

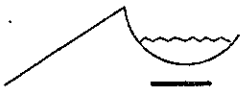
Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 65

Recorded By: H Kutz

Remarks: Initial boring 6.25 inches in diameter for sample collection. Hole reamed to 10.25 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-94-A	SS	4/12/20	1.00	0.0 - 1.0' A2 Duplicate; Steel Frag in Shoe		0.0 - 12.0' GRAVEL, Sandy Fine to coarse grained, gap graded, loose, pale yellow brown, 10 YR 6/4, gravel - slag, crucibles, iron, andesite (Fill Material), dry, no odor, brick.
	EP-94-B	SS		1.00	1.0 - 2.0'		
	EP-94-C	SS		1.00	2.0 - 3.0'		
5	EP-94-D	SS			3.0 - 4.0' Driller No Sample		
	EP-94-E	SS		0.50	4.0 - 5.0' Rock in Shoe		
10							
	EP-94-F	SS		0.10	10.0 - 12.0' Steel Frag in Shoe		
15							12.0 - 15.0' SAND Fine to coarse grained, gap graded, loose, pale yellow brown, 10 YR 6/4, small gravel.
	EP-94-G	SS		0.00	15.0 - 17.0' Sampler Refused		
20							15.0 - 24.0' GRAVEL Fine to coarse grained, gap graded, loose, pale yellow brown, 10 YR 6/4, dry, no odor.
	EP-94-H	SS		1.00	20.0 - 22.0'		
25							24.0 - 43.0' SAND, Gravelly Fine to coarse grained, medium dense, loose, gap graded, light brown, 5 YR 6/4, dry, no odor, some andesite sediment alternating layers.
	EP-94-I	SS		1.50	25.0 - 27.0'		
30							
	EP-94-J	SS		1.50	30.0 - 32.0'		
35							
	EP-94-K	SS		1.00	35.0 - 37.0'		
40							
	EP-94-L	SS		0.70	40.0 - 42.0' Rock in Shoe		
45						43.0 - 65.0' GRAVEL, Sandy Fine to coarse grained, gap graded, loose, pale yellow brown, 10 YR 6/2, andesite-quartzite gravels, dry, no odor, limestone.	
	EP-94-M	SS		0.70	45.0 - 47.0' Rock In Shoe, Quartzite		
50							
	EP-94-N	SS			50.0 - 52.0'		
55							
	EP-94-O	SS			55.0 - 57.0'		
60							
65							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-95

Date Hole Started: 10/18/99 Date Hole Finished: 10/20/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, center of North Arroyo

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (In): 8
 Total Depth Drilled (ft): 67

Recorded By: H Kutz

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
5	EP-95A	CONT		1.00	0.0 - 1.0'		0.0 - 6.0' SAND, Silty Fine grained, poorly graded, pale yellowish brown, 10 YR 6/2, medium dense, dry, no odor.
	EP-95B			1.00	1.0 - 2.0'		
	EP-95C			1.00	2.0 - 3.0'		
	EP-95D			1.00	3.0 - 4.0'		
	EP-95E			1.00	4.0 - 5.0'		
10	EP-95F			2.00	10.0 - 12.0'		6.0 - 53.0' GRAVEL, Sandy, Silty, Clayey Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, with cobbles at various depths, very dense, dry to moist, no odor (Alluvium) -- with calcareous material -- moist to wet at 38 feet.
	EP-95F2			2.00	10.5 - 12.5'		
15	EP-95G			2.00	15.0 - 17.0'		53.0 - 58.0' SANDSTONE Highly cemented, fine grained, grayish orange, 10 YR 5/7.
20	EP-95H			2.00	20.0 - 22.0'		
25	EP-95I			2.00	25.0 - 27.0'		
30	EP-95J			2.00	30.0 - 32.0'		
35	EP-95K			2.00	35.0 - 37.0'		
60						58.0 - 67.0' SANDSTONE Highly cemented, fine grained, medium gray, N5.	

SOIL BORE REV1: 10395.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-96

Date Hole Started: 7/20/99 Date Hole Finished: 7/20/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, east side of Terrace

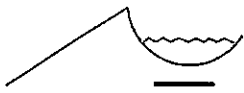
Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 62

Recorded By: W Wilson

Remarks: Initial boring 6.25 inches in diameter for sample collection. Hole reamed to 10.25 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-96-A	SS			0.0 - 1.0'		0.0 - 1.3' SAND, Gravelly Fine to coarse grained, gap graded, loose to medium dense in some places, pale yellow brown, 10 YR 6/2, dry, no odor, gravel - ls, slag.
	EP-96-B	SS			1.0 - 2.0'		1.3 - 2.0' SILT, Sandy Fine grained, lean, medium brown, 5 YR 5/6, dry, no odor, some black/gray fines.
	EP-96-C	SS			2.0 - 3.0'		2.0 - 3.1' SAND Fine to coarse uniform, well graded, loose, pale yellow brown, dry, no odor.
	EP-96-D	SS			3.0 - 4.0'		3.1 - 4.6' SILT, Sandy, Clayey Fine grained, medium plasticity when wet, stiff, medium brown, 5 YR 5/6, dry, no odor.
5	EP-96-E	SS			4.0 - 5.0'		4.6 - 8.0' SILT Fine grained uniform, loose, very pale orange, 10 YR 8/2, dry, no odor.
10	EP-96-F	SS			10.0 - 12.0'		8.0 - 14.5' SAND Fine grained, loose, uniform, pale yellow brown, 10 YR 6/2, dry, no odor.
15	EP-96-G	SS			15.0 - 17.0'		14.5 - 48.0' SAND, Silty Fine grained, medium dense, uniform, pale yellow brown, 10 YR 6/2, dry, no odor, some clay with depth.
20	EP-96-H	SS			20.0 - 22.0'		
25	EP-96-I	SS			25.0 - 27.0'		
30							

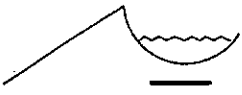
SOIL_BORE_REV1_1035.GPJ HYD-TUC.GDT 4/24/00



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DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-96-J	SS			30.0 - 32.0'		
	EP-96-J2	SS			30.5 - 32.5'		
35	EP-96-K	SS			35.0 - 37.0'		
40	EP-96-L	SS			40.0 - 42.0'		
45	EP-96-M	SS			45.0 - 47.0'		
50	EP-96-N	SS			50.0 - 52.0'		48.0 - 62.0' SAND, Silty Fine grained, medium dense, uniform, moderate yellowish brown, 10 YR 5/4, moist, no odor, with clay and fine gravel.
	EP-96-N2	SS			50.5 - 52.5'		
55	EP-96-O	SS			55.0 - 57.0'		
60	EP-96-P	SS			60.0 - 62.0'		
65							

SOIL BORE_REV1.1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-97

Date Hole Started: 8/4/99 Date Hole Finished: 8/4/99

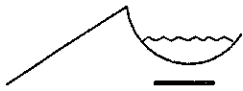
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, center of South Arroyo, in
 pasture area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Jorge Herald
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 13

Remarks: Initial boring 6.25 inches in diameter for sample collection. Hole reamed to 10.25 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-97-A	SS			0.0 - 1.0' Organics.		0.0 - 0.2' Surface: Organic Peat.
	EP-97-A1	SS			0.5 - 1.5' Closest to the surface.		0.2 - 13.0' SAND, Silty, Clayey
	EP-97-B	SS			1.0 - 2.0'		Moderate yellowish brown, 10 YR 5/4, moist, soft, no odor. (Auger refusal at 13')
	EP-97-C	SS			2.0 - 3.0' Moist.		
		SS			3.0 - 4.0' No Sample (3 1/2 H2O).		
		SS			4.0 - 5.0' No Sample (3 1/2 H2O).		
5							
10							
15							
20							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Monitor Well Log

Hole Name: EP-98

Date Hole Started: 8/6/99 Date Hole Finished: 8/9/99

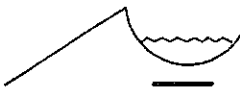
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: East of I-10, North West edge of South Arroyo, on slag area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (In): 8
 Total Depth Drilled (ft): 27

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-98-A	Sonic Core		1.00	0.0 - 1.0' (Some Slag)		0.0 - 2.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10YR 5/4, dry, no odor.
	EP-98-A1	Sonic Core		1.00	0.5 - 1.5'		
	EP-98-B	Sonic Core		1.00	1.0 - 2.0'		
	EP-98-C	Sonic Core		1.00	2.0 - 3.0'		2.0 - 16.0' SAND, Silty, Gravelly Fine to coarse grained, very pale orange, 10 YR 8/2, calcareous, with cobbles. (Alluvium)
	EP-98-D	Sonic Core		1.00	3.0 - 4.0'		
	EP-98-E	Sonic Core		1.00	4.0 - 5.0'		
5							
	EP-98-F	Sonic Core		1.00	10.0 - 12.0'		16.0 - 27.0' SAND, Clayey, Gravelly Fine grained, moderate yellowish brown, 10 YR 5/4, moist, no odor, with interbedded clay lenses.
10							
	EP-98-G	Sonic Core		1.00	15.0 - 17.0'		
15							
	EP-98-H	Sonic Core		1.00	20.0 - 22.0'		
20							
25							
30							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-99

Date Hole Started: 5/11/99 Date Hole Finished: 5/12/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Slag Pour area, North end of boneyard

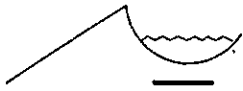
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 77

Recorded By: H Kutz

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 57.0'							0.0 - 57.0' SLAG Black, angular, fractured.
57.0 - 59.0'	EP-99-A			1.00			57.0 - 77.0' SAND, Silty, Clayey Fine to medium grained, gravelly with cobbles, poorly sorted, moderate yellowish brown, 10 YR 5/4, moist to wet - increasingly fine grained and clayey below 64 feet.
65.0 - 67.0'	EP-99-B			1.00			

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-100

Date Hole Started: 9/8/99 Date Hole Finished: 9/28/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 10 feet south of Medford Sump

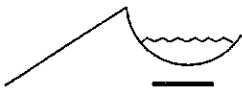
Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 60

Recorded By: H Kutz

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-100-A	Cont		1.00	0.0 - 1.0'		0.0 - 0.2' ASPHALT 0.2 - 29.0' SAND, Silty, Gravelly Fine to coarse grained, moderately yellowish brown, 10 YR 5/4, poorly graded, moist.
	EP-100-B	Cont		1.00	1.0 - 2.0'		
	EP-100-C	Cont		1.00	2.0 - 3.0'		
	EP-100-D	Cont		1.00	3.0 - 4.0'		
5	EP-100-E	Cont		1.00	4.0 - 5.0'		
10	EP-100-F	Cont		1.00	10.0 - 12.0'		
15	EP-100-G	Cont		1.00	15.0 - 17.0'		
20	EP-100-H1	Cont		1.00	20.0 - 22.0'		
	EP-100-H2	Cont		1.00	20.5 - 22.5'		
25	EP-100-I	Cont		1.00	25.0 - 27.0'		
30	EP-100-J	Cont		1.00	30.0 - 32.0'		
35	EP-100-K	Cont		1.00	35.0 - 37.0'		
40	Cont			1.00	40.0 - 42.0'		
	Cont			1.00	40.5 - 42.5'		29.0 - 40.0' SAND, Silty, Clayey Fine to medium grained, moderate yellowish brown, 10 YR 5/4, poorly graded with gravel, with grey and reddish brown streaking.
45	Cont			1.00	45.0 - 47.0'		
50	Cont			1.00	50.0 - 52.0'		
55	Cont			1.00	55.0 - 57.0'		
60	Cont			1.00	60.0 - 62.0'		

SOIL_BORE_REV1_1035.GPJ_HYD-TUC.GDT_4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-101

Date Hole Started: 9/29/99 Date Hole Finished: 9/30/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: West of Sample Mill Area Unloading Building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 82

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-101-A	CONT			0.0 - 1.0'		0.0 - 1.0' SAND, Silty
	EP-101-B	CONT			1.0 - 2.0'		Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, medium dense, no odor.
					2.0 - 3.0' NO SAMPLE / SLAG		1.0 - 2.0' GRAVEL, Sandy
	EP-101-C	CONT			3.0 - 4.0' Brick Debris		Fine grained, pale yellowish brown, 10 YR 6/2, dry, dense, no odor.
5	EP-101-D	CONT			4.0 - 5.0'		2.0 - 3.0' SLAG Black, angular, fractured.
							3.0 - 5.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, medium dense, no odor, with red brick debris.
							5.0 - 15.0' SLAG Black, angular, fractured.
10							
15	EP-101-E	CONT			15.0 - 17.0'		15.0 - 19.0' SAND Fine grained, pale yellowish brown, 10 YR 6/2, dry, no odor, medium dense.
20	EP-101-F	CONT			20.0 - 22.0'		19.0 - 35.0' SAND, Silty, Clayey Fine to medium grained, moderate yellowish brown, 10 YR 5/4, medium dense, dry, no odor, fine to coarse gravel below 20 feet.
25	EP-101-G	CONT			25.0 - 27.0'		
30	EP-101-H	CONT			30.0 - 32.0'		
	EP-101-H2	CONT			30.5 - 32.5'		
35	EP-101-I	CONT			35.0 - 37.0'		
40		CONT			40.0 - 42.0'		Cobbles and boulders below 30 feet. (Andesite)
							35.0 - 82.0' GRAVEL, Sandy, Silty Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dense, dry, no odor, with cobbles and boulders at various depths.

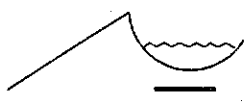
SOIL BORE REV1 1035.GPJ HYD-TUJ.GDT 4/24/00



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DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
45		CONT			45.0 - 47.0'		2 1/2 foot boulder at 48 feet to 50.5 feet.
50		CONT		50.0 - 52.0'			
		CONT		50.5 - 52.5'			
55							
60							
65							
70							
75							
80							
85							
90							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



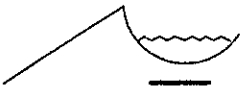
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 5 feet south of Sample Mill Area Sump
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 72

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-102-A	Cont		1.00	0.0 - 1.0'		0.0 - 0.2' ASPHALT
	EP-102-B			1.00	1.0 - 2.0'		0.2 - 0.7' GRAVEL, Sandy, Silty Coarse Base, fine to coarse grained, dark yellowish brown, 10 YR 4/2, wet, no odor.
	EP-102-C			1.00	2.0 - 3.0'		0.7 - 4.0' SAND, Silty, Gravelly, Clayey Fine to medium grained, dusky yellowish brown, 10 YR 2/2, wet, no odor.
	EP-102-D			1.00	3.0 - 4.0'		4.0 - 5.0' GRAVEL, Sandy, Silty Fine to coarse grained, dark yellowish orange, 10 YR 6/6, moist, no odor.
5	EP-102-E			1.00	4.0 - 5.0'		5.0 - 7.0' GRAVEL, Sandy, Silty Fine to coarse grained, dusky yellowish brown, 10 YR 2/2, dry, with slag, no odor.
							7.0 - 9.0' SAND Fine grained, pale yellowish brown, 10 YR 6/2, moist, no odor, medium dense.
10	EP-102-F			1.00	10.0 - 12.0'		9.0 - 19.0' SAND, Silty, Clayey Fine to medium grained, moderately yellowish brown, 10 YR 5/4, dry, dense, no odor, - with gravel below 11 feet.
15	EP-102-G			1.00	15.0 - 17.0'		
	EP-102-G2			1.00	15.5 - 17.5'		
20	EP-102-H			1.00	20.0 - 22.0'		19.0 - 72.0' GRAVEL, Sandy, Silty, Clayey Fine to coarse grained, moderate yellowish brown, 10 YR 5/4, dense, dry no odor, with weathered andesite cobbles/boulders below 25 feet.
25	EP-102-I			1.00	25.0 - 27.0'		
30	EP-102-J			1.00	30.0 - 32.0'		
35	EP-102-K			1.00	35.0 - 37.0'		
40							

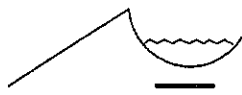
SOIL BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



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DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-102-L			1.00	40.0 - 42.0'		
45	EP-102-M			1.00	45.0 - 47.0'		
50	EP-102-N			1.00	50.0 - 52.0'		
	EP-102-N2			1.00	50.5 - 52.5'		
55	EP-102-O			1.00	55.0 - 57.0'		
60	EP-102-P	Sonic		1.00	60.0 - 62.0'		
65							
70	EP-102-Q	Sonic		1.00	70.0 - 72.0' Total Depth 72'		
75							
80							
85							
90							

SOIL BORE REV1 1095.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-103

Date Hole Started: 10/4/99 Date Hole Finished: 10/5/99

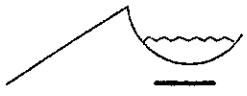
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Center of overhead conveyor between delumper and bedding buildings
 Recorded By: G Levin

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 72

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-103-A	Sonic Core		1.00	0.0 - 1.0'		0.0 - 0.1' ASPHALT
	EP-103-B	Sonic Core		1.00	1.0 - 2.0'		0.1 - 0.9' SAND, Gravelly Fine to coarse grained, loose, gap graded, moderate yellowish brown, 10 YR 5/4, dry, no odor.
	EP-103-C	Sonic Core		1.00	2.0 - 3.0'		0.9 - 4.5' SAND, Gravelly, Silty Fine to coarse grained, medium dense, gap graded, light brown, 5 YR 6/4, turning black with depth, dry, no odor.
5	EP-103-E	Sonic Core		1.00	4.0 - 5.0'		4.5 - 5.5' CHARCOAL Black, loose, low density, dry, no odor, looks like burnt wood with a few brick shards.
							5.5 - 12.5' SAND, Gravelly Coarse grained, loose, gap graded, light brown, 5 YR 6/4, dry, no odor, grades to silty gravelly sand.
10	EP-103-F	Sonic Core		1.00	10.0 - 12.0'		
	EP-103-F2	Sonic Core		1.00	10.5 - 12.5'		
15	EP-103-G	Sonic Core		1.00	15.0 - 17.0'		12.5 - 30.0' GRAVEL, Sandy, Silty, Cobbly Fine to coarse grained, silty, sandy gravel with cobbles, well graded, loose, grayish orange, 10 YR 7/4, dry, no odor.
20	EP-103-H	Sonic Core		1.00	20.0 - 22.0'		
25	EP-103-I	Sonic Core		1.00	25.0 - 27.0'		
30	EP-103-J	Sonic Core		1.00	30.0 - 32.0'		30.0 - 64.0' SAND, Gravelly, Silty Fine to coarse grained, medium dense, gap graded, moderate yellowish brown, 10 YR 5/4, dry w/lt moist zone at 52-53 feet, no odor.
35	EP-103-K	Sonic Core		1.00	35.0 - 37.0'		
40							

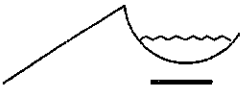
SOIL BORE, REV1, 1035.GPJ, HYD-TUC.GDT, 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-103-L	Sonic Core		1.00	40.0 - 42.0'		
45	EP-103-M	Sonic Core		1.00	45.0 - 47.0'		
50	EP-103-N	Sonic Core		1.00	50.0 - 52.0'		
	EP-103-N2	Sonic Core		1.00	50.5 - 52.5' Moist @ 52 feet		
55	EP-103-O	Sonic Core		1.00	55.0 - 57.0'		
60	EP-103-P	Sonic Core		1.00	60.0 - 62.0'		
65		Sonic Core		1.00	64.0 - 72.0' SAND, Silty, Clayey Fine grained, dense, grayish orange, 10 YR 7/4, moist, no odor.		
70		Sonic Core		1.00	70.0 - 72.0'		
75							
80							
85							
90							

SOIL BORE REV1 1035.GPJ HYD-TUJ.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-104

Date Hole Started: 10/5/99 Date Hole Finished: 10/7/99

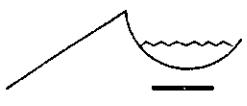
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 30' E and 50' S of South West corner of bedding building
 Recorded By: G Levin

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 77

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-104-A	Sonic Core		1.00	0.0 - 1.0' Wet from drilling water.		0.0 - 0.1' ASPHALT
	EP-104-B	Sonic Core		1.00	1.0 - 2.0'		0.1 - 2.7' SAND, Silty Fine to coarse grained, loose with minor gravel/pebbles, dry, no odor, grayish orange pink, 5 YR 7/2.
	EP-104-C	Sonic Core		1.00	2.0 - 3.0' Break down, 1415.		2.7 - 4.0' SAND, Gravelly, Silty Fine to coarse grained, loose, gap graded, gravel is angular slag clasts 1/4 - 2 inches, dry, no odor, pale yellowish brown, 10 YR 6/2.
	EP-104-D	Sonic Core		1.00	3.0 - 4.0' Wet from drilling water.		4.0 - 8.0' GRAVEL, Sandy Coarse grained sand and gravel, angular broken slag changing to rounded limestone, mudstone, and igneous at depths, poorly graded sand, very little fines, loose, moist, no odor, pale brown, 5 YR 5/2.
5	EP-104-E	Sonic Core		1.00	4.0 - 5.0'		
	EP-104-E2	Sonic Core		1.00	4.5 - 5.5'		
10	EP-104-F	Sonic Core		1.00	10.0 - 12.0'		8.0 - 15.0' SAND Fine to coarse grained, clean, very little fines, loose, dry, no odor, grayish orange, 10 YR 7/4.
15	EP-104-G	Sonic Core		1.00	15.0 - 17.0'		15.0 - 29.0' SILT, Clayey, Sandy, Gravelly, Cobbly Cobbly silt with pockets and lenses of red clay, decomposing andesite cobbles, pebbles and some sand, more sand and pebbles at depth, dense, no odor, pale reddish brown, 10 R 5/4.
20	EP-104-H	Sonic Core		1.00	20.0 - 22.0'		
25	EP-104-I	Sonic Core		1.00	25.0 - 27.0'		
30	EP-104-J	Sonic Core		1.00	30.0 - 32.0'		29.0 - 42.0' SAND, Gravelly, Silty, Cobbly Fine to coarse grained, more cobbles at depth, gap graded, grayish orange, 10 YR 7/4, dry, moderate dense, no odor.
35	EP-104-K	Sonic Core		1.00	35.0 - 37.0'		
40							

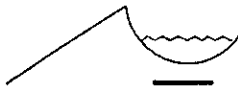
SOIL CORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-104-L	Sonic Core		1.00	40.0 - 42.0' Moist from drilling water.		
							42.0 - 47.0' ANDESITE Competent Boulder.
45	EP-104-M	Sonic Core		1.00	45.0 - 47.0'		
							47.0 - 54.0' SAND, Silty, Gravelly Fine to medium grained, with subangular to rounded gravel, gap graded grayish orange pink, 5 YR 7/2, medium dense, dry, no odor, occasional cobbles and small boulders.
50	EP-104-N	Sonic Core		1.00	50.0 - 52.0' Moist from drilling water.		
	EP-104-N2	Sonic Core		1.00	50.5 - 52.5' Moist from drilling water.		
							54.0 - 77.0' SILT, Gravelly, Cobbley, Clayey Silty with gravel, cobbles, and boulders, sand and clay tenses, medium dense to loose, gap graded, dry, no odor.
55	EP-104-O	Sonic Core		1.00	55.0 - 57.0'		
60	EP-104-P	Sonic Core		1.00	60.0 - 62.0' Moist layer at 62-63 feet.		
65	EP-104-Q	Sonic Core		1.00	65.0 - 67.0' Wet/Moist from groundwater?		
70		Sonic Core		1.00	70.0 - 72.0' Water stable.		
75		Sonic Core		1.00	75.0 - 77.0' For 1/2 hour at 63.03 feet.		
80							
85							
90							

SOIL BORE REV1 1095.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-105

Date Hole Started: 10/7/99 Date Hole Finished: 10/8/99

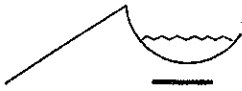
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 125' NW of North East corner of unloading building
 Recorded By: G Levin

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 77

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-105-A	Sonic Core		1.00	0.0 - 1.0'		0.0 - 2.0' SAND, Gravelly, Silty Loose, gap graded, very pale orange, 10 YR 8/2, dry, no odor.
	EP-105-B	Sonic Core		1.00	1.0 - 2.0'		
	EP-105-C	Sonic Core		1.00	2.0 - 3.0'		2.0 - 3.5' SAND, Gravelly, Silty Silty sand with broken slag gravel and dark fines, loose, gap graded, medium gray, N5, to grayish orange pink, 5 YR 7/2, dry, no odor.
	EP-105-D	Sonic Core		1.00	3.0 - 4.0'		3.5 - 4.0' SLIME Fine grained, greasy, with some pebbles, moderate greenish yellow, 10 YR 7/4, moist, no odor.
5	EP-105-E	Sonic Core		1.00	4.0 - 5.0'		4.0 - 5.5' SAND, Gravelly, Silty Fine to medium grained, gap graded, loose, light olive gray, 5 YR 5/2, dry, no odor.
	EP-105-E2	Sonic Core		1.00	4.5 - 5.5'		5.5 - 9.0' SLAG Black, angular, fractured.
10	EP-105-F	Sonic Core		1.00	10.0 - 12.0'		9.0 - 11.0' CLAY Plastic clay with a few pebbles, grayish brown, 5 YR 3/2, moist, no odor.
15	EP-105-G	Sonic Core		1.00	15.0 - 17.0'		11.0 - 17.0' SAND, Gravelly Medium to coarse grained, with clay lenses, loose, gap graded, pale yellowish brown, 10 YR 6/2, dry, no odor.
20	EP-105-H	Sonic Core		1.00	20.0 - 22.0'		17.0 - 21.0' SILT, Clayey Medium dense, non-plastic, moderate yellowish brown, 10 YR 5/4, moist to dry, no odor.
25	EP-105-I	Sonic Core		1.00	25.0 - 27.0'		21.0 - 77.0' SAND, Silty, Gravelly Fine to coarse grained, gap graded, with clayey silt lenses, loose to moderately dense, dark yellowish orange, 10 YR 6/6, dry, no odor.
30							

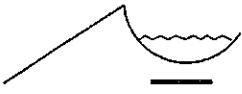
SOIL BORE REV1 1035.GPJ HYD.TUC.GDT 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-105-J	Sonic Cdre		1.00	30.0 - 32.0'		
35	EP-105-K	Sonic Cdre		1.00	35.0 - 37.0'		
40	EP-105-L	Sonic Cdre		1.00	40.0 - 42.0'		
45	EP-105-M	Sonic Cdre		1.00	45.0 - 47.0'		
50	EP-105-N	Sonic Cdre		1.00	50.0 - 52.0'		
	EP-105-N2	Sonic Cdre		1.00	50.5 - 52.5'		
55	EP-105-O	Sonic Cdre		1.00	55.0 - 57.0'		
60	EP-105-P	Sonic Cdre		1.00	60.0 - 62.0'		
65	EP-105-Q	Sonic Cdre		1.00	65.0 - 67.0'		

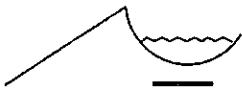
SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
70		Sonic Core		1.00	70.0 - 72.0' 70 - 77 solid pebble conglomerate.	70 75	
75		Sonic Core		1.00	75.0 - 77.0' Stopped drilling and allowed water in hole to reach equilibrium.		
80						80	
85						85	
90						90	
95						95	
100						100	
105						105	

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-106

Date Hole Started: 10/16/99 Date Hole Finished: 10/18/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 30' NW of Plant Flag Pole at entrance

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 80

Recorded By: H Kutz

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 8.0'	EP-106-A EP-106-B EP-106-C EP-106-D EP-106-E	Cont Cont Cont Cont Cont		1.00 1.00 1.00 1.00 1.00			0.0 - 8.0' SAND, Silty Gravelly, fine to medium grained, moderate yellowish brown, 10 YR 5/4, moist, no odor, with cobbles below 3 feet.
8.0 - 10.0'							8.0 - 10.0' CLAY, Sandy Medium plasticity, dark yellowish brown, 10 YR 4/2, moist, no odor.
10.0 - 12.0'	EP-106-F EP-106-F2	Cont Cont		2.00 2.00			10.0 - 12.0' GRAVEL, Sandy Fine, moderate yellowish brown, 10 YR 5/4.
12.0 - 13.0'							12.0 - 13.0' SAND, Silty, Clayey Gravelly, fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor.
13.0 - 14.0'							13.0 - 14.0' SAND, Silty Fine grained, moderate reddish brown, 10 R 4/6, dry, no odor.
14.0 - 18.0'	EP-106-G	Cont		2.00			14.0 - 18.0' SAND, Silty, Clayey Gravelly, fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor.
18.0 - 24.0'	EP-106-H	Cont					18.0 - 24.0' CLAY, Sandy, Silty Dark yellowish orange, 10 YR 5/6, moist, no odor.
24.0 - 52.0'	EP-106-I EP-106-J EP-106-K	Cont Cont Cont					24.0 - 52.0' SAND, Silty, Clayey Gravelly, fine to medium grained, moderate yellowish brown, 10 YR 5/4, dry, no odor - with andesite cobbles below 34 feet.

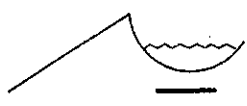
SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-106-L	Cont					
45	EP-106-M	Cont					
50	EP-106-N	Cont					
55	EP-106-O	Cont		2.00	55.0 - 57.0'		52.0 - 80.0' GRAVEL, Sandy, Silty Fine to coarse grained, grayish orange, 10 YR 7/4, dry, no odor, (Alluvium), wet at 58 feet, dry below 61 feet.
	EP-106-O2	Cont		2.00	55.5 - 57.5'		
60							
65							
70							
75							
80							
85							
90							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



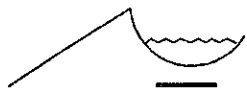
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 50' W and 250'S of South East corner of unloading building
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 80

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-107-A	Cont		36781.00	0.3 - 1.3'		0.0 - 0.3' ASPHALT
	EP-107-B	Cont		1.00	1.0 - 2.0'		0.3 - 3.0' GRAVEL, Sandy Silty, Clayey, poorly graded, dark yellowish orange, 10 YR 6/6, moist, medium dense, no odor.
	EP-107-C	Cont		1.00	2.0 - 3.0'		
	EP-107-D	Cont		1.00	3.0 - 4.0'		3.0 - 7.0' SAND Fine grained to medium grained, clayey, silty, moderate yellowish brown, 10 YR 5/4, moist, no odor.
5	EP-107-E	Cont		1.00	4.0 - 5.0'		
							7.0 - 15.0' SLAG Black, angular, fractured.
10							
	EP-107-F	Cont		2.00	15.0 - 17.0'		15.0 - 18.0' SAND Fine grained, poorly graded, pale yellowish brown, 10 YR 6/2, dry, medium dense, no odor.
	EP-107-F2	Cont		2.00	15.5 - 17.5'		
15							
	EP-107-G	Cont		2.00	20.0 - 22.0'		18.0 - 20.0' GRAVEL, Sandy Fine to coarse, silty, pale yellowish brown, 10 YR 6/2, dry, no odor, with cobbles. 20.0 - 35.0' SAND, Silty Fine to medium grained, dark yellowish orange, 10 YR 6/6, dry, with some fine gravel, interbedded clay lenses below 26 feet.
20							
	EP-107-H	Cont		2.00	25.0 - 27.0'		
25							
	EP-107-I	Cont		2.00	30.0 - 32.0'		
30							
	EP-107-J	Cont		2.00	35.0 - 37.0'		35.0 - 49.0' SAND, Clayey Gravelly, fine to medium grained, dark yellowish orange, 10 YR 6/6, dry to moist, no odor, dense.
35							
	EP-107-K	Cont		2.00	40.0 - 42.0'		
	EP-107-K2	Cont		2.00	40.5 - 42.5'		
40							
45							

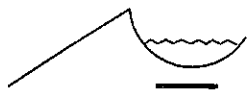
SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



(Continued)

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-107-L	Cont		2.00	45.0 - 47.0'		
50							
	EP-107-M	Cont		2.00	50.0 - 52.0'		49.0 - 60.0' GRAVEL, Sandy Fine to coarse grained, silty, grayish orange, 10 YR 7/4, dry, no odor, dense with cobbles at various depths (Alluvium).
55							
	EP-107-N	Cont		2.00	55.0 - 57.0'		
60							
	EP-107-O	Cont			60.0 - 62.0'		60.0 - 66.0' SAND, Clayey, Silty Fine grained, pale yellowish brown, 10 YR 6/2, wet, dense, no odor.
65							
	EP-107-P	Cont			65.0 - 67.0'		66.0 - 80.0' GRAVEL, Clayey Fine to coarse grained, pale yellowish brown, 10 YR 6/2, dense, no odor, with interbedded clay lenses and cobbles, andesite and conglomerate cobbles and boulders at various depths below 69 feet.
70							
75							
80							
85							
90							
95							
100							

SOIL_BORE_REV1 1036.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-108

Date Hole Started: 10/14/99 Date Hole Finished: 10/14/99

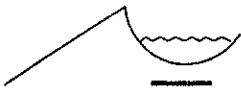
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Centerline of ephemeral pond,
 approximately 400' E of railroad tracks
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 42

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
0.0 - 2.0'							0.0 - 2.0' SLAG, Sandy Fine grained, black.
2.0 - 10.0'							2.0 - 10.0' SLAG Black, angular, fractured.
10.0 - 12.0'	EP-108-A	CONT		2.00			10.0 - 16.0' SAND, Silty, Clayey Dark yellowish orange, 10 YR 6/6, with coarse gravel, poorly graded, dry, no odor.
15.0 - 16.0'	EP-108-B	CONT		1.00			
20.0 - 22.0'		CONT		2.00			16.0 - 42.0' GRAVEL, Sandy, Silty Grayish orange, 10 YR 7/4, calcareous, dry, no odor. (Alluvium)
25.0 - 27.0'		CONT		2.00			
30.0 - 32.0'		CONT					
35.0 - 37.0'		CONT					
40.0 - 42.0'		CONT					

SOIL_BORE_REV1_1035.GPJ_HYD-TJUC.GDT_4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-109

Date Hole Started: 10/15/99 Date Hole Finished: 10/15/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: South of No. 9 gate roadway, 200' E of
 railroad tracks
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 42

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-109-A	CONT		1.00	0.0 - 1.0' Slag in Sample	[Stippled pattern]	0.0 - 10.0' SAND, Silty Fine to medium grained, gravelly, poorly graded, moderate yellowish brown, 10 YR 5/4, dry, no odor, with slag, fine to coarse gravels.
	EP-109-B	CONT		1.00	1.0 - 2.0' Slag in Sample		
	EP-109-C	CONT		1.00	2.0 - 3.0' Slag in Sample		
	EP-109-D	CONT		1.00	3.0 - 4.0' Slag in Sample		
5	EP-109-E	CONT		1.00	4.0 - 5.0' Slag in Sample		
10	EP-109-F	CONT		2.00	10.0 - 12.0'	[Stippled pattern]	10.0 - 12.0' SAND, Silty Fine grained, poorly graded, brown, 10 YR 5/4, dry, no odor, medium dense.
15	EP-109-G	CONT		2.00	15.0 - 17.0'	[Stippled pattern]	12.0 - 42.0' GRAVEL, Sandy, Clayey Fine to coarse grained, poorly graded, grayish orange, 10 YR 7/4, dry, no odor, (Alluvium) with andesite cobbles and boulders below 22 feet.
20	EP-109-H	CONT		2.00	20.0 - 22.0'	[Stippled pattern with cobbles]	
	EP-109-H2	CONT		2.00	20.5 - 22.5'		
25							
30							
35							
40							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-110

Date Hole Started: 10/18/99 Date Hole Finished: 10/18/99

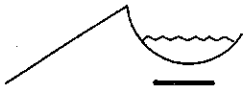
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: North side of plant entrance roadway, 30'
 NE of plant railroad bridge spur
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 25

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-110-A	CONT		1.00	0.0 - 1.0'		0.0 - 2.0' SAND, Silty, Clayey Fine to medium grained, dusky yellowish brown, 10 YR 2/2, with fine to coarse gravel, no odor, some slag, moist.
	EP-110-B	CONT		1.00	1.0 - 2.0'		
	EP-110-C	CONT		1.00	2.0 - 3.0'		
	EP-110-D	CONT		1.00	3.0 - 4.0'		
	EP-110-E	CONT		1.00	4.0 - 5.0'		
5							
	EP-110-F	CONT		1.00	7.0 - 8.0'		7.0 - 8.0'
	EP-110-F2	CONT		1.00	7.5 - 8.5'		7.5 - 8.5'
10							
15							
20							
25							

SOIL BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-111

Date Hole Started: 10/27/99 Date Hole Finished: 10/27/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 525' NE of Old Pump House on Rio Grande flood plain
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 20

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 2-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-111-A	SS	6		0.0 - 1.0'		0.0 - 3.0' SAND, Silty Fine grained, pale yellowish brown, 10 YR 6/2, medium dense, dry, no odor, - moist below 2 feet.
	EP-111-B	SS	10		1.0 - 2.0'		
	EP-111-C	SS	6		2.0 - 3.0'		
	EP-111-D	SS	5		3.0 - 4.0'		3.0 - 4.0' SAND, Clayey, Silty Fine grained, brownish black, 5 YR 5/1, medium dense, moist, with organic material, no odor.
5	EP-111-E	SS	6		4.0 - 5.0'		4.0 - 20.0' SAND Fine to medium grained, brownish black, 5 YR 5/1, loose, wet. Water at 4.5 - 5 feet.
10							
15							
20							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-112

Date Hole Started: 10/27/99 Date Hole Finished: 10/27/99

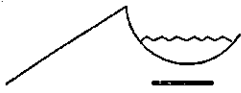
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 1400' NW of Old Pump House on Rio Grande flood plain
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 20

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 2-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-112-A	SS	6	1.00	0.0 - 1.0'		0.0 - 3.0' SAND, Silty Fine grained, pale yellowish brown, 10 YR 6/2, medium dense, dry to moist, no odor.
	EP-112-B	SS	8	1.00	1.0 - 2.0'		
	EP-112-C	SS	6		2.0 - 3.0'		
	EP-112-D	SS	7		3.0 - 4.0'		
5	EP-112-E	SS	7		4.0 - 5.0'		3.0 - 20.0' SAND Fine to medium grained, brownish black, 5 YR 5/1, medium dense, moist, no odor, wet at 4 feet.
10							
15							
20							
25							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-113

Date Hole Started: 10/28/99 Date Hole Finished: 10/28/99

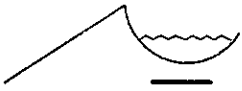
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: 2300' NW of Old Pump House on Rio Grande flood plain
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Oscar Medrano
 Drilling Method: Sonic
 Drilling Fluids Used: Water
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 8
 Total Depth Drilled (ft): 20

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 2-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-113-A	SS	8		0.0 - 1.0'		0.0 - 3.0' SAND, Silty Fine grained, pale yellowish brown, 10 YR 6/2, medium dense, dry, no odor.
	EP-113-B	SS	8		1.0 - 2.0'		
	EP-113-C	SS	6		2.0 - 3.0'		
	EP-113-D	SS	7		3.0 - 4.0'		
5	EP-113-E	SS	5		4.0 - 5.0'		3.0 - 20.0' SAND Fine to medium grained, pale yellowish brown, 10 YR 6/2, medium dense dry to wet, no odor, gravel, rock and debris layer at 3-4 feet. Water at 5 feet
10							
15							
20							
25							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



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 El Paso, Texas

Soil Boring Log





Hole Name: EP-114

Date Hole Started: 11/15/99 Date Hole Finished: 11/15/99

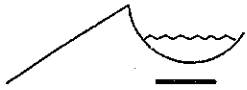
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front Slope, by railroad tracks, below Acid Mist Precipitator
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Dave Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 29

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 2-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
							0.0 - 2.5' SLAG Black, angular, fractured.
	EP-114-A			1.00	2.5 - 3.5'		2.5 - 29.0' SAND, Silty Fine to medium grained, moderate yellowish brown, 10YR 5/4, dry, poorly graded, no odor, with some gravel, and interbedded clay lenses at various depths.
	EP-114-B			1.00	3.5 - 4.5'		
5	EP-114-C			1.00	4.5 - 5.5'		
10	EP-114-D			2.00	10.0 - 12.0'		Diesel affected soil at 12 feet, water at 13 feet
15							Coarser gravel below 15 feet
20							
25							
30							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-115

Date Hole Started: 11/16/99 Date Hole Finished: 11/16/99

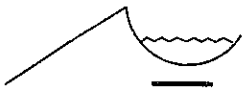
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front Slope, by railroad tracks, below
 Medford Sump
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Dave Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 25

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 2-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-115-A			1.00	0.0 - 1.0'		0.0 - 16.0' SAND, Silty, Gravelly Fine to medium grained, dusky yellowish brown, 10 YR 2/2, poorly graded, no odor, dry to moist, loose, - wet zone at 13 - 15 feet.
	EP-115-B			1.00	1.0 - 2.0'		
	EP-115-C			1.00	2.0 - 3.0'		
	EP-115-D			1.00	3.0 - 4.0'		
	EP-115-E			1.00	4.0 - 5.0'		
5							
10							
	EP-115-F			2.00	10.0 - 12.0'		
15							
20							
25							
							16.0 - 25.0' CLAY, Silty, Sandy Medium plasticity, dark yellowish brown, 10 YR 4/2, poorly graded, hard, no odor, dry with some fine gravel.

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-116

Date Hole Started: 11/16/99 Date Hole Finished: 11/16/99

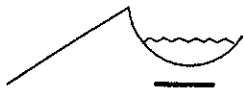
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front Slope, by railroad tracks, below former roasters
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Dave Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 25

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 2-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-116-A	SS		1.00	0.0 - 1.0'		0.0 - 2.5' SAND, Silty, Gravelly Fine grained, dusky yellowish brown, 10 YR 2/2, to moderate reddish brown, 10 YR 4/6, loose, dry to moist, no odor.
	EP-116-A2	SS		1.00	0.5 - 1.5'		
	EP-116-B	SS		1.00	1.0 - 2.0'		
	EP-116-C	SS		0.50	2.0 - 2.5'		2.5 - 5.0' SLAG Black, angular, fractured.
5	EP-116-D	SS		2.00	5.0 - 7.0'		5.0 - 8.0' SAND, Clayey Fine to coarse grained, dark yellowish brown, 10 YR 4/2, poorly graded, loose, moist to wet, no odor.
10	EP-116-E	SS		2.00	10.0 - 12.0'		8.0 - 25.0' CLAY, Sandy Dark yellowish brown, 10 YR 4/2, soft, moist to wet, no odor, - water at 10 feet.
15							
20							
25							

SOIL_BORE_REV1 1035.GPJ HYD-TUC.GDT 4/24/00



HYDROMETRICS INC.
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 El Paso, Texas

Monitor Well Log

Hole Name: EP-117

Date Hole Started: 11/16/99 Date Hole Finished: 11/17/99

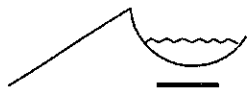
Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front slope, by railroad tracks, below Old Baghouse
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Dave Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 30

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 4-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-117-A	SS		1.00	0.0 - 1.0'		0.0 - 3.5' GRAVEL, Sandy, Silty Fine to coarse grained, dusky yellowish brown, 10 YR 2/2, very dense, poorly graded, dry, no odor. (Ballast RR)
	EP-117-B	SS		1.00	1.0 - 2.0'		
	EP-117-C	SS		1.00	2.0 - 3.0'		
	EP-117-D	SS		1.00	3.0 - 4.0'		
5	EP-117-E	SS		1.00	5.0 - 6.0'		3.5 - 30.0' SAND, Silty Fine to medium grained, dusky yellowish brown, 10 YR 2/2, poorly graded, dry, dense, no odor, moderate yellowish brown below 5 feet, with fine to coarse gravel below 15 feet.
10	EP-117-F	SS		2.00	10.0 - 12.0'		
	EP-117-F2	SS		2.00	10.5 - 12.5'		
15							
20							
25							
30							

SOIL_BORE_REV1_1095.GPJ_HYD-TUC.GDT_4/24/00



HYDROMETRICS INC.
 Consulting Scientists and Engineers
 El Paso, Texas

Monitor Well Log

Hole Name: EP-118

Date Hole Started: 11/17/99 Date Hole Finished: 11/17/99

Client: ASARCO, Inc.
 Project: Remedial Investigation Phase II
 County: El Paso State: Texas
 Property Owner: ASARCO, Inc.
 Legal Description: ASARCO El Paso Plant
 Descriptive Location: Front Slope by railroad tracks, below
 Sample Mill Area
 Recorded By: H Kutz

Drilling Company: Alliance Environmental
 Driller: Dave Hogan
 Drilling Method: Hollow Stem Auger
 Drilling Fluids Used: None
 Purpose of Hole: Install Well/Collect Soil Samples
 Hole Diameter (in): 10.25
 Total Depth Drilled (ft): 36

Remarks: Initial boring 4 inches in diameter for sample collection. Hole reamed to 8 inches for installation of 2-inch diameter monitor well.

DEPTH	SAMPLE NUMBER	SAMPLE TYPE	BLOW COUNT	RECOVERY (feet)	DRILLING AND GEOTECHNICAL NOTES	GRAPHICS	GEOLOGICAL DESCRIPTION
	EP-118-A	SS		1.00	0.0 - 1.0'		0.0 - 3.0' SAND, Silty Fine to medium grained, dark yellowish brown, 10 YR 4/2, medium dense, dry, poorly graded, no odor.
	EP-118-A2	SS		1.00	0.5 - 1.5'		
	EP-118-B	SS		1.00	1.0 - 2.0'		
	EP-118-C	SS		1.00	2.0 - 3.0'		
	EP-118-D	SS		1.00	3.0 - 4.0'		
5	EP-118-E	SS		1.00	4.0 - 5.0'		3.0 - 4.5' GRAVEL, Sandy, Silty Fine to coarse grained, grayish orange, 10 YR 7/4, very dense, dry, poorly graded, no odor, with cobbles at various depths.
							4.5 - 36.0' SANDSTONE Highly cemented, very hard, pale yellowish brown, 10 YR 6/2, dry.
15	EP-118-F	SS		0.25	15.0 - 15.5'		
20							
25							
30							
35							
40							

SOIL BORE REV1 1035.GPJ HYD-TUC.GDT 4/24/00

APPENDIX D

SUMMARY OF SOIL ANALYTICAL RESULTS

APPENDIX D

SUMMARY OF SOIL ANALYTICAL RESULTS

APPENDIX D

SUMMARY OF SOIL ANALYTICAL RESULTS

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**Table D-1. Summary of Soil Analytical Results,
Investigation Area 1 (Converter Building/Baghouse Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BHI-1	BHI-1A	08/31/99	0.5-1.5 ft.	30	10 U	80 U	100 U	2.3	62	10 U	290
	BHI-1B	08/31/99	1.5-2.5 ft.	200	58	80 U	5500	2.4	1600	13	2400
	BHI-1C	08/31/99	10-12 ft.	17	10 U	80 U	39	2.2	10 U	10 U	31
	BHI-1D	08/31/99	15-17 ft.	10	10 U	80 U	20 U	2.4	10 U	10 U	23
	BHI-1E	08/31/99	20-22 ft.	20	10 U	80 U	23	2.7	10 U	10 U	32
	BHI-1F	08/31/99	25-27 ft.	16	20	87	27	3.2	10 U	10 U	48
	BHI-1G	09/01/99	30-32 ft.	48	10 U	80 U	20 U	4.1	11	10 U	57
	BHI-1H	09/01/99	35-37 ft.	33	10 U	80 U	23	3.6	16	10 U	30
	BHI-1I	09/01/99	40-42 ft.	16	10 U	80 U	49	2.5	10 U	12	36
	BHI-1J	09/01/99	45-47 ft.	18	10 U	80 U	23	2.8	10 U	10 U	51
	BHI-2	BHI-2A	09/01/99	0-1 ft.	720	590	80 U	3100	2.2	710	31
BHI-2B		09/01/99	1-2 ft.	77	160	80 U	250	2	190	10 U	1100
BHI-2C		09/01/99	2-3 ft.	16	10 U	80 U	93	2	100	10 U	61
BHI-2D		09/01/99	3-4 ft.	30	10 U	80 U	160	2.3	140	10 U	200
BHI-2E		09/01/99	4-5 ft.	12	10 U	80 U	99	2.1	46	10 U	66
BHI-2F		09/02/99	10-12 ft.	10 U	10 U	80 U	20 U	2.4	10 U	10 U	48
BHI-2G		09/02/99	15-17 ft.	12	10 U	80 U	20 U	2.2	10 U	10 U	25
BHI-2H		09/02/99	20-22 ft.	23	10 U	80 U	50	3.2	11	10 U	38
BHI-2I		09/02/99	25-27 ft.	12	10 U	80 U	20 U	2.3	10 U	10 U	32
BHI-2J		09/02/99	30-32 ft.	48	10 U	80 U	56	3.9	10 U	10 U	40
BHI-2K		09/02/99	35-37 ft.	24	10 U	80 U	20 U	3	11	10 U	17
BHI-2K2		09/02/99	DUP	25	10 U	80 U	25	3	12	10 U	31
BHI-2L	09/02/99	40-42 ft.	21	11	80 U	45	2.8	10 U	10 U	23	
EP-100	EP-100A	9/8/99	0-1 ft.	850	360	80 U	2900	2.3	850	20	3100
	EP-100B	9/8/99	1-2 ft.	2300	310	80 U	4600	2.7	610	28	3600
	EP-100C	9/8/99	2-3 ft.	720	210	92	11000	4.5	1900	19	3300
	EP-100D	9/8/99	3-4 ft.	280	410	80 U	7400	2.2	1900	22	6900
	EP-100E	9/8/99	4-5 ft.	76	33	80 U	2100	1.8	680	11	2400
	EP-100F	9/8/99	10-12 ft.	290	61	80 U	2000	2.1	440	10 U	960
	EP-100G	9/8/99	15-17 ft.	14	10 U	96	750	1.6	240	10 U	240
	EP-100H	9/8/99	20-22 ft.	91	24	80 U	2200	1.7	790	10 U	1400
	EP-100H2	9/8/99	20-22 ft.	63	53	80 U	1600	1.6	660	10 U	1200
	EP-100I	9/8/99	25-27 ft.	130	10 U	80 U	140	2.7	370	10 U	110

**Table D-1. Summary of Soil Analytical Results,
Investigation Area 1 (Converter Building/Baghouse Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
EP-100	EP-100J	9/8/99	30-32 ft.	28	10 U	80 U	41	2.9	37	10 U	32
	EP-100K	9/8/99	35-37 ft.	100	220	80 U	77	2.7	50	10 U	540
	EP-100L	9/8/99		100	10 U	80 U	20 U	12	10 U	10 U	64
	EP-100L2	9/8/99		73	10 U	80 U	20 U	5.9	10 U	10 U	38
	EP-100M	9/8/99		110	10 U	80 U	35	11	10 U	10 U	66
EP-115	EP-115A	11/16/99	0-1 ft.	2800	850	80 U	16000	35000	7000	67	5300
	EP-115B	11/16/99	1-2 ft.	950	400	80 U	5900	39000	2800	21	2200
	EP-115C	11/16/99	2-3 ft.	830	380	80 U	5000	40000	2300	26	1900
	EP-115D	11/16/99	3-4 ft.	1100	420	80 U	5500	39000	2800	20	2100
	EP-115E	11/16/99	4-5 ft.	750	320	80 U	3500	39000	1700	18	1300
	EP-115F	11/16/99	10-12 ft.	337	254	12	298	16810	432	5 U	1193
	EP-115F	11/16/99	10-12 ft.	360	270	80 U	350	24000	510	10 U	1200

Table D-2. Summary of All Analytical Results
Investigation Area 2 (Boneyard/Slag Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH2-1	BH2-1A	08/10/99	63-65 ft.	19	10	80	U	3.5	790	10	1300
	BH2-1B	08/10/99	68-70 ft.	12	10	80	U	2.7	10	10	44
	BH2-1C	08/10/99	73-75 ft.	64	10	80	U	2.7	10	10	44
BH2-3	BH2-3A	08/13/99	40-42 ft.	27	10	80	U	2	10	10	15
	BH2-3B	08/13/99	45-47 ft.	10	U	80	U	2.3	10	10	38
	BH2-3C	08/13/99	50-52 ft.	10	U	80	U	1.9	10	10	25
	BH2-3D	08/13/99	55-57 ft.	10	U	83	U	1.8	10	10	23
	BH2-3E	08/13/99	60-62 ft.	21	14	80	U	2	10	10	42
	BH2-3E2	08/13/99	DUP	19	10	80	U	2	10	10	39
	BH2-3F	08/13/99	65-67 ft.	36	10	80	U	1.9	10	10	34
	BH2-3G	08/13/99	70-72 ft.	120	15	80	U	3.1	10	10	79
	BH2-3H	08/13/99	75-76 ft.	100	10	80	U	3.3	14	10	34
BH2-4	BH2-4A	08/16/99	54-55 ft.	170	120	80	U	2.3	59	14	560
BH2-5	BH2-5A	08/16/99	16-18 ft.	10	U	80	U	1.8	21	10	54
	BH2-5B	08/16/99	20-22 ft.	10	U	80	U	1.7	19	10	21
	BH2-5C	08/16/99	24-26 ft.	10	U	80	U	2.1	10	10	15
	BH2-5C2	08/16/99	DUP	10	U	80	U	2.1	12	10	34
	BH2-6	BH2-6A	08/16/99	9-11 ft.	1100	450	80	U	1.4	56	10
BH2-6B	08/16/99	15-17 ft.	3700	210	80	U	4.9	74	26	130	
BH2-6C	08/16/99	20-22 ft.	870	1600	80	U	3	23	34	580	
BH2-6D	08/16/99	24-26 ft.	400	630	80	U	2.9	15	10	600	
BH2-6D2	08/16/99	DUP	410	690	80	U	3	14	10	660	
BH2-6E	08/16/99	30-32 ft.	170	710	80	U	2.6	10	10	810	
BH2-6F	08/17/99	35-37 ft.	85	670	80	U	2.7	10	10	460	
BH2-6G	08/17/99	40-42 ft.	370	1400	80	U	3	10	10	520	
BH2-6H	08/17/99	45-47 ft.	47	58	80	U	1.3	10	10	120	
BH2-7	BH2-7A	08/17/99	10-12 ft.	13	10	80	U	2.4	10	10	59
	BH2-7B	08/17/99	15-17 ft.	10	U	80	U	2.5	10	10	34
	BH2-7C	08/17/99	20-22 ft.	11	10	80	U	2.6	10	10	35
	BH2-7C2	08/17/99	DUP	11	10	86	U	2.6	10	10	19
	BH2-7D	08/17/99	25-27 ft.	10	U	80	U	0.69	10	10	31
	BH2-7E	08/17/99	30-32 ft.	22	10	80	U	3	10	10	47
	BH2-7F	08/17/99	35-37 ft.	11	10	80	U	2.2	10	10	21
	BH2-7G	08/17/99	40-41 ft.	11	14	80	U	2.6	10	10	24
BH2-7H	08/17/99	45-46 ft.	10	10	80	U	2.3	10	10	27	
EP-99	EP-99A	8/12/99	57-59 ft.	10	U	80	U	2	45	10	56
	EP-99B	8/12/99	65-67 ft.	10	U	80	U	2.4	10	10	43

**Table D-3. Summary of Soil Analytical Results
Investigation Area 3 (Acid Plant 1 and 2 Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH3-1	BH3-1IA	08/18/99	0-1 ft.	300	110	110	3400	2.3	990	13	1200
	BH3-1IB	08/18/99	1-2 ft.	10	10	80	120	1.6	57	10	65
	BH3-1IC	08/18/99	2-3 ft.	18	14	80	150	1.8	340	10	320
	BH3-1ID	08/18/99	3-4 ft.	10	10	80	20	1.6	18	10	35
	BH3-1IE	08/18/99	4-5 ft.	10	10	80	28	1.5	10	10	32
	BH3-1IE2	08/18/99	DUP	10	10	80	21	1.5	10	10	32
	BH3-1IF	08/23/99	25-27 ft.	10	10	80	56	2.5	10	10	46
	BH3-1IG	08/23/99	30-32 ft.	24	10	80	20	3.2	10	10	30
	BH3-1IH	08/23/99	35-37 ft.	22	10	88	20	3.1	10	10	35
	BH3-1II	08/23/99	40-42 ft.	28	10	80	20	3.2	10	10	26
	BH3-1IJ	08/23/99	45-47 ft.	19	10	80	20	2.3	10	10	30
BH3-1IJ2	08/23/99	DUP	12	10	80	20	2.4	10	10	43	
BH3-1IK	08/23/99	49-51 ft.	10	10	80	20	2.4	29	10	36	
BH3-2	BH3-2A	08/23/99	0-1 ft.	890	560	80	4000	3	2500	19	4600
	BH3-2B	08/23/99	1-2 ft.	10	10	80	82	2	52	10	61
	BH3-2B2	08/23/99	1-2 ft.	74	37	80	310	2.1	280	10	390
	BH3-2C	08/23/99	25-27 ft.	72	51	80	54	1.7	34	10	8000
	BH3-2D	08/23/99	30-32 ft.	10	14	80	20	2.1	10	10	48
	BH3-2E	08/23/99	35-37 ft.	10	10	80	20	1.9	16	10	20
	BH3-2F	08/23/99	40-42 ft.	16	10	80	20	2.6	10	10	24
	BH3-2G	08/23/99	45-47 ft.	10	10	80	20	1.9	10	10	39
	BH3-3A	08/24/99	40-42 ft.	10	10	80	23	2.4	18	10	100
	BH3-3B	08/24/99	45-47 ft.	18	13	80	20	2.7	10	10	77
	BH3-4	BH3-4A	08/24/99	0-1 ft.	64	37	80	211	1.7	1300	10
BH3-4B		08/24/99	1-2 ft.	10	10	80	65	1.5	120	10	130
BH3-4C		08/25/99	39-41 ft.	370	360	80	93	1.8	72	10	44000
BH3-4D		08/25/99	45-47 ft.	20	10	80	20	2.2	15	10	190
BH3-4E		08/25/99	40-52 ft.	19	10	80	20	2.4	10	10	120
BH3-5	BH3-5A	08/25/99	3-4.5 ft.	870	190	260	7400	3.1	3800	35	10000
	BH3-5A2	08/25/99	DUP	550	150	200	5600	2.7	2400	22	7600
	BH3-5B	08/25/99	31 ft.	2100	430	80	110	2.1	63	81	40000
	BH3-5C	08/25/99	35 ft.	420	300	80	65	1.7	14	13	33000
	BH3-5D	08/25/99	40 ft.	46	10	80	20	2	14	10	160
BH3-5E	08/25/99	45 ft.	25	10	80	20	1.7	10	10	78	

**Table D-3. Summary Soil Analytical Results
Investigation Area 3 (Acid Plant 1 and 2 Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH3-5	BH3-5F	08/25/99	50-52 ft.	55	10	80	U	48	16	10	U
BH3-6	BH3-6A	08/25/99	18-20 ft.	10	U	80	U	20	23	10	U
	BH3-6B	08/25/99	25-27 ft.	10	U	80	U	20	14	10	U
	BH3-6C	08/26/99	30-32 ft.	10	U	80	U	20	20	10	U
	BH3-6D	08/26/99	35-37 ft.	10	U	80	U	20	10	10	U
	BH3-6E	08/26/99	40-42 ft.	40	U	80	U	20	22	10	U
	BH3-6F	08/26/99	45-47 ft.	10	U	80	U	20	27	10	U
	BH3-6G	08/26/99	50-52 ft.	330	26	80	U	20	24	10	U
	BH3-6G2	08/26/99	DUP	380	26	80	U	20	29	10	U
	BH3-6H	08/26/99	55-57 ft.	1100	40	80	U	20	48	14	U
	BH3-6I	08/26/99	60-62 ft.	10	U	80	U	20	24	10	U
	BH3-6J	08/26/99	65-67 ft.	72	10	80	U	47	28	10	U
BH3-7	BH3-7A	08/26/99	30-32 ft.	10	U	80	U	32	10	10	U
	BH3-7B	08/26/99	35-37 ft.	10	U	80	U	52	10	10	U
	BH3-7C	08/26/99	40-42 ft.	17	10	80	U	61	10	10	U
	BH3-7C2	08/26/99	DUP	10	U	80	U	33	10	10	U
	BH3-7D	08/26/99	45-47 ft.	18	10	80	U	66	38	10	U
	BH3-7E	08/26/99	50-52 ft.	15	10	80	U	20	46	10	U
	BH3-7F	08/26/99	55-57 ft.	56	10	80	U	39	10	10	U
	BH3-7G	08/26/99	60-62 ft.	10	U	80	U	45	41	10	U
	BH3-7H	08/26/99	65-67 ft.	50	10	80	U	27	63	10	U
	BH3-7I	08/27/99	69-70 ft.	10	U	80	U	20	12	10	U
BH3-8	BH3-8A	08/31/99	55-57 ft.	10	U	80	U	20	15	10	U
	BH3-8B	08/31/99	60-62 ft.	180	42	80	U	44	33	10	U
	BH3-8B2	08/31/99	60-62 ft.	170	62	80	U	20	41	10	U
EP-114	EP-114A	11/15/99	2.5-3.5 ft.	514	180	22	U	592	860	5	U
	EP-114A	11/15/99	2.5-3.5 ft.	600	200	80	U	710	840	11	U
	EP-114B	11/15/99	3.5-4.5 ft.	291	417	11	U	201	222	5	U
	EP-114B	11/15/99	3.5-4.5 ft.	310	460	80	U	250	270	10	U
	EP-114C	11/15/99	4.5-5.5 ft.	18	10	80	U	45	64	10	U
	EP-114D	11/15/99	10-12 ft.	110	24	80	U	250	210	10	U

**Table D-4. Summary Oil Analytical Results
Investigation Area 4 (Front Slope/Western Plant Boundary Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	
BH4-1	BH4-1A	11/17/99	0-1 ft.	340	110	J4	U	7300	2.6	3700	10	U
	BH4-1A2	11/17/99	0-1 ft.	240	66	J4	U	6500	2.4	3500	10	U
	BH4-1B	11/17/99	1-2 ft.	260	77	J4	U	4600	2.5	4100	17	2300
	BH4-1C	11/17/99	2-3 ft.	200	60	J4	U	4400	2.6	2800	10	U
	BH4-1D	11/17/99	3-4 ft.	170	83	J4	U	3400	2.3	3300	13	1800
	BH4-1E	11/17/99	4-5 ft.	140	54	J4	U	3300	2.4	2200	10	U
	BH4-1F	11/17/99	10-12 ft.	11	10	U	U	110	2	97	10	U
BH4-2	BH4-2A	11/18/99	0-1 ft.	760	380	80	U	5800	28000	6500	42	2900
	BH4-2B	11/18/99	1-2 ft.	494	232	16		3303	21050	4355	18	2293
	BH4-2B	11/18/99	1-2 ft.	650	320	80	U	4900	32000	4800	28	2600
	BH4-2C	11/18/99	2-3 ft.	350	120	80	U	2500	31000	2300	14	1400
	BH4-2D	11/18/99	3-4 ft.	132	53	14		934	19400	1078	5.1	664
	BH4-2D	11/18/99	3-4 ft.	200	83	80	U	1500	29000	1400	10	U
	BH4-2E	11/18/99	4-5 ft.	144	54	23		951	19780	1136	5.5	638
	BH4-2E	11/18/99	4-5 ft.	180	72	80	U	1600	30000	1400	10	U
	BH4-2F	11/18/99	10-12 ft.	23	10	80	U	58	18000	30	10	U
	BH4-2G	11/18/99	15-17 ft.	13	10	80	U	23	21000	36	34	180
BH4-3	BH4-3A	11/18/99	10-11 ft.	54	10	80	U	350	3	390	10	U
												390
BH4-4	BH4-4A	11/18/99	0-1 ft.	11000	2600	J4	U	20000	4	22000	J4	220
	BH4-4A2	11/18/99	0-1 ft.	7100	1700	J4	U	18000	3.9	15000	J4	120
	BH4-4B	11/18/99	1-2 ft.	2000	580	J4	U	4300	2.6	5300	J4	38
	BH4-4C	11/18/99	2-3 ft.	3200	900	J4	U	6300	3	7600	J4	55
	BH4-4D	11/18/99	3-4 ft.	1900	530	J4	U	3600	2.5	5300	J4	36
	BH4-4E	11/18/99	4-5 ft.	410	82	J4	U	570	2.1	1300	J4	10
	BH4-4F	11/18/99	10-12 ft.	100	21	J4	U	170	2.3	270	J4	10
BH4-5	BH4-5A	11/18/99	0-1 ft.	4200	1500	80	U	23000	4.8	8600	72	4300
	BH4-5A2	11/18/99	0-1 ft.	4100	1400	80	U	23000	4.9	8300	68	4300
	BH4-5B	11/18/99	1-2 ft.	2500	930	80	U	11000	3.9	5300	32	2500
	BH4-5C	11/18/99	2-3 ft.	2000	700	80	U	8900	3.5	4500	24	2000
	BH4-5D	11/18/99	3-4 ft.	910	100	80	U	1500	3	3600	10	U
	BH4-5E	11/18/99	4-5 ft.	300	84	80	U	1400	2.6	950	10	U
	BH4-5F	11/18/99	10-12 ft.	130	12	80	U	500	2.4	470	10	U

**Table D-4. Summary Soil Analytical Results
Investigation Area 4 (Front Slope/Western Plant Boundary Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH4-6	BH4-6A	11/18/99	0-1 ft.	310	190	80	U	3	1500	15	1600
	BH4-6B	11/18/99	1-2 ft.	50	24	80	U	1.8	380	10	U
	BH4-6C	11/18/99	2-3 ft.	150	60	80	U	2.7	890	10	U
	BH4-6D	11/18/99	3-4 ft.	690	190	80	U	3.3	2800	17	2700
	BH4-6E	11/18/99	4-5 ft.	29	10	U	U	1.4	210	10	U
	BH4-6E2	11/18/99	4-5 ft.	19	18	80	U	1.4	200	10	U
	BH4-6F	11/18/99	10-12 ft.	43	10	U	U	1.2	140	10	U
EP-114	EP-114A	11/15/99	2.5-3.5 ft.	600	200	80	U	3	840	11	3200
	EP-114B	11/15/99	3.5-4.5 ft.	310	460	80	U	2.1	270	10	U
	EP-114C	11/15/99	4.5-5.5 ft.	18	10	U	U	2	64	10	U
	EP-114D	11/15/99	10-12 ft.	110	24	80	U	2.3	210	10	U
EP-115	EP-115A	11/16/99	0-1 ft.	2800	850	80	U	16000	7000	67	5300
	EP-115B	11/16/99	1-2 ft.	950	400	80	U	5900	2800	21	2200
	EP-115C	11/16/99	2-3 ft.	830	380	80	U	5000	2300	26	1900
	EP-115D	11/16/99	3-4 ft.	1100	420	80	U	5500	2800	20	2100
	EP-115E	11/16/99	4-5 ft.	750	320	80	U	3500	1700	18	1300
	EP-115F	11/16/99	10-12 ft.	360	270	80	U	350	510	10	U
EP-116	EP-116A	11/16/99	0-1 ft.	18000	J4	80	U	57000	J4	9.9	40000
	EP-116A2	11/16/99	0-1 ft.	11000	J4	90	U	82000	J4	11	19000
	EP-116B	11/16/99	1-2 ft.	9800	J4	80	U	97000	J4	10	26000
	EP-116C	11/16/99	2-2.5 ft.	9200	J4	80	U	100000	J4	10	23000
	EP-116D	11/16/99	5-7 ft.	6800	J4	83	U	23000	J4	6.7	16000
	EP-116E	11/16/99	10-12 ft.	5300	J4	80	U	33000	J4	7.2	13000
EP-117	EP-117A	11/16/99	0-1 ft.	2300	J4	80	U	4100	J4	3.2	3500
	EP-117B	11/16/99	1-2 ft.	1700	J4	80	U	2500	J4	2.9	2300
	EP-117C	11/16/99	2-3 ft.	2300	J4	80	U	5400	J4	3.5	4700
	EP-117D	11/16/99	3-4 ft.	1200	J4	80	U	2900	J4	2.7	2900
	EP-117E	11/16/99	5-6 ft.	140	J4	80	U	160	J4	2	230
	EP-117F	11/16/99	10-12 ft.	210	J4	80	U	140	J4	2.3	110
	EP-117F2	11/16/99	10-12 ft.	500	J4	80	U	1100	J4	2.3	1100

Table D-4. Summary Oil Analytical Results
Investigation Area 4 (Front Slope/Western Plant Boundary Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	
EP-118	EP-118A	11/17/99	0-1 ft.	1300	340	80	U	4.3	10000	110	J4	4800
	EP-118A2	11/17/99	0-1 ft.	1000	240	80	U	3.9	7400	65	J4	3400
	EP-118B	11/17/99	1-2 ft.	720	200	80	U	3.4	5900	57	J4	2800
	EP-118C	11/17/99	2-3 ft.	120	56	80	U	1.9	1700	12	J4	640
	EP-118D	11/17/99	3-4 ft.	61	29	80	U	1.7	950	10	U	360
	EP-118E	11/17/99	4-5 ft.	75	43	80	U	1.7	1300	10	J4	480
	EP-118F	11/17/99	15-15.5 ft.	54	20	80	U	1.6	630	10	U	450

**Table D-5. Summary of Soil Analytical Results
Investigation Area No. 5 (Historic Smelertown Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
EP-111	EP-111A	10/27/99	0	33	27	80	420	19000	430	10	200
	EP-111B	10/27/99	1	10	10	80	170	16000	52	10	38
	EP-111C	10/27/99	2	50	12	80	490	26000	600	10	280
	EP-111D	10/27/99	3	65	10	80	310	23000	330	10	190
	EP-111E	10/27/99	4	35	13	80	190	20000	240	10	120
EP-112	EP-112A	10/27/99	0	84	32	80	1300	23000	1200	10	590
	EP-112B	10/27/99	1	86	54	80	1100	20000	1500	10	740
	EP-112C	10/27/99	2	10	23	80	320	15000	430	10	190
	EP-112D	10/27/99	3	10	10	80	20	11000	22	10	26
	EP-112E	10/27/99	4	10	10	80	40	12000	27	10	13
EP-113	EP-113A	10/28/99	0	10	10	80	110	16000	110	10	66
	EP-113B	10/28/99	1	26	20	80	570	21000	630	10	370
	EP-113C	10/28/99	2	33	10	86	370	19000	310	10	210
	EP-113D	10/28/99	3	24	11	80	310	22000	160	10	110
	EP-113E	10/28/99	4	10	10	80	20	10000	16	10	11

Table D-6. Summary of Analytical Results
Investigation Area 8 (Bedding and Unloading Buildings Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH8-1	BH8-1A	10/29/99	31-33 ft.	41	12	80	20	2.1	34	10	36
	BH8-1B	10/29/99	35-37 ft.	19	10	80	50	2.5	28	10	42
	BH8-1C	10/30/99	40-42 ft.	12	10	80	20	2.7	12	10	33
	BH8-1D	10/30/99	45-47 ft.	10	10	80	50	1.5	14	10	30
	BH8-1E	10/30/99	50-52 ft.	10	10	80	89	1.7	10	10	10
	BH8-1F	10/30/99	55-57 ft.	10	10	80	20	0.3	10	10	25
	BH8-1F2	10/30/99	55-57 ft.	10	10	80	20	0.39	10	10	10
	BH8-1G	10/30/99	60-62 ft.	10	10	80	20	1.4	10	10	28
	BH8-1H	10/30/99	65-67 ft.	10	10	80	46	1.2	10	10	18
	BH8-1I	10/30/99	70-72 ft.	10	10	80	20	1.4	10	10	21
	BH8-2	BH8-2A	11/1/99	10-12 ft.	171	68	80	400	1.1	54	10
BH8-2B		11/1/99	15-17 ft.	64	610	80	47	2.5	30	10	920
BH8-2C		11/1/99	20-22 ft.	20	18	80	20	2.7	14	10	54
BH8-2D		11/1/99	25-27 ft.	12	10	80	36	2.4	10	10	36
BH8-2D2		11/1/99	25-27 ft.	10	11	80	20	2.4	12	10	58
BH8-2E		11/1/99	30-32 ft.	10	10	80	38	1.9	10	10	69
BH8-2F		11/1/99	35-37 ft.	29	10	80	20	3.1	11	10	37
BH8-2G		11/1/99	40-42 ft.	10	10	80	27	2.2	10	10	47
BH8-2H		11/1/99	45-47 ft.	10	10	80	20	0.86	10	10	12
BH8-2I		11/1/99	50-52 ft.	10	10	80	48	1	10	10	10
BH8-2I2		11/1/99	50-52 ft.	10	10	80	20	1.2	10	10	45
BH8-2J		11/1/99	55-57 ft.	25	10	80	20	3	10	10	44
BH8-3	BH8-2K	11/1/99	60-62 ft.	10	10	80	20	1.8	10	10	45
	BH8-2L	11/1/99	65-67 ft.	12	10	80	20	2.2	10	10	36
	BH8-3A	11/1/99	14-16 ft.	63	11	80	65	2.1	143	10	38
	BH8-3B	11/1/99	20-22 ft.	10	10	80	20	1.3	10	10	10
	BH8-3C	11/1/99	25-27 ft.	10	10	80	45	1.2	15	10	17
	BH8-3C2	11/1/99	25-27 ft.	10	10	80	20	1.3	12	10	21
	BH8-3D	11/1/99	30-32 ft.	116	10	80	79	2.4	10	10	24
	BH8-3E	11/1/99	35-37 ft.	87	10	80	48	1.6	10	10	19
	BH8-3F	11/2/99	40-42 ft.	54	10	80	43	3	29	10	56
	BH8-3G	11/2/99	45-47 ft.	10	10	80	33	1.4	10	10	17
	BH8-3H	11/2/99	50-52 ft.	10	10	80	72	1.4	10	10	24
BH8-3I	11/2/99	55-57 ft.	21	10	80	20	2.5	10	10	51	

Table D-6. Summary of Soil Analytical Results
Investigation Area 8 (Bedding and Unloading Buildings Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH8-4	BH8-4A	11/2/99	0-1 ft.	6100	2600	1800	49000	5.1	29000	270	23000
	BH8-4B	11/2/99	1-2 ft.	210	110	210	760	1.4	550	10	2300
	BH8-4C	11/2/99	2-3 ft.	130	170	100	140	1.4	120	10	1900
	BH8-4D	11/2/99	3-4 ft.	10	150	80	26	1.8	26	10	110
	BH8-4E	11/2/99	4-5 ft.	10	170	80	20	1.8	15	10	12
	BH8-4F	11/2/99	10-12 ft.	31	48	80	20	3.4	10	10	40
	BH8-4G	11/2/99	15-17 ft.	10	10	80	20	2.3	10	10	34
	BH8-4G2	11/2/99	15-17 ft.	13	10	80	60	2.4	14	10	40
	BH8-4H	11/2/99	20-22 ft.	11	10	80	20	2.5	18	10	39
	BH8-4I	11/2/99	25-27 ft.	15	11	80	49	2.3	11	10	60
	BH8-4J	11/2/99	30-32 ft.	11	10	80	20	2.3	10	10	31
	BH8-4K	11/2/99	35-37 ft.	10	10	80	20	2.5	10	10	66
	BH8-4L	11/2/99	40-42 ft.	10	10	80	20	1.3	10	10	34
	BH8-4M	11/2/99	45-47 ft.	10	10	80	20	2.1	23	10	33
EP-103	BH8-4M2	11/2/99	45-47 ft.	10	10	80	20	2	11	10	10
	BH8-4N	11/2/99	50-52 ft.	10	10	80	20	1.2	10	10	13
	BH8-4O	11/2/99	55-57 ft.	10	10	80	20	1.1	10	10	23
	BH8-4P	11/2/99	60-62 ft.	10	10	80	20	1.1	10	10	25
	BH8-4Q	11/2/99	65-67 ft.	10	10	80	21	1.3	10	10	32
	EP-103A	10/4/99	0-1 ft.	12	13	80	530	2	93	10	91
	EP-103B	10/4/99	1-2 ft.	10	19	80	310	1.7	390	13	290
	EP-103C	10/4/99	2-3 ft.	300	160	80	4500	3.2	7900	15	6100
	EP-103D	10/4/99	3-4 ft.	1400	55	80	12000	6.9	11000	16	4200
	EP-103E	10/4/99	4-5 ft.	6600	13	80	5000	7	9700	27	2100
	EP-103F	10/4/99	10-12 ft.	15	10	80	310	1.6	61	10	420
	EP-103F2	10/4/99	10-12 ft.	10	10	80	71	1.6	61	10	200
	EP-103G	10/4/99	15-17 ft.	21	10	80	25	3.2	26	10	410
	EP-103H	10/4/99	20-22 ft.	19	10	80	20	2.7	39	10	410
EP-103I	10/4/99	25-27 ft.	11	10	80	49	2.7	33	10	88	
EP-103J	10/4/99	30-32 ft.	10	10	80	20	2.3	43	10	45	
EP-103K	10/4/99	35-37 ft.	10	10	80	23	2.4	46	10	26	
EP-103L	10/4/99	40-42 ft.	14	10	80	22	2.6	50	10	40	
EP-103M	10/4/99	45-47 ft.	26	10	80	41	3.1	37	10	49	
EP-103N	10/4/99	50-52 ft.	10	10	80	20	2.8	32	10	48	
EP-103N2	10/4/99	50-52 ft.	20	10	80	37	2.8	42	10	51	
EP-103O	10/4/99	55-57 ft.	10	10	80	20	2.6	41	10	52	
EP-103P	10/4/99	60-62 ft.	10	10	80	31	2.5	36	10	42	

Table D-6. Summary of Analytical Results
Investigation Area 8 (Bedding and Unloading Buildings Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
EP-104	EP-104A	10/5/99	0-1 ft.	110	36	80	U	2.5	2800	10	U
	EP-104B	10/5/99	1-2 ft.	10	10	U	U	1.6	190	10	U
	EP-104C	10/5/99	2-3 ft.	46	63	80	U	2.4	1900	10	U
	EP-104I	10/5/99	25-27 ft.	10	U	80	U	2.5	47	10	U
	EP-104J	10/5/99	30-32 ft.	20	U	80	U	2.9	27	10	U
	EP-104K	10/5/99	35-37 ft.	10	U	80	U	2.5	41	10	U
	EP-104L	10/5/99	40-42 ft.	20	U	80	U	3.3	24	10	U
	EP-104M	10/5/99	45-47 ft.	10	U	80	U	2.4	42	10	U
	EP-104D	10/6/99	3-4 ft.	16	12	80	U	2.1	580	10	U
	EP-104E	10/6/99	4-5 ft.	10	U	80	U	1.5	220	10	U
	EP-104E2	10/6/99	4-5 ft.	10	U	80	U	1.3	140	10	U
	EP-104F	10/6/99	10-12 ft.	10	U	80	U	1.1	60	10	U
	EP-104G	10/6/99	15-17 ft.	10	U	80	U	2	55	10	U
	EP-104G	10/6/99	15-17 ft.	11	5	U	U	1.27	7.1	5	U
	EP-104H	10/6/99	20-22 ft.	16	10	U	U	2.3	50	10	U
	EP-104N	10/6/99	50-52 ft.	16	10	U	U	2.7	44	10	U
	EP-104N2	10/6/99	50-52 ft.	13	10	U	U	2.6	41	10	U
EP-104O	10/6/99	55-57 ft.	10	U	80	U	2.2	46	10	U	
EP-104P	10/6/99	60-62 ft.	10	U	80	U	1.8	37	10	U	
EP-104P	10/6/99	60-62 ft.	5	5	U	U	1.4	7	5	U	
EP-104Q	10/6/99	65-67 ft.	10	U	80	U	1.9	39	10	U	
EP-105	EP-105A	10/7/99	0-1 ft.	42	10	80	U	1.7	76	10	U
	EP-105B	10/7/99	1-2 ft.	1600	600	80	U	4.7	13000	120	7400
	EP-105C	10/7/99	2-3 ft.	2400	120	80	U	6	10000	72	6400
	EP-105D	10/7/99	3-4 ft.	1100	39	80	U	5	1900	13	5700
	EP-105E	10/7/99	4-5 ft.	410	59	80	U	8.4	680	10	3000
	EP-105E2	10/7/99	4-5 ft.	470	40	80	U	6.3	910	10	3700
	EP-105F	10/7/99	10-12 ft.	170	17	80	U	5.3	480	10	320
	EP-105G	10/7/99	15-17 ft.	10	U	120	U	0.89	130	10	35
	EP-105H	10/7/99	20-22 ft.	11	10	80	U	2.3	55	10	40
	EP-105I	10/7/99	25-27 ft.	14	10	80	U	2.7	48	10	53
	EP-105J	10/7/99	30-32 ft.	10	U	80	U	2.6	47	10	37
	EP-105K	10/7/99	35-37 ft.	13	10	80	U	2.4	51	10	60
	EP-105L	10/7/99	40-42 ft.	17	10	80	U	2.3	39	10	31
	EP-105M	10/7/99	45-47 ft.	10	U	80	U	2.3	42	10	33
	EP-105N	10/8/99	50-52 ft.	21	10	80	U	3	40	10	47
	EP-105N2	10/8/99	50-52 ft.	17	10	80	U	3	33	10	63
	EP-105O	10/8/99	55-57 ft.	10	U	80	U	2	47	10	33

Table D-6. Summary of Analytical Results
Investigation Area 8 (Bedding and Unloading Buildings Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
EP-105	EP-105P	10/8/99	60-62 ft.	10	U	92	20	U	40	10	36
	EP-105Q	10/8/99	75-77 ft.	10	U	80	20	U	46	10	14
EP-106	EP-106A	10/16/99	0-1 ft.	270	82	85	3700	2.4	2800	10	1800
	EP-106B	10/16/99	1-2 ft.	75	26	80	930	2.6	720	10	370
	EP-106C	10/16/99	2-3 ft.	54	10	80	450	2.3	470	10	250
	EP-106D	10/16/99	3-4 ft.	92	28	80	520	2.2	590	10	370
	EP-106E	10/16/99	4-5 ft.	380	130	80	320	2.2	490	10	920
	EP-106F	10/16/99	10-12 ft.	23	10	80	27	2.3	57	10	31
	EP-106F2	10/16/99	10-12 ft.	13	10	80	80	2.3	48	10	49
	EP-106G	10/16/99	15-17 ft.	21	10	80	23	2.9	34	10	40
	EP-106H	10/16/99	20-22 ft.	10	U	80	39	2.5	43	10	59
	EP-106I	10/16/99	25-27 ft.	10	U	80	28	2.2	48	10	31
	EP-106J	10/16/99	30-32 ft.	24	10	80	36	3.3	27	10	53
	EP-106K	10/16/99	35-37 ft.	17	10	80	46	2.5	38	10	46
	EP-106L	10/16/99	40-42 ft.	22	10	80	20	2.9	27	10	29
	EP-106M	10/16/99	45-47 ft.	25	10	80	20	3	25	10	27
	EP-106N	10/16/99	50-52 ft.	10	U	80	20	2.1	32	10	26
	EP-106O	10/16/99	55-57 ft.	10	U	80	20	1.7	25	10	10
EP-106O2	10/16/99	55-57 ft.	10	U	80	20	1.7	24	10	18	
EP-107	EP-107A	10/11/99	0-1 ft.	69	15	100	330	1.5	150	10	140
	EP-107B	10/11/99	1-2 ft.	22	10	92	30	1.3	43	10	52
	EP-107C	10/11/99	2-3 ft.	10	U	80	28	1.4	51	10	13
	EP-107D	10/11/99	3-4 ft.	10	U	80	41	1.7	80	10	34
	EP-107E	10/11/99	4-5 ft.	31	29	80	710	1.8	500	10	310
	EP-107F	10/11/99	15-17 ft.	77	13	80	39	1.9	67	10	55
	EP-107F2	10/11/99	15-17 ft.	63	12	80	35	1.9	85	10	100
	EP-107G	10/11/99	20-22 ft.	10	U	80	25	1.3	54	10	18
	EP-107H	10/11/99	25-27 ft.	10	U	80	81	1.2	71	10	28
	EP-107I	10/11/99	30-32 ft.	10	U	80	20	1.1	68	10	18
	EP-107J	10/11/99	35-37 ft.	11	10	80	20	2.1	49	10	42
	EP-107K	10/11/99	40-42 ft.	14	10	80	20	2.5	32	10	30
	EP-107K2	10/11/99	40-42 ft.	17	14	80	37	2.7	37	10	42
	EP-107L	10/11/99	45-47 ft.	10	U	80	20	2.4	44	10	43
	EP-107M	10/11/99	50-52 ft.	10	U	80	23	1.8	41	10	40
	EP-107N	10/12/99	55-57 ft.	10	U	80	33	1.4	44	10	11
EP-107O	10/12/99	60-62 ft.	10	U	80	28	1.8	26	10	31	
EP-107P	10/12/99	65-67 ft.	10	U	80	45	1.9	40	10	24	

**Table D-7. Summary of Soil Analytical Results
Investigation Area 9 (Ponds 1, 5 and 6)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH9-5-1	BH9-5-1A	2/9/00	0-1 ft.	1800	120	80	U	54000	7900	34	3400
	BH9-5-1B	2/9/00	1-2 ft.	190	10	U	U	44000	890	10	U
	BH9-5-1C	2/9/00	2-3 ft.	210	10	U	U	45000	1400	10	U
	BH9-5-1D	2/9/00	3-4 ft.	650	35	82	U	49000	7500	17	1500
	BH9-5-1E	2/9/00	4-5 ft.	270	10	U	U	49000	1200	10	U
	BH9-5-1F	2/9/00	5-6 ft.	91	10	U	U	47000	320	10	U
	BH9-5-1G	2/9/00	10-11 ft.	20	11	U	U	23000	510	10	U
BH9-5-2	BH9-5-2A	2/9/00	0-1 ft.	1000	390	80	U	52000	12000	81	7800
	BH9-5-2B	2/9/00	1-2 ft.	1400	130	80	U	53000	9600	30	3300
	BH9-5-2C	2/9/00	2-3 ft.	1200	74	80	U	47000	6000	18	1700
	BH9-5-2D	2/9/00	3-4 ft.	560	33	120	U	48000	3600	10	U
	BH9-5-2E	2/9/00	4-5 ft.	1200	54	88	U	49000	6200	20	1400
	BH9-5-2F	2/9/00	5-6 ft.	220	25	80	U	43000	2600	10	U
	BH9-5-2G	2/9/00	7-8 ft.	22	10	U	U	27000	190	10	U
BH9-5-3	BH9-5-3A	2/9/00	0-1 ft.	1600	700	80	U	56000	18000	120	13000
	BH9-5-3B	2/9/00	1-2 ft.	28	22	80	U	26000	710	10	U
	BH9-5-3C	2/9/00	2-3 ft.	32	30	94	U	26000	1200	10	U
	BH9-5-3D	2/9/00	3-4 ft.	24	23	80	U	26000	900	10	U
BH9-5-4	BH9-5-4A	2/9/00	0-1 ft.	1800	790	110	U	62000	23000	160	17000
	BH9-5-4B	2/9/00	1-2 ft.	1200	550	80	U	55000	17000	130	12000
	BH9-5-4C	2/9/00	2-3 ft.	180	54	80	U	46000	3100	13	1000
	BH9-5-4D	2/9/00	3-4 ft.	200	13	80	U	51000	3600	10	U
	BH9-5-4E	2/9/00	4-5 ft.	74	11	80	U	44000	1300	10	U
	BH9-5-4F	2/9/00	5-6 ft.	43	10	U	U	41000	1000	10	U
BH9-5-5	BH9-5-5A	2/9/00	0-1 ft.	4000	1300	92	U	68000	30000	180	23000
	BH9-5-5B	2/9/00	1-2 ft.	1400	370	80	U	48000	12000	42	6700
	BH9-5-5C	2/9/00	2-3 ft.	750	63	97	U	42000	6700	18	2300
	BH9-5-5D	2/9/00	3-4 ft.	71	10	U	U	29000	940	10	U

Table D-7. Summary Oil Analytical Results
Investigation Area 9 (Ponds 1, 5 and 6)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH9-5-6	BH9-5-6A	2/9/00	0-1 ft.	1500	840	80	U	50000	12000	64	8400
	BH9-5-6B	2/9/00	1-2 ft.	1700	760	80	U	59000	20000	150	15000
	BH9-5-6C	2/9/00	2-3 ft.	88	44	80	U	18000	1900	10	U
	BH9-5-6D	2/9/00	3-4 ft.	10	10	80	U	22000	120	10	85
BH9-5-7	BH9-5-7A	2/9/00	0-1 ft.	3900	1200	80	U	66000	31000	170	21000
	BH9-5-7B	2/9/00	1-2 ft.	900	300	80	U	43000	9700	64	5700
	BH9-5-7C	2/9/00	2-3 ft.	240	85	130		16000	3700	10	U
	BH9-5-7D	2/9/00	3-4 ft.	27	10	U	290	13000	560	10	U
EP-116	EP-116A	11/16/99	0-1 ft.	18000	530	J4	U	99000	40000	J4	J4
	EP-116A2	11/16/99	0-1 ft.	11000	340	J4		110000	19000	J4	J4
	EP-116B	11/16/99	1-2 ft.	9800	360	J4	U	100000	26000	J4	J4
	EP-116C	11/16/99	2-2.5 ft.	9200	360	J4	U	100000	23000	J4	J4
	EP-116D	11/16/99	5-7 ft.	6800	960	J4		67000	16000	J4	J4
	EP-116E	11/16/99	10-12 ft.	5300	1200	J4	U	72000	13000	J4	J4
EP-117	EP-117A	11/16/99	0-1 ft.	2300	480	80	U	32000	3500	J4	34
	EP-117B	11/16/99	1-2 ft.	1700	300	80	U	29000	2300	J4	23
	EP-117C	11/16/99	2-3 ft.	2300	460	80	U	35000	4700	J4	30
	EP-117D	11/16/99	3-4 ft.	1200	230	80	U	27000	2900	J4	21
	EP-117E	11/16/99	5-6 ft.	140	10	U, J4	U	20000	230	J4	11
	EP-117F	11/16/99	10-12 ft.	210	10	U, J4	U	23000	110	J4	10
	EP-117F2	11/16/99	10-12 ft.	500	66	J4	U	23000	1100	J4	10

**Table D-8. Summary of Soil Analytical Results
Investigation Area 10 (Plant Entrance Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
EP-110	EP-110A	10/18/99	0-1 ft.	490	100	80 U	11000	4	3000	14	2800
	EP-110B	10/18/99	1-2 ft.	190	67	80 U	2300	2.9	3100	17	2400
	EP-110C	10/18/99	2-3 ft.	72	25	80 U	110	2.2	210	10 U	170
	EP-110D	10/18/99	3-4 ft.	71	10 U	80 U	30	2.5	60	10 U	46
	EP-110E	10/18/99	4-5 ft.	51	10 U	80 U	25	2.5	43	10 U	35
	EP-110F	10/18/99	7-8 ft.	11	10 U	80 U	91	2.5	84	10 U	120
	EP-110F2	10/18/99	7-8 ft.	12	10 U	80 U	62	2.5	68	10 U	89

**Table D-9. Summary of Soil Analytical Results
Investigation Area 11 (Arroyos East of I-10)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH11-2	BH11-2F	08/04/99	10-12 ft.	17	10	80	28	2.4	10	10	20
	BH11-2G	08/04/99	15-17 ft.	10	10	80	20	1.5	10	10	16
	BH11-2H	08/04/99	20-22 ft.	10	10	80	27	2.1	10	10	34
	BH11-2I	08/05/99	25-27 ft.	10	10	80	39	1.5	10	10	10
	BH11-2J	08/05/99	30-32 ft.	10	10	80	20	2.4	10	10	22
	BH11-2K	08/05/99	35-37 ft.	10	10	80	20	1.5	10	10	15
	BH11-2L	08/05/99	DUP	10	10	80	24	1.5	10	10	47
BH11-3	BH11-3F	08/05/99	10-12 ft.	55	17	80	830	3.3	1000	10	520
	BH11-4	BH11-4B	08/05/99	1-2 ft.	46	10	80	73	2.4	17	200
SSIA11-1	BH11-4C	08/05/99	2-3 ft.	33	10	80	46	3	20	10	170
	BH11-4D	08/05/99	3-4 ft.	10	10	80	69	2.3	10	10	92
	BH11-4E	08/05/99	4-5 ft.	19	10	80	35	2.4	11	10	51
	BH11-4F	08/05/99	10-12 ft.	10	10	80	20	1.2	10	10	12
	BH11-4G	08/05/99	15-17 ft.	10	10	80	20	2.1	10	10	28
	SSIA11-1A	07/19/99	0-1 ft.	170	50	160	2900	3.4	1500	10	1400
	SSIA11-1B	07/19/99	1-2 ft.	33	16	80	740	1.7	520	10	340
SSIA11-2	SSIA11-1C	07/19/99	2-3 ft.	10	10	80	330	1.7	290	10	150
	SSIA11-2A	07/19/99	0-1 ft.	82	25	80	1500	2.5	1100	10	770
	SSIA11-2B	07/19/99	1-2 ft.	12	10	80	170	1.9	150	10	110
SSIA11-3	SSIA11-3A	07/20/99	0-1 ft.	2200	940	270	29000	4.4	14000	92	15000
	SSIA11-3C	07/20/99	2-3 ft.	1700	580	620	18000	3.4	11000	36	9300
	SSIA11-3D	07/20/99	3-4 ft.	1800	570	2000	21000	4.4	12000	17	11000
	SSIA11-3E	07/20/99	4-5 ft.	430	140	80	8000	3.1	4400	14	5400
SSIA11-4	SSIA11-4A	07/20/99		790	300	92	11000	3.9	11000	10	11000
	SSIA11-4B	07/20/99		160	70	240	2400	2.4	3100	10	2400
	SSIA11-4C	07/20/99		52	21	80	890	2.5	1200	10	820
	SSIA11-4D	07/20/99	3-4 ft.	25	20	80	820	1.9	1100	10	880
SSIA11-4E	07/20/99	4-5 ft.	23	11	80	600	1.7	850	10	600	

Table D-9. Summary of soil Analytical Results
Investigation Area 11 (Arroyos East of I-10)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
SSIA11-5	SSIA11-5A	07/20/99	0-1 ft.	20	10	140	140	1.4	150	10	92 J4
	SSIA11-5A2	07/20/99	DUP	20	10	80	140	1.5	150	10	72
	SSIA11-5C	07/20/99	2-3 ft.	23	10	80	650	1.7	750	10	520
	SSIA11-5E	07/20/99	4-5 ft.	44	31	80	990	1.6	1200	10	880
SSIA11-6	SSIA11-6A	07/20/99	0-1 ft.	480	120	80	3600	2.9	2000	10	1200
	SSIA11-6B	07/20/99	1-2 ft.	920	380	290	5800	2.8	12000	29	4100
	SSIA11-6C	07/20/99	2-3 ft.	4400	350	180	18000	3.5	2100	10	4100
	SSIA11-6D	07/20/99	3-4 ft.	7300	620	80	48000	4.2	3100	10	10000
	SSIA11-6E	07/20/99	4-5 ft.	14000	1400	170	37000	3.8	21000	110	14000
SSIA11-7	SSIA11-7A	07/20/99	0-1 ft.	2500	250	80	11000	4.2	5800	10	5000
	SSIA11-7A2	07/20/99	DUP	2500	150	120	11000	3.8	5700	14	5500
	SSIA11-7B	07/20/99	1-2 ft.	15000	260	110	6600	2.9	11000	10	5000
	SSIA11-7C	07/20/99	2-3 ft.	720	180	230	4600	2.7	3700	72	2900
	SSIA11-7D	07/20/99	3-4 ft.	750	170	130	4800	2.6	3600	68	2900
	SSIA11-7E	07/20/99	4-5 ft.	2800	240	80	6400	3	6500	31	4000
SSIA11-8	SSIA11-8A	07/21/99	0-1 ft.	560	610	230	3400	2.8	2900	10	2800
	SSIA11-8B	07/21/99	1-2 ft.	880	290	150	5000	3	3200	10	3400
	SSIA11-8C	07/21/99	2-3 ft.	1700	360	270	10000	3.6	7200	21	6100
	SSIA11-8D	07/21/99	3-4 ft.	1700	330	170	11000	3.6	7600	10	6600
	SSIA11-8E	07/21/99	4-5 ft.	890	230	170	7500	3.4	5800	23	4500
SSIA11-10	SSIA11-10A	08/04/99	0-1 ft.	160	12	80	980	4.4	730	21	2200
	SSIA11-10B	08/04/99	1-2 ft.	23	10	80	140	2.1	150	19	110
	SSIA11-10D	08/04/99	3-4 ft.	10	10	80	20	1.9	10	10	45
SSIA11-11	SSIA11-11A	08/14/99	0-1 ft.	65	22	100	640	3.4	450	10	740
	SSIA11-11B	08/14/99	1-2 ft.	42	10	80	270	3.2	180	10	510
	SSIA11-11C	08/14/99	2-3 ft.	17	10	80	20	2.7	11	10	58
	SSIA11-11D	08/14/99	3-4 ft.	10	10	80	40	1.9	10	10	12
	SSIA11-11E	08/14/99	4-5 ft.	11	10	80	20	2.6	10	10	54

Table D-9. Summary of Soil Analytical Results
Investigation Area 11 (Arroyos East of I-10)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)		
SSIA11-14	SSIA11-14B	08/06/99	1-2 ft.	17	13	80	52	2	10	10	41		
	SSIA11-14C	08/06/99	2-3 ft.	23	10	80	29	2.7	10	10	30		
	SSIA11-14D	08/06/99	3-4 ft.	13	10	80	20	2.5	10	10	43		
	SSIA11-14E	08/06/99	4-5 ft.	17	10	80	14	2.6	10	10	37		
SSIA11-15	SSIA11-15A	08/06/99	0-1 ft.	51	10	80	210	2.9	130	22	420		
	SSIA11-15B	08/06/99	1-2 ft.	30	10	80	300	3.1	380	10	1000		
	SSIA11-15C	08/06/99	2-3 ft.	44	10	80	350	4.3	950	10	1600		
	SSIA11-15D	08/06/99	3-4 ft.	84	14	80	480	2.6	430	10	1500		
	SSIA11-15E	08/06/99	4-5 ft.	13	10	80	64	2	35	10	73		
SSIA11-16	SSIA11-16B	08/06/99	1-2 ft.	21	10	80	63	2.1	34	10	21		
	SSIA11-16C	08/06/99	2-3 ft.	19	10	80	20	2.2	10	10	32		
	SSIA11-16D	08/06/99	3-4 ft.	20	10	80	33	2.5	10	10	19		
	SSIA11-16E	08/06/99	4-5 ft.	10	10	80	20	1.9	10	10	15		
SSIA11-16E2	08/06/99	DUP	10	10	80	41	2	10	10	17			
SSIA11-17	SSIA11-17A	11/04/99	0-1 ft.	110	15	80	1000	31000	920	J4	10	U	810
SSIA11-18	SSIA11-18A	11/05/99	0-1 ft.	136	38	20	1276	26020	1041		5	U	1098
	EP-93	EP-93A	07/21/99	0-1 ft.	27	10	80	66	26000	93	10	U	110
	EP-93B	07/21/99	1-2 ft.	33	10	180	97	33000	74	10	U	130	
	EP-93D	07/21/99	3-4 ft.	770	210	80	5900	29000	5600	100		3500	
	EP-93E	07/21/99	4-5 ft.	7100	14000	300	14000	80000	54000	660		20000	
	EP-93F	07/21/99	10-12 ft.	110	270	80	1600	22000	5600	22		2200	
	EP-93G	07/21/99	15-17 ft.	360	88	240	3700	43000	3900	10	U	3500	
	EP-93H	07/21/99	20-22 ft.	160	35	170	840	27000	1600	11		1300	
	EP-93I	07/21/99	25-27 ft.	20	10	80	39	22000	38	10	U	39	
	EP-93J	07/21/99	30-32 ft.	20	10	140	20	23000	49	10	U	51	
	EP-93J2	07/21/99	30-32 ft.	20	13	140	20	24000	45	10	U	49	
	EP-93K	07/21/99	35-37 ft.	20	10	80	20	19000	42	10	U	15	
	EP-93L	07/21/99	40-42 ft.	20	10	80	57	24000	39	10	U	69	
	EP-93L	07/21/99	2-3 ft.	27	10	80	130	26000	170	10	U	120	
	EP-93M	07/21/99	45-47 ft.	10	10	80	20	24000	10	10	U	36	
	EP-93N	07/21/99	50-52 ft.	10	10	80	21	24000	10	10	U	34	

Table D-9. Summary of Soil Analytical Results
Investigation Area 11 (Arroyos East of I-10)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
EP-94	EP-94A	07/26/99	0-1 ft.	760	J4	80	4800	26000	5600	59	3500
	EP-94A2	07/26/99	0-1 ft.	1300	J4	80	6700	33000	8000	61	5200
	EP-94B	07/26/99	1-2 ft.	990	J4	80	3500	27000	8000	91	2400
	EP-94C	07/26/99	2-3 ft.	620	J4	93	8900	36000	5200	35	3300
	EP-94E	07/26/99	4-5 ft.	680	J4	80	150000	65000	3400	34	2900
	EP-94E	07/26/99		459		28	84860	77000	4368	14	3490
	EP-94F	07/26/99	10-12 ft.	36	J4	80	1900	15000	580	10	370
	EP-94F	07/26/99		65		22	1458	9000	420	10	408
	EP-94H	07/26/99	20-22 ft.	130	J4	80	2000	22000	1200	10	990
	EP-94I	07/26/99	25-27 ft.	10	UJ4	80	28	22000	40	10	33
	EP-94J	07/26/99	30-32 ft.	10	UJ4	80	88	21000	10	10	47
	EP-94K	07/26/99	35-37 ft.	27	J4	80	54	32000	40	10	33
	EP-94L	07/26/99	40-42 ft.	10	UJ4	80	72	12000	10	12	20
	EP-94M	07/26/99	45-47 ft.	10	UJ4	80	26	12000	10	10	10
EP-94N	07/26/99	50-52 ft.	10	UJ4	80	150	11000	10	10	29	
EP-94O	07/26/99	55-57 ft.	10	UJ4	80	49	18000	10	10	12	
EP-95	EP-95A	07/28/99	0 ft.	10	U	80	230	20000	190	10	140
	EP-95B	07/28/99	1 ft.	10	U	80	75	22000	120	10	94
	EP-95C	07/28/99	2 ft.	13	U	80	160	22000	150	10	110
	EP-95D	07/28/99	3 ft.	10	U	80	20	16000	21	10	24
	EP-95D2	07/28/99	3 ft.	10	U	80	20	15000	30	10	30
EP-95E	07/28/99	4 ft.	10	U	80	50	14000	10	10	22	
EP-95R	EP-95RA	10/18/99	0-1 ft.	26	U	80	290	23000	250	10	260
	EP-95RB	10/18/99	1-2 ft.	10	U	80	79	20000	130	10	98
	EP-95RC	10/18/99	2-3 ft.	10	U	80	20	22000	68	10	50
	EP-95RD	10/18/99	3-4 ft.	10	U	80	20	18000	87	10	25
	EP-95RE	10/18/99	4-5 ft.	10	U	80	94	19000	110	10	61
	EP-95RF	10/18/99	10-12 ft.	10	U	80	20	13000	48	10	10
	EP-95RF2	10/18/99	10-12 ft.	10	U	80	31	14000	50	10	29
	EP-95RG	10/18/99	15-17 ft.	10	U	80	20	11000	40	10	10
	EP-95RH	10/18/99	20-22 ft.	10	U	80	21	5700	39	10	10
	EP-95RJ	10/18/99	25-27 ft.	16	U	80	20	24000	39	10	43
	EP-95RJ	10/20/99	30-32 ft.	10	U	80	20	18000	30	10	35
EP-95RK	10/20/99	35-37 ft.	10	U	80	20	21000	39	10	15	

Table D-9. Summary of Soil Analytical Results
Investigation Area 11 (Arroyos East of I-10)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
EP-96	EP-96A	07/20/99	0-1 ft.	500	180	80	1900	23000	5100	61	1000
	EP-96B	07/20/99	1-2 ft.	27	14	80	110	21000	160	10	270 J4
	EP-96C	07/20/99	2-3 ft.	42	10	80	110	35000	90	J4	10
	EP-96D	07/20/99	3-4 ft.	32	10	80	77	33000	150	10	150
	EP-96E	07/20/99	4-5 ft.	20	10	100	20	15000	49	J4	51 J4
	EP-96F	07/20/99	10-12 ft.	20	10	130	30	20000	59	J4	21 J4
	EP-96G	07/20/99	15-17 ft.	20	10	80	24	20000	49	J4	41 J4
	EP-96H	07/20/99	20-22 ft.	20	10	80	20	27000	31	J4	69 J4
	EP-96I	07/20/99	25-27 ft.	20	10	80	20	24000	50	J4	34
	EP-96J	07/20/99	30-32 ft.	25	10	84	20	27000	11	J4	56 J4
	EP-96J2	07/20/99	30-32 ft.	20	10	80	20	27000	41	J4	64 J4
	EP-96K	07/20/99	35-37 ft.	20	10	80	33	23000	49	J4	65
	EP-96L	07/20/99	40-42 ft.	20	10	80	47	23000	54	J4	43
	EP-96M	07/20/99	45-47 ft.	20	10	80	41	20000	46	J4	41
	EP-96N	07/20/99	50-52 ft.	20	10	188	32	20000	49		30
	EP-96N2	07/20/99	50-52 ft.	20	10	160	57	19000	51		10 U
EP-96O	07/20/99	55-57 ft.	31	10	80	37	28000	37		10 U	
EP-96P	07/20/99	60-62 ft.	20	10	80	12	21000	27		10 U	
EP-97	EP-97A	08/04/99	0-1 ft.	64	19	80	690	33000	340	10	470
	EP-97A2	08/04/99	0-1 ft.	62	10	80	730	33000	380	10	530
	EP-97B	08/04/99	1-2 ft.	46	20	80	640	32000	340	10	450
	EP-97C	08/04/99	2-3 ft.	71	16	80	800	30000	500	10	470
EP-98	EP-98A	08/06/99	0-1 ft.	41	12	80	210	25000	250	10	320
	EP-98A2	08/06/99	0-1 ft.	60	11	80	360	26000	320	10	360
	EP-98B	08/06/99	1-2 ft.	10	10	80	44	20000	10	U	32
	EP-98C	08/06/99	1-3 ft.	10	10	80	37	10000	10	U	10 U
	EP-98D	08/06/99	3-4 ft.	10	10	80	20	8500	10	U	19
	EP-98E	08/06/99	4-5 ft.	10	10	80	89	10000	10	U	120
	EP-98F	08/06/99	10-12 ft.	10	10	80	41	8000	10	U	10 U
	EP-98G	08/06/99	15-17 ft.	10	10	80	20	13000	10	U	14
EP-98H	08/06/99	20-22 ft.	10	10	80	20	14000	10	U	28	

**Table D-10. Summary of Soil Analytical Results
Investigation Area 12 (Ephemeral Pond and Pond Sediment Storage Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH12-1	BH12-1A	11/3/99	0-1 ft.	490	300	80	4300	4.2	2700	24	2700
	BH12-1B	11/3/99	3-4 ft.	10	10	80	99	2.2	140	10	88
	BH12-1C	11/3/99	4-5 ft.	10	10	80	120	1.8	150	10	61
	BH12-1D	11/3/99	10-12 ft.	10	10	80	20	1.1	10	10	34
	BH12-1E	11/3/99	15-16 ft.	10	10	80	27	0.77	10	10	10
	BH12-1E2	11/3/99	15-16 ft.	10	10	80	20	1	10	10	19
BH12-2	BH12-2A	11/3/99	6-7 ft.	10	10	80	93	1.5	130	10	77
	BH12-2B	11/3/99	10-12 ft.	67	10	80	570	2.4	610	10	320
BH12-3	BH12-3A	11/3/99	6-7 ft.	10	10	80	170	1.8	170	10	80
	BH12-3B	11/3/99	10-12 ft.	10	10	80	26	1.1	10	10	12
	BH12-3C	11/3/99	15-17 ft.	10	10	80	20	1.4	10	10	20
BH12-4	BH12-4A	11/3/99	0-1 ft.	3100	3100	230	17000	3.4	22000	220	11000
	BH12-4B	11/3/99	1-2 ft.	3400	3400	240	18000	3.7	23000	220	13000
	BH12-4C	11/3/99	2-3 ft.	1200	1700	160	7700	3	14000	110	6200
	BH12-4D	11/3/99	3-4 ft.	10	10	80	64	2.3	110	10	50
	BH12-4D2	11/3/99	10-12 ft.	15	10	80	20	U,UJ4	20	J4	45
	BH12-4E	11/3/99	15-17 ft.	10	10	80	20	U,UJ4	10	U,UJ4	10
BH12-5	BH12-5A	11/4/99	8-10 ft.	10	15	80	45	1.5	10	10	21
BH12-6	BH12-6A	11/4/99	12-13 ft.	120	10	80	37	2.3	21	10	63
BH12-7	BH12-7A	11/4/99	6-8 ft.	10	10	82	32	1.3	33	12	280
	BH12-7B	11/4/99	10-12 ft.	33	38	80	94	1.6	52	18	350
	BH12-7B2	11/4/99	10-12 ft.	33	51	80	61	1.6	41	11	330
BH12-8	BH12-8A	11/4/99	2-3 ft.	23	10	80	64	1.6	130	10	300
	BH12-8B	11/4/99	3-4 ft.	10	10	80	91	1.7	120	10	180
	BH12-8C	11/4/99	4-5 ft.	25	10	80	120	1.7	130	10	670
	BH12-9B	11/4/99	8-9 ft.	76	10	98	48	2.7	10	10	42

**Table D-10. Summary of Soil Analytical Results
Investigation Area 12 (Ephemeral Pond and Pond Sediment Storage Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH12-9	BH12-9A	11/4/99	4-5 ft.	52	10	U	42	1.9	10	U	19
	BH12-9A2	11/4/99	4-5 ft.	59	10	U	20	2.4	10	U	36
EP-108	EP-108A	10/14/99	10-12 ft.	19	10	U	68	1.6	41	10	U
	EP-108B	10/14/99	15-16 ft.	82	10	U	100	2.9	67	10	U
EP-109	EP-109XA	7/28/99	5-5.5 ft.	380	50	80	U	8.9	2900	10	U
	EP-109XB	7/28/99	10-11.5 ft.	180	18	80	U	2.3	660	10	U
	EP-109A	10/15/99	0-1 ft.	380	59	80	U	7.7	2000	13	4500
	EP-109B	10/15/99	1-2 ft.	320	36	80	U	8.8	1900	10	U
	EP-109C	10/15/99	2-3 ft.	440	25	80	U	11	3600	10	U
	EP-109D	10/15/99	3-4 ft.	680	30	90	U	14	5000	10	13000
	EP-109E	10/15/99	4-5 ft.	460	32	94	U	11	4000	10	9700
	EP-109F	10/15/99	10-12 ft.	14	10	80	U	2.1	310	10	U
	EP-109G	10/15/99	15-17 ft.	10	U	80	U	1.9	33	10	U
	EP-109H	10/15/99	20-22 ft.	10	U	91	U	1.5	43	10	U
	EP-109H2	10/15/99	20-22 ft.	10	U	80	U	1.4	38	10	U

Table D-11. Summary of Soil Analytical Results
Investigation Area 13 (Sample Mill Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
EP-101	EP-101A	9/29/99	0-1 ft.	940	690	80	U	1.8	11000	110	4100
	EP-101B	9/29/99	1-2 ft.	7700	2100	80	U	3.2	42000	180	17000
	EP-101C	9/29/99	3-4 ft.	5200	1300	80	U	3.8	21000	170	6700
	EP-101C	9/29/99	3-4 ft.	3350	1000	16		3.12	21800	126	6580
	EP-101D	9/29/99	4-5 ft.	1100	8000	80	U	3	12000	150	5100
	EP-101E	9/29/99	15-17 ft.	16	560	80	U	1.5	140	17	140
	EP-101F	9/29/99	20-22 ft.	23	190	80	U	2.3	69	12	32
	EP-101G	9/29/99	25-27 ft.	84	670	80	U	2.7	87	16	65
	EP-101H	9/29/99	30-32 ft.	71	10	U	U	2.6	54	10	U
	EP-101H2	9/29/99	30-32 ft.	64	10	U	U	2.6	54	10	U
	EP-101I	9/29/99	35-37 ft.	65	10	U	U	2.6	45	10	U
	EP-101J	9/29/99	40-42 ft.	34	10	U	U	2.4	60	10	U
	EP-101K	9/29/99	45-47 ft.	33	10	U	U	2.1	53	10	U
	EP-101L	9/29/99	50-52 ft.	190	10	U	U	3.9	19	10	U
EP-101L2	9/29/99	50-52 ft.	160	10	U	U	3.8	23	10	U	
EP-101M	9/29/99		91	10	U	U	3.3	57	10	U	
EP-102	EP-102A	9/30/99	0-1 ft.	4100	3500	80	U	2.3	27000	380	5000
	EP-102B	9/30/99	1-2 ft.	6300	7100	80	U	3.1	34000	390	13000
	EP-102C	9/30/99	2-3 ft.	7700	6000	80	U	3.1	41000	340	12000
	EP-102D	9/30/99	3-4 ft.	8000	3900	80	U	3.4	40000	380	13000
	EP-102E	9/30/99	4-5 ft.	950	11000	80	U	1.4	8700	120	14000
	EP-102F	9/30/99	10-12 ft.	130	2100	80	U	1.9	200	20	1500
	EP-102G	9/30/99	15-17 ft.	48	940	80	U	1.7	130	10	750
	EP-102G2	9/30/99	15-17 ft.	34	720	80	U	1.7	88	10	620
	EP-102G2	9/30/99	15-17 ft.	18	614	18		1.16	20	5	544
	EP-102H	9/30/99	20-22 ft.	56	1500	80	U	2.9	57	10	620
	EP-102I	9/30/99	25-27 ft.	52	190	80	U	3	63	10	530

**Table D-11. Summary of Soil Analytical Results
Investigation Area 13 (Sample Mill Area)**

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
	EP-102J	9/30/99	30-32 ft.	50	340	80	U	3.2	54	10	540
	EP-102K	9/30/99	35-37 ft.	36	28	80	U	2.3	77	10	290
	EP-102L	9/30/99	40-42 ft.	31	14	80	U	2.7	57	10	81
	EP-102M	9/30/99	45-47 ft.	38	15	80	U	2.5	61	10	34
	EP-102N	9/30/99	50-52 ft.	27	10	U	U	2.4	57	10	39
	EP-102N2	9/30/99	50-52 ft.	35	10	80	U	2.4	43	10	15
	EP-102O	9/30/99	55-57 ft.	35	10	U	U	2.8	50	10	28
	EP-102P	10/4/99	60-62 ft.	sample for analysis.							
	EP-102Q	10/4/99	70-72 ft.	10	U	80	U	2.6	34	10	42
EP-118	EP-118A	11/17/99	0-1 ft.	1300	340	80	U	43000	10000	110	J4 4800
	EP-118A2	11/17/99	0-1 ft.	1000	240	80	U	39000	7400	65	J4 3400
	EP-118B	11/17/99	1-2 ft.	720	200	80	U	34000	5900	57	J4 2800
	EP-118C	11/17/99	2-3 ft.	120	56	80	U	19000	1700	12	J4 640
	EP-118D	11/17/99	3-4 ft.	61	29	80	U	17000	950	10	UJ4 360
	EP-118E	11/17/99	4-5 ft.	75	43	80	U	17000	1300	10	J4 480
	EP-118F	11/17/99	15-15.5 ft.	54	20	80	U	16000	630	10	UJ4 450
BH13-1	BH13-1A	10/21/99	0-1 ft.	67	46	80	U	1.9	860	13	310
	BH13-1C	10/21/99	19-21 ft.	45	3100	80	U	1.8	10	U	1200
	BH13-1D	10/21/99	25-27 ft.	65	22	80	U	2.4	10	U	36
	BH13-1E	10/21/99	30-32 ft.	76	10	U	U	2.8	10	U	46
	BH13-1E2	10/21/99	30-32 ft.	65	10	U	U	2.8	10	U	71
	BH13-1F	10/21/99	35-37 ft.	39	10	U	U	2.5	10	U	44
	BH13-1G	10/21/99	40-42 ft.	54	10	U	36	2.6	10	U	46
	BH13-1H	10/21/99	45-47 ft.	80	10	U	20	2.6	12	10	45
	BH13-1I	10/21/99	50-52 ft.	69	10	U	20	1.9	10	U	35
	BH13-1J	10/21/99	55-57 ft.	1000	17	80	U	2	10	U	54
	BH13-1K	10/29/99	60-62 ft.	87	10	U	20	2.8	20	10	31

Table D-12. Summary of Soil Analytical Results
Investigation Area 14 (South Terrace Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH14-1	BH14-1A	11/5/99	13.2-15 ft.	100	84	80 U	100	1.1	31	10 U	210
	BH14-1B	11/5/99	15-17 ft.	110	92	80 U	20 U	1.3	20	10 U	300
	BH14-1C	11/5/99	20-22 ft.	150	70	80 U	56	1.8	10 U	10 U	400
	BH14-1D	11/5/99	25-27 ft.	36	10 U	80 U	28	1.9	21	10 U	34
	BH14-1E	11/5/99	30-32 ft.	12	10 U	80 U	21	2	17	10 U	36
	BH14-1F	11/5/99	35-37 ft.	10 U	10 U	80 U	56	2.4	10 U	10 U	37
	BH14-1F2	11/5/99	35-37 ft.	10 U	10 U	80 U	20 U	2.5	10 U	10 U	34
	BH14-1G	11/5/99	40-42 ft.	16	10 U	80 U	20 U	2.4	10 U	10 U	25
	BH14-1H	11/5/99	45-47 ft.	10 U	10 U	80 U	20 U	2.1	13	10 U	40
	BH14-1I	11/5/99	50-52 ft.	10 U	10 U	80 U	35	1.5	10 U	10 U	26
	BH14-1J	11/5/99	55-57 ft.	10 U	10 U	80 U	41	1.7	10 U	10 U	13
	BH14-1K	11/5/99	60-62 ft.	40	10 U	80 U	20 U	2.4	10 U	10 U	63
	BH14-1L	11/8/99	65-67 ft.	10 U	10 U	80 U	32	1.5	10 U	10 U	10 U
	BH14-1L2	11/8/99	65-67 ft.	10 U	10 U	80 U	20 U	1.6	10 U	10 U	21
BH14-1M	11/8/99	70-72 ft.	10 U	10 U	80 U	42	1.9	10 U	10 U	23	
BH14-2	BH14-2A	12/16/99	10 ft.	210	130	130	55000	3.5	1400	64	2300
	BH14-2B	12/16/99	1 ft.	170	87	80 U	3300	2.1	2800	15	1500
	BH14-2C	12/16/99	2 ft.	210	140	80 U	4400	2.4	4400	15	1500
	BH14-2D	12/16/99	3 ft.	62	18	80 U	1500	2	510	10 U	190
	BH14-2E	12/16/99	4 ft.	210	18	80 U	2400	2.3	970	10 U	230
	BH14-2F	12/16/99	10 ft.	10 U	12	80 U	26	1.2	26 J4	10 U	16
	BH14-2G	12/16/99	15 ft.	10 U	10 U	80 U	25	1.6	10 U, UJ4	10 U	40
	BH14-2H	12/16/99	20 ft.	11	10 U	80 U	65	1.5	10 U, UJ4	10 U	29
	BH14-2I	12/16/99	25 ft.	17	10 U	80 U	20 U	1.8	21 J4	10 U	28
	BH14-2I2	12/16/99	25 ft.	10 U	10 U	80 U	20 U	1.8	42 J4	10 U	15
	BH14-2J	12/16/99	30 ft.	10	12	80 U	38	2.1	50 J4	10 U	49
	BH14-2K	12/16/99	35 ft.	17	10 U	80 U	34	2.5	48 J4	10 U	43
	BH14-2L	12/16/99	40 ft.	16	10 U	80 U	32	2.5	47 J4	10 U	60
	BH14-2M	12/16/99	45 ft.	26	10 U	80 U	32	2.6	15 J4	10 U	56
BH14-2O	12/16/99	50 ft.	10 U	12	80 U	38	2.1	10 U, UJ4	10 U	34	
BH14-2P	12/16/99	55 ft.	16	10 U	80 U	20 U	2.6	10 J4	10 U	46	
BH14-2Q	12/16/99	60 ft.	10 U	10 U	80 U	20 U	2.1	10 U	10 U	50	
BH14-2Q2	12/16/99	60 ft.	10 U	10 U	80 U	20 U	2.1	10 U	10 U	48	

Table D-12. Summary of Soil Analytical Results
Investigation Area 14 (South Terrace Area)

Site	Sample #	Date	Depth (ft)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)
BH14-3	BH14-3A	12/15/99	0 ft.	10 U	16	80 U	1800	2	2600	10 U	210
	BH14-3B	12/15/99	1 ft.	27	10 U	80 U	520	2.2	420	10 U	68
	BH14-3C	12/15/99	2 ft.	10 U	10 U	82	73	1.8	250	10 U	11
	BH14-3D	12/15/99	3 ft.	10 U	10 U	80 U	36	1.6	190	10 U	10 U
	BH14-3E	12/15/99	4 ft.	10 U	10 U	80 U	20 U	1.4	65	10 U	29
	BH14-3F	12/15/99	10 ft.	10 U	10 U	80 U	70	1.1	74	10 U	11
	BH14-3G	12/15/99	15 ft.	43	10 U	90	72	2.9	530	10 U	74
	BH14-3H	12/15/99	20 ft.	19	11	80 U	20 U	2.1	33	10 U	36
	BH14-3I	12/15/99	25 ft.	23	10 U	80 U	61	2.4	62	10 U	59
	BH14-3J	12/15/99	30 ft.	20	10 U	80 U	55	2.3	31	10 U	32
	BH14-3J2	12/15/99	30 ft.	15	10 U	80 U	39	2.2	28	10 U	40
	BH14-3K	12/15/99	35 ft.	10 U	10 U	80 U	73	1.9	65	10 U	27
	BH14-3L	12/15/99	40 ft.	11	10 U	80 U	48	2.6	54	10 U	54
	BH14-3M	12/15/99	45 ft.	10 U	10 U	80 U	20 U	2	10 U	10 U	49
	BH14-3N	12/15/99	50 ft.	12	10 U	80 U	41	2.1	10 U	10 U	32
	BH14-3O	12/15/99	55 ft.	10 U	12	80 U	34	2	10 U	10 U	40
	BH14-3P	12/15/99	60 ft.	10 U	13	80 U	45	1.5	10 U	10 U	21
	BH14-3Q	12/15/99	65 ft.	10 U	10 U	80 U	20 U	1.3	10 U	10 U	44
	BH14-3Q2	12/15/99	65 ft.	10 U	10 U	80 U	32	1.4	10 U	10 U	43

APPENDIX E

GRAPHS OF SOIL SAMPLE METAL ANALYSIS

CONCENTRATIONS VERSUS DEPTH

APPENDIX E

GRAPHS OF SOIL SAMPLE METAL ANALYSIS

CONCENTRATIONS VERSUS DEPTH

APPENDIX E

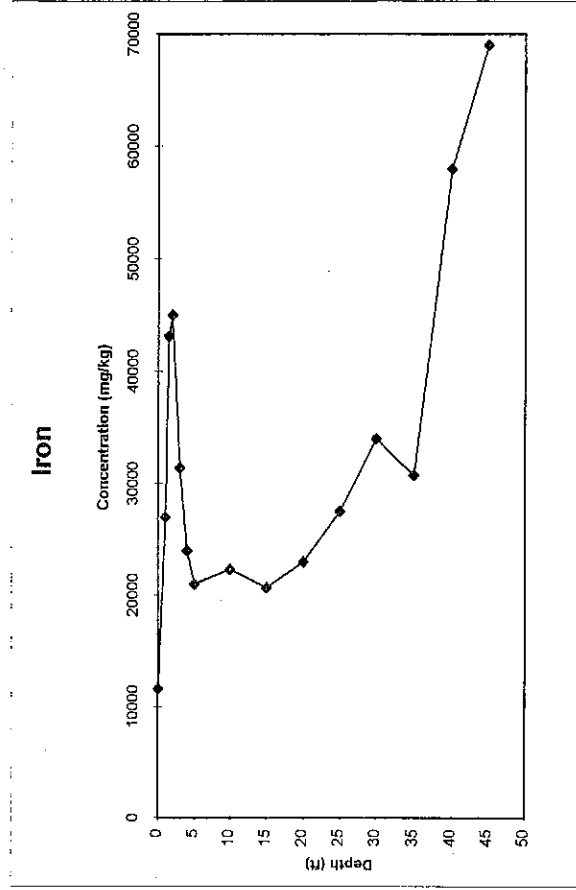
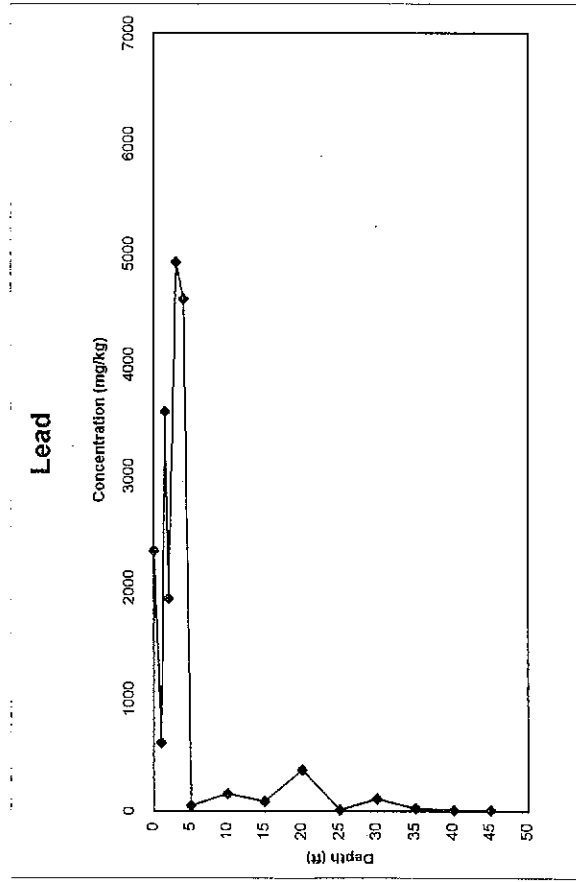
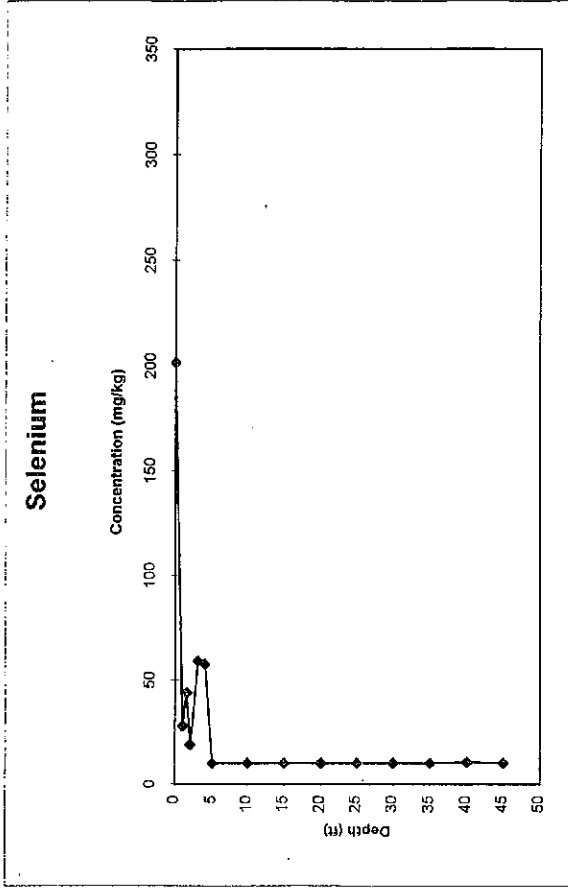
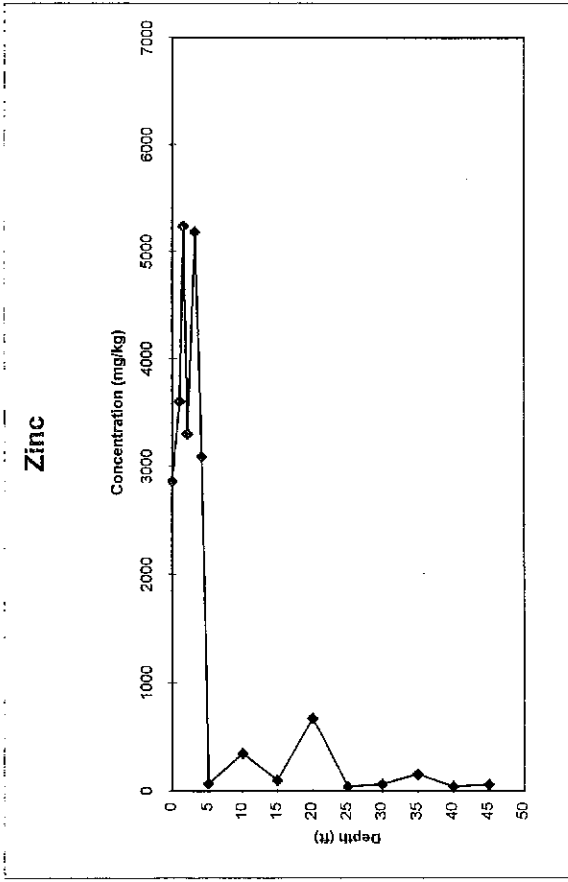
GRAPHS OF SOIL SAMPLE METAL ANALYSIS

CONCENTRATIONS VERSUS DEPTH

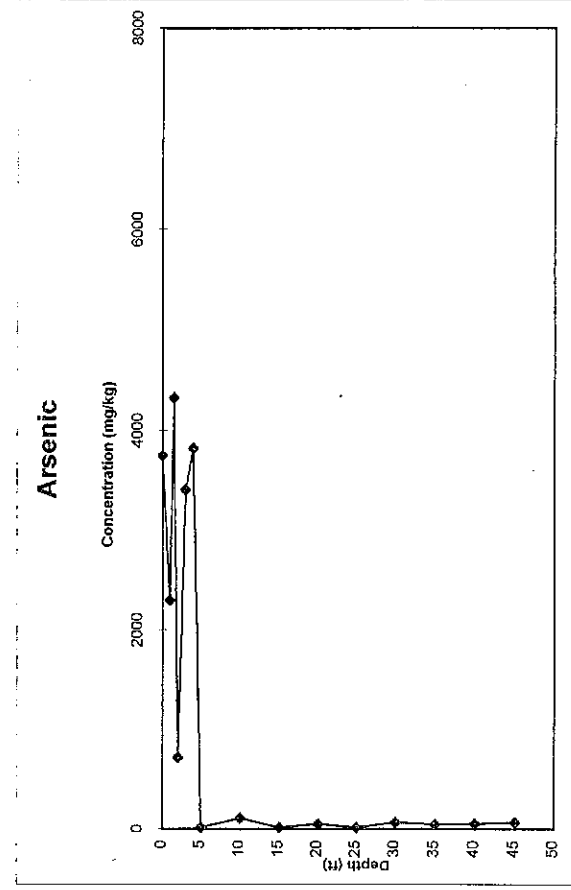
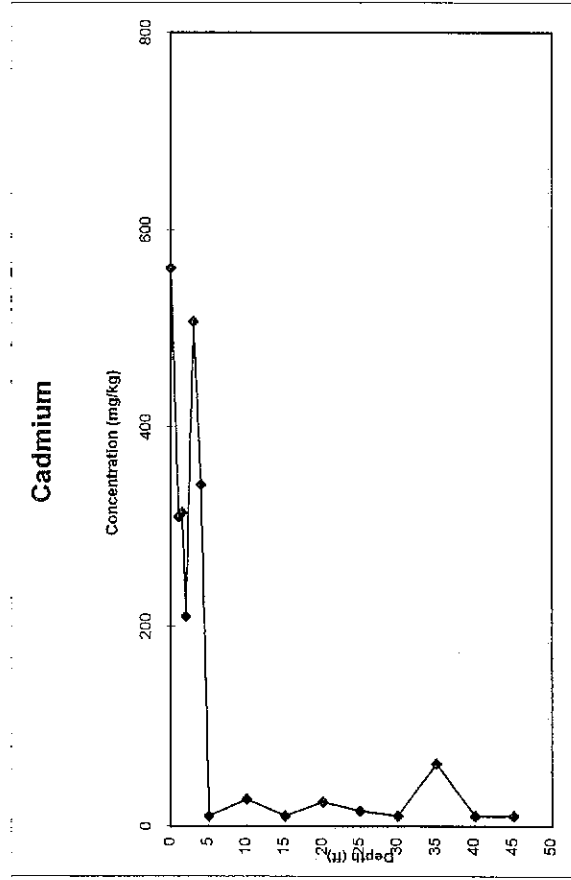
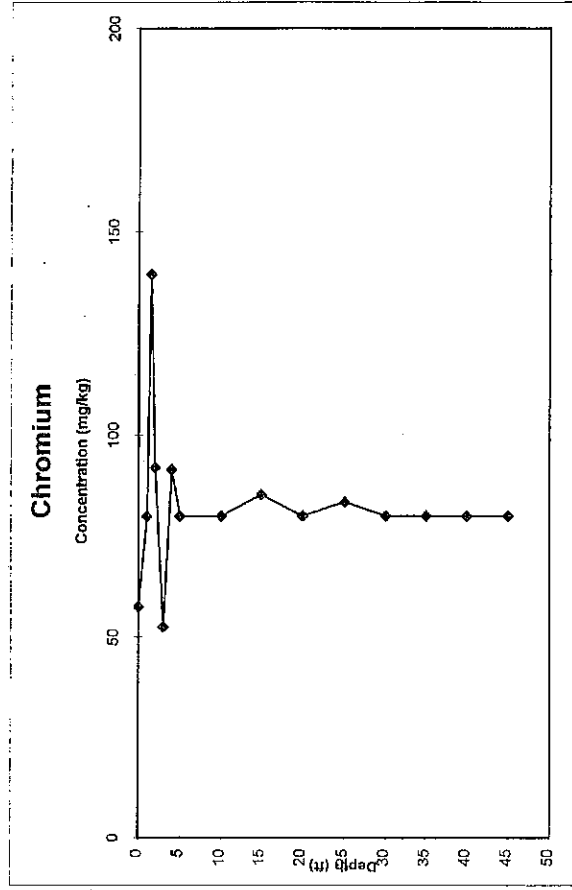
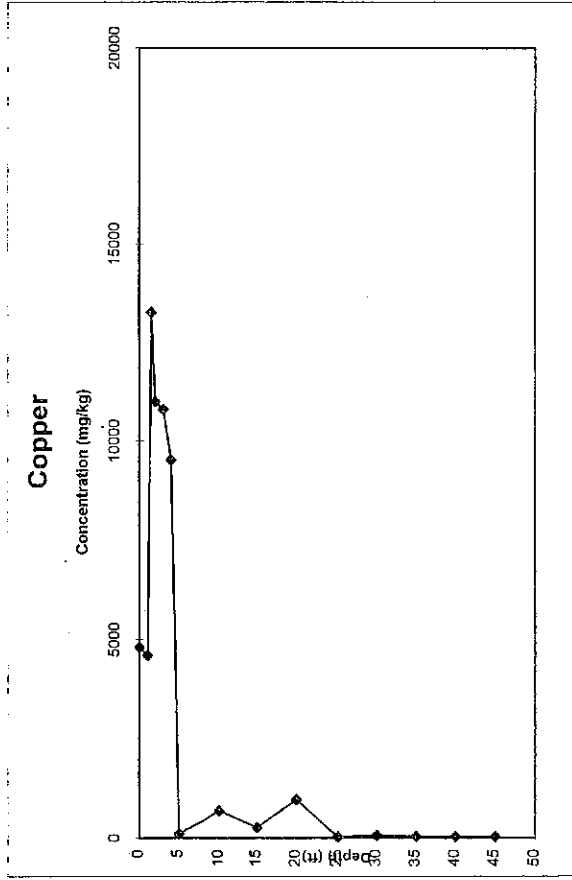
This appendix contains graphs of the analytical results for eight metals (arsenic, cadmium, chromium, copper, iron, lead, selenium and zinc) for soil samples. The first graphs present averaged data per Investigation Area. The concentrations shown are the averaged concentrations for all phase I and phase II borings drilled in the Investigation Area. The subsequent graphs present the data per well for soil samples collected during well construction. Soil samples were collected at five-foot intervals in monitor wells EP-67 through EP-118. Only RI phase II soil data for individual monitor wells (EP-93 through EP-118) is presented in this appendix.

Graphs indicate the concentrations in milligrams per kilogram (mg/kg) versus depth (feet below ground surface). Scales vary for each constituent and nondetectable concentrations are not indicated. Refer to the tabulated summaries of soil data for detection limits (Appendix D).

Average Soil Concentrations by Depth, Investigation Area 1
(Converter Building/Baghouse Area)

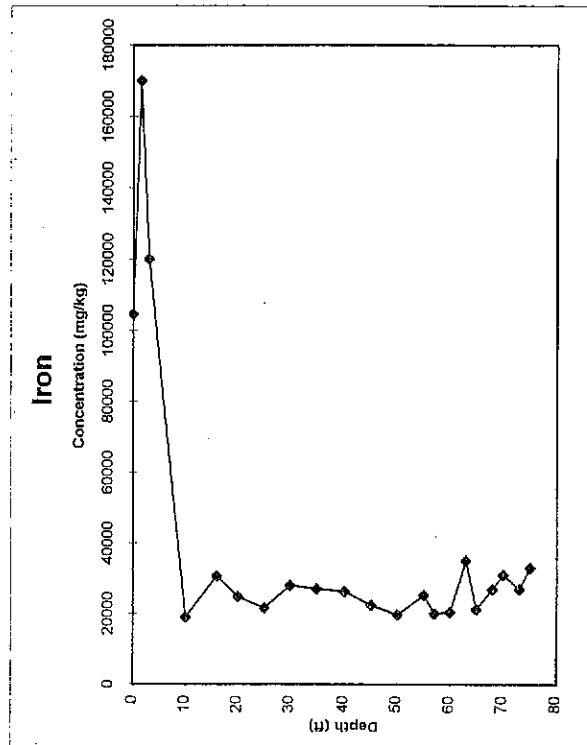
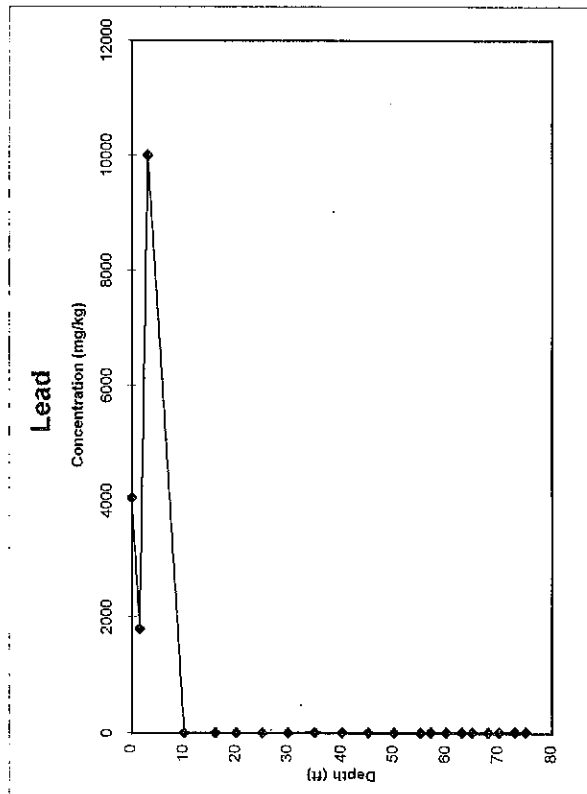
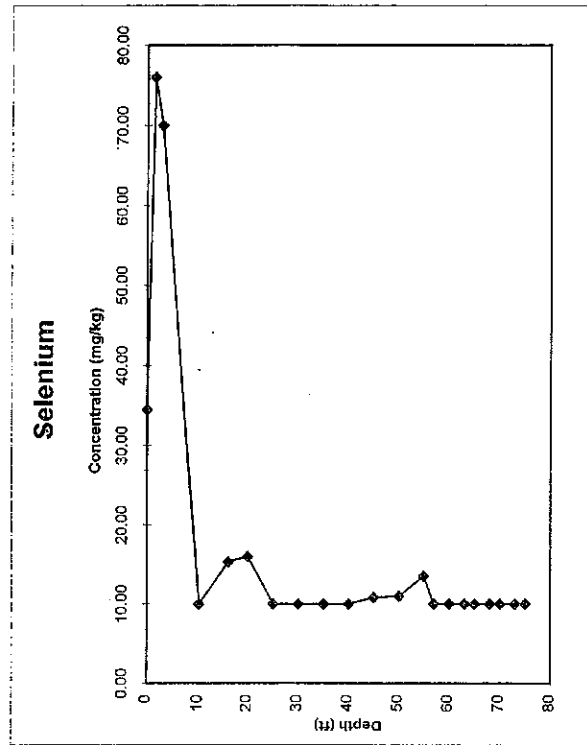
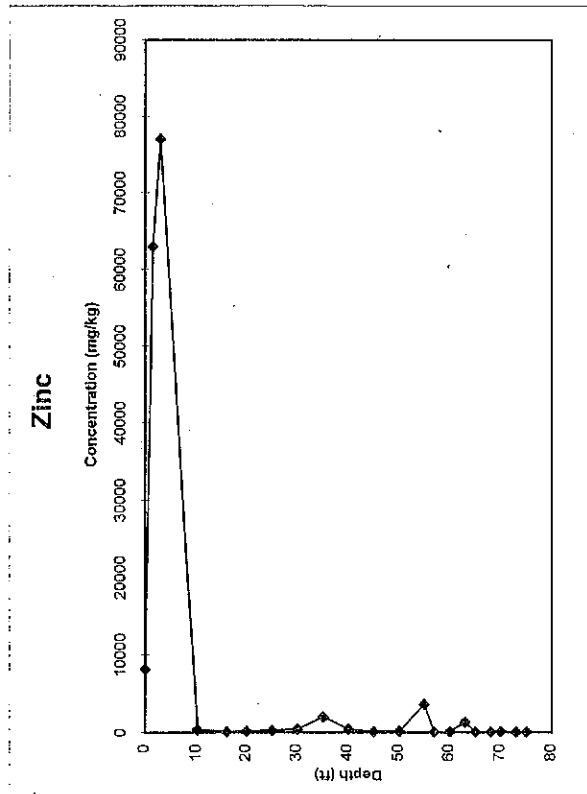


Average Soil Concentrations by Depth, Investigation Area I
(Converter Building/Baghouse Area)

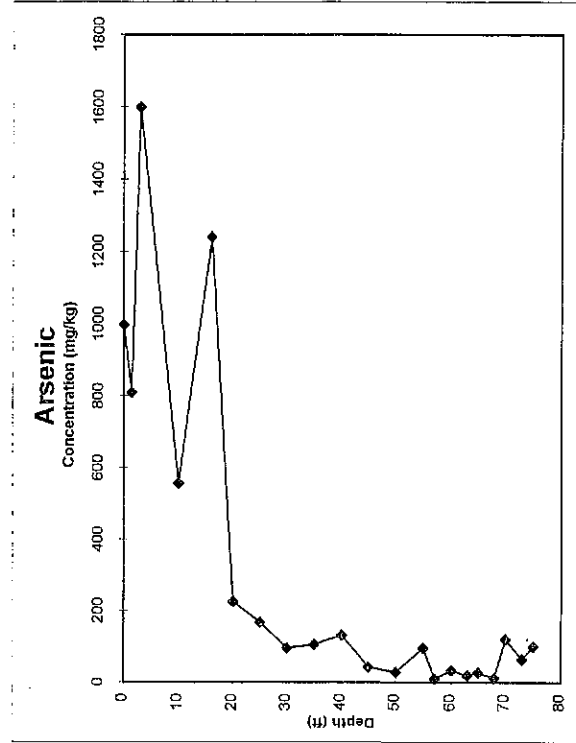
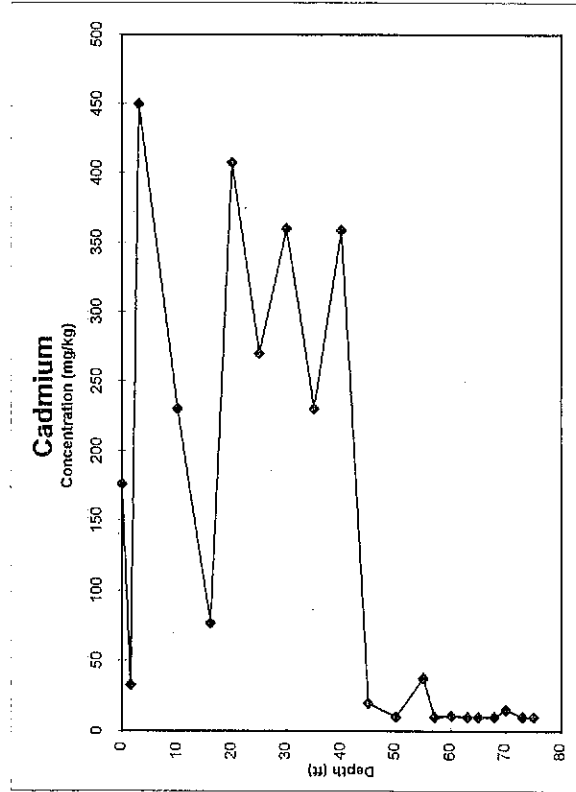
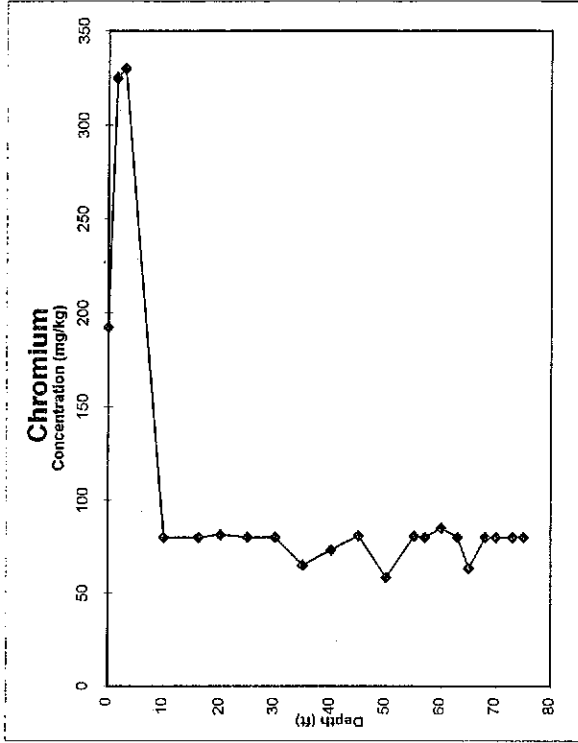
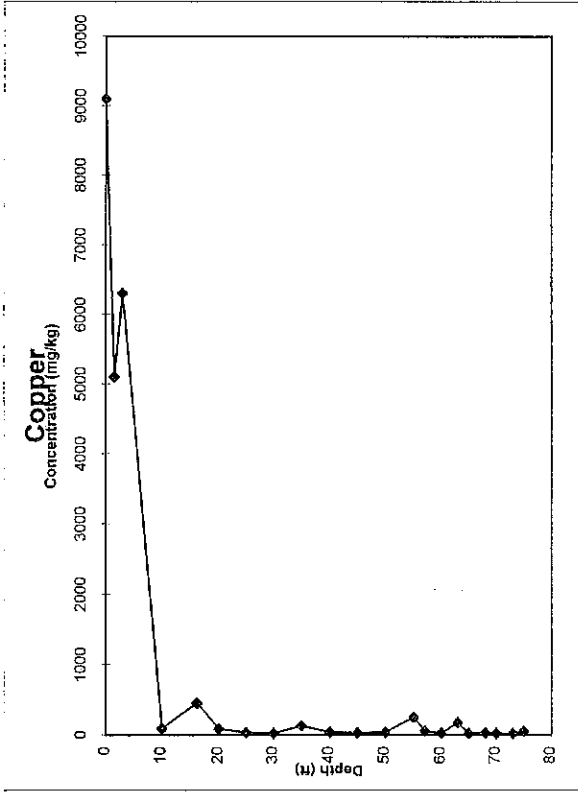


Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Concentrations by Depth, Investigation Area 2
(Boneyard/Slag Area)

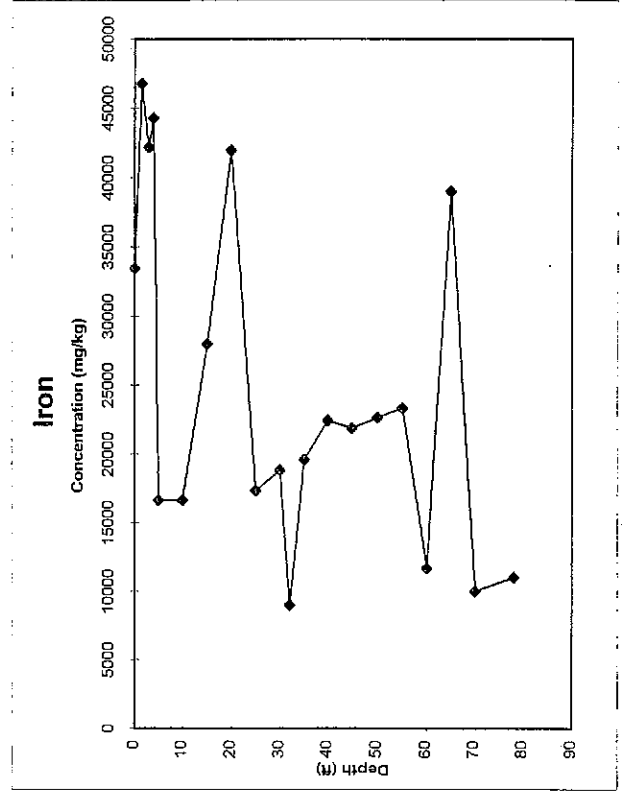
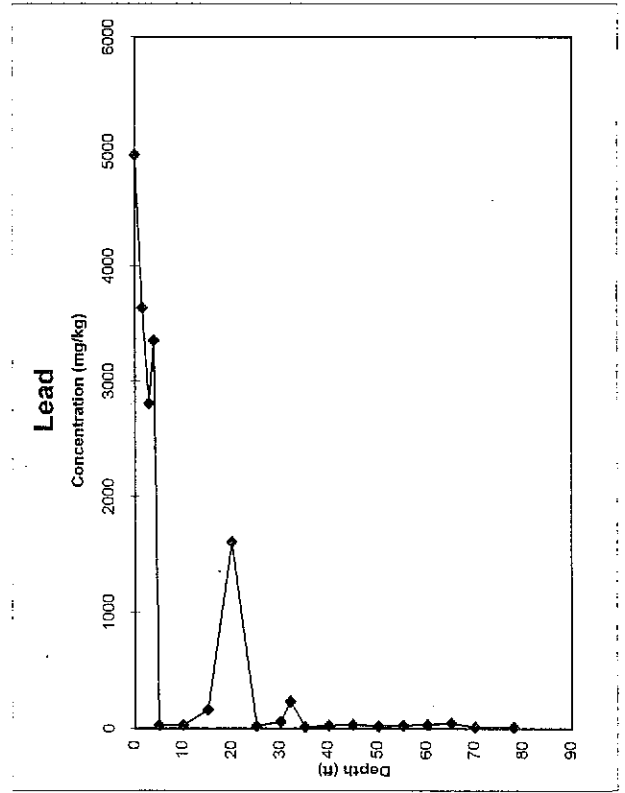
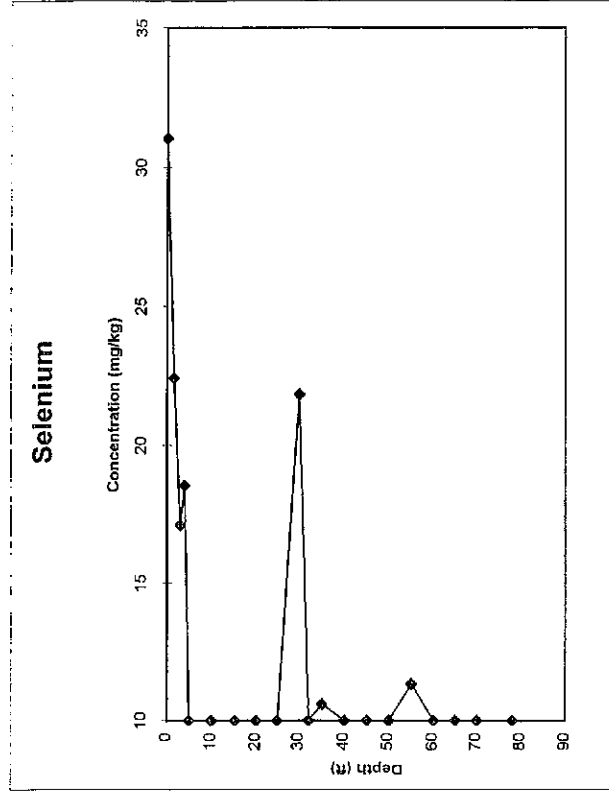
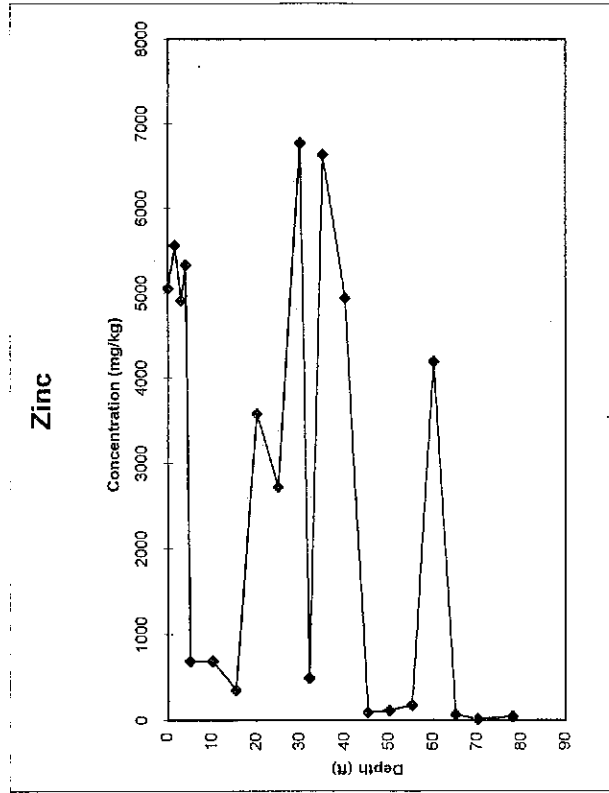


Average Concentrations by Depth, Investigation Area 2
(Boneyard/Slag Area)

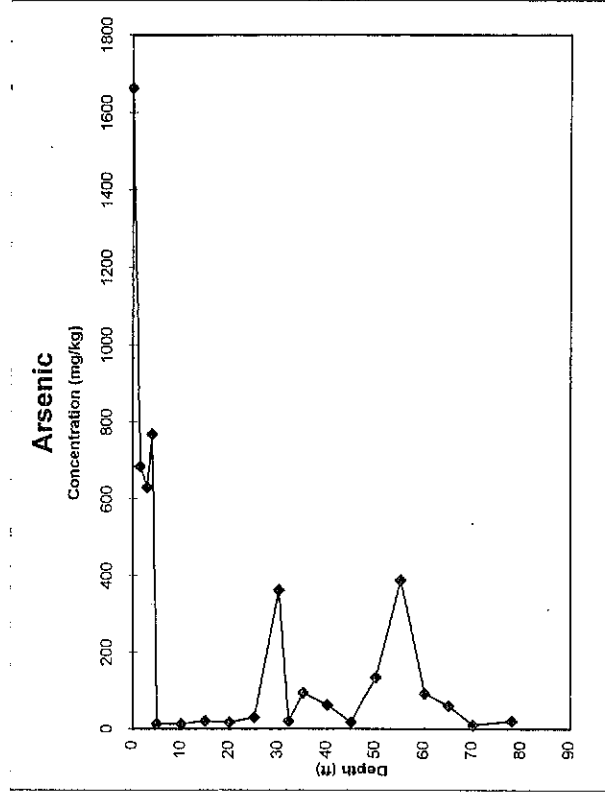
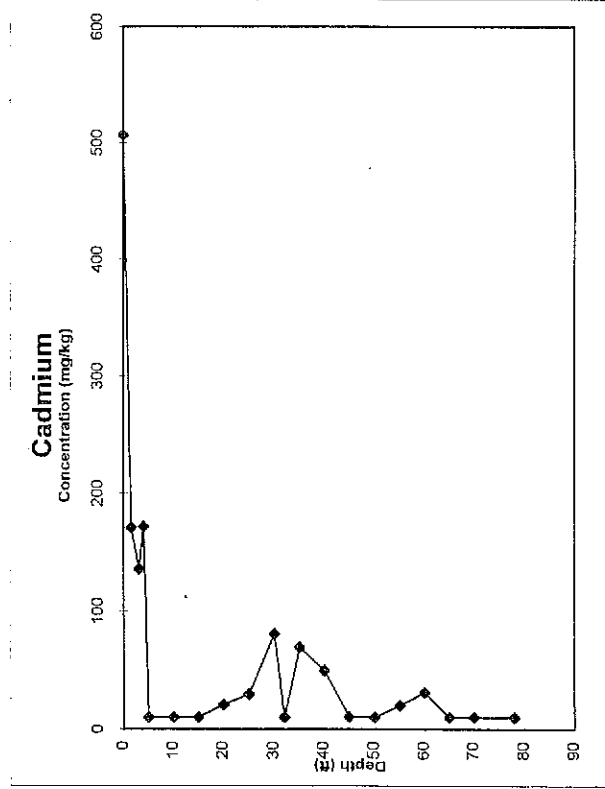
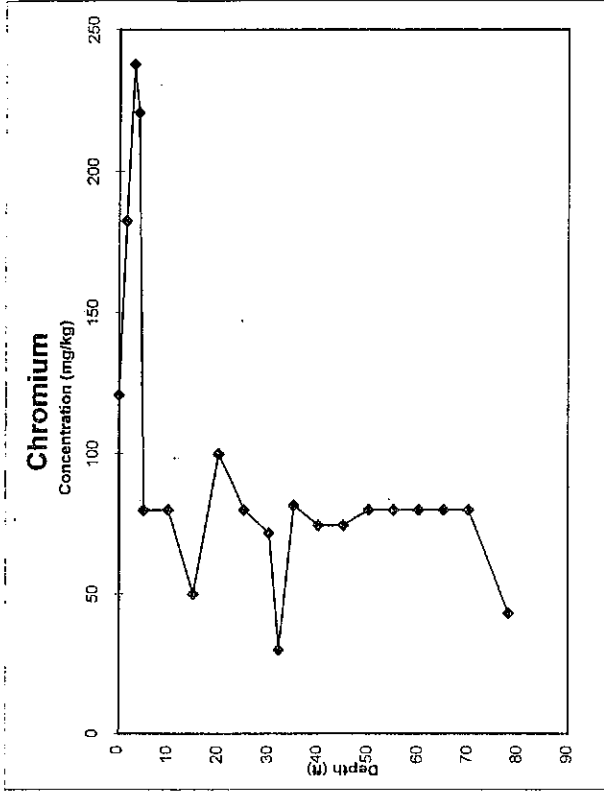
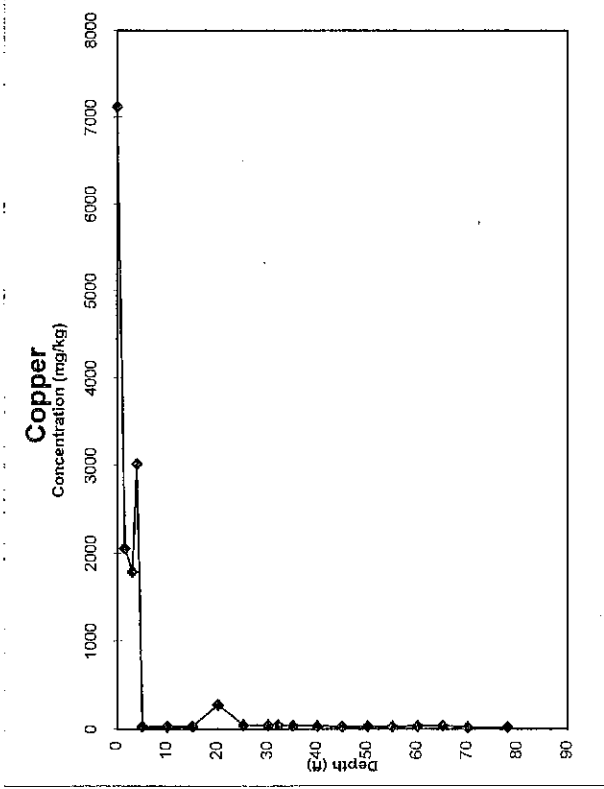


Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Concentrations by Depth, Investigation Area 3
(Acid Plants 1 and 2 Area)

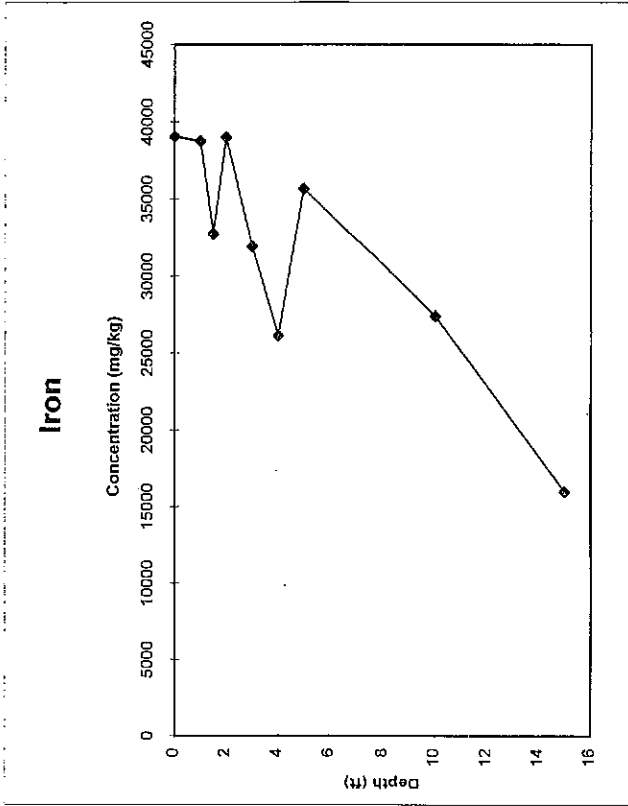
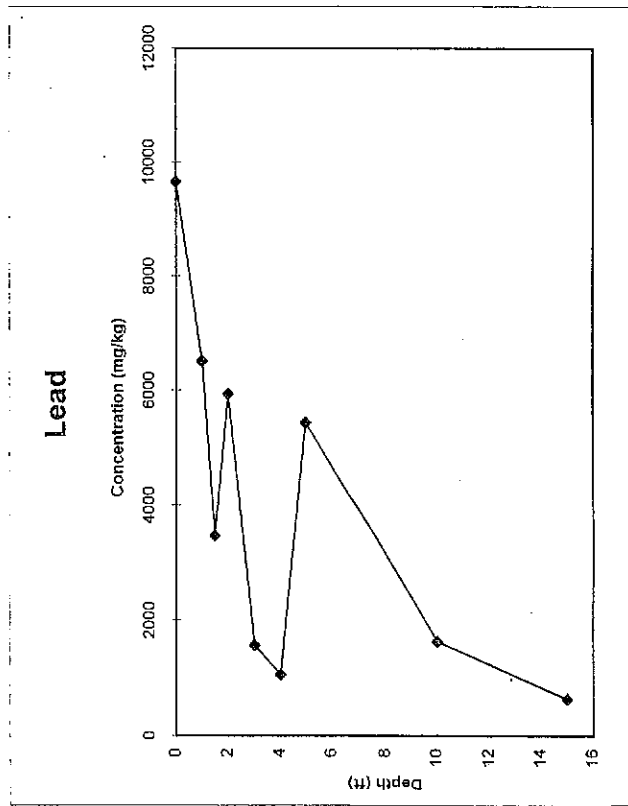
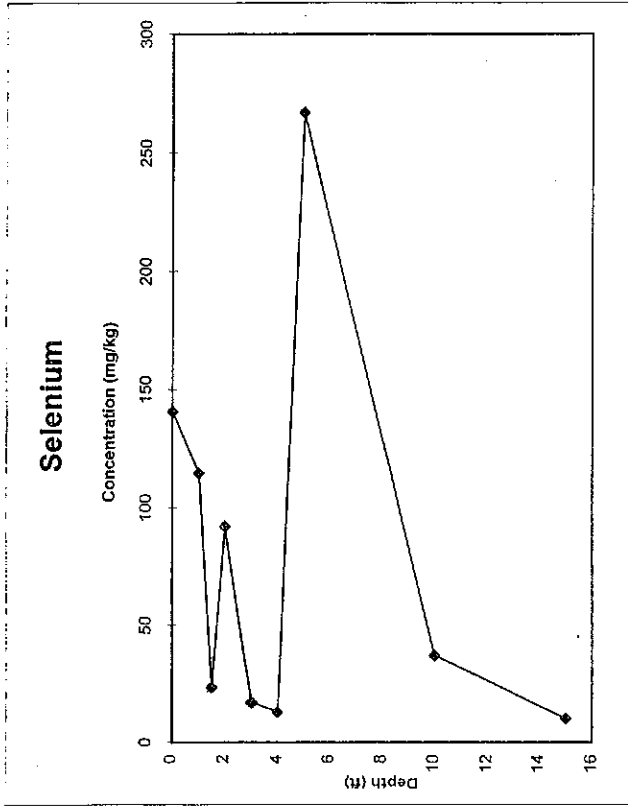
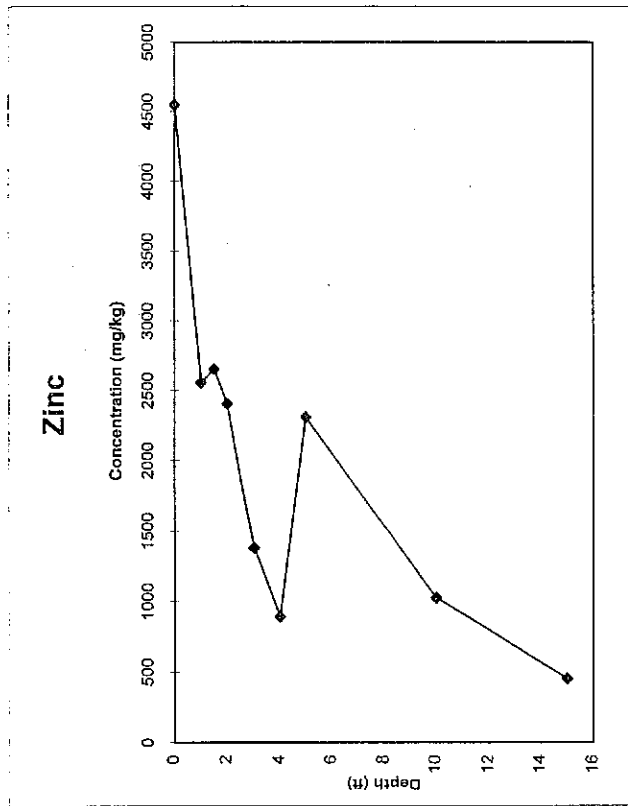


Average Concentrations by Depth, Investigation Area 3
(Acid Plants 1 and 2 Area)

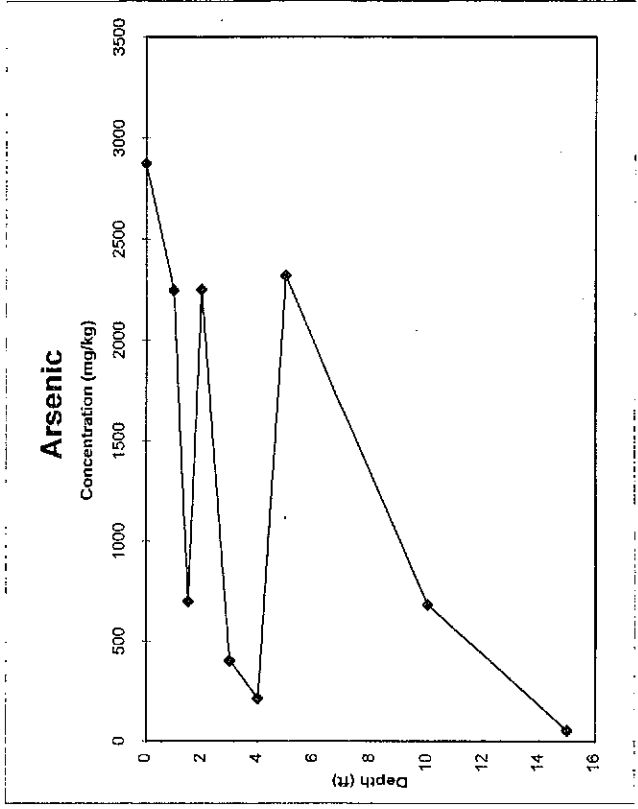
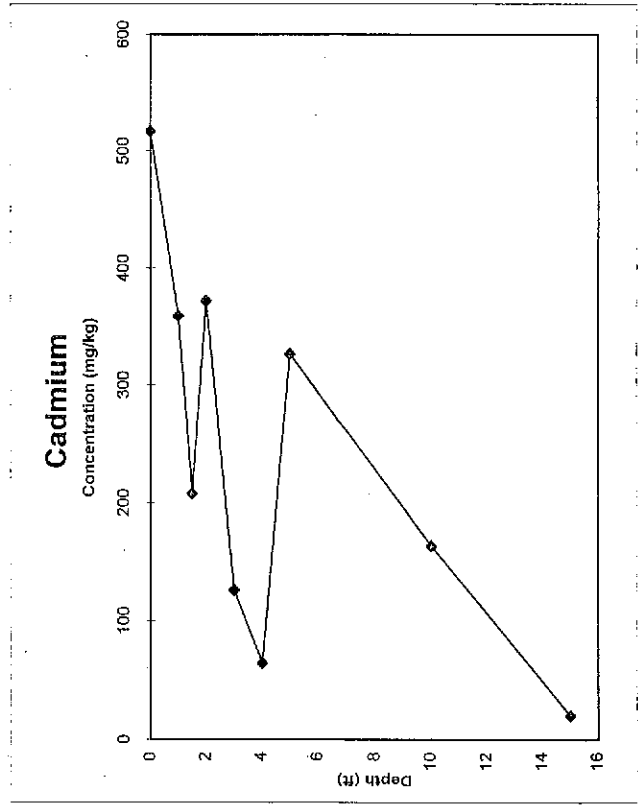
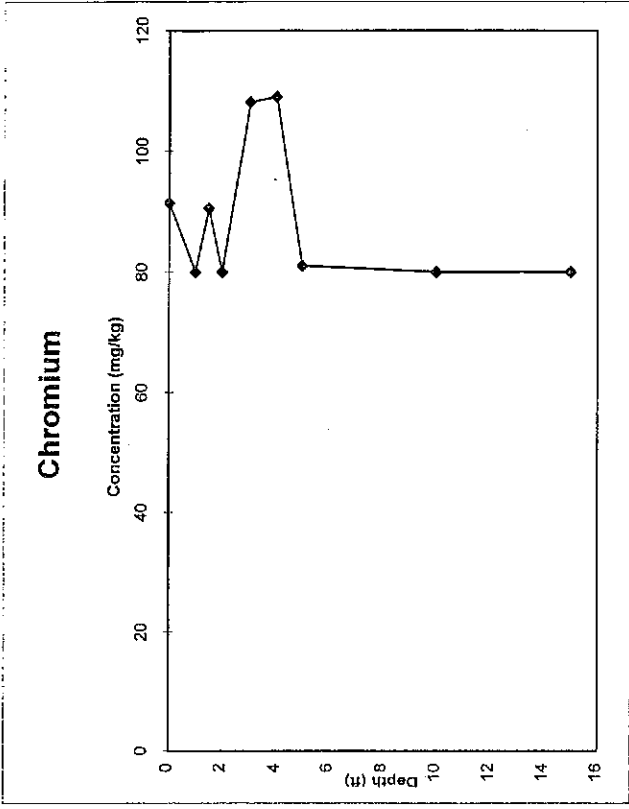
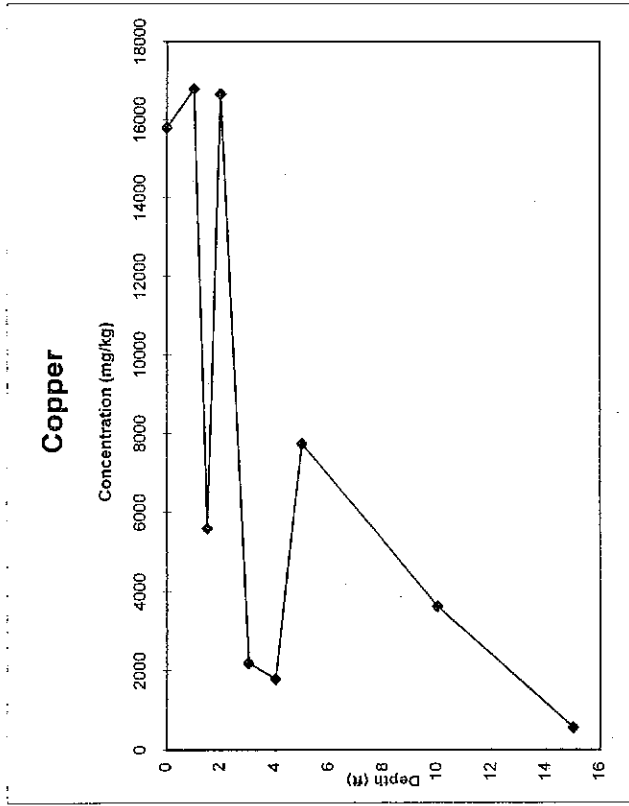


Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

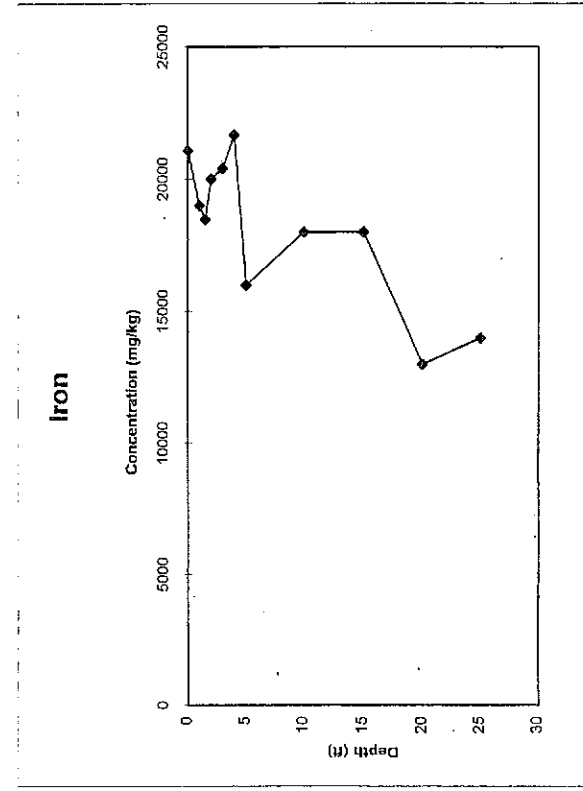
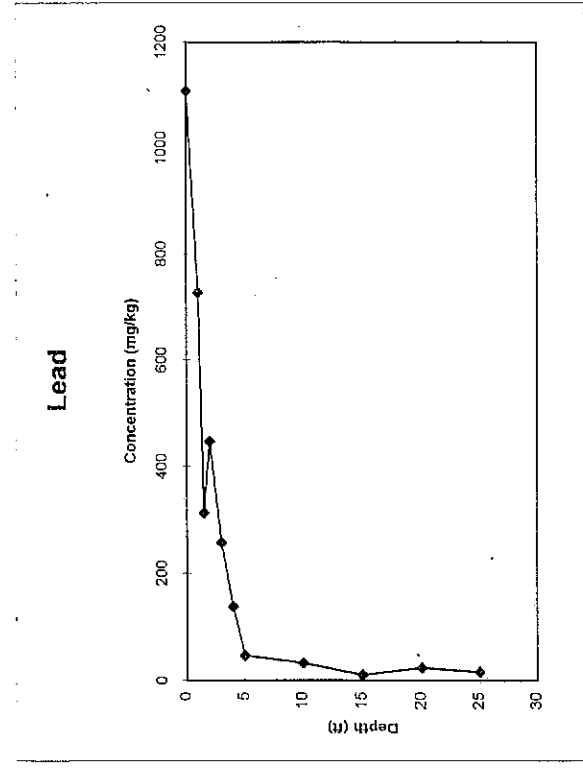
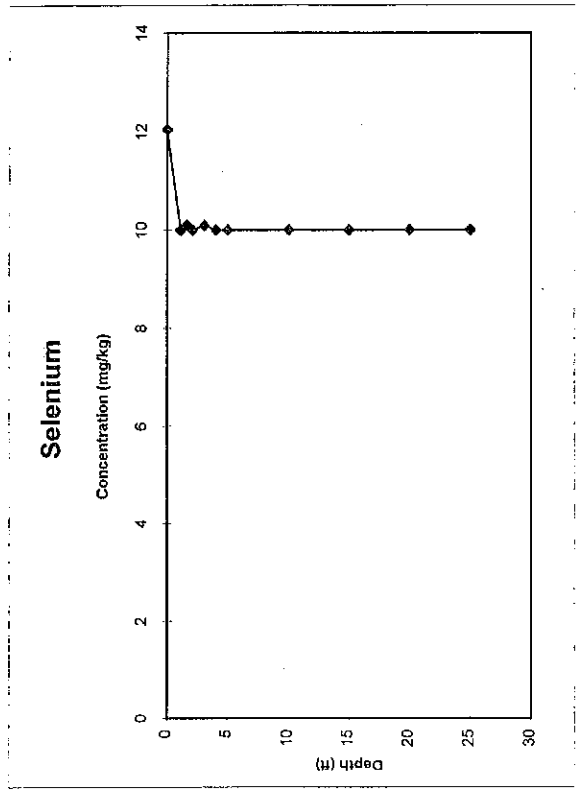
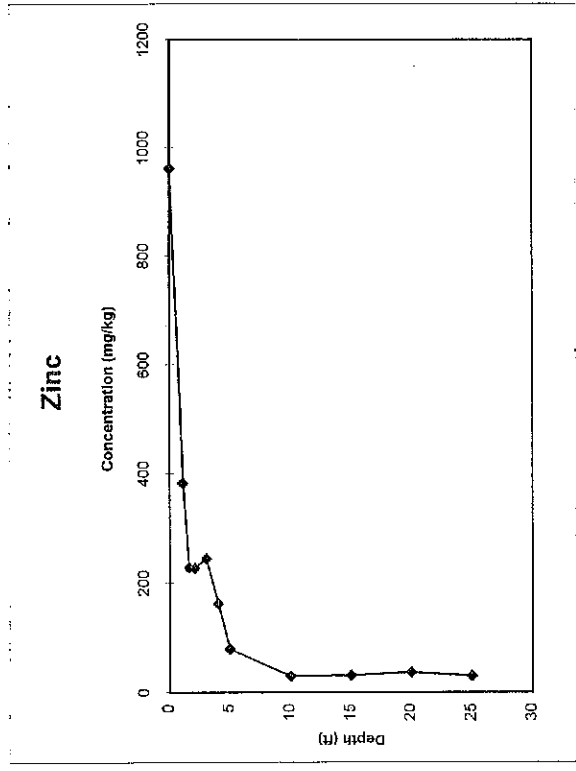
Average Concentrations by Depth, Investigation Area 4
(Front Slope/Western Plant Boundary Area)



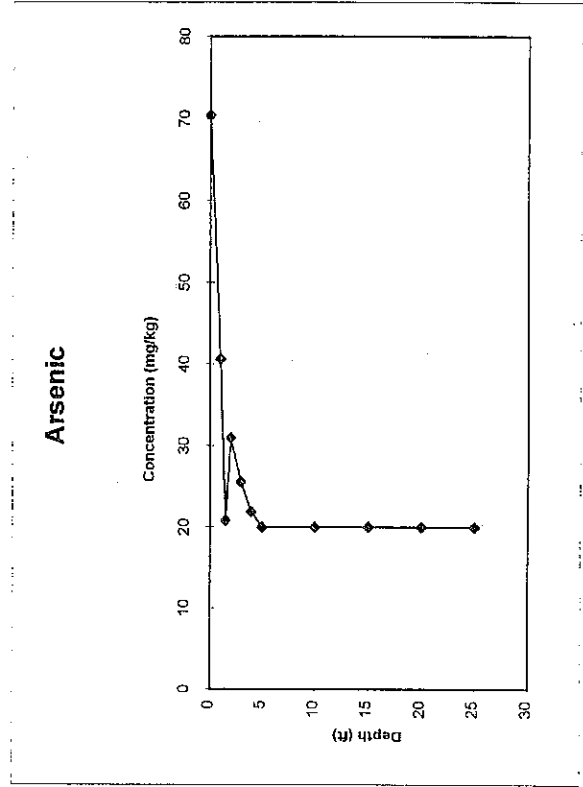
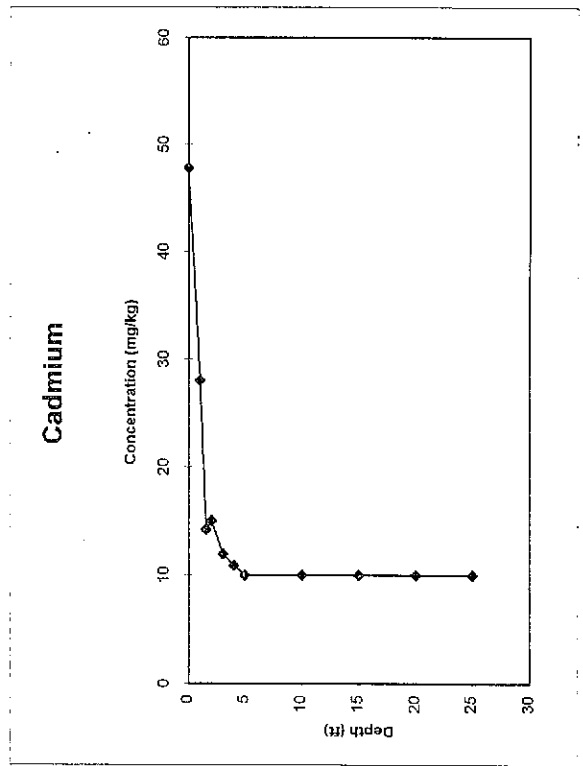
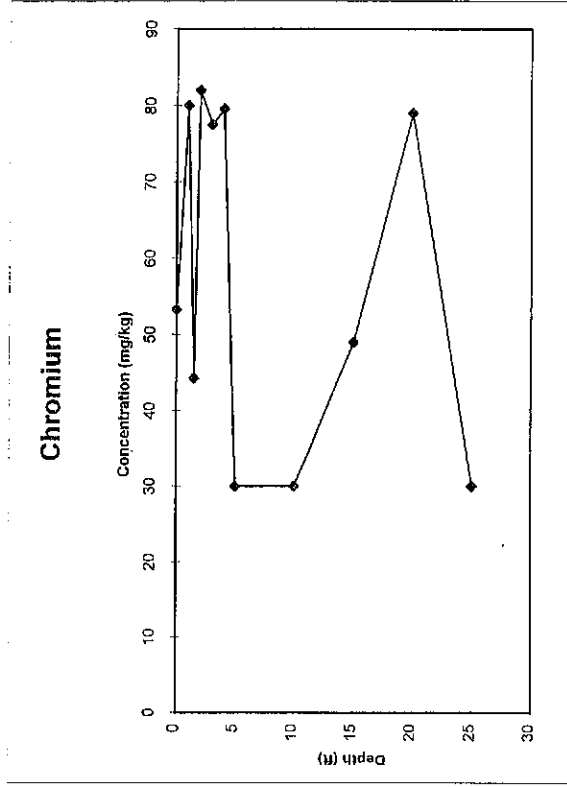
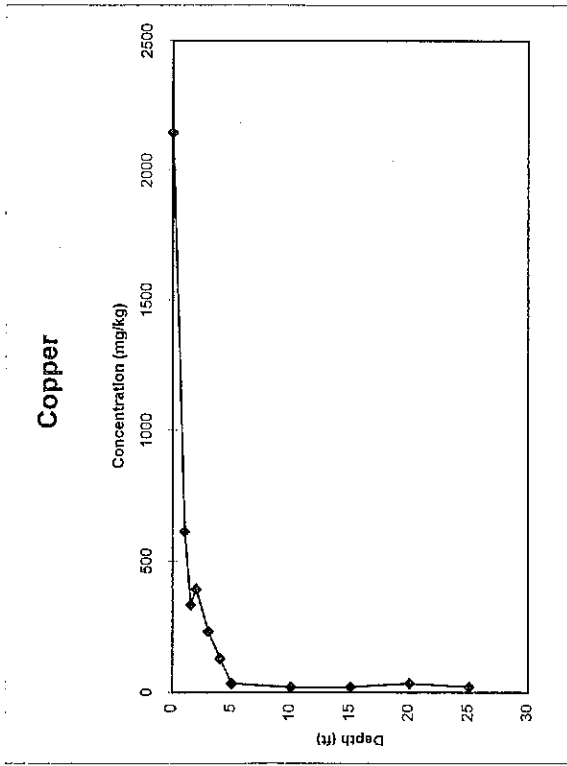
Average Concentrations by Depth, Investigation Area 4
(Front Slope/Western Plant Boundary Area)



Average Concentration by Depth, Investigation Area 5
(Historic Smelertown Area)



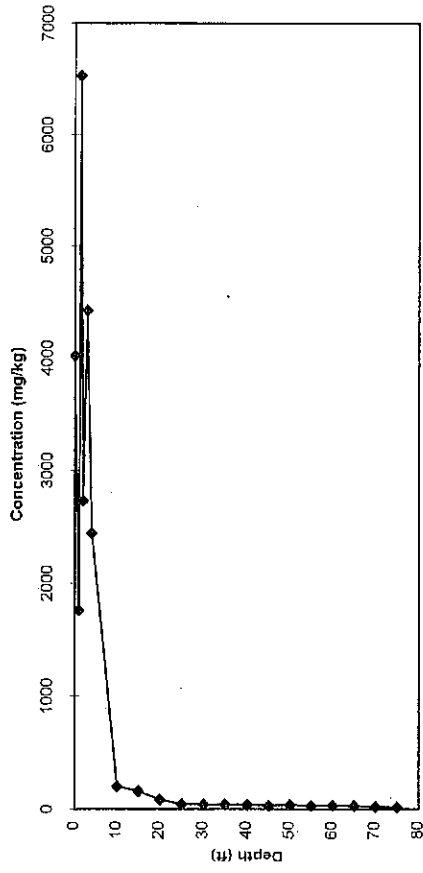
Average Concentration by Depth, Investigation Area 5
(Historic Smelertown Area)



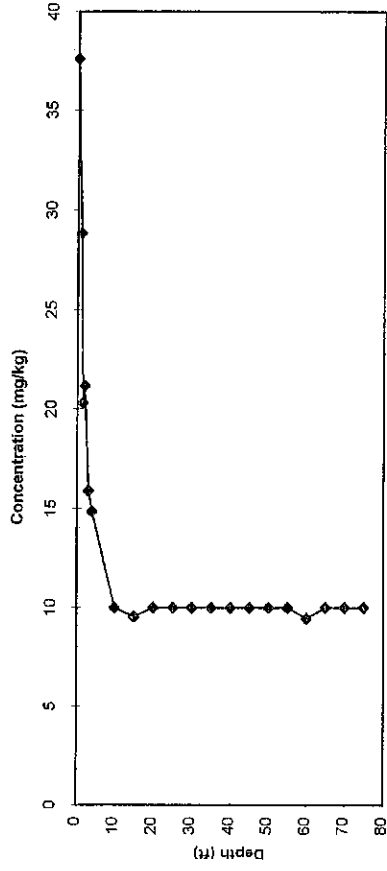
Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Concentrations by Depth, Investigation Area 8
(Bedding and Unloading Buildings Area)

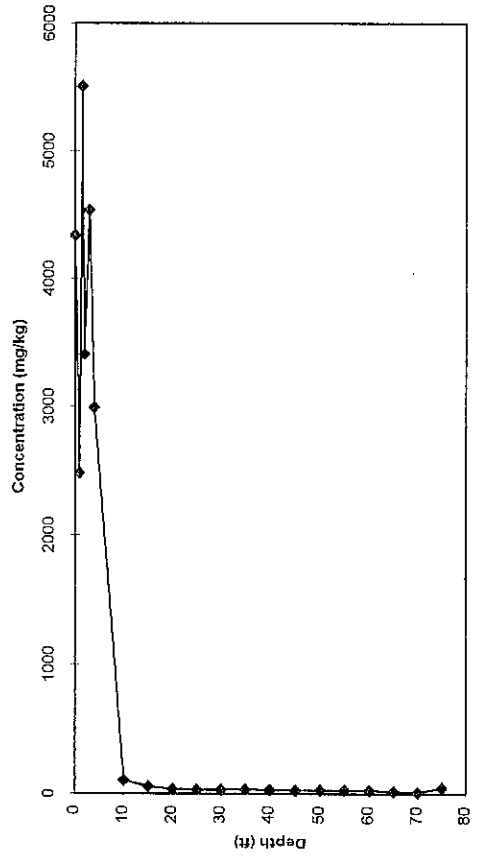
Zinc



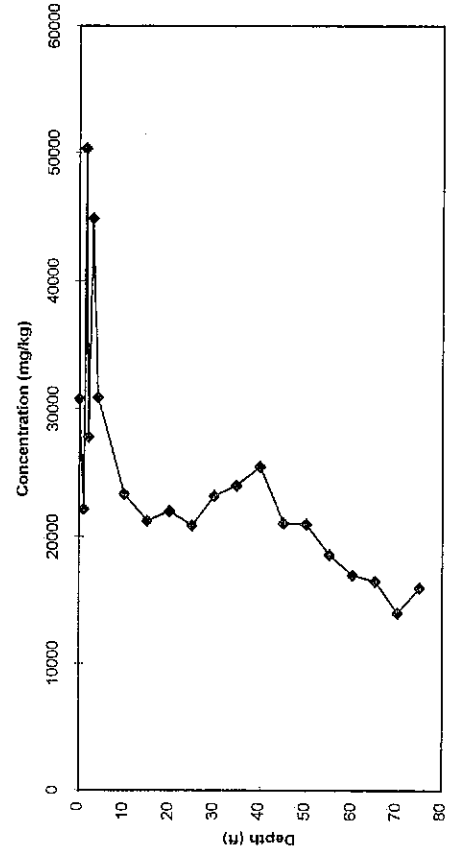
Selenium



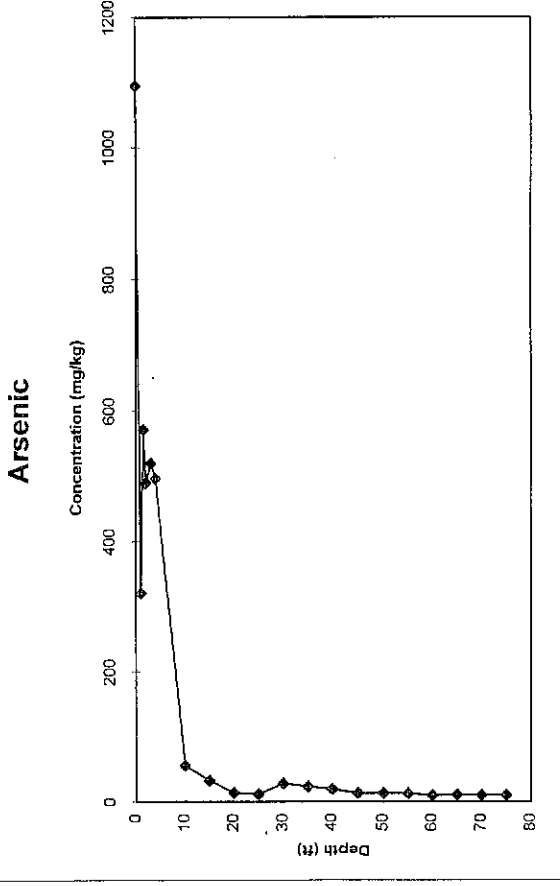
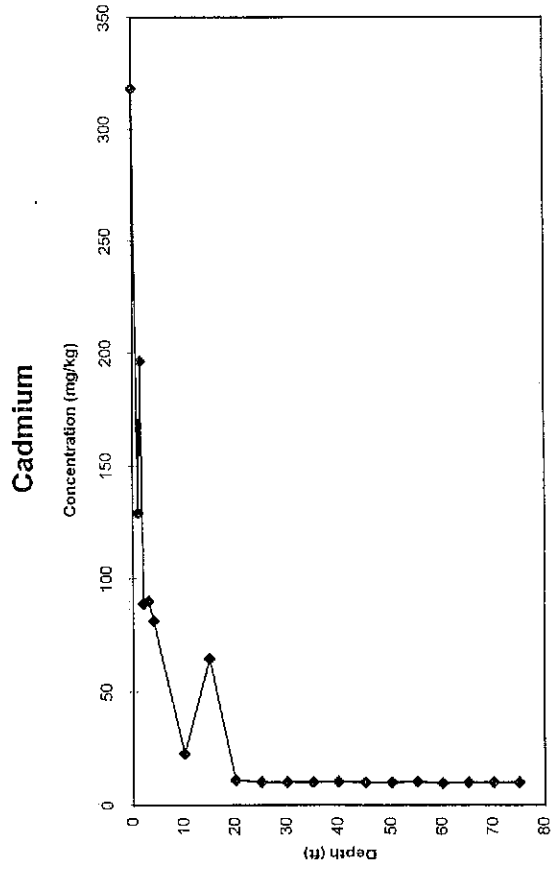
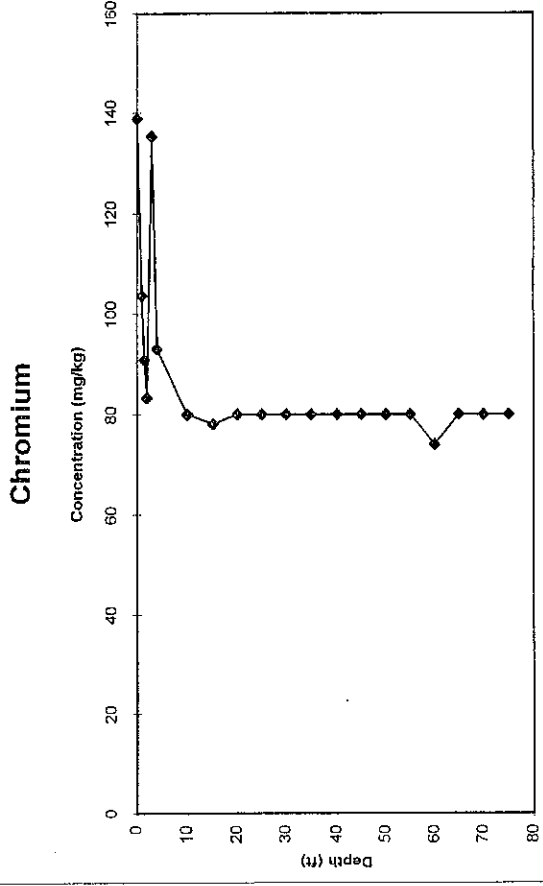
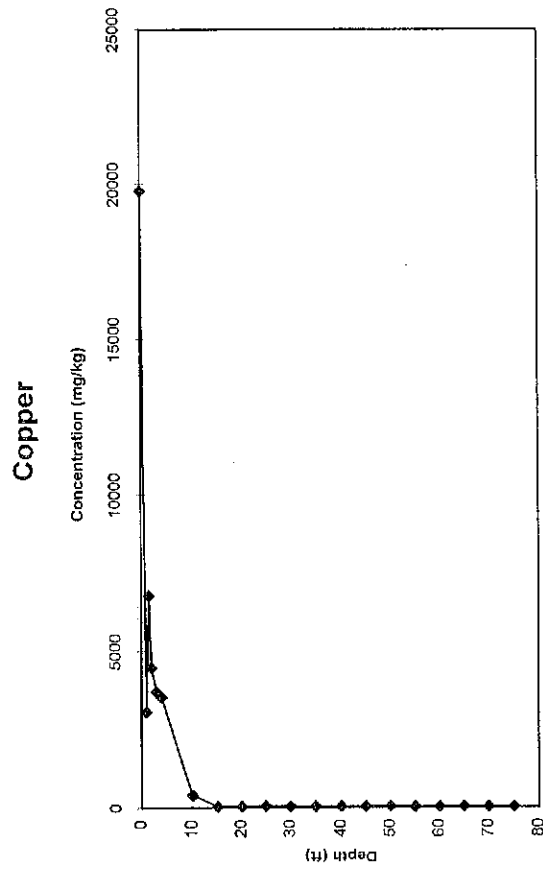
Lead



Iron

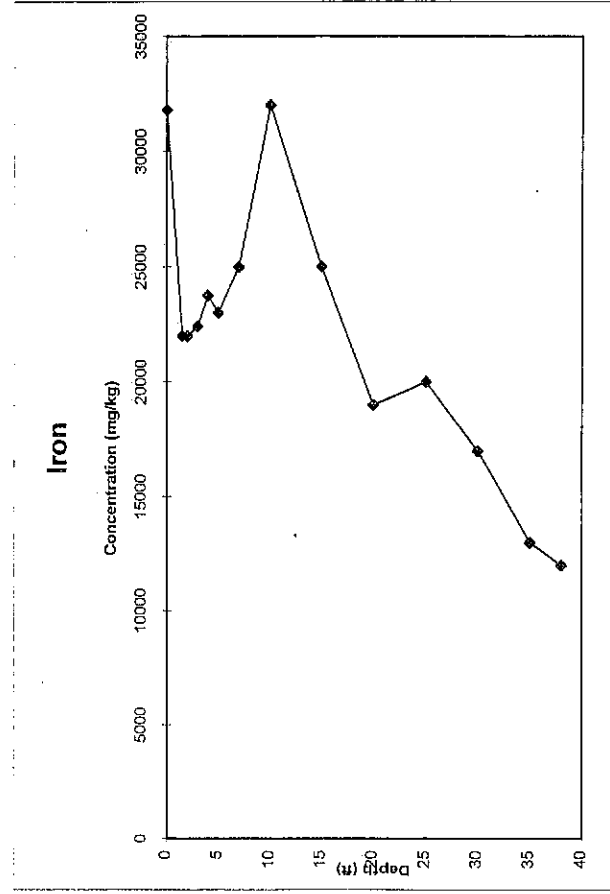
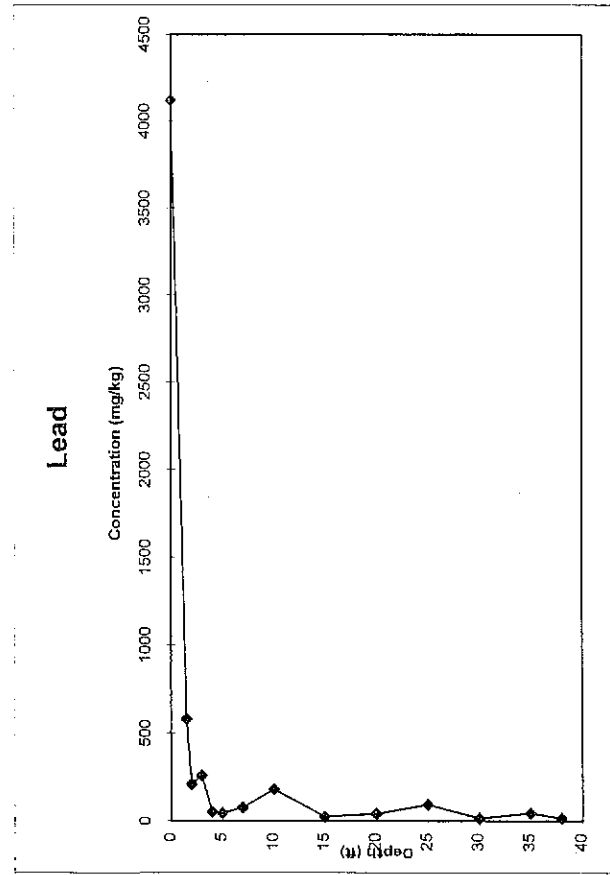
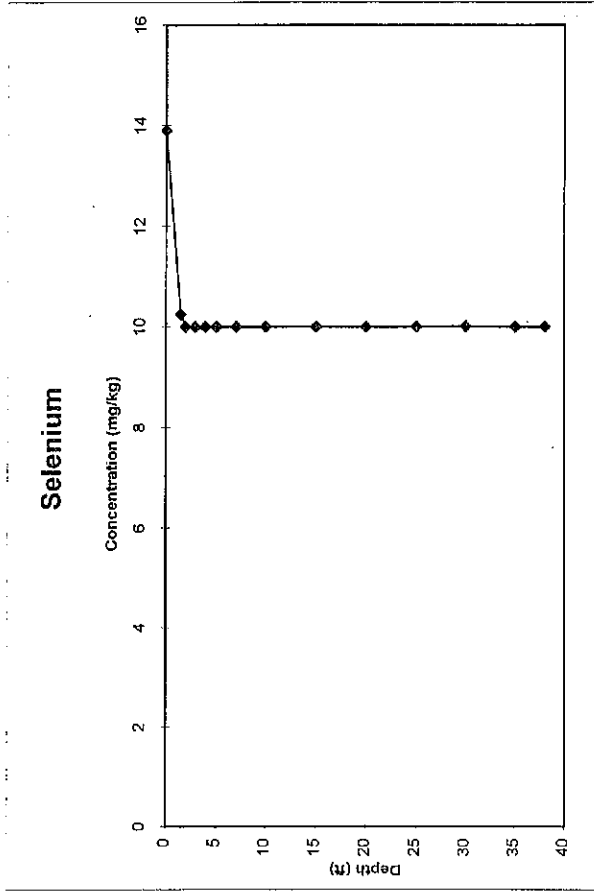
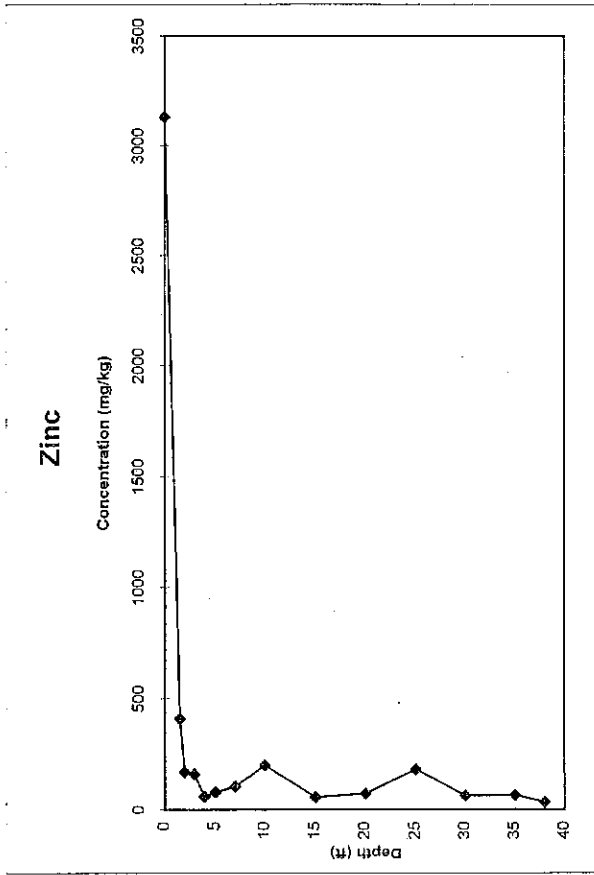


Average Concentrations by Depth, Investigation Area 8
(Bedding and Unloading Buildings Area)

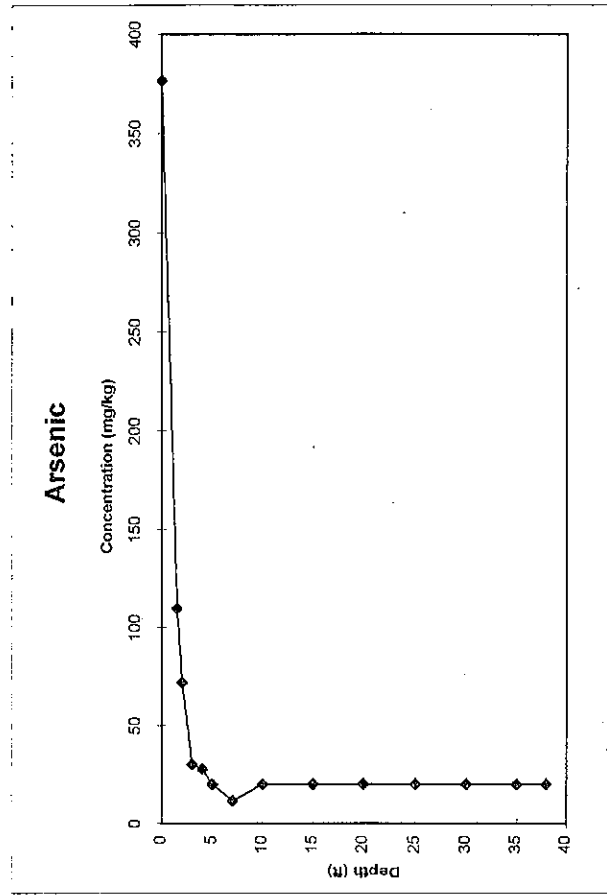
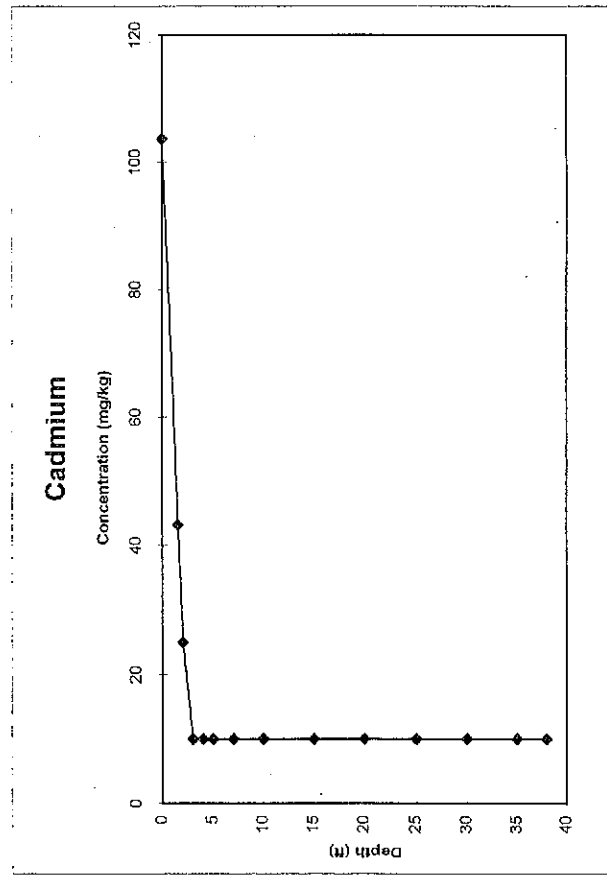
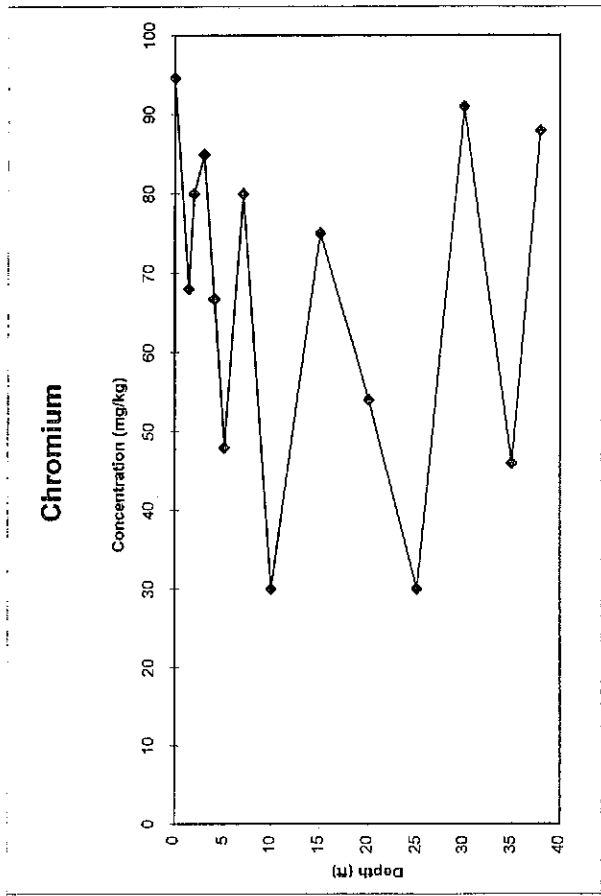
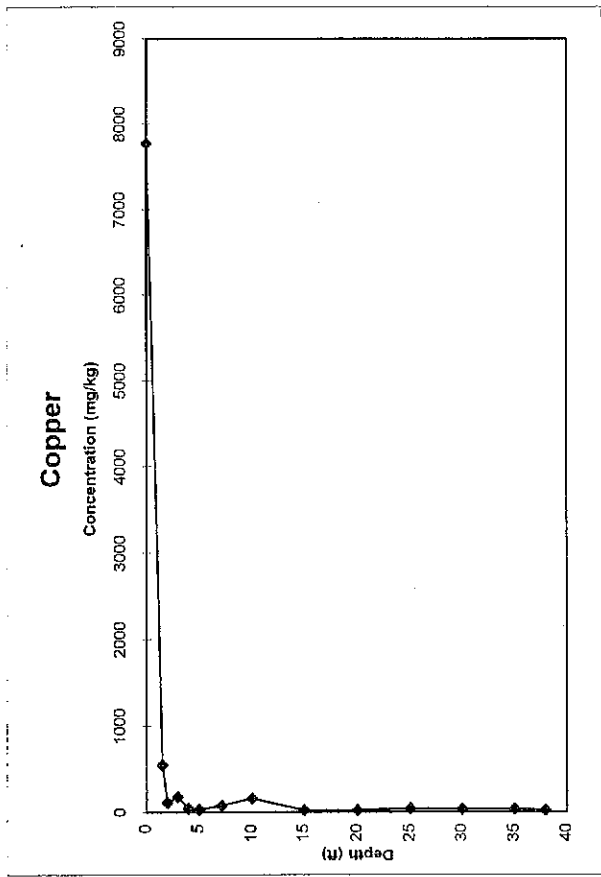


Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Soil Concentrations by Depth, Investigation Area 10
(Plant Entrance Area)



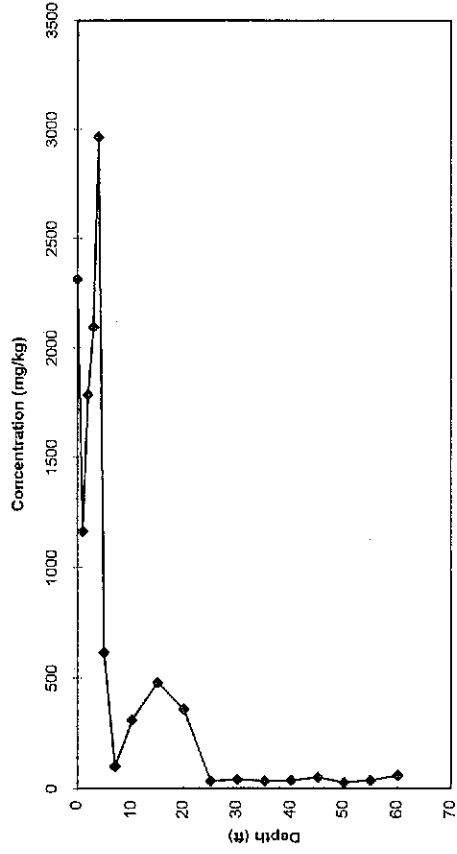
**Average Soil Concentrations by Depth, Investigation Area 10
(Plant Entrance Area)**



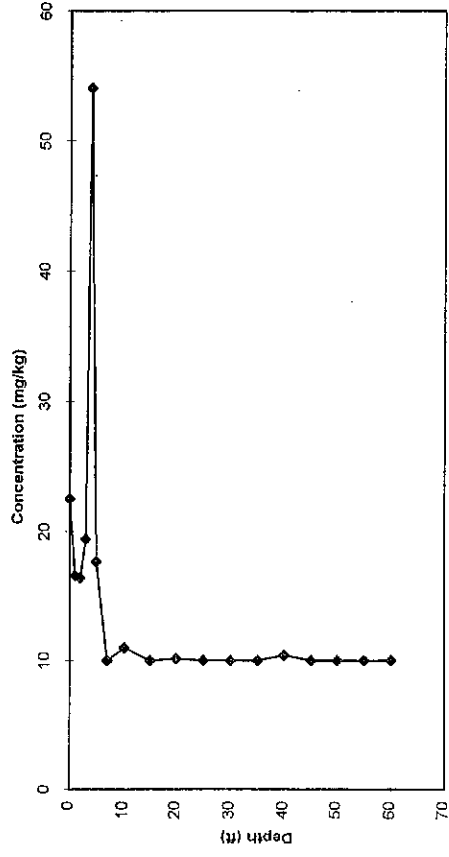
Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Concentrations by Depth, Investigation Area 11
(Southern Arroyo Area)

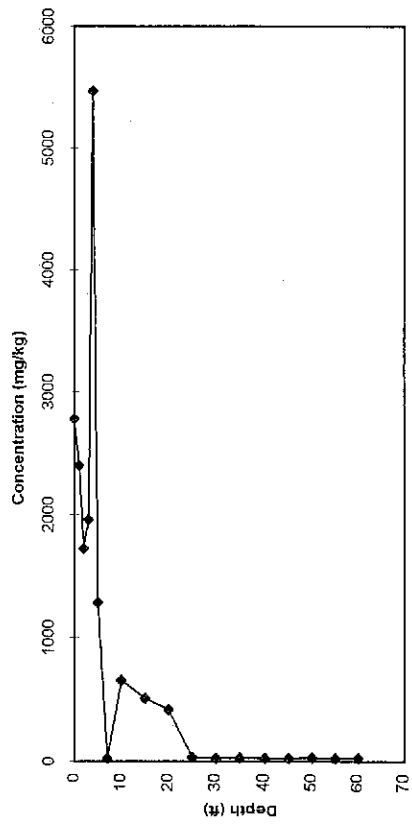
Zinc



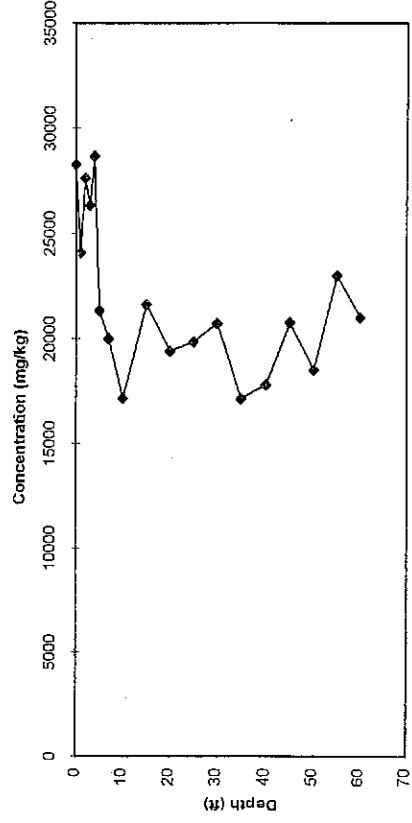
Selenium



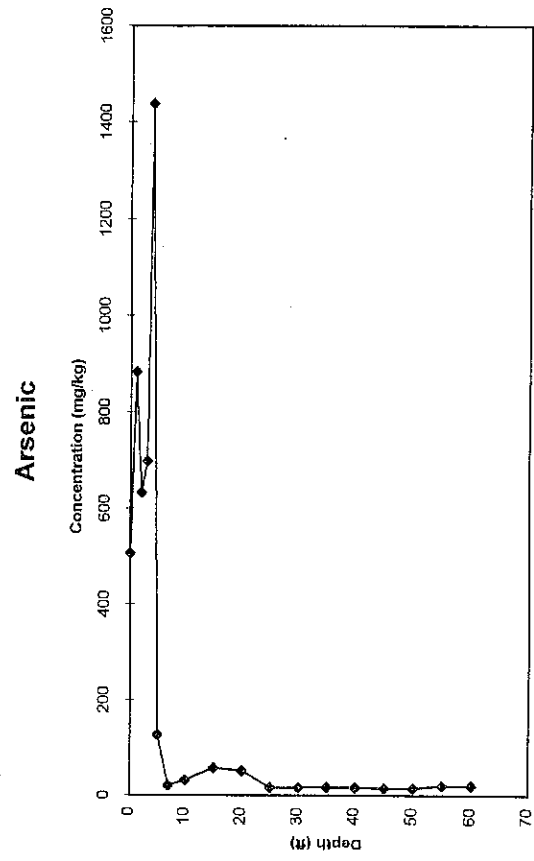
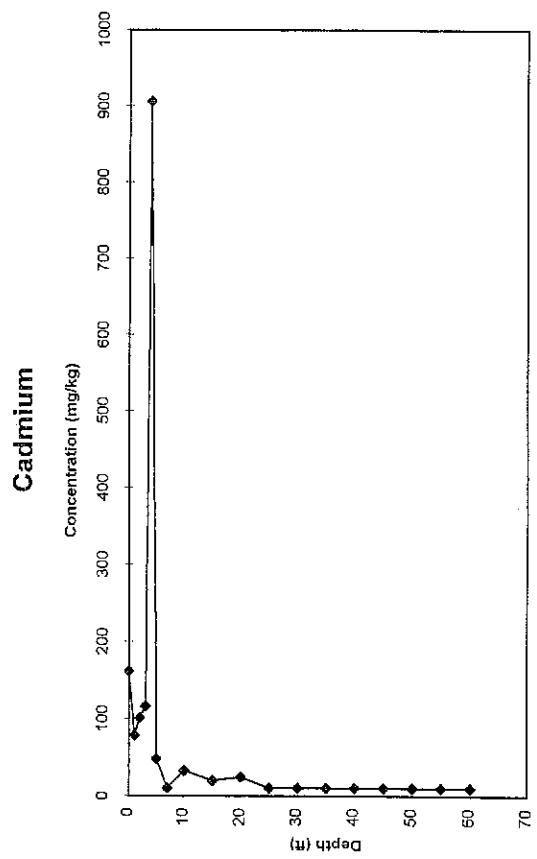
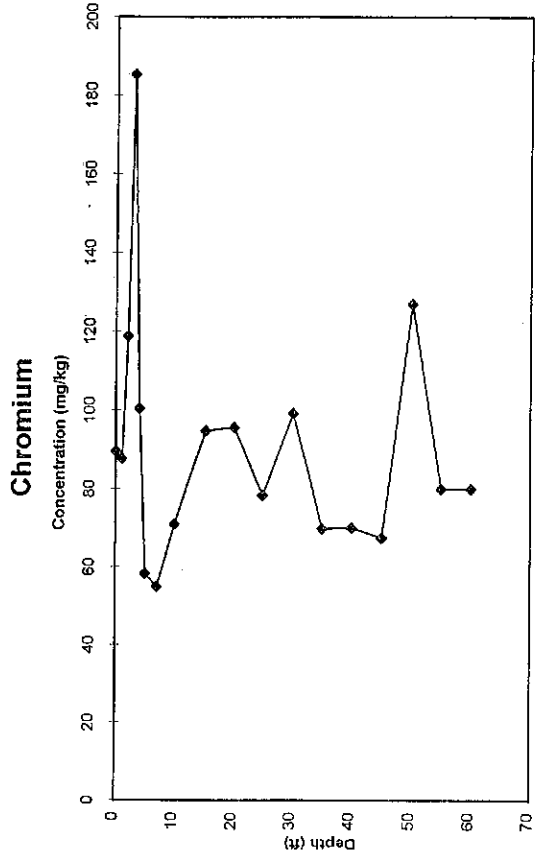
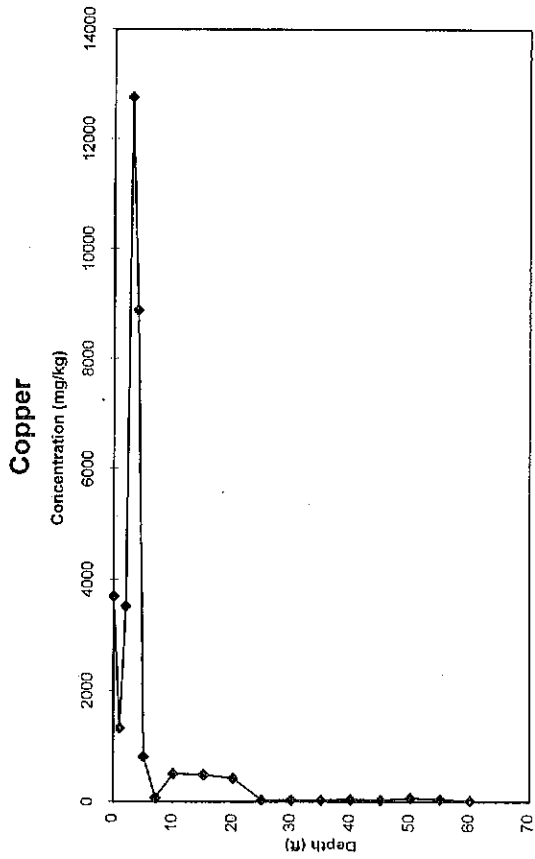
Lead



Iron



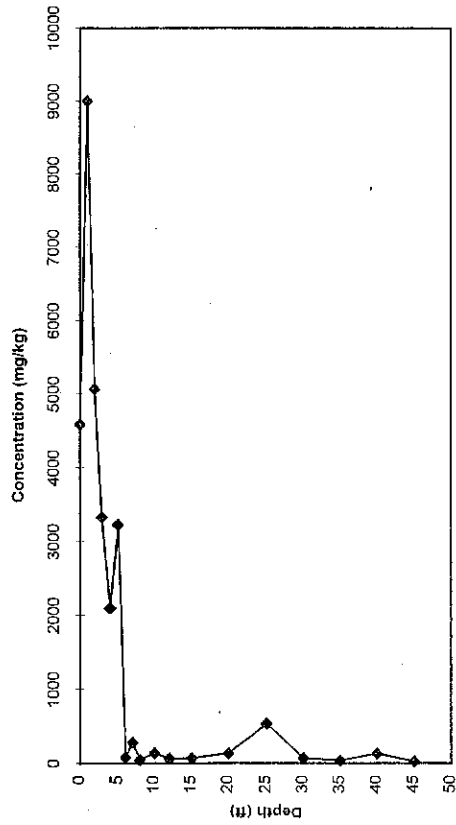
Average Concentrations by Depth, Investigation Area 11
(Southern Arroyo Area)



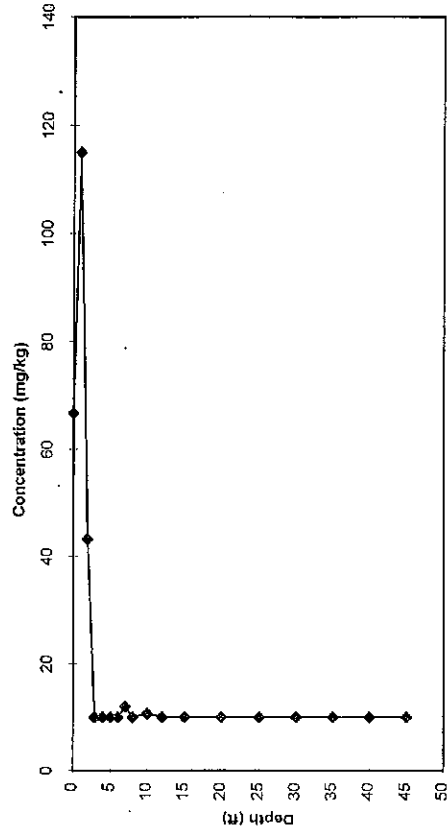
Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Soil Concentrations by Depth, Investigation Area 12
(Epemeral Pond and Pond Sediment Storage Area)

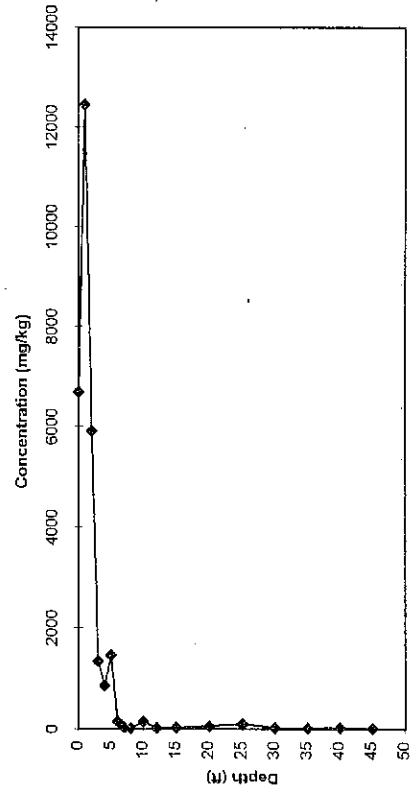
Zinc



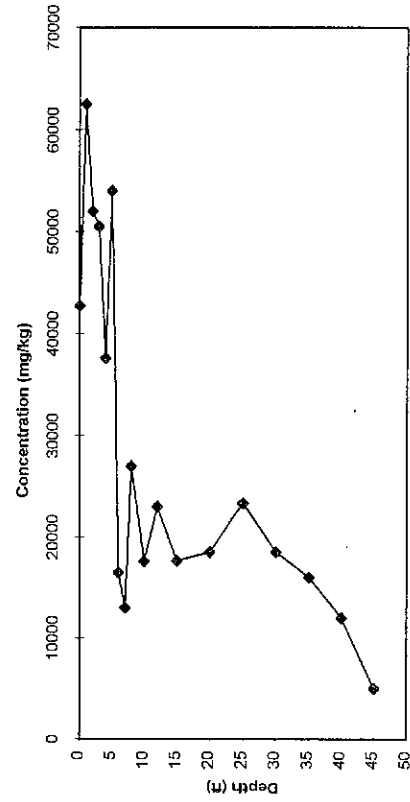
Selenium



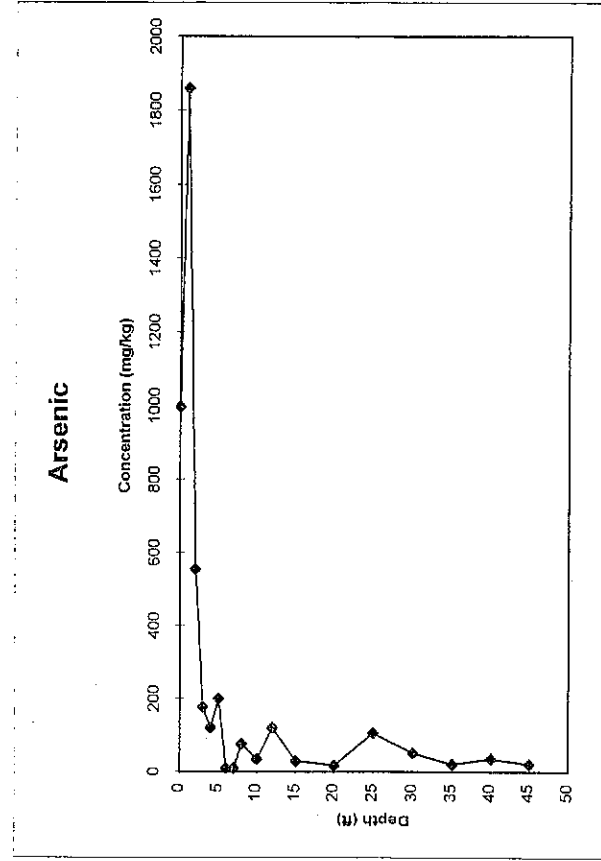
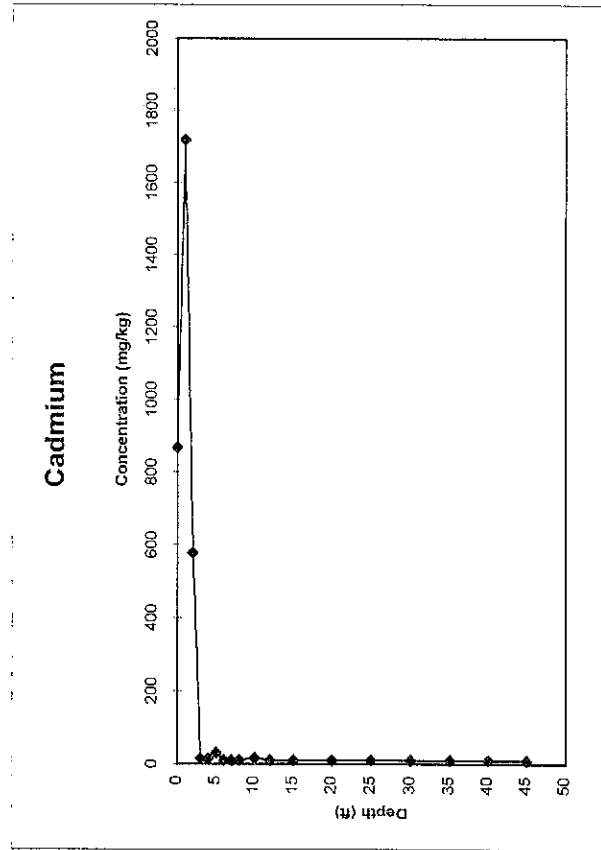
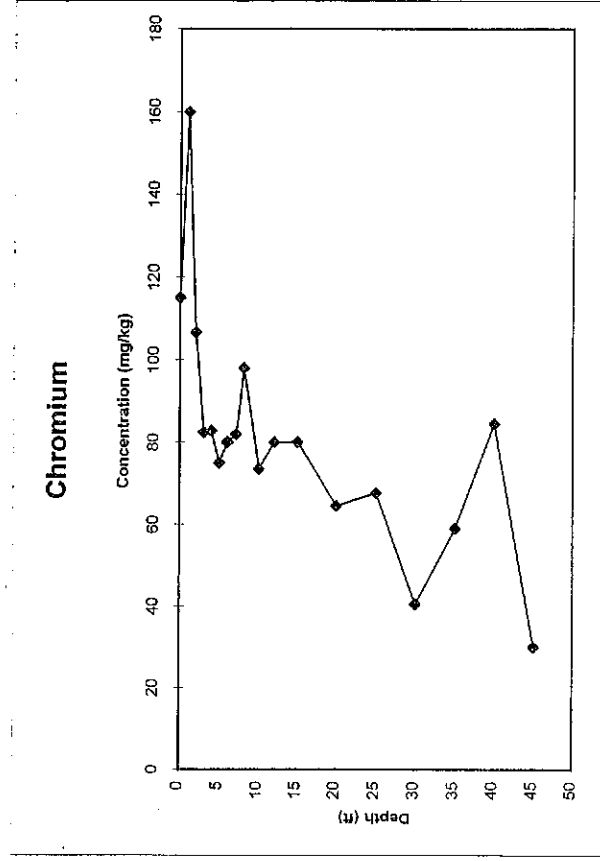
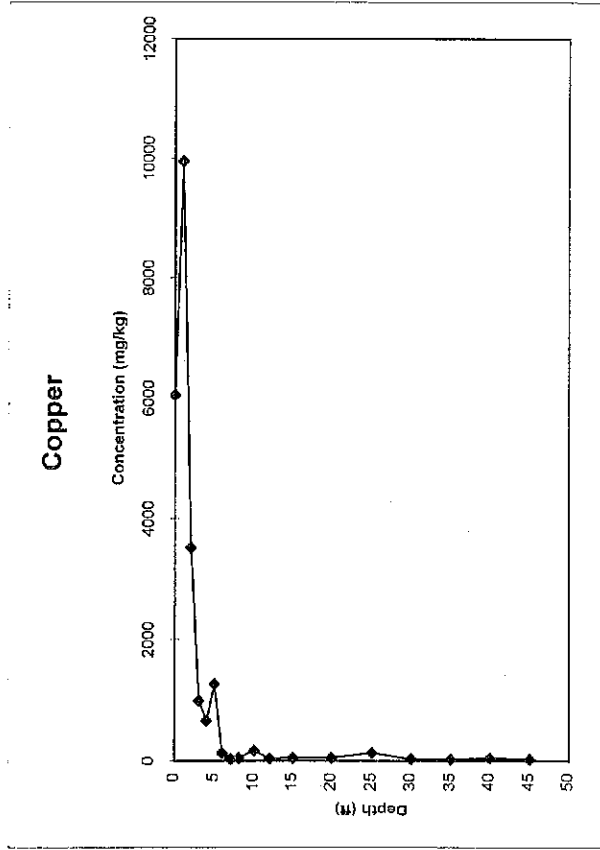
Lead



Iron

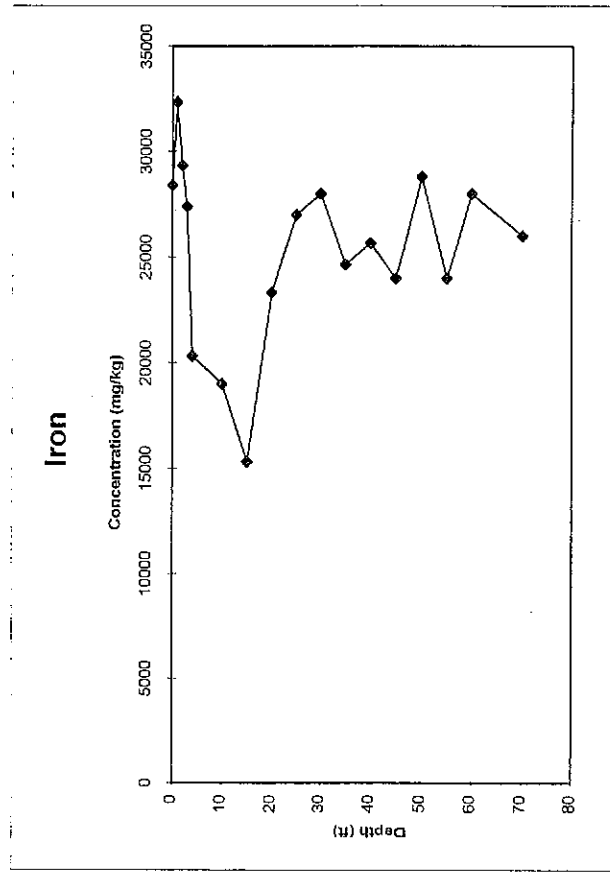
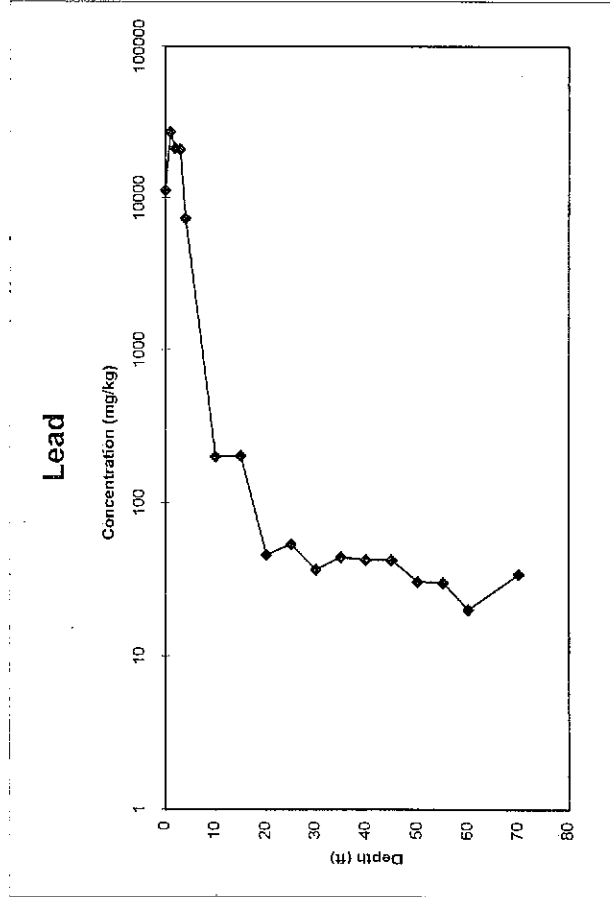
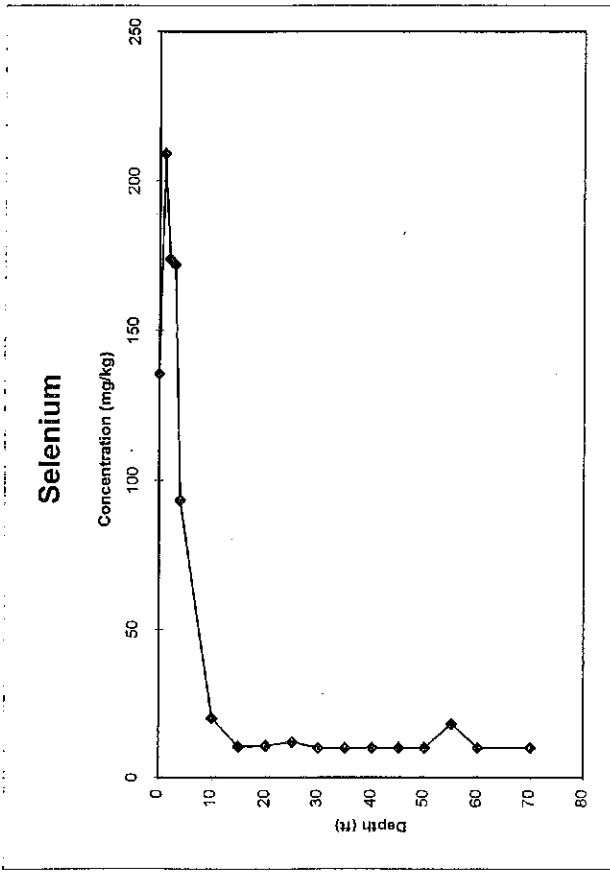
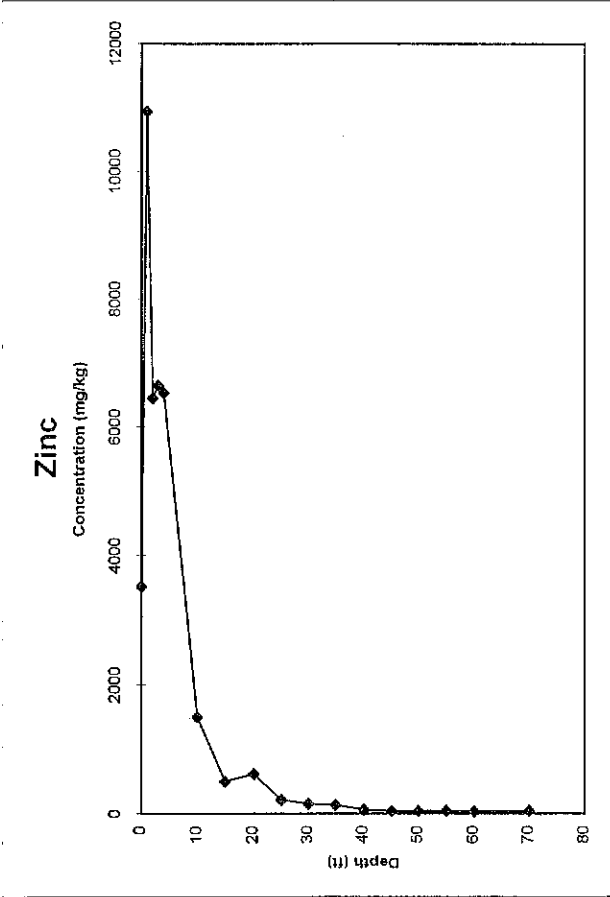


Average Soil Concentrations by Depth, Investigation Area 12
(Emerald Pond and Pond Sediment Storage Area)



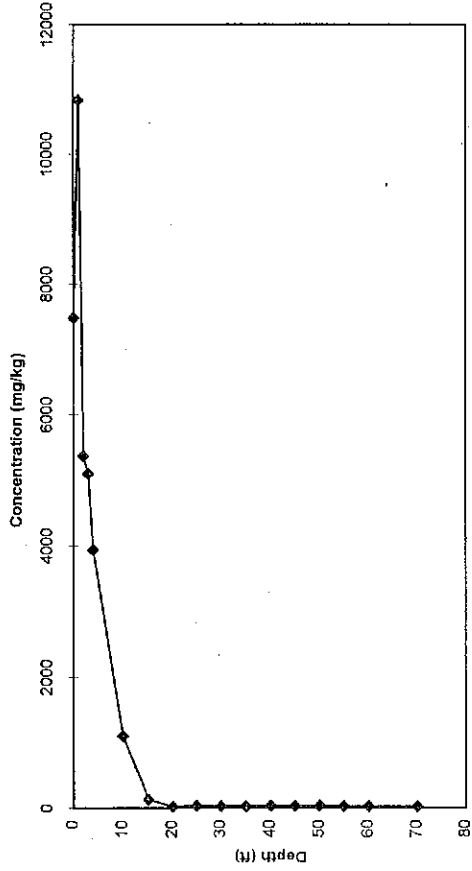
Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Concentrations by Depth, Investigation Area 13
(Sample Mill Area)

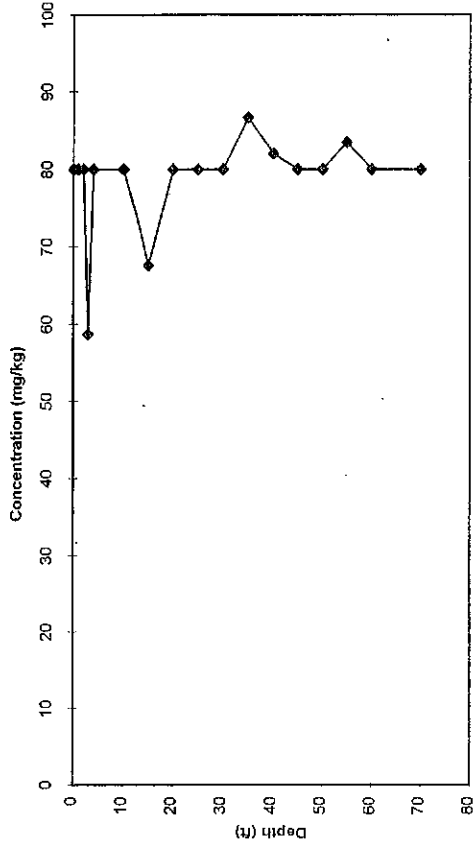


Average Concentrations by Depth, Investigation Area 13
(Sample Mill Area)

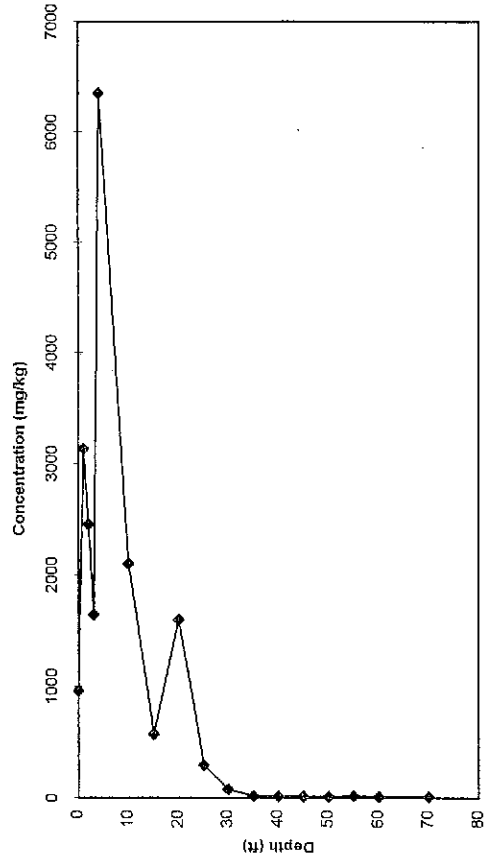
Copper



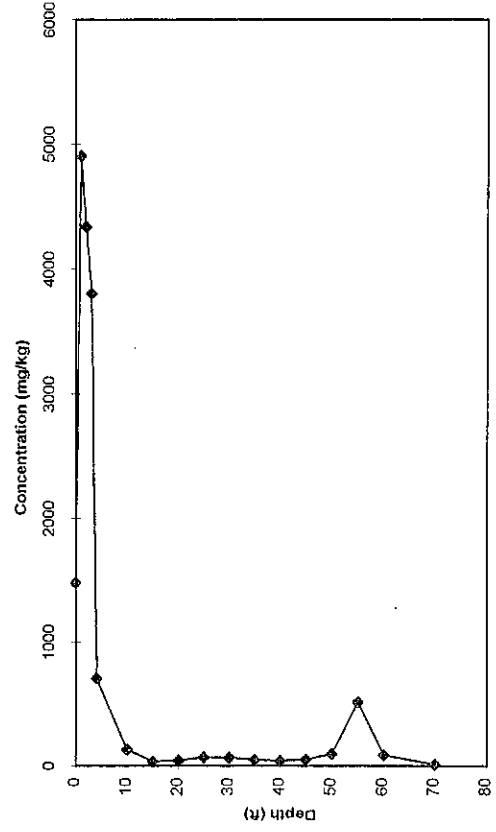
Chromium



Cadmium

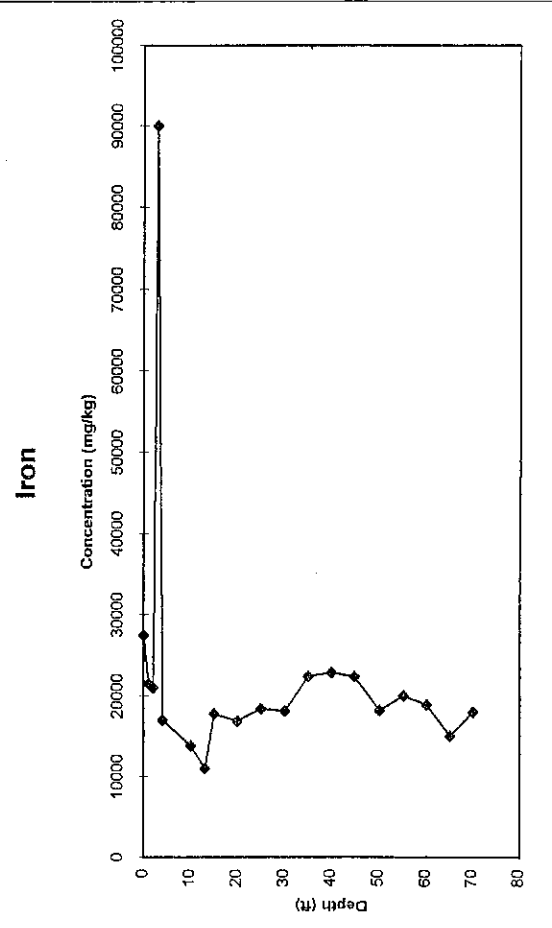
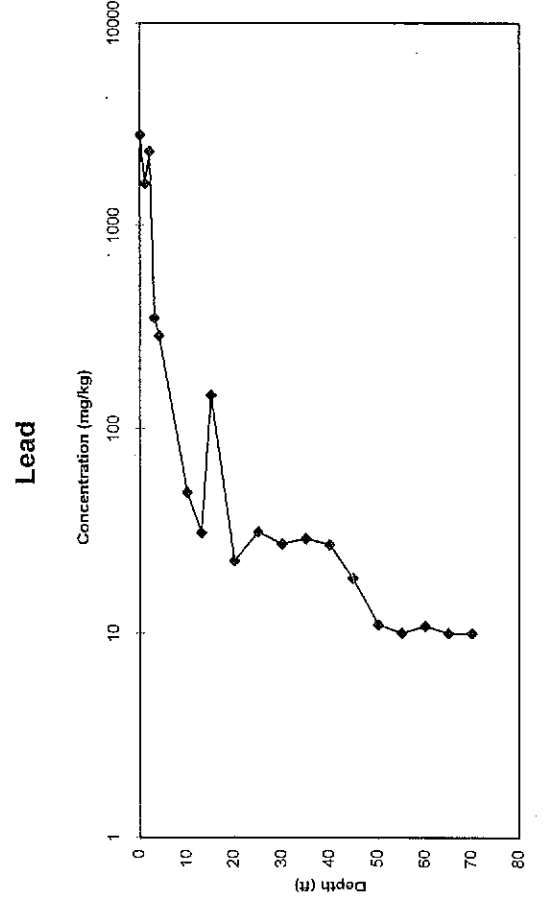
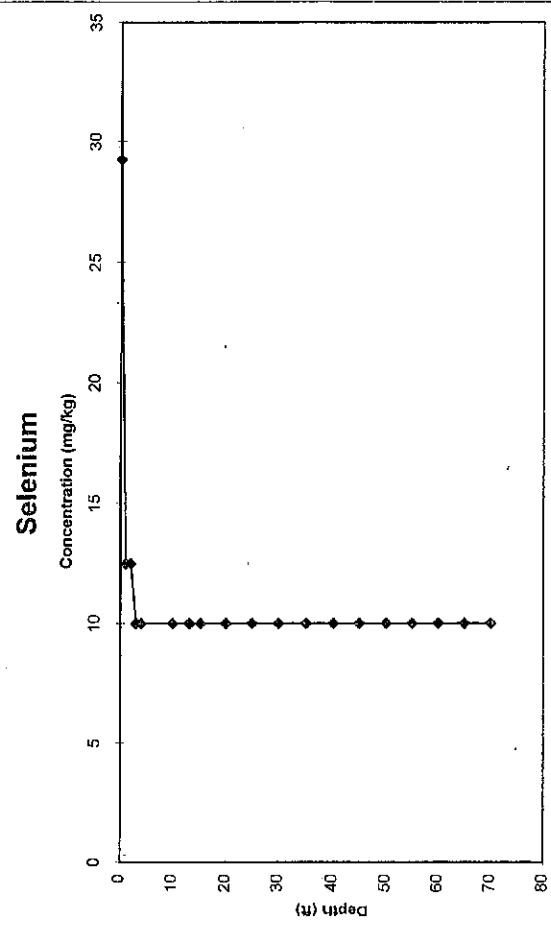
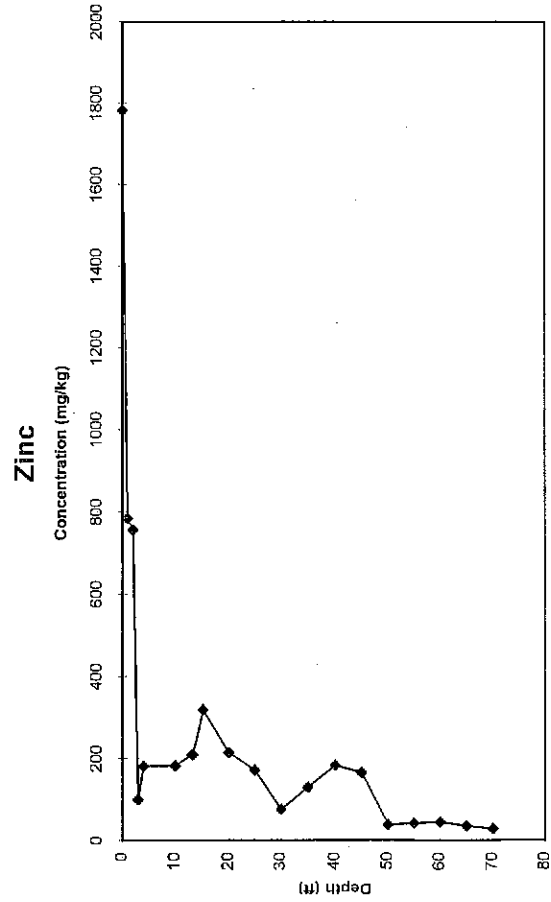


Arsenic



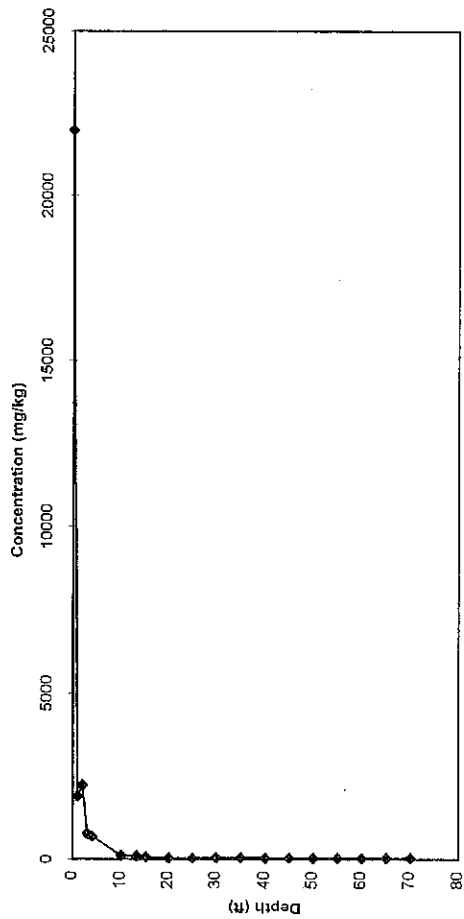
Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Concentrations by Depth, Investigation Area 14
(South Staging Area)

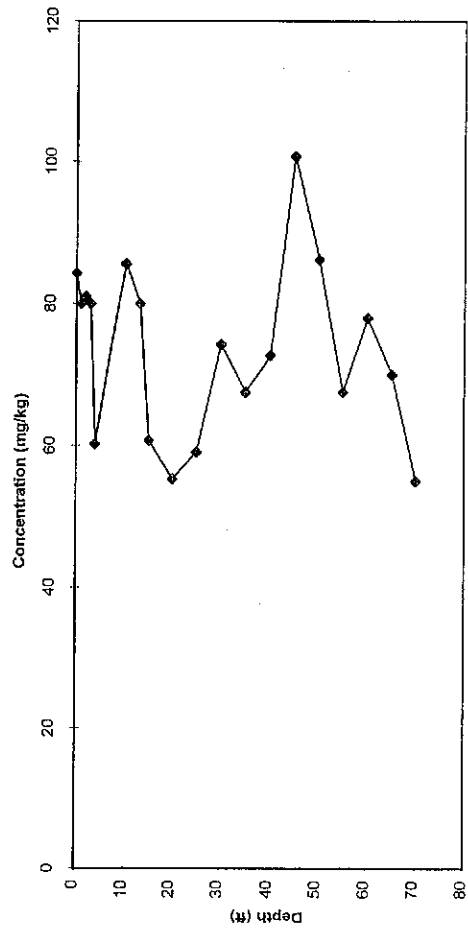


Average Concentrations by Depth, Investigation Area 14
(South Staging Area)

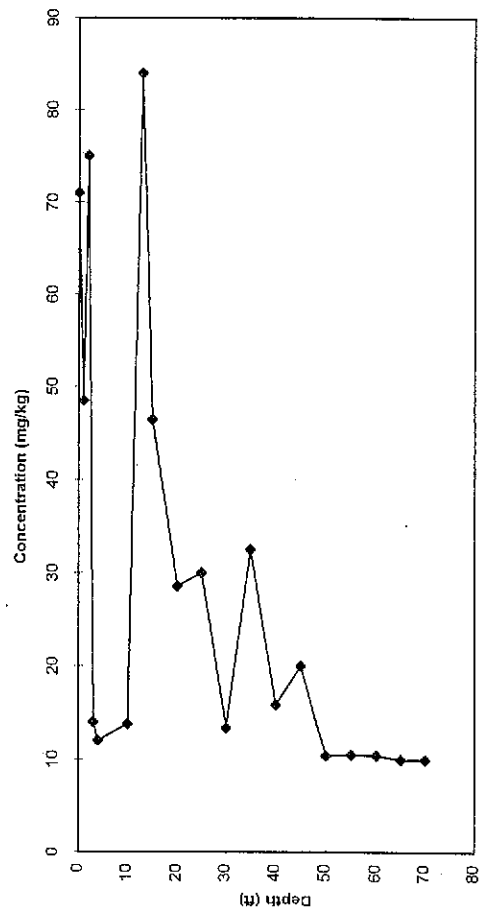
Copper



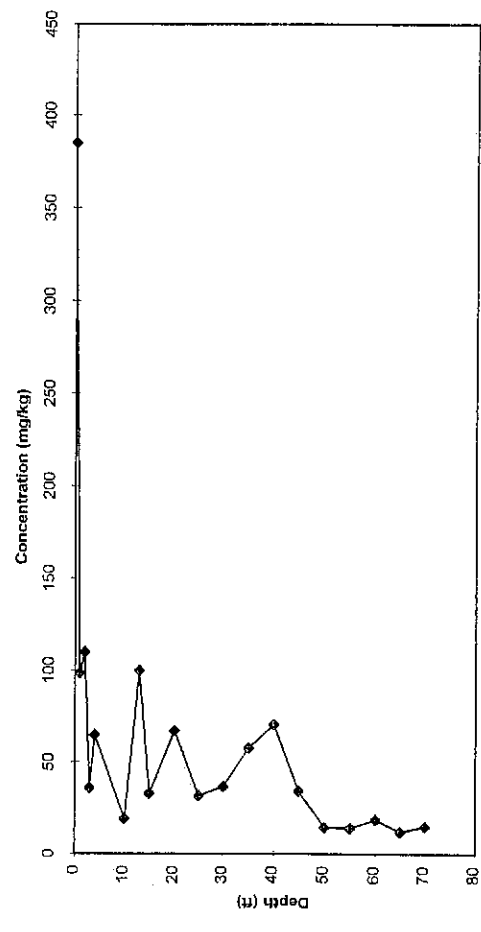
Chromium



Cadmium



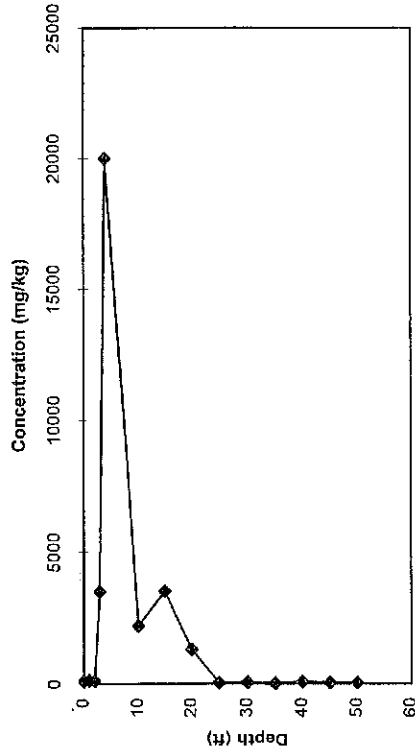
Arsenic



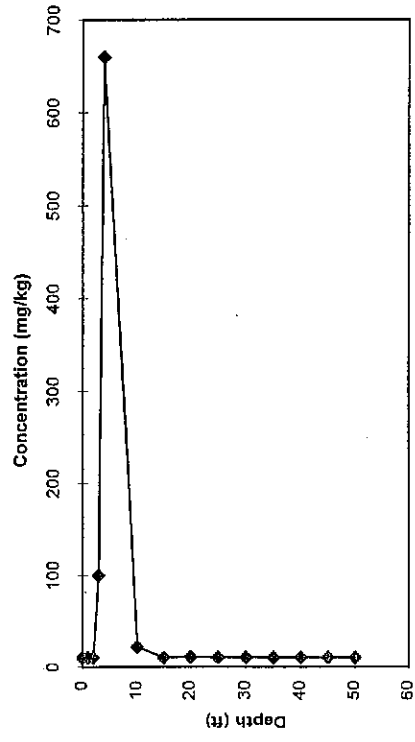
Note: Graphs include soil concentrations for all Phase I and Phase II borings and monitor wells.

Average Soil Concentrations by Depth, EP-93

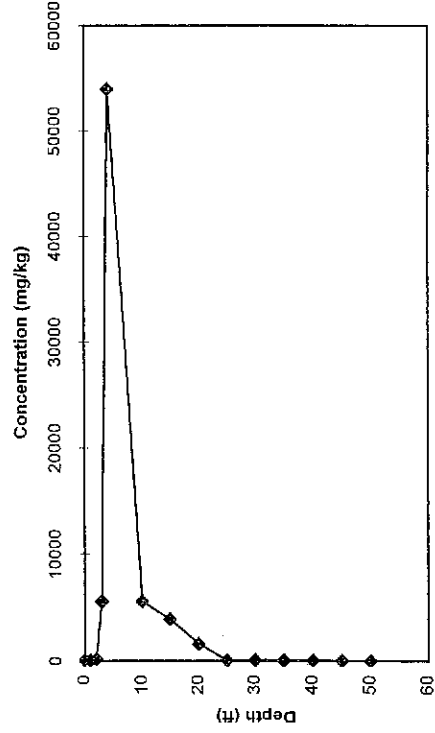
Zinc



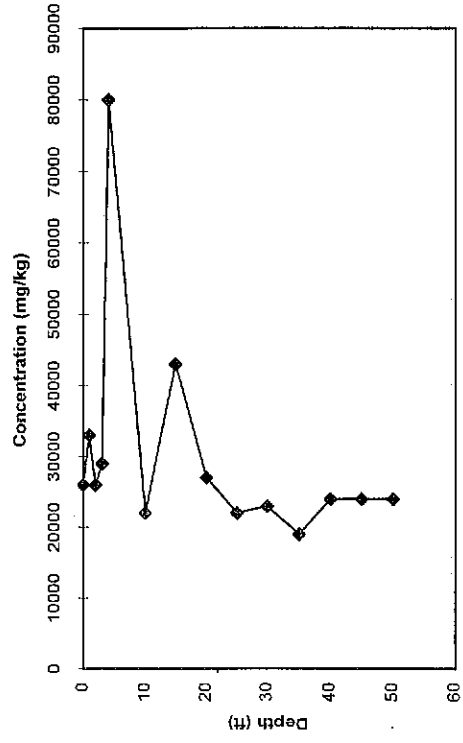
Selenium



Lead

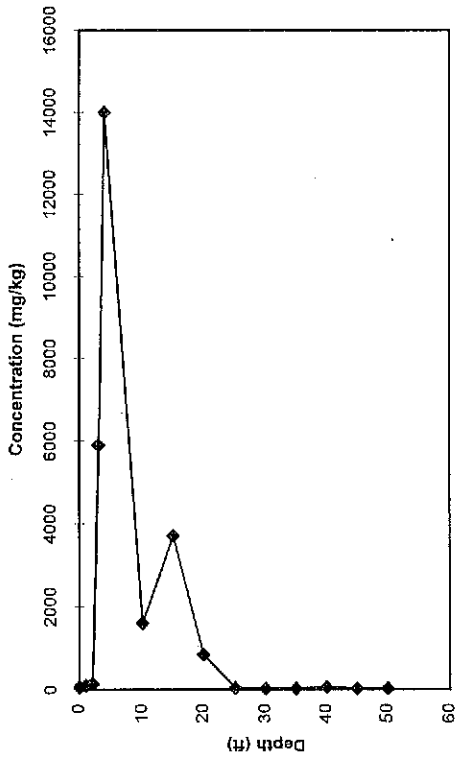


Iron

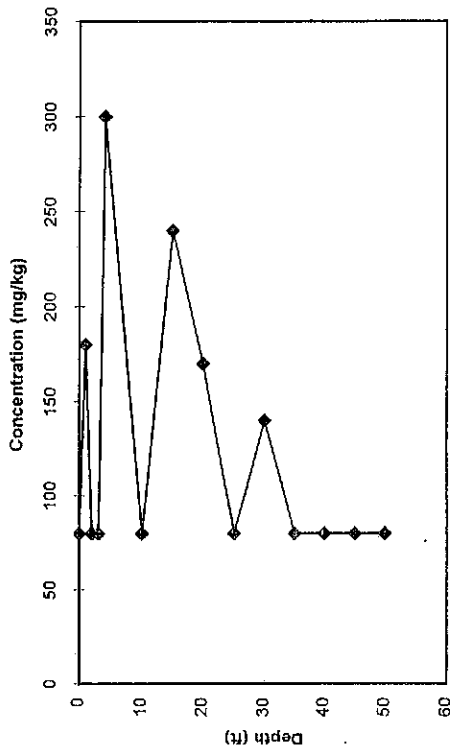


Average Soil Concentrations by Depth, EP-93

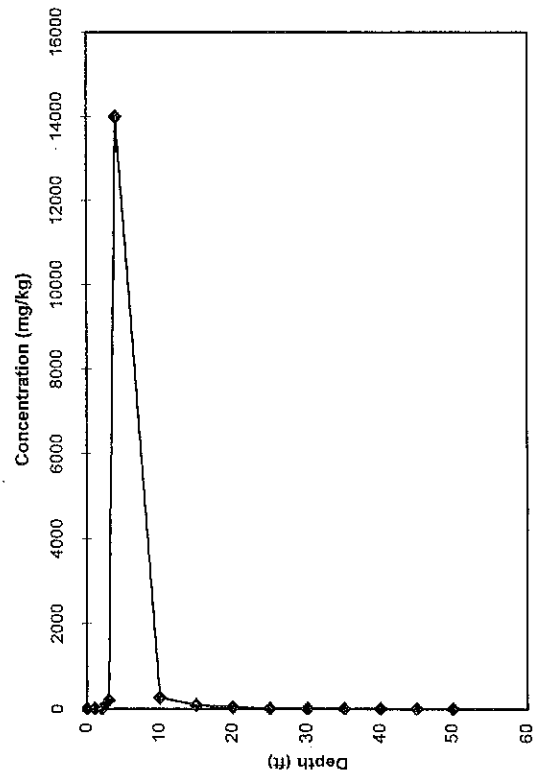
Copper



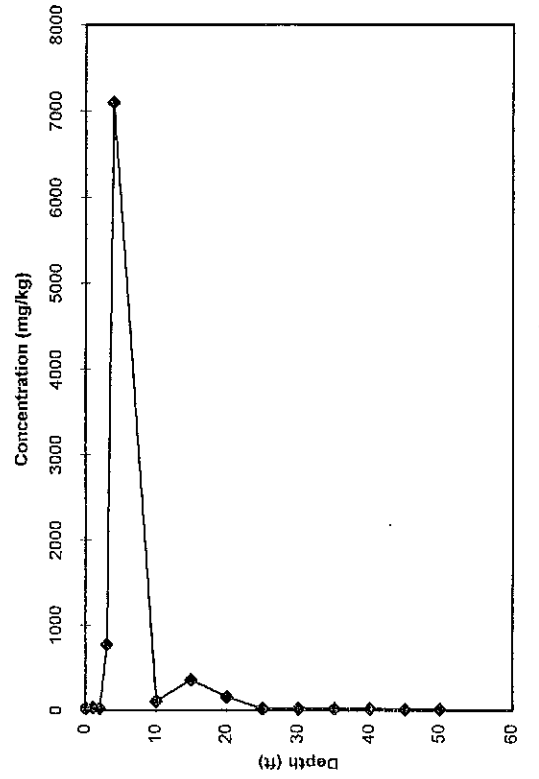
Chromium



Cadmium

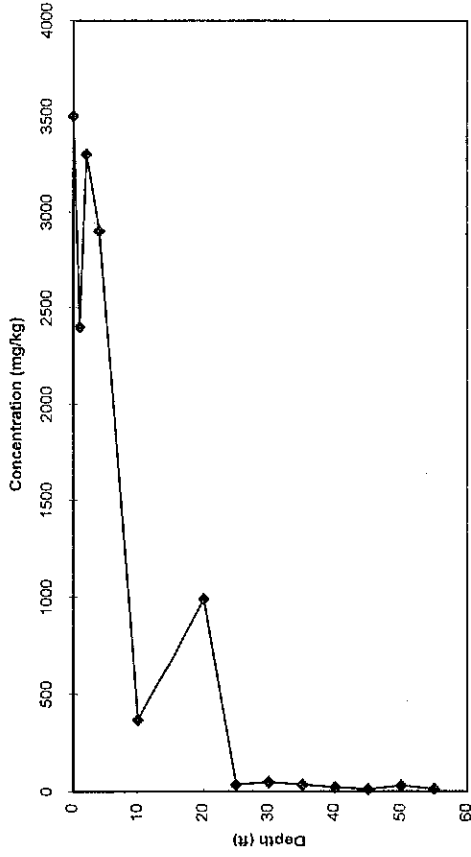


Arsenic

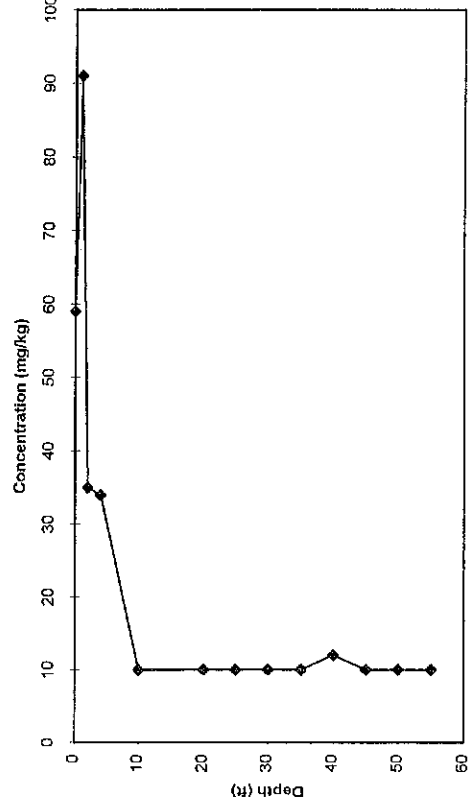


Average Soil Concentrations by Depth, EP-94

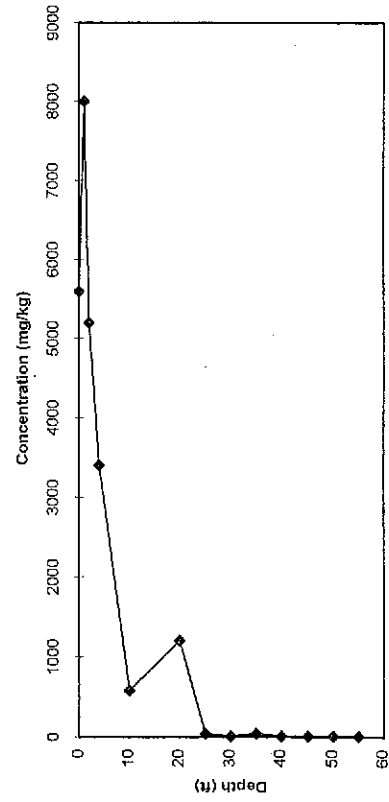
Zinc



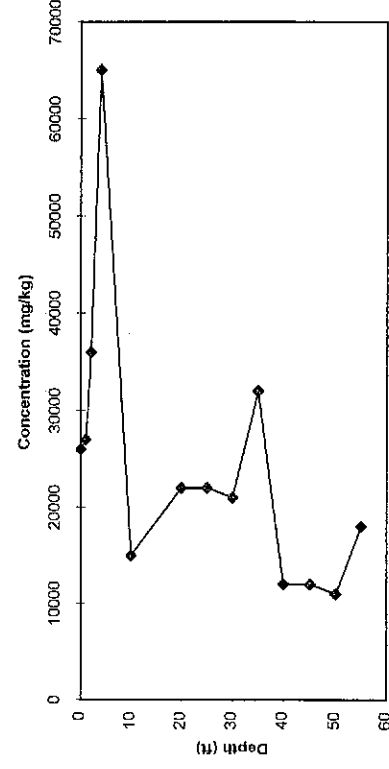
Selenium



Lead

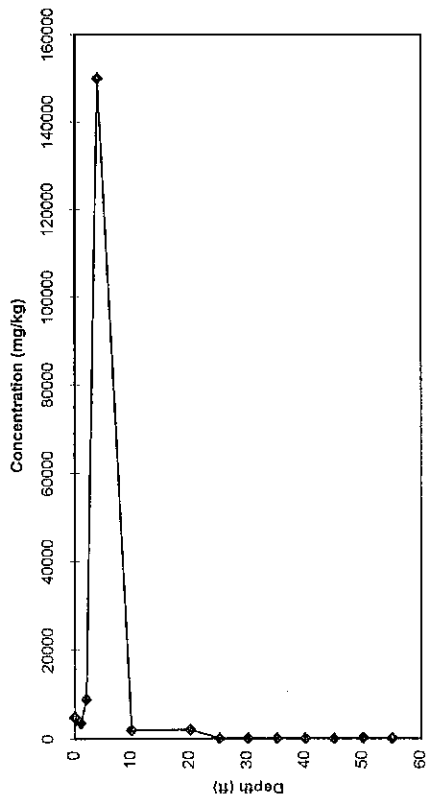


Iron

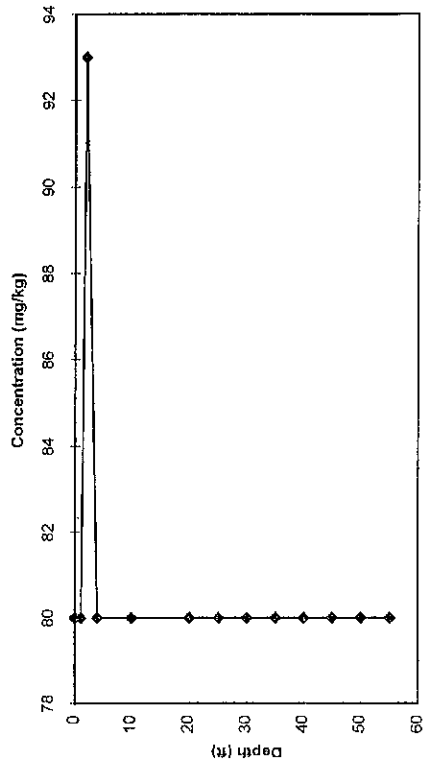


Average Soil Concentrations by Depth, EP-94

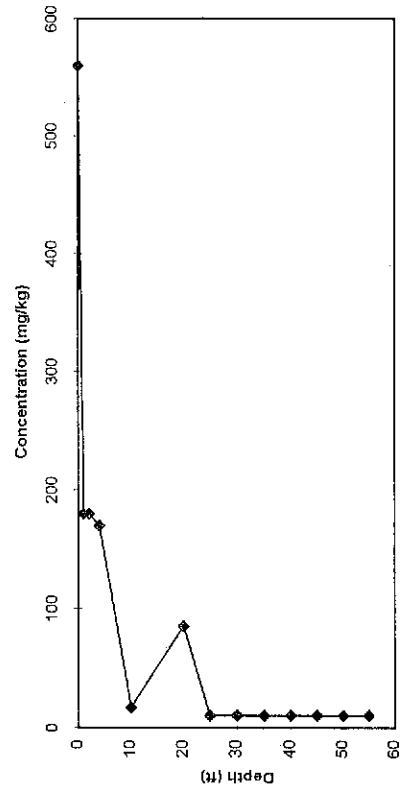
Copper



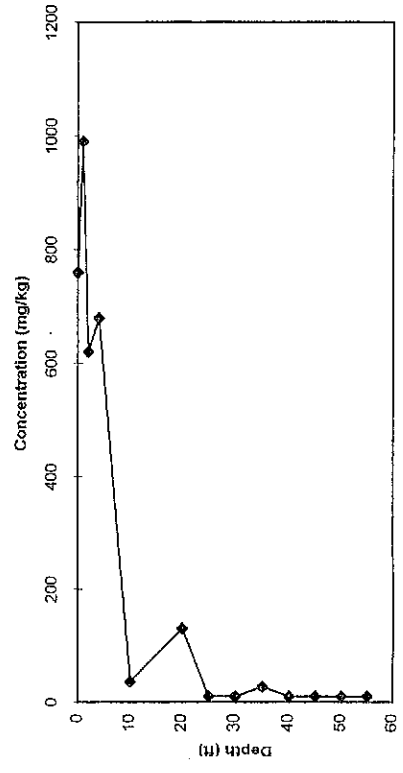
Chromium



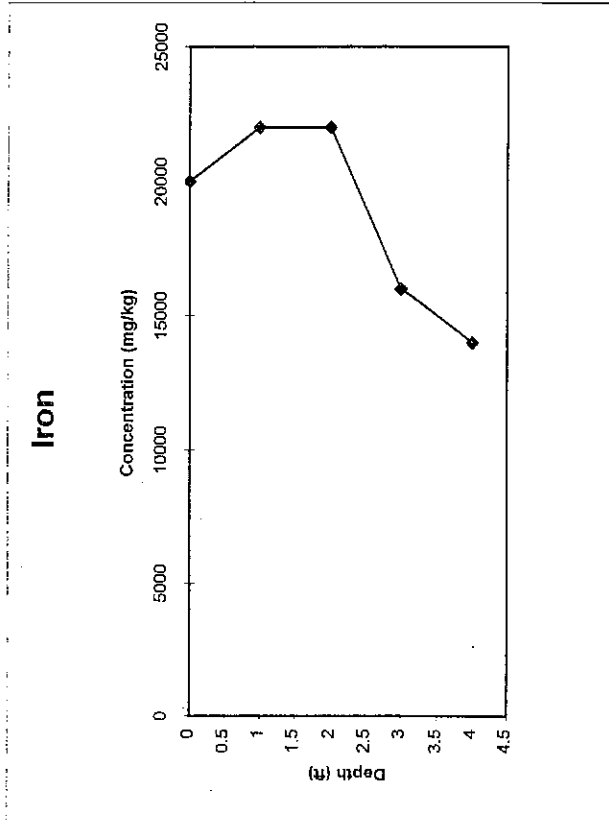
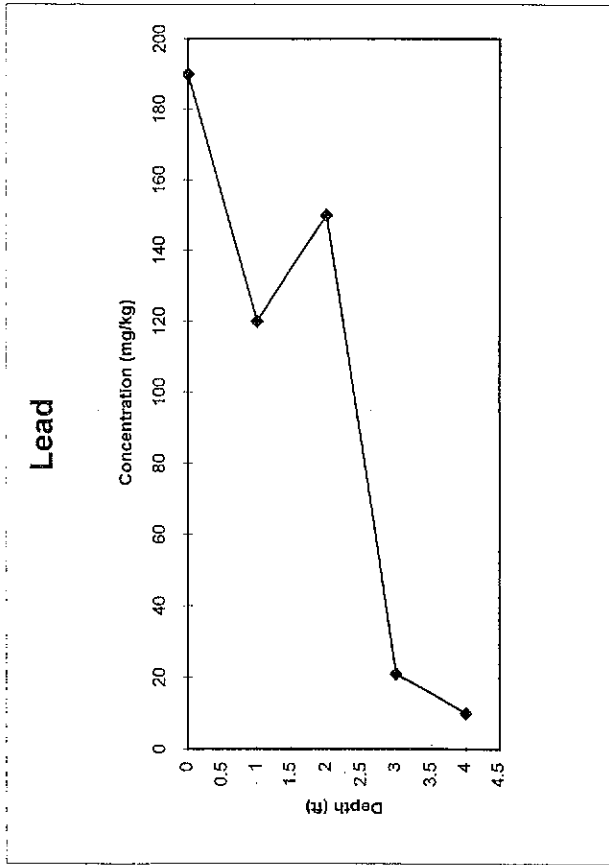
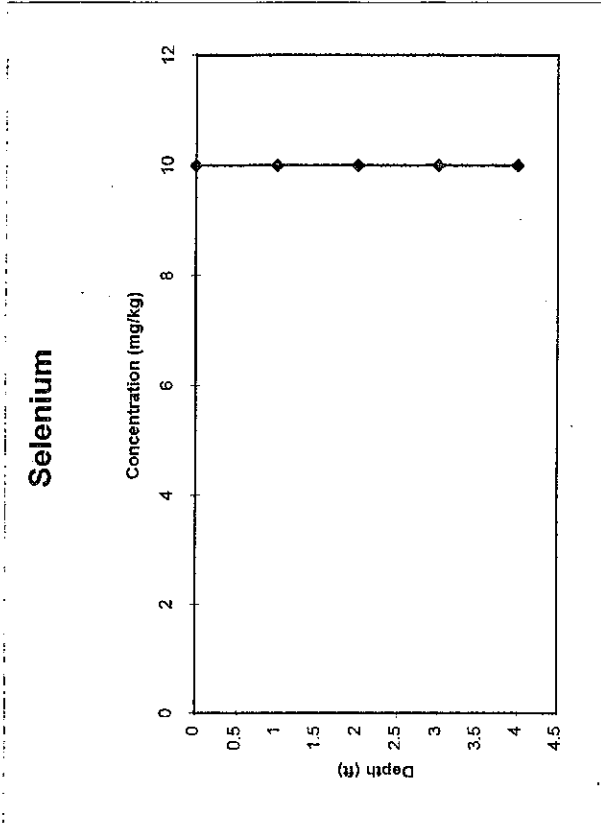
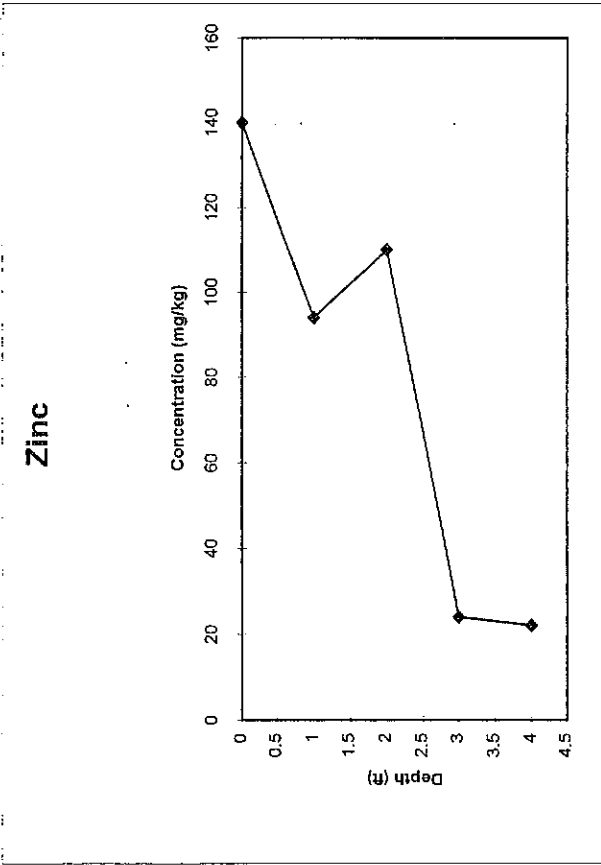
Cadmium



Arsenic



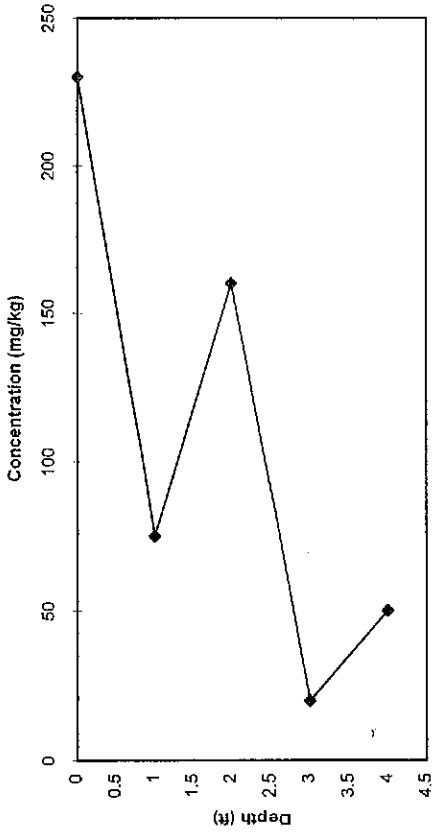
Average Soil Concentrations by Depth, EP-95



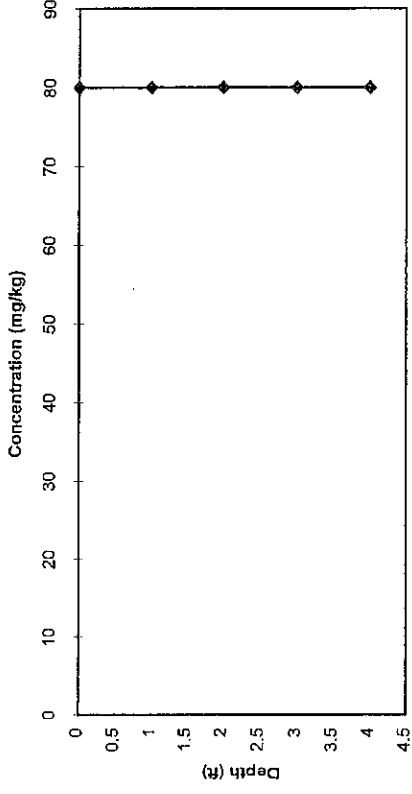


Average Soil Concentrations by Depth, EP-95

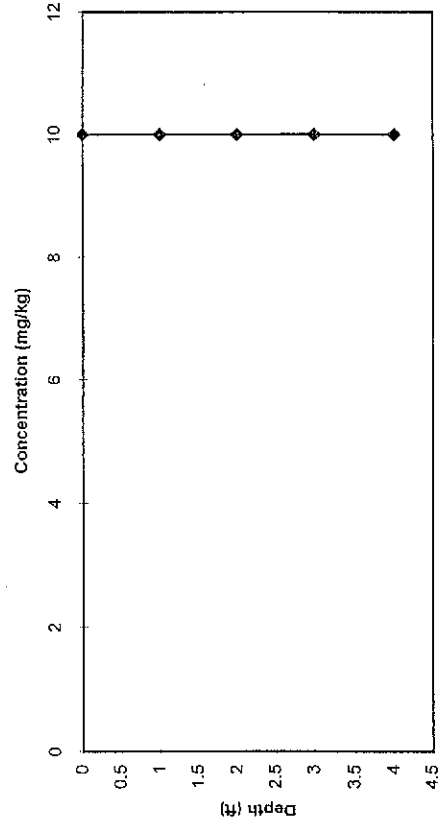
Copper



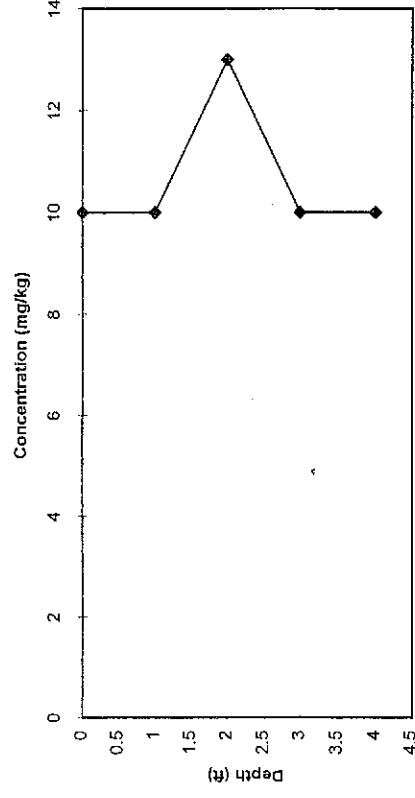
Chromium



Cadmium

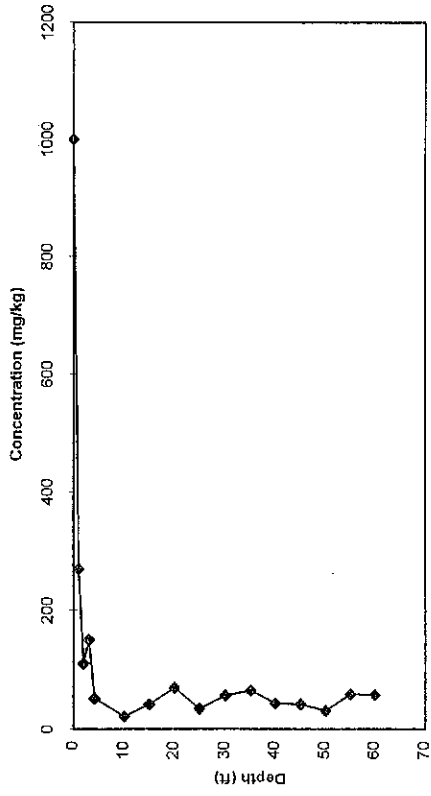


Arsenic

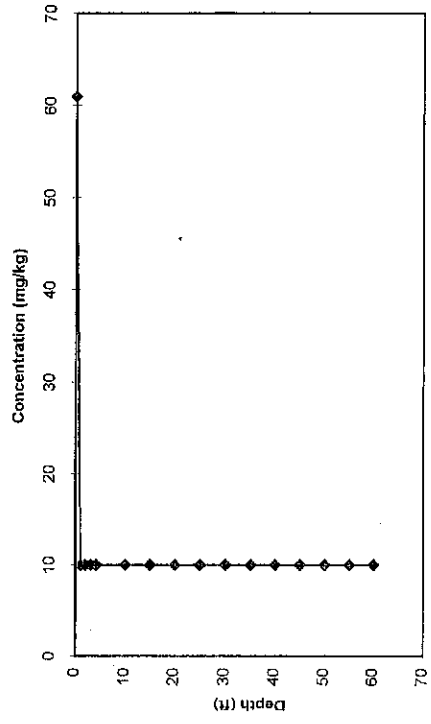


Average Soil Concentrations by Depth, EP-96

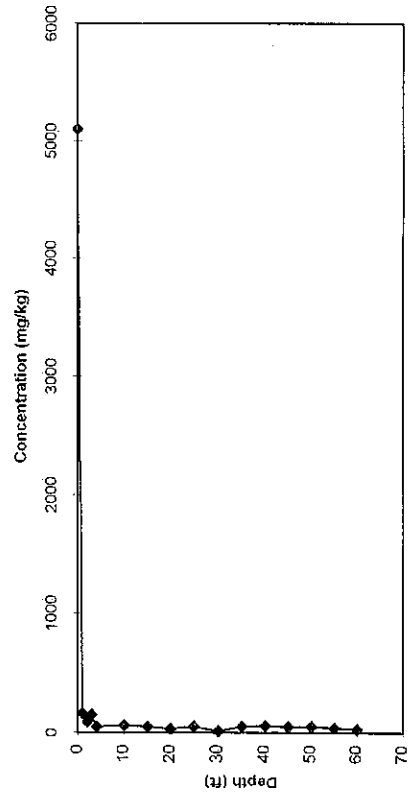
Zinc



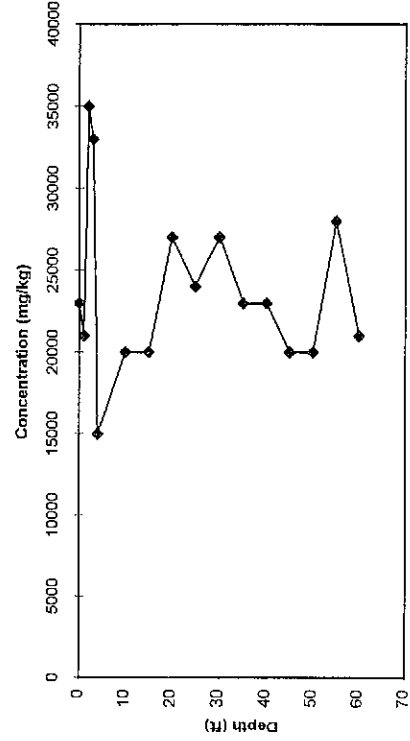
Selenium



Lead

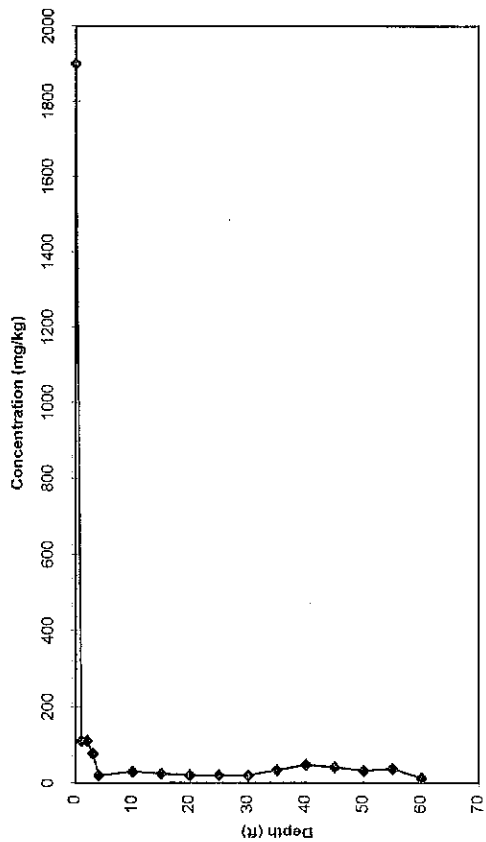


Iron

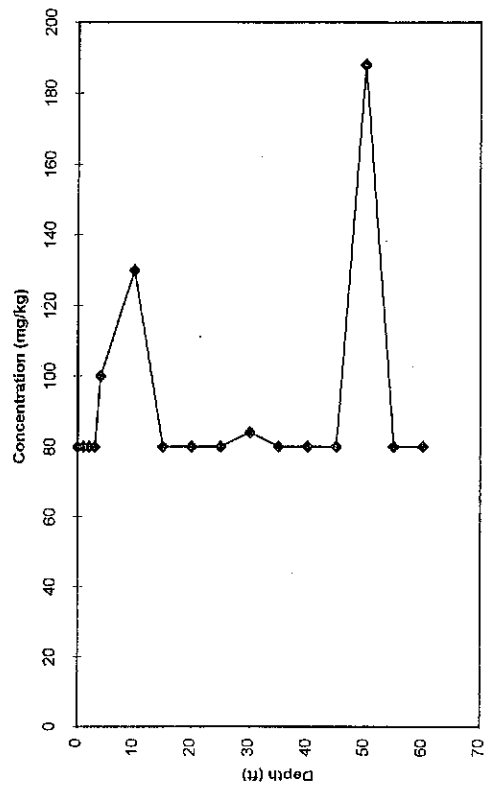


Average Soil Concentrations by Depth, EP-96

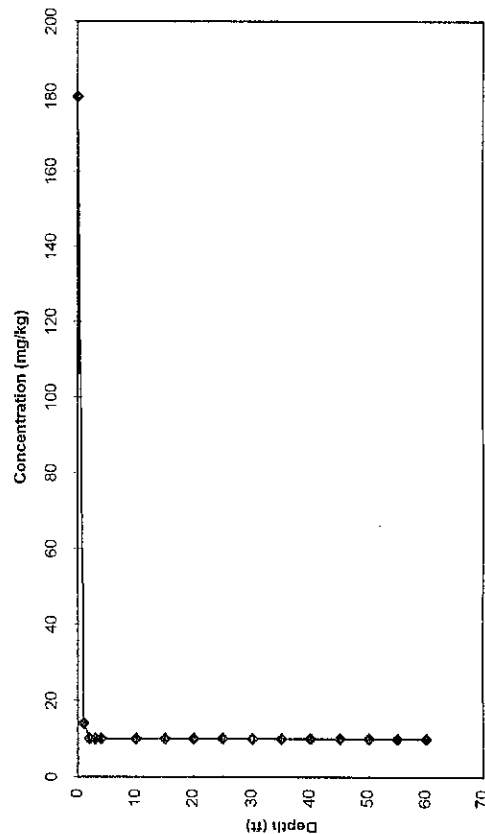
Copper



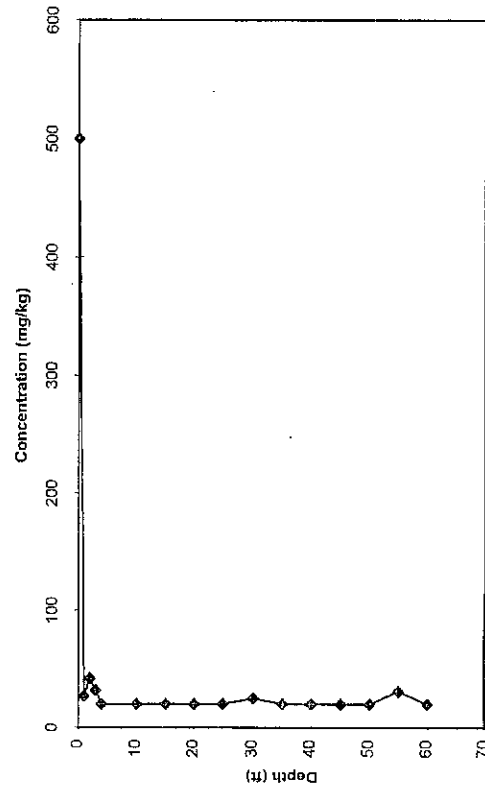
Chromium



Cadmium

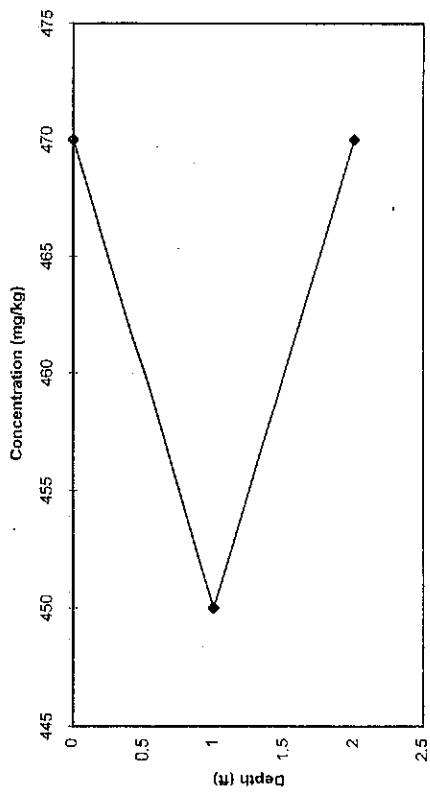


Arsenic

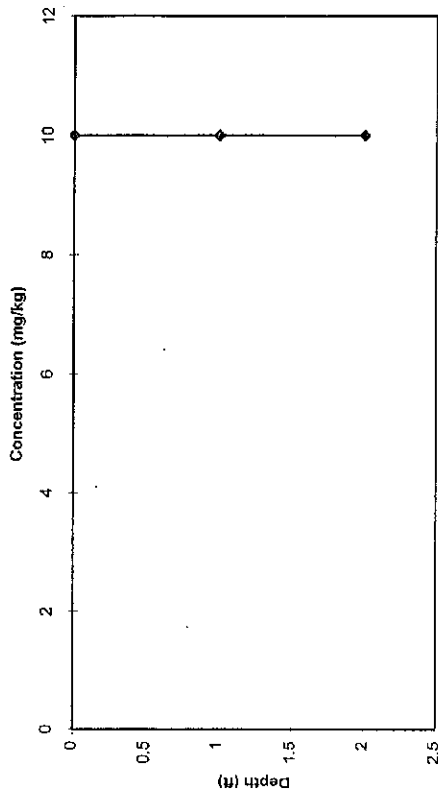


Average Soil Concentrations by Depth, EP-97

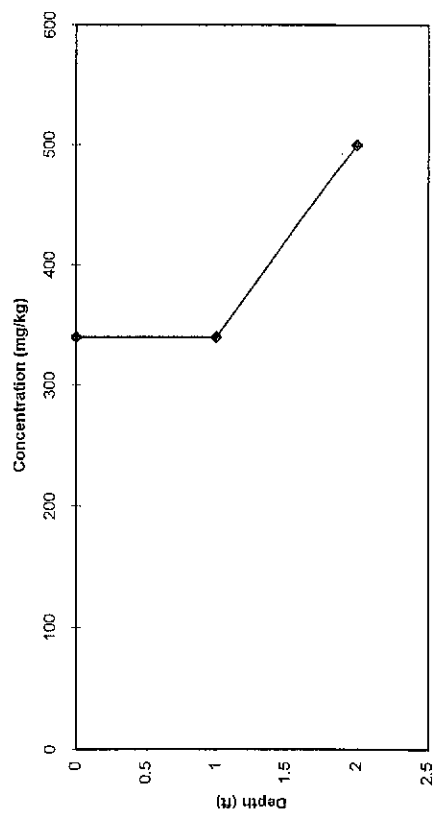
Zinc



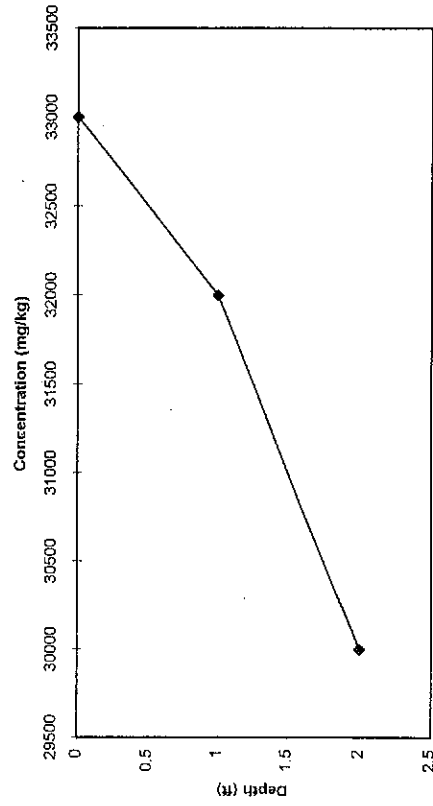
Selenium



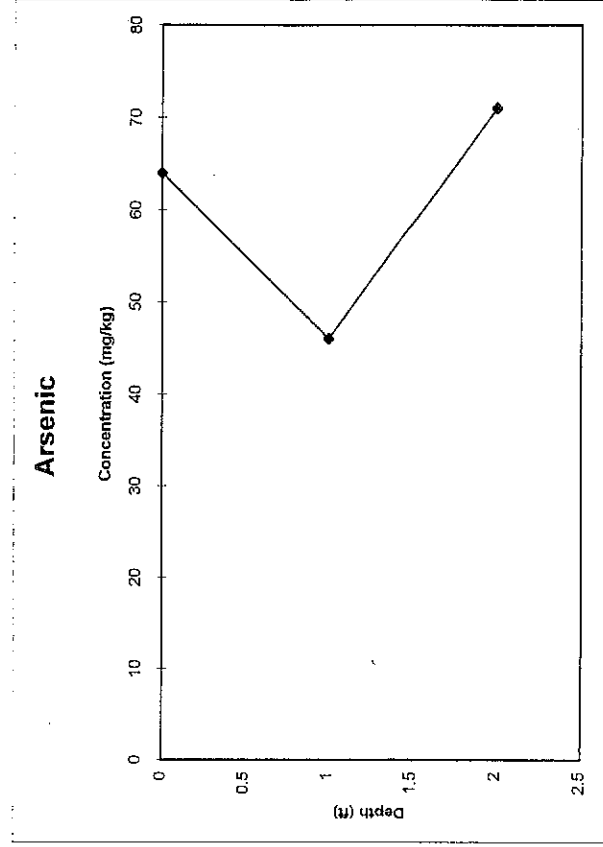
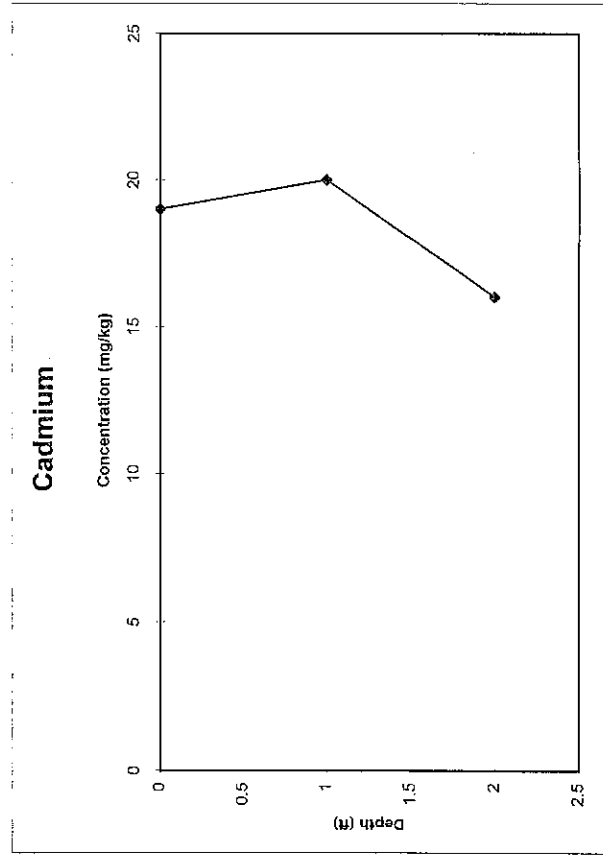
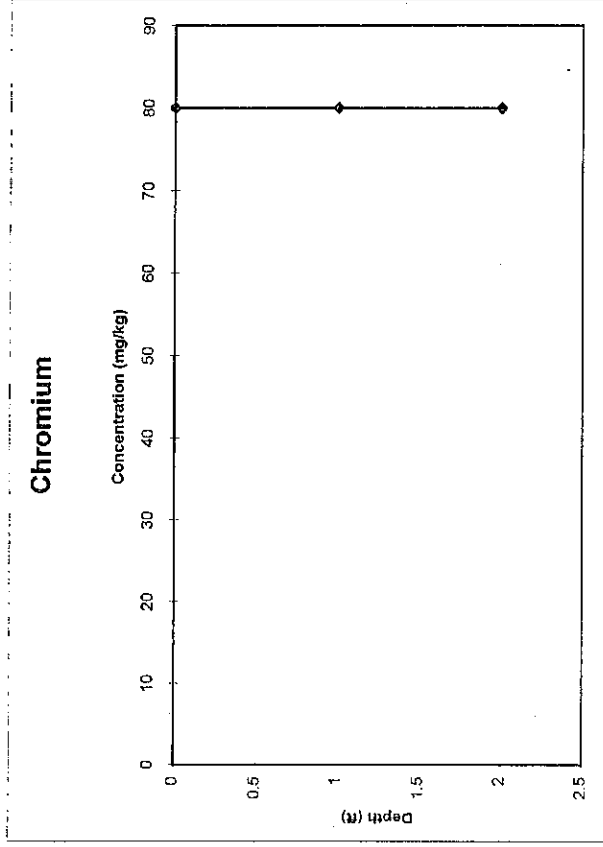
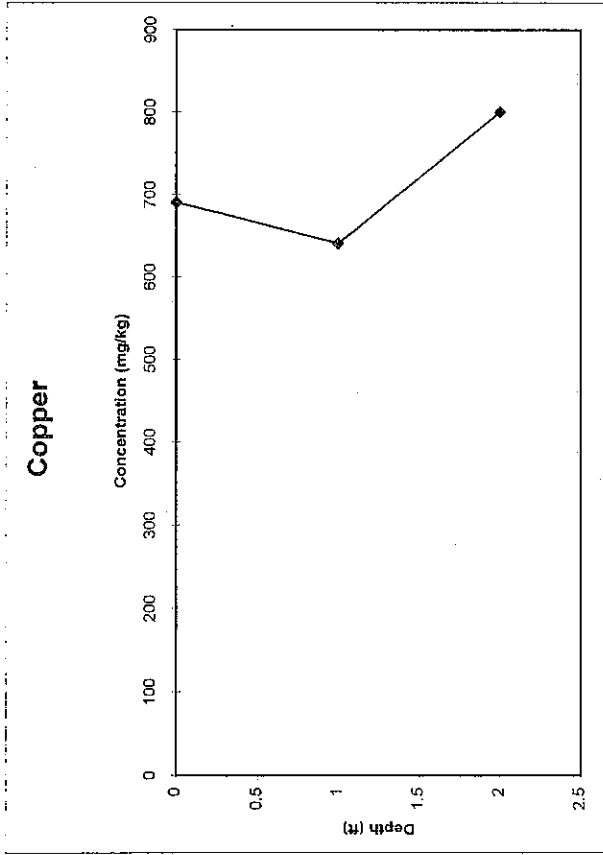
Lead



Iron

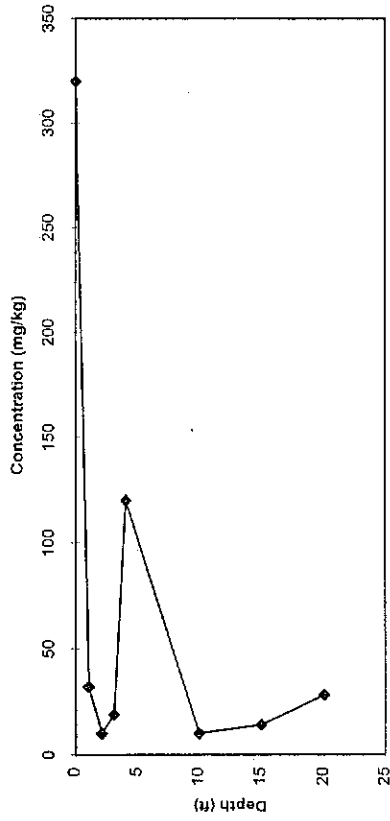


Average Soil Concentrations by Depth, EP-97

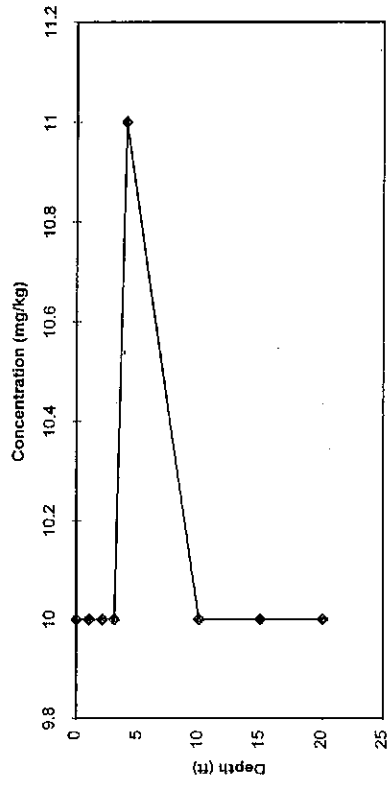


Average Soil Concentrations by Depth, EP-98

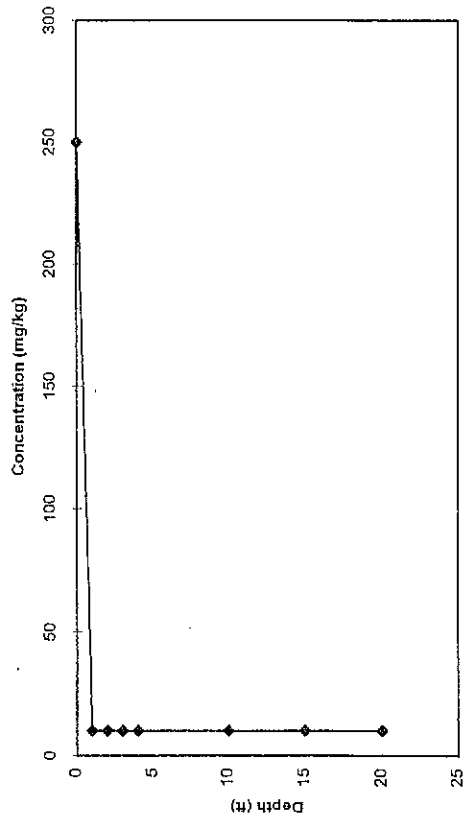
Zinc



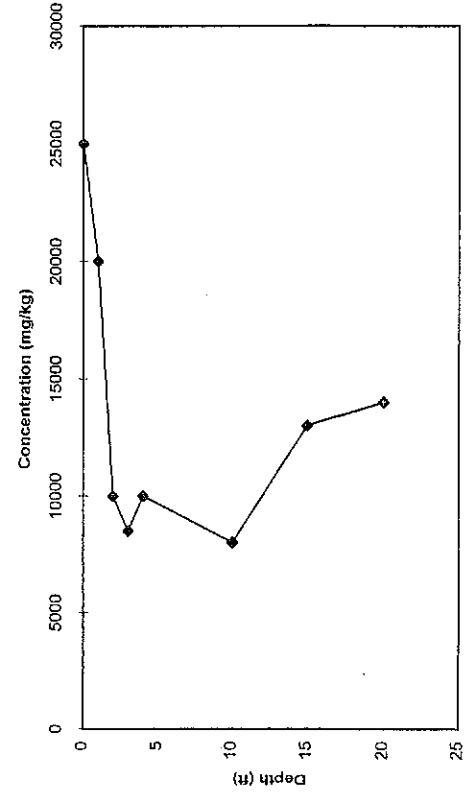
Selenium



Lead

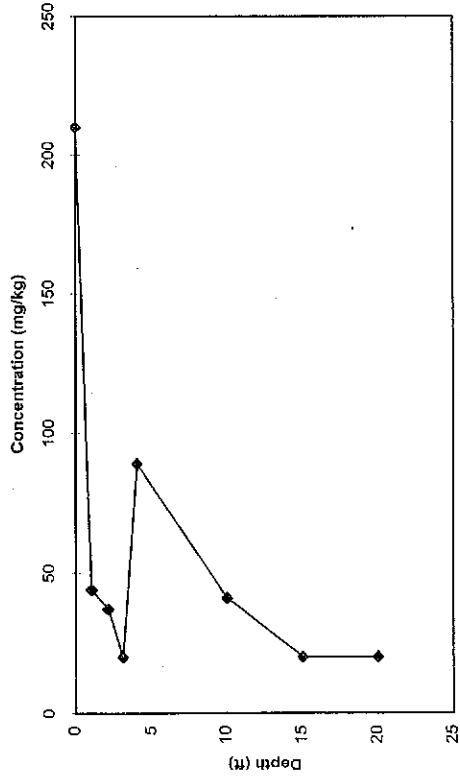


Iron

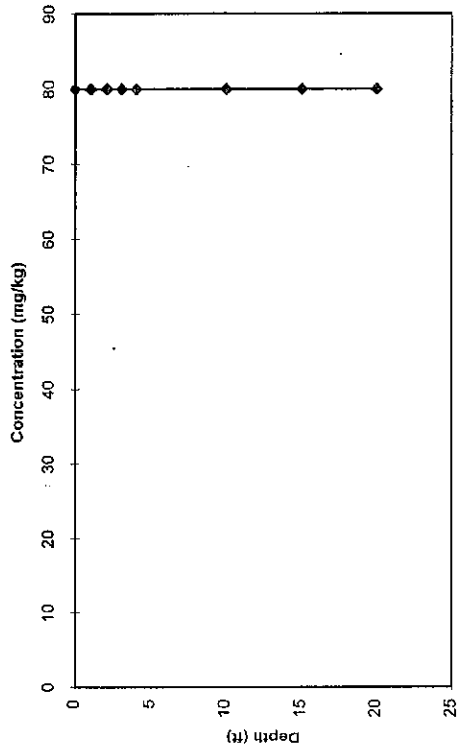


Average Soil Concentrations by Depth, EP-98

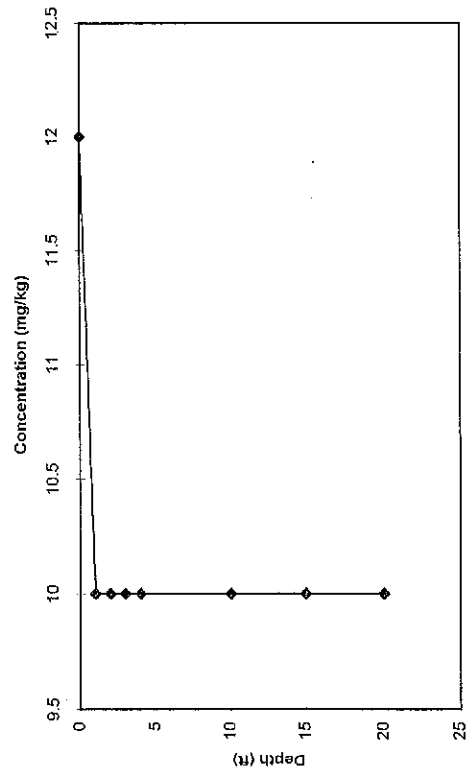
Copper



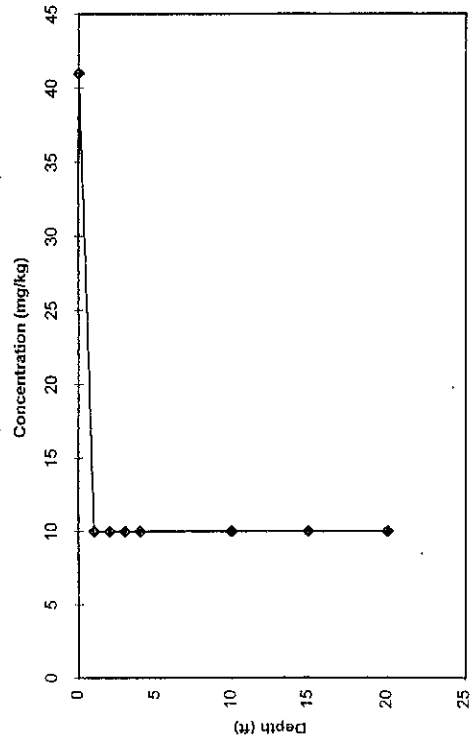
Chromium



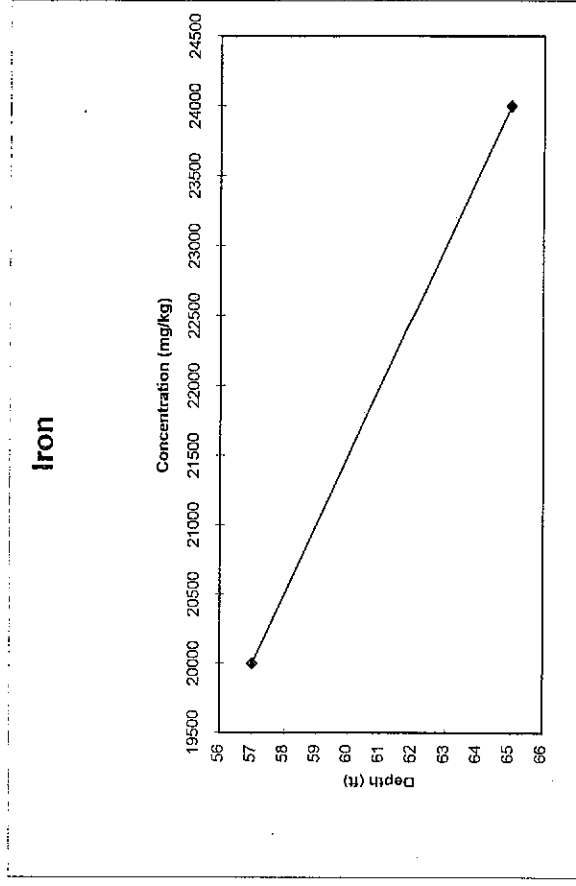
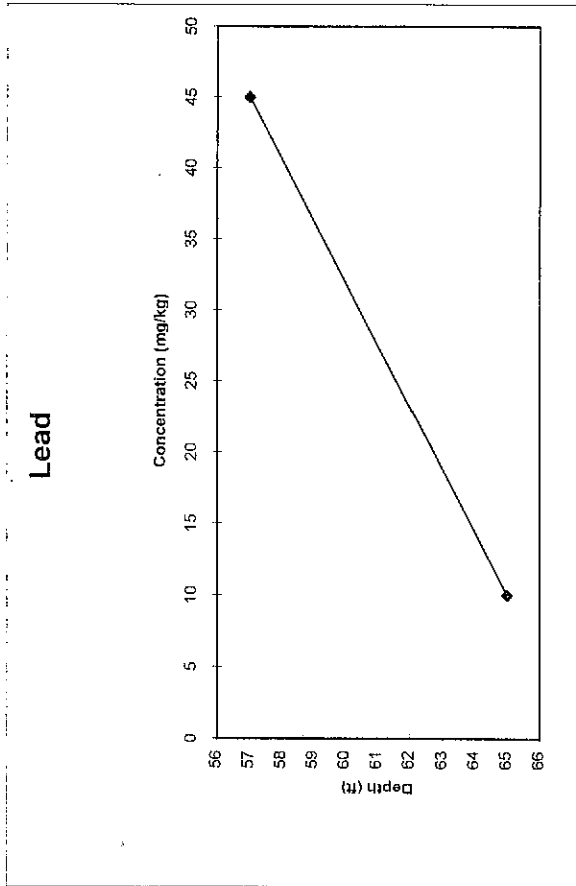
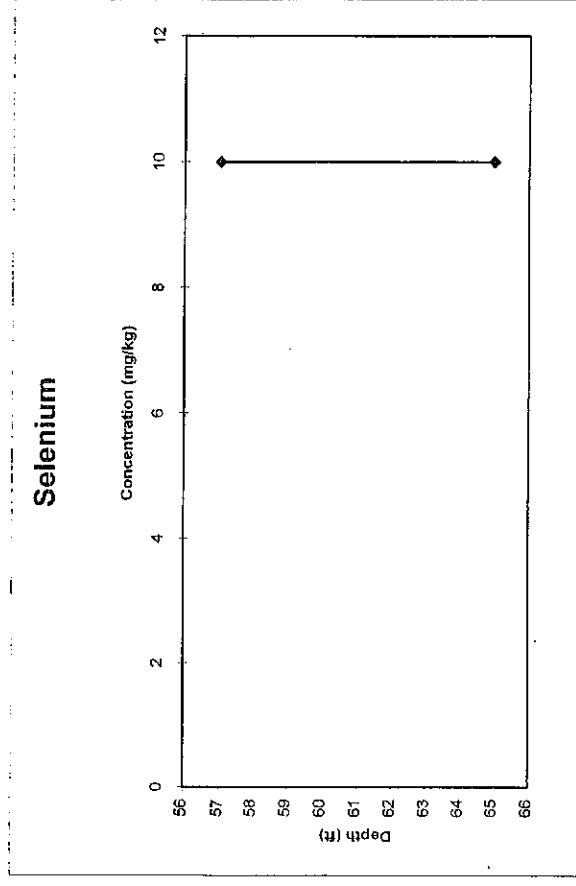
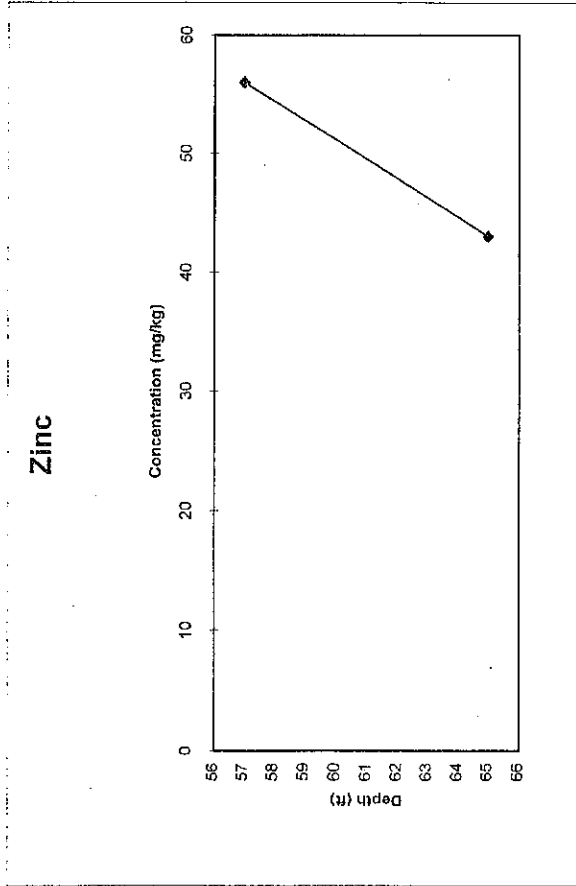
Cadmium



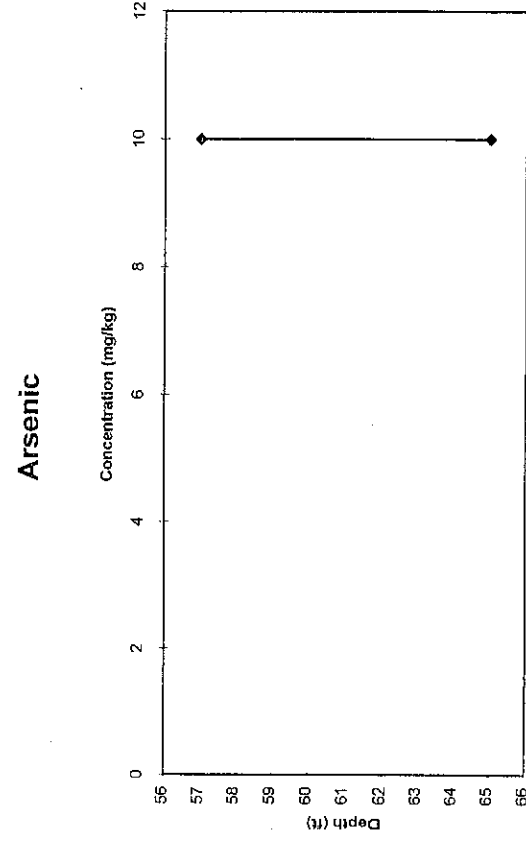
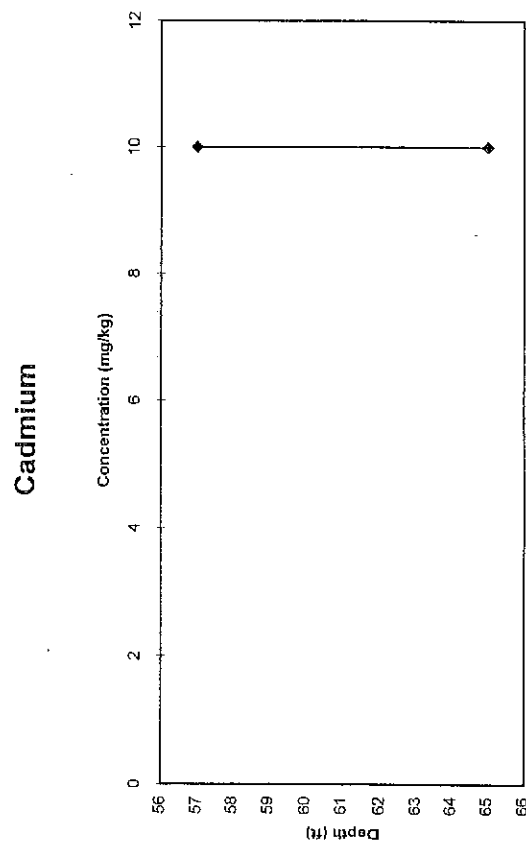
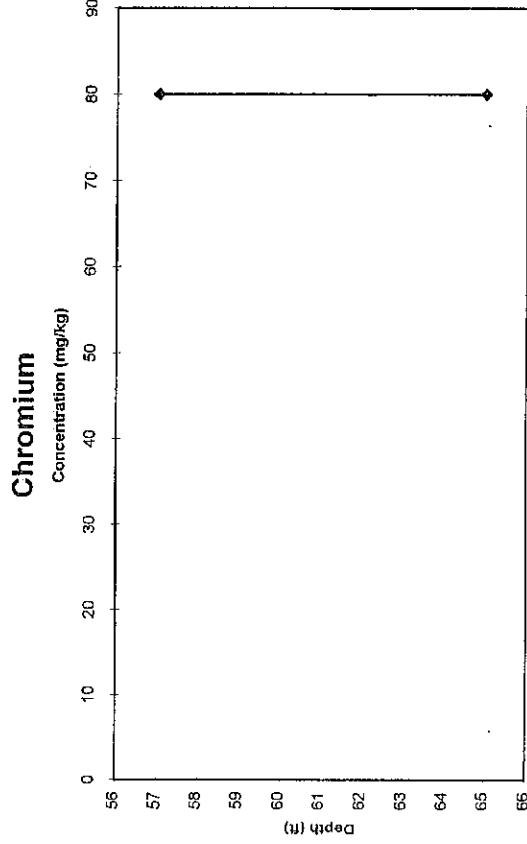
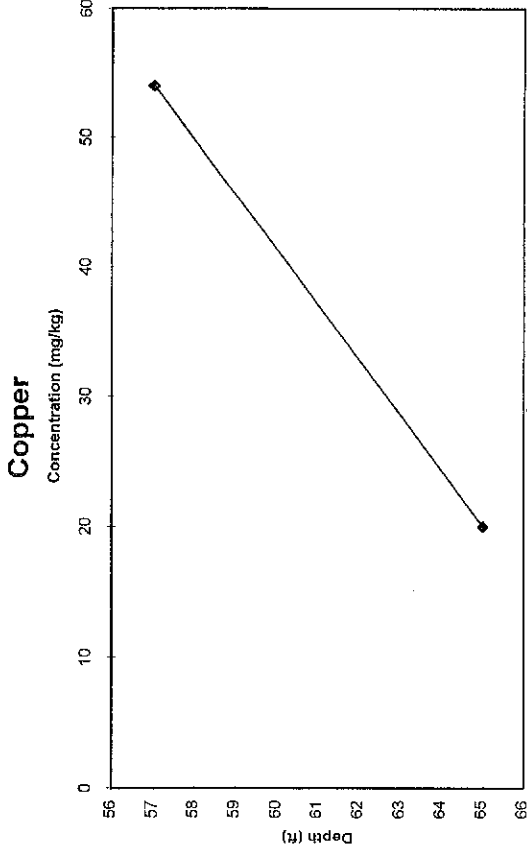
Arsenic



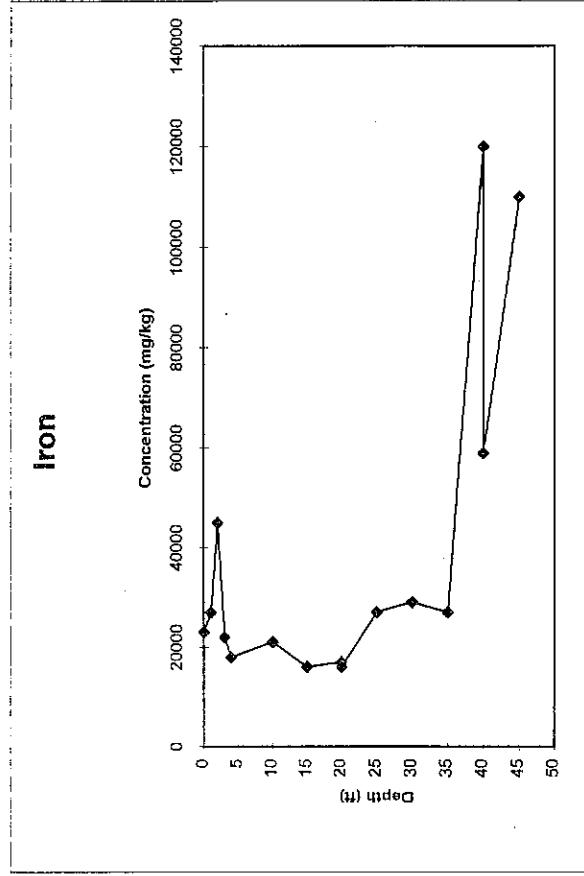
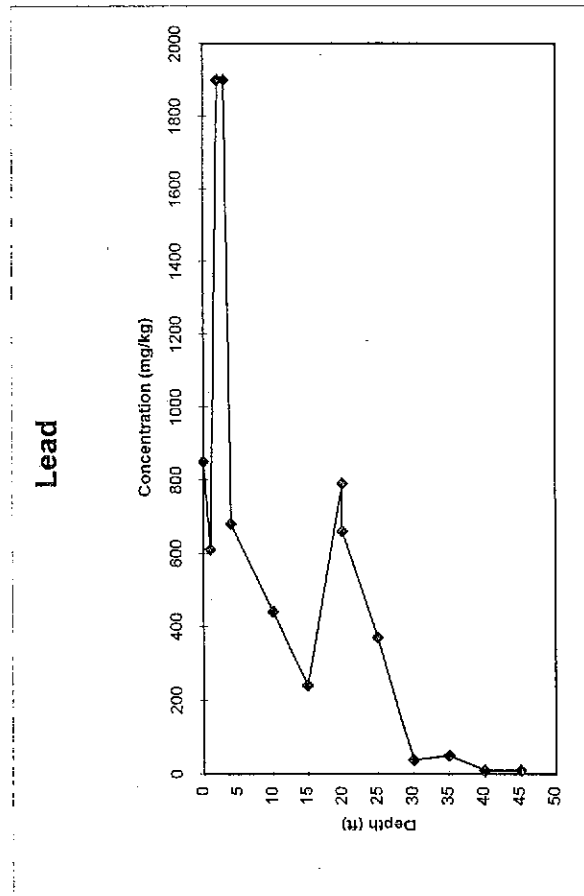
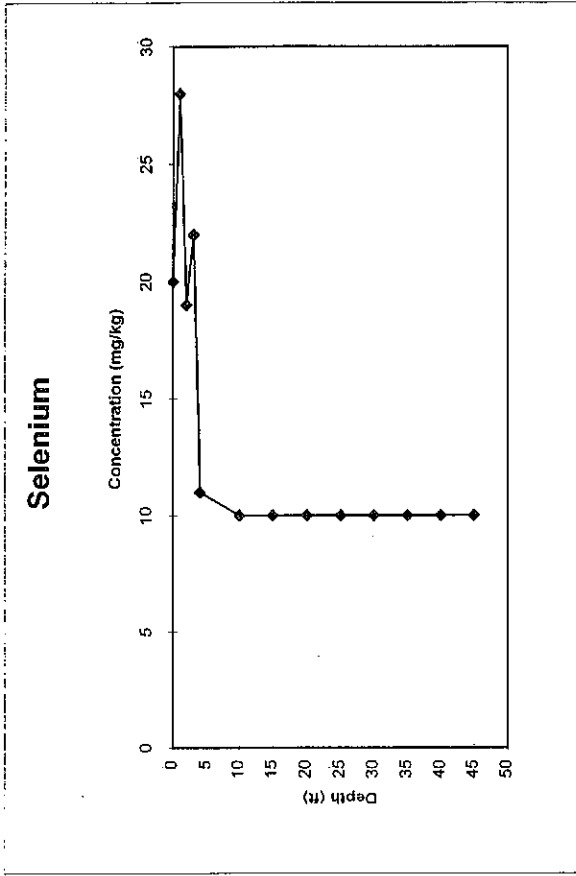
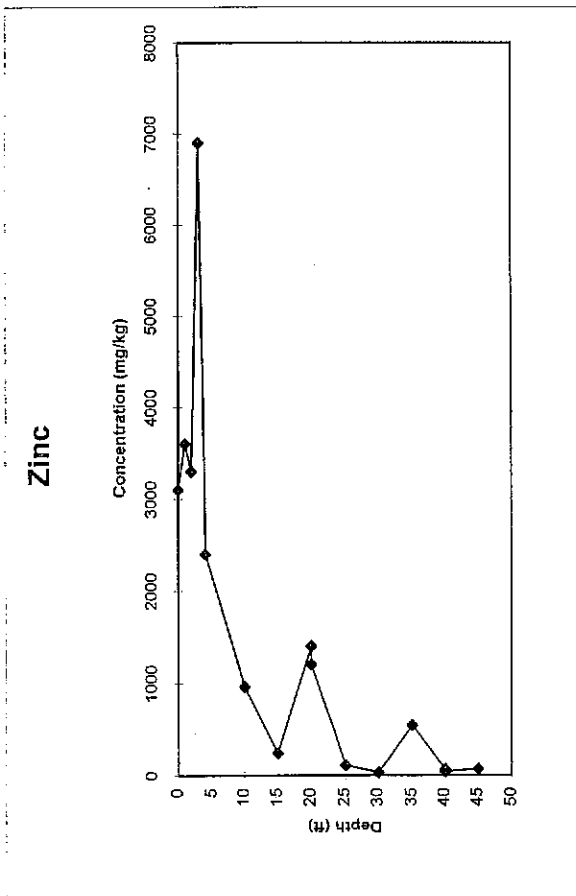
Average Soil Concentrations by Depth, EP-99



Average Soil Concentrations by Depth, EP-99

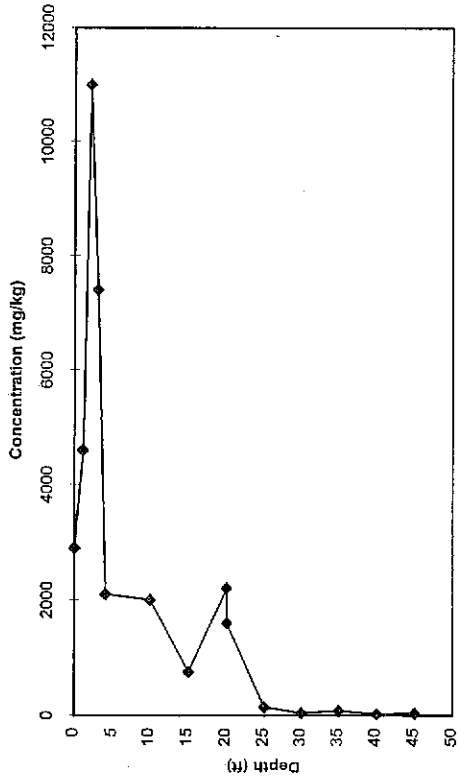


Average Soil Concentrations by Depth, EP-100

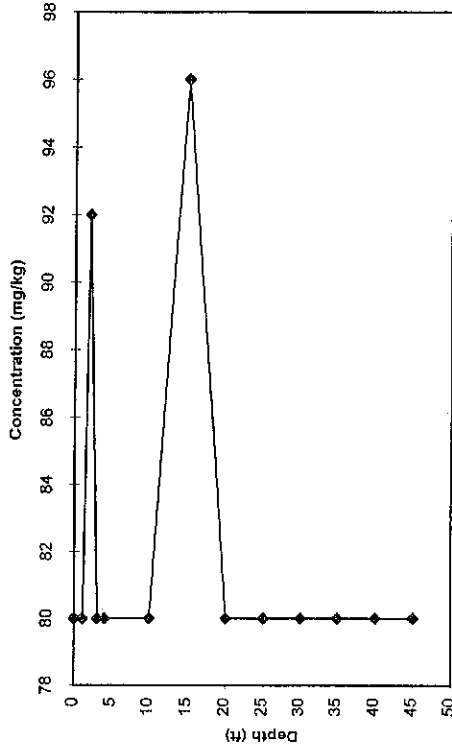


Average Soil Concentrations by Depth, EP-100

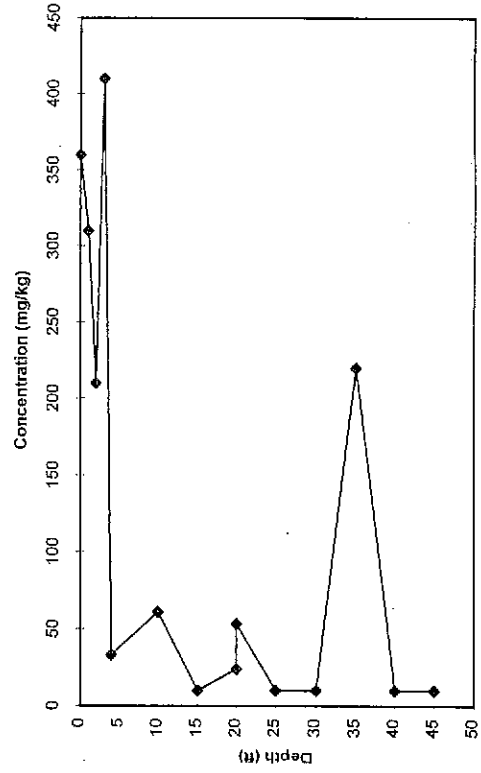
Copper



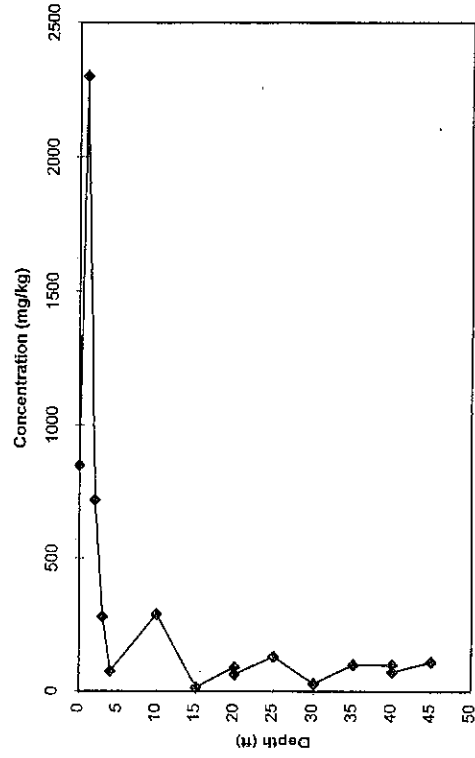
Chromium



Cadmium

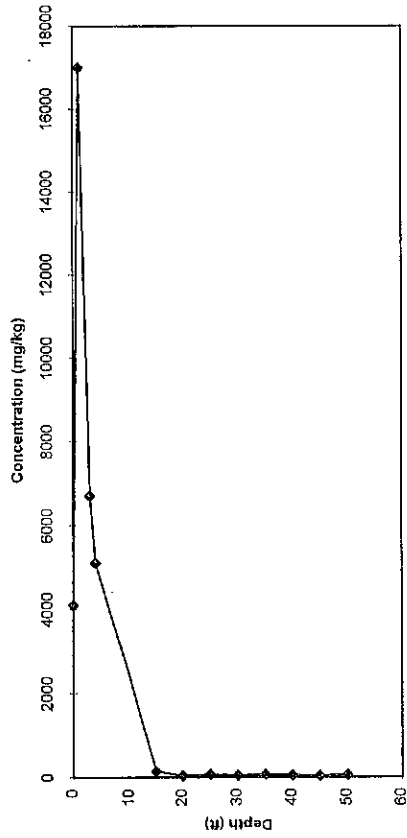


Arsenic

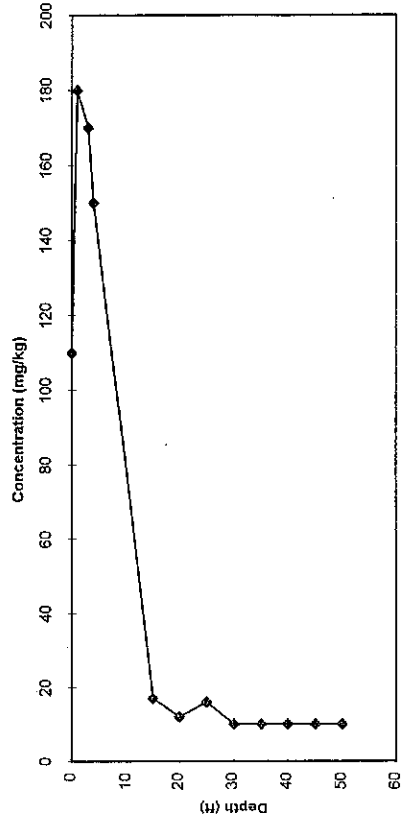


Average Soil Concentrations by Depth, EP-101

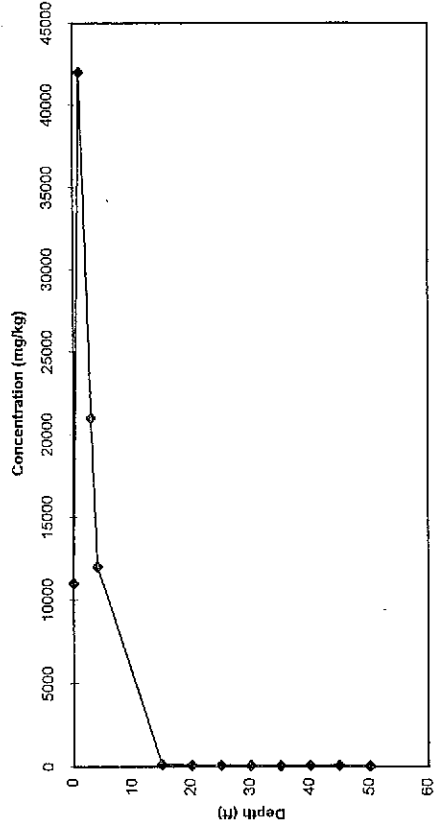
Zinc



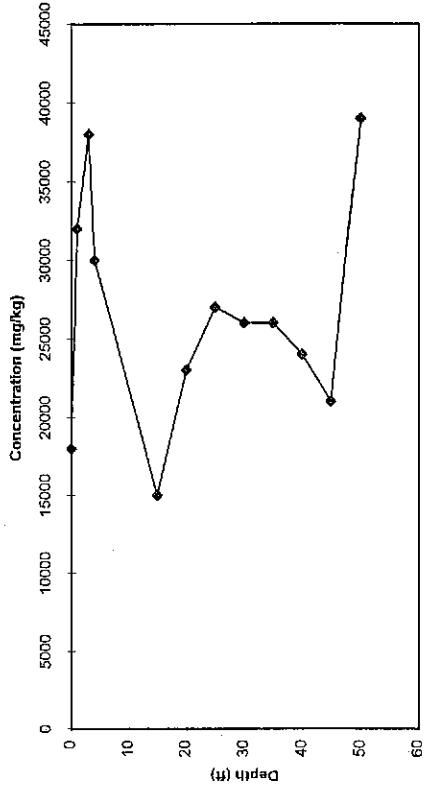
Selenium



Lead

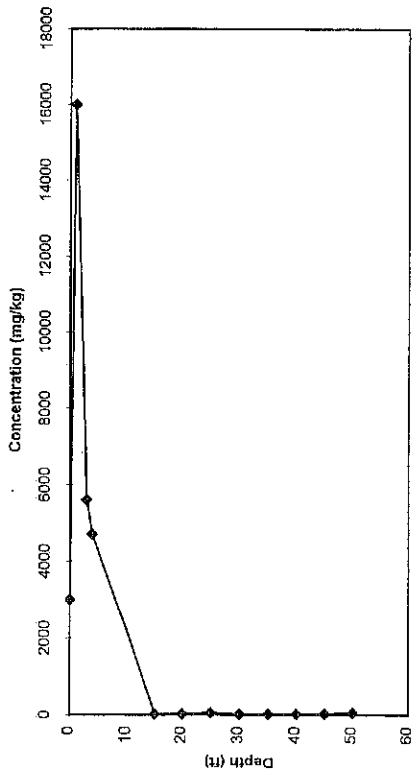


Iron

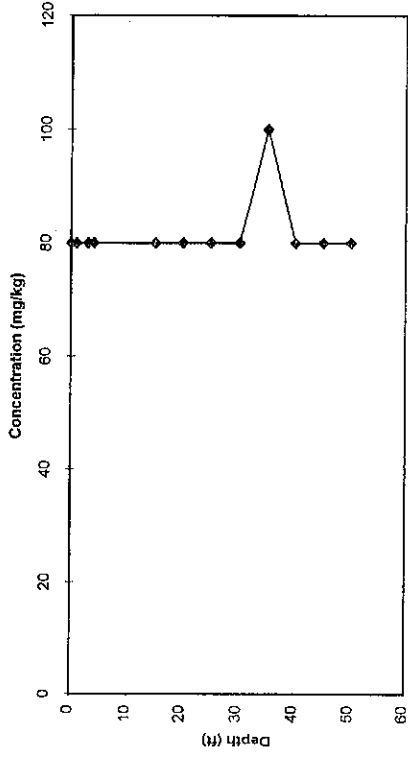


Average Soil Concentrations by Depth, EP-101

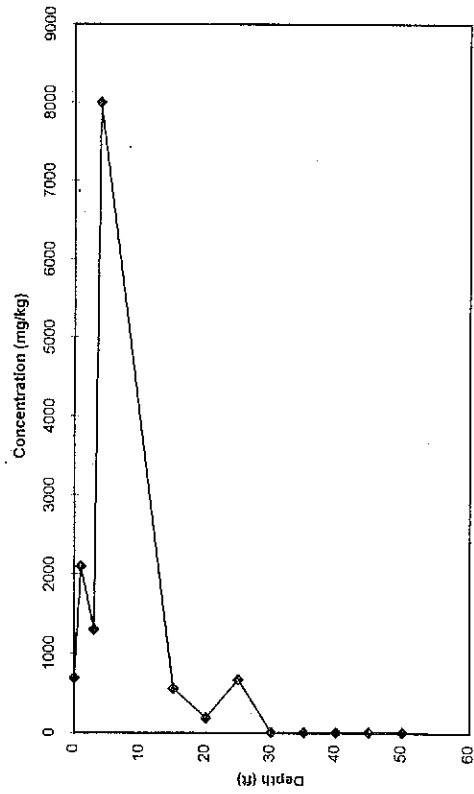
Copper



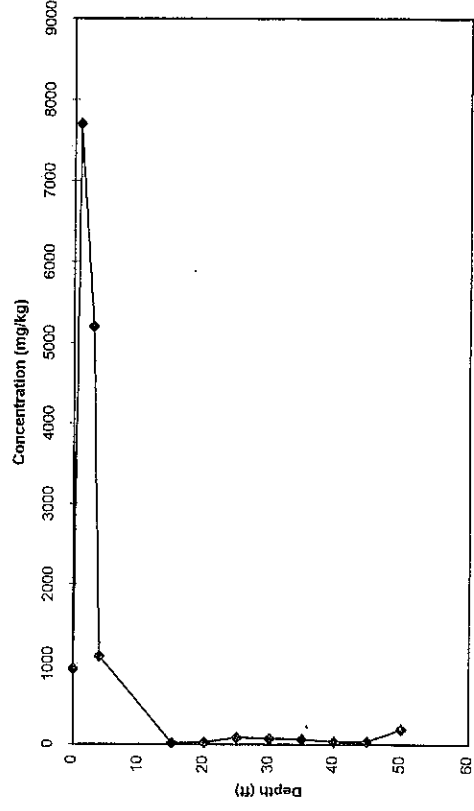
Chromium



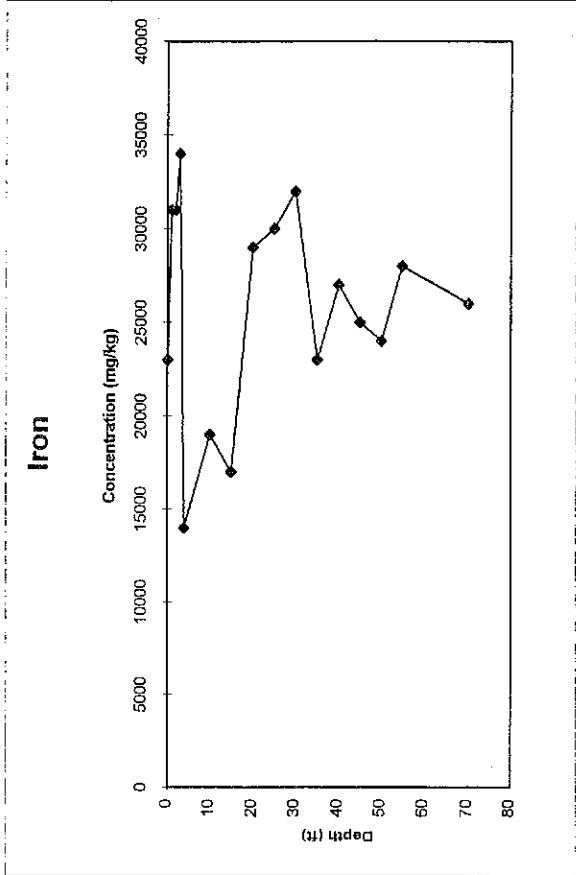
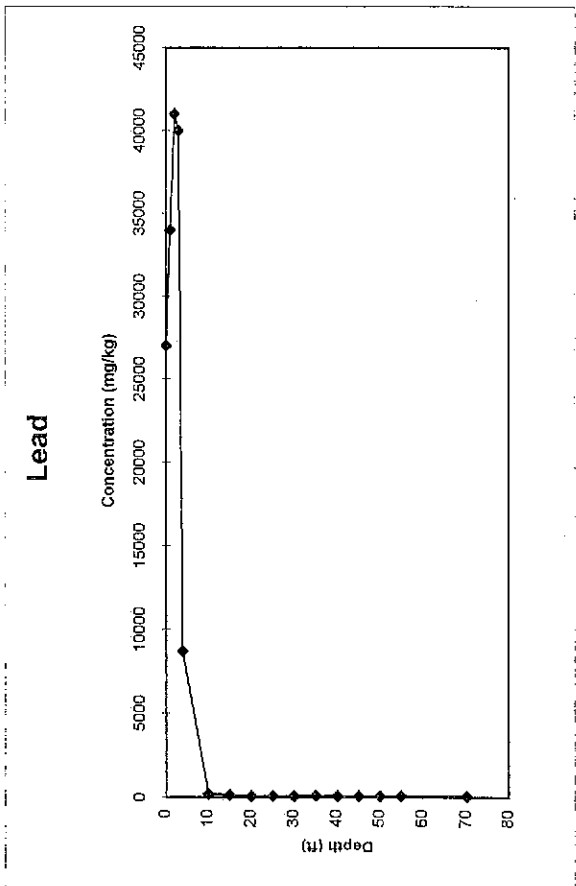
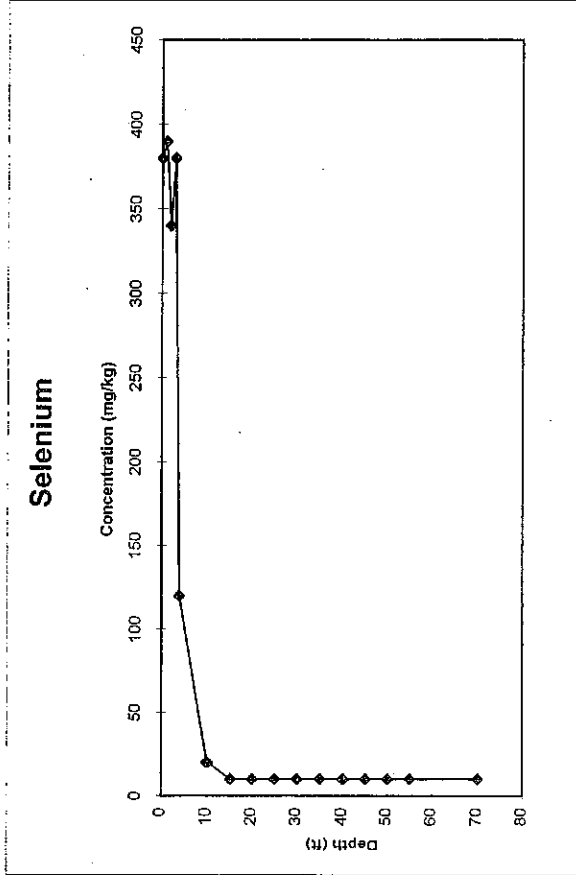
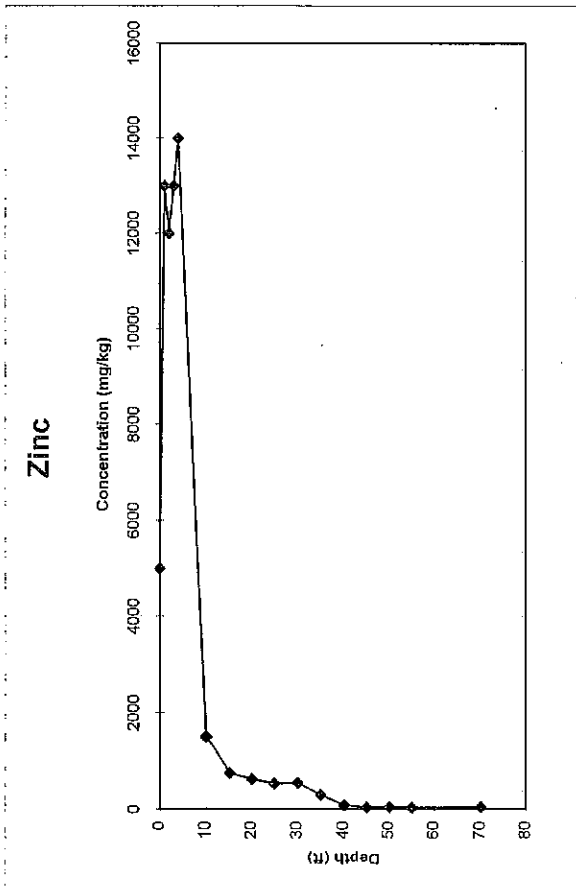
Cadmium



Arsenic

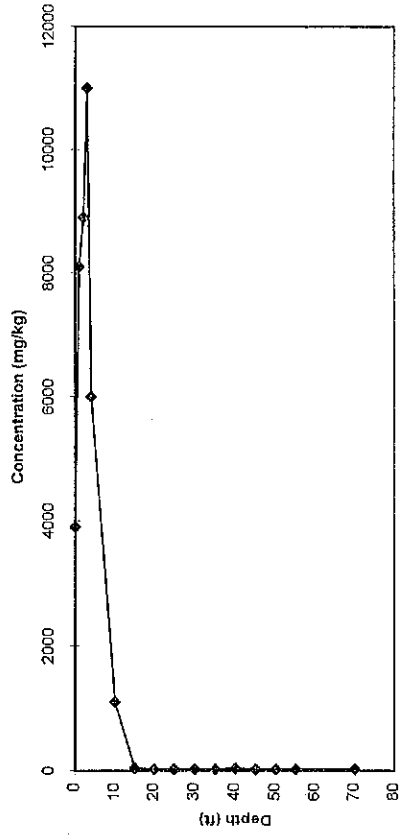


Average Soil Concentrations by Depth, EP-102

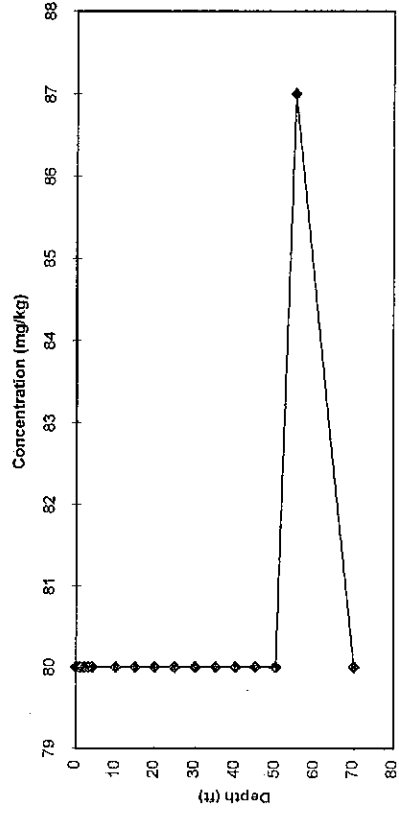


Average Soil Concentrations by Depth, EP-102

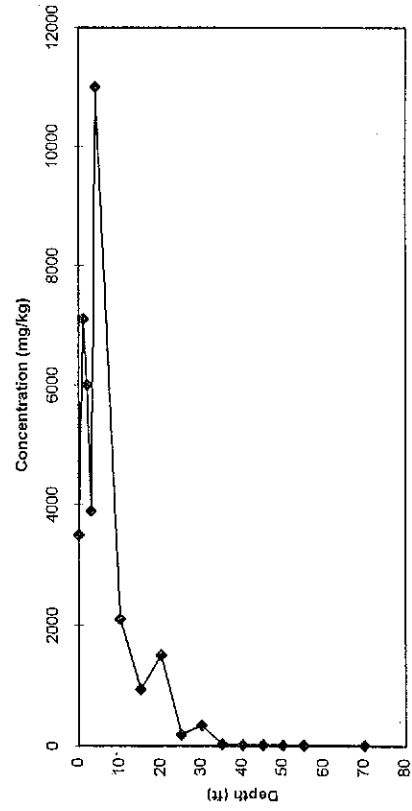
Copper



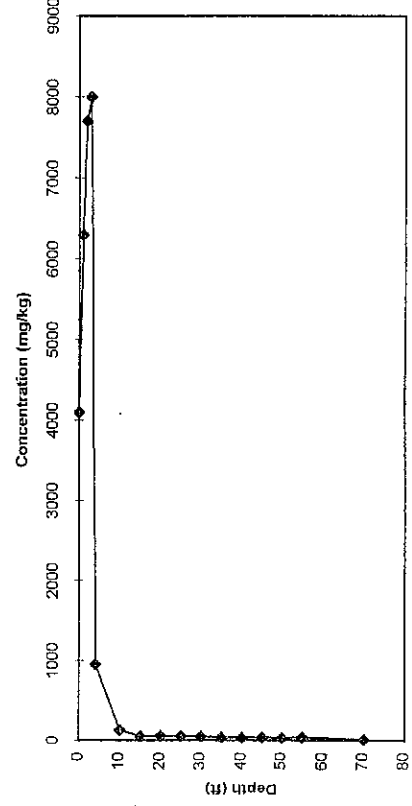
Chromium



Cadmium



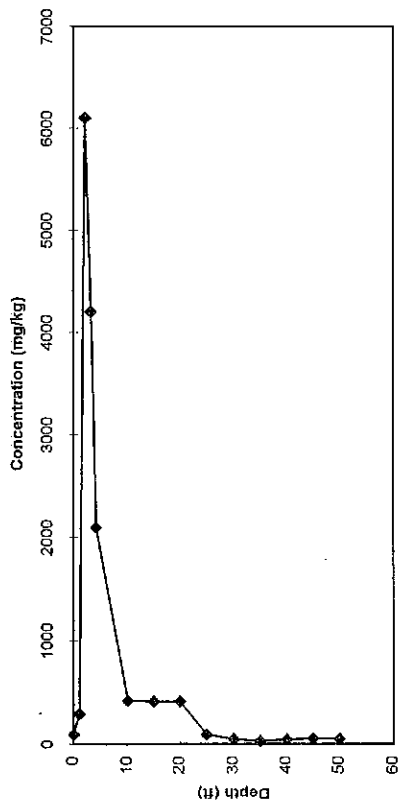
Arsenic



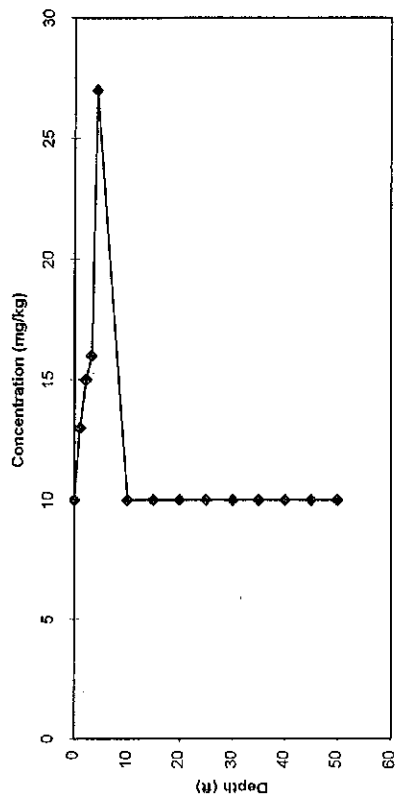


Average Soil Concentrations by Depth, EP-103

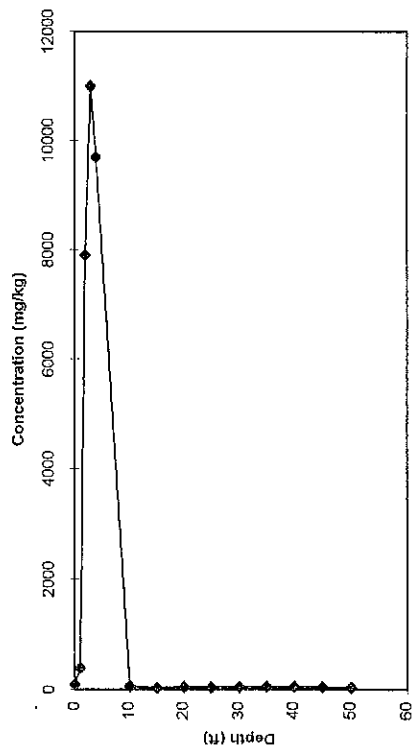
Zinc



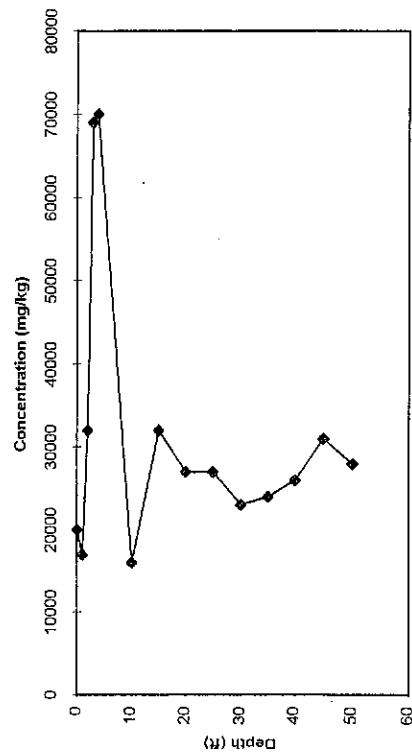
Selenium



Lead

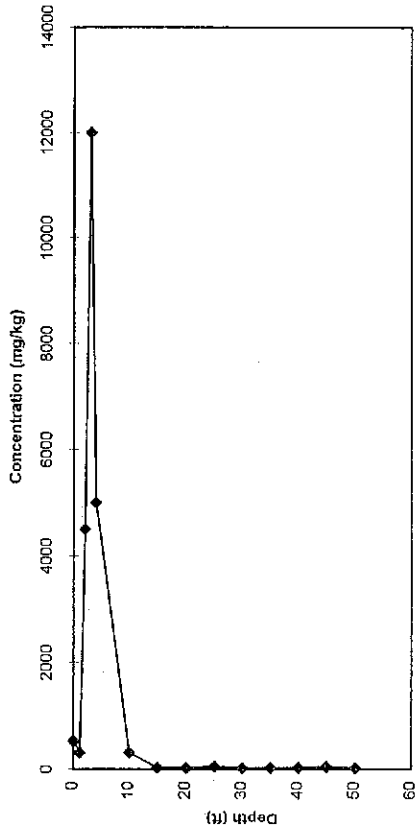


Iron

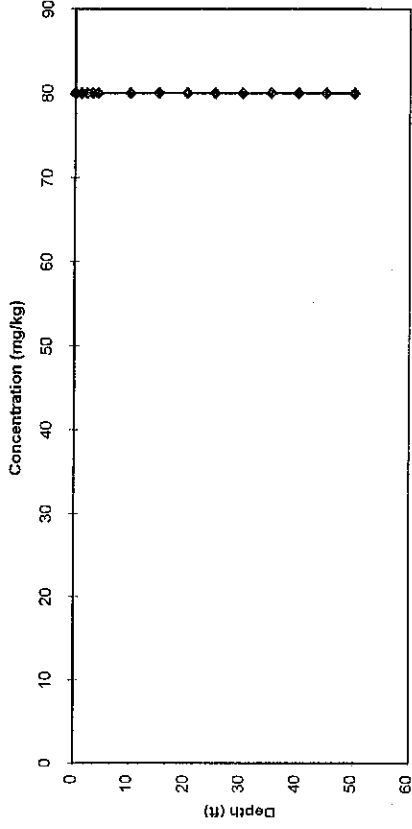


Average Soil Concentrations by Depth, EP-103

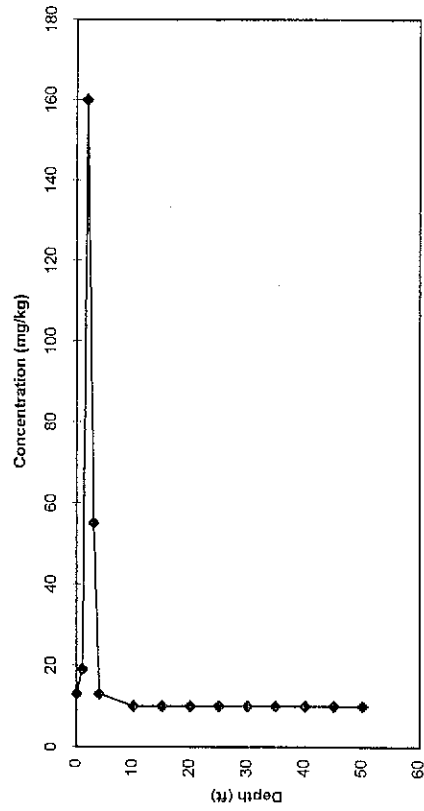
Copper



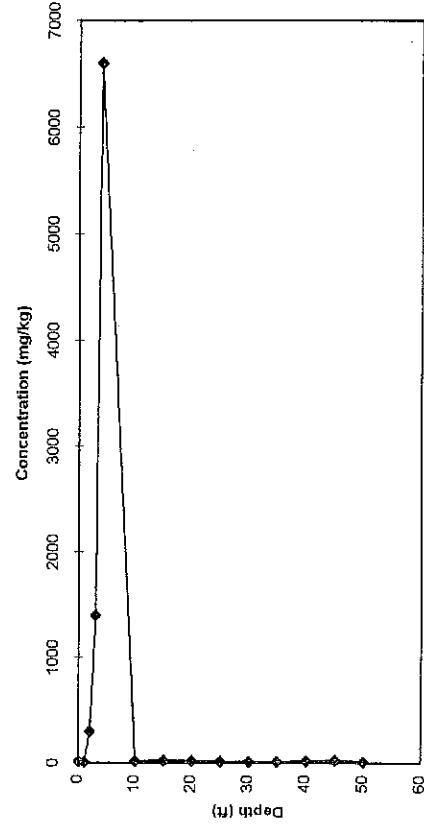
Chromium



Cadmium

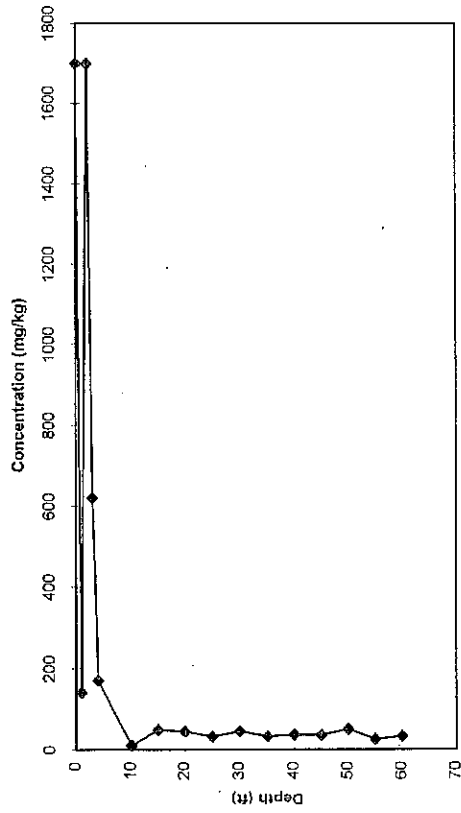


Arsenic

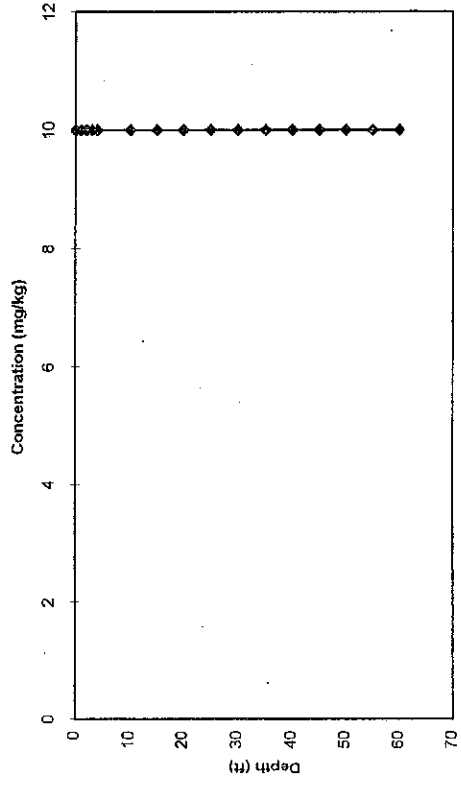


Average Soil Concentrations by Depth, EP-104

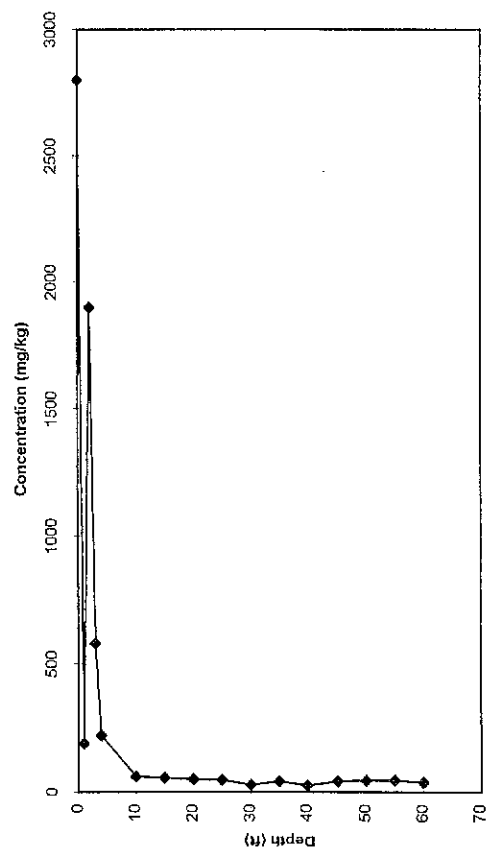
Zinc



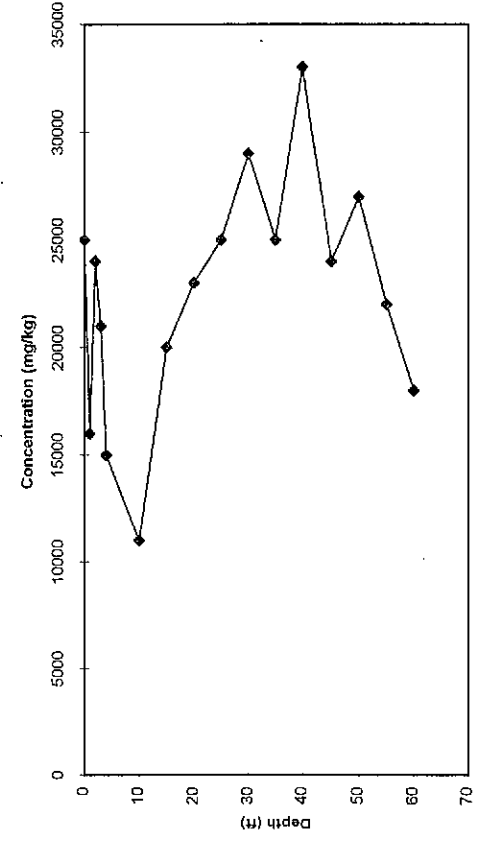
Selenium



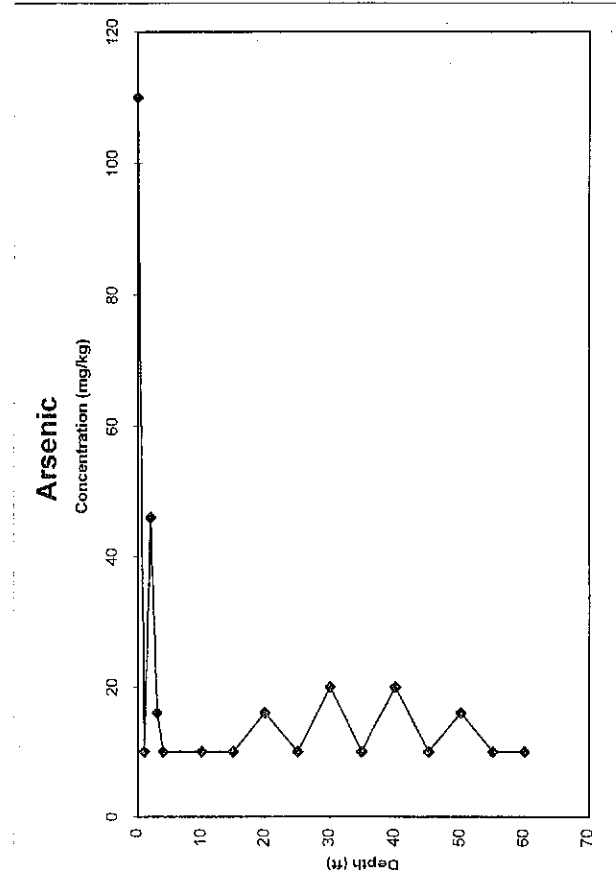
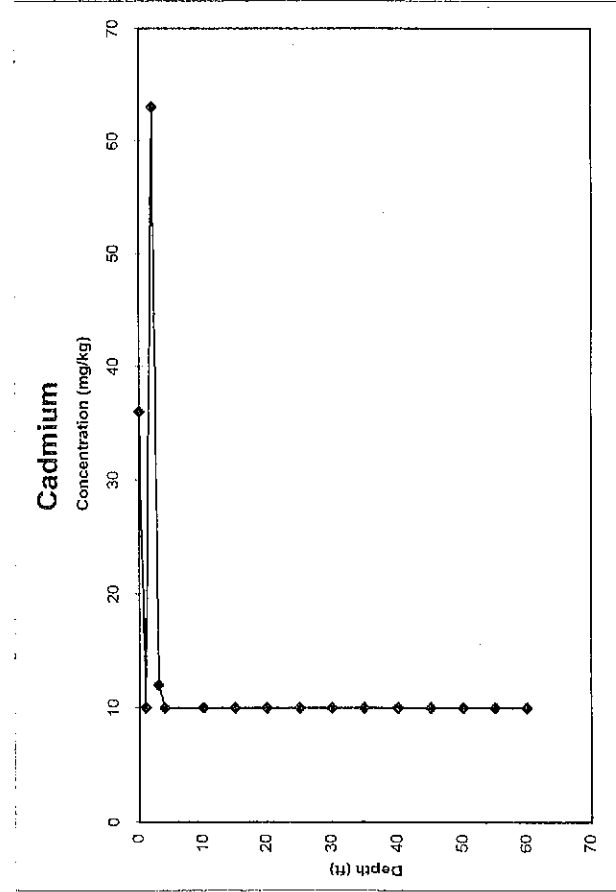
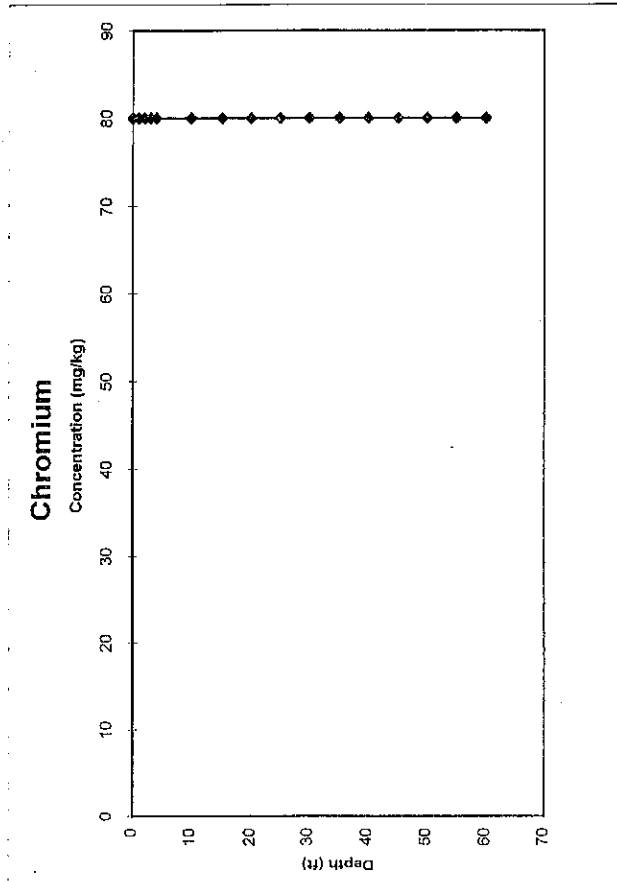
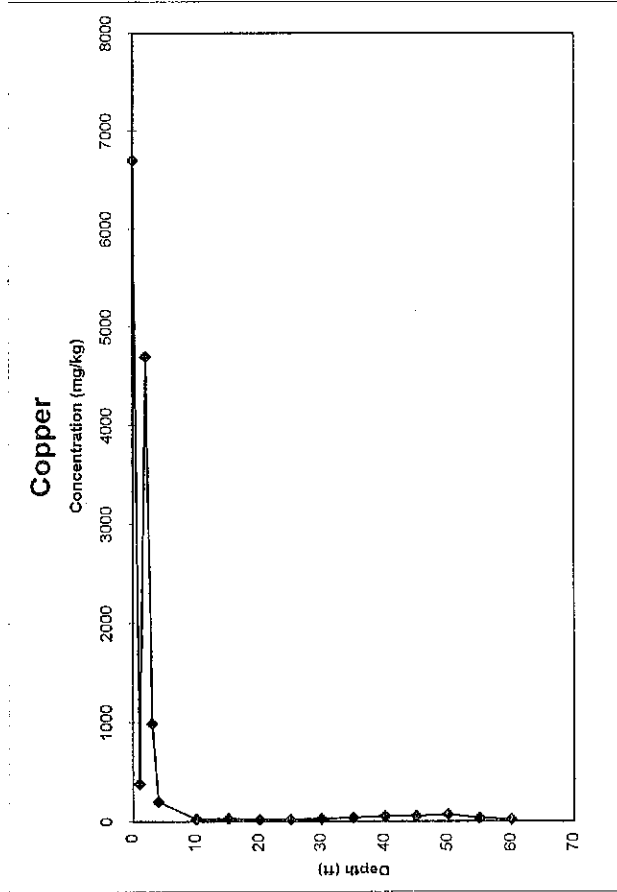
Lead



Iron

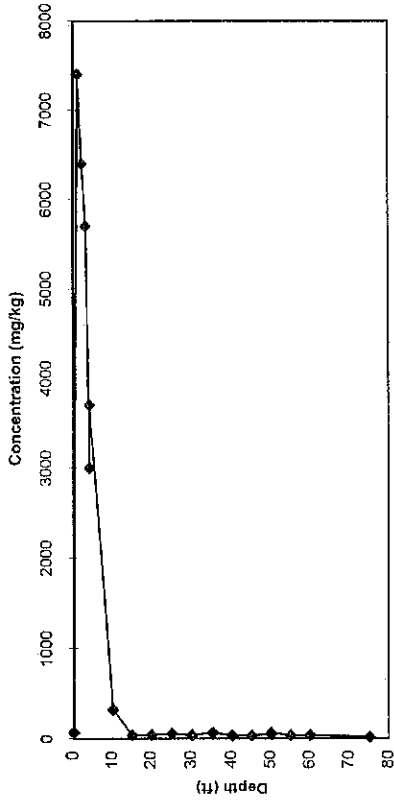


Average Soil Concentrations by Depth, EP-104

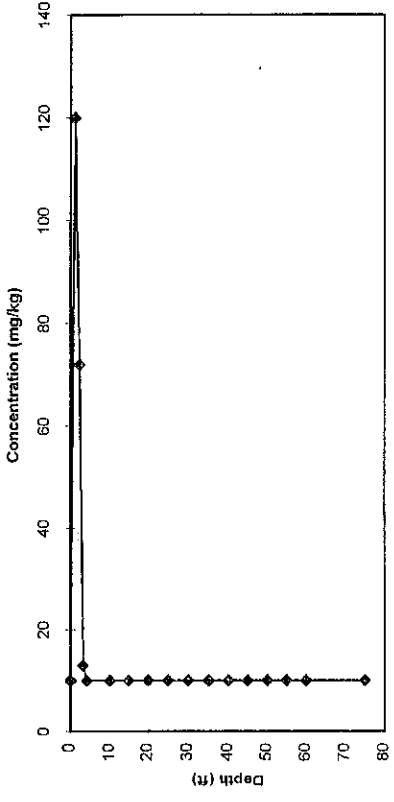


Average Soil Concentrations by Depth, EP-105

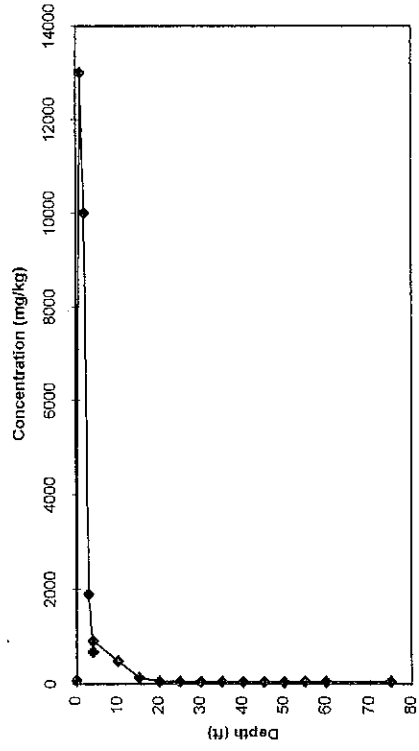
Zinc



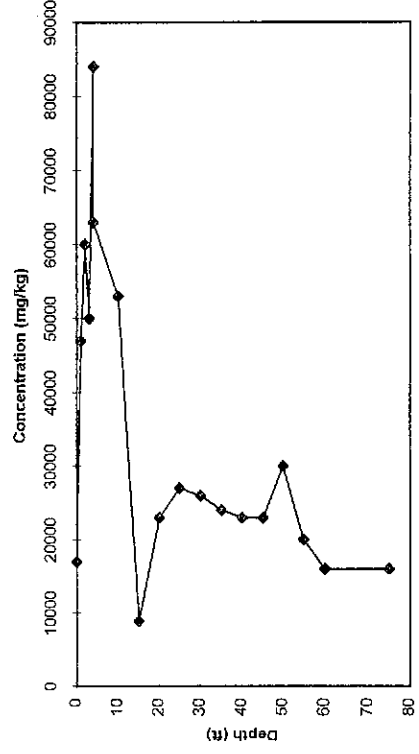
Selenium



Lead

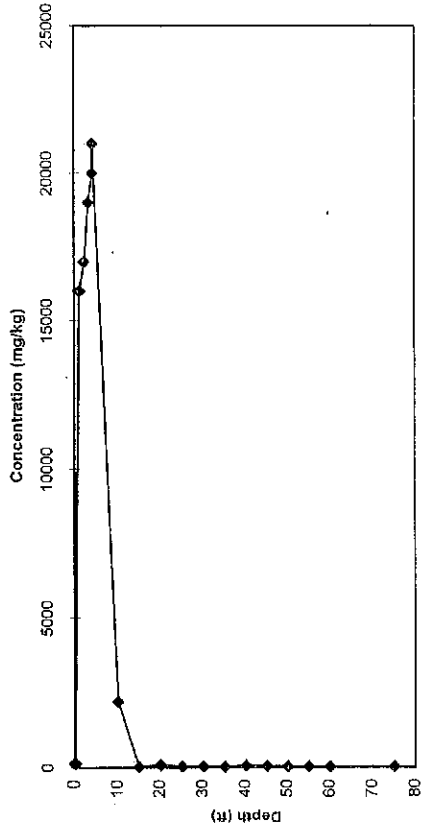


Iron

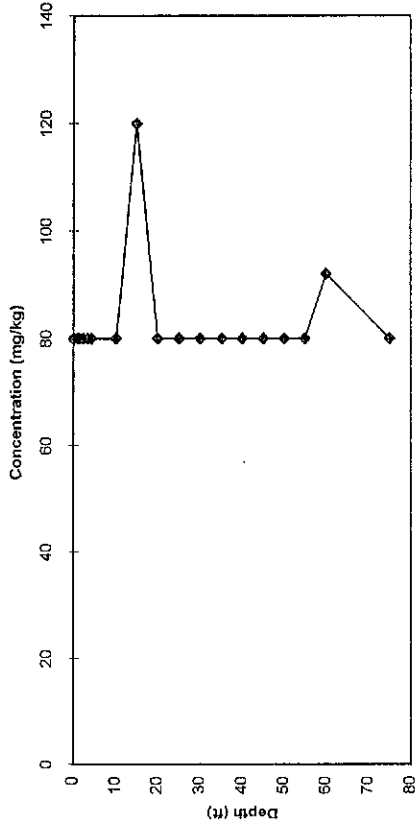


Average Soil Concentrations by Depth, EP-105

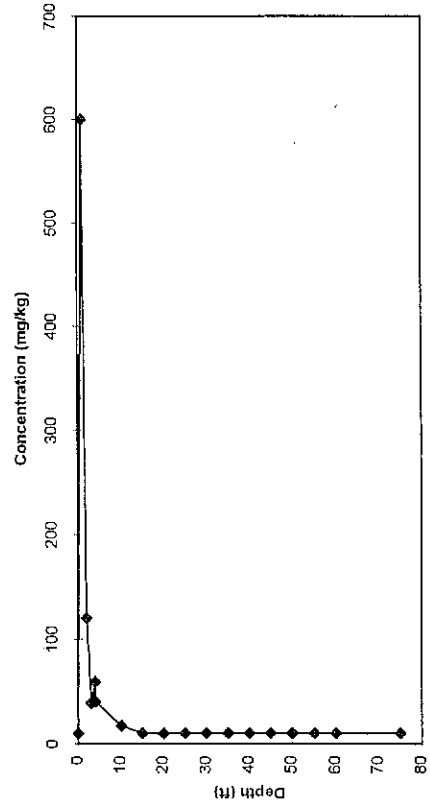
Copper



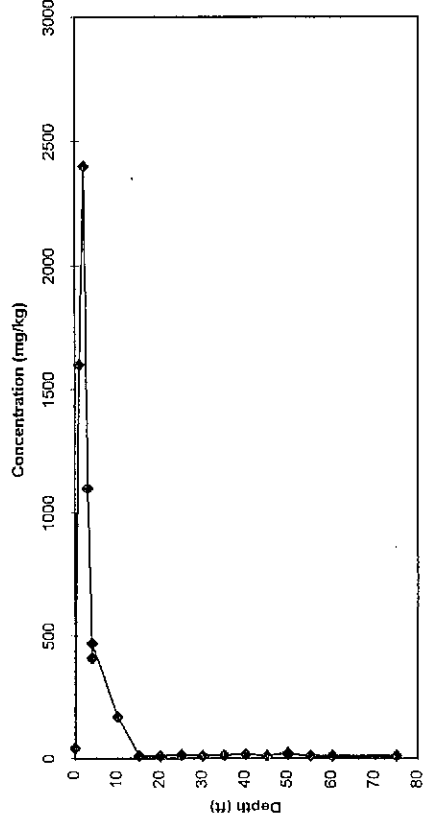
Chromium



Cadmium

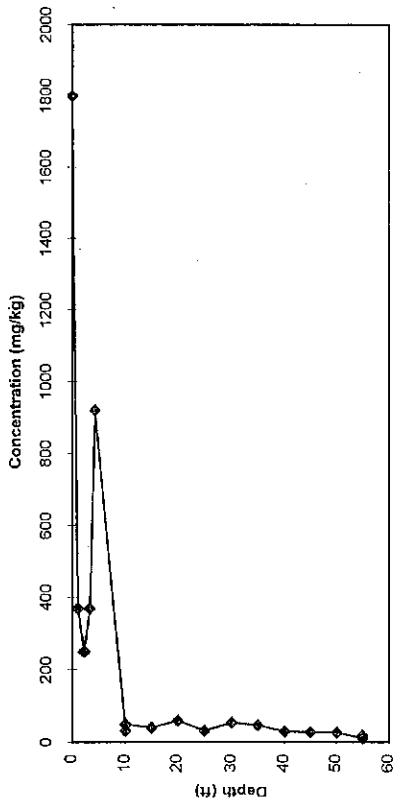


Arsenic

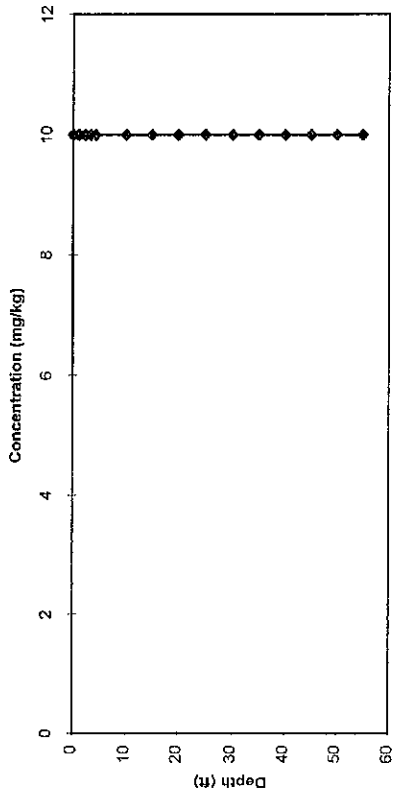


Average Soil Concentrations by Depth, EP-106

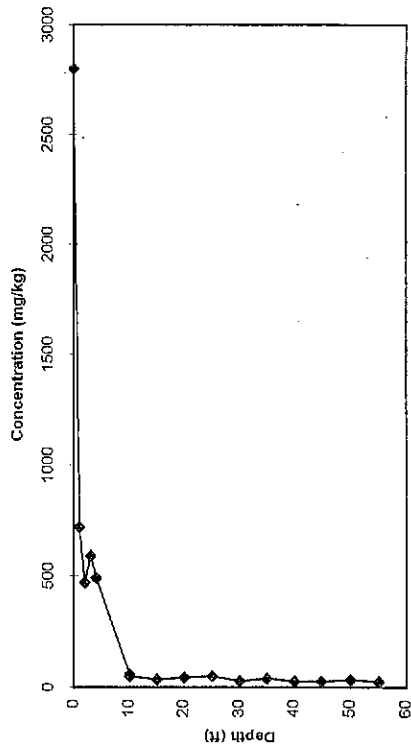
Zinc



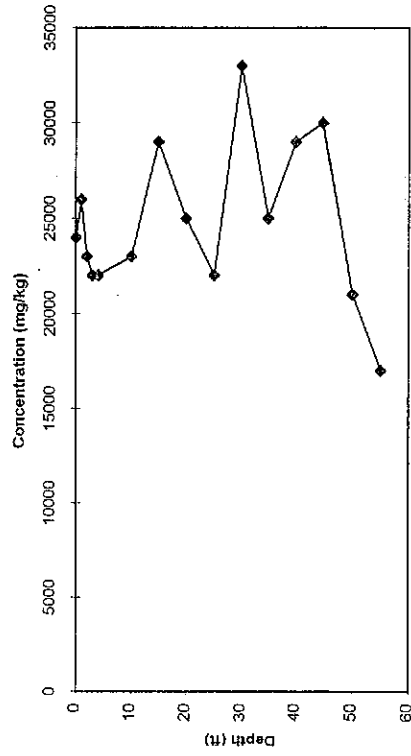
Selenium



Lead

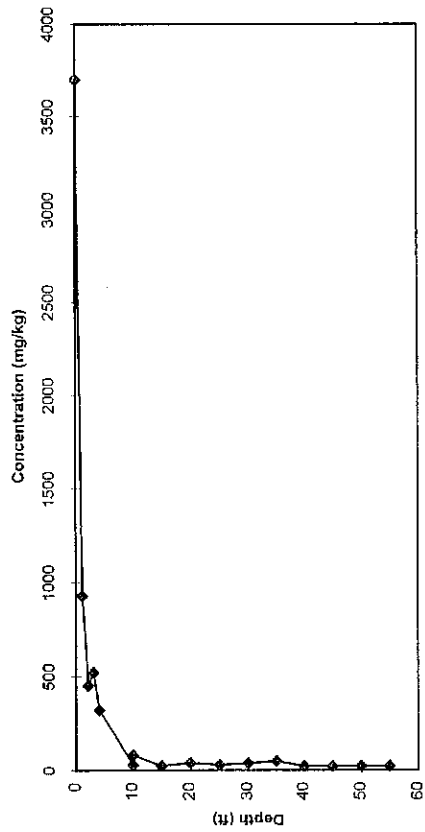


Iron

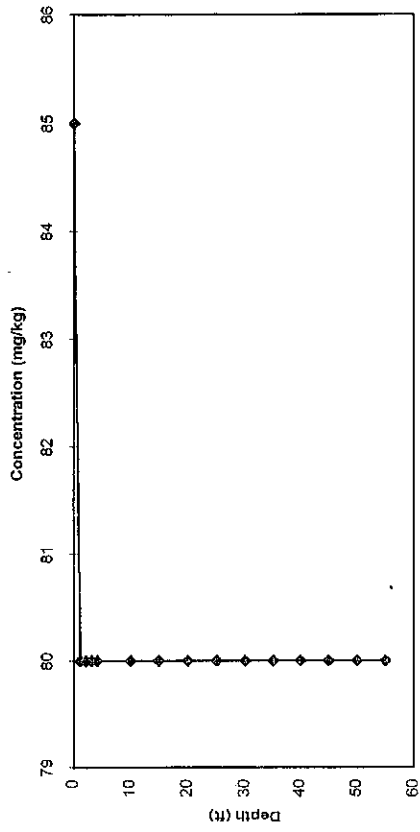


Average Soil Concentrations by Depth, EP-106

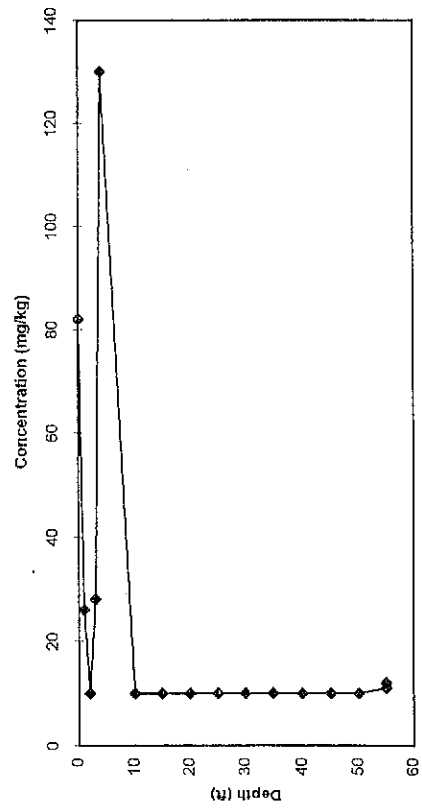
Copper



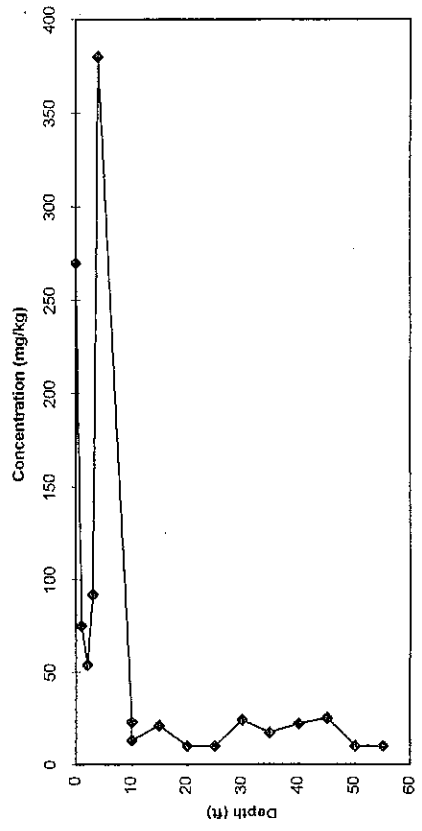
Chromium



Cadmium

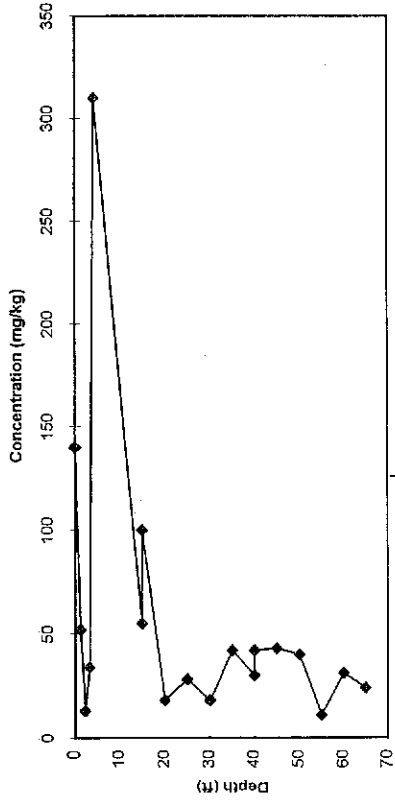


Arsenic

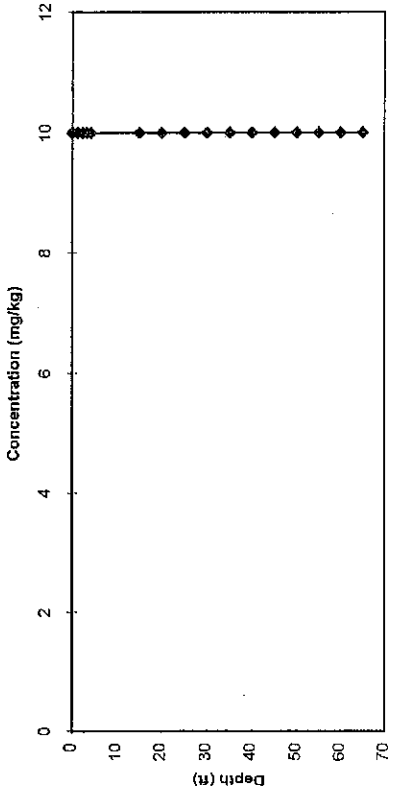


Average Soil Concentrations by Depth, EP-107

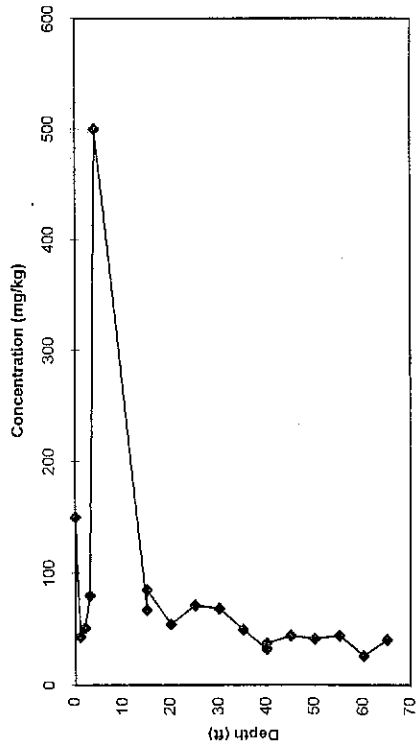
Zinc



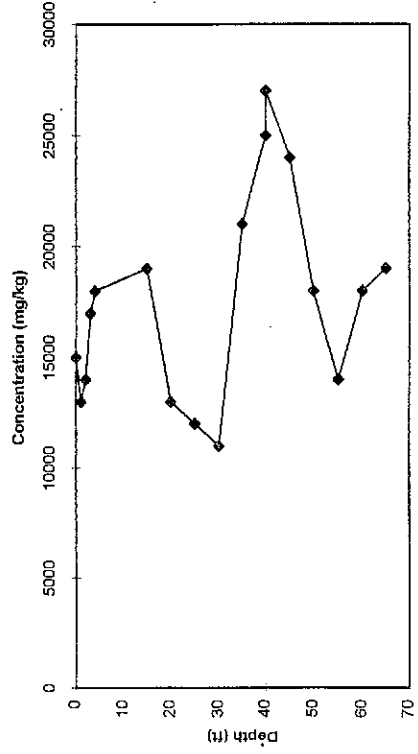
Selenium



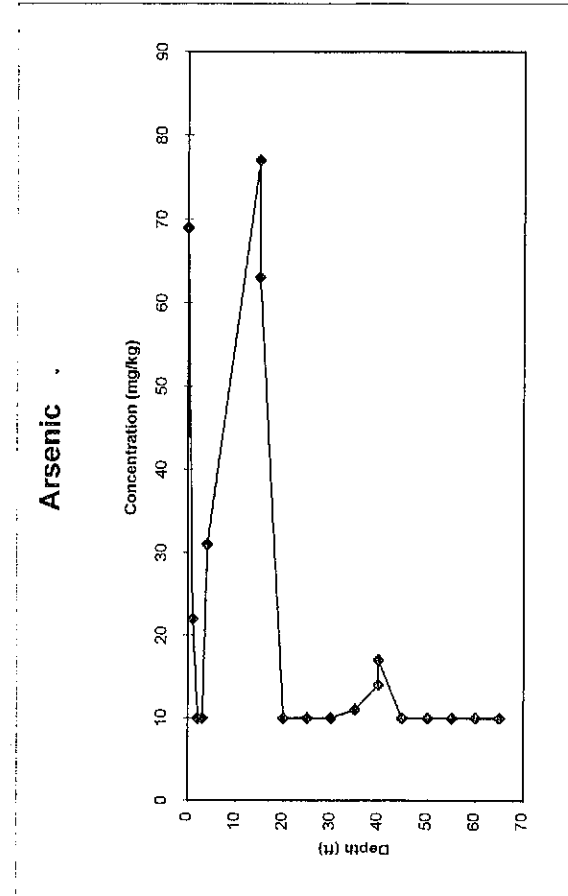
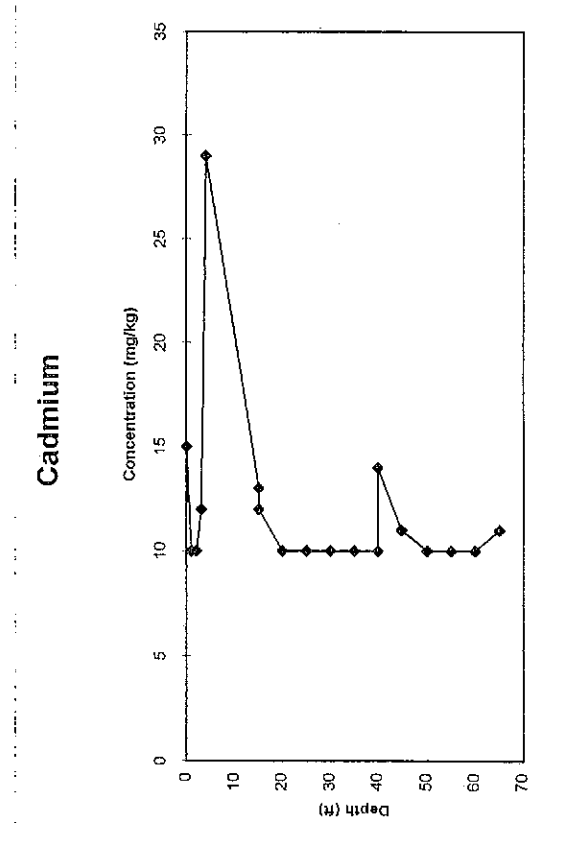
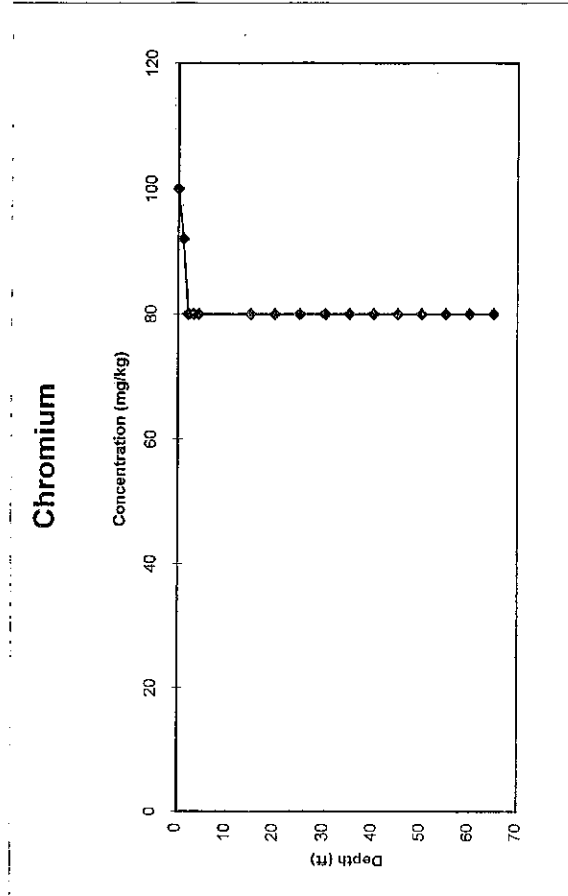
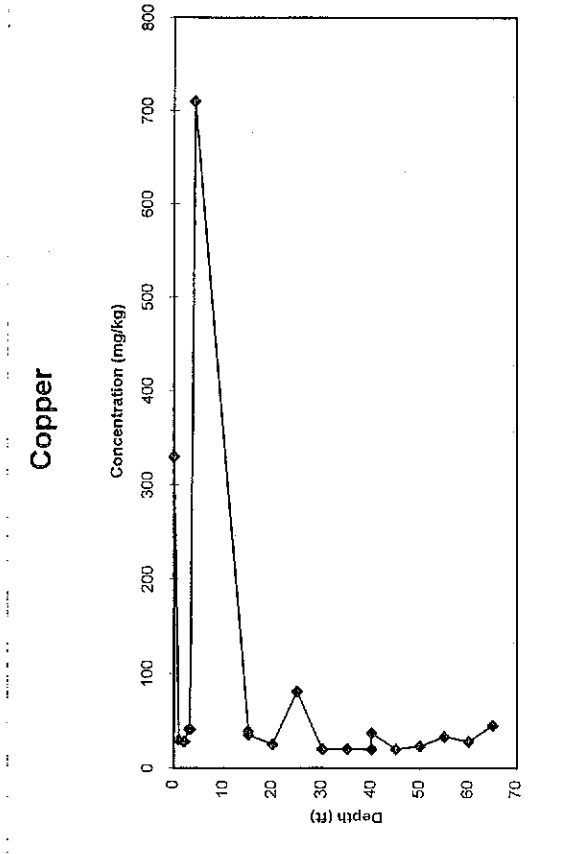
Lead



Iron

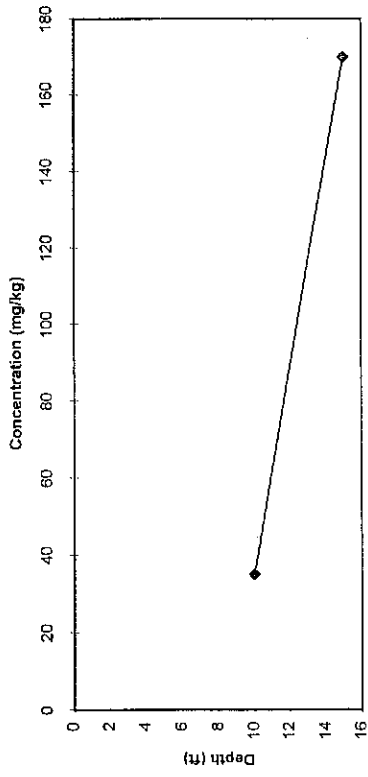


Average Soil Concentrations by Depth, EP-107

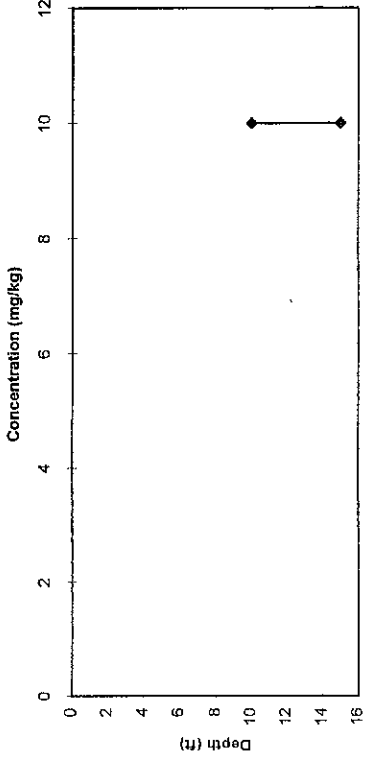


Average Soil Concentrations by Depth, EP-108

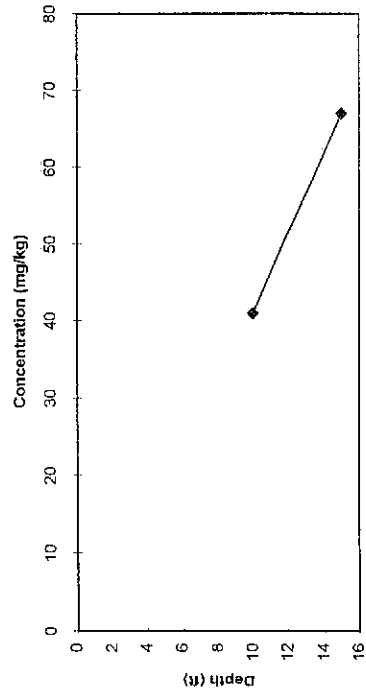
Zinc



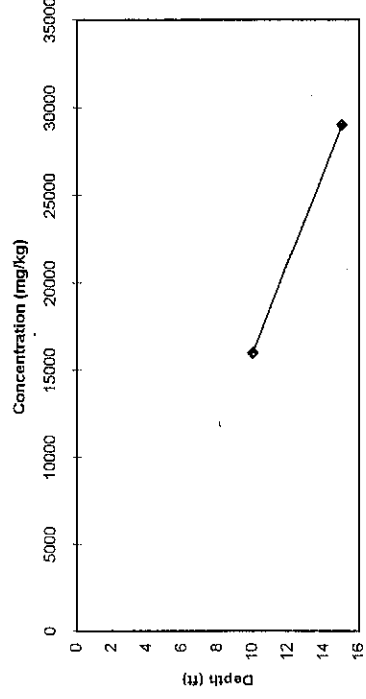
Selenium



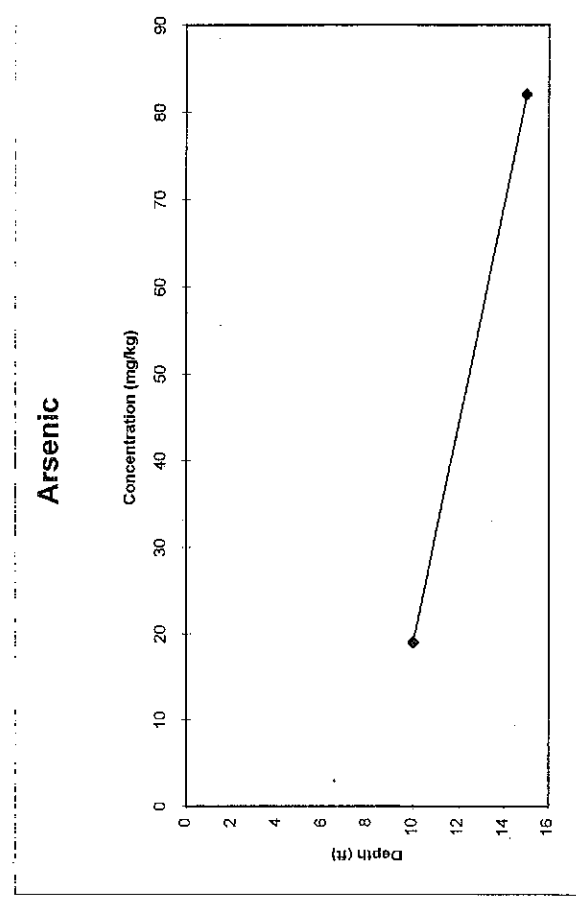
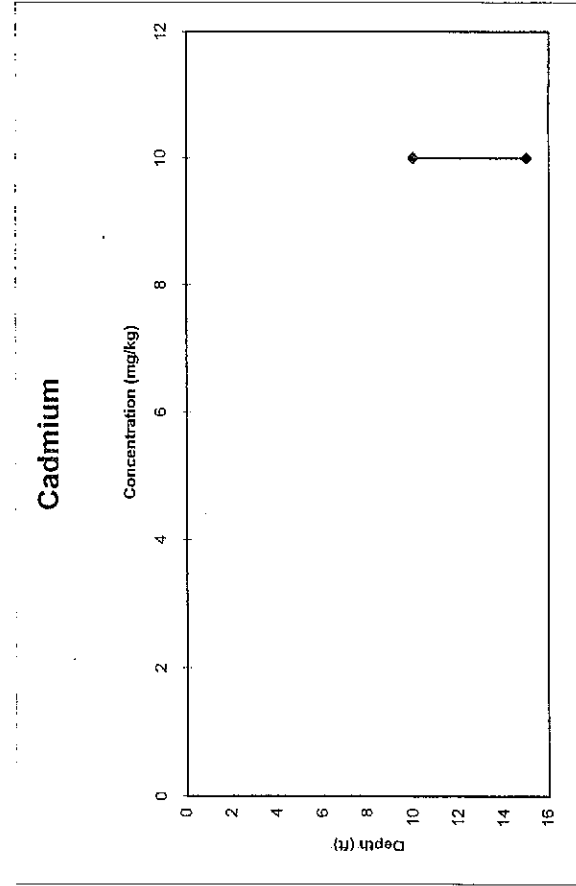
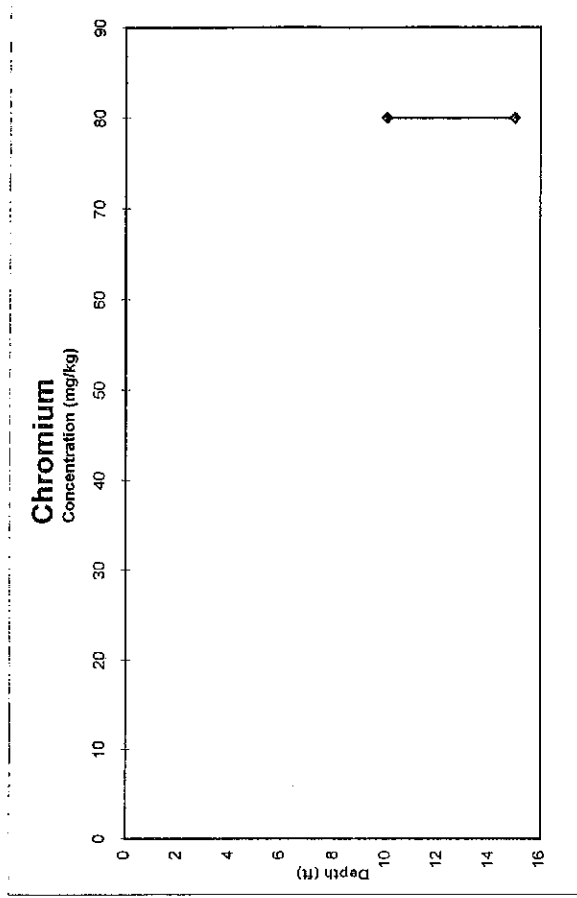
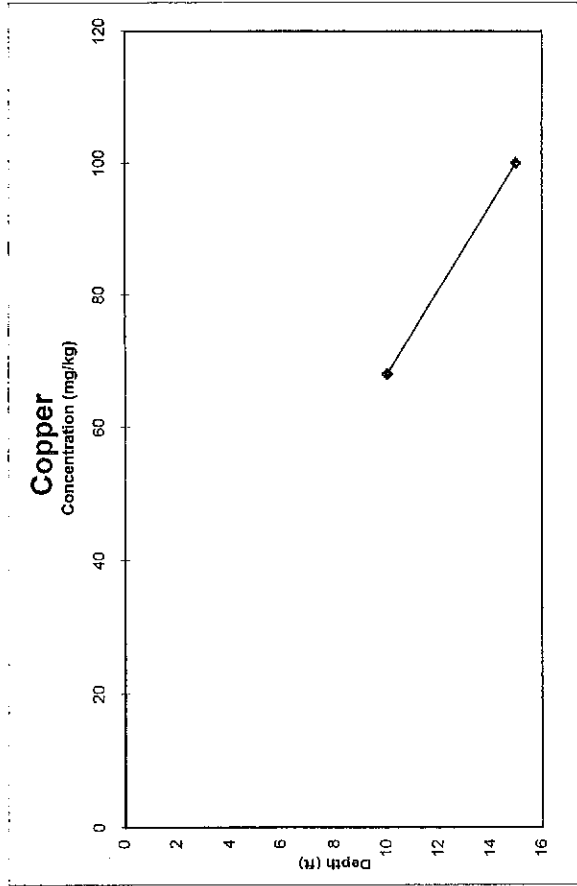
Lead



Iron

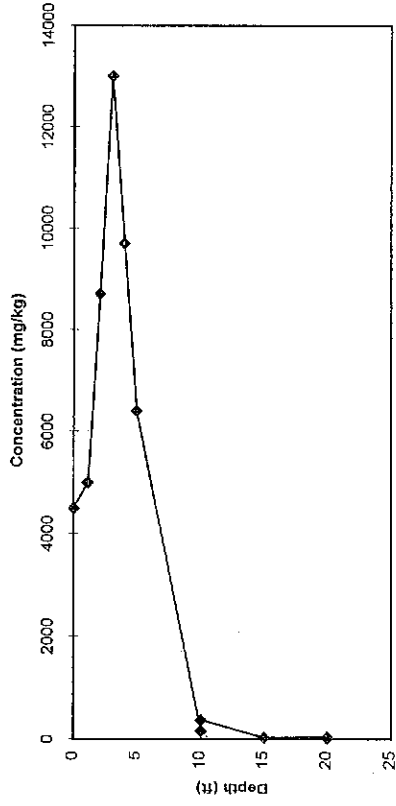


Average Soil Concentrations by Depth, EP-108

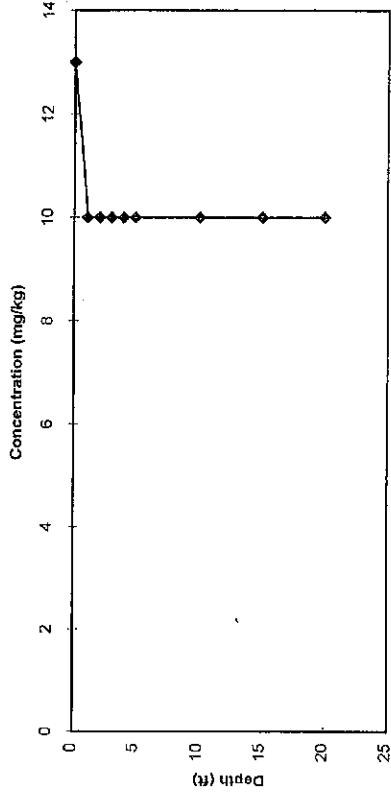


Average Soil Concentrations by Depth, EP-109

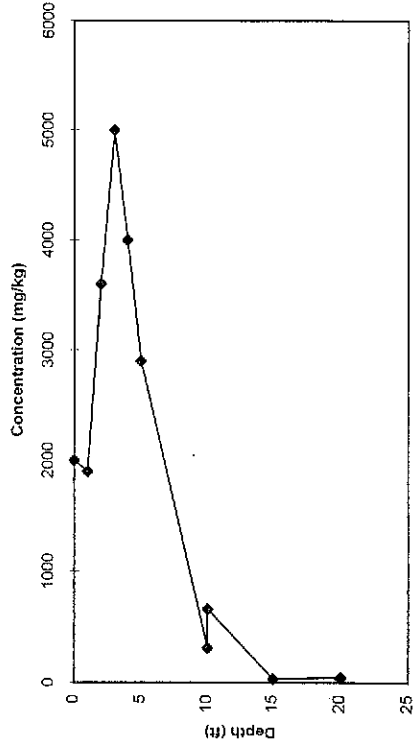
Zinc



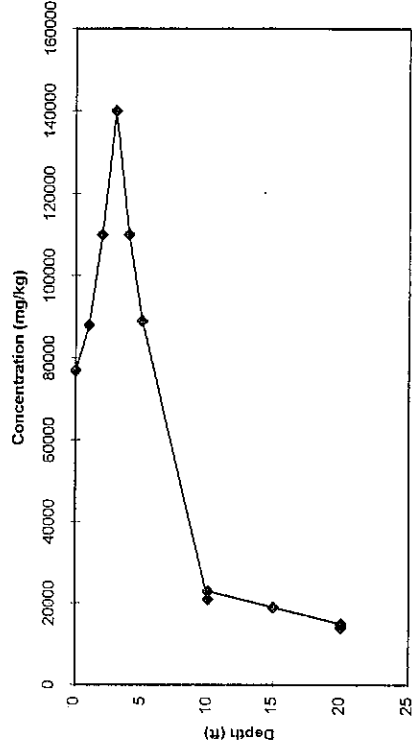
Selenium



Lead

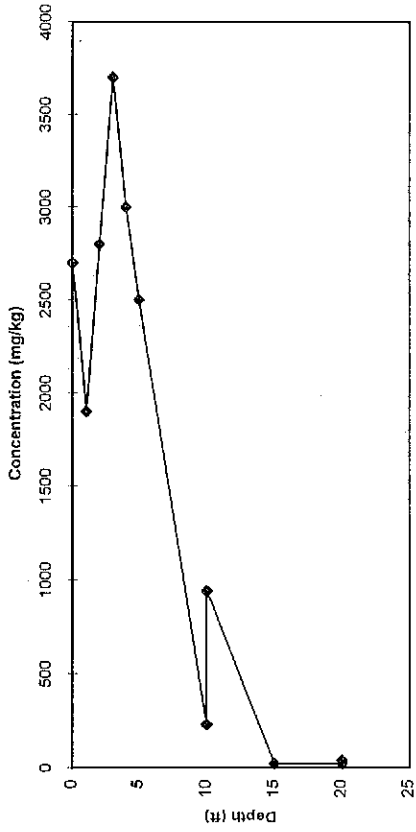


Iron

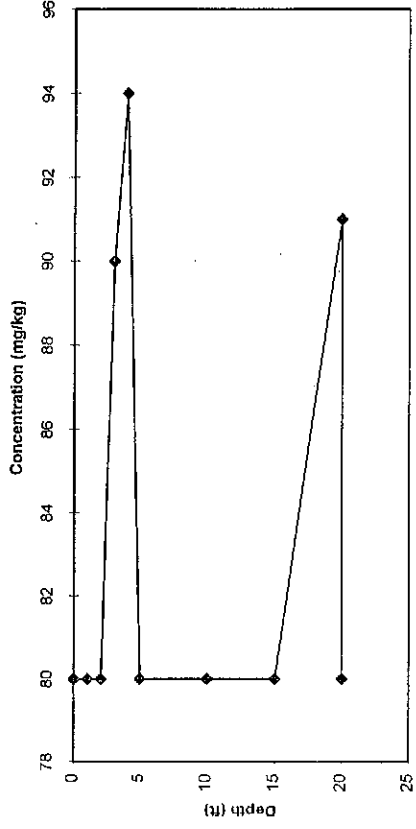


Average Soil Concentrations by Depth, EP-109

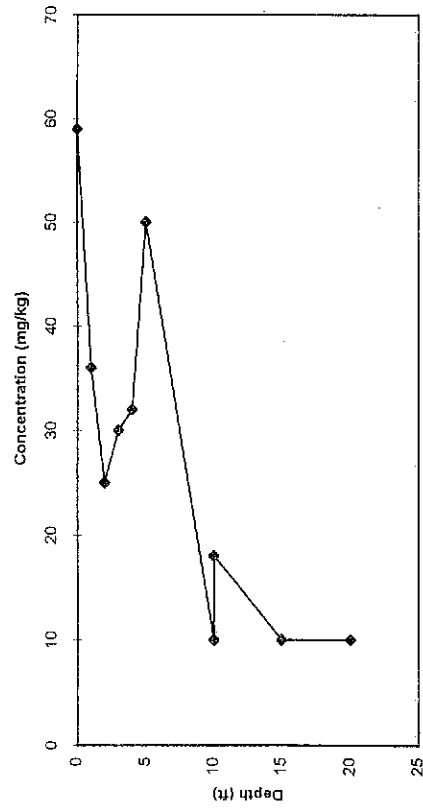
Copper



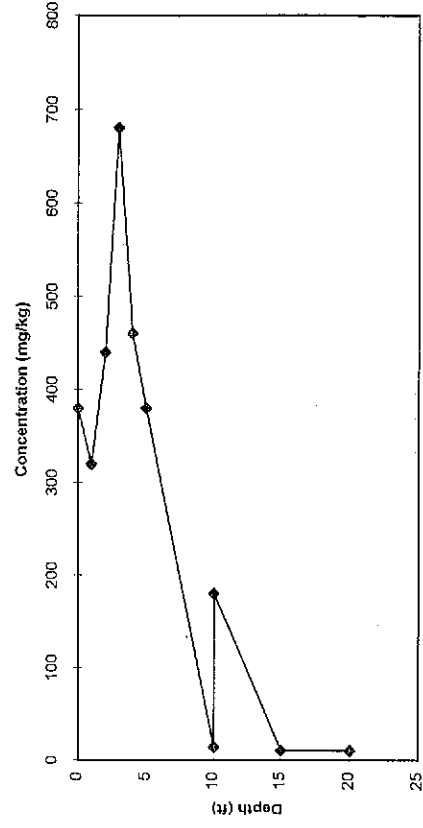
Chromium



Cadmium

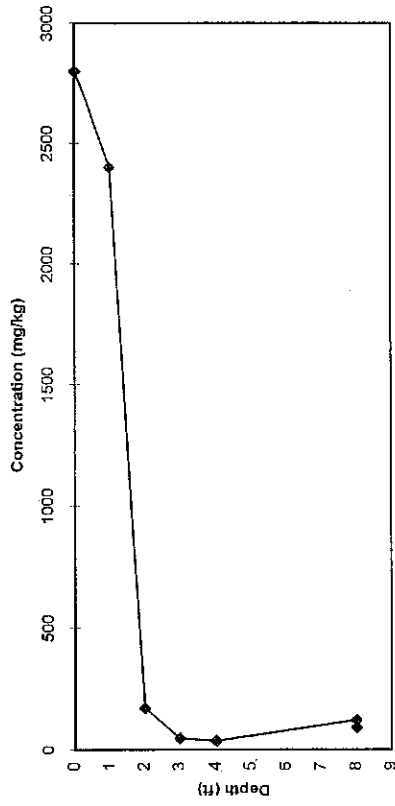


Arsenic

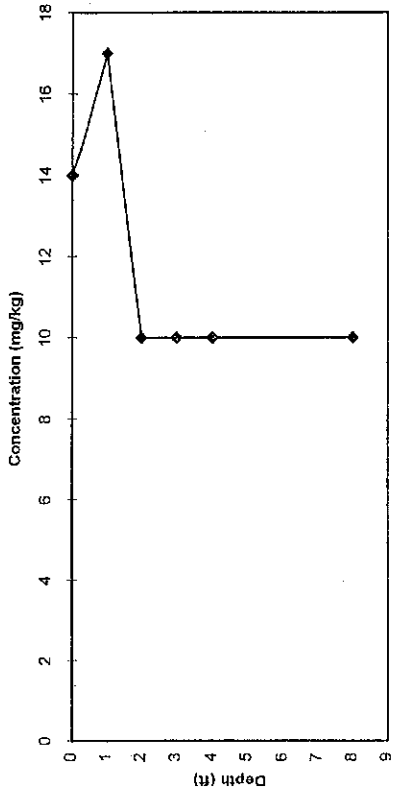


Average Soil Concentrations by Depth, EP-110

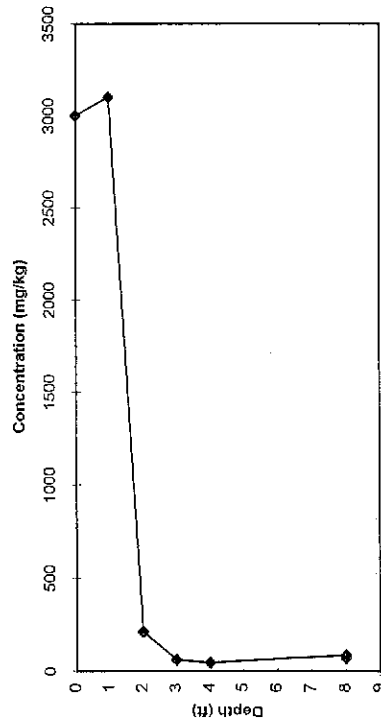
Zinc



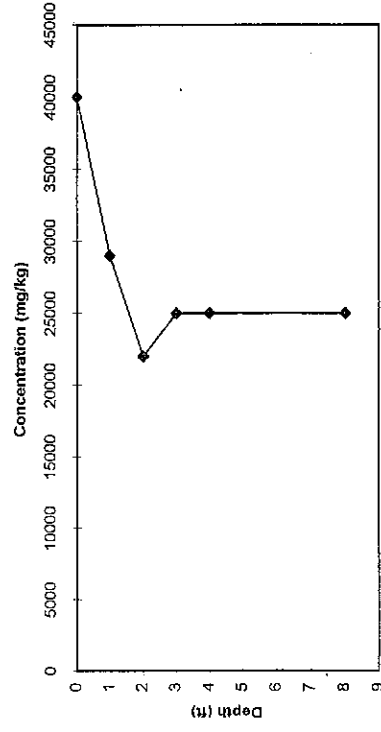
Selenium



Lead

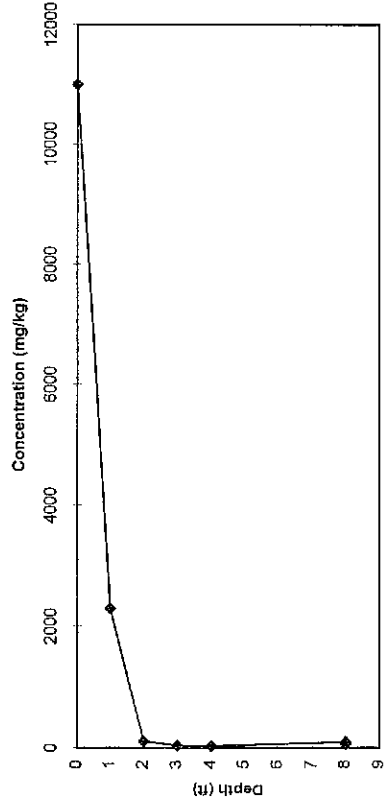


Iron

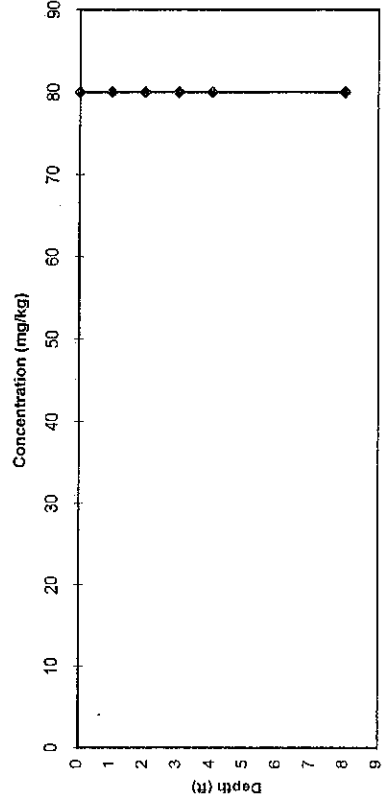


Average Soil Concentrations by Depth, EP-110

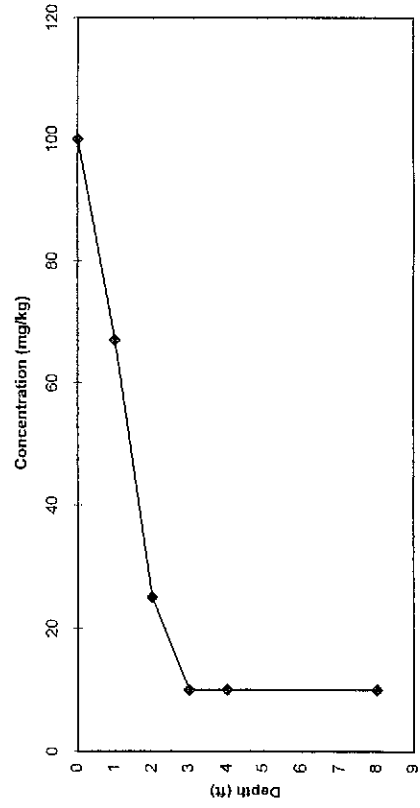
Copper



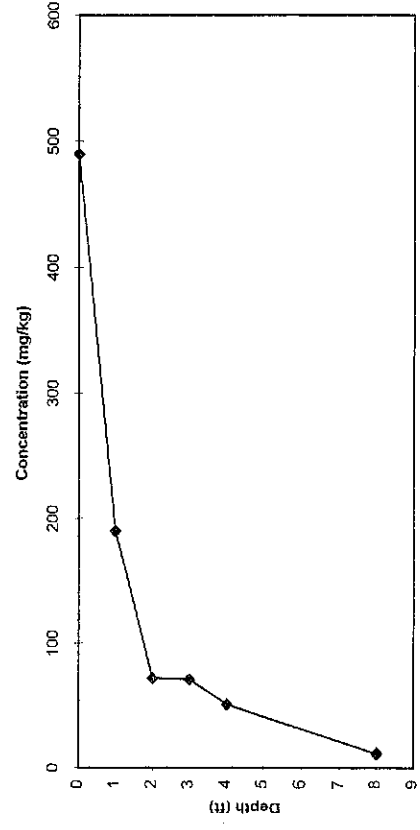
Chromium



Cadmium

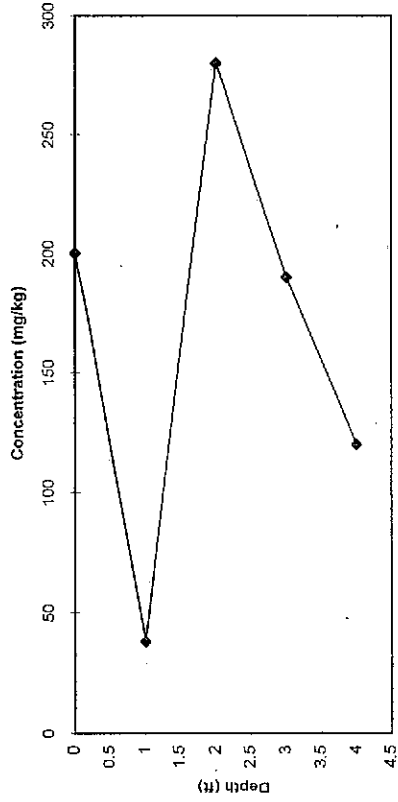


Arsenic

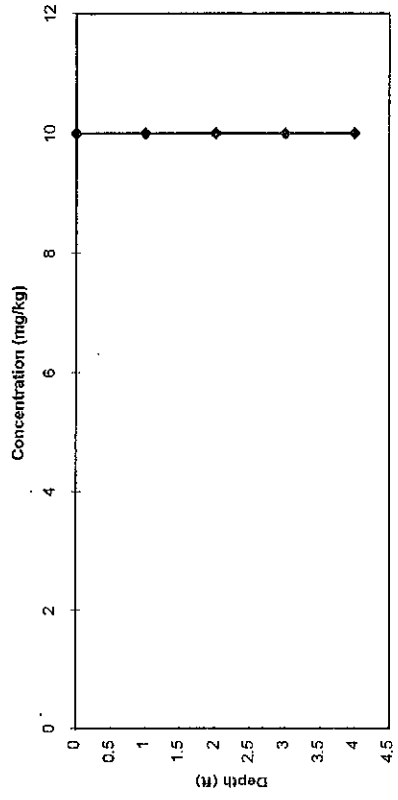


Average Soil Concentrations by Depth, EP-111

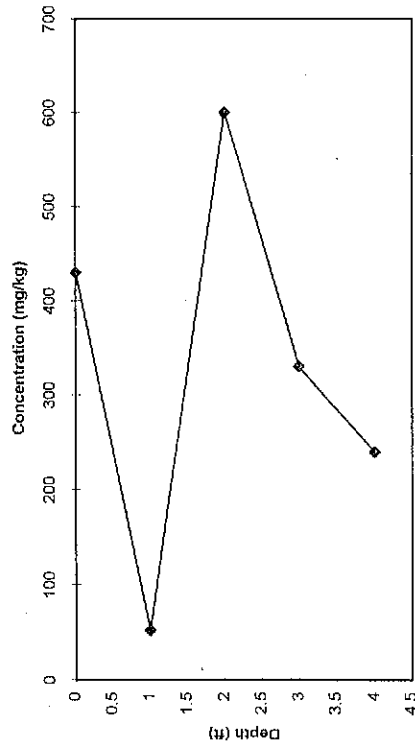
Zinc



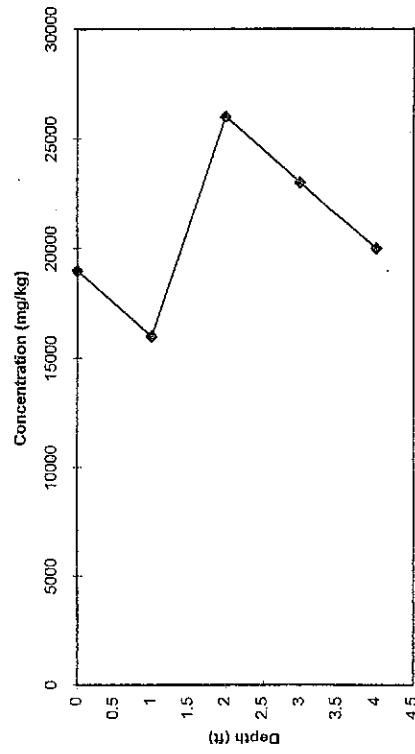
Selenium



Lead

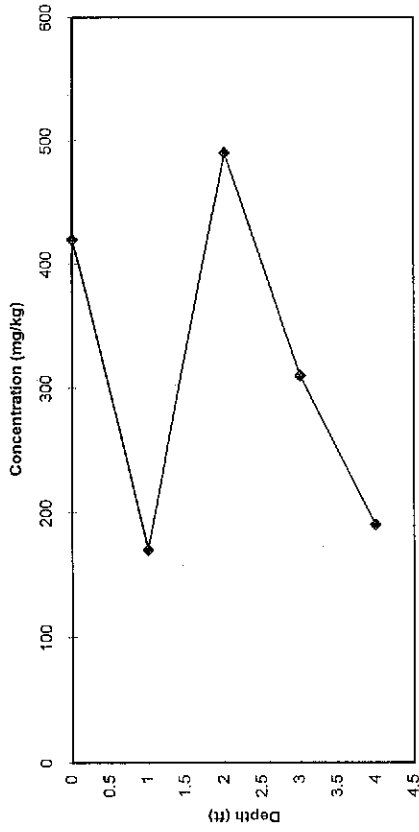


Iron

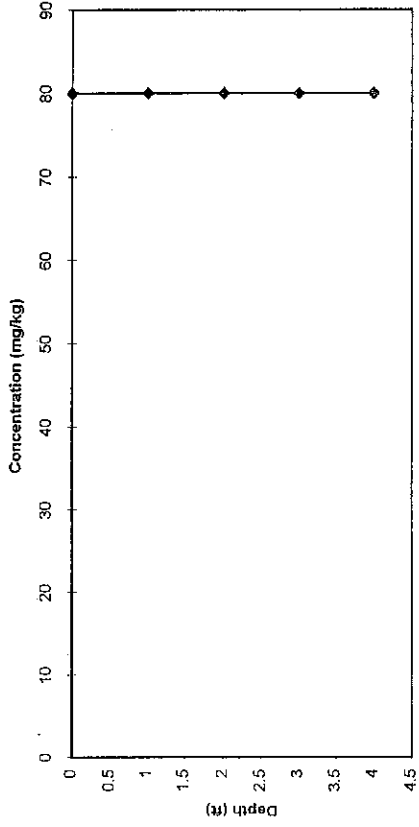


Average Soil Concentrations by Depth, EP-111

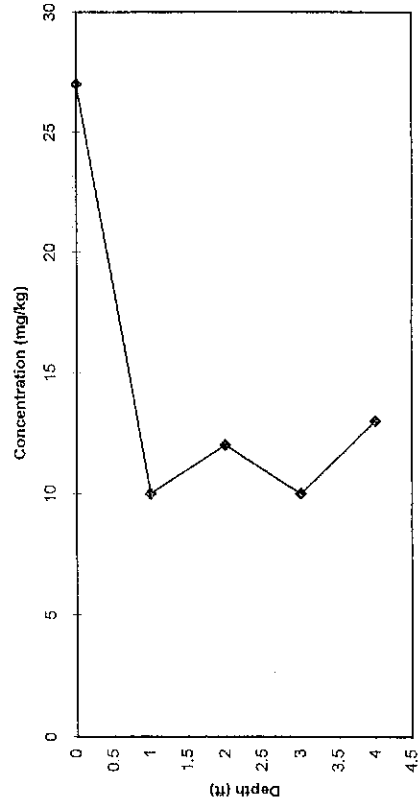
Copper



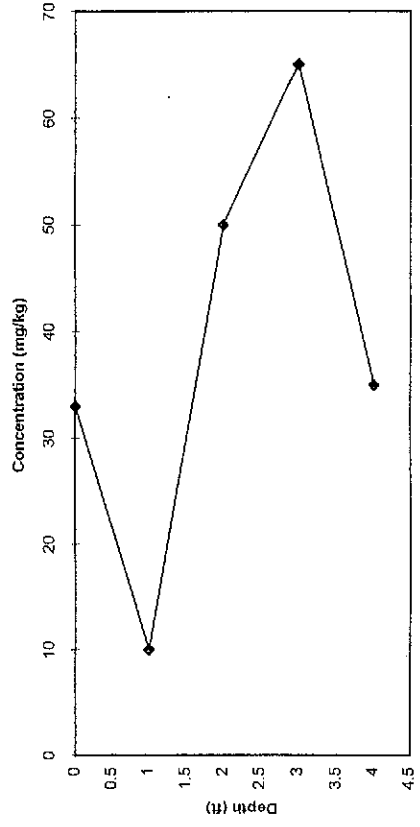
Chromium



Cadmium

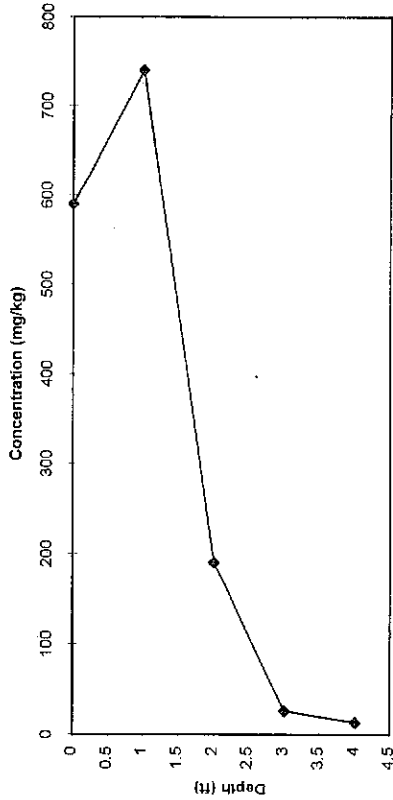


Arsenic

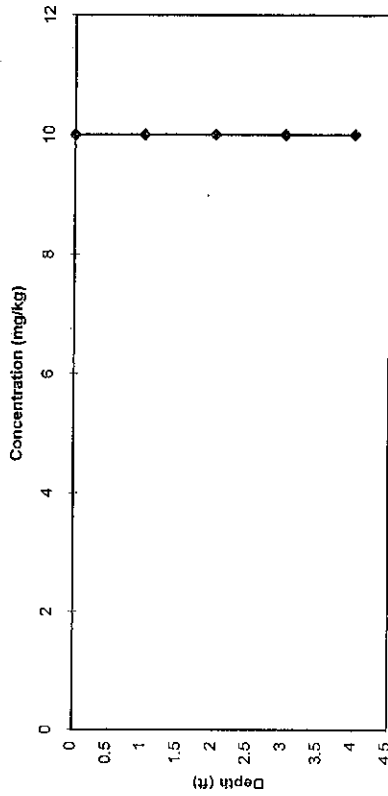


Average Soil Concentrations by Depth, EP-112

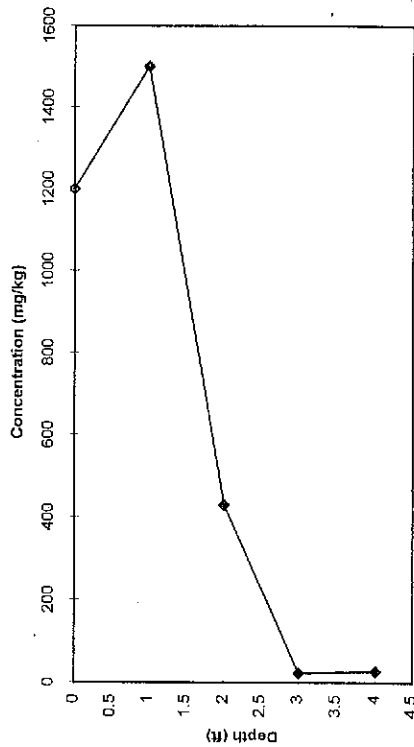
Zinc



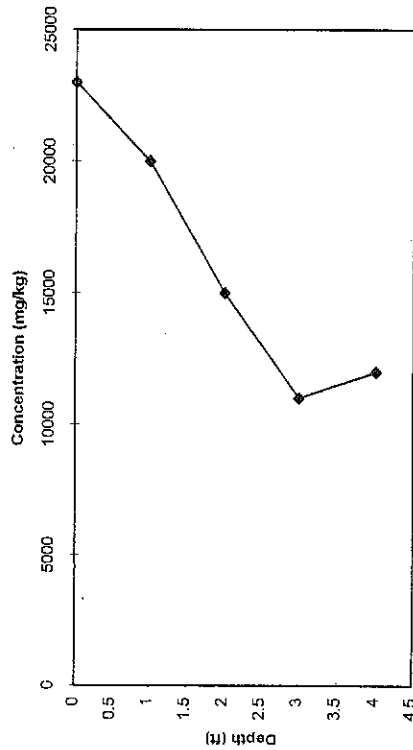
Selenium



Lead

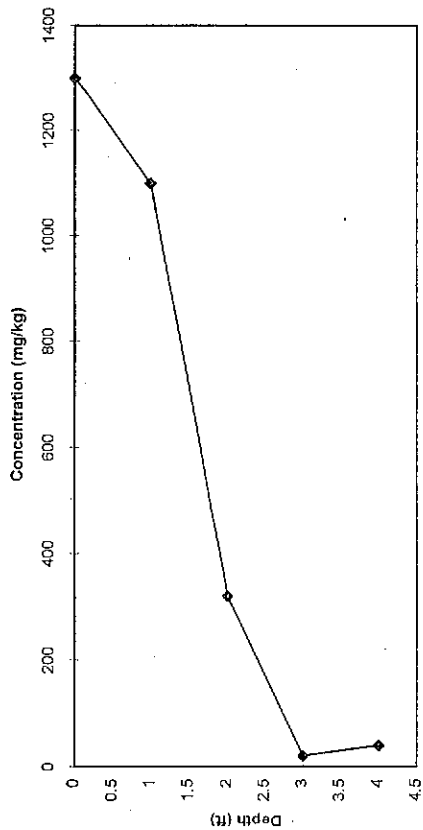


Iron

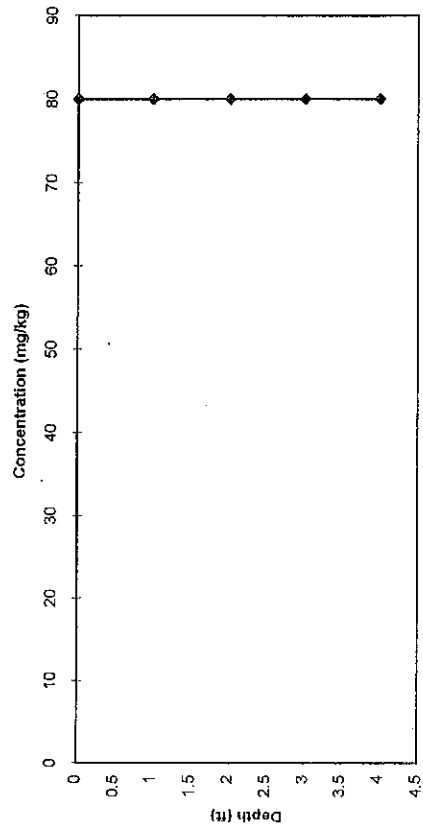


Average Soil Concentrations by Depth, EP-112

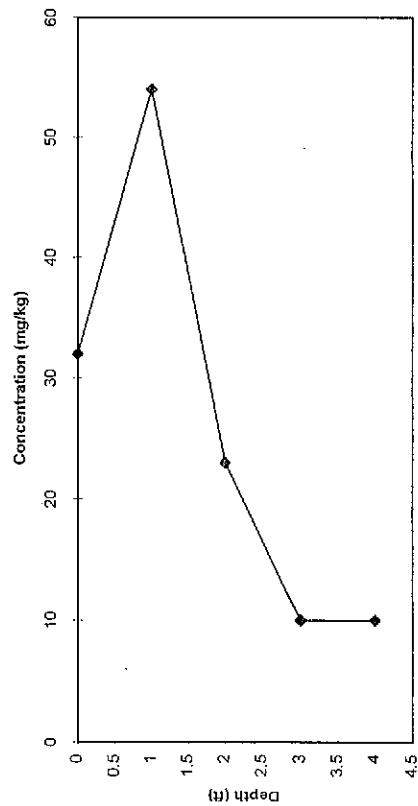
Copper



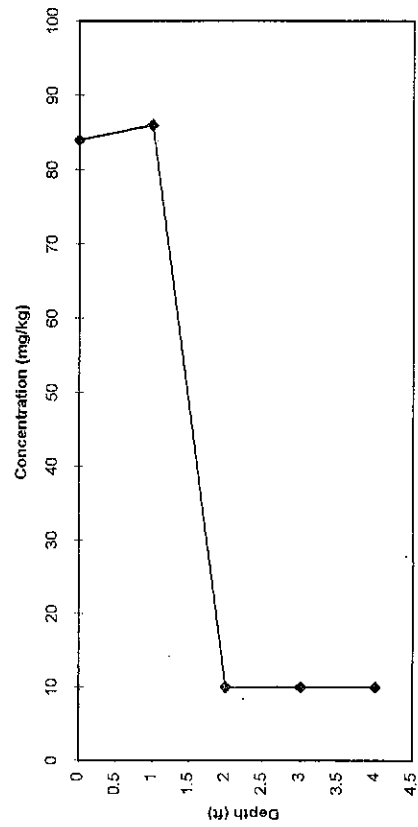
Chromium



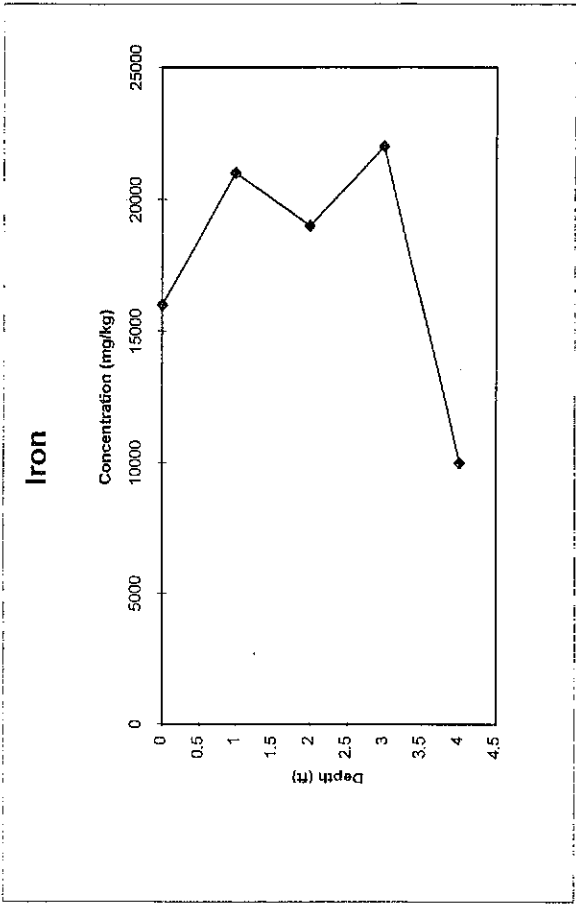
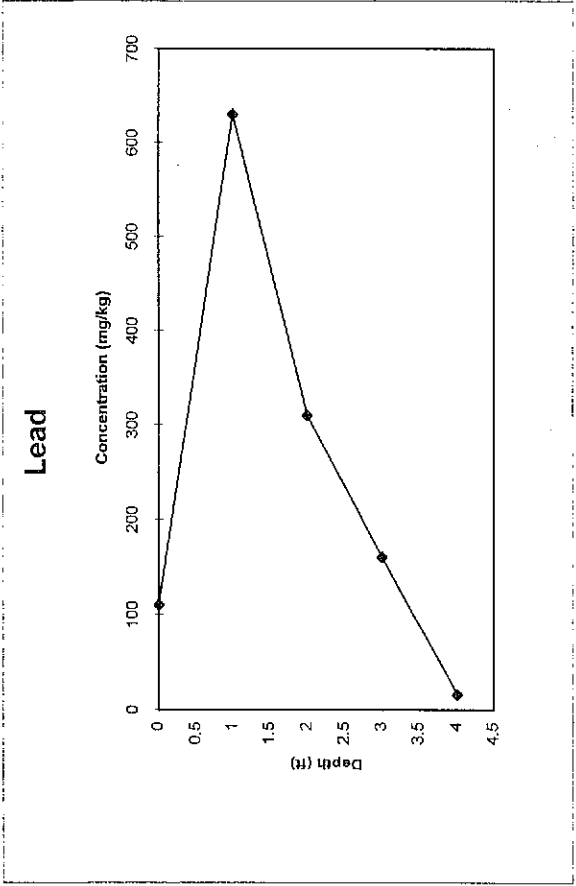
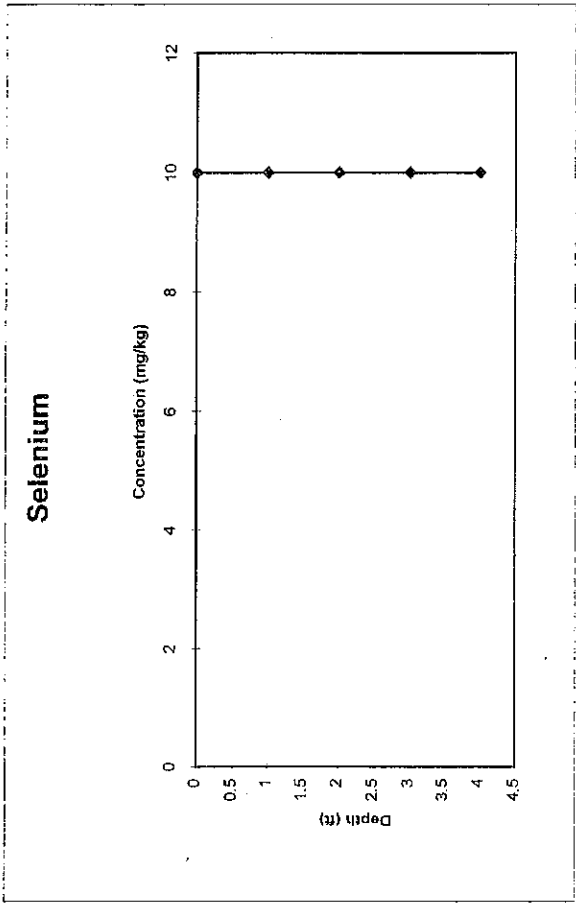
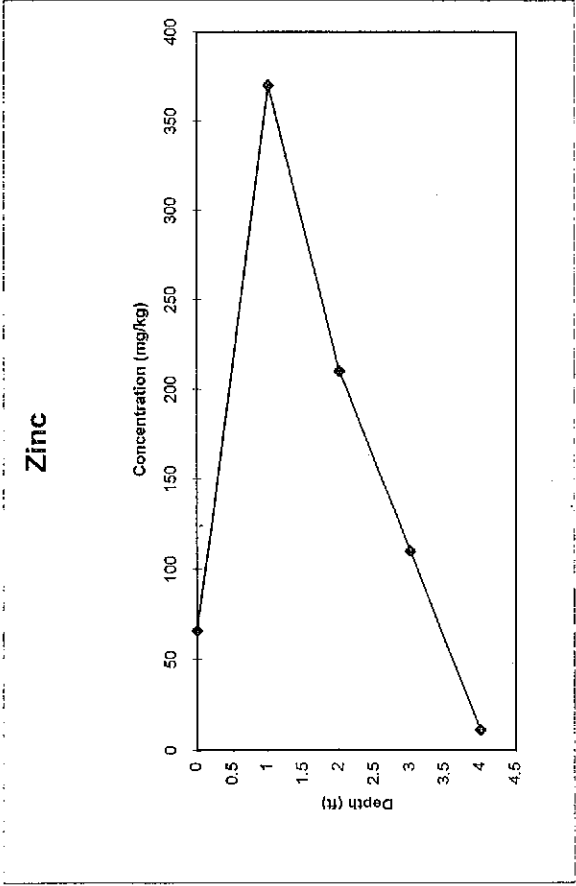
Cadmium



Arsenic

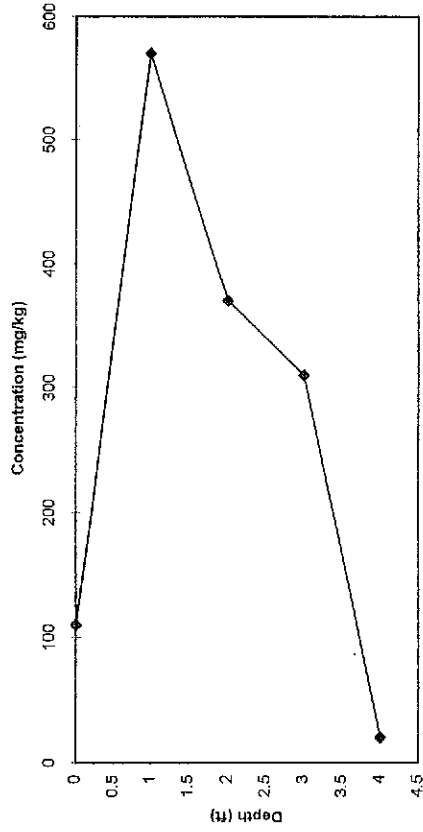


Average Soil Concentrations by Depth, EP-113

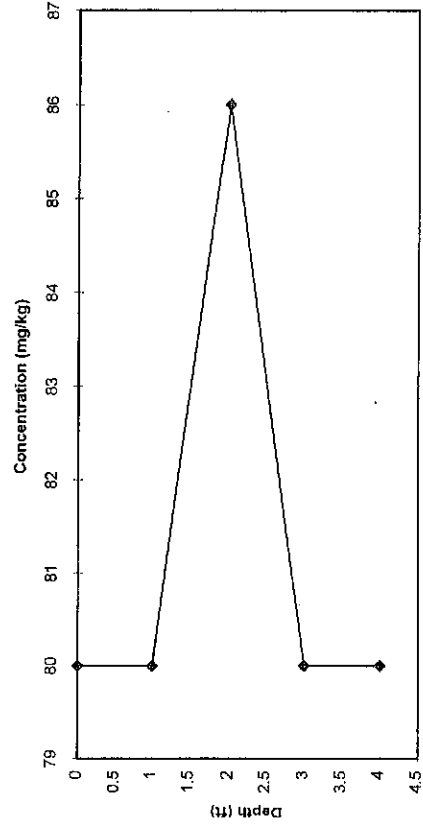


Average Soil Concentrations by Depth, EP-113

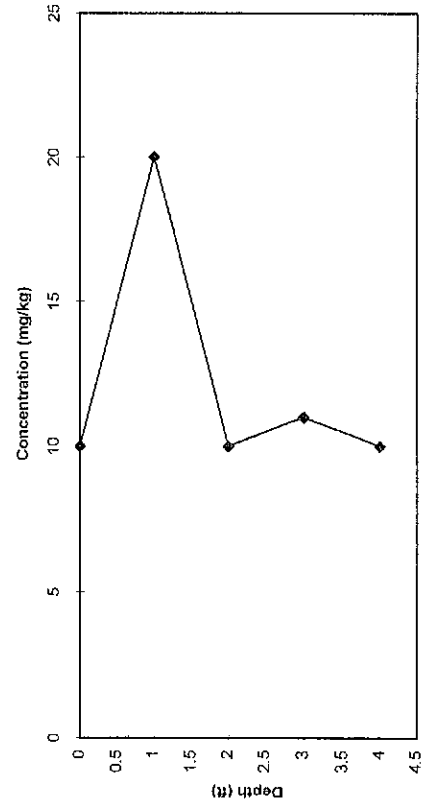
Copper



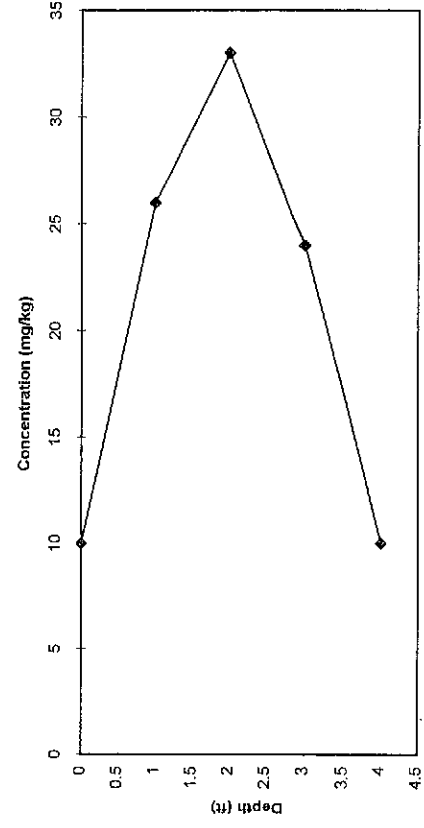
Chromium



Cadmium

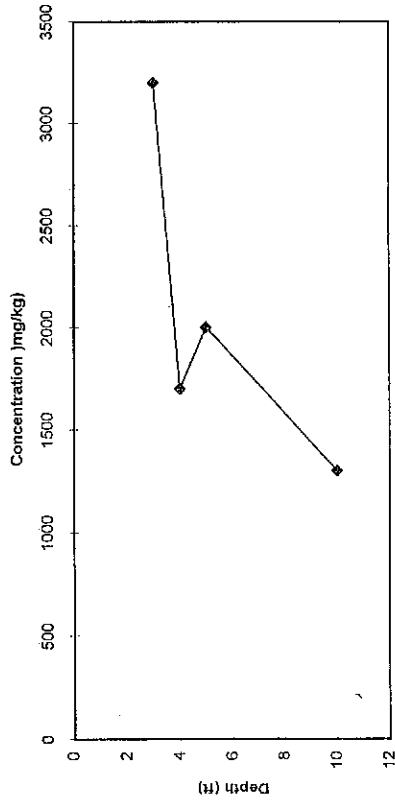


Arsenic

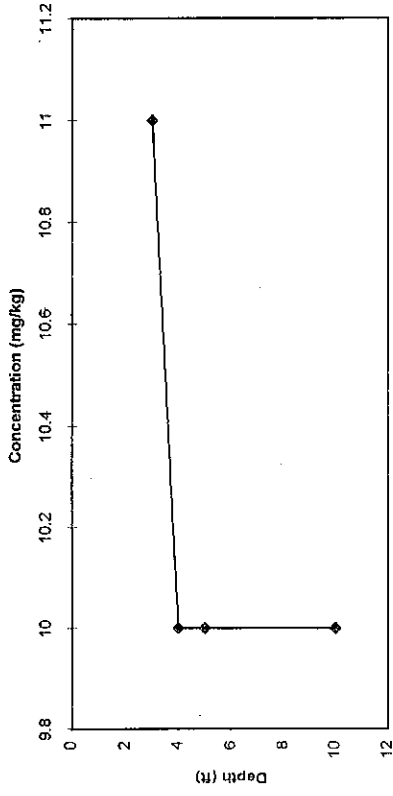


Average Soil Concentrations by Depth, EP-114

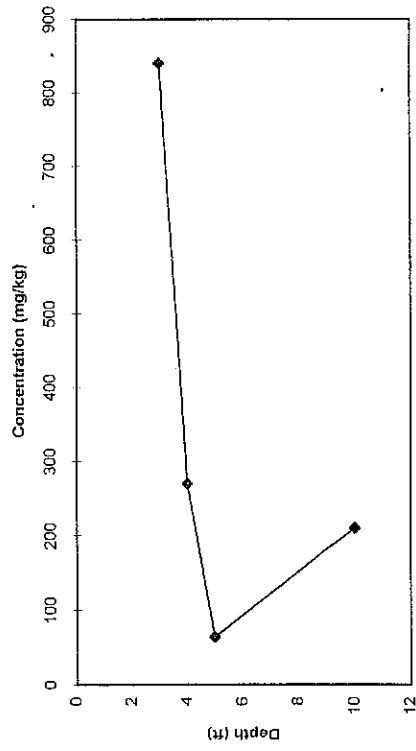
Zinc



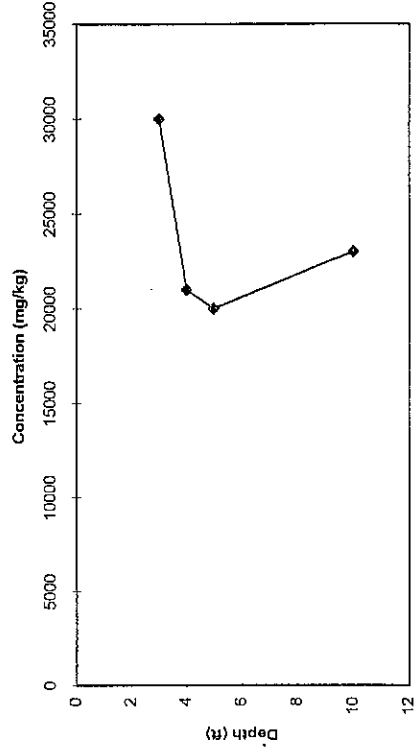
Selenium



Lead

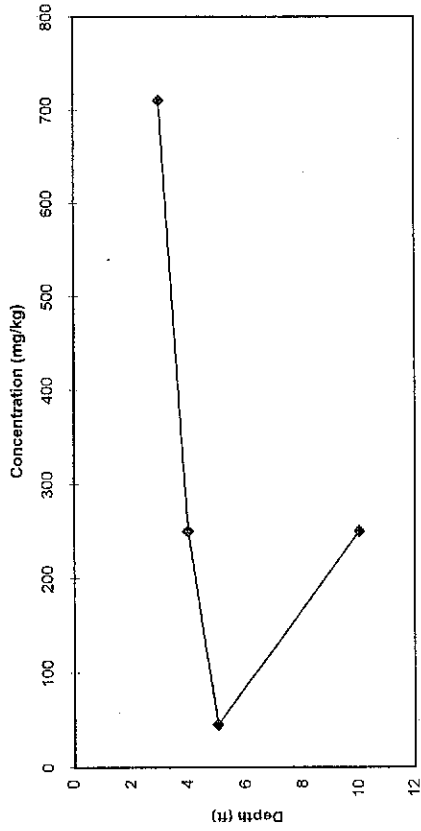


Iron

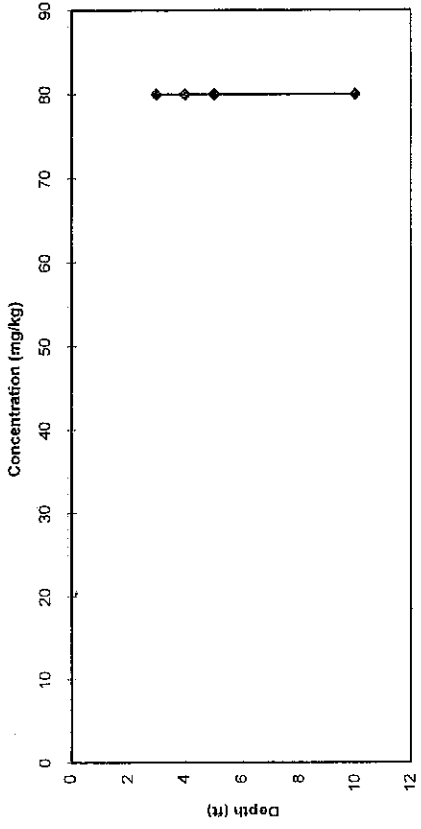


Average Soil Concentrations by Depth, EP-114

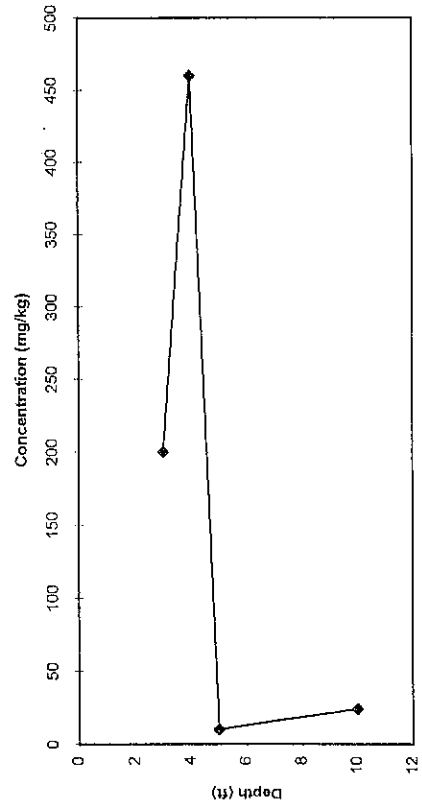
Copper



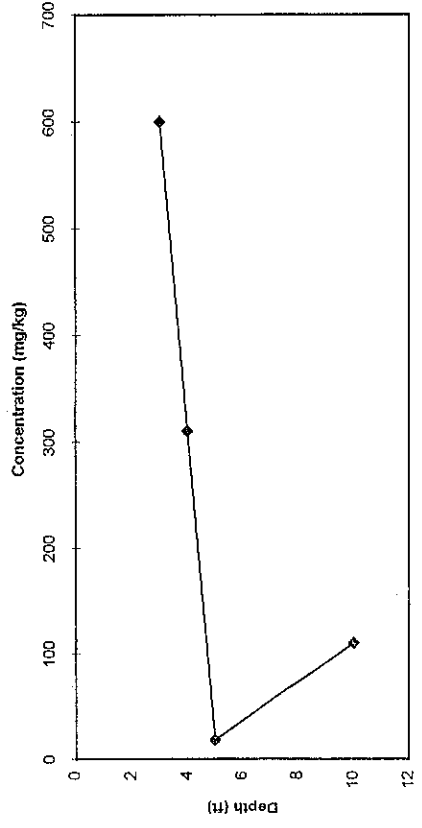
Chromium



Cadmium

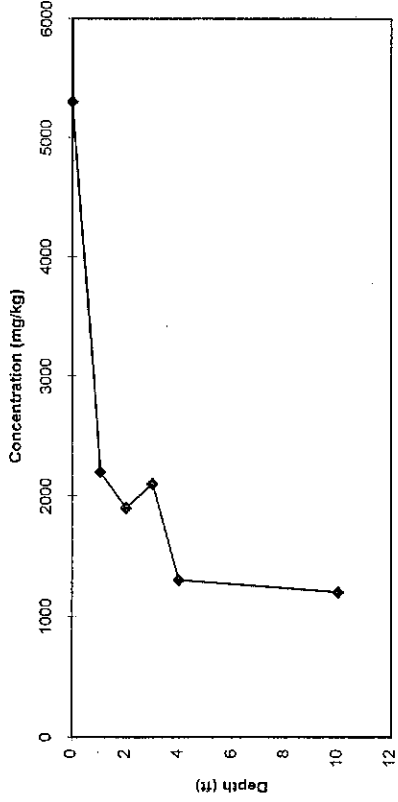


Arsenic

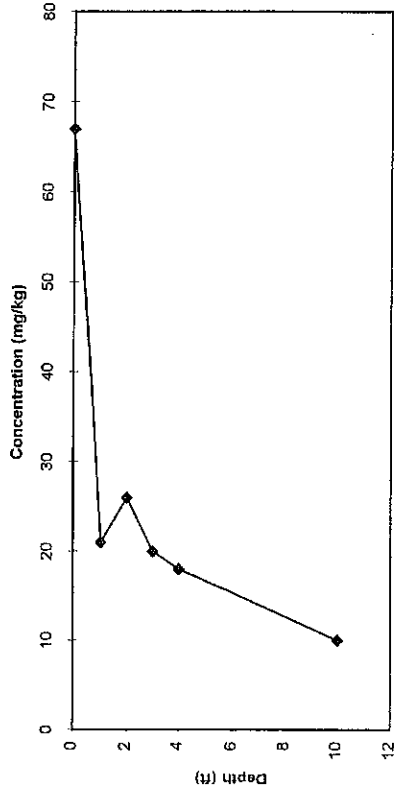


Average Soil Concentrations by Depth, EP-115

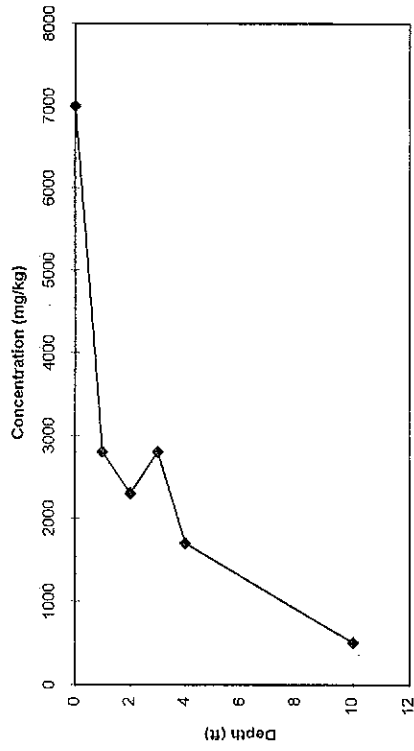
Zinc



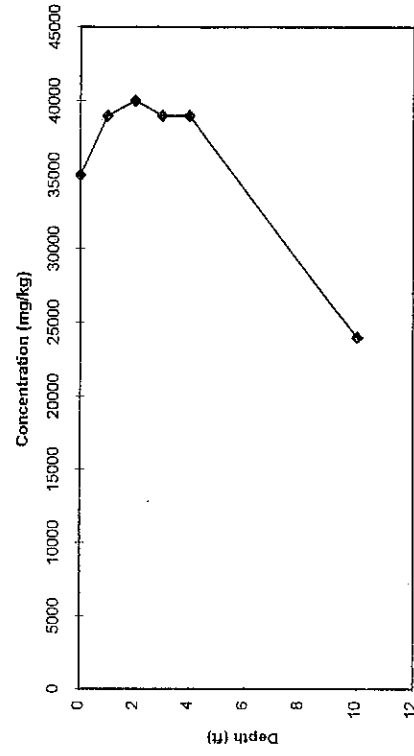
Selenium



Lead

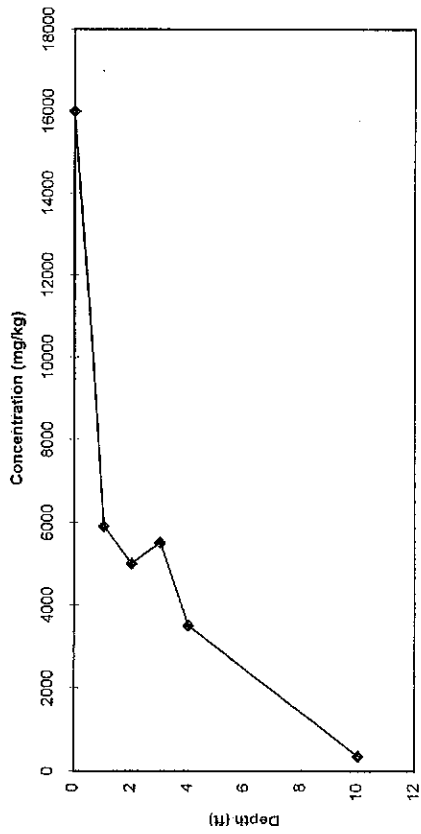


Iron

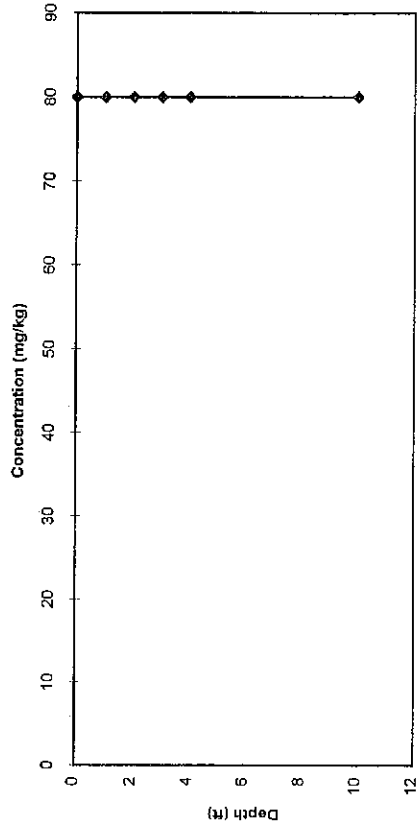


Average Soil Concentrations by Depth, EP-115

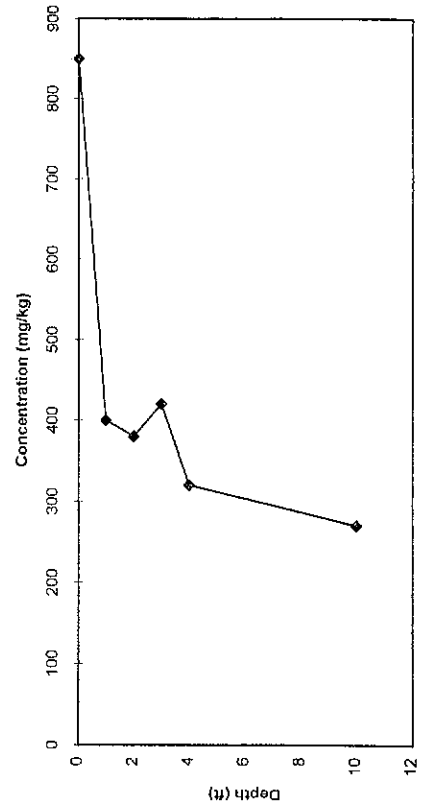
Copper



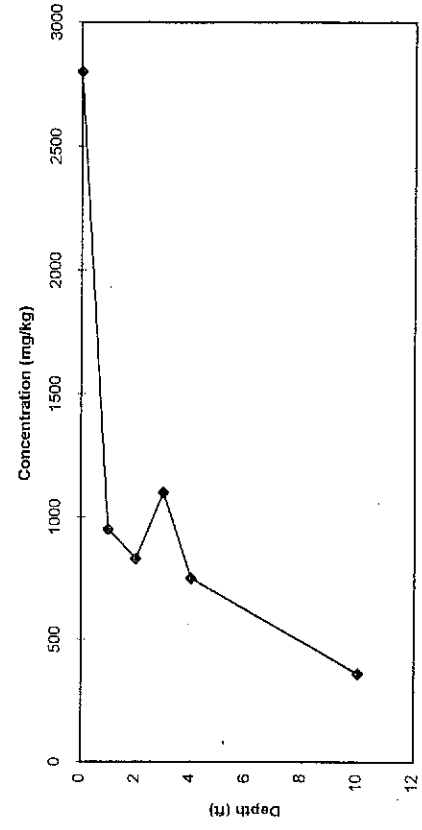
Chromium



Cadmium

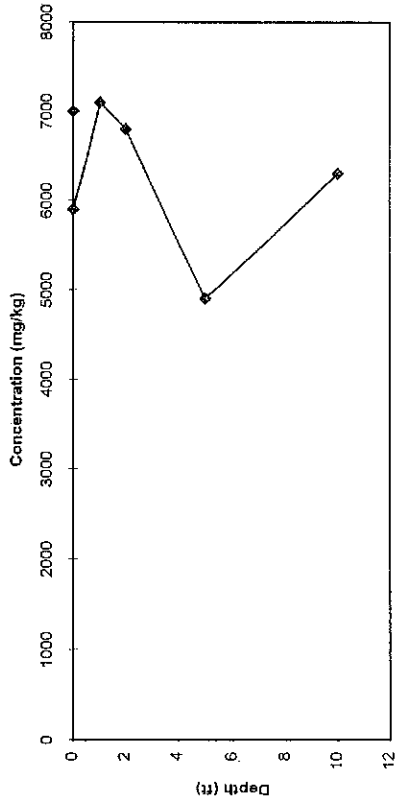


Arsenic

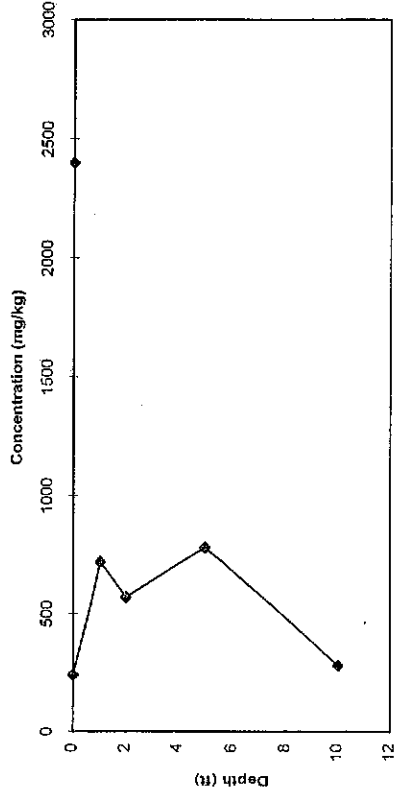


Average Soil Concentrations by Depth, EP-1116

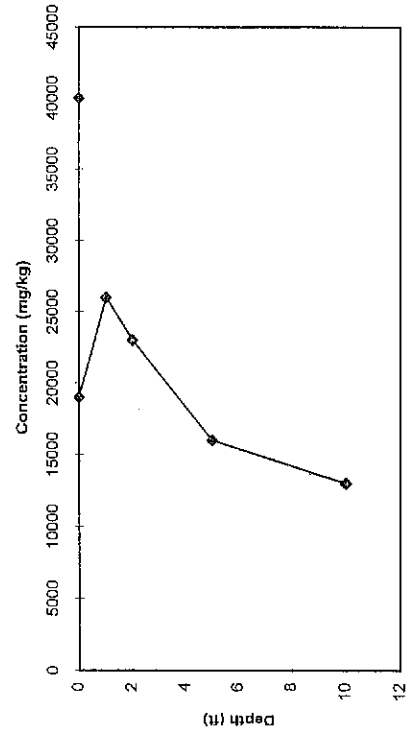
Zinc



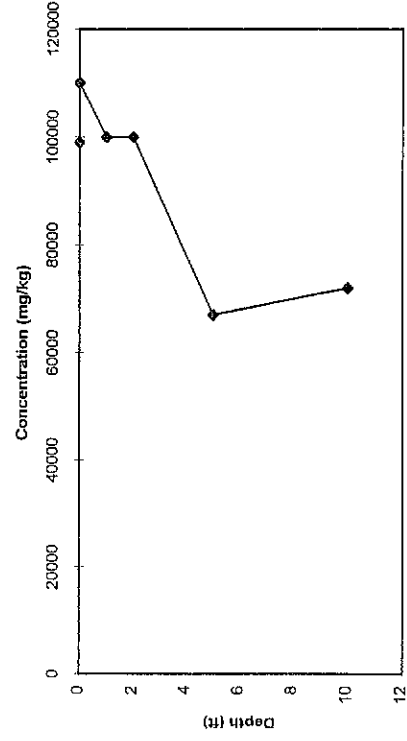
Selenium



Lead

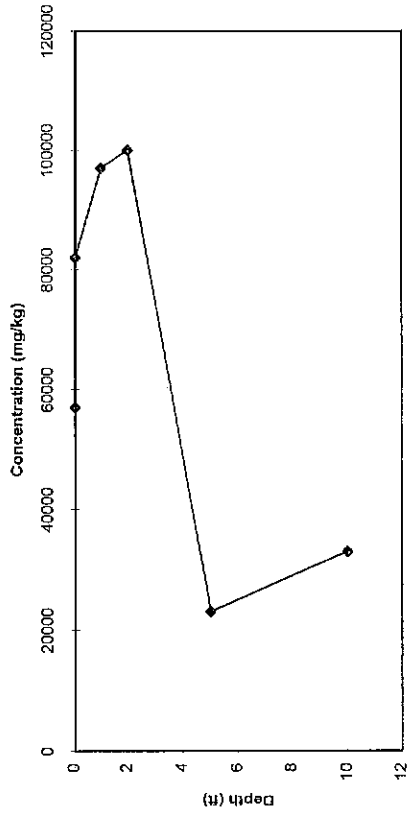


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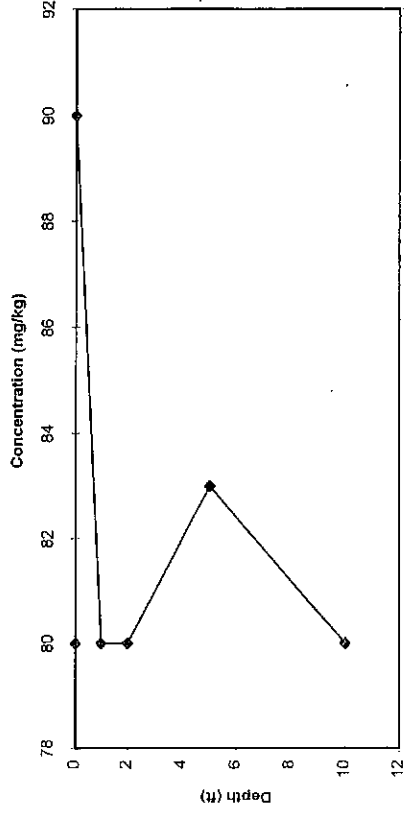


Average Soil Concentrations by Depth, EP-116

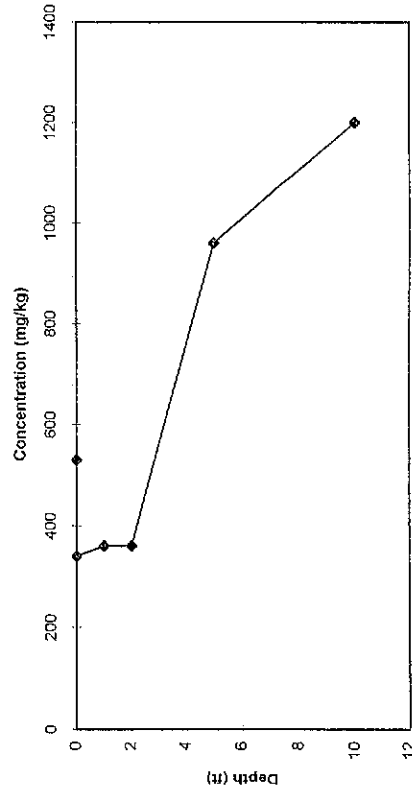
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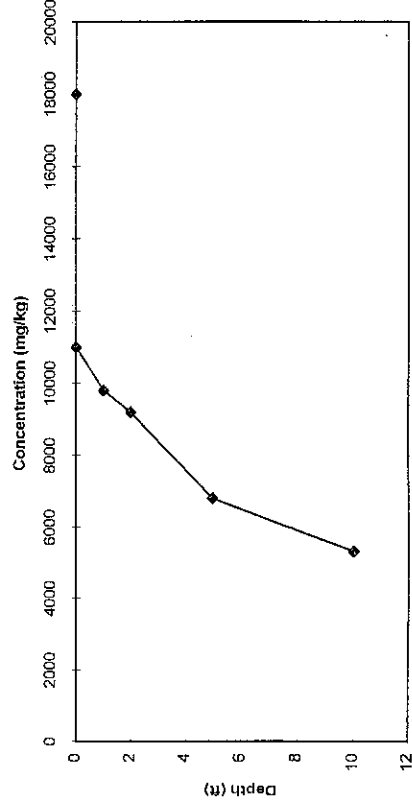
Chromium



Cadmium

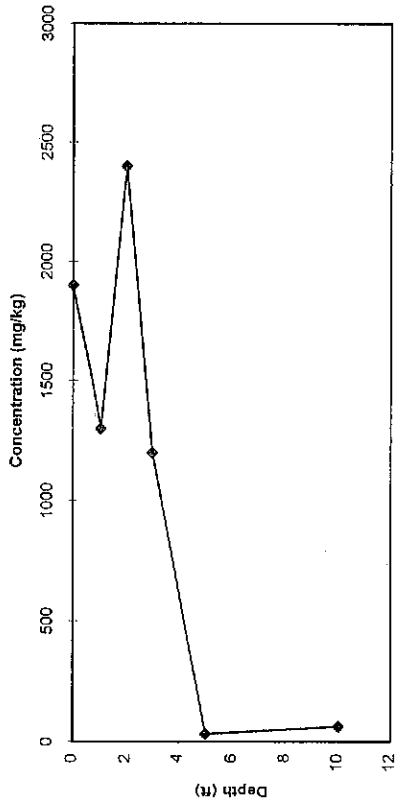


Arsenic

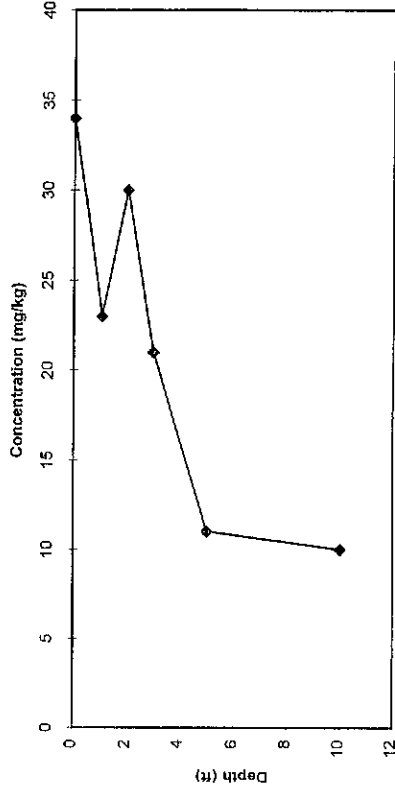


Average Soil Concentrations by Depth, EP-117

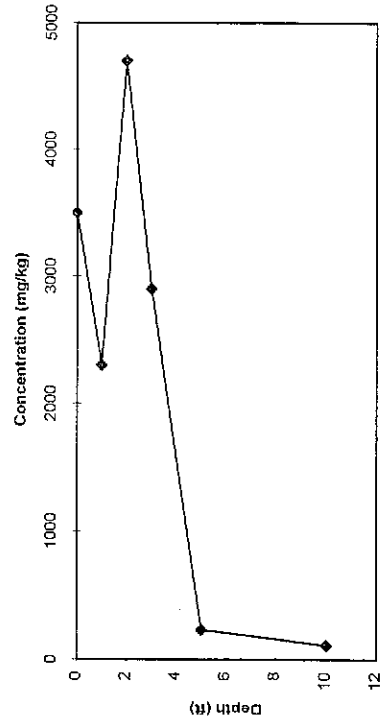
Zinc



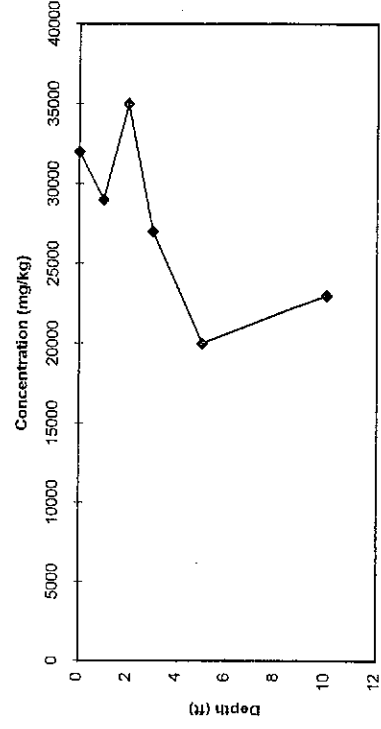
Selenium



Lead

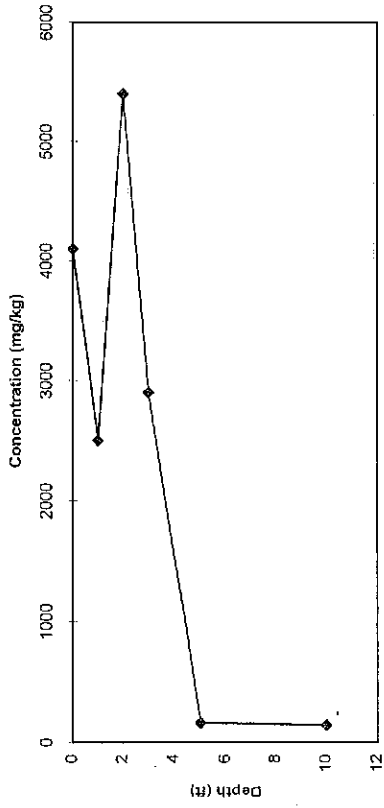


Iron

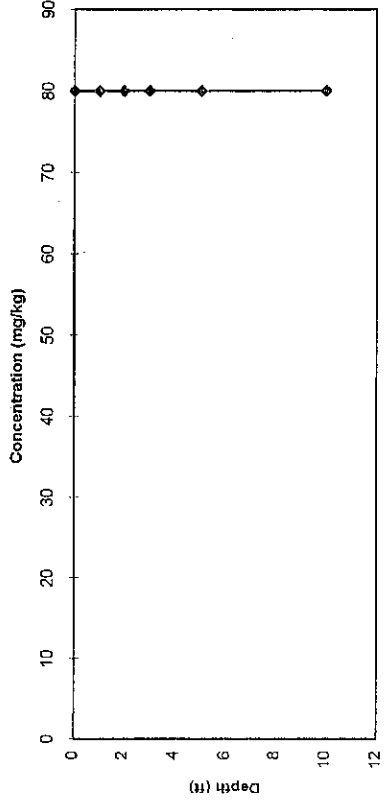


Average Soil Concentrations by Depth, EP-117

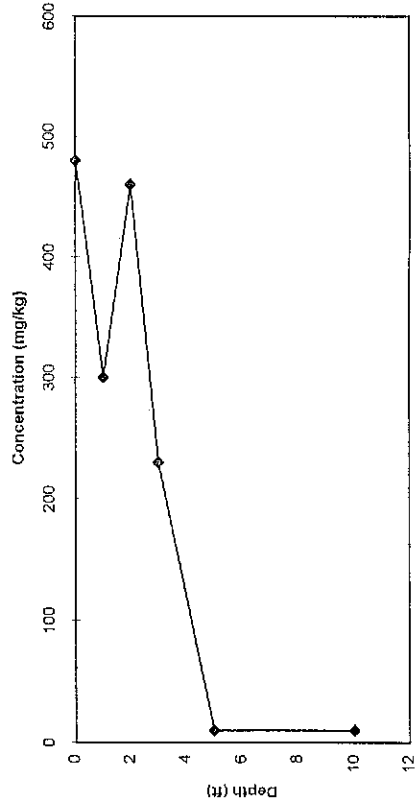
Copper



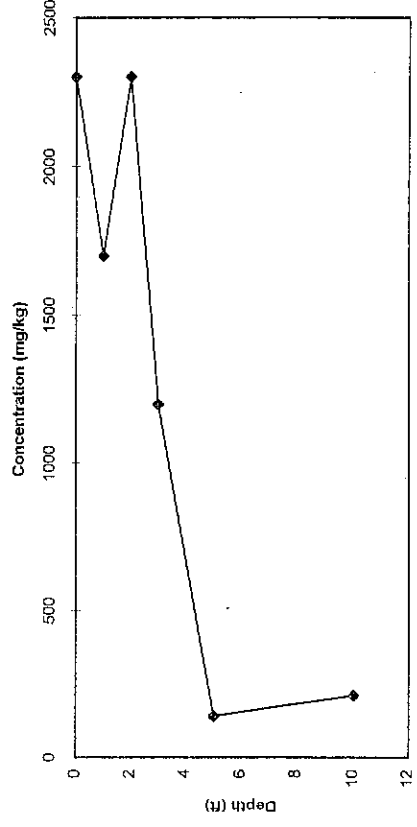
Chromium



Cadmium

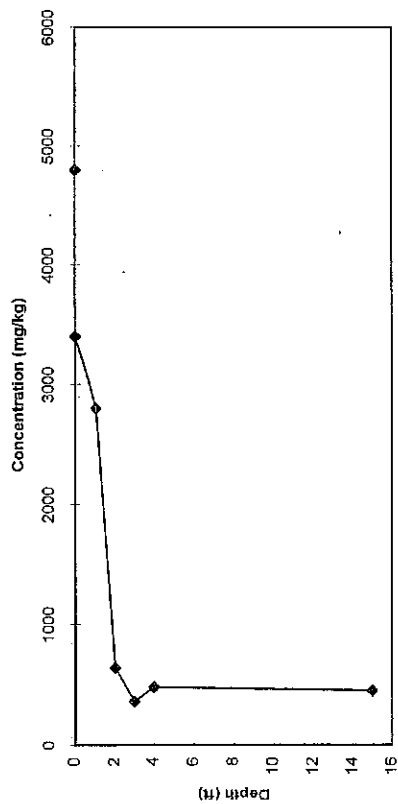


Arsenic

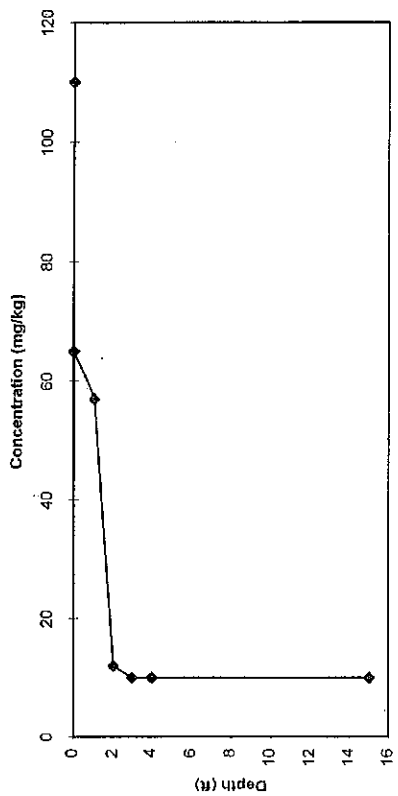


Average Soil Concentrations by Depth, EP-118

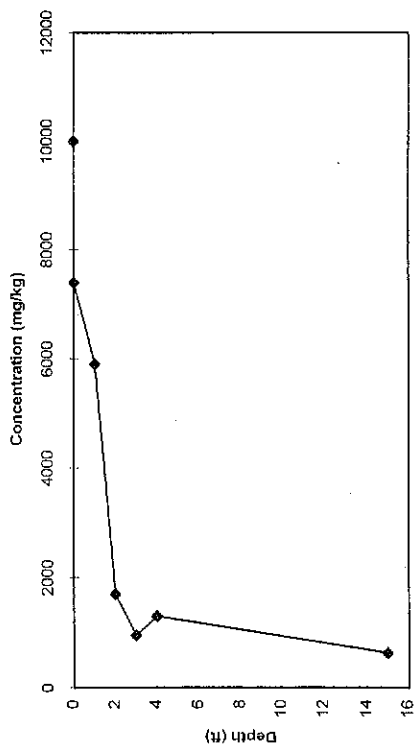
Zinc



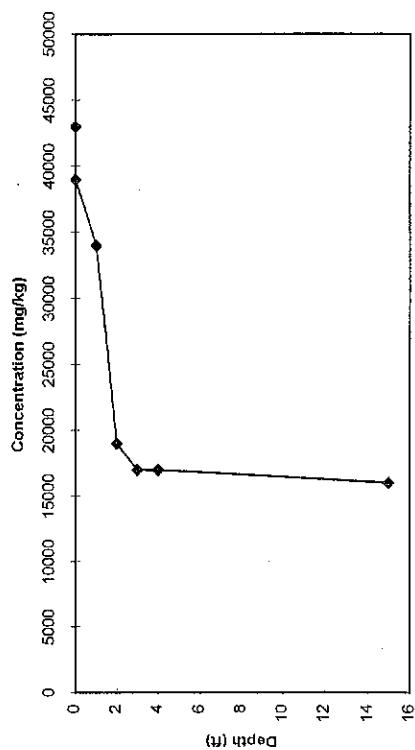
Selenium



Lead

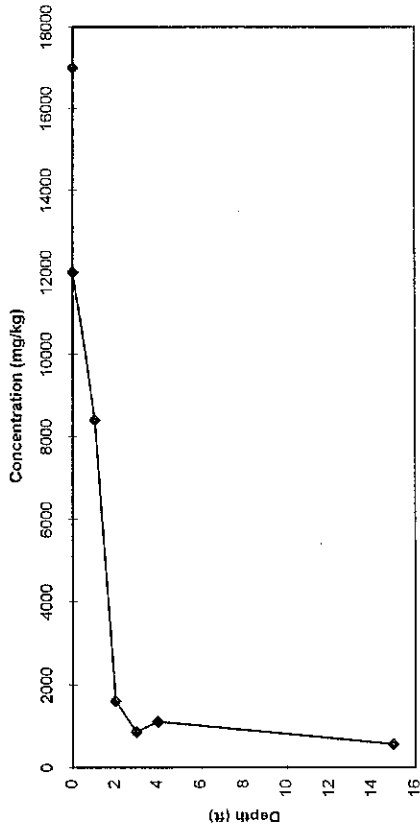


Iron

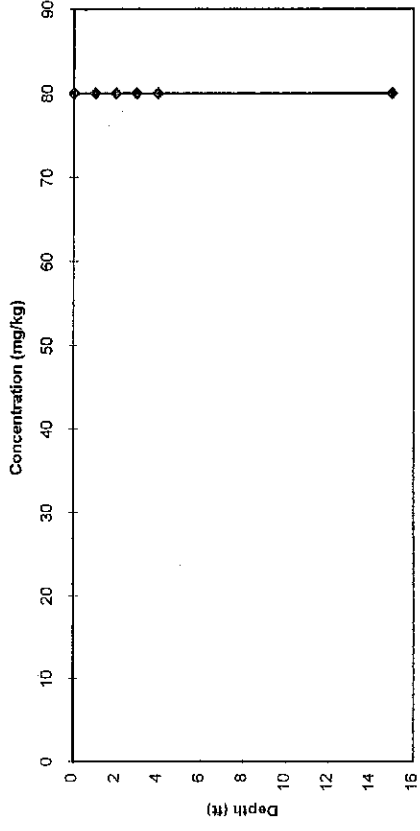


Average Soil Concentrations by Depth, EP-118

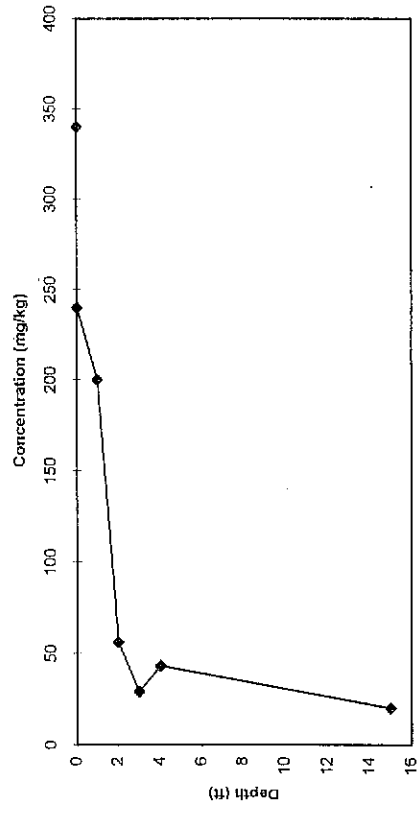
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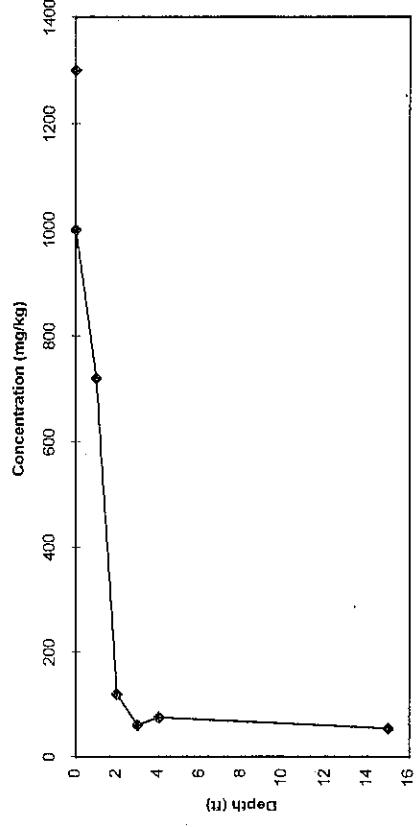
Chromium



Cadmium



Arsenic



APPENDIX F

SUMMARY OF SURFACE WATER QUALITY DATA

MAY 1998 TO FEBREUARY 2000

APPENDIX F

SUMMARY OF SURFACE WATER QUALITY DATA

MAY 1998 TO FEBRUARY 2000

APPENDIX F

SUMMARY OF SURFACE WATER QUALITY DATA

MAY 1998 TO FEBRUARY 2000

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TABLE F-1

**ANALYTICAL RESULTS FOR DISSOLVED METALS,
SURFACE WATER SAMPLES**

Table F-1. Summary of Surface Water Quality, August 1997 through August 1999
Dissolved Metals

Site	Date	Sampl #	Type	(O) (ft)	pH (ft)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (ft)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS		
POND 1	12/22/97	EPRI-9711-182	SW		7.58	7.50	27200	24500	0.14	16	0.01	U	0.76	U	0.13	0.74	137	
POND 1	02/19/98	EPRI-9802-171	SW	8.15	7.85	7.70	25600	22900	0.59	15	0.01	U	0.47	U	0.09	0.91	116	
POND 1	05/19/98	EPRI-9805-171	SW	5.29	7.85	7.90	30100	49000	0.064	22	0.01	U	0.52	U	0.18	1.7	82	
POND 1	8/18/98	EPRI-9808-171	SW	4.10	7.82	8.1	126300	78600	0.22	35	0.010	U	0.75	U	0.49	2.9	51	
POND 1	11/18/98	EPRI-9811-171	SW	7.10	7.38	8.0	8260	8200	0.34	1.9	0.010	U	0.51	U	0.18	0.38	3.6	
POND 1	2/19/99	EPRI-9902-173	SW	12.3	8.12	8.1	19330	13540	0.19	6.2	0.01	U	0.49	U	0.11	0.97	7.0	
POND 1	5/12/99	EPRI-9905-174	SW	7.00	6.75	7.9	34600	33000	0.082	19	0.010	U	0.41	U	0.049	1.4	33	
POND 1	08/11/99	EPRI-9908-174	SW	4.2	7.68	7.9	46400	48700	0.42	18	0.01	U	1.5	U	0.35	2.1	9.8	
Average				6.88	7.63	7.89	42224	33305	0.256	16.638	0.010	0.676	0.104	0.197	1.388	54.925		
Median				7.00	7.75	7.9	30900	29750	0.205	17.000	0.010	0.515	0.100	0.155	1.185	42.000		
Standard Deviation				2.84	0.42	0.20	36618	22796	0.182	10.019	0.000	0.357	0.007	0.149	0.822	51.635		
Minimum				4.10	6.75	7.50	8260	8200	0.064	1.900	0.010	0.410	0.100	0.049	0.380	3.600		
Maximum				12.30	8.12	8.10	126300	78600	0.590	35.000	0.010	1.500	0.120	0.490	2.900	137.000		
POND 5	12/22/97	EPRI-9711-183	SW		7.11	7.20	975	1289	0.098	0.054	0.01	U	0.75	U	0.19	0.005	0.6	
POND 5	02/19/98	EPRI-9802-172	SW	7.33	7.55	7.35	1152	1314	0.14	15	0.01	U	0.34	U	0.26	0.43		
POND 5	05/19/98	EPRI-9805-172	SW	8.12	9.17	8.90	1351	1338	0.081	0.021	0.01	U	0.2	U	0.092	0.009	0.22	
POND 5	8/18/98	EPRI-9808-172	SW	5.28	6.76	6.7	1970	1972	0.21	0.067	0.010	U	0.33	U	0.019	0.032	0.82	
Average				6.91	7.76	7.58	1362	1440	0.132	3.786	0.010	0.405	0.180	0.140	6.018	0.518		
Median				7.33	7.55	7.35	1252	1314	0.119	0.061	0.010	0.335	0.160	0.141	0.018	0.515		
Standard Deviation				1.47	1.07	0.94	433	363	0.057	7.476	0.000	0.239	0.098	0.106	0.013	0.255		
Minimum				5.28	6.76	6.70	975	1160	0.081	0.021	0.010	0.200	0.100	0.019	0.005	0.220		
Maximum				8.12	9.17	8.90	1970	1972	0.210	15.000	0.010	0.750	0.300	0.260	0.032	0.820		
POND 6	12/22/97	EPRI-9711-184	SW		7.61	7.70	5330	5870	3.7	0.15	0.01	U	0.96	U	0.14	0.12	0.92	
POND 6	02/19/98	EPRI-9802-173	SW	5.9	8.10	7.80	3960	4430	1.8	0.13	0.01	U	1	U	0.25	0.08	1.8	
POND 6	05/19/98	EPRI-9805-173	SW	8.33	9.22	9.10	4650	4640	2.7	0.059	0.01	U	0.27	U	0.004	0.082	0.16	
POND 6	8/18/98	EPRI-9808-173	SW	4.83	8.41	8.6	5390	5340	0.88	0.12	0.010	U	0.22	U	0.066	0.058	0.30	
POND 6	11/18/98	EPRI-9811-173	SW	6.90	8.10	8.2	4540	4270	1.5	0.27	0.010	U	0.54	U	0.093	0.079	0.98	
POND 6	2/19/99	EPRI-9902-175	SW	10.80	8.75	8.5	2610	2290	0.59	0.041	0.01	U	0.27	U	0.065	0.035	0.19	
POND 6	5/12/99	EPRI-9905-176	SW	9.20	8.85	8.9	2450	2540	0.90	0.064	0.010	U	0.18	U	0.054	0.034	0.12	
POND 6	08/11/99	EPRI-9908-176	SW	7	8.79	8.8	1773	1726	0.4	0.047	0.01	U	0.25	U	0.052	0.022	0.092	
Average				7.57	8.48	8.45	3838	3888	1.559	0.110	0.010	0.461	0.216	0.091	0.064	0.570		
Median				7.00	8.58	8.55	4250	4350	1.200	0.092	0.010	0.270	0.100	0.066	0.069	0.245		
Standard Deviation				2.03	0.52	0.51	1389	1516	1.142	0.077	0.000	0.338	0.239	0.075	0.033	0.612		
Minimum				4.83	7.61	7.70	1773	1726	0.400	0.041	0.010	0.180	0.100	0.004	0.022	0.092		
Maximum				10.80	9.22	9.10	5390	5870	3.700	0.270	0.010	1.000	0.760	0.250	0.120	1.800		
SEP-1	08/15/97	EPRI-9708-163	SW	6.03	8.38	8.30	910	873	0.005	U	0.005	U	0.025	U	0.005	U	0.02	U
SEP-1	11/10/97	EPRI-9711-163	SW	12.17	8.04	8.00	4660	4680	0.82	0.005	U	0.025	U	0.003	U	0.16	0.02	U
SEP-1	02/13/98	EPRI-9802-161	SW	7.38	7.90	7.90	4580	868	0.62	0.13	0.01	U	0.025	U	0.1	0.12	0.02	U
SEP-1	05/20/98	EPRI-9805-164	SW	6.79	8.75	8.20	1095	967	0.007	0.005	0.01	U	0.025	U	0.004	U	0.005	U
SEP-1	8/11/98	EPRI-9808-161	SW	5.90	8.46	8.3	951	958	0.008	0.005	U	0.025	U	0.003	U	0.005	U	
SEP-1	2/19/99	EPRI-9902-156	SW	10.90	8.54	8.3	2100	1831	0.006	0.005	U	0.025	U	0.1	U	0.005	U	
SEP-1	5/12/99	EPRI-9905-157	SW	5.00	7.48	8.0	1172	1319	0.005	0.005	U	0.025	U	0.10	U	0.005	U	
SEP-1	08/20/99	EPRI-9908-157	SW	5.1	8.05	8.3	918	913	0.005	U	0.005	U	0.025	U	0.005	U	0.02	U
Average				7.41	8.14	8.16	2048	1551	0.185	0.021	0.010	0.025	0.100	0.003	0.039	0.021		
Median				6.03	8.215	8.25	1134	963	0.007	0.005	0.010	0.025	0.100	0.003	0.005	0.020		
Standard Deviation				2.90	0.50	0.17	1634	1307	0.335	0.044	0.000	0.000	0.000	0.000	0.063	0.002		
Minimum				5.00	7.38	7.90	910	868	0.005	0.005	0.010	0.025	0.100	0.003	0.005	0.020		
Maximum				12.17	8.75	8.30	4660	4680	0.820	0.130	0.010	0.025	0.100	0.004	0.160	0.025		

Table F-1. Summary of Surface Water Quality, August 1997 through August 1999
Dissolved Metals

	(O)	pH	pH	Specific Conductivity	Specific Conductivity	Arsenic	Cadmium	Chromium	Copper	Iron	Lead	Selenium	Zinc
SEP-10	08/15/97	6.22	8.40	835	818	0.005	U	0.01	U	0.025	U	0.003	U
SEP-10	08/15/97	6.22	8.40	837	818	0.005	U	0.01	U	0.025	U	0.003	U
SEP-10	11/19/97	7.32	8.38	1970	2180	0.007	U	0.01	U	0.025	U	0.003	U
SEP-10	02/13/98		8.29	1474	230	0.006	U	0.01	U	0.025	U	0.003	U
SEP-10	05/19/98	7.43	8.84	1066	1072	0.005	U	0.01	U	0.025	U	0.003	U
SEP-10	05/19/98			1066		0.005	U	0.01	U	0.025	U	0.003	U
SEP-10	05/19/98	6.50	8.58	969	875	0.005	U	0.010	U	0.025	U	0.003	U
SEP-10	11/18/98	7.50	8.32	1894	1882	0.007	U	0.010	U	0.025	U	0.003	U
SEP-10	2/19/99	8.41	8.2	2060	1675	0.005	U	0.01	U	0.025	U	0.003	U
SEP-10	5/13/99	6.00	7.14	1153	1068	0.005	U	0.010	U	0.025	U	0.003	U
SEP-10	08/20/99	5.3	8.17	892	889	0.005	U	0.01	U	0.025	U	0.003	U
Average		6.99	8.29	1292	1151	0.005	U	0.010	U	0.025	U	0.003	U
Median		6.50	8.39	83	979	0.005	U	0.010	U	0.025	U	0.003	U
Standard Deviation		1.48	0.44	474	586	0.001	U	0.000	U	0.000	U	0.000	U
Minimum		5.30	7.14	835	230	0.005	U	0.010	U	0.025	U	0.003	U
Maximum		10.40	8.84	2060	2180	0.007	U	0.010	U	0.025	U	0.003	U
SEP-11	08/15/97	6.33	8.42	814	814	0.005	U	0.01	U	0.025	U	0.003	U
SEP-11	11/10/97	6.97	8.30	1933	1741	0.009	U	0.01	U	0.025	U	0.003	U
SEP-11	02/13/98		8.32	1447	228	0.006	U	0.01	U	0.025	U	0.003	U
SEP-11	05/19/98	7.19	8.79	1071	1063	0.005	U	0.01	U	0.025	U	0.003	U
SEP-11	8/18/98	6.43	8.59	968	869	0.006	U	0.010	U	0.025	U	0.003	U
SEP-11	11/18/98	7.80	8.53	1877	1860	0.007	U	0.010	U	0.025	U	0.003	U
SEP-11 D	11/18/98		8.5	1885		0.007	U	0.010	U	0.025	U	0.003	U
SEP-11	2/19/99	10.90	8.47	83	2060	0.005	U	0.01	U	0.025	U	0.003	U
SEP-11	5/13/99	5.80	7.06	1151	1099	0.005	U	0.010	U	0.025	U	0.003	U
SEP-11 D	5/13/99	5.70	7.07	1154	1101	0.005	U	0.010	U	0.025	U	0.003	U
SEP-11	08/20/99	5.4	8.18	895	887	0.005	U	0.01	U	0.025	U	0.003	U
Average		6.95	8.17	1387	1129	0.006	U	0.010	U	0.025	U	0.003	U
Median		6.43	8.37	84	1154	0.005	U	0.010	U	0.025	U	0.003	U
Standard Deviation		1.67	0.61	469	495	0.001	U	0.000	U	0.000	U	0.000	U
Minimum		5.40	7.06	814	228	0.005	U	0.010	U	0.025	U	0.003	U
Maximum		10.90	8.79	2060	1860	0.009	U	0.010	U	0.025	U	0.003	U
SEP-12	08/15/97	6.34	8.47	850	834	0.005	U	0.01	U	0.025	U	0.003	U
SEP-12	11/10/97	6.64	8.37	1970	1648	0.009	U	0.01	U	0.025	U	0.003	U
SEP-12	02/13/98		8.39	1422	212	0.006	U	0.01	U	0.025	U	0.003	U
SEP-12	05/19/98	6.87	8.82	1064	1125	0.005	U	0.01	U	0.025	U	0.003	U
SEP-12	8/20/98	5.55	8.60	952	974	0.005	U	0.010	U	0.025	U	0.003	U
SEP-12	11/18/98	8.00	8.24	1877	1866	0.006	U	0.010	U	0.025	U	0.003	U
SEP-12	2/19/99	9.9	8.39	2070	1573	0.005	U	0.010	U	0.025	U	0.003	U
SEP-12	5/13/99	5.80	6.94	1166	1214	0.005	U	0.010	U	0.025	U	0.003	U
SEP-12	08/20/99	5.5	8.15	902	900	0.005	U	0.01	U	0.025	U	0.003	U
Average		6.83	8.26	1364	1130	0.006	U	0.010	U	0.025	U	0.003	U
Median		6.49	8.39	84	1166	0.005	U	0.010	U	0.025	U	0.003	U
Standard Deviation		1.49	0.53	488	502	0.001	U	0.000	U	0.000	U	0.000	U
Minimum		5.50	6.94	850	212	0.005	U	0.010	U	0.025	U	0.003	U
Maximum		9.90	8.82	2070	1866	0.009	U	0.010	U	0.025	U	0.003	U

Table F-1. Summary of Surface Water Quality, August 1997 through August 1999
Dissolved Metals

		(O)	pH	pH	Specific Conductivity	Specific Conductivity	Arsenic	Cadmium	Chromium	Copper	Iron	Lead	Selenium	Zinc
SEP-4	08/15/97	6.37	8.54	8.40	858	855	0.005	U	0.01	U	0.025	U	0.003	U
SEP-4	11/10/97	6.75	8.39	7.90	1952	1955	0.009	U	0.01	U	0.025	U	0.003	U
SEP-4	02/13/98	7.37	8.41	8.40	1388	197.7	0.007	U	0.01	U	0.025	U	0.003	U
SEP-4	05/19/98	5.99	8.86	8.40	1054	1060	0.005	U	0.01	U	0.025	U	0.003	U
SEP-4	8/20/98	8.0	8.58	8.4	954	960	0.005	U	0.010	U	0.025	U	0.003	U
SEP-4	11/18/98	8.0	7.71	8.5	1893	1879	0.007	U	0.010	U	0.025	U	0.003	U
SEP-4	2/19/99	10.2	8.28	8.3	2100	1643	0.006	U	0.01	U	0.025	U	0.003	U
SEP-4	5/13/99	5.60	8.84	8.5	1194	1279	0.005	U	0.010	U	0.025	U	0.003	U
SEP-4	08/20/99	6.1	8.14	8.6	898	896	0.005	U	0.01	U	0.025	U	0.003	U
Average		7.05	8.19	8.38	1366	1152	0.006	U	0.010	U	0.025	U	0.003	U
Median		6.56	8.39	8.4	1194	1060	0.005	U	0.010	U	0.025	U	0.003	U
Standard Deviation		1.49	0.60	0.20	492	511	0.001	U	0.000	U	0.000	U	0.000	U
Minimum		5.60	8.84	7.90	858	198	0.005	U	0.010	U	0.025	U	0.003	U
Maximum		10.20	8.86	8.60	2100	1879	0.009	U	0.010	U	0.025	U	0.003	U
SEP-6	08/18/97	5.33	8.28	8.40	961	943	0.005	U	0.01	U	0.025	U	0.003	U
SEP-6	08/20/99	5.4	8.24	8.2	915	914	0.005	U	0.01	U	0.025	U	0.003	U
SEP-6	08/20/99	5.4	8.25	8.6	915	914	0.005	U	0.01	U	0.025	U	0.003	U
Average		5.38	8.26	8.40	930	924	0.005	U	0.010	U	0.025	U	0.003	U
Median		5.40	8.25	8.4	915	914	0.005	U	0.010	U	0.025	U	0.003	U
Standard Deviation		0.04	0.02	0.20	27	17	0.000	U	0.000	U	0.000	U	0.000	U
Minimum		5.33	8.24	8.20	915	914	0.005	U	0.010	U	0.025	U	0.003	U
Maximum		5.40	8.28	8.60	961	943	0.005	U	0.010	U	0.025	U	0.003	U
SEP-7	08/18/97	4.97	8.35	8.40	896	896	0.005	U	0.01	U	0.025	U	0.003	U
SEP-7	11/10/97	6.96	8.16	8.30	1924	1796	0.009	U	0.01	U	0.025	U	0.003	U
SEP-7	02/13/98	8.49	8.79	8.20	1083	249	0.015	U	0.01	U	0.025	U	0.003	U
SEP-7	05/20/98	6.3	8.79	8.20	1083	963	0.007	U	0.01	U	0.025	U	0.003	U
SEP-7	8/11/98	6.47	8.45	8.5	976	974	0.007	U	0.010	U	0.025	U	0.003	U
SEP-7	11/18/98	8.40	8.35	8.4	1899	1892	0.007	U	0.010	U	0.025	U	0.003	U
SEP-7	2/19/99	16.50	8.41	8.3	2100	1775	0.006	U	0.01	U	0.025	U	0.003	U
SEP-7	5/12/99	5.20	7.54	8.3	1158	1380	0.005	U	0.010	U	0.025	U	0.003	U
SEP-7	08/20/99	5.8	8.14	8.4	894	896	0.005	U	0.01	U	0.025	U	0.003	U
Average		7.58	8.30	8.37	1379	1202	0.007	U	0.010	U	0.025	U	0.003	U
Median		6.39	8.35	8.4	1158	974	0.007	U	0.010	U	0.025	U	0.003	U
Standard Deviation		3.76	0.34	0.10	483	547	0.003	U	0.000	U	0.000	U	0.000	U
Minimum		4.97	7.54	8.20	894	249	0.005	U	0.010	U	0.025	U	0.003	U
Maximum		16.50	8.79	8.50	2100	1892	0.015	U	0.010	U	0.025	U	0.003	U
SEP-9	08/15/97	6.14	8.23	8.30	1133	1108	0.005	U	0.01	U	0.025	U	0.003	U
SEP-9	11/10/97	6.6	8.14	8.30	1886	1771	0.011	U	0.01	U	0.025	U	0.003	U
SEP-9	02/13/98	8.18	8.18	8.20	1550	278	0.009	U	0.01	U	0.025	U	0.003	U
SEP-9	05/19/98	7.38	8.49	8.50	1273	1082	0.005	U	0.01	U	0.025	U	0.003	U
SEP-9	8/18/98	5.61	8.26	8.5	1142	1166	0.006	U	0.010	U	0.025	U	0.003	U
SEP-9	11/18/98	7.80	8.35	8.3	1950	1663	0.010	U	0.010	U	0.025	U	0.003	U
SEP-9	2/19/99	10.9	8.31	8.1	2050	1763	0.009	U	0.01	U	0.025	U	0.003	U
SEP-9	5/12/99	3.70	7.65	8.4	1156	1287	0.005	U	0.010	U	0.025	U	0.003	U
SEP-9	08/20/99	5.6	7.92	8.3	1303	1301	0.005	U	0.01	U	0.025	U	0.003	U
Average		6.72	8.17	8.32	1494	1217	0.007	U	0.010	U	0.025	U	0.003	U
Median		6.37	8.23	8.3	1303	1217	0.006	U	0.010	U	0.025	U	0.003	U
Standard Deviation		2.11	0.25	0.13	375	467	0.002	U	0.000	U	0.000	U	0.000	U
Minimum		3.70	7.65	8.10	1133	278	0.005	U	0.010	U	0.025	U	0.003	U
Maximum		10.90	8.49	8.50	2050	1771	0.011	U	0.010	U	0.025	U	0.003	U

TABLE F-2

**ANALYTICAL RESULTS FOR TOTAL METALS,
SURFACE WATER SAMPLES**

Table F-2. Surface Water Quality, November 1999 through February 2000
Total Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Conductivity SC (lab)	Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT	
POND 1	11/02/99	EPRI-9911-168	SW			8.1	215000		2.1	286	0.05	U	7.1	U	1.8	U	58
POND 6	11/02/99	EPRI-9911-169	SW	9.5	9.14	9.2	1702	1756	0.45	0.17	0.01	U	0.56	J2	0.12	0.012	0.44
POND 6	02/07/00	EPRI-0002-203	SW	6.4	7.39	7.7	1420	1373	0.27	0.09	0.01	U	0.33		0.11	0.014	0.41
Average				7.95	8.27	8.45	1561		0.360	0.130	0.010	0.445	0.595		0.115	0.013	0.425
Median				7.95	8.265	8.45	1561		0.360	0.130	0.010	0.445	0.595		0.115	0.013	0.425
Standard Deviation				2.19	1.24	1.06	199		0.127	0.057	0.000	0.163	0.064		0.007	0.001	0.021
Minimum				6.40	7.39	7.70	1420		0.270	0.090	0.010	0.330	0.550		0.110	0.012	0.410
Maximum				9.50	9.14	9.20	1702		0.450	0.170	0.010	0.560	0.640		0.120	0.014	0.440
SEP-1	11/01/99	EPRI-9911-183	SW	7.2	8.15	8.3	1803	1808	0.007	0.005	U	0.025	U	0.2	0.005	U	0.067
SEP-1	01/31/00	EPRI-0002-183	SW	7.1	8.33	8.3	1402	1350	0.005	U	0.01	U	0.025	U	0.003	U	0.02
Average				7.15	8.24	8.30	1603		0.006	0.005	0.010	0.025	0.650		0.004	0.005	0.044
Median				7.15	8.24	8.3	1603		0.006	0.005	0.010	0.025	0.650		0.004	0.005	0.044
Standard Deviation				0.07	0.13	0.00	284		0.001	0.000	0.000	0.000	0.636		0.001	0.000	0.033
Minimum				7.10	8.15	8.30	1402		0.005	0.005	0.010	0.025	0.200		0.003	0.005	0.020
Maximum				7.20	8.33	8.30	1803		0.007	0.005	0.010	0.025	1.100		0.005	0.005	0.067
SEP-10	11/01/99	EPRI-9911-191	SW	9.3	8.21	8.3	2120	2080	0.013	0.005	U	0.025	U	0.59	0.008	U	0.045
SEP-10	02/14/00	EPRI-0002-190	SW	9.1	8.37	8.5	2210	2100	0.012	0.005	U	0.025	U	0.79	0.003	U	0.02
Average				9.20	8.29	8.40	2165		0.013	0.005	0.010	0.025	0.690		0.006	0.005	0.033
Median				9.2	8.29	8.4	2165		0.013	0.005	0.010	0.025	0.690		0.006	0.005	0.033
Standard Deviation				0.14	0.11	0.14	64		0.001	0.000	0.000	0.000	0.141		0.004	0.000	0.018
Minimum				9.10	8.21	8.30	2120		0.012	0.005	0.010	0.025	0.590		0.003	0.005	0.020
Maximum				9.30	8.37	8.50	2210		0.013	0.005	0.010	0.025	0.790		0.008	0.005	0.045
SEP-11	11/02/99	EPRI-9911-157	SW	7.8	7.63	8.4	1972	2110	0.01	0.005	U	0.025	U	0.73	J2	0.005	U
SEP-11	02/14/00	EPRI-0002-191	SW	9.5	8.52	8.6	2300	2222	0.014	0.005	U	0.025	U	0.47	J4	0.013	0.029
Average				8.65	8.08	8.50	2136		0.012	0.005	0.010	0.025	0.600		0.009	0.005	0.025
Median				8.65	8.075	8.5	2136		0.012	0.005	0.010	0.025	0.600		0.009	0.005	0.025
Standard Deviation				1.20	0.63	0.14	232		0.003	0.000	0.000	0.000	0.184		0.006	0.000	0.006
Minimum				7.80	7.63	8.40	1972		0.010	0.005	0.010	0.025	0.470		0.005	0.005	0.020
Maximum				9.50	8.52	8.60	2300		0.014	0.005	0.010	0.025	0.730		0.013	0.005	0.029
SEP-12	11/01/99	EPRI-9911-160	SW	7.8	8.34	8.5	2060	2070	0.019	0.005	U	0.025	U	0.54	0.005	U	0.061
SEP-12	11/01/99	EPRI-9911-233	SW	9.1	8.36	8.5	2060	2070	0.019	0.005	U	0.025	U	0.44	0.006	0.006	0.026

Table F-2. Surface Water Quality, November 1999 through February 2000
Total Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Conductivity SC (lab)	Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
SEP-12	02/14/00	EPRI-0002-192	SW	9.6	8.42	8.5	2330	2300	0.013	0.005	0.01	0.025	0.66	0.003	0.005	0.02
Average				8.83	8.37	8.50	2150		0.017	0.005	0.010	0.025	0.547	0.004	0.005	0.036
Median				9.1	8.36	8.5	2060		0.019	0.005	0.010	0.025	0.540	0.003	0.005	0.026
Standard Deviation				0.93	0.04	0.00	156		0.003	0.000	0.000	0.000	0.110	0.001	0.001	0.022
Minimum				7.80	8.34	8.50	2060		0.013	0.005	0.010	0.025	0.440	0.003	0.005	0.020
Maximum				9.60	8.42	8.50	2330		0.019	0.005	0.010	0.025	0.660	0.005	0.006	0.061
SEP-13	02/14/00	EPRI-0002-193	SW	8.4	8.42	8.5	2330	2290	0.014	0.005	0.01	0.025	0.46	0.003	0.005	0.02
SEP-13	02/14/00	EPRI-0002-239	SW	8.3	8.42	8.5	2320	2290	0.013	0.005	0.01	0.025	0.6	0.003	0.005	0.02
Average				8.35	8.42	8.50	2325		0.014	0.005	0.010	0.025	0.530	0.003	0.005	0.020
Median				8.35	8.42	8.5	2325		0.014	0.005	0.010	0.025	0.530	0.003	0.005	0.020
Standard Deviation				0.07	0.00	0.00	7		0.001	0.000	0.000	0.000	0.099	0.000	0.000	0.000
Minimum				8.30	8.42	8.50	2320		0.013	0.005	0.010	0.025	0.460	0.003	0.005	0.020
Maximum				8.40	8.42	8.50	2330		0.014	0.005	0.010	0.025	0.600	0.003	0.005	0.020
SEP-2	11/01/99	EPRI-9911-184	SW	10.2	8.32	8.5	2110	2120	0.024	0.005	0.01	0.025	0.74	0.012	0.008	0.056
SEP-2	02/14/00	EPRI-0002-184	SW	10.2	8.46	8.5	2330	2280	0.013	0.005	0.01	0.025	0.48	0.003	0.005	0.02
Average				10.20	8.39	8.50	2220		0.019	0.005	0.010	0.025	0.610	0.008	0.007	0.038
Median				10.2	8.39	8.5	2220		0.019	0.005	0.010	0.025	0.610	0.008	0.007	0.038
Standard Deviation				0.00	0.10	0.00	156		0.008	0.000	0.000	0.000	0.184	0.006	0.002	0.025
Minimum				10.20	8.32	8.50	2110		0.013	0.005	0.010	0.025	0.480	0.003	0.005	0.020
Maximum				10.20	8.46	8.50	2330		0.024	0.005	0.010	0.025	0.740	0.012	0.008	0.056
SEP-3	11/01/99	EPRI-9911-185	SW	6.2	8.19	8.4	1826	1889	0.006	0.005	0.01	0.025	0.27	0.005	0.005	0.067
SEP-3	01/31/00	EPRI-0002-185	SW	7.5	8.29	8.3	1400	1356	0.005	0.005	0.01	0.025	1.2	0.003	0.005	0.02
Average				6.85	8.24	8.35	1613		0.006	0.005	0.010	0.025	0.735	0.004	0.005	0.044
Median				6.85	8.24	8.35	1613		0.006	0.005	0.010	0.025	0.735	0.004	0.005	0.044
Standard Deviation				0.92	0.07	0.07	301		0.001	0.000	0.000	0.000	0.658	0.001	0.000	0.033
Minimum				6.20	8.19	8.30	1400		0.005	0.005	0.010	0.025	0.270	0.003	0.005	0.020
Maximum				7.50	8.29	8.40	1826		0.006	0.005	0.010	0.025	1.200	0.005	0.005	0.067
SEP-4	11/01/99	EPRI-9911-186	SW	10.2	8.37	8.4	2120	2390	0.018	0.005	0.01	0.025	0.54	0.007	0.005	0.064
SEP-4	02/14/00	EPRI-0002-186	SW	10.9	8.65	8.4	2440	2360	0.016	0.005	0.01	0.025	0.34	0.003	0.006	0.02
Average				10.55	8.51	8.40	2280		0.017	0.005	0.010	0.025	0.440	0.005	0.006	0.042
Median				10.55	8.51	8.4	2280		0.017	0.005	0.010	0.025	0.440	0.005	0.006	0.042

Table F-2. Surface Water Quality, November 1999 through February 2000
Total Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Conductivity SC (lab)	Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Standard Deviation				0.49	0.20	0.00	226		0.001	0.000	0.000	0.000	0.141	0.003	0.001	0.031
Minimum				10.20	8.37	8.40	2120		0.016	0.005	0.010	0.025	0.340	0.003	0.005	0.020
Maximum				10.90	8.65	8.40	2440		0.018	0.005	0.010	0.025	0.540	0.007	0.006	0.064
SEP-6	11/01/99	EPR1-9911-187	SW	6.7	8.25	8.4	1830	1871	0.006	0.005	0.01	0.025	0.2	0.005	0.005	0.062
SEP-6	01/31/00	EPR1-0002-187	SW	7.2	8.34	8.2	1412	1372	0.005	0.005	0.01	0.025	1.2	0.005	0.005	0.02
Average				6.95	8.30	8.30	1621		0.006	0.005	0.010	0.025	0.700	0.005	0.005	0.041
Median				6.95	8.295	8.3	1621		0.006	0.005	0.010	0.025	0.700	0.005	0.005	0.041
Standard Deviation				0.35	0.06	0.14	296		0.001	0.000	0.000	0.000	0.707	0.000	0.000	0.030
Minimum				6.70	8.25	8.20	1412		0.005	0.005	0.010	0.025	0.200	0.005	0.005	0.020
Maximum				7.20	8.34	8.40	1830		0.006	0.005	0.010	0.025	1.200	0.005	0.005	0.062
SEP-7	11/01/99	EPR1-9911-188	SW	7	8.15	8.3	1800	1836	0.007	0.005	0.01	0.025	0.19	0.006	0.005	0.049
SEP-7	01/31/00	EPR1-0002-188	SW	7.7	8.36	8.3	1402	1366	0.005	0.005	0.01	0.025	1	0.004	0.005	0.04
Average				7.35	8.26	8.30	1601		0.006	0.005	0.010	0.025	0.595	0.005	0.005	0.045
Median				7.35	8.255	8.3	1601		0.006	0.005	0.010	0.025	0.595	0.005	0.005	0.045
Standard Deviation				0.49	0.15	0.00	281		0.001	0.000	0.000	0.000	0.573	0.001	0.000	0.006
Minimum				7.00	8.15	8.30	1402		0.005	0.005	0.010	0.025	0.190	0.004	0.005	0.040
Maximum				7.70	8.36	8.30	1800		0.007	0.005	0.010	0.025	1.000	0.006	0.005	0.049
SEP-9	11/01/99	EPR1-9911-190	SW	7.6	7.8	8.3	1804	1846	0.006	0.005	0.01	0.025	0.17	0.006	0.005	0.02
SEP-9	02/14/00	EPR1-0002-189	SW	6.1	8.03	8.3	2120	2050	0.008	0.005	0.01	0.025	0.66	0.003	0.005	0.023
Average				6.85	7.92	8.30	1962		0.007	0.005	0.010	0.025	0.415	0.005	0.005	0.022
Median				6.85	7.915	8.3	1962		0.007	0.005	0.010	0.025	0.415	0.005	0.005	0.022
Standard Deviation				1.06	0.16	0.00	223		0.001	0.000	0.000	0.000	0.346	0.002	0.000	0.002
Minimum				6.10	7.80	8.30	1804		0.006	0.005	0.010	0.025	0.170	0.003	0.005	0.020
Maximum				7.60	8.03	8.30	2120		0.008	0.005	0.010	0.025	0.660	0.006	0.005	0.023

TABLE F-3

**ANALYTICAL RESULTS FOR TOTAL RECOVERABLE METALS,
SURFACE WATER SAMPLES**

Table F-3. Summary of Surface Water Quality, August 1997 through August 1999
Total Recoverable Metals

Site	Date	Samp #	Type	(O) (fd)	pH (fd)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fd)	Arsenic (AS) TRC	Cadmium (CD) TRC	Chromium (CR) TRC	Copper (CU) TRC	Iron (FE) TRC	Lead (PB) TRC	Selenium (SE) TRC	Zinc (ZN) TRC
POND 1	8/18/98	EPRI-9808-171	SW	4.10	7.82	8.1	126300	78600	0.29	32	0.010	U	0.16	0.37	2.8	51
POND 1	11/18/98	EPRI-9811-171	SW	7.10	7.38	8.0	8260	8200	0.54	2.0	0.010	U	1.1	0.7	0.37	4.3
POND 1	2/19/99	EPRI-9902-173	SW	12.3	8.12	8.1	19330	15540	0.44	6.6	0.010	U	1.4	0.75	0.99	8.6
POND 1	5/12/99	EPRI-9905-174	SW	7.00	6.75	7.9	34600	35000	0.27	16	0.010	U	0.41	0.35	1.3	20
POND 1	08/11/99	EPRI-9908-174	SW	4.2	7.68	7.9	46400	48700	0.45	18	0.01	U	0.53	0.46	2.1	2.1
Average				6.88	7.63	7.89	42224	35305	0.398	14.920	0.010	1.424	0.720	0.526	1.512	17.200
Median				7.00	7.75	7.9	30900	29750	0.440	16.000	0.010	1.400	0.530	0.460	1.300	8.600
Standard Deviation				2.84	0.42	0.20	36618	22796	0.115	11.603	0.000	0.426	0.513	0.187	0.952	20.116
Minimum				4.10	6.75	7.50	8260	8200	0.270	2.000	0.010	0.920	0.160	0.350	0.370	2.100
Maximum				12.30	8.12	8.10	126300	78600	0.540	32.000	0.010	1.900	1.400	0.750	2.800	51.000
POND 5	8/18/98	EPRI-9808-172	SW	5.28	6.76	6.7	1970	1972	0.27	0.074	0.01	U	1.7	0.58	0.028	1.0
POND 6	8/18/98	EPRI-9808-173	SW	4.83	8.41	8.6	5390	5340	0.87	0.14	0.010	U	0.35	0.13	0.051	0.460
POND 6	11/12/98	EPRI-9811-173	SW	6.90	8.10	8.2	4540	4270	1.6	0.37	0.010	U	1.3	0.54	0.080	1.9
POND 6	2/19/99	EPRI-9902-175	SW	10.80	8.75	8.5	2610	2290	0.68	0.056	0.100	U	0.50	0.21	0.035	0.36
POND 6	5/12/99	EPRI-9905-176	SW	9.20	8.85	8.9	2450	2540	0.83	0.074	0.010	U	0.29	0.16	0.025	0.33
POND 6	08/11/99	EPRI-9908-176	SW	7	8.79	8.8	1773	1726	0.4	0.065	0.01	U	0.33	0.21	0.024	0.34
Average				7.57	8.48	8.45	3838	3888	0.876	0.141	0.028	0.892	0.554	0.250	0.043	0.678
Median				7.00	8.58	8.55	4250	4350	0.830	0.074	0.010	0.600	0.350	0.210	0.035	0.360
Standard Deviation				2.03	0.52	0.51	1389	1516	0.445	0.132	0.040	0.745	0.425	0.166	0.023	0.685
Minimum				4.83	7.61	7.70	1773	1726	0.400	0.056	0.010	0.350	0.290	0.130	0.024	0.330
Maximum				10.80	9.22	9.10	5390	5870	1.600	0.370	0.100	2.200	1.300	0.540	0.080	1.900
SEP-1	08/15/97	EPRI-9708-163	SW	6.03	8.38	8.30	910	873	0.005	0.005	0.01	U	4.4	0.008	0.005	U
SEP-1	11/10/97	EPRI-9711-163	SW	12.17	8.04	8.00	4660	4680	0.8	0.005	0.01	U	0.13	0.021	0.15	0.068
SEP-1	02/13/98	EPRI-9802-161	SW		7.38	7.90	4580	868	0.58		0.01	U	0.1	0.003	0.11	0.02
SEP-1	05/20/98	EPRI-9805-184	SW	6.79	8.75	8.20	1095	967	0.008	0.005	0.01	U	2	0.004	0.005	U
SEP-1	8/11/98	EPRI-9808-161	SW	5.90	8.46	8.3	951	958	0.005	0.005	0.010	U	4.9	0.004	0.005	U
SEP-1	2/19/99	EPRI-9902-156	SW	10.90	8.54	8.3	2100	1831	0.011	0.005	0.01	U	0.71	0.010	0.005	U
SEP-1	5/12/99	EPRI-9905-157	SW	5.00	7.48	8.0	1172	1319	0.007	0.005	0.010	U	1.6	0.003	0.005	U
SEP-1	08/20/99	EPRI-9908-157	SW	5.1	8.05	8.3	918	913	0.005	0.005	0.011	U	14	0.008	0.005	U
Average				7.41	8.14	8.16	2048	1551	0.178	0.005	0.010	0.026	3.480	0.008	0.036	0.032
Median				6.03	8.215	8.25	1134	963	0.008	0.005	0.010	0.025	1.800	0.006	0.005	0.023
Standard Deviation				2.90	0.50	0.17	1634	1307	0.322	0.000	0.000	0.002	4.623	0.006	0.059	0.017
Minimum				5.00	7.38	7.90	910	868	0.005	0.005	0.010	0.025	0.100	0.003	0.005	0.020
Maximum				12.17	8.75	8.30	4660	4680	0.800	0.005	0.011	0.032	14.000	0.021	0.150	0.068

Table F-3. Summary of Surface Water Quality, August 1997 through August 1999
Total Recoverable Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TRC	Cadmium (CD) TRC	Chromium (CR) TRC	Copper (CU) TRC	Iron (FE) TRC	Lead (PB) TRC	Selenium (SE) TRC	Zinc (ZN) TRC
SEP-10	08/15/97	EPRI-9708-175	SW	6.22	8.40	8.40	835	818	0.005	0.005	0.01	0.025	5.9	0.007	0.005	U 0.04
SEP-10 D	08/15/97	EPRI-9708-179	SW	6.22	8.40	8.30	837	818	0.005	0.005	0.01	0.025	5.1	0.007	0.005	U 0.042
SEP-10	11/19/97	EPRI-9711-181	SW	7.32	8.38	8.50	1970	2180	0.015	0.005	0.01	0.025	0.25	0.013	0.006	U 0.023
SEP-10	02/13/98	EPRI-9802-167	SW	8.29	8.30	8.30	1474	230	0.008	0.005	0.01	0.025	1.6	0.003	0.005	U 0.029 J2
SEP-10	05/19/98	EPRI-9805-167	SW	7.43	8.84	8.30	1066	1072	0.005	0.005	0.01	0.025	2.1	0.004	0.005	U 0.027
SEP-10	05/19/98	EPRI-9805-181	SW		8.40	8.40	1066		0.005	0.005	0.01	0.025	2.1	0.004	0.005	U 0.025
SEP-10	8/18/98	EPRI-9808-167	SW	6.50	8.58	8.7	969	875	0.005	0.005	0.010	0.025	5.4	0.006	0.005	U 0.033
SEP-10	11/18/98	EPRI-9811-167	SW	7.50	8.32	8.4	1894	1882	0.007	0.005	0.010	0.025	0.27	J4	0.005	U 0.020 U
SEP-10	2/19/99	EPRI-9902-162	SW	10.40	8.41	8.2	2060	1675	0.005	0.005	0.010	0.025	0.77	0.003	0.005	U 0.02 U
SEP-10	5/13/99	EPRI-9905-163	SW	6.00	7.14	8.3	1153	1068	0.005	0.005	0.010	0.025	0.82	0.003	0.005	U 0.020 U
SEP-10	08/20/99	EPRI-9908-163	SW	5.3	8.17	8.2	892	889	0.005	0.005	0.012	0.025	15	0.008	0.005	U 0.051
Average				6.99	8.29	8.36	1292	1151	0.006	0.005	0.010	0.025	3.574	0.006	0.005	0.030
Median				6.50	8.39	8.3	1066	979	0.005	0.005	0.010	0.025	2.100	0.004	0.005	0.027
Standard Deviation				1.48	0.44	0.14	474	586	0.003	0.000	0.001	0.000	4.328	0.003	0.000	0.010
Minimum				5.30	7.14	8.20	835	230	0.005	0.005	0.010	0.025	0.250	0.003	0.005	0.020
Maximum				10.40	8.84	8.70	2060	2180	0.015	0.005	0.012	0.025	15.000	0.013	0.006	0.051
SEP-11	08/15/97	EPRI-9708-176	SW	6.33	8.42	8.10	814	810	0.005	0.005	0.01	0.025	5	0.006	0.005	U 0.037
SEP-11	11/10/97	EPRI-9711-177	SW	6.97	8.30	8.30	1933	1741	0.01	0.005	0.01	0.025	0.17	0.005	0.005	U 0.02 U
SEP-11	02/13/98	EPRI-9802-168	SW		8.32	8.40	1447	228	0.008	0.005	0.01	0.025	1.4	0.011	J4	U 0.025 J2
SEP-11	05/19/98	EPRI-9805-168	SW	7.19	8.79	8.50	1071	1063	0.005	0.005	0.01	0.025	2.2	0.003	0.005	U 0.028
SEP-11	8/18/98	EPRI-9808-168	SW	6.43	8.59	8.7	968	869	0.005	0.005	0.010	0.025	5.6	0.006	0.005	U 0.028
SEP-11	11/18/98	EPRI-9811-168	SW	7.80	8.53	8.5	1877	1860	0.007	0.005	0.010	0.025	0.47	J4	0.005	U 0.020
SEP-11 D	11/18/98	EPRI-9811-182	SW		8.5	8.5	1885		0.007	0.005	0.010	0.025	0.34	J4	0.005	U 0.020 U
SEP-11	2/19/99	EPRI-9902-163	SW	10.90	8.47	8.3	2060	1633	0.005	0.005	0.01	0.025	1.0	0.004	0.005	U 0.02 U
SEP-11	5/13/99	EPRI-9905-164	SW	5.80	7.06	8.4	1151	1099	0.005	0.005	0.010	0.025	1.5	0.003	0.005	U 0.020 U
SEP-11 D	5/13/99	EPRI-9905-191	SW	5.70	7.07	8.4	1154	1101	0.005	0.005	0.010	0.025	1.3	0.003	0.005	U 0.020 U
SEP-11	08/20/99	EPRI-9908-164	SW	5.4	8.18	8.3	895	887	0.005	0.005	0.01	0.025	14	0.009	0.005	U 0.031
Average				6.95	8.17	8.40	1387	1129	0.006	0.005	0.010	0.025	2.998	0.005	0.005	0.024
Median				6.43	8.37	8.4	1154	1081	0.005	0.005	0.010	0.025	1.400	0.004	0.005	0.020
Standard Deviation				1.67	0.61	0.15	469	495	0.002	0.000	0.000	0.000	4.069	0.003	0.000	0.006
Minimum				5.40	7.06	8.10	814	228	0.005	0.005	0.010	0.025	0.170	0.003	0.005	0.020
Maximum				10.90	8.79	8.70	2060	1860	0.010	0.005	0.010	0.025	14.000	0.011	0.005	0.037
SEP-12	08/15/97	EPRI-9708-177	SW	6.34	8.47	8.30	850	834	0.005	0.005	0.01	0.025	5.2	0.009	0.005	U 0.036
SEP-12	11/10/97	EPRI-9711-176	SW	6.64	8.37	8.30	1970	1648	0.01	0.005	0.01	0.025	0.45	0.004	0.005	U 0.02 U
SEP-12	02/13/98	EPRI-9802-169	SW		8.39	8.40	1422	212	0.008	0.005	0.01	0.025	1.6	0.003	0.005	U 0.027 J2

Table F-3. Summary of Surface Water Quality, August 1997 through August 1999
Total Recoverable Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TRC	Cadmium (CD) TRC	Chromium (CR) TRC	Copper (CU) TRC	Iron (FE) TRC	Lead (PB) TRC	Selenium (SE) TRC	Zinc (ZN) TRC
SEP-12	05/19/98	EPRI-9805-169	SW	6.87	8.82	8.40	1064	1125	0.005	0.005	0.01	0.025	2.1	0.005	0.005	0.027
SEP-12	8/20/98	EPRI-9808-169	SW	5.55	8.60	8.4	952	974	0.006	0.005	0.010	0.025	4.2	0.007	0.005	0.024
SEP-12	11/18/98	EPRI-9811-169	SW	8.00	8.24	8.4	1877	1866	0.007	0.005	0.010	0.025	0.30	0.003	0.005	0.020
SEP-12	2/19/99	EPRI-9902-164	SW	9.9	8.39	8.3	2070	1573	0.005	0.005	0.01	0.025	0.71	0.003	0.005	0.020
SEP-12	5/13/99	EPRI-9905-165	SW	5.80	6.94	8.4	1166	1214	0.005	0.005	0.010	0.025	0.99	0.003	0.005	0.020
SEP-12	08/20/99	EPRI-9908-165	SW	5.5	8.15	8.3	902	900	0.005	0.005	0.011	0.025	13	0.009	0.005	0.036
Average				6.83	8.26	8.36	1364	1150	0.006	0.005	0.010	0.025	3.172	0.005	0.005	0.026
Median				6.49	8.39	8.4	1166	1125	0.005	0.005	0.010	0.025	1.600	0.004	0.005	0.024
Standard Deviation				1.49	0.53	0.05	488	502	0.002	0.000	0.000	0.000	4.060	0.003	0.000	0.007
Minimum				5.50	6.94	8.30	850	212	0.005	0.005	0.010	0.025	0.300	0.003	0.005	0.020
Maximum				9.90	8.82	8.40	2070	1866	0.010	0.005	0.011	0.025	13.000	0.009	0.005	0.036
SEP-13	08/15/97	EPRI-9708-178	SW	7	8.47	8.20	854	852	0.005	0.005	0.01	0.025	5.4	0.006	0.005	0.026
SEP-13	11/10/97	EPRI-9711-175	SW	6.1	8.42	8.30	1993	1613	0.01	0.005	0.01	0.025	0.58	0.003	0.005	0.020
SEP-13	02/13/98	EPRI-9802-170	SW		8.39	8.40	1394	207	0.008	0.005	0.01	0.025	1.6	0.003	0.005	0.020
SEP-13	05/19/98	EPRI-9805-170	SW	7.64	8.68	8.50	1051	1058	0.005	0.005	0.01	0.025	1.6	0.014	0.005	0.030
SEP-13	8/20/98	EPRI-9808-170	SW	5.37	8.60	8.4	954	965	0.005	0.005	0.010	0.025	4.6	0.005	0.005	0.023
SEP-13 D	8/20/98	EPRI-9808-179	SW			8.4	954		0.005	0.005	0.010	0.025	4.8	0.007	0.005	0.031
SEP-13	11/18/98	EPRI-9811-170	SW	8.80	8.06	8.5	1884	1868	0.007	0.005	0.010	0.025	0.27	0.003	0.005	0.020
SEP-13	2/19/99	EPRI-9902-165	SW	11.40	7.92	8.3	2090	1584	0.006	0.005	0.01	0.025	0.62	0.003	0.005	0.020
SEP-13	5/13/99	EPRI-9905-166	SW	5.80	6.89	8.6	1182	1321	0.005	0.005	0.010	0.025	1.2	0.003	0.005	0.020
SEP-13	08/20/99	EPRI-9908-166	SW	5.5	8.17	8.3	889	880	0.005	0.005	0.01	0.025	13	0.008	0.005	0.042
Average				7.20	8.18	8.39	1325	1150	0.006	0.005	0.010	0.025	3.367	0.006	0.005	0.025
Median				6.55	8.39	8.4	1117	1058	0.005	0.005	0.010	0.025	1.600	0.004	0.005	0.022
Standard Deviation				2.06	0.54	0.12	487	505	0.002	0.000	0.000	0.000	3.892	0.004	0.000	0.007
Minimum				5.37	6.89	8.20	854	207	0.005	0.005	0.010	0.025	0.270	0.003	0.005	0.020
Maximum				11.40	8.68	8.60	2090	1868	0.010	0.005	0.010	0.025	13.000	0.014	0.005	0.042
SEP-14	11/12/98	EPRI-9811-174	SW		9.33	8.9	272	255	0.055	0.005	0.010	0.15	3.1	0.054	0.005	0.180
SEP-14	08/11/99	EPRI-9908-167	SW	6.4	9.03	7.8	160	165	0.049	0.005	0.01	0.31	3.6	0.096	0.005	0.22
Average				6.40	9.18	8.35	216	210	0.052	0.005	0.010	0.230	3.350	0.075	0.005	0.200
Median				6.40	9.18	8.35	216	210	0.052	0.005	0.010	0.230	3.350	0.075	0.005	0.200
Standard Deviation						0.78	79		0.004	0.000	0.000	0.113	0.354	0.030	0.000	0.028
Minimum				6.40	9.03	7.80	160	165	0.049	0.005	0.010	0.150	3.100	0.054	0.005	0.180
Maximum				6.40	9.33	8.90	272	255	0.055	0.005	0.010	0.310	3.600	0.096	0.005	0.220

Table F-3. Summary of Surface Water Quality, August 1997 through August 1999
Total Recoverable Metals

Site	Date	Samp #	Type	(O) (fid)	pH (fid)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fid)	Arsenic (AS) TRC	Cadmium (CD) TRC	Chromium (CR) TRC	Copper (CU) TRC	Iron (FE) TRC	Lead (PB) TRC	Selenium (SE) TRC	Zinc (ZN) TRC
SEP-2	08/15/97	EPRI-9708-164	SW	6.25	8.40	8.30	842	830	0.005	0.005	0.01	0.025	3.9	0.006	0.005	0.033
SEP-2	11/10/97	EPRI-9711-164	SW	6.48	8.39	8.30	1950	1643	0.012	0.005	0.01	0.026	0.4	0.01	0.005	0.026
SEP-2	02/13/98	EPRI-9802-162	SW	7.15	8.38	8.40	1440	218	0.009	0.005	0.01	0.025	1.6	0.004	0.005	0.022
SEP-2	05/19/98	EPRI-9805-162	SW	7.15	8.83	8.50	1068	1071	0.005	0.005	0.01	0.025	2.1	0.003	0.005	0.028
SEP-2	8/18/98	EPRI-9808-162	SW	6.33	8.60	8.7	966	854	0.005	0.005	0.010	0.025	5.3	0.007	0.005	0.023
SEP-2	11/18/98	EPRI-9811-162	SW	8.40	8.46	8.5	1877	1865	0.007	0.005	0.010	0.025	0.31	0.003	0.005	0.020
SEP-2	2/19/99	EPRI-9902-157	SW	9.4	8.48	8.3	2080	1576	0.005	0.005	0.01	0.025	0.75	0.003	0.005	0.020
SEP-2 D	2/19/99	EPRI-9902-191	SW	9.8	8.5	8.3	2070	1571	0.005	0.005	0.01	0.025	0.77	0.003	0.005	0.02
SEP-2	5/13/99	EPRI-9905-158	SW	6.00	7.04	8.4	1179	1116	0.005	0.005	0.010	0.025	1.4	0.003	0.005	0.020
SEP-2	08/20/99	EPRI-9908-158	SW	5.9	8.12	8.3	887	887	0.005	0.005	0.01	0.025	13	0.009	0.005	0.033
Average				7.30	8.32	8.40	1436	1163	0.006	0.005	0.010	0.025	2.953	0.005	0.005	0.025
Median				6.48	8.43	8.35	1310	1094	0.005	0.005	0.010	0.025	1.500	0.004	0.005	0.023
Standard Deviation				1.51	0.48	0.13	511	500	0.002	0.000	0.000	0.000	3.879	0.003	0.000	0.005
Minimum				5.90	7.04	8.30	842	218	0.005	0.005	0.010	0.025	0.310	0.003	0.005	0.020
Maximum				9.80	8.83	8.70	2080	1865	0.012	0.005	0.010	0.026	13.000	0.010	0.005	0.033
SEP-3	08/18/97	EPRI-9708-165	SW	5.33	8.25	8.40	959	946	0.005	0.005	0.01	0.025	4.4	0.006	0.005	0.034
SEP-3	11/19/97	EPRI-9711-165	SW	12.44	7.80	7.60	5250	6200	1.6	0.019	0.01	0.043	0.1	0.015	0.36	0.041
SEP-3	02/13/98	EPRI-9802-163	SW		7.84	8.10	5410	1054	0.5	0.005	0.01	0.025	0.1	0.006	0.11	0.025
SEP-3	05/20/98	EPRI-9805-185	SW	6.65	8.76	8.20	1092	967	0.008	0.005	0.01	0.025	2.3	0.004	0.005	0.027
SEP-3	8/11/98	EPRI-9808-163	SW	6.44	8.45	8.5	977	986	0.005	0.005	0.010	0.025	5.3	0.004	0.005	0.023
SEP-3 D	8/11/98	EPRI-9808-181	SW		8.5	8.5	976		0.005	0.005	0.010	0.025	4.6	0.006	0.005	0.028
SEP-3	5/12/99	EPRI-9905-159	SW	5.00	7.77	9.4	1168	1319	0.005	0.005	0.010	0.025	1.6	0.003	0.005	0.020
SEP-3 D	5/12/99	EPRI-9905-190	SW	3.60	7.77	9.5	1175	1265	0.005	0.005	0.010	0.025	1.4	0.003	0.005	0.020
SEP-3	08/20/99	EPRI-9908-159	SW	5.6	8.22	8.3	915	921	0.005	0.005	0.01	0.025	14	0.008	0.005	0.032
Average				6.44	8.11	8.50	1991	1707	0.238	0.007	0.010	0.027	3.756	0.006	0.056	0.028
Median				5.60	8.03	8.4	1092	1020	0.005	0.005	0.010	0.025	2.300	0.006	0.005	0.027
Standard Deviation				2.83	0.37	0.60	1895	1821	0.336	0.005	0.000	0.006	4.294	0.004	0.119	0.007
Minimum				3.60	7.77	7.60	915	921	0.005	0.005	0.010	0.025	0.100	0.003	0.005	0.020
Maximum				12.44	8.76	9.50	5410	6200	1.600	0.019	0.010	0.043	14.000	0.015	0.360	0.041
SEP-4	08/15/97	EPRI-9708-166	SW	6.37	8.54	8.40	858	855	0.005	0.005	0.01	0.025	5.6	0.008	0.005	0.035
SEP-4	11/10/97	EPRI-9711-166	SW	6.75	8.39	7.90	1952	1595	0.012	0.005	0.01	0.025	0.41	0.007	0.005	0.02
SEP-4	02/13/98	EPRI-9802-164	SW		8.41	8.40	1388	197.7	0.01	0.008	0.01	0.025	1.6	0.003	0.005	0.02
SEP-4	05/19/98	EPRI-9805-164	SW	7.37	8.86	8.40	1054	1060	0.006	0.005	0.01	0.025	1.8	0.005	0.005	0.042
SEP-4	8/20/98	EPRI-9808-164	SW	5.99	8.58	8.4	954	960	0.006	0.005	0.010	0.025	4.8	0.006	0.005	0.030
SEP-4	11/18/98	EPRI-9811-164	SW	8.0	7.71	8.5	1893	1879	0.008	0.005	0.010	0.025	0.38	0.003	0.005	0.020

Table F-3. Summary of Surface Water Quality, August 1997 through August 1999
Total Recoverable Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TRC	Cadmium (CD) TRC	Chromium (CR) TRC	Copper (CU) TRC	Iron (FE) TRC	Lead (PB) TRC	Selenium (SE) TRC	Zinc (ZN) TRC
SEP-4	2/19/99	EPRI-9902-159	SW	10.2	8.28	8.3	2100	1643	0.005	0.005	0.01	0.025	0.58	0.003	0.005	0.02
SEP-4	5/13/99	EPRI-9905-160	SW	5.60	6.84	8.5	1194	1279	0.006	0.005	0.010	0.025	1.3	0.003	0.005	0.020
SEP-4	08/20/99	EPRI-9908-160	SW	6.1	8.14	8.6	898	896	0.005	0.005	0.01	0.025	13	0.009	0.005	0.033
Average				7.05	8.19	8.38	1366	1152	0.007	0.005	0.010	0.025	3.274	0.005	0.005	0.027
Median				6.56	8.39	8.4	1194	1060	0.006	0.005	0.010	0.025	1.600	0.005	0.005	0.020
Standard Deviation				1.49	0.60	0.20	492	511	0.003	0.001	0.000	0.000	4.109	0.002	0.000	0.009
Minimum				5.60	6.84	7.90	858	198	0.005	0.005	0.010	0.025	0.380	0.003	0.005	0.020
Maximum				10.20	8.86	8.60	2100	1879	0.012	0.008	0.010	0.025	13.000	0.009	0.005	0.042
SEP-6	08/18/97	EPRI-9708-168	SW	5.33	8.28	8.40	961	943	0.005	0.005	0.028	0.025	4.5	0.006	0.005	0.035
SEP-6	08/20/99	EPRI-9908-177	SW	5.4	8.24	8.2	915	914	0.005	0.005	0.011	0.025	15	0.009	0.005	0.039
SEP-6 D	08/20/99	EPRI-9908-208	SW	5.4	8.25	8.6	915	914	0.005	0.005	0.011	0.025	15	0.008	0.005	0.038
Average				5.38	8.26	8.40	930	924	0.005	0.005	0.017	0.025	11.500	0.008	0.005	0.037
Median				5.40	8.25	8.4	915	914	0.005	0.005	0.011	0.025	15.000	0.008	0.005	0.038
Standard Deviation				0.04	0.02	0.20	27	17	0.000	0.000	0.010	0.000	6.062	0.002	0.000	0.002
Minimum				5.33	8.24	8.20	915	914	0.005	0.005	0.011	0.025	4.500	0.006	0.005	0.035
Maximum				5.40	8.28	8.60	961	943	0.005	0.005	0.028	0.025	15.000	0.009	0.005	0.039
SEP-7	08/18/97	EPRI-9708-169	SW	4.97	8.35	8.40	896	896	0.006	0.005	0.01	0.025	4.7	0.005	0.005	0.035
SEP-7	11/10/97	EPRI-9711-169	SW	6.96	8.16	8.30	1924	1796	0.01	0.005	0.01	0.025	0.36	0.005	0.005	0.024
SEP-7	02/13/98	EPRI-9802-165	SW		8.49	8.50	1479	249	0.02	0.005	0.01	0.025	0.6	0.003	0.005	0.024
SEP-7	05/20/98	EPRI-9805-183	SW	6.3	8.79	8.20	1083	963	0.013	0.005	0.01	0.025	2.2	0.004	0.005	0.022
SEP-7	8/11/98	EPRI-9808-165	SW	6.47	8.45	8.5	976	974	0.005	0.005	0.010	0.025	4.4	0.005	0.005	0.033
SEP-7	11/18/98	EPRI-9811-165	SW	8.40	8.35	8.4	1899	1892	0.007	0.005	0.010	0.025	0.25	0.003	0.005	0.020
SEP-7	2/19/99	EPRI-9902-160	SW	16.50	8.41	8.3	2100	1775	0.007	0.005	0.01	0.025	0.38	0.005	0.005	0.02
SEP-7	5/12/99	EPRI-9905-161	SW	5.20	7.54	8.3	1158	1380	0.011	0.005	0.010	0.025	1.7	0.009	0.005	0.032
SEP-7	08/20/99	EPRI-9908-161	SW	5.8	8.14	8.4	894	896	0.005	0.005	0.011	0.025	14	0.009	0.005	0.034
Average				7.58	8.30	8.37	1379	1202	0.009	0.005	0.010	0.025	3.177	0.005	0.005	0.027
Median				6.39	8.35	8.4	1158	974	0.007	0.005	0.010	0.025	1.700	0.005	0.005	0.024
Standard Deviation				3.76	0.34	0.10	483	547	0.005	0.000	0.000	0.000	4.402	0.002	0.000	0.006
Minimum				4.97	7.54	8.20	894	249	0.005	0.005	0.010	0.025	0.250	0.003	0.005	0.020
Maximum				16.50	8.79	8.50	2100	1892	0.020	0.005	0.011	0.025	14.000	0.009	0.005	0.035

Table F-3. Summary of Surface Water Quality, August 1997 through August 1999
Total Recoverable Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TRC	Cadmium (CD) TRC	Chromium (CR) TRC	Copper (CU) TRC	Iron (FE) TRC	Lead (PB) TRC	Selenium (SE) TRC	Zinc (ZN) TRC
SEP-8	08/18/97	EPRI-9708-170	SW						0.005	0.005	0.01	0.025	4.3	0.008	0.005	0.032
SEP-9	08/15/97	EPRI-9708-171	SW	6.14	8.23	8.30	1133	1108	0.006	0.005	0.01	0.025	3.2	0.004	0.005	0.034
SEP-9	11/10/97	EPRI-9711-171	SW	6.6	8.14	8.30	1886	1771	0.011	0.005	0.01	0.025	0.15	0.003	0.005	0.024
SEP-9	02/13/98	EPRI-9802-166	SW		8.18	8.20	1550	278	0.01	0.005	0.01	0.025	0.6	0.003	0.005	0.031
SEP-9	5/19/98	EPRI-9805-166	SW	7.38	8.49	8.50	1273	1082	0.006	0.005	0.01	0.025	1.7	0.004	0.005	0.037
SEP-9	8/18/98	EPRI-9808-166	SW	5.61	8.26	8.5	1142	1166	0.005	0.005	0.010	0.025	4.2	0.009	0.005	0.043
SEP-9	11/18/98	EPRI-9811-166	SW	7.80	8.35	8.3	1950		0.010	0.005	0.010	0.025	0.19	0.003	0.005	0.022
SEP-9	2/19/99	EPRI-9902-161	SW	10.9	8.31	8.1	2050	1763	0.008	0.005	0.01	0.025	0.25	0.003	0.005	0.02
SEP-9	5/12/99	EPRI-9905-162	SW	3.70	7.65	8.4	1156	1267	0.005	0.005	0.010	0.025	1.6	0.004	0.005	0.020
SEP-9	08/20/99	EPRI-9908-162	SW	5.6	7.92	8.3	1303	1301	0.006	0.005	0.01	0.025	8.1	0.007	0.005	0.04
Average				6.72	8.17	8.32	1494	1217	0.007	0.005	0.010	0.025	2.221	0.004	0.005	0.030
Median				6.37	8.23	8.3	1303	1217	0.006	0.005	0.010	0.025	1.600	0.004	0.005	0.031
Standard Deviation				2.11	0.25	0.13	375	467	0.002	0.000	0.000	0.000	2.623	0.002	0.000	0.009
Minimum				3.70	7.65	8.10	1133	278	0.005	0.005	0.010	0.025	0.150	0.003	0.005	0.020
Maximum				10.90	8.49	8.50	2050	1771	0.011	0.005	0.010	0.025	8.100	0.009	0.005	0.043

TABLE F-4

**ANALYTICAL RESULTS FOR NUTRIENTS,
SURFACE WATER SAMPLES**

**Table F-4. Summary of Surface Water Quality, August 1997 through February 2000
Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
POND 1	12/22/97	EPRI-9711-182	SW		7.58	7.50	27200	24500	20	
POND 1	02/19/98	EPRI-9802-171	SW	8.15	7.85	7.70	25600	22900	23	
POND 1	05/19/98	EPRI-9805-171	SW	5.29	7.85	7.90	50100	49000	34	
POND 1	8/18/98	EPRI-9808-171	SW	4.1	7.82	8.1	126300	78600	55	
POND 1	11/18/98	EPRI-9811-171	SW	7.10	7.38	8.0	8260	8200	6.9	
POND 1	2/19/99	EPRI-9902-173	SW	12.3	8.12	8.1	19330	15540	18	
POND 1	5/12/99	EPRI-9905-174	SW	7	6.75	7.9	34600	J3 35000	88	
POND 1	08/11/99	EPRI-9908-174	SW	4.2	7.68	7.9	46400	48700	134	
POND 1	11/02/99	EPRI-9911-168	SW	9.9	7.74	8.1	215000	12370	R 1112	
Average				7.26	7.64	7.91	61421	32757	166	
Median				7.05	7.74	7.9	34600	24500	34	
Standard Deviation				2.84	0.39	0.20	67008	22652	357	
Minimum				4.10	6.75	7.50	8260	8200	7	
Maximum				12.30	8.12	8.10	215000	78600	1112	
POND 5	12/22/97	EPRI-9711-183	SW		7.11	7.20	975	1289	0.05	U
POND 5	02/19/98	EPRI-9802-172	SW	7.33	7.99	7.50	1152	1160	1.2	
POND 5	05/19/98	EPRI-9805-172	SW	8.12	9.17	8.90	1351	1338	0.05	
POND 5	08/18/98	EPRI-9808-172	SW	5.28	6.76	6.7	1970	1972	0.098	
Average				6.91	7.76	7.58	1362	1440	0.350	
Median				7.33	7.55	7.35	1252	1314	0.074	
Standard Deviation				1.47	1.07	0.94	433	363	0.567	
Minimum				5.28	6.76	6.70	975	1160	0.050	
Maximum				8.12	9.17	8.90	1970	1972	1.200	
POND 6	12/22/97	EPRI-9711-184	SW		7.61	7.70	5330	5870	0.56	
POND 6	02/19/98	EPRI-9802-173	SW	5.9	8.10	7.80	3960	4430	1.2	
POND 6	05/19/98	EPRI-9805-173	SW	8.33	9.22	9.10	4650	4640	0.05	U
POND 6	8/18/98	EPRI-9808-173	SW	4.83	8.41	8.6	5390	5340	0.84	
POND 6	11/12/98	EPRI-9811-173	SW	6.9	8.10	8.2	4540	4270	1.4	
POND 6	2/19/99	EPRI-9902-175	SW	10.8	8.75	8.5	2610	2290	0.05	U
POND 6	5/12/99	EPRI-9905-176	SW	9.2	8.85	8.9	2450	J3 2540	0.10	U,UJ4
POND 6	08/11/99	EPRI-9908-176	SW	7	8.79	8.8	1773	1726	0.08	
POND 6	11/02/99	EPRI-9911-169	SW	9.5	9.14	9.2	1702	1756	0.16	
POND 6	02/07/00	EPRI-0002-203	SW	6.4	7.39	7.7	1420	1373	0.54	UJ1
Average				7.65	8.44	8.45	3383	3424	0.498	
Median				7.00	8.58	8.55	3285	3405	0.350	
Standard Deviation				1.93	0.62	0.57	1558	1660	0.503	
Minimum				4.83	7.39	7.70	1420	1373	0.050	
Maximum				10.80	9.22	9.20	5390	5870	1.400	
SEP-1	08/15/97	EPRI-9708-163	SW	6.03	8.38	8.30	910	873	0.5	
SEP-1	11/10/97	EPRI-9711-163	SW	12.17	8.04	8.00	4660	4680	4.1	
SEP-1	02/13/98	EPRI-9802-161	SW		7.38	7.90	4580	868	A 3.8	
SEP-1	05/20/98	EPRI-9805-184	SW	6.79	8.75	8.20	1095	967	0.34	
SEP-1	8/11/98	EPRI-9808-161	SW	5.9	8.46	8.3	951	958	0.17	
SEP-1	2/19/99	EPRI-9902-156	SW	10.9	8.54	8.3	2100	1831	2.6	
SEP-1	5/12/99	EPRI-9905-157	SW	5	7.48	8.0	1172	J3 1319	0.14	UJ1,J4

Table F-4. Summary of Surface Water Quality, August 1997 through February 2000
Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
SEP-1	08/20/99	EPRI-9908-157	SW	5.1	8.05	8.3	918	913	0.58	
SEP-1	11/01/99	EPRI-9911-183	SW	7.2	8.15	8.3	1803	1808	1.3	UJ1
SEP-1	01/31/00	EPRI-0002-183	SW	7.1	8.33	8.3	1402	1350	1.1	UJ1
Average				7.35	8.16	8.19	1959	1557	1.46	
Median				6.79	8.24	8.3	1287	1143	0.84	
Standard Deviation				2.52	0.44	0.16	1456	1157	1.50	
Minimum				5.00	7.38	7.90	910	868	0.14	
Maximum				12.17	8.75	8.30	4660	4680	4.10	
SEP-10	08/15/97	EPRI-9708-175	SW	6.22	8.40	8.40	835	818	0.36	
SEP-10	08/15/97	EPRI-9708-179	SW			8.30	837		0.37	
SEP-10	11/19/97	EPRI-9711-181	SW	7.32	8.38	8.50	1970	2180	3	
SEP-10	02/13/98	EPRI-9802-167	SW		8.29	8.30	1474	230	A 3	
SEP-10	05/19/98	EPRI-9805-167	SW	7.43	8.84	8.30	1066	1072	0.21	
SEP-10	05/19/98	EPRI-9805-181	SW			8.40	1066		0.21	
SEP-10	8/18/98	EPRI-9808-167	SW	6.5	8.58	8.7	969	875	0.17	
SEP-10	11/18/98	EPRI-9811-167	SW	7.50	8.32	8.4	1894	1882	2.3	
SEP-10	2/19/99	EPRI-9902-162	SW	10.4	8.41	8.2	2060	1675	1.7	
SEP-10	5/13/99	EPRI-9905-163	SW	6	7.14	8.3	1153	1068	0.10	U,UJ4
SEP-10	08/20/99	EPRI-9908-163	SW	5.3	8.17	8.2	892	889	0.53	
SEP-10	11/01/99	EPRI-9911-191	SW	9.3	8.21	8.3	2120	2080	0.75	UJ1
SEP-10	02/14/00	EPRI-0002-190	SW	9.1	8.37	8.5	2210	2100	1.6	
Average				7.51	8.28	8.37	1427	1352	1.10	
Median				7.38	8.37	8.3	1153	1072	0.53	
Standard Deviation				1.63	0.42	0.14	543	656	1.09	
Minimum				5.30	7.14	8.20	835	230	0.10	
Maximum				10.40	8.84	8.70	2210	2180	3.00	
SEP-11	08/15/97	EPRI-9708-176	SW	6.33	8.42	8.10	814	810	0.36	
SEP-11	11/10/97	EPRI-9711-177	SW	6.97	8.30	8.30	1933	1741	2.2	
SEP-11	02/13/98	EPRI-9802-168	SW		8.32	8.40	1447	228	A 2.5	
SEP-11	05/19/98	EPRI-9805-168	SW	7.19	8.79	8.50	1071	1063	0.21	
SEP-11	8/18/98	EPRI-9808-168	SW	6.43	8.59	8.7	968	869	0.14	
SEP-11	11/18/98	EPRI-9811-168	SW	7.80	8.53	8.5	1877	1860	2.0	
SEP-11	11/18/98	EPRI-9811-182	SW			8.5	1885		2.1	
SEP-11	2/19/99	EPRI-9902-163	SW	10.9	8.47	8.3	2060	1633	1.9	
SEP-11	5/13/99	EPRI-9905-164	SW	5.8	7.06	8.4	1151	1099	0.25	J4
SEP-11	5/13/99	EPRI-9905-191	SW	5.7	7.07	8.4	1154	1101	0.10	U,UJ4
SEP-11	08/20/99	EPRI-9908-164	SW	5.4	8.18	8.3	895	887	0.51	
SEP-11	11/02/99	EPRI-9911-157	SW	7.8	7.63	8.4	1972	2110	0.62	
SEP-11	02/14/00	EPRI-0002-191	SW	9.5	8.52	8.6	2300	2222	1.6	
Average				7.26	8.16	8.42	1502	1302	1.11	
Median				6.97	8.37	8.4	1447	1100	0.62	
Standard Deviation				1.69	0.58	0.15	517	604	0.93	
Minimum				5.40	7.06	8.10	814	228	0.10	
Maximum				10.90	8.79	8.70	2300	2222	2.50	
SEP-12	08/15/97	EPRI-9708-177	SW	6.34	8.47	8.30	850	834	0.38	
SEP-12	11/10/97	EPRI-9711-176	SW	6.64	8.37	8.30	1970	1648	2.2	
SEP-12	02/13/98	EPRI-9802-169	SW		8.39	8.40	1422	212	A 1.8	
SEP-12	05/19/98	EPRI-9805-169	SW	6.87	8.82	8.40	1064	1125	0.22	
SEP-12	8/20/98	EPRI-9808-169	SW	5.55	8.6	8.4	952	974	0.29	
SEP-12	11/18/98	EPRI-9811-169	SW	8.00	8.24	8.4	1877	1866	1.9	
SEP-12	2/19/99	EPRI-9902-164	SW	9.9	8.39	8.3	2070	1573	1.5	

Table F-4. Summary of Surface Water Quality, August 1997 through February 2000
Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
SEP-12	5/13/99	EPRI-9905-165	SW	5.8	6.94	8.4	1166	1214	0.16	J4
SEP-12	08/20/99	EPRI-9908-165	SW	5.5	8.15	8.3	902	900	0.53	
SEP-12	11/01/99	EPRI-9911-160	SW	7.8	8.34	8.5	2060	2070	0.8	UJ1
SEP-12	11/01/99	EPRI-9911-233	SW	9.1	8.36	8.5	2060	2070	0.89	
SEP-12	02/14/00	EPRI-0002-192	SW	9.6	8.42	8.5	2330	2300	1.5	
Average				7.37	8.29	8.39	1560	1399	1.01	
Median				6.87	8.38	8.4	1650	1394	0.85	
Standard Deviation				1.61	0.46	0.08	552	624	0.73	
Minimum				5.50	6.94	8.30	850	212	0.16	
Maximum				9.90	8.82	8.50	2330	2300	2.20	
SEP-13	08/15/97	EPRI-9708-178	SW	7	8.47	8.20	854	852	0.38	
SEP-13	11/10/97	EPRI-9711-175	SW	6.1	8.42	8.30	1993	1613	2.1	
SEP-13	02/13/98	EPRI-9802-170	SW		8.39	8.40	1394	207	1.5	A
SEP-13	05/19/98	EPRI-9805-170	SW	7.64	8.68	8.50	1051	1058	0.24	
SEP-13	8/20/98	EPRI-9808-170	SW	5.37	8.6	8.4	954	965	0.27	
SEP-13	8/20/98	EPRI-9808-179	SW			8.4	954		0.26	
SEP-13	11/18/98	EPRI-9811-170	SW	8.80	8.06	8.5	1884	1868	1.9	
SEP-13	2/19/99	EPRI-9902-165	SW	11.4	7.92	8.3	2090	1584	1.4	
SEP-13	5/13/99	EPRI-9905-166	SW	5.8	6.89	8.6	1182	1321	0.10	U,UJ4
SEP-13	08/20/99	EPRI-9908-166	SW	5.5	8.17	8.3	889	880	0.5	
SEP-13	11/01/99	EPRI-9911-158	SW	9.7	8.34	8.5	2070	2070	0.74	UJ1
SEP-13	02/14/00	EPRI-0002-193	SW	8.4	8.42	8.5	2330	2290	1.5	
SEP-13	02/14/00	EPRI-0002-239	SW	8.3	8.42	8.5	2320	2290	1.5	
Average				7.64	8.23	8.42	1536	1417	0.95	
Median				7.64	8.405	8.4	1394	1453	0.74	
Standard Deviation				1.91	0.47	0.11	585	649	0.71	
Minimum				5.37	6.89	8.20	854	207	0.10	
Maximum				11.40	8.68	8.60	2330	2290	2.10	
SEP-14	11/12/98	EPRI-9811-174	SW		9.33	8.9	272	255	0.10	U
SEP-14	08/11/99	EPRI-9908-167	SW	6.4	9.03	7.8	165	160	0.09	
Average				6.40	9.18	8.35	219	208	0.10	
Median				6.40	9.18	8.35	219	208	0.10	
Standard Deviation				#DIV/0!	0.21	0.78	76	67	0.01	
Minimum				6.40	9.03	7.80	165	160	0.09	
Maximum				6.40	9.33	8.90	272	255	0.10	
SEP-2	08/15/97	EPRI-9708-164	SW	6.25	8.40	8.30	842	830	0.35	
SEP-2	11/10/97	EPRI-9711-164	SW	6.48	8.39	8.30	1950	1643	2.3	
SEP-2	02/13/98	EPRI-9802-162	SW		8.38	8.40	1440	218	1.8	A
SEP-2	05/19/98	EPRI-9805-162	SW	7.15	8.83	8.50	1068	1071	0.22	
SEP-2	8/18/98	EPRI-9808-162	SW	6.33	8.6	8.7	966	854	0.13	
SEP-2	11/18/98	EPRI-9811-162	SW	8.40	8.46	8.5	1877	1865	2.1	
SEP-2	2/19/99	EPRI-9902-157	SW	9.4	8.48	8.3	2080	1576	1.5	
SEP-2	2/19/99	EPRI-9902-191	SW	9.8	8.50	8.3	2070	1571	1.4	
SEP-2	5/13/99	EPRI-9905-158	SW	6	7.04	8.4	1179	1116	0.23	J4
SEP-2	08/20/99	EPRI-9908-158	SW	5.9	8.12	8.3	887	887	0.45	
SEP-2	11/01/99	EPRI-9911-184	SW	10.2	8.32	8.5	2110	2120	0.75	UJ1
SEP-2	02/14/00	EPRI-0002-184	SW	10.2	8.46	8.5	2330	2280	1.3	
Average				7.83	8.33	8.42	1567	1336	1.04	
Median				7.15	8.43	8.4	1659	1344	1.03	
Standard Deviation				1.79	0.44	0.13	556	607	0.78	
Minimum				5.90	7.04	8.30	842	218	0.13	
Maximum				10.20	8.83	8.70	2330	2280	2.30	

Table F-4. Summary of Surface Water Quality, August 1997 through February 2000
Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
SEP-3	08/18/97	EPRI-9708-165	SW	5.33	8.25	8.40	959	946	0.63	
SEP-3	11/19/97	EPRI-9711-165	SW	12.44	7.80	7.60	5250	6200	12	
SEP-3	02/13/98	EPRI-9802-163	SW		7.84	8.10	5410	1054	8.6	A
SEP-3	05/20/98	EPRI-9805-185	SW	6.65	8.76	8.20	1092	967	0.33	
SEP-3	8/11/98	EPRI-9808-163	SW	6.44	8.45	8.5	977	986	0.33	
SEP-3	8/11/98	EPRI-9808-181	SW			8.5	976		0.34	
SEP-3	5/12/99	EPRI-9905-159	SW	5	7.77	9.4	1168	J3 1319	0.38	UJ1,J4
SEP-3	5/12/99	EPRI-9905-190	SW	3.6	7.77	9.5	1175	J3 1265	1.0	J4
SEP-3	08/20/99	EPRI-9908-159	SW	5.6	8.22	8.3	915	921	0.57	
SEP-3	11/01/99	EPRI-9911-185	SW	6.2	8.19	8.4	1826	1889	1.3	UJ1
SEP-3	01/31/00	EPRI-0002-185	SW	7.5	8.29	8.3	1400	1356	1.3	UJ1
Average				6.53	8.13	8.47	1923	1690	2.43	
Median				6.20	8.205	8.4	1168	1160	0.63	
Standard Deviation				2.48	0.33	0.54	1705	1612	3.98	
Minimum				3.60	7.77	7.60	915	921	0.33	
Maximum				12.44	8.76	9.50	5410	6200	12.00	
SEP-4	08/15/97	EPRI-9708-166	SW	6.37	8.54	8.40	858	855	0.39	
SEP-4	11/10/97	EPRI-9711-166	SW	6.75	8.39	7.90	1952	1595	1.7	
SEP-4	02/13/98	EPRI-9802-164	SW		8.41	8.40	1388	197.7	1.3	A
SEP-4	05/19/98	EPRI-9805-164	SW	7.37	8.86	8.40	1054	1060	0.23	
SEP-4	8/20/98	EPRI-9808-164	SW	5.99	8.58	8.4	954	960	0.27	
SEP-4	11/18/98	EPRI-9811-164	SW	8.0	7.71	8.5	1893	1879	1.9	
SEP-4	2/19/99	EPRI-9902-159	SW	10.2	8.28	8.3	2100	1643	1.5	
SEP-4	5/13/99	EPRI-9905-160	SW	5.6	6.84	8.5	1194	1279	0.10	U,UJ4
SEP-4	08/20/99	EPRI-9908-160	SW	6.1	8.14	8.6	898	896	0.54	
SEP-4	11/01/99	EPRI-9911-186	SW	10.2	8.37	8.4	2120	2390	0.81	UJ1
SEP-4	02/14/00	EPRI-0002-186	SW	10.9	8.65	8.4	2440	2360	1.7	
Average				7.75	8.25	8.38	1532	1374	0.95	
Median				7.06	8.39	8.4	1388	1279	0.81	
Standard Deviation				1.99	0.55	0.18	579	674	0.68	
Minimum				5.60	6.84	7.90	858	198	0.10	
Maximum				10.90	8.86	8.60	2440	2390	1.90	
SEP-6	08/18/97	EPRI-9708-168	SW	5.33	8.28	8.40	961	943	0.76	
SEP-6	08/20/99	EPRI-9908-177	SW	5.4	8.24	8.2	915	914	0.57	
SEP-6	08/20/99	EPRI-9908-208	SW	5.4	8.25	8.6	915	914	0.57	
SEP-6	11/01/99	EPRI-9911-187	SW	6.7	8.25	8.4	1830	1871	1.3	UJ1
SEP-6	01/31/00	EPRI-0002-187	SW	7.2	8.34	8.2	1412	1372	1.4	UJ1
Average				6.01	8.27	8.36	1207	1203	0.92	
Median				5.40	8.25	8.4	961	943	0.76	
Standard Deviation				0.88	0.04	0.17	407	421	0.40	
Minimum				5.33	8.24	8.20	915	914	0.57	
Maximum				7.20	8.34	8.60	1830	1871	1.40	
SEP-7	08/18/97	EPRI-9708-169	SW	4.97	8.35	8.40	896	896	0.37	
SEP-7	11/10/97	EPRI-9711-169	SW	6.96	8.16	8.30	1924	1796	2.7	
SEP-7	02/13/98	EPRI-9802-165	SW		8.49	8.50	1479	249	3	A
SEP-7	05/20/98	EPRI-9805-183	SW	6.3	8.79	8.20	1083	963	0.21	
SEP-7	8/11/98	EPRI-9808-165	SW	6.47	8.45	8.5	976	974	0.32	
SEP-7	11/18/98	EPRI-9811-165	SW	8.40	8.35	8.4	1899	1892	2.6	
SEP-7	2/19/99	EPRI-9902-160	SW	16.5	8.41	8.3	2100	1775	1.5	
SEP-7	5/12/99	EPRI-9905-161	SW	5.2	7.54	8.3	1158	J3 1380	0.13	UJ1,J4

Table F-4. Summary of Surface Water Quality, August 1997 through February 2000
Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
SEP-7	08/20/99	EPRI-9908-161	SW	5.8	8.14	8.4	894	896	0.52	
SEP-7	11/01/99	EPRI-9911-188	SW	7	8.15	8.3	1800	1836	0.9	UJ1
SEP-7	01/31/00	EPRI-0002-188	SW	7.7	8.36	8.3	1402	1366	1.3	UJ1
Average				7.53	8.29	8.35	1419	1275	1.23	
Median				6.72	8.35	8.3	1402	1366	0.90	
Standard Deviation				3.32	0.31	0.09	450	526	1.08	
Minimum				4.97	7.54	8.20	894	249	0.13	
Maximum				16.50	8.79	8.50	2100	1892	3.00	
SEP-8	08/18/97	EPRI-9708-170	SW	5.26	7.49	8.30	958	969	0.62	
SEP-9	08/15/97	EPRI-9708-171	SW	6.14	8.23	8.30	1133	1108	2.3	
SEP-9	11/10/97	EPRI-9711-171	SW	6.6	8.14	8.30	1886	1771	3.7	
SEP-9	02/13/98	EPRI-9802-166	SW		8.18	8.20	1550	278	A	6.5
SEP-9	05/19/98	EPRI-9805-166	SW	7.38	8.49	8.50	1273	1082		2.4
SEP-9	8/18/98	EPRI-9808-166	SW	5.61	8.26	8.5	1142	1166		2.5
SEP-9	11/18/98	EPRI-9811-166	SW	7.80	8.35	8.3	1950			5.5
SEP-9	2/19/99	EPRI-9902-161	SW	10.9	8.31	8.1	2050	1763		5.0
SEP-9	5/12/99	EPRI-9905-162	SW	3.7	7.65	8.4	1156	J3 1267		0.10
SEP-9	08/20/99	EPRI-9908-162	SW	5.6	7.92	8.3	1303	1301		3.5
SEP-9	11/01/99	EPRI-9911-190	SW	7.6	7.8	8.3	1804	1846		1.4
SEP-9	02/14/00	EPRI-0002-189	SW	6.1	8.03	8.3	2120	2050		2.7
Average				6.74	8.12	8.32	1579	1363		3.24
Median				6.37	8.18	8.3	1550	1284		2.70
Standard Deviation				1.89	0.25	0.12	392	517		1.87
Minimum				3.70	7.65	8.10	1133	278		0.10
Maximum				10.90	8.49	8.50	2120	2050		6.50

TABLE F-5

**ANALYTICAL RESULTS FOR COMMON IONS,
SURFACE WATER SAMPLES**

Table F-5. Summary of Surface Water Quality, August 1997 through February 2000
Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
POND 1	12/22/97	EPRI-9711-182	SW		7.58	7.50	27200	24500	25974	6.9	439	144	7724	373	144	176	1.0	16043	1002	23
POND 1	02/19/98	EPRI-9802-171	SW	8.15	7.85	7.70	25600	22900	24898	8.8	411	135	7362	329	126	154	1.0	14493	1134	21
POND 1	05/19/98	EPRI-9805-171	SW	5.29	7.85	7.90	50100	49000	55664	21	526	274	16140	715	210	256	1.0	36326	2853	30
POND 1	8/18/98	EPRI-9808-171	SW	4.1	7.82	8.1	126300	78600	101290	43	585	545	36130	1157	206	251	1.0	59186	5316	38
POND 1	11/18/98	EPRI-9811-171	SW	7.1	7.38	8.0	8260	8200	6712	22	266	54	1865	64	115	140	1.0	38666	630	7.5
POND 1	02/19/99	EPRI-9902-173	SW	12.3	8.12	8.1	19330	15540	16995	48	397	95	5144	211	138	168	1.0	7894	1340	14
POND 1	05/12/99	EPRI-9905-174	SW	7	6.75	7.9	34600	33500	34222	69	548	198	10500	460	130	159	1.0	20254	292	12
POND 1	08/11/99	EPRI-9908-174	SW	4.2	7.68	7.9	46600	48700	49470	56	537	329	13740	409	107	131	1.0	32369	3406	35
POND 1	11/02/99	EPRI-9911-168	SW	9.9	7.74	8.1	215000	12370	147412	1703	850	3445	42350	4074	481	587	1.0	80035	24148	121
Average				7.26	7.64	7.91	61421	32757	51182	220	507	580	15662	866	184	225	1.0	30052	4458	34
Median				7.05	7.74	7.9	34600	24500	34222	43	526	198	10500	409	138	168	1.0	20254	1340	23
Standard Deviation				2.84	0.39	0.20	67008	22652	45470	557	162	1085	14118	1244	117	143	0.0	25256	7557	34
Minimum				4.10	6.75	7.50	8260	8200	6712	7	266	54	1865	64	107	131	1.0	38666	292	8
Maximum				12.30	8.12	8.10	215000	78600	147412	1703	850	3445	42350	4074	481	587	1.0	80035	24148	121
POND 5	12/22/97	EPRI-9711-183	SW		7.11	7.20	975	1289	644	2.8	35	3.2	154	7.3	50	61	1.0	193	137	1
POND 5	02/19/98	EPRI-9802-172	SW	7.33	7.99	7.50	1152	1160	775	1.8	41	6.9	195	6.3	75	92	1.0	237	144	0.91
POND 5	05/19/98	EPRI-9805-172	SW	8.12	9.17	8.90	1351	1338	846	6	78	18	176	13	133	116	25	318	176	0.94
POND 5	08/18/98	EPRI-9808-172	SW	5.28	6.76	6.7	1970	1972	1277	11	108	25	275	14	17	21	1.0	449	349	3.1
Average				6.91	7.76	7.58	1362	1440	886	5	66	13	200	10	69	73	7.0	299	202	1
Median				7.33	7.55	7.35	1252	1314	811	4	60	12	186	10	63	77	1.0	278	160	1
Standard Deviation				1.47	1.07	0.94	433	365	274	4	34	10	53	4	49	41	12.0	112	100	1
Minimum				5.28	6.76	6.70	975	1160	644	2	35	3	154	6	17	21	1.0	193	137	1
Maximum				8.12	9.17	8.90	1970	1972	1277	11	108	25	275	14	133	116	25.0	449	349	3
POND 6	12/22/97	EPRI-9711-184	SW		7.61	7.70	5330	5870	3912	27	175	24	1139	30	80	98	1.0	1874	497	11
POND 6	02/19/98	EPRI-9802-173	SW	5.9	8.10	7.80	3960	4430	2914	23	103	11	938	17	60	73	1.0	1363	402	5.1
POND 6	05/19/98	EPRI-9805-173	SW	8.33	9.22	9.10	4650	4640	3389	41	213	47	925	29	176	150	35.0	1634	512	8.2
POND 6	8/18/98	EPRI-9808-173	SW	4.83	8.41	8.6	5390	5340	4045	17	267	56	950	47	172	189	11.0	1846	639	4.1
POND 6	11/12/98	EPRI-9811-173	SW	6.9	8.1	8.2	4540	4270	3397	44	198	35	887	33	136	166	1.0	1592	559	3.6
POND 6	02/19/99	EPRI-9902-175	SW	10.8	8.75	8.5	2610	2290	1716	15	82	7.6	507	15	58	62	5.0	462	286	1.9
POND 6	05/12/99	EPRI-9905-176	SW	9.2	8.85	8.9	2450	2540	1632	23	115	23	420	20	118	144	1.0	377	250	2.2
POND 6	08/11/99	EPRI-9908-176	SW	7	8.79	8.8	1773	1736	1186	17	97	18	218	11	121	112	19.0	691	278	1.6
POND 6	11/02/99	EPRI-9911-169	SW	9.5	9.14	9.2	1702	1756	1032	34	95	17	222	11	135	165	1.0	338	243	1.7
POND 6	02/07/00	EPRI-0002-203	SW	6.4	7.39	7.7	1420	1373	909	15	77	13	205	8.5	79	96	1.0	226	177	1.4
Average				7.65	8.44	8.45	3383	3424	2413	26	142	25	641	22	113	126	7.6	1040	384	4
Median				7.00	8.58	8.55	3285	3405	2315	23	109	21	697	19	119	128	1.0	1027	344	3
Standard Deviation				1.93	0.62	0.57	1558	1660	1241	11	66	16	363	12	43	43	11.4	680	159	3
Minimum				4.83	7.39	7.70	1420	1373	909	15	77	8	205	9	58	62	1.0	226	177	1
Maximum				10.80	9.22	9.20	5390	5870	4045	44	267	56	1139	47	176	189	35.0	1874	639	11
SEP-1	08/15/97	EPRI-9708-163	SW	6.03	8.38	8.30	910	873	635	275	62	15	114	8.4	180	220	1.0	156	81	0.65
SEP-1	11/10/97	EPRI-9711-163	SW	12.17	8.04	8.00	4660	4680	3424	13	196	77	793	60	312	381	1.0	1616	438	2.3
SEP-1	02/13/98	EPRI-9802-161	SW	7.38	7.90	7.80	4580	868	3300	20	203	76	748	67	318	388	1.0	1676	481	2.1
SEP-1	05/20/98	EPRI-9805-184	SW	6.79	8.75	8.20	1095	967	668	99	71	17	129	6.9	179	218	1.0	226	107	0.68
SEP-1	8/11/98	EPRI-9808-161	SW	5.9	8.46	8.3	951	958	630	242	66	15	113	8.1	194	237	1.0	185	82	0.64
SEP-1	2/19/99	EPRI-9902-156	SW	10.9	8.54	8.3	2100	1831	1363	28	109	26	315	13.0	225	275	1.0	313	248	0.83
SEP-1	5/12/99	EPRI-9905-157	SW	5	7.48	8	1172	1319	746	76	73	18	140	7.6	163	190	1.0	216	92	0.72

Table F-5. Summary of Surface Water Quality, August 1997 through February 2000
Common Ions

Site	Date	Sampl #	Type	(O) (ftd)	pH (ftd)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (ftd)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
SEP-1	8/20/99	EPRI-9908-157	SW	5.1	8.05	8.3	918	913	572	522	59	12	102	6.9	198	242	1.0	196	76	0.64
SEP-1	11/1/99	EPRI-9911-183	SW	7.2	8.15	8.3	1803	1808	1133	29	99	25	215	11.0	226	276	1.0	423	220	0.73
SEP-1	1/31/00	EPRI-0002-183	SW	7.1	8.33	8.3	1402	1350	841	67	4	19	191	7.3	200	244	1.0	232	167	0.74
Average				7.35	8.16	8.19	1959	1557	1331	137	102	30	286	20	220	267	1.4	524	199	1
Median				6.79	8.24	8.3	1287	1145	794	72	79	19	166	8	199	243	1.0	229	137	1
Standard Deviation				2.52	0.44	0.16	1456	1157	1099	164	54	25	263	23	54	67	1.3	596	150	1
Minimum				5.00	7.38	7.90	910	868	572	13	59	12	102	7	163	190	1.0	156	76	1
Maximum				12.17	8.75	8.30	4660	4680	3424	522	203	77	793	67	318	388	5.0	1676	481	2
SEP-10	08/15/97	EPRI-9708-175	SW	6.22	8.40	8.40	835	818	576	286	60	14	100	8.2	169	203	2.0	145	69	0.64
SEP-10	08/15/97	EPRI-9708-179	SW		8.30	8.30	837	543	339	60	14	100	8.3	174	212	1.0	131	67	0.64	
SEP-10	11/19/97	EPRI-9711-181	SW	7.32	8.38	8.30	1970	2180	1337	16	103	25	278	13	246	278	12.0	436	255	0.82
SEP-10	02/13/98	EPRI-9802-167	SW	8.29	8.30	8.30	1474	230	960	80	82	17	228	7.4	188	229	1.0	264	175	0.68
SEP-10	05/19/98	EPRI-9805-167	SW	7.43	8.84	8.30	1066	1072	650	102	74	17	130	8	165	201	1.0	229	112	0.68
SEP-10	05/19/98	EPRI-9805-181	SW		8.40	8.40	1066	684	105	105	72	17	126	8.4	165	188	7.0	229	109	0.68
SEP-10	8/18/98	EPRI-9808-167	SW	6.5	8.58	8.7	969	875	608	190	64	14	113	9	186	207	1.0	207	85	0.62
SEP-10	11/18/98	EPRI-9811-167	SW	7.5	8.32	8.4	1894	1882	1268	18	100	23	278	12	220	259	5.0	439	243	0.73
SEP-10	02/19/99	EPRI-9902-162	SW	10.4	8.41	8.2	2060	1675	1282	28	110	27	367	15	240	293	1.0	290	239	0.77
SEP-10	05/13/99	EPRI-9905-163	SW	6	7.14	8.3	1153	1068	748	62	77	20	135	8.1	198	242	1.0	204	92	0.72
SEP-10	08/20/99	EPRI-9908-163	SW	5.3	8.17	8.2	892	889	592	481	62	12	99	7.2	196	239	1.0	180	67	0.68
SEP-10	11/01/99	EPRI-9911-191	SW	9.3	8.21	8.3	2120	2080	1342	41	105	29	261	12	231	282	1.0	512	251	0.86
SEP-10	02/14/00	EPRI-0002-190	SW	9.1	8.37	8.5	2210	2100	1458	35	108	26	294	13	231	255	14.4	382	290	0.87
Average				7.51	8.28	8.37	1427	1352	927	137	83	20	188	10	201	238	4.5	281	158	1
Median				7.38	8.37	8.3	1153	1072	748	80	77	17	135	8	196	239	1.0	229	112	1
Standard Deviation				1.63	0.42	0.14	543	656	356	146	20	6	85	3	30	34	5.0	123	86	0
Minimum				5.30	7.14	8.20	835	230	543	16	60	12	99	7	165	188	1.0	131	67	1
Maximum				10.40	8.84	8.70	2210	2180	1458	481	110	29	307	15	246	293	14.4	512	290	1
SEP-11	08/15/97	EPRI-9708-176	SW	6.33	8.42	8.10	814	810	526	432	60	14	101	8.3	162	198	1.0	140	73	0.57
SEP-11	11/10/97	EPRI-9711-177	SW	6.97	8.30	8.30	1933	1741	1258	23	104	25	272	9.2	231	282	1.0	415	246	0.74
SEP-11	02/13/98	EPRI-9802-168	SW		8.32	8.40	1447	228	949	91	85	18	225	8.2	194	224	7.0	259	178	0.71
SEP-11	05/19/98	EPRI-9805-168	SW	7.19	8.79	8.50	1071	1063	660	104	72	17	126	9.4	172	178	17.0	229	110	0.66
SEP-11	8/18/98	EPRI-9808-168	SW	6.43	8.59	8.7	968	869	623	202	65	15	115	9.7	186	207	1.0	203	86	0.60
SEP-11	11/18/98	EPRI-9811-168	SW	7.8	8.53	8.5	1877	1860	1219	23	102	24	276	12	222	261	5.0	438	246	0.74
SEP-11	02/19/99	EPRI-9902-163	SW	10.9	8.47	8.3	2060	1633	1390	31	112	28	292	15	237	289	1.0	299	237	0.79
SEP-11	05/13/99	EPRI-9905-164	SW	5.8	7.06	8.4	1151	1099	755	70	75	19	140	7.8	203	239	5.0	204	98	0.72
SEP-11	05/13/99	EPRI-9905-191	SW	5.7	7.07	8.4	1154	1101	727	65	75	19	140	7.6	194	227	5.0	192	103	0.72
SEP-11	08/20/99	EPRI-9908-164	SW	5.4	8.18	8.3	895	887	581	500	63	13	100	7.3	200	244	1.0	191	69	0.64
SEP-11	11/02/99	EPRI-9911-157	SW	7.8	7.63	8.4	1972	2110	1294	37	106	28	240	11	237	289	1.0	415	206	0.78
SEP-11	02/14/00	EPRI-0002-191	SW	9.5	8.52	8.6	2300	2222	1517	17	112	29	315	14	225	246	13.8	344	310	0.86
Average				7.26	8.16	8.42	1502	1302	981	124	87	21	201	10	206	242	5.7	289	169	1
Median				6.97	8.37	8.4	1447	1100	949	65	85	19	225	9	203	244	5.0	259	178	1
Standard Deviation				1.69	0.58	0.15	517	604	351	161	20	6	82	2	24	35	5.3	107	82	0
Minimum				5.40	7.06	8.10	814	228	526	17	60	13	100	7	162	178	1.0	140	69	1
Maximum				10.90	8.79	8.70	2300	2222	1517	500	112	29	315	15	237	289	17.0	438	310	1
SEP-12	08/15/97	EPRI-9708-177	SW	6.34	8.47	8.30	850	834	590	224	61	14	101	8.2	176	215	1.0	134	68	0.64
SEP-12	11/10/97	EPRI-9711-176	SW	6.64	8.37	8.30	1970	1648	1323	31	105	26	272	11	234	285	1.0	427	254	0.75
SEP-12	02/13/98	EPRI-9802-169	SW		8.39	8.40	1422	212	911	97	85	18	211	7.5	198	223	10.0	253	176	0.68
SEP-12	05/19/98	EPRI-9805-169	SW	6.87	8.82	8.40	1064	1125	646	99	71	17	127	14	167	185	10.0	216	105	0.66
SEP-12	8/20/98	EPRI-9808-169	SW	5.55	8.6	8.4	932	974	644	204	60	14	112	8.2	187	224	2.0	180	81	0.62

Table F-5. Summary of Surface Water Quality, August 1997 through February 2000
Common Ions

Site	Date	Sample #	Type	(O) (fid)	pH (fid)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fid)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
SEP-12	11/18/98	EPRI-9811-169	SW	8	8.24	8.4	1877	1866	1283	20	105	25	277	12	226	266	5.0	431	232	0.72	
SEP-12	02/19/99	EPRI-9902-164	SW	9.9	8.39	8.3	2070	1573	1100	26	113	30	303	16	242	295	1.0	U	301	238	0.78
SEP-12	05/13/99	EPRI-9905-165	SW	5.8	6.94	8.4	1166	1214	735	57	76	20	145	7.5	196	239	1.0	U	220	97	0.69
SEP-12	08/20/99	EPRI-9908-165	SW	5.5	8.15	8.3	902	900	597	476	62	13	97	7.2	194	237	1.0	U	195	69	0.66
SEP-12	11/01/99	EPRI-9911-160	SW	7.8	8.34	8.5	2060	2070	1316	31	100	30	254	12	218	251	8.4	479	259	0.8	
SEP-12	11/01/99	EPRI-9911-233	SW	9.1	8.36	8.5	2060	2070	1311	30	101	29	256	12	220	253	8.4	450	250	0.78	
SEP-12	02/14/00	EPRI-0002-192	SW	9.6	8.42	8.5	2330	2300	1525	22	113	30	315	13	250	283	12.0	J4	598	299	0.9
Average				7.37	8.29	8.39	1560	1399	998	110	88	22	206	11	210	246	5.1	324	177	1	
Median				6.87	8.38	8.4	1650	1394	1006	44	93	23	233	12	208	245	3.5	277	204	1	
Standard Deviation				1.61	0.46	0.08	552	624	347	135	21	7	84	3	27	32	4.4	147	87	0	
Minimum				5.50	6.94	8.30	850	212	590	20	60	13	97	7	167	185	1.0	134	68	1	
Maximum				9.90	8.82	8.50	2330	2300	1525	476	113	30	315	16	250	295	12.0	598	299	1	
SEP-13	08/15/97	EPRI-9708-178	SW	7	8.47	8.20	854	852	554	305	61	14	102	8.3	180	220	1.0	U	141	76	0.65
SEP-13	11/10/97	EPRI-9711-175	SW	6.1	8.42	8.30	1993	1613	1304	38	107	27	286	9.7	235	287	1.0	U	422	249	0.77
SEP-13	02/13/98	EPRI-9802-170	SW	8.39	8.40	8.40	1394	207	911	95	88	19	209	8	202	234	7.0	246	166	0.7	
SEP-13	05/19/98	EPRI-9805-170	SW	7.64	8.68	8.50	1051	1058	621	79	71	17	129	8.8	177	198	10.0	J4	221	109	0.65
SEP-13	8/20/98	EPRI-9808-170	SW	5.37	8.6	8.4	954	965	671	234	61	14	111	8	186	223	2.0	179	80	0.62	
SEP-13	8/20/98	EPRI-9808-179	SW	8.4	8.4	8.4	954	642	227	61	14	14	111	6.9	183	220	2.0	177	81	0.62	
SEP-13	11/18/98	EPRI-9811-170	SW	8.8	8.06	8.5	1884	1868	1259	19	102	24	273	12	226	266	5.0	443	238	0.72	
SEP-13	02/19/99	EPRI-9902-165	SW	11.4	7.92	8.3	2090	1584	1169	24	117	32	300	16	249	304	1.0	U	309	238	0.80
SEP-13	05/13/99	EPRI-9905-166	SW	5.8	6.89	8.6	1182	1321	735	55	75	19	140	7.8	215	249	7.0	217	99	0.60	
SEP-13	08/20/99	EPRI-9908-166	SW	5.5	8.17	8.3	889	880	614	455	58	12	99	7.1	180	220	1.0	U	182	67	0.66
SEP-13	11/01/99	EPRI-9911-158	SW	9.7	8.34	8.5	2070	2290	1299	33	99	30	263	12	211	238	10.8	444	240	0.79	
SEP-13	02/14/00	EPRI-0002-193	SW	8.4	8.42	8.5	2330	2290	1554	17	117	31	316	14	242	277	9.6	J4	575	291	0.86
SEP-13	02/14/00	EPRI-0002-239	SW	8.3	8.42	8.5	2320	2290	1534	17	113	31	319	14	238	264	14.4	J4	484	291	0.86
Average				7.64	8.23	8.42	1536	1417	990	123	87	22	204	10	210	246	5.5	311	171	1	
Median				7.64	8.405	8.4	1394	1453	911	55	88	19	209	9	211	238	5.0	246	166	1	
Standard Deviation				1.91	0.47	0.11	585	649	374	139	23	8	91	3	26	31	4.6	144	88	0	
Minimum				5.37	6.89	8.20	854	207	554	17	58	12	99	7	177	198	1.0	141	67	1	
Maximum				11.40	8.68	8.60	2330	2290	1554	455	117	32	319	16	249	304	14.4	575	291	1	
SEP-14	11/12/98	EPRI-9811-174	SW		9.33	8.9	272	255	182	50	24	4.0	22	5.0	U	77	10.0	65	7.6	0.32	
SEP-14	08/17/99	EPRI-9908-167	SW	6.4	9.03	7.8	160	165	103	53	15	2.7	12	5	U	51	1.0	U	20	1.1	0.28
Average				6.40	9.18	8.35	216	210	143	52	20	3	17	5	60	64	5.5	43	4	0	
Median				6.40	9.18	8.35	216	210	143	52	20	3	17	5	60	64	5.5	43	4	0	
Standard Deviation				0.21	0.78	79	79	64	56	2	6	1	7	0	26	18	6.4	32	5	0	
Minimum				6.40	9.03	7.80	160	165	103	50	15	3	12	5	42	51	1.0	20	1	0	
Maximum				6.40	9.33	8.90	272	255	182	53	24	4	22	5	78	77	10.0	65	8	0	
SEP-2	08/15/97	EPRI-9708-164	SW	6.25	8.40	8.30	842	830	565	180	61	14	102	8.2	172	210	1.0	U	131	75	0.64
SEP-2	11/10/97	EPRI-9711-164	SW	6.48	8.39	8.30	1950	1643	1289	25	104	25	277	7.7	222	271	1.0	U	415	248	0.75
SEP-2	02/13/98	EPRI-9802-162	SW	8.38	8.40	8.40	1440	218	961	95	84	18	217	7.5	200	231	7.0	256	171	0.69	
SEP-2	05/19/98	EPRI-9805-162	SW	7.15	8.53	8.50	1068	1071	667	92	72	17	128	8.4	171	192	9.0	J4	233	108	0.66
SEP-2	8/18/98	EPRI-9808-162	SW	6.33	8.6	8.7	966	854	202	202	66	15	116	9.3	186	206	11.0	204	84	0.62	
SEP-2	11/18/98	EPRI-9811-162	SW	8.4	8.46	8.5	1877	1865	1269	20	102	24	275	12	224	264	5.0	436	234	0.72	
SEP-2	02/19/99	EPRI-9902-157	SW	9.4	8.48	8.3	2080	1576	1252	31	115	33	299	18	242	295	1.0	U	294	237	0.79
SEP-2	02/19/99	EPRI-9902-191	SW	9.8	8.5	8.3	2070	1571	1195	32	115	30	300	16	240	293	1.0	U	246	247	0.80
SEP-2	05/13/99	EPRI-9905-158	SW	6	7.04	8.4	1179	1116	746	63	77	19	140	7.7	194	227	5.0	226	95	0.72	

Table F-5. Summary of Surface Water Quality, August 1997 through February 2000
Common Ions

Site	Date	Sample #	Type	(O) (ft)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)		
SEP-2	08/20/99	EPRI-9908-158	SW	5.9	8.12	8.3	887	887	556	339	58	12	97	7	192	234	1.0	UJ4	185	77	0.64	
SEP-2	11/01/99	EPRI-9911-184	SW	10.2	8.32	8.5	2110	2120	1345	36	103	30	261	13	217	249	8.4	516	244	0.82		
SEP-2	02/14/00	EPRI-0002-184	SW	10.2	8.46	8.5	2330	2280	1551	24	119	31	515	13	244	275	12.0	J4	593	297	0.85	
Average				7.83	8.23	8.42	1567	1336	1003	95	90	22	211	11	209	246	5.2	311	176	1		
Median				7.15	8.43	8.4	1659	1344	1078	50	93	22	239	9	208	242	5.0	251	203	1		
Standard Deviation				1.79	0.44	0.13	556	607	353	98	22	7	87	4	26	34	4.2	144	83	0		
Minimum				5.90	7.04	8.30	842	218	356	20	58	12	97	7	171	192	1.0	131	75	1		
Maximum				10.20	8.83	8.70	2330	2280	1551	339	119	33	515	18	244	295	12.0	593	297	1		
SEP-3	08/18/97	EPRI-9708-165	SW	5.33	8.25	8.40	959	946	633	229	66	15	124	8.2	171	205	2.0	182	82	0.66		
SEP-3	11/19/97	EPRI-9711-165	SW	12.44	7.80	7.60	5250	6200	3954	14	225	94	943	53	196	239	1.0	U	1839	597	2.1	
SEP-3	02/13/98	EPRI-9802-163	SW	7.84	8.10	8.10	5410	1054	A	3979	21	216	89	965	54	280	342	1.0	U	1832	679	1.8
SEP-3	05/20/98	EPRI-9805-185	SW	6.65	8.76	8.20	1092	967	661	98	70	17	126	8.1	179	218	1.0	U	226	107	0.68	
SEP-3	8/1/98	EPRI-9808-163	SW	6.44	8.45	8.5	977	986	663	230	62	14	112	7.5	188	217	7.0	J4	200	79	0.64	
SEP-3	8/1/98	EPRI-9808-181	SW		8.5	8.5	976	654	654	218	63	14	113	7.0	183	214	5.0	J4	195	84	0.64	
SEP-3	05/12/99	EPRI-9905-159	SW	5	7.77	9.4	1168	1319	746	83	73	18	140	7.5	191	224	J3	5.0	J3	232	98	0.73
SEP-3	05/12/99	EPRI-9905-190	SW	3.6	7.77	9.5	1175	1265	90	74	19	19	140	7.6	194	227	J3	5.0	J3	230	101	0.70
SEP-3	08/20/99	EPRI-9908-159	SW	5.6	8.22	8.3	915	921	582	522	60	12	104	7.1	206	251	1.0	UJ4	197	76	0.64	
SEP-3	11/01/99	EPRI-9911-185	SW	6.2	8.19	8.4	1826	1889	1186	33	104	25	223	11	222	271	1.0	U	417	188	0.73	
SEP-3	01/31/00	EPRI-0002-185	SW	7.5	8.29	8.3	1400	1356	853	64	4	21	193	8.6	197	240	1.0	U	235	160	0.71	
Average				6.53	8.13	8.47	1923	1690	1329	146	100	31	289	16	201	241	2.7	526	205	1		
Median				6.20	8.205	8.4	1168	1160	709	90	73	18	140	8	194	227	1.0	230	101	1		
Standard Deviation				2.48	0.33	0.54	1705	1314	149	61	30	30	331	18	30	38	2.3	651	218	1		
Minimum				3.60	7.77	7.60	915	921	582	14	60	12	104	7	171	205	1.0	182	76	1		
Maximum				12.44	8.76	9.50	5410	6200	3979	522	225	94	965	54	280	342	7.0	1839	679	2		
SEP-4	08/15/97	EPRI-9708-166	SW	6.37	8.54	8.40	858	855	571	321	62	14	104	8.1	177	212	2.0	149	74	0.66		
SEP-4	11/10/97	EPRI-9711-166	SW	6.75	8.39	7.90	1952	1595	1289	31	107	26	275	8	245	299	1.0	U	424	249	0.77	
SEP-4	02/13/98	EPRI-9802-164	SW	8.41	8.40	8.40	1388	197.7	A	106	86	19	203	8	203	235	7.0	246	160	0.73		
SEP-4	05/19/98	EPRI-9805-164	SW	7.37	8.86	8.40	1054	1060	640	82	72	17	120	8.7	169	192	8.0	J4	217	110	0.66	
SEP-4	8/20/98	EPRI-9808-164	SW	5.99	8.58	8.4	954	960	642	198	60	14	111	7.8	185	222	2.0	176	82	0.62		
SEP-4	11/18/98	EPRI-9811-164	SW	8.0	7.71	8.5	1893	1879	1272	25	105	25	282	12	226	266	5.0	418	234	0.72		
SEP-4	02/19/99	EPRI-9902-159	SW	10.2	8.28	8.3	2100	1643	1116	24	116	31	310	16	251	306	1.0	U	288	247	0.78	
SEP-4	05/13/99	EPRI-9905-160	SW	5.6	6.84	8.5	1194	1279	776	55	76	20	140	7.1	198	229	7.0	239	97	0.70		
SEP-4	08/20/99	EPRI-9908-160	SW	6.1	8.14	8.6	898	896	588	475	59	12	98	7.1	203	218	16.0	J4	188	74	0.66	
SEP-4	11/01/99	EPRI-9911-186	SW	10.2	8.37	8.4	2120	2390	2069	33	96	29	263	12	202	246	1.0	U	450	217	0.8	
SEP-4	02/14/00	EPRI-0002-186	SW	10.9	8.65	8.4	2440	2360	1574	61	112	32	334	13	232	270	7.2	J4	501	315	0.88	
Average				7.75	8.25	8.38	1532	1374	1038	128	86	22	204	10	208	245	5.2	300	169	1		
Median				7.06	8.39	8.4	1388	1279	878	61	86	20	203	8	203	235	5.0	246	160	1		
Standard Deviation				1.99	0.55	0.18	579	674	480	147	22	7	92	3	27	36	4.6	125	86	0		
Minimum				5.60	6.84	7.90	858	198	571	24	59	12	98	7	169	192	1.0	149	74	1		
Maximum				10.90	8.86	8.60	2440	2390	2069	475	116	32	334	16	251	306	16.0	501	315	1		
SEP-6	08/18/97	EPRI-9708-168	SW	5.33	8.28	8.40	961	943	643	178	65	15	121	8.3	173	207	2.0	176	85	0.66		
SEP-6	08/20/99	EPRI-9908-177	SW	5.4	8.24	8.2	915	914	566	521	59	12	102	7.2	205	250	1.0	UJ4	191	73	0.66	
SEP-6	08/20/99	EPRI-9908-208	SW	5.4	8.25	8.6	915	914	594	488	61	12	102	7.1	195	214	13.0	J4	188	70	0.66	

Table F-5. Summary of Surface Water Quality, August 1997 through February 2000
Common Ions

Site	Date	Sample #	Type	(O)	pH (fld)	pH (lab)	Specific Conductivity (SC) (lab)	Specific Conductivity (SC) (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
SEP-6	11/01/99	EPRI-9911-187	SW	6.7	8.25	8.4	1820	1871	833	33	107	27	235	11	222	271	1.0	U	416	215	0.73
SEP-6	01/31/00	EPRI-0002-187	SW	7.2	8.34	8.2	1412	1372	861	62	88	21	193	8.4	187	228	1.0	U	242	192	0.7
Average				6.01	8.27	8.36	1207	1203	699	256	76	17	151	8	198	234	3.6		243	127	1
Median				5.40	8.25	8.4	961	943	643	178	65	15	121	8	195	228	1.0		191	85	1
Standard Deviation				0.88	0.04	0.17	407	421	138	233	21	7	60	2	30	26	5.3		100	71	0
Minimum				5.33	8.24	8.20	915	914	566	33	59	12	102	7	173	207	1.0		176	70	1
Maximum				7.20	8.34	8.60	1830	1871	861	521	107	27	235	11	244	271	13.0		416	215	1
SEP-7	08/18/97	EPRI-9708-169	SW	4.97	8.35	8.40	896	896	594	257	66	15	115	8	175	210	2.0		157	75	0.66
SEP-7	11/10/97	EPRI-9711-169	SW	6.96	8.16	8.30	1924	1796	1290	38	100	24	272	12	225	275	1.0	U	412	249	0.75
SEP-7	02/13/98	EPRI-9802-165	SW	8.49	8.50	8.50	1479	249	959	47	83	18	232	7.9	184	204	11.0		285	178	0.71
SEP-7	05/20/98	EPRI-9805-183	SW	6.3	8.79	8.20	1083	963	649	102	70	17	124	7	184	224	1.0	U	224	103	0.66
SEP-7	8/11/98	EPRI-9808-165	SW	6.47	8.45	8.5	976	974	622	209	65	14	117	6.0	183	214	5.0	J4	195	85	0.64
SEP-7	11/18/98	EPRI-9811-165	SW	8.40	8.35	8.4	1899	1892	1269	12	100	24	292	12	215	253	5.0		441	249	0.74
SEP-7	02/19/99	EPRI-9902-160	SW	16.5	8.41	8.3	2100	1775	1351	17	112	27	315	14	237	289	1.0	U	325	241	0.83
SEP-7	05/12/99	EPRI-9905-161	SW	5.2	7.54	8.3	1158	1380	698	93	77	20	140	10	230	281	J3		207	567	0.70
SEP-7	08/20/99	EPRI-9908-161	SW	5.8	8.14	8.4	894	896	603	565	60	12	101	7.3	187	217	6.0	J4	166	64	0.64
SEP-7	11/01/99	EPRI-9911-188	SW	7	8.15	8.3	1800	1836	1133	31	92	23	195	9.6	224	273	1.0	U	379	224	0.7
SEP-7	01/31/00	EPRI-0002-188	SW	7.7	8.36	8.3	1402	1366	849	67	88	19	190	7.6	196	239	1.0	U	248	185	0.73
Average				7.53	8.29	8.35	1419	1275	911	131	83	19	190	9	205	244	3.2		276	202	1
Median				6.72	8.35	8.3	1402	1366	849	67	83	19	190	8	196	239	1.0		248	185	1
Standard Deviation				3.32	0.31	0.09	450	526	302	164	17	5	78	3	31	32	3.3		100	141	0
Minimum				4.97	7.54	8.20	894	894	594	12	60	12	101	6	175	204	1.0		157	140	1
Maximum				16.50	8.79	8.50	2100	1892	1351	565	112	27	315	14	255	289	11.0		441	567	1
SEP-8	08/18/97	EPRI-9708-170	SW	5.26	7.49	8.30	958	969	677	11	65	15	121	8.2	178	217	1.0	U	190	85	0.67
SEP-9	08/15/97	EPRI-9708-171	SW	6.14	8.23	8.30	1133	1108	730	223	64	15	155	9.5	174	212	1.0	U	203	116	0.68
SEP-9	11/10/97	EPRI-9711-171	SW	6.6	8.14	8.30	1886	1771	1225	16	99	23	285	10	208	254	1.0	U	401	248	0.77
SEP-9	02/13/98	EPRI-9802-166	SW	8.18	8.20	8.20	1550	278	1030	44	71	15	272	8.9	164	200	1.0	U	286	206	0.7
SEP-9	05/19/98	EPRI-9805-166	SW	7.38	8.49	8.50	1273	1082	797	80	71	16	173	8.7	172	195	8.0	J4	262	150	0.7
SEP-9	8/16/98	EPRI-9808-166	SW	5.61	8.26	8.5	1142	1166	712	169	67	15	154	10	185	214	6.0		236	115	0.68
SEP-9	11/18/98	EPRI-9811-166	SW	7.80	8.35	8.3	1950	1298	75	75	85	19	310	12	184	224	1.0	U	442	272	0.77
SEP-9	02/19/99	EPRI-9902-161	SW	16.9	8.31	8.1	2050	1763	1342	14	86	20	323	14	185	226	1.0	U	331	261	0.80
SEP-9	05/12/99	EPRI-9905-162	SW	3.7	7.65	8.4	1156	1267	639	70	74	19	140	6.6	194	227	J3		221	97	0.72
SEP-9	08/20/99	EPRI-9908-162	SW	5.6	7.92	8.3	1303	1301	836	485	63	13	176	8.5	177	216	1.0	U	268	150	0.74
SEP-9	11/01/99	EPRI-9911-190	SW	7.6	7.8	8.3	1804	1846	1145	24	96	24	204	10	231	282	1.0	U	381	211	0.71
SEP-9	02/14/00	EPRI-0002-189	SW	6.1	8.03	8.3	2120	2050	1341	36	100	23	285	12	202	246	1.0	U	341	185	0.81
Average				6.74	8.12	8.32	1579	1363	1009	106	80	18	225	10	190	227	2.5		307	183	1
Median				6.37	8.18	8.3	1550	1284	1030	44	74	19	204	10	185	224	1.0		286	185	1
Standard Deviation				1.89	0.25	0.12	392	517	274	143	14	4	70	2	25	25	2.6		78	62	0
Minimum				3.70	7.65	8.10	1133	278	639	8	63	13	140	7	164	195	1.0		203	97	1
Maximum				10.90	8.49	8.50	2120	2050	1342	485	100	24	323	14	244	282	8.0		442	272	1

APPENDIX G

SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA

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SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA

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SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA

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TABLE G-1

**SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999**

TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999

Monitor Well Designation: EP-4	Top of Casing Elevation (feet above MSL)			3715.96
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	5.21	4.97	6.24	10.48
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3710.75	3710.99	3712.03	3707.79
Monitor Well Designation: EP-5	Top of Casing Elevation (feet above MSL)			3716.17
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	5.78	5.60	5.10	6.28
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3710.39	3710.57	3711.07	3709.89
Monitor Well Designation: EP-6	Top of Casing Elevation (feet above MSL)			3716.22
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	6.54	6.68	5.98	7.28
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3709.68	3709.54	3710.24	3708.94
Monitor Well Designation: EP-7	Top of Casing Elevation (feet above MSL)			3722.10
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	5.87	6.00	5.18	8.72
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3716.23	3716.10	3716.92	3713.38
Monitor Well Designation: EP-12	Top of Casing Elevation (feet above MSL)			3773.23
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	60.88	61.30	60.35	59.39
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	SHEEN
Adjusted Groundwater Elevation (ft above MSL)	3712.35	3711.93	3712.88	3713.84
Monitor Well Designation: EP-13	Top of Casing Elevation (feet above MSL)			3776.22
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	59.45	60.46	60.15	60.37
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3716.77	3715.76	3716.07	3715.85
Monitor Well Designation: EP-14	Top of Casing Elevation (feet above MSL)			3774.98
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	59.15	59.81	59.23	58.79
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3715.83	3715.17	3715.75	3716.19

**TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999**

Monitor Well Designation: EP-15	Top of Casing Elevation (feet above MSL)			3773.19
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	58.56	59.20	59.04	58.42
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3714.63	3713.99	3714.15	3714.77
Monitor Well Designation: EP-20	Top of Casing Elevation (feet above MSL)			3724.55
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	13.22	14.54	13.25	14.01
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3711.33	3710.01	3711.30	3710.54
Monitor Well Designation: EP-21	Top of Casing Elevation (feet above MSL)			3780.74
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	29.65	30.42	28.68	BLOCKED
Depth to Product (feet)	29.22	29.68	28.03	0.00
Product Thickness (feet)	0.43	0.74	0.65	0.00
Adjusted Groundwater Elevation (ft above MSL)	3751.43	3750.91	3752.58	0.00
Monitor Well Designation: EP-22	Top of Casing Elevation (feet above MSL)			3776.23
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	38.77	38.92	ABANDONED	ABANDONED
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3737.46	3737.31	0.00	0.00
Monitor Well Designation: EP-23	Top of Casing Elevation (feet above MSL)			3775.32
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	27.38	26.40	25.60	23.82
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	SHEEN	SHEEN
Adjusted Groundwater Elevation (ft above MSL)	3747.94	3748.92	3749.72	3751.50
Monitor Well Designation: EP-24	Top of Casing Elevation (feet above MSL)			3774.87
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	35.73	36.30	34.09	34.04
Depth to Product (feet)	35.55	36.29	34.07	0.00
Product Thickness (feet)	0.18	0.01	0.02	SHEEN
Adjusted Groundwater Elevation (ft above MSL)	3739.28	3738.58	3740.80	3740.83
Monitor Well Designation: EP-25	Top of Casing Elevation (feet above MSL)			3786.72
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	48.87	48.88	BLOCKED	46.79
Depth to Product (feet)	47.30	47.15	0.00	44.32
Product Thickness (feet)	1.57	1.73	0.00	2.47
Adjusted Groundwater Elevation (ft above MSL)	3739.11	3739.22	0.00	3741.91

**TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999**

Monitor Well Designation: EP-26	Top of Casing Elevation (feet above MSL)				3770.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	49.50	48.05	48.13	57.15	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3721.14	3722.59	3722.51	3713.49	
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Monitor Well Designation: EP-29	Top of Casing Elevation (feet above MSL)				3727.25
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	13.35	15.21	13.70	13.74	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3713.90	3712.04	3713.55	3713.51	
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Monitor Well Designation: EP-35	Top of Casing Elevation (feet above MSL)				3725.74
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	17.48	15.35	13.90	13.90	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3708.26	3710.39	3711.84	3711.84	
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Monitor Well Designation: EP-43	Top of Casing Elevation (feet above MSL)				3772.17
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	57.66	59.17	57.85	56.31	
Depth to Product (feet)	0.00	58.35	0.00	0.00	
Product Thickness (feet)	0.00	0.82	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3714.51	3713.66	3714.32	3715.86	
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Monitor Well Designation: EP-49	Top of Casing Elevation (feet above MSL)				3785.59
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	66.63	67.25	66.37	66.69	
Depth to Product (feet)	63.51	65.35	65.15	0.00	
Product Thickness (feet)	3.12	1.90	1.22	SHEEN	
Adjusted Groundwater Elevation (ft above MSL)	3721.46	3719.86	3720.20	3718.90	
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Monitor Well Designation: EP-51	Top of Casing Elevation (feet above MSL)				3774.66
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	49.10	49.05	48.90	48.86	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	1.90	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3725.56	3725.61	3725.76	3725.80	
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Monitor Well Designation: EP-52	Top of Casing Elevation (feet above MSL)				3784.07
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	51.15	52.04	49.52	50.24	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3732.92	3732.03	3737.86	3737.14	

**TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999**

Monitor Well Designation: EP-53	Top of Casing Elevation (feet above MSL)			3805.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	67.70	67.10	67.10	67.73
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3737.94	3738.54	3738.54	3737.91
Monitor Well Designation: EP-54	Top of Casing Elevation (feet above MSL)			3787.37
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	69.82	70.18	70.40	70.89
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3717.55	3717.19	3716.97	3716.48
Monitor Well Designation: EP-55	Top of Casing Elevation (feet above MSL)			3788.23
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	55.50	56.20	55.00	55.51
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3732.73	3732.03	3733.23	3732.72
Monitor Well Designation: EP-56	Top of Casing Elevation (feet above MSL)			3772.09
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	49.38	49.99	50.13	50.56
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3722.71	3722.10	3721.96	3721.53
Monitor Well Designation: EP-57	Top of Casing Elevation (feet above MSL)			3723.66
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	8.97	8.72	9.12	8.76
Depth to Product (feet)	8.61	8.50	9.04	8.75
Product Thickness (feet)	0.36	0.22	0.08	0.01
Adjusted Groundwater Elevation (ft above MSL)	3714.98	3715.12	3714.60	3714.91
Monitor Well Designation: EP-58	Top of Casing Elevation (feet above MSL)			3726.67
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	13.42	12.38	14.25	12.41
Depth to Product (feet)	11.37	11.51	11.84	11.99
Product Thickness (feet)	2.05	0.87	2.41	0.42
Adjusted Groundwater Elevation (ft above MSL)	3714.89	3714.99	3714.35	3714.60
Monitor Well Designation: EP-59	Top of Casing Elevation (feet above MSL)			3728.37
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	13.02	12.80	13.12	13.26
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3715.35	3715.57	3715.25	3715.11

**TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999**

Monitor Well Designation: EP-60	Top of Casing Elevation (feet above MSL)			3722.52
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	9.04	9.36	9.10	9.38
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3713.48	3713.16	3713.42	3713.14
Monitor Well Designation: EP-61	Top of Casing Elevation (feet above MSL)			3722.95
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	10.21	10.70	10.75	10.51
Depth to Product (feet)	9.47	9.73	9.83	9.69
Product Thickness (feet)	0.74	0.97	0.92	0.82
Adjusted Groundwater Elevation (ft above MSL)	3713.33	3713.03	3712.94	3713.10
Monitor Well Designation: EP-62	Top of Casing Elevation (feet above MSL)			3720.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	7.31	7.71	7.30	7.45
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3713.33	3712.93	3713.34	3713.19
Monitor Well Designation: EP-63	Top of Casing Elevation (feet above MSL)			3719.52
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	6.67	7.10	6.58	6.83
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3712.85	3712.42	3712.94	3712.69
Monitor Well Designation: EP-64	Top of Casing Elevation (feet above MSL)			3724.00
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	10.20	10.66	10.34	10.35
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3713.80	3713.34	3713.66	3713.65
Monitor Well Designation: EP-65	Top of Casing Elevation (feet above MSL)			3721.39
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	8.32	8.59	8.67	8.54
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	SHEEN	0.00
Adjusted Groundwater Elevation (ft above MSL)	3713.07	3712.80	3712.72	3712.85
Monitor Well Designation: EP-66	Top of Casing Elevation (feet above MSL)			3722.88
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	10.09	10.44	9.99	9.42
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3712.79	3712.44	3712.89	3713.46

TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999

Monitor Well Designation: EP-67	Top of Casing Elevation (feet above MSL)				3761.07
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	41.67	40.97	49.40	41.74	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3719.40	3720.10	3711.67	3719.33	
Monitor Well Designation: EP-68	Top of Casing Elevation (feet above MSL)				3783.76
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	63.27	63.19	63.26	63.55	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3720.49	3720.57	3720.50	3720.21	
Monitor Well Designation: EP-70	Top of Casing Elevation (feet above MSL)				3777.67
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	61.78	61.61	61.50	62.12	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3715.89	3716.06	3716.17	3715.55	
Monitor Well Designation: EP-71	Top of Casing Elevation (feet above MSL)				3765.19
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	49.95	49.55	49.95	NO ACCESS	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3715.24	3715.64	3715.24	0.00	
Monitor Well Designation: EP-72	Top of Casing Elevation (feet above MSL)				3778.50
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	61.56	61.52	ABANDONED	ABANDONED	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3716.94	3716.98	0.00	0.00	
Monitor Well Designation: EP-73	Top of Casing Elevation (feet above MSL)				3789.45
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	71.32	68.38	71.19	71.49	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3718.13	3721.07	3718.26	3717.96	
Monitor Well Designation: EP-74	Top of Casing Elevation (feet above MSL)				3775.89
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	ABANDONED	ABANDONED	ABANDONED	ABANDONED	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	0.00	0.00	0.00	0.00	

TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999

Monitor Well Designation: EP-75	Top of Casing Elevation (feet above MSL)			3800.85
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	57.38	55.92	59.24	55.49
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3743.47	3744.93	3741.61	3745.36
Monitor Well Designation: EP-76	Top of Casing Elevation (feet above MSL)			3798.56
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	52.03	48.38	53.67	60.41
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3746.53	3750.18	3744.89	3738.15
Monitor Well Designation: EP-77	Top of Casing Elevation (feet above MSL)			3776.88
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	42.57	43.36	43.75	44.35
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3734.31	3733.52	3733.13	3732.53
Monitor Well Designation: EP-78	Top of Casing Elevation (feet above MSL)			3773.46
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	33.59	28.09	32.44	33.69
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3739.87	3745.37	3741.02	3739.77
Monitor Well Designation: EP-79	Top of Casing Elevation (feet above MSL)			3793.94
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	47.89	45.74	46.50	47.79
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3746.05	3748.20	3747.44	3746.15
Monitor Well Designation: EP-80	Top of Casing Elevation (feet above MSL)			3726.59
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	10.78	11.44	12.10	11.22
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3715.81	3715.15	3714.49	3715.37
Monitor Well Designation: EP-81	Top of Casing Elevation (feet above MSL)			3734.09
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	18.19	17.79	18.79	18.53
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3715.90	3716.30	3715.30	3715.56

**TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999**

Monitor Well Designation: EP-82	Top of Casing Elevation (feet above MSL)				3773.65
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	18.24	15.35	16.21	17.68	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3755.41	3758.30	3757.44	3755.97	
Monitor Well Designation: EP-83	Top of Casing Elevation (feet above MSL)				3803.73
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	29.15	27.45	27.56	28.52	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3774.58	3776.28	3776.17	3775.21	
Monitor Well Designation: EP-84	Top of Casing Elevation (feet above MSL)				3797.52
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	9.25	7.65	7.52	8.80	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3788.27	3789.87	3790.00	3788.72	
Monitor Well Designation: EP-85	Top of Casing Elevation (feet above MSL)				3741.91
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	16.66	10.71	15.21	16.39	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3725.25	3731.20	3726.70	3725.52	
Monitor Well Designation: EP-86	Top of Casing Elevation (feet above MSL)				3819.99
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	49.61	49.73	49.11	49.24	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3770.38	3770.26	3770.88	3770.75	
Monitor Well Designation: EP-87	Top of Casing Elevation (feet above MSL)				3818.17
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	DRY	DRY	DRY	DRY	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	0.00	0.00	0.00	0.00	
Monitor Well Designation: EP-88	Top of Casing Elevation (feet above MSL)				3776.54
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	30.25	28.82	29.20	30.39	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3746.29	3747.72	3747.34	3746.15	

TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999

Monitor Well Designation: EP-89	Top of Casing Elevation (feet above MSL)			3734.73
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	14.93	13.46	14.20	14.87
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3719.80	3721.27	3720.53	3719.86
Monitor Well Designation: EP-90	Top of Casing Elevation (feet above MSL)			3777.83
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	54.40	56.55	56.41	56.77
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3723.43	3721.28	3721.42	3721.06
Monitor Well Designation: EM-1	Top of Casing Elevation (feet above MSL)			3784.99
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	70.09	67.32	65.42	65.64
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3714.90	3717.67	3719.57	3719.35
Monitor Well Designation: EM-2	Top of Casing Elevation (feet above MSL)			3776.02
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	62.74	63.92	65.37	64.09
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3713.28	3712.10	3710.65	3711.93
Monitor Well Designation: EM-3	Top of Casing Elevation (feet above MSL)			3777.85
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	ABANDONED	ABANDONED	ABANDONED	ABANDONED
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3734.04	0.00	0.00	0.00
Monitor Well Designation: EM-4	Top of Casing Elevation (feet above MSL)			3774.29
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	61.57	62.00	60.80	59.45
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3712.72	3712.29	3713.49	3714.84
Monitor Well Designation: EM-5	Top of Casing Elevation (feet above MSL)			3776.50
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-98	Nov-98	Feb-99	May-99
Depth to Water (feet)	14.45	14.54	14.41	14.43
Depth to Product (feet)	0.00	0.00	0.00	0.00
Product Thickness (feet)	0.00	0.00	0.00	0.00
Adjusted Groundwater Elevation (ft above MSL)	3762.05	3761.96	3762.09	3762.07

TABLE G-1
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1998 THROUGH MAY 1999

Monitor Well Designation: EM-6	Top of Casing Elevation (feet above MSL)				3770.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	36.60	36.71	36.98	37.72	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3734.04	3733.93	3733.66	3732.92	
Monitor Well Designation: EM-7	Top of Casing Elevation (feet above MSL)				3773.41
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	8.47	8.42	8.53	9.07	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3764.94	3764.99	3764.88	3764.34	
Monitor Well Designation: EM-8	Top of Casing Elevation (feet above MSL)				3769.46
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Depth to Water (feet)	ABANDONED	ABANDONED	ABANDONED	ABANDONED	
Depth to Product (feet)	0.00	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	0.00	0.00	0.00	0.00	
Monitor Well Designation: SEP-4					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Surface Water Elevation (ft above MSL)	3710.93	3707.81	3708.64	3709.47	
Monitor Well Designation: SEP-13					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Surface Water Elevation (ft above MSL)	3710.97	3708.83	3709.55	3709.43	
Monitor Well Designation: SEP-12					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Surface Water Elevation (ft above MSL)	No Access	3709.78	3710.69	3711.41	
Monitor Well Designation: SEP-11					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Surface Water Elevation (ft above MSL)	3712.89	3711.17	3712.34	3714.64	
Monitor Well Designation: SEP-10					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Surface Water Elevation (ft above MSL)	3712.48	3711.87	3712.89	3712.38	
Monitor Well Designation: SEP-9					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-98	Nov-98	Feb-99	May-99	
Surface Water Elevation (ft above MSL)	3717.08	3715.18	3714.58	3716.33	

TABLE G-2

**SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA,
AUGUST 1999 THROUGH FEBRUARY 2000**

**TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000**

Monitor Well Designation: EP-4	Top of Casing Elevation (feet above MSL)			3718.27
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	6.99	8.23	8.27	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3711.28	3710.04	3710.00	
Monitor Well Designation: EP-5	Top of Casing Elevation (feet above MSL)			3716.17
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	5.72	7.02	7.18	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3710.45	3709.15	3708.99	
Monitor Well Designation: EP-6	Top of Casing Elevation (feet above MSL)			3716.22
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	6.53	8.04	8.26	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3709.69	3708.18	3707.96	
Monitor Well Designation: EP-7	Top of Casing Elevation (feet above MSL)			3722.10
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	5.79	7.53	7.45	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3716.31	3714.57	3714.65	
Monitor Well Designation: EP-12	Top of Casing Elevation (feet above MSL)			3773.23
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	58.12	61.12	62.37	
Depth to Product (feet)	0.00	0.00	62.21	
Product Thickness (feet)	0.00	0.00	0.16	
Adjusted Groundwater Elevation (ft above MSL)	3715.11	3712.11	3710.99	
Monitor Well Designation: EP-13	Top of Casing Elevation (feet above MSL)			3776.22
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	59.88	60.84	61.29	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3716.34	3715.38	3714.93	
Monitor Well Designation: EP-14	Top of Casing Elevation (feet above MSL)			3774.98
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	58.43	59.61	60.40	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3716.55	3715.37	3714.58	

**TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000**

Monitor Well Designation: EP-15	Top of Casing Elevation (feet above MSL)			3773.19
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	58.24	59.33	56.74	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3714.95	3713.86	3716.45	
Monitor Well Designation: EP-20	Top of Casing Elevation (feet above MSL)			3724.55
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	13.01	14.86	15.16	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3711.54	3709.69	3709.39	
Monitor Well Designation: EP-21	Top of Casing Elevation (feet above MSL)			3780.74
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	27.67	25.11	25.28	
Depth to Product (feet)	27.39	24.87	25.27	
Product Thickness (feet)	0.28	0.24	0.01	
Adjusted Groundwater Elevation (ft above MSL)	3753.29	3755.82	3755.47	
Monitor Well Designation: EP-22	Top of Casing Elevation (feet above MSL)			3776.23
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	ABANDONED	ABANDONED	52.65	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	0.00	0.00	3723.58	
Monitor Well Designation: EP-23	Top of Casing Elevation (feet above MSL)			3775.32
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	22.12	20.61	21.68	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	SHEEN	
Adjusted Groundwater Elevation (ft above MSL)	3753.20	3754.71	3753.64	
Monitor Well Designation: EP-24	Top of Casing Elevation (feet above MSL)			3774.87
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	32.92	32.01	31.76	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	SHEEN	SHEEN	
Adjusted Groundwater Elevation (ft above MSL)	3741.95	3742.86	3743.11	
Monitor Well Designation: EP-25	Top of Casing Elevation (feet above MSL)			3786.72
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	48.35	47.48	48.11	
Depth to Product (feet)	46.73	46.62	47.26	
Product Thickness (feet)	1.62	0.86	0.85	
Adjusted Groundwater Elevation (ft above MSL)	3739.67	3739.93	3739.29	

TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000

Monitor Well Designation: EP-26	Top of Casing Elevation (feet above MSL)			3770.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	56.50	57.97	60.86	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3714.14	3712.67	3709.78	
Monitor Well Designation: EP-29	Top of Casing Elevation (feet above MSL)			3727.25
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	13.19	14.64	14.95	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3714.06	3712.61	3712.30	
Monitor Well Designation: EP-35	Top of Casing Elevation (feet above MSL)			3725.74
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	12.90	15.00	15.59	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3712.84	3710.74	3710.15	
Monitor Well Designation: EP-43	Top of Casing Elevation (feet above MSL)			3772.17
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	56.54	58.67	59.67	
Depth to Product (feet)	0.00	0.00	59.65	
Product Thickness (feet)	0.00	0.00	0.02	
Adjusted Groundwater Elevation (ft above MSL)	3715.63	3713.50	3712.52	
Monitor Well Designation: EP-49	Top of Casing Elevation (feet above MSL)			3785.59
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	0.00	65.88	69.33	
Depth to Product (feet)	0.00	65.78	0.00	
Product Thickness (feet)	0.00	0.10	SHEEN	
Adjusted Groundwater Elevation (ft above MSL)	3785.59	3719.79	3716.26	
Monitor Well Designation: EP-51	Top of Casing Elevation (feet above MSL)			3774.66
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	48.15	43.43	48.56	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.10	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3726.51	3731.23	3726.10	
Monitor Well Designation: EP-52	Top of Casing Elevation (feet above MSL)			3784.07
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	51.25	51.73	52.13	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3732.82	3732.34	3731.94	

TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000

Monitor Well Designation: EP-53	Top of Casing Elevation (feet above MSL)			3805.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	67.74	67.46	67.83	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3737.90	3738.18	3737.81	
Monitor Well Designation: EP-54	Top of Casing Elevation (feet above MSL)			3787.37
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	70.24	71.02	71.63	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3717.13	3716.35	3715.74	
Monitor Well Designation: EP-55	Top of Casing Elevation (feet above MSL)			3788.23
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	56.02	56.14	56.87	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3732.21	3732.09	3731.36	
Monitor Well Designation: EP-56	Top of Casing Elevation (feet above MSL)			3772.09
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	49.83	50.47	49.68	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3722.26	3721.62	3722.41	
Monitor Well Designation: EP-57	Top of Casing Elevation (feet above MSL)			3723.66
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	8.06	9.41	10.02	
Depth to Product (feet)	7.90	9.20	9.83	
Product Thickness (feet)	0.16	0.21	0.19	
Adjusted Groundwater Elevation (ft above MSL)	3715.73	3714.42	3713.79	
Monitor Well Designation: EP-58	Top of Casing Elevation (feet above MSL)			3726.67
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	11.44	12.77	13.15	
Depth to Product (feet)	11.20	12.54	12.98	
Product Thickness (feet)	0.24	0.23	0.17	
Adjusted Groundwater Elevation (ft above MSL)	3715.42	3714.08	3713.66	
Monitor Well Designation: EP-59	Top of Casing Elevation (feet above MSL)			3728.37
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	12.72	13.78	14.27	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3715.65	3714.59	3714.10	

**TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000**

Monitor Well Designation: EP-60	Top of Casing Elevation (feet above MSL)			3722.52
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	9.09	10.20	10.47	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3713.43	3712.32	3712.05	
Monitor Well Designation: EP-61	Top of Casing Elevation (feet above MSL)			3722.95
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	9.27	11.14	11.26	
Depth to Product (feet)	9.09	10.67	10.93	
Product Thickness (feet)	0.18	0.47	0.33	
Adjusted Groundwater Elevation (ft above MSL)	3713.82	3712.19	3711.95	
Monitor Well Designation: EP-62	Top of Casing Elevation (feet above MSL)			3720.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	7.04	8.52	8.57	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3713.60	3712.12	3712.07	
Monitor Well Designation: EP-63	Top of Casing Elevation (feet above MSL)			3719.52
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	6.40	7.87	7.87	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3713.12	3711.65	3711.65	
Monitor Well Designation: EP-64	Top of Casing Elevation (feet above MSL)			3724.00
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	7.89	11.26	11.48	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3716.11	3712.74	3712.52	
Monitor Well Designation: EP-65	Top of Casing Elevation (feet above MSL)			3721.39
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	7.80	9.53	9.72	
Depth to Product (feet)	SHEEN	0.00	9.70	
Product Thickness (feet)	0.00	0.00	0.02	
Adjusted Groundwater Elevation (ft above MSL)	3713.59	3711.86	3711.69	
Monitor Well Designation: EP-66	Top of Casing Elevation (feet above MSL)			3722.88
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	9.96	11.30	11.34	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3712.92	3711.58	3711.54	

**TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000**

Monitor Well Designation: EP-67	Top of Casing Elevation (feet above MSL)				3761.07
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	41.29	41.43	41.85		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	3719.78	3719.64	3719.22		
Monitor Well Designation: EP-68	Top of Casing Elevation (feet above MSL)				3783.76
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	63.42	63.50	63.64		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	3720.34	3720.26	3720.12		
Monitor Well Designation: EP-70	Top of Casing Elevation (feet above MSL)				3777.67
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	61.59	62.15	62.49		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	3716.08	3715.52	3715.18		
Monitor Well Designation: EP-71	Top of Casing Elevation (feet above MSL)				3765.19
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	49.57	50.20	50.51		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	3715.62	3714.99	3714.68		
Monitor Well Designation: EP-72	Top of Casing Elevation (feet above MSL)				3778.50
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	ABANDONED	ABANDONED	62.83		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	0.00	0.00	3715.67		
Monitor Well Designation: EP-73	Top of Casing Elevation (feet above MSL)				3789.45
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	70.00	71.20	72.33		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	3719.45	3718.25	3717.12		
Monitor Well Designation: EP-74	Top of Casing Elevation (feet above MSL)				3775.89
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	ABANDONED	ABANDONED	ABANDONED		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	0.00	0.00	0.00		

TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000

Monitor Well Designation: EP-75	Top of Casing Elevation (feet above MSL)			3814.50
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	70.09	BLOCKED	69.40	
Depth to Product (feet)	-0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3744.41	0.00	3745.10	
Monitor Well Designation: EP-76	Top of Casing Elevation (feet above MSL)			3817.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	BLOCKED	BLOCKED	68.95	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	0.00	0.00	3748.69	
Monitor Well Designation: EP-77	Top of Casing Elevation (feet above MSL)			3776.88
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	43.62	44.15	42.34	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3733.26	3732.73	3734.54	
Monitor Well Designation: EP-78	Top of Casing Elevation (feet above MSL)			3773.46
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	29.24	31.55	32.88	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3744.22	3741.91	3740.58	
Monitor Well Designation: EP-79	Top of Casing Elevation (feet above MSL)			3793.94
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	46.99	45.81	47.35	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3746.95	3748.13	3746.59	
Monitor Well Designation: EP-80	Top of Casing Elevation (feet above MSL)			3726.59
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	10.37	11.42	11.84	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3716.22	3715.17	3714.75	
Monitor Well Designation: EP-81	Top of Casing Elevation (feet above MSL)			3734.09
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	17.26	18.71	19.30	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3716.83	3715.38	3714.79	

TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000

Monitor Well Designation: EP-82	Top of Casing Elevation (feet above MSL)			3773.65
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	15.74	17.02	15.99	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3757.91	3756.63	3757.66	
Monitor Well Designation: EP-83	Top of Casing Elevation (feet above MSL)			3803.73
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	27.07	28.64	27.98	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3776.66	3775.09	3775.75	
Monitor Well Designation: EP-84	Top of Casing Elevation (feet above MSL)			3797.52
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	7.19	8.19	7.62	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3790.33	3789.33	3789.90	
Monitor Well Designation: EP-85	Top of Casing Elevation (feet above MSL)			3741.91
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	9.92	14.81	16.60	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3731.99	3727.10	3725.31	
Monitor Well Designation: EP-86	Top of Casing Elevation (feet above MSL)			3819.99
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	49.91	50.06	49.92	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3770.08	3769.93	3770.07	
Monitor Well Designation: EP-87	Top of Casing Elevation (feet above MSL)			3818.17
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	10.99	DRY	DRY	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3807.18	0.00	0.00	
Monitor Well Designation: EP-88	Top of Casing Elevation (feet above MSL)			3776.54
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	29.43	29.98	20.13	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3747.11	3746.56	3756.41	

**TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000**

Monitor Well Designation: EP-89	Top of Casing Elevation (feet above MSL)			3734.73
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	14.40	15.33	14.70	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3720.33	3719.40	3720.03	
Monitor Well Designation: EP-90	Top of Casing Elevation (feet above MSL)			3777.83
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	56.40	57.22	57.05	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3721.43	3720.61	3720.78	
Monitor Well Designation: EM-1	Top of Casing Elevation (feet above MSL)			3784.99
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	65.19	66.76	47.60	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3719.80	3718.23	3808.39	
Monitor Well Designation: EM-2	Top of Casing Elevation (feet above MSL)			3776.02
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	61.79	64.83	50.39	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3714.23	3711.19	3780.61	
Monitor Well Designation: EM-3	Top of Casing Elevation (feet above MSL)			3777.85
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	ABANDONED	ABANDONED	22.10	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3733.72	0.00	3780.11	
Monitor Well Designation: EM-4	Top of Casing Elevation (feet above MSL)			3774.29
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	58.27	60.98	58.44	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3716.02	3713.31	3814.82	
Monitor Well Designation: EM-5	Top of Casing Elevation (feet above MSL)			3776.50
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Measurement Date	Aug-99	Nov-99	Feb-00	May-00
Depth to Water (feet)	14.35	14.34	14.28	
Depth to Product (feet)	0.00	0.00	0.00	
Product Thickness (feet)	0.00	0.00	0.00	
Adjusted Groundwater Elevation (ft above MSL)	3762.15	3762.16	3762.22	

TABLE G-2
SUMMARY OF GROUNDWATER LEVEL MEASUREMENT DATA
AUGUST 1999 THROUGH FEBRUARY 2000

Monitor Well Designation: EM-6		Top of Casing Elevation (feet above MSL)			3770.64
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	36.92	37.50	36.01		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	3733.72	3733.14	3734.63		
Monitor Well Designation: EM-7					
		Top of Casing Elevation (feet above MSL)			3773.41
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	8.38	9.59	74.00		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	3765.03	3763.82	3727.61		
Monitor Well Designation: EM-8					
		Top of Casing Elevation (feet above MSL)			3769.46
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Depth to Water (feet)	ABANDONED	ABANDONED	40.36		
Depth to Product (feet)	0.00	0.00	0.00		
Product Thickness (feet)	0.00	0.00	0.00		
Adjusted Groundwater Elevation (ft above MSL)	0.00	0.00	3736.63		
Monitor Well Designation: SEP-4					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Surface Water Elevation (ft above MSL)	3710.18	3707.50	3715.11		
Monitor Well Designation: SEP-13					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Surface Water Elevation (ft above MSL)	3711.32	3708.51	3717.09		
Monitor Well Designation: SEP-12					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Surface Water Elevation (ft above MSL)	3711.48	3709.05	3717.61		
Monitor Well Designation: SEP-11					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Surface Water Elevation (ft above MSL)	3713.18	3712.64	3713.12		
Monitor Well Designation: SEP-10					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Surface Water Elevation (ft above MSL)	3714.94	0.00	3714.86		
Monitor Well Designation: SEP-9					
Sample Event	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Measurement Date	Aug-99	Nov-99	Feb-00	May-00	
Surface Water Elevation (ft above MSL)	3717.23	3715.93	3720.02		

Note: Fourth Quarter level measurement data not part of RI phase II period of record.

APPENDIX H

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

AUGUST 1998 TO FEBRUARY 2000

APPENDIX H

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

AUGUST 1998 TO FEBRUARY 2000

APPENDIX H

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

AUGUST 1998 TO FEBRUARY 2000

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TABLE H-1

**ANALYTICAL RESULTS FOR DISSOLVED METALS,
GROUNDWATER SAMPLES, EM WELLS**

Table H-1. Summary of Groundwater Analytical Results, August 1997 through August 1999
EM Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
EM-1	08/13/97	EPRI-9708-155	GW	4.05	7.52	7.80	5200	5210	0.011	0.005	0.01	0.025	0.1	0.003	0.017	0.029
EM-1	11/17/97	EPRI-9711-155	GW	4.96	7.20	8.00	4020	6250	0.007	0.005	0.005	0.025	0.1	0.003	0.005	0.02
EM-1	02/19/98	EPRI-9802-155	GW	1.64	7.39	7.50	5480	6410	0.056	0.005	0.01	0.025	0.1	0.003	0.005	0.02
EM-1	05/18/98	EPRI-9805-155	GW	3.15	7.43	7.60	5550	5480	0.005	0.005	0.01	0.025	0.1	0.003	0.005	0.02
EM-1	8/20/98	EPRI-9808-155	GW	1.57	7.38	7.8	5360	5600	0.005	0.005	0.010	0.025	0.10	0.003	0.005	0.02
EM-1	11/18/98	EPRI-9811-155	GW	2.20	7.06	7.6	5380	5540	0.007	0.005	0.010	0.025	0.10	0.003	0.005	0.020
EM-1	02/24/99	EPRI-9902-167	GW	2.20	7.46	7.6	5600	6860	0.005	0.005	0.010	0.025	0.15	0.003	0.005	0.020
EM-1	05/12/99	EPRI-9905-168	GW	2.30	6.94	7.9	5670	5740	0.005	0.005	0.010	0.025	0.10	0.003	0.008	0.029
EM-1	08/11/99	EPRI-9908-168	GW	1.5	7.38	7.8	5610	5500	0.005	0.005	0.01	0.025	0.27	0.003	0.005	0.033
Average				2.62	7.31	7.73	5363	5843	0.012	0.005	0.009	0.025	0.124	0.003	0.008	0.025
Median				2.20	7.38	7.8	5360	5600	0.005	0.005	0.010	0.025	0.100	0.003	0.005	0.020
Standard Deviation				1.20	0.20	0.17	522	540	0.017	0.000	0.002	0.000	0.057	0.000	0.005	0.006
Minimum				1.50	6.94	7.50	4020	5210	0.005	0.005	0.005	0.025	0.100	0.003	0.005	0.020
Maximum				4.96	7.52	8.00	5670	6860	0.056	0.005	0.010	0.025	0.270	0.003	0.018	0.033
EM-2	08/11/97	PRI-9708-156A	GW	6.28	7.08			4630								
EM-2	08/26/97	EPRI-9708-156	GW		7.40	7.90	4550	871	0.84	0.005	0.01	0.025	0.1	0.003	0.16	0.025
EM-2	11/17/97	EPRI-9711-156	GW	1.41	7.00	7.70	3960	5150	0.57	0.005	0.005	0.025	0.1	0.003	0.11	0.023
EM-2	02/17/98	EPRI-9802-156	GW	1.26	6.90	7.70	4150	5450	0.55	0.005	0.01	0.025	0.1	0.003	0.12	0.02
EM-2	05/18/98	EPRI-9805-156	GW	4.29	7.14	7.50	4190	4180	0.58	0.005	0.01	0.025	0.1	0.003	0.13	0.02
EM-2	8/13/98	EPRI-9808-156	GW	1.06	7.02	7.8	4210	4240	0.68	0.005	0.010	0.025	0.10	0.003	0.13	0.031
EM-2	11/11/98	EPRI-9811-156	GW	3.50	7.23	7.5	4260	4190	0.54	0.005	0.010	0.025	0.10	0.003	0.12	0.085
EM-2	02/22/99	EPRI-9902-168	GW	2.40	7.12	7.6	4510	5330	0.45	0.007	0.01	0.025	0.1	0.003	0.10	0.043
EM-2	05/10/99	EPRI-9905-169	GW	1.30	6.71	7.4	6050	6480	0.95	0.005	0.010	0.025	0.1	0.003	0.11	0.033
EM-2	08/06/99	EPRI-9908-169	GW	1.6	6.81	7.5	5740	6320	2.1	0.005	0.01	0.025	0.1	0.003	0.12	0.034
Average				2.57	7.04	7.62	4624	4684	0.807	0.005	0.009	0.025	0.100	0.003	0.122	0.035
Median				1.60	7.05	7.6	4260	4890	0.580	0.005	0.010	0.025	0.100	0.003	0.120	0.031
Standard Deviation				1.79	0.20	0.16	746	1576	0.510	0.001	0.002	0.000	0.000	0.000	0.017	0.020
Minimum				1.06	6.71	7.40	3960	871	0.450	0.005	0.005	0.025	0.100	0.003	0.100	0.020
Maximum				6.28	7.40	7.90	6050	6480	2.100	0.007	0.010	0.025	0.100	0.003	0.160	0.085
EM-4	08/26/97	EPRI-9708-158	GW		7.50	7.90	10410	2090	0.009	0.005	0.01	0.025	0.1	0.003	0.011	0.031
EM-4	11/17/97	EPRI-9711-158	GW	2.57	7.10	7.70	11300	14110	0.005	0.005	0.005	0.025	0.1	0.003	0.005	0.02
EM-4	02/17/98	EPRI-9802-157	GW	1.14	6.97	7.40	11150	14370	0.009	0.008	0.01	0.025	0.1	0.003	0.005	0.02
EM-4	05/18/98	EPRI-9805-157	GW	1.49	7.23	7.70	9420	10150	0.019	0.005	0.01	0.071	0.1	0.003	0.005	0.032
EM-4	8/13/98	EPRI-9808-157	GW	1.06	7.02	7.8	9560	4240	0.01	0.005	0.010	0.025	0.10	0.003	0.005	0.028

Table H-1. Summary of Groundwater Analytical Results, August 1997 through August 1999
EM Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS	
EM-4	11/11/98	EPR1-9811-157	GW	1.90	6.95	7.4	10460	10370	0.005	U	0.010	U	0.10	U	0.003	U	0.13
EM-4	02/22/99	EPR1-9902-169	GW	8.30	7.27	7.5	9940	11540	0.005	U	0.010	U	0.1	U	0.003	U	0.059
EM-4	05/10/99	EPR1-9905-170	GW	0.90	7.01	7.6	10270	10850	0.005	U	0.010	U	0.1	U	0.003	U	0.031
EM-4 D	05/10/99	EPR1-9905-185	GW	1.00	7.01	7.7	10270	10780	0.005	U	0.010	U	0.1	U	0.003	U	0.035
EM-4	08/06/99	EPR1-9908-170	GW	0.8	7.21	7.9	10440	10600	0.009	J4	0.01	U	0.1	U	0.003	U	0.033
Average				2.13	7.13	7.66	10322	9910	0.008	0.006	0.010	0.030	0.100	0.003	0.006	0.042	
Median				1.14	7.06	7.7	10340	10690	0.007	0.005	0.010	0.025	0.100	0.003	0.005	0.032	
Standard Deviation				2.38	0.17	0.18	599	3886	0.004	0.001	0.002	0.015	0.000	0.000	0.002	0.033	
Minimum				0.80	6.95	7.40	9420	2090	0.005	0.005	0.005	0.025	0.100	0.003	0.005	0.020	
Maximum				8.30	7.50	7.90	11300	14370	0.019	0.009	0.010	0.071	0.100	0.003	0.011	0.130	
EM-5	08/26/97	EPR1-9708-159	GW		7.64	8.00	6160	1187	1.6	0.08	0.01	U	0.046	0.01	0.027	0.31	
EM-5	11/17/97	EPR1-9711-159	GW	0.79	7.30	7.70	6700	8790	1.7	0.069	0.005	U	1.8	0.006	0.009	0.31	
EM-5	02/17/98	EPR1-9802-158	GW	1.84	7.17	7.70	6990	9310	1.6	0.066	0.01	U	2.4	0.009	0.012	0.38	
EM-5	05/18/98	EPR1-9805-158	GW	1.21	7.59	7.90	4920	4950	1.7	0.017	0.01	U	1.3	0.005	0.013	0.17	
EM-5	8/17/98	EPR1-9808-158	GW	0.18	7.50	7.8	4970	5010	1.8	0.055	0.010	U	0.49	0.003	0.005	0.17	
EM-5	11/11/98	EPR1-9811-158	GW	3.50	7.43	7.6	5090	5030	2.0	0.081	0.010	U	1.0	0.003	0.005	0.30	
EM-5	02/11/99	EPR1-9902-170	GW	0.90	7.47	7.8	4740	4800	1.9	0.046	0.010	U	1.2	0.003	0.007	0.27	
EM-5 D	02/11/99	EPR1-9902-187	GW	0.90	7.48	7.8	4770	4800	1.9	0.046	0.010	U	1.2	0.003	0.006	0.27	
EM-5	05/10/99	EPR1-9905-171	GW	0.70	7.35	7.7	3700	3800	2.2	0.009	0.010	U	1.5	0.003	0.005	0.10	J4
EM-5	08/06/99	EPR1-9908-171	GW	0.7	7.46	7.8	2660	2630	2.4	0.016	0.01	U	0.64	0.003	0.008	0.11	
Average				1.19	7.44	7.78	5070	5031	1.880	0.049	0.010	0.030	1.208	0.005	0.010	0.239	
Median				0.90	7.465	7.8	4945	4875	1.850	0.051	0.010	0.025	1.200	0.003	0.008	0.270	
Standard Deviation				0.97	0.14	0.11	1310	2463	0.262	0.027	0.002	0.008	0.594	0.003	0.007	0.095	
Minimum				0.18	7.17	7.60	2660	1187	1.600	0.009	0.005	0.025	0.490	0.003	0.005	0.100	
Maximum				3.50	7.64	8.00	6990	9310	2.400	0.081	0.010	0.046	2.400	0.010	0.027	0.380	
EM-6	08/11/97	EPR1-9708-160	GW	4.48	7.25	7.90	4520	4480	0.03	0.005	U	0.025	U	0.003	U	0.03	
EM-6	08/11/97	EPR1-9708-173	GW	4.48	7.25	7.80	4500	4480	0.027	0.005	U	0.025	U	0.003	U	0.027	
EM-6	11/17/97	EPR1-9711-160	GW	0.98	7.15	7.60	4500	5750	0.026	0.005	U	0.045	0.1	0.003	U	0.039	
EM-6	02/17/98	EPR1-9802-159	GW	0.91	7.04	7.80	4330	5810	0.028	0.006	0.01	U	0.1	U	0.03	U	0.045
EM-6	05/18/98	EPR1-9805-159	GW	1.57	7.21	7.60	4090	4310	0.025	0.005	U	0.045	0.1	U	0.003	U	0.052
EM-6	05/18/98	EPR1-9805-180	GW		7.50	4120			0.024	0.005	U	0.044	0.1	U	0.003	U	0.044

Table H-1. Summary of Groundwater Analytical Results, August 1997 through August 1999
EM Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
EM-6	8/17/98	EPRI-9808-159	GW	0.32	7.17	7.6	4600	4610	0.021	0.005	0.010	U	0.10	U	0.12	0.037
EM-6	11/11/98	EPRI-9811-159	GW	1.40	7.45	7.8	3550	3590	0.031	0.006	0.010	U	0.10	U	0.076	0.12
EM-6	02/11/99	EPRI-9902-171	GW	3.60	7.3	7.8	4290	4390	0.024	0.007	0.010	U	0.10	U	0.097	0.087
EM-6	05/10/99	EPRI-9905-172	GW	0.60	7.06	7.7	3810	4290	0.025	0.007	0.010	U	0.10	U	0.070	0.099
EM-6	08/06/99	EPRI-9908-172	GW	0.5	7.3	8	3640	3840	0.042	0.007	0.01	U	0.10	U	0.067	0.1
EM-6 D	08/06/99	EPRI-9908-200	GW	0.4	7.3	8	3640	3850	0.033	0.007	0.01	U	0.10	U	0.076	0.099
Average				1.75	7.23	7.76	4133	4491	0.028	0.006	0.010	0.045	0.100	0.003	0.094	0.065
Median				0.98	7.25	7.8	4205	4390	0.027	0.006	0.010	0.045	0.100	0.003	0.099	0.049
Standard Deviation				1.63	0.12	0.16	385	712	0.006	0.001	0.001	0.012	0.000	0.001	0.018	0.033
Minimum				0.32	7.04	7.50	3550	3590	0.021	0.005	0.005	0.025	0.100	0.003	0.067	0.027
Maximum				4.48	7.45	8.00	4600	5810	0.042	0.007	0.010	0.063	0.100	0.005	0.120	0.120
EM-7	11/17/97	EPRI-9711-161	GW	1.78	7.56	8.40	5700	7070	1.7	0.021	0.008	0.067	0.35	0.058	0.13	0.11
EM-7	02/19/98	EPRI-9802-160	GW	2.33	7.77	7.80	6020	6810	2.1	0.009	0.01	U	0.34	0.03	0.055	0.078
EM-7	05/07/98	EPRI-9805-160	GW	1.3	7.24	7.80	5560	6960	1.8	0.018	0.01	U	0.2	0.039	0.055	0.11
EM-7	8/20/98	EPRI-9808-160	GW	1.95	7.38	7.7	5220	5240	2.3	0.019	0.010	U	0.16	0.032	0.037	0.10
EM-7	11/11/98	EPRI-9811-160	GW	2.30	7.54	7.6	5310	5190	2.1	0.014	0.010	U	0.29	0.019	0.020	0.079
EM-7	02/24/99	EPRI-9902-172	GW	2.00	7.69	7.8	5110	6320	2.0	0.011	0.010	U	0.18	0.025	0.051	0.093
EM-7	05/12/99	EPRI-9905-173	GW	3.60	7.66	7.4	4540	4560	2.4	0.005	0.010	U	0.27	0.011	0.006	0.039
EM-7	08/06/99	EPRI-9908-173	GW	3.9	7.54	7.7	4410	4420	2.4	0.023	0.01	U	0.17	0.034	0.03	0.073
Average				2.40	7.55	7.78	5234	5821	2.100	0.015	0.010	0.049	0.245	0.031	0.048	0.085
Median				2.15	7.55	7.75	5265	5780	2.100	0.016	0.010	0.052	0.235	0.031	0.044	0.086
Standard Deviation				0.90	0.17	0.29	551	1094	0.262	0.006	0.001	0.018	0.077	0.014	0.037	0.024
Minimum				1.30	7.24	7.40	4410	4420	1.700	0.005	0.008	0.025	0.160	0.011	0.006	0.039
Maximum				3.90	7.77	8.40	6020	7070	2.400	0.023	0.010	0.073	0.350	0.058	0.130	0.110

TABLE H-2

**ANALYTICAL RESULTS FOR DISSOLVED METALS,
GROUNDWATER SAMPLES, EP WELLS**

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS				
EP-4	08/06/97	EPRI-9708-100	GW	1.51	7.06	7.70	2350	2230	0.16	0.005	U	U	0.025	U	0.003	U	0.005	U	0.02	U
EP-4	11/04/97	EPRI-9711-100	GW	1	7.46	7.80	1656	1906	0.14	0.005	U	U	0.025	U	0.003	U	0.005	U	0.02	U
EP-4	02/04/98	EPRI-9802-100	GW	1.91	7.58	8.00	1595	1563	0.068	0.005	U	U	0.025	U	0.003	U	0.005	U	0.02	U,UJ4
EP-4	05/05/98	EPRI-9805-100	GW	3.20	7.95	7.90	1831	1670	0.085	0.005	U	U	0.025	U	0.003	U	0.005	U	0.029	U
EP-4	8/5/98	EPRI-9808-100	GW	1.34	7.36	7.8	1970	2190	0.14	0.005	U	U	0.025	U	0.003	U	0.005	U	0.025	U
EP-4	2/3/99	EPRI-9902-100	GW	1.2	8.08	8.1	1965	1620	0.080	0.005	U	U	0.025	U	0.003	U	0.005	U	0.020	U
EP-4	5/5/99	EPRI-9905-100	GW	2.1	7.6	7.9	2170	2050	0.086	0.005	U	U	0.025	U	0.003	U	0.005	U	0.02	U
EP-4	08/02/99	EPRI-9908-100	GW	1.3	7.61	7.8	2440	2490	0.15	0.005	U	U	0.025	U	0.003	U	0.005	U	0.02	U
Average				1.70	7.59	7.88	1997	1965	0.114	0.005	U	U	0.025	U	0.003	U	0.005	U	0.022	U
Median				1.43	7.59	7.85	1968	1978	0.113	0.005	U	U	0.025	U	0.003	U	0.005	U	0.020	U
Standard Deviation				0.71	0.32	0.13	307	333	0.037	0.000	U	U	0.000	U	0.000	U	0.000	U	0.003	U
Minimum				1.00	7.06	7.70	1595	1563	0.068	0.005	U	U	0.025	U	0.003	U	0.005	U	0.020	U
Maximum				3.20	8.08	8.10	2440	2490	0.160	0.005	U	U	0.025	U	0.003	U	0.005	U	0.029	U
EP-5	08/06/97	EPRI-9708-101	GW	1.29	7.47	7.70	3350	3330	0.047	0.005	U	U	0.025	U	0.003	U	0.005	U	0.02	U
EP-5	11/04/97	EPRI-9711-101	GW	2.52	7.58	8.00	3100	3700	0.033	0.005	U	U	0.025	U	0.01	U	0.033	U	0.027	U
EP-5	02/04/98	EPRI-9802-101	GW	0.68	7.58	8.10	3070	3060	0.059	0.005	U	U	0.025	U	0.003	U	0.005	U	0.021	J4
EP-5	05/05/98	EPRI-9805-101	GW	5.22	7.81	8.00	2980	2560	0.05	0.005	U	U	0.025	U	0.003	U	0.005	U	0.057	U
EP-5	8/5/98	EPRI-9808-101	GW	1.14	7.36	7.8	2900	3360	0.056	0.005	U	U	0.025	U	0.003	U	0.005	U	0.028	U
EP-5	11/3/98	EPRI-9811-101	GW	1	7.04	7.6	3010	2890	0.069	0.005	U	U	0.030	U	0.005	U	0.005	U	0.033	U
EP-5	2/3/99	EPRI-9902-101	GW	1.7	7.87	8.0	2820	2800	0.037	0.005	U	U	0.025	U	0.003	U	0.005	U	0.029	U
EP-5	5/5/99	EPRI-9905-101	GW	2.2	7.52	8.1	2780	2600	0.054	0.005	U	U	0.025	U	0.003	U	0.005	U	0.032	U
EP-5	08/02/99	EPRI-9908-101	GW	1.8	7.44	7.9	3300	3550	0.061	0.005	U	U	0.025	U	0.003	U	0.005	U	0.02	U
Average				1.95	7.52	7.91	3034	3094	0.052	0.005	U	U	0.026	U	0.004	U	0.008	U	0.030	U
Median				1.70	7.52	8	3010	3060	0.054	0.005	U	U	0.025	U	0.003	U	0.005	U	0.028	U
Standard Deviation				1.36	0.24	0.18	196	412	0.011	0.000	U	U	0.002	U	0.002	U	0.009	U	0.011	U
Minimum				0.68	7.04	7.60	2780	2560	0.033	0.005	U	U	0.025	U	0.003	U	0.005	U	0.020	U
Maximum				5.22	7.87	8.10	3350	3700	0.069	0.005	U	U	0.030	U	0.010	U	0.033	U	0.057	U
EP-6	08/06/97	EPRI-9708-102	GW	1.47	7.34	7.90	7320	7240	0.032	0.005	U	U	0.025	U	0.003	U	0.033	U	0.021	J2
EP-6	11/04/97	EPRI-9711-102	GW	1.03	7.44	7.90	7010	7440	0.031	0.005	U	U	0.025	U	0.003	U	0.049	U	0.024	U
EP-6	02/04/98	EPRI-9802-102	GW	3.1	7.53	8.00	6060	997	0.023	0.005	U	U	0.025	U	0.003	U	0.009	U	0.02	U,UJ4
EP-6	05/05/98	EPRI-9805-102	GW	3.00	7.62	8.00	5810	4950	0.021	0.005	U	U	0.025	U	0.003	U	0.01	U	0.044	U
EP-6	8/5/98	EPRI-9808-102	GW	1.24	7.3	8.0	6720	7440	0.024	0.005	U	U	0.025	U	0.003	U	0.034	U	0.046	U
EP-6	11/3/98	EPRI-9811-102	GW	1.5	7.33	7.7	7120	7030	0.025	0.005	U	U	0.025	U	0.003	U	0.035	U	0.022	U
EP-6	2/3/99	EPRI-9902-102	GW	2.5	7.51	7.9	7270	6960	0.014	0.005	U	U	0.025	U	0.003	U	0.008	U	0.020	U
EP-6	5/5/99	EPRI-9905-102	GW	1.4	7.39	8.1	7400	7100	0.023	0.005	U	U	0.025	U	0.003	U	0.007	U	0.025	U
EP-6 D	5/5/99	EPRI-9905-179	GW	1.6	7.43	7.9	7400	6810	0.023	0.005	U	U	0.025	U	0.003	U	0.007	U	0.029	U
EP-6	08/02/99	EPRI-9908-102	GW	1.6	7.37	8.4	7760	7630	0.021	0.005	U	U	0.025	U	0.003	U	0.043	U	0.02	U
Average				1.84	7.43	7.98	6987	6360	0.024	0.005	U	U	0.025	U	0.003	U	0.024	U	0.027	U

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fid)	pH (fid)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fid)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
Median				1.55	7.41	7.95	7195	7065	0.023	0.005	0.010	0.025	0.100	0.003	0.022	0.023
Standard Deviation				0.74	0.10	0.18	620	2028	0.005	0.000	0.000	0.000	0.041	0.000	0.017	0.010
Minimum				1.03	7.30	7.70	5810	997	0.014	0.005	0.010	0.025	0.100	0.003	0.007	0.020
Maximum				3.10	7.62	8.40	7760	7630	0.032	0.005	0.010	0.025	0.230	0.003	0.049	0.046
EP-7	08/06/97	EPRI-9708-103	GW	1.66	7.17	7.80	2810	2580	0.064	0.005	0.010	0.025	U	0.003	0.005	U
EP-7	11/04/97	EPRI-9711-103	GW	1.55	7.36	7.90	2710	2850	0.084	0.005	0.010	0.025	U	0.003	0.005	U
EP-7	02/04/98	EPRI-9802-103	GW	1.62	7.30	7.90	2810	501	0.076	0.005	0.010	0.025	UJ4	0.003	0.005	U
EP-7	05/05/98	EPRI-9805-103	GW	3.73	7.67	7.80	2890	2500	0.056	0.005	0.010	0.025	U	0.003	0.005	U
EP-7	8/5/98	EPRI-9808-103	GW	0.69	7.28	7.8	2800	630	0.065	0.005	0.010	0.025	U	0.003	0.005	U
EP-7	11/3/98	EPRI-9811-103	GW	1.2	7.31	7.6	2660	2610	0.049	0.005	0.010	0.025	U	0.003	0.005	U
EP-7	2/3/99	EPRI-9902-103	GW	1.9	7.51	7.9	2960	2790	0.044	0.005	0.010	0.025	U	0.003	0.005	U
EP-7 D	2/3/99	EPRI-9902-177	GW	2	7.51	7.8	2950	2800	0.056	0.005	0.010	0.025	U	0.003	0.005	U
EP-7	5/5/99	EPRI-9905-103	GW	2.5	7.5	7.9	3110	3030	0.065	0.005	0.010	0.025	U	0.003	0.005	U
EP-7	08/02/99	EPRI-9908-103	GW	1.9	7.33	7.7	3790	3800	0.064	0.005	0.010	0.025	U	0.003	0.005	U
Average				1.88	7.39	7.81	2949	2409	0.062	0.005	0.010	0.025	1.227	0.003	0.005	0.022
Median				1.78	7.345	7.8	2850	2700	0.064	0.005	0.010	0.025	1.300	0.003	0.005	0.020
Standard Deviation				0.81	0.15	0.10	323	1038	0.012	0.000	0.000	0.000	0.321	0.000	0.000	0.003
Minimum				0.69	7.17	7.60	2660	501	0.044	0.005	0.010	0.025	0.740	0.003	0.005	0.020
Maximum				3.73	7.67	7.90	3790	3800	0.084	0.005	0.010	0.025	1.700	0.003	0.005	0.028
EP-9	05/07/98	EPRI-9805-178	GW	1.12	7.1	8.1	2650	3220	0.39	0.005	0.010	0.025	U	0.003	0.17	0.022
EP-12	11/03/97	EPRI-9711-104	GW	1.44	6.80	7.30	5840	7490	1.3	0.005	0.010	0.025	U	0.003	6.9	0.022
EP-12	02/03/98	EPRI-9802-104	GW	1.55	6.76	7.40	6580	7870	1.2	0.005	0.010	0.025	UJ4	0.003	1.7	0.02
EP-12	05/20/98	EPRI-9805-104	GW	2.38	7.05	7.60	5280	4820	1	0.005	0.010	0.031	U	0.004	0.57	0.031
EP-12	8/27/98	EPRI-9808-104	GW	1.12	6.79	7.3	6360	5650	1.5	0.019	0.010	0.025	U	0.003	0.47	0.62
EP-12	11/16/98	EPRI-9811-104	GW	1.7	6.88	7.5	5580	5710	1.6	0.005	0.010	0.025	U	0.003	0.29	0.021
EP-12	2/25/99	EPRI-9902-104	GW	2.6	7.08	7.4	4890	4980	1.8	0.005	0.010	0.025	U	0.003	0.53	0.020
EP-12	5/14/99	EPRI-9905-104	GW	1.3	6.86	7.7	6020	5910	2.4	0.005	0.010	0.025	U	0.003	0.26	0.024
EP-12 D	5/14/99	EPRI-9905-193	GW	2.1	7	7.7	5900	5950	2.7	0.005	0.010	0.025	U	0.003	0.32	0.035
EP-12	08/11/99	EPRI-9908-104	GW	0.1	7.31	7.6	6110	6070	1.7	0.005	0.010	0.025	U	0.003	0.2	0.024
Average				1.59	6.95	7.50	5840	6050	1.689	0.007	0.010	0.026	0.992	0.003	1.249	0.091
Median				1.55	6.88	7.5	5900	5910	1.600	0.005	0.010	0.025	0.750	0.003	0.470	0.024
Standard Deviation				0.75	0.18	0.16	526	1022	0.553	0.005	0.000	0.002	1.427	0.000	2.167	0.199
Minimum				0.10	6.76	7.30	4890	4820	1.000	0.005	0.010	0.025	0.100	0.003	0.200	0.020
Maximum				2.60	7.31	7.70	6580	7870	2.700	0.019	0.010	0.031	4.700	0.004	6.900	0.620
EP-13	08/07/97	EPRI-9708-105	GW	5.56	7.35	7.70	12500	12410	49	0.82	0.010	0.025	U	0.008	7	0.052
EP-13	11/06/97	EPRI-9711-105	GW	4.01	7.11	7.80	12210	14320	46	0.8	0.010	0.025	U	0.003	6.7	0.033
EP-13	02/17/98	EPRI-9802-105	GW	0.182	6.95	7.70	11910	14100	48	0.68	0.010	0.027	U	0.003	6.1	0.025

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (ft)	pH (lab)	pH (ft)	Specific Conductivity SC (lab)	Specific Conductivity SC (ft)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS	
EP-13	05/07/98	EPRI-9805-105	GW	2.79	6.96	7.70	11440	10900	36	0.71	0.01	U	0.025	U	0.003	U	0.059
EP-13	8/6/98	EPRI-9808-105	GW	2.8	6.98	7.7	11220	11320	36	0.7	0.010	U	0.025	U	0.003	U	0.10
EP-13	11/4/98	EPRI-9811-105	GW	7.2	7.12	7.4	11420	12670	39	0.77	0.010	U	0.025	U	0.003	U	0.072
EP-13	2/8/99	EPRI-9902-105	GW	5.6	7.16	7.6	11200	11070	36	0.74	0.010	U	0.025	U	0.003	U	0.10
EP-13	5/6/99	EPRI-9905-105	GW	5.9	7.08	7.7	10640	11480	38	0.65	0.010	U	0.025	U	0.007	U	0.077
EP-13	08/03/99	EPRI-9908-105	GW	2.6	7.19	7.5	11200	11300	39	0.66	0.01	U	0.048	U	0.003	U	0.067
Average				4.07	7.10	7.64	11527	12174	40.778	0.726	0.010	U	0.028	U	0.004	U	0.065
Median				4.01	7.11	7.7	11420	11480	39.000	0.710	0.010	U	0.025	U	0.003	U	0.067
Standard Deviation				2.19	0.13	0.12	578	1296	5.357	0.061	0.000	0.008	0.017	0.002	0.002	0.002	0.026
Minimum				0.18	6.95	7.40	10640	10900	36.000	0.650	0.010	0.025	0.100	0.003	0.003	0.003	0.025
Maximum				7.20	7.35	7.80	12500	14320	49.000	0.820	0.010	0.048	0.150	0.008	0.008	0.008	0.100
EP-14	11/05/97	EPRI-9711-106	GW	0.4	6.91	7.50	4430	5020	1.1	0.005	U	0.025	U	0.003	U	0.36	0.02
EP-14	02/17/98	EPRI-9802-106	GW	0.35	6.76	7.50	4520	6090	1.3	0.005	U	0.025	U	0.004	U	0.3	0.02
EP-14	05/07/98	EPRI-9805-106	GW	1.60	6.86	7.40	4660	5500	1.4	0.005	U	0.025	U	0.004	U	0.23	0.046
EP-14	8/6/98	EPRI-9808-106	GW	0.5	6.9	7.7	3590	3890	2.5	0.005	U	0.025	U	0.003	U	0.084	0.032
EP-14	11/4/98	EPRI-9811-106	GW	1	6.92	7.2	4230	4600	2.2	0.005	U	0.025	U	0.003	U	0.18	0.022
EP-14	2/8/99	EPRI-9902-106	GW	0.7	6.95	7.6	5070	4950	1.7	0.005	U	0.025	U	0.003	U	0.30	0.031
EP-14	5/6/99	EPRI-9905-106	GW	6	6.85	7.4	4900	5240	1.7	0.005	U	0.025	U	0.006	U	0.25	0.02
EP-14	08/03/99	EPRI-9908-106	GW	0.4	7.11	7.5	4300	4340	2.1	0.005	U	0.025	U	0.003	U	0.22	0.038
Average				1.37	6.91	7.48	4463	4954	1.750	0.005	0.010	U	0.025	U	0.004	U	0.029
Median				0.60	6.905	7.5	4475	4985	1.700	0.005	0.010	0.025	0.175	0.003	0.003	0.16	0.027
Standard Deviation				1.92	0.10	0.15	454	688	0.484	0.000	0.000	0.000	0.153	0.001	0.001	0.085	0.010
Minimum				0.35	6.76	7.20	3590	3890	1.100	0.005	0.010	0.025	0.100	0.003	0.003	0.084	0.020
Maximum				6.00	7.11	7.70	5070	6090	2.500	0.005	0.010	0.025	0.570	0.006	0.006	0.360	0.046
EP-15	08/07/97	EPRI-9708-107	GW	2.84	7.20	7.80	3150	2830	0.076	0.005	U	0.025	U	0.003	U	0.17	0.022
EP-15	11/06/97	EPRI-9711-107	GW	2.37	7.30	7.90	3060	3180	0.013	0.005	U	0.025	U	0.003	U	0.16	0.021
EP-15	02/17/98	EPRI-9802-107	GW	2.45	7.12	7.70	3100	3980	0.031	0.016	0.01	U	0.1	U	0.16	0.02	
EP-15	05/07/98	EPRI-9805-107	GW	2.47	7.35	7.80	2960	3320	0.007	0.005	U	0.025	U	0.003	U	0.2	0.031
EP-15	8/10/98	EPRI-9808-107	GW	1.77	7.34	7.9	2810	2750	0.009	0.005	U	0.025	U	0.003	U	0.17	0.031
EP-15	11/5/98	EPRI-9811-107	GW	1.5	7.21	7.6	3090	3040	0.007	0.005	U	0.025	U	0.003	U	0.14	0.048
EP-15	2/8/99	EPRI-9902-107	GW	2.5	7.27	7.8	3620	3560	0.025	0.015	0.010	U	0.10	U	0.12	0.048	
EP-15 D	2/8/99	EPRI-9902-181	GW	2.5	7.27	8.0	3600	3560	0.028	0.014	0.010	U	0.10	U	0.12	0.060	
EP-15	5/5/99	EPRI-9905-107	GW	7.3	7.12	7.7	4170	8580	0.008	0.005	0.010	U	0.10	U	0.003	U	0.066
EP-15	08/03/99	EPRI-9908-107	GW	2	7.19	7.5	4460	4500	0.012	0.005	U	0.025	U	0.003	U	0.17	0.02
EP-15 D	08/03/99	EPRI-9908-194	GW	2	7.19	7.6	4460	4520	0.012	0.005	U	0.025	U	0.003	U	0.17	0.02
Average				2.70	7.23	7.75	3498	3984	0.021	0.008	0.010	0.025	0.100	0.003	0.003	0.157	0.035
Median				2.45	7.21	7.8	3150	3560	0.012	0.005	0.010	0.025	0.100	0.003	0.003	0.160	0.031
Standard Deviation				1.57	0.08	0.15	611	1639	0.020	0.005	0.000	0.000	0.000	0.000	0.000	0.024	0.017

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
Minimum				1.50	7.12	7.50	2810	2750	0.007	0.005	0.010	0.025	0.100	0.003	0.120	0.020
Maximum				7.30	7.35	8.00	4460	8580	0.076	0.016	0.010	0.025	0.100	0.003	0.200	0.066
EP-20	08/07/97	EPRI-9708-108	GW	1.98	6.72	7.40	11160	11270	1.2	0.036	0.01	0.025	U	U	0.38	0.057
EP-20	11/03/97	EPRI-9711-108	GW	2.56	7.05	7.30	10760	12760	1.2	0.04	0.01	0.026	U	U	0.35	0.059
EP-20	02/03/98	EPRI-9802-108	GW	2.36	7.06	7.40	10800	13110	0.96	0.048	0.01	0.036	J4	J4	0.37	0.063
EP-20	05/06/98	EPRI-9805-108	GW	3.49	7.22	7.50	10510	10580	0.85	0.042	0.01	0.03	U	U	0.34	0.098
EP-20	8/6/98	EPRI-9808-108	GW	2.39	6.88	7.6	10210	10440	0.87	0.038	0.010	0.025	U	U	0.35	0.096
EP-20	11/4/98	EPRI-9811-108	GW	1.6	6.92	7.0	10370	10130	0.92	J4	0.034	0.025	U	U	0.37	0.051
EP-20	2/4/99	EPRI-9902-108	GW	2.4	6.96	7.4	9910	10010	0.79	J4	0.039	0.025	U	U	0.33	0.039
EP-20	5/4/99	EPRI-9905-108	GW	2.3	6.95	7.4	10320	10220	0.92	0.048	0.010	0.025	U	U	0.37	0.025
EP-20	08/02/99	EPRI-9908-108	GW	1.6	6.89	7.2	9930	10090	1	0.03	0.01	0.025	U	U	0.37	0.04
Average				2.30	6.96	7.36	10441	10957	0.968	0.039	0.010	0.027	0.101	0.003	0.359	0.059
Median				2.36	6.95	7.4	10370	10440	0.920	0.039	0.010	0.025	0.100	0.003	0.370	0.057
Standard Deviation				0.57	0.14	0.17	414	1187	0.145	0.006	0.000	0.004	0.003	0.000	0.017	0.025
Minimum				1.60	6.72	7.00	9910	10010	0.790	0.030	0.010	0.025	0.100	0.003	0.330	0.025
Maximum				3.49	7.22	7.60	11160	13110	1.200	0.048	0.010	0.036	0.110	0.003	0.380	0.098
EP-21	11/18/97	EPRI-9711-109	GW			7.80	6260		0.067	0.005	U	0.025	U	0.073	0.031	
EP-21	02/18/98	EPRI-9802-109	GW	0.65	7.30	8.00	5980	8000	0.062	J4	0.005	0.025	U	U	0.095	0.038
EP-21	05/21/98	EPRI-9805-109	GW	0.41	7.26	7.80	5740	1096	0.052	0.005	U	0.025	U	0.018	0.028	
EP-21	8/24/98	EPRI-9808-109	GW	2.39	6.88	8.0	5680	5670	0.032	0.005	U	0.025	U	0.019	0.020	
EP-21	11/16/98	EPRI-9811-109	GW	0.200	7.57	8.0	5690	5630	0.034	0.005	U	0.025	U	0.016	0.026	
EP-21	2/24/99	EPRI-9902-109	GW	0.4	7.56	8.1	5670	5740	0.033	0.005	U	0.025	U	0.015	0.020	
EP-21	08/10/99	EPRI-9908-109	GW	0.8	7.66	8	5140	5160	0.022	0.005	U	0.025	U	0.005	0.031	
Average				0.81	7.37	7.96	5737	5216	0.043	0.005	0.010	0.025	0.351	0.003	0.034	0.028
Median				0.53	7.43	8	5690	5650	0.034	0.005	0.010	0.025	0.320	0.003	0.018	0.028
Standard Deviation				0.80	0.29	0.11	341	2253	0.017	0.000	0.000	0.000	0.226	0.000	0.035	0.006
Minimum				0.20	6.88	7.80	5140	1096	0.022	0.005	0.010	0.025	0.170	0.003	0.005	0.020
Maximum				2.39	7.66	8.10	6260	8000	0.067	0.005	0.010	0.025	0.830	0.004	0.095	0.038
EP-22	08/15/97	EPRI-9708-110	GW	2.92	7.46	7.90	8540	8510	0.035	0.006	0.01	0.031	U	U	0.32	0.04
EP-22	11/18/97	EPRI-9711-110	GW	1.01	7.16	7.40	9980	12900	0.044	0.005	U	0.025	U	U	0.11	0.91
EP-22	02/18/98	EPRI-9802-110	GW	3.75	7.49	7.60	9900	11910	0.035	J4	0.005	0.035	U	J4	0.59	2.1
EP-22	06/10/98	EPRI-9806-201	GW	2.26	7.63			9560								
EP-22	8/24/98	EPRI-9808-110	GW	0.17	7.36	7.8	6840	6850	0.011	0.005	U	0.025	U	0.003	0.073	0.089
EP-22	11/16/98	EPRI-9811-110	GW	0.900	7.51	8.0	7480	7480	0.008	0.005	U	0.025	U	U	0.054	0.083
Average				1.84	7.44	7.74	8548	9335	0.027	0.005	0.010	0.028	0.108	0.009	0.229	0.764
Median				1.64	7.475	7.8	8540	9035	0.035	0.005	0.010	0.025	0.100	0.006	0.110	0.640
Standard Deviation				1.37	0.16	0.24	1409	2427	0.016	0.000	0.000	0.005	0.018	0.007	0.228	0.828

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (ftd)	pH (ftd)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (ftd)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
Minimum				0.17	7.16	7.40	6840	6850	0.008	0.005	0.010	0.025	0.100	0.003	0.054	0.083
Maximum				3.75	7.63	8.00	9980	12900	0.044	0.006	0.010	0.035	0.140	0.018	0.590	2.100
EP-23	08/11/97	EPRI-9708-111	GW	1.17	7.36	7.50	6790	6640	2.5	0.005	0.01	0.025	0.65	0.003	0.027	0.027
EP-23	11/04/97	EPRI-9711-111	GW	0.73	7.51	7.70	6130	6810	4	0.005	0.01	0.025	0.46	0.003	0.023	0.028
EP-23	02/04/98	EPRI-9802-111	GW	1.45	7.42	7.70	6190	7190	1.5	0.005	0.01	0.025	0.25	0.003	0.019	0.02
EP-23	05/11/98	EPRI-9805-111	GW	0.88	7.13	7.60	5500	5790	4.2	0.005	0.01	0.025	0.63	0.003	0.011	0.045
EP-23	8/12/98	EPRI-9808-111	GW	0.99	7.47	7.7	5620	5010	1.6	0.005	0.010	0.025	0.49	0.003	0.009	0.023
EP-23	11/15/98	EPRI-9811-111	GW	0.6	7.5	7.5	5790	4650	2.5	0.005	0.010	0.025	0.34	0.003	0.005	0.020
EP-23	2/11/99	EPRI-9902-111	GW		7.8	8.0	5470		0.81	0.005	0.010	0.025	0.33	0.003	0.011	0.020
EP-23	5/7/99	EPRI-9905-111	GW	0.9	7.41	7.8	4310	4420	1.9	0.005	0.010	0.025	0.26	0.003	0.005	0.020
EP-23 D	5/14/99	EPRI-9905-111	GW	1.9	7.29	7.8	4190	4200	4.9	0.005	0.010	0.025	0.34	0.003	0.008	0.020
EP-23	08/04/99	EPRI-9908-111	GW		7.49	7.8	3750	3840	8.8	0.005	0.01	0.025	0.49	0.003	0.005	0.020
Average				1.08	7.40	7.69	5374	5394	3.271	0.005	0.010	0.025	0.424	0.003	0.012	0.024
Median				0.95	7.42	7.7	5560	5010	2.500	0.005	0.010	0.025	0.400	0.003	0.010	0.020
Standard Deviation				0.42	0.12	0.12	982	1247	2.349	0.000	0.000	0.000	0.143	0.000	0.008	0.008
Minimum				0.60	7.13	7.50	3750	3840	0.810	0.005	0.010	0.025	0.250	0.003	0.005	0.020
Maximum				1.90	7.51	7.80	6790	7190	8.800	0.005	0.010	0.025	0.650	0.003	0.027	0.045
EP-24	08/15/97	EPRI-9708-112	GW	1.13	6.70	8.00	5150	4660	0.47	0.005	0.01	0.025	4.4	0.003	0.014	0.035
EP-24	11/18/97	EPRI-9711-112	GW		7.70	7.70	5940		0.071	0.005	0.01	0.025	0.1	0.003	0.079	0.02
EP-24	02/18/98	EPRI-9802-112	GW	1.26	6.74	8.10	5130	5820	0.031	0.005	0.01	0.025	0.2	0.003	0.005	0.02
EP-24	05/21/98	EPRI-9805-112	GW	0.80	6.95	7.50	5380	999	0.38	0.005	0.01	0.12	0.81	0.004	0.005	0.33
EP-24	8/24/98	EPRI-9808-112	GW	0.501	6.79	7.3	5200	5000	0.060	0.005	0.010	0.025	0.35	0.003	0.010	0.020
EP-24	11/16/98	EPRI-9811-112	GW	0.6	6.93	7.7	5390	5220	0.062	0.005	0.010	0.025	0.16	0.003	0.005	0.020
EP-24	2/11/99	EPRI-9902-112	GW		7.8	8.00	5800		0.17	0.005	0.010	0.025	0.10	0.003	0.005	0.020
EP-24	5/14/99	EPRI-9905-112	GW		7.4	6410	6410	5640	0.097	0.005	0.010	0.025	0.69	0.003	0.330	0.020
EP-24	08/10/99	EPRI-9908-112	GW	0.6	7.05	7.8	5680		0.006	0.005	0.01	0.025	0.1	0.003	0.005	0.02
Average				0.82	6.86	7.70	5564	4557	0.150	0.005	0.010	0.036	0.768	0.003	0.051	0.056
Median				0.70	6.86	7.7	5390	5110	0.071	0.005	0.010	0.025	0.200	0.003	0.005	0.020
Standard Deviation				0.31	0.14	0.26	430	1793	0.164	0.000	0.000	0.032	1.388	0.000	0.107	0.103
Minimum				0.50	6.70	7.30	5130	999	0.006	0.005	0.010	0.025	0.100	0.003	0.005	0.020
Maximum				1.26	7.05	8.10	6410	5820	0.470	0.005	0.010	0.120	4.400	0.004	0.330	0.330
EP-25	08/15/97	EPRI-9708-113	GW	1.32	7.13	7.40	5990	5730	3	0.005	0.01	0.025	2.6	0.003	0.17	0.021
EP-25	11/19/97	EPRI-9711-113	GW		7.80	8.00	5470		3.5	0.005	0.01	0.025	4.8	0.011	0.079	0.037
EP-25	02/18/98	EPRI-9802-113	GW		7.60	7.60	5420		3.1	0.005	0.01	0.025	4	0.003	0.044	0.02
EP-25	05/21/98	EPRI-9805-113	GW		7.50	7.50	5760		2.6	0.005	0.01	0.028	5.8	0.004	0.083	0.039
EP-25	8/24/98	EPRI-9808-113	GW		7.2	7.2	5420		5.1	0.005	0.010	0.025	9.7	0.003	0.051	0.020
EP-25	11/16/98	EPRI-9811-113	GW		7.5	7.5	5470		2.4	0.005	0.010	0.025	1.3	0.003	0.063	0.020
EP-25	5/14/99	EPRI-9905-113	GW		7.0	7.880	7880	7880	1.0	0.005	0.010	0.025	26	0.003	0.84	0.022

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS	
EP-25	08/11/99	EPRI-9908-113	GW		7.1	7210			0.82	0.005	U	0.025	U	0.003	U	0.073	0.024
Average																	
Median				1.32	7.13	6078		5730	2.690	0.005	0.010	0.025	7.775	0.004	0.175	0.025	
Standard Deviation				1.32	7.13	5615		5730	2.800	0.005	0.010	0.025	5.300	0.003	0.076	0.022	
Minimum					0.27	944			1.372	0.000	0.000	0.001	7.852	0.003	0.271	0.008	
Maximum				1.32	7.13	5420		5730	0.820	0.005	0.010	0.025	1.300	0.003	0.044	0.020	
				1.32	7.13	7880		5730	5.100	0.005	0.010	0.028	26.000	0.011	0.840	0.039	
EP-26	08/11/97	EPRI-9708-114	GW	5.26	7.69	544		568	0.32	0.62	0.01	0.21	0.12	0.036	0.079	1.9	
EP-26	11/04/97	EPRI-9711-114	GW	5.05	7.15	1700		1900	0.32	1.5	0.01	0.16	0.1	U	0.27	4.2	
EP-26	02/04/98	EPRI-9802-114	GW	5.74	7.58	202		239	0.58	0.18	0.01	0.042	J4	U	0.05	0.56	
EP-26	05/07/98	EPRI-9805-114	GW	6.30	7.64	141		170	0.45	0.18	0.01	0.025	U	0.007	0.059	0.57	
EP-26	8/12/98	EPRI-9808-114	GW	5.59	7.21	188		190	0.38	0.28	0.010	0.037	0.10	U	0.065	1.2	
EP-26	11/4/98	EPRI-9811-114	GW	5.7	7.99	412		448	0.28	J4	0.010	0.026	0.10	U	0.23	1.5	
EP-26	2/4/99	EPRI-9902-114	GW	6.9	7.26	133		170	0.38	J4	0.01	0.025	U	0.004	0.057	0.52	
EP-26	5/5/99	EPRI-9905-114	GW	2.1	7.02	362		4440	R 0.31	0.73	0.010	0.039	0.10	U	0.23	2.3	
EP-26	08/04/99	EPRI-9908-114	GW		7.07	2000		2200	0.23	3.5	0.01	0.082	0.1	U	0.64	7.1	
Average				5.33	7.40	631		1147	0.361	0.842	0.010	0.072	0.102	0.011	0.187	2.206	
Median				5.65	7.26	362		448	0.320	0.440	0.010	0.039	0.100	0.010	0.079	1.500	
Standard Deviation				1.43	0.33	708		1457	0.104	1.084	0.000	0.068	0.007	0.010	0.192	2.173	
Minimum				2.10	7.02	133		170	0.230	0.150	0.010	0.025	0.100	0.003	0.050	0.520	
Maximum				6.90	7.99	2000		4440	0.580	3.500	0.010	0.210	0.120	0.036	0.640	7.100	
EP-29	08/07/97	EPRI-9708-115	GW	2.77	7.41	3090		3110	0.31	0.005	U	0.025	U	0.003	U	0.2	0.022
EP-29	11/03/97	EPRI-9711-115	GW	0.52	7.09	2960		3610	0.48	0.005	U	0.025	U	0.003	U	0.12	0.03
EP-29	02/03/98	EPRI-9802-115	GW	0.68	7.47	3100		3890	0.29	0.005	U	0.025	J4	0.003	U	0.19	0.02
EP-29	05/06/98	EPRI-9805-115	GW	4.14	7.59	3180		3470	0.21	0.005	U	0.025	U	0.003	U	0.16	0.024
EP-29	8/6/98	EPRI-9808-115	GW	5.67	8.68	3070		3140	0.26	0.005	U	0.025	U	0.003	U	0.24	0.028
EP-29	11/4/98	EPRI-9811-115	GW	5.2	8.42	3350		3150	0.31	J4	0.010	0.025	U	0.003	U	0.22	0.020
EP-29	2/3/99	EPRI-9902-115	GW	4.1	8.06	3130		3410	0.26	0.005	U	0.025	U	0.003	U	0.15	0.030
EP-29	5/4/99	EPRI-9905-115	GW	2.3	7.68	3160		3120	0.30	0.005	U	0.025	U	0.003	U	0.13	0.02
EP-29 D	5/4/99	EPRI-9905-177	GW	2.3	7.69	3140		3130	0.31	0.005	U	0.025	U	0.003	U	0.12	0.02
EP-29	08/02/99	EPRI-9908-115	GW	3.5	7.59	3180		3220	0.26	0.005	U	0.025	U	0.003	U	0.12	0.02
Average				3.12	7.77	3136		3325	0.299	0.005	0.010	0.025	0.271	0.003	0.165	0.023	
Median				3.14	7.635	3135		3185	0.295	0.005	0.010	0.025	0.100	0.003	0.155	0.021	
Standard Deviation				1.74	0.48	99		265	0.071	0.000	0.000	0.000	0.537	0.000	0.045	0.004	
Minimum				0.52	7.09	2960		3110	0.210	0.005	0.010	0.025	0.100	0.003	0.120	0.020	
Maximum				5.67	8.68	3350		3890	0.480	0.005	0.010	0.025	1.800	0.003	0.240	0.030	
EP-35	08/07/97	EPRI-9708-116	GW	5.98	7.55	6530		6150	0.4	0.005	U	0.025	U	0.003	U	1.4	0.026
EP-35	11/03/97	EPRI-9711-116	GW	1.75	6.92	6340		7420	0.4	0.005	U	0.025	U	0.003	U	6.7	0.022

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS						
EP-35	02/03/98	EPRI-9802-116	GW	2.11	6.99	7.60	6760	7940	0.37	0.005	U	U	0.025	UJ4	0.1	J4	0.003	U	4.1	0.021	J4	
EP-35	05/06/98	EPRI-9805-116	GW	2.47	7.15	7.20	6530	6950	0.62	0.005	U	U	0.025	U	0.1	U	0.003	U	2.5	0.049		
EP-35	8/6/98	EPRI-9808-116	GW	1.89	6.91	7.6	6300	5300	0.26	0.005	U	U	0.025	U	0.10	U	0.003	U	2.5	0.025		
EP-35	11/4/98	EPRI-9811-116	GW	1.9	7.11	7.2	6220	6100	0.59	J4	0.005	U	0.025	U	0.10	U	0.003	U	1.5	0.024		
EP-35	2/4/99	EPRI-9902-116	GW	3.8	7.03	7.4	6410	6140	0.51	J4	0.005	U	0.025	U	0.1	U	0.003	U	2.9	0.020	U	
EP-35	5/4/99	EPRI-9905-116	GW	1.9	6.98	7.4	6810	6730	0.58	0.005	U	U	0.025	U	0.10	U	0.003	U	2.0	0.02	U	
EP-35	08/02/99	EPRI-9908-116	GW	2.9	6.92	7.1	6920	7000	0.82	0.005	U	U	0.025	U	0.1	U	0.003	U	2	0.02	U	
Average				2.74	7.06	7.44	6536	6637	0.506	0.005	U	U	0.025	U	0.100		0.003		2.844	0.025		
Median				2.11	6.99	7.4	6530	6730	0.510	0.005	U	U	0.025	U	0.100		0.003		2.500	0.022		
Standard Deviation				1.38	0.20	0.27	246	799	0.168	0.000	0.000	0.000	0.000	0.000	0.000		0.000		1.658	0.009		
Minimum				1.75	6.91	7.10	6220	5300	0.260	0.005	0.010	0.025	0.100	0.003	1.400	0.020	0.003		1.400	0.020		
Maximum				5.98	7.55	8.00	6920	7940	0.820	0.005	0.010	0.025	0.100	0.003	6.700	0.049	0.003		6.700	0.049		
EP-43	11/03/97	EPRI-9711-172	GW	0.52	7.31	7.60	4950	5830	0.78	0.005	U	U	0.025	U	1.1		0.003	U	0.053	0.02	U	
EP-43	02/03/98	EPRI-9802-175	GW	0.03	7.09	7.50	9590	11980	1.2	0.005	U	U	0.025	UJ4	0.17	J4	0.003	U	0.15	0.02	U, UJ4	
EP-43	05/20/98	EPRI-9805-175	GW	1.50	7.07	7.50	4930	4480	0.72	0.005	U	U	0.025	U	1.6		0.004	U	0.52	0.02	U	
EP-43	8/27/98	EPRI-9808-175	GW	1.01	6.94	7.3	4720	4780	0.78	0.005	U	U	0.025	U	0.15		0.003	U	0.61	0.040		
EP-43	11/16/98	EPRI-9811-175	GW			7.2	5650		7.0	0.005	U	U	0.025	U	9.0		0.003	U	0.094	0.020		
EP-43	2/25/99	EPRI-9902-176	GW			7.8	7140		1.3	0.005	U	U	0.025	U	0.48	J4	0.003	U	0.17	0.020	U	
EP-43 D	2/25/99	EPRI-9902-196	GW			7.7	7090		1.1	0.005	U	U	0.025	U	0.77	J4	0.003	U	0.19	0.020	U	
EP-43	5/14/99	EPRI-9905-117	GW			7.4	8600	J3	0.37	0.005	U	U	0.025	U	0.96		0.003	U	0.34	J4	0.029	
EP-43	08/11/99	EPRI-9908-117	GW	2	7.57	7.5	8070	6880	0.33	0.005	U	U	0.025	U	1.8		0.003	U	0.27	0.02	U	
EP-43 D	08/11/99	EPRI-9908-206	GW	1.3	7.61	7.5	8060	6890	0.32	0.005	U	U	0.025	U	1.7		0.003	U	0.26	0.023	UJ1	
Average				1.06	7.27	7.50	6880	6807	1.390	0.005	0.010	0.025	1.773	0.003	0.266	0.023	0.003		0.266	0.023		
Median				1.16	7.2	7.5	7115	6355	0.780	0.005	0.010	0.025	1.030	0.003	0.225	0.020	0.003		0.225	0.020		
Standard Deviation				0.71	0.28	0.18	1730	2729	2.003	0.000	0.000	0.000	2.609	0.000	0.180	0.007	0.000		0.180	0.007		
Minimum				0.03	6.94	7.20	4720	4480	0.320	0.005	0.010	0.025	0.150	0.003	0.053	0.020	0.003		0.053	0.020		
Maximum				2.00	7.61	7.80	9590	11980	7.000	0.005	0.010	0.025	9.000	0.004	0.610	0.040	0.004		0.610	0.040		
EP-49	11/19/97	EPRI-9711-117	GW			3.50	11740		207	43	0.24	5.1	1732	0.11	0.11	579			0.11	579		
EP-49	02/19/98	EPRI-9802-117	GW			4.00	11440		464	43	0.047	0.089	2381	0.014	0.14	1900			0.14	1900		
EP-49	05/21/98	EPRI-9805-117	GW			3.60	10920		274	43	0.1	0.004	1609	0.004	0.19	1138			0.19	1138		
EP-49	8/27/98	EPRI-9808-117	GW			5.3	11000		417	40	0.050	U	1833	0.048	0.10	1499			0.10	1499		
EP-49	11/16/98	EPRI-9811-117	GW			3.7	10800		294	38	0.037	0.025	1541	0.003	0.10	975			0.10	975		
EP-49	2/25/99	EPRI-9902-117	GW			4.5	12320		320	26	0.050	U	1266	0.003	0.25	789			0.25	789		
EP-49	5/14/99	EPRI-9905-118	GW			4.2	10570	J3	0.302	29	0.011	0.031	1548	0.005	0.12	1063			0.12	1063		
Average																						
Median																						
Standard Deviation																						
Minimum																						
Maximum																						

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
Maximum					5.30	4.50	12320		464.0	43.0	0.240	5.100	2381	0.110	0.250	1900.0
EP-51	08/26/97	EPRI-9708-118	GW	9.4	7.25	7.30	11800	10630	0.033	0.034	0.029	0.076	1.4	0.003	U	0.22
EP-51	11/06/97	EPRI-9711-118	GW	2.35	6.58	7.30	11670	12140	0.29	0.18	0.031	0.19	2.2	0.003	U	0.16
EP-51 D	11/06/97	EPRI-9711-174	GW		7.20	7.20	11440		0.28	0.21	0.022	0.19	2.2	0.003	U	0.19
EP-51	02/12/98	EPRI-9802-118	GW	0.03	5.85	6.90	11070	13050	10	3.9	0.01	5.6	1.8	0.003	U	0.17
EP-51	05/11/98	EPRI-9805-118	GW	1.42	6.29	8.20	11800	9890	0.26	0.15	0.01	0.44	0.54	0.003	U	0.13
EP-51	8/12/98	EPRI-9808-118	GW	3.59	6.71	7.2	10080	9720	0.25	0.076	0.010	0.30	0.98	0.003	U	0.24
EP-51	11/5/98	EPRI-9811-118	GW	1	6.67	6.8	9840	8180	0.079	0.062	0.013	0.26	2.0	0.003	U	0.25
EP-51 D	11/5/98	EPRI-9811-178			6.9	6.9	9820		0.11	0.061	0.014	0.24	2.0	0.003	U	0.25
EP-51	2/9/99	EPRI-9902-118	GW	2.1	6.86	7.4	9060	8760	0.12	0.078	0.017	0.094	3.2	J4	U	0.23
EP-51 D	2/9/99	EPRI-9902-183	GW	2.1	6.87	7.4	9140	8780	0.11	0.075	0.016	0.077	2.6	J4	U	0.23
EP-51	5/6/99	EPRI-9905-119	GW	1.2	6.63	7.3	9870	9760	0.3	0.049	0.010	0.098	1.5	0.003	U	0.25
EP-51	08/04/99	EPRI-9908-119	GW		6.87	7.2	11040	9560	0.44	0.034	0.01	0.049	0.1	U	0.23	0.35
EP-51 D	08/04/99	EPRI-9908-196	GW		6.88	7.2	11020	9570	0.46	0.033	0.01	0.047	0.1	U	0.24	0.34
Average				2.58	6.68	7.25	10588	10004	0.979	0.380	0.016	0.589	1.586	0.003	0.215	6.120
Median				2.10	6.71	7.2	11020	9720	0.260	0.075	0.013	0.190	1.800	0.003	0.230	1.000
Standard Deviation				2.75	0.36	0.34	992	1454	2.714	1.059	0.007	1.510	0.944	0.000	0.039	16.558
Minimum				0.03	5.85	6.80	9060	8180	0.033	0.033	0.010	0.047	0.100	0.003	0.130	0.340
Maximum				9.40	7.25	8.20	11800	13050	10.000	3.900	0.031	5.600	3.200	0.003	0.250	61.000
EP-52	11/06/97	EPRI-9711-173	GW		6.10	7.10	9750	11000	0.97	0.64	0.017	0.53	0.55	0.044	0.36	2.6
EP-52	02/12/98	EPRI-9802-176	GW	2	6.03	6.90	10870	13320	1.6	0.71	0.01	0.45	0.55	0.043	0.3	3.6
EP-52	8/12/98	EPRI-9808-176	GW	3.33	6.17	7.0	10580	10850	1.6	0.56	0.010	0.69	0.10	U	0.34	2.6
EP-52 D	8/12/98	EPRI-9808-182	GW		7.1	7.1	10560		1.7	0.59	0.010	0.70	0.10	U	0.36	2.8
EP-52	11/5/98	EPRI-9811-176	GW	2.3	6.28	6.6	11100	9710	1.7	0.60	0.010	0.59	0.10	U	0.35	2.9
EP-52	2/9/99	EPRI-9902-119	GW	4.9	6.38	7.1	11150	11040	0.23	0.59	0.032	0.41	1.7	J4	0.25	3.9
EP-52	5/6/99	EPRI-9905-120	GW	1.7	6.2	7.3	11250	11880	0.81	1.9	0.057	0.35	2.5	0.031	0.38	3.1
EP-52	08/05/99	EPRI-9908-120	GW	0.7	6.21	7.2	11190	12290	1	0.51	0.024	0.36	0.59	0.041	0.28	2.1
Average				2.49	6.20	7.04	10806	11441	1.201	0.763	0.021	0.510	0.774	0.051	0.328	2.950
Median				2.15	6.2	7.1	10985	11040	1.300	0.595	0.014	0.490	0.550	0.044	0.345	2.850
Standard Deviation				1.46	0.11	0.21	504	1165	0.535	0.463	0.017	0.140	0.873	0.033	0.046	0.578
Minimum				0.70	6.03	6.60	9750	9710	0.230	0.510	0.010	0.350	0.100	0.021	0.250	2.100
Maximum				4.90	6.38	7.30	11250	13320	1.700	1.900	0.057	0.700	2.500	0.130	0.380	3.900
EP-53	08/11/97	EPRI-9708-172	GW	7.74	6.58	7.20	7790	7300	51	1.3	0.01	0.025	0.1	U	0.76	3.6
EP-53	02/04/98	EPRI-9802-178	GW	1.43	6.43	7.00	7590	9580	63	1.4	0.01	0.032	0.1	J4	1.7	4.3
EP-53	8/12/98	EPRI-9808-178	GW	0.99	6.66	7.2	7550	5010	62	1.4	0.010	0.025	0.10	U	1.2	4.5
EP-53	11/5/98	EPRI-9811-179	GW	1.1	7.08	6.8	7980	6540	56	1.6	0.010	0.025	0.10	J4	2.0	5.2
EP-53	2/4/99	EPRI-9902-120	GW	1.8	6.44	7.1	7040	7780	55	1.7	0.010	0.025	0.1	U	1.4	5.7
EP-53	5/5/99	EPRI-9905-121	GW	1.6	6.63	7.3	7120	15650	54	1.4	0.010	0.025	0.10	U	1.1	4.6

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS						
EP-53	08/04/99	EPRI-9908-121	GW		6.85	7.1	7190	7240	44	0.46	0.01	U	0.025	U	0.003	U	0.1	0.003	U	0.75	1.2	
Average																						
Median				2.44	6.67	7.10	7466	8443	55.000	1.323	0.010	0.026	0.100	0.003	1.273	4.157						
Standard Deviation				1.52	6.63	7.1	7550	7300	55.000	1.400	0.010	0.025	0.100	0.003	1.200	4.500						
Minimum				2.61	0.23	0.16	358	3460	6.481	0.405	0.000	0.003	0.000	0.000	0.465	1.464						
Maximum				0.99	6.43	6.80	7040	5010	44.000	0.460	0.010	0.025	0.100	0.003	0.750	1.200						
				7.74	7.08	7.30	7980	15650	63.000	1.700	0.010	0.032	0.100	0.003	2.000	5.700						
EP-54	08/11/97	EPRI-9708-119A	GW	1.64	6.06			10470														
EP-54 D	08/26/97	EPRI-9708-119	GW		6.60	6.90	11340	1980	22	5.7	0.01	U	0.18	0.003	U	0.075	13	0.003	U	0.075	113	
EP-54	11/06/97	EPRI-9711-119	GW	2.51	6.14	6.80	10750	12010	29	4.5	0.01	U	0.57	0.003	U	0.071	14	0.003	U	0.071	94	
EP-54	02/12/98	EPRI-9802-119	GW	1.94	5.98	7.40	10100	11060	27	2	0.01	U	0.21	0.003	U	0.065	2.3	0.003	U	0.065	41	
EP-54	05/11/98	EPRI-9805-119	GW	1.93	6.20	7.10	9780	11910	50	1.5	0.01	U	0.12	0.011		0.082	3.4	0.011		0.082	32	
EP-54	8/12/98	EPRI-9808-119	GW	3.35	6.31	7.2	10200	11320	59	0.84	0.010	U	0.060	0.035		0.065	2.1	0.035		0.065	17	
EP-54	11/5/98	EPRI-9811-119	GW	5.8	6.48	6.7	10680	9280	50	14	0.7	U	0.086	0.24	J4	0.11	0.24	J4	0.007	0.11	12	
EP-54	2/9/99	EPRI-9902-121	GW	5.7	6.6	7.4	10500	10150	50	0.55	0.010	U	0.066	0.36	J4	0.098	0.36	J4	0.004	0.098	10	
EP-54	5/6/99	EPRI-9905-122	GW	5.9	6.35	7.1	9540	11490	56	0.53	0.010	U	0.059	0.22		0.070	0.22		0.005	0.070	9.2	
EP-54 D	5/7/99	EPRI-9905-122	GW	2.6	6.43	7.7	8980	9300	47	0.47	0.010	U	0.089	0.1	U	0.11	0.1	U	0.003	0.11	8.0	
EP-54	08/04/99	EPRI-9908-122	GW		6.37	7	11000	11260	50	0.49	0.01	U	0.1	0.16		0.17	0.16		0.003	0.17	9.8	
Average				3.49	6.32	7.13	10287	10021	44.000	1.728	0.010	0.154	3.588	0.008	0.092	34.600				0.092		
Median				2.60	6.35	7.1	10350	11060	50.000	0.770	0.010	0.095	1.230	0.004	0.079	14.500				0.079		
Standard Deviation				1.80	0.21	0.31	715	2827	12.996	1.867	0.000	0.155	5.352	0.010	0.033	38.175				0.033		
Minimum				1.64	5.98	6.70	8980	1980	22.000	0.470	0.010	0.059	0.100	0.003	0.065	8.000				0.065		
Maximum				5.90	6.60	7.70	11340	12010	59.000	5.700	0.010	0.570	14.000	0.035	0.170	113.000				0.170		
EP-55	08/15/97	EPRI-9708-120	GW	1.85	6.17	7.00	10550	10700	62	0.13	0.01	U	0.025	0.02	0.28	200				0.28		
EP-55	11/19/97	EPRI-9711-120	GW	2.12	6.25	6.90	10480	12860	59	0.043	0.01	U	0.025	0.003	U	0.24	82	0.003	U	0.24	82	
EP-55	02/12/98	EPRI-9802-120	GW	1.21	5.95	6.90	10510	14030	57	0.042	0.01	U	0.025	0.003	U	0.19	71	0.003	U	0.19	71	
EP-55	05/20/98	EPRI-9805-120	GW	1.93	6.06	6.70	10280	10320	56	0.013	0.01	U	0.025	0.004	U	0.18	43	0.004	U	0.18	43	
EP-55	8/27/98	EPRI-9808-120	GW	0.94	6.15	6.4	9980	10020	61	0.008	0.010	U	0.025	0.003	U	0.068	35	0.003	U	0.068	35	
EP-55	11/16/98	EPRI-9811-120	GW	1.7	6.24	6.5	9940	9850	40	0.005	U	0.025	71	0.003	U	0.10	27	0.003	U	0.10	27	
EP-55	2/11/99	EPRI-9902-122	GW	0.9	6.31	6.7	10240	10350	55	0.005	U	0.025	95	0.003	U	0.079	41	0.003	U	0.079	41	
EP-55	5/14/99	EPRI-9905-123	GW	1	6.25	7.1	10510	10850	26	0.005	U	0.025	52	0.003	U	0.10	20	0.003	U	0.10	20	
EP-55	08/10/99	EPRI-9908-123	GW	0.5	6.33	6.9	10470	10550	25	0.005	U	0.025	35	0.003	U	0.026	12	0.003	U	0.026	12	
Average				1.35	6.19	6.79	10329	11059	49.000	0.028	0.010	0.025	96.889	0.005	0.140	59.000				0.140		
Median				1.21	6.24	6.9	10470	10550	56.000	0.008	0.010	0.025	84.000	0.003	0.100	41.000				0.100		
Standard Deviation				0.56	0.12	0.23	235	1418	14.782	0.041	0.000	0.000	56.607	0.006	0.086	57.515				0.086		
Minimum				0.50	5.95	6.40	9940	9850	25.000	0.005	0.010	0.025	35.000	0.003	0.026	12.000				0.026		
Maximum				2.12	6.33	7.10	10550	14030	62.000	0.130	0.010	0.025	229.000	0.020	0.280	200.000				0.280		
EP-56	08/11/97	EPRI-9708-121A	GW	2.51	7.34			5470														

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp. #	Type	(O) (ftd)	pH (ftd)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (ftd)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS	
EP-56 D	08/26/97	EPRI-9708-121	GW		7.25	7.60	5600	1063	1.9	0.004	0.01	U	0.025	U	0.003	0.048	0.026
EP-56	11/04/97	EPRI-9711-121	GW	0.77	7.12	7.60	5520	5930	2.9	0.005	U	0.025	U	0.003	U	0.057	0.022
EP-56	02/04/98	EPRI-9802-121	GW	1.81	7.14	7.80	5520	6620	2.2	0.005	U	0.027	J4	U	0.048	0.025	J4
EP-56	05/07/98	EPRI-9805-121	GW	1.08	7.03	7.60	5500	7170	1.9	0.005	U	0.025	U	0.003	0.058	0.039	
EP-56	8/12/98	EPRI-9808-121	GW	0.98	7.15	7.6	5520	5600	1.5	0.005	U	0.025	U	0.003	U	0.036	0.021
EP-56	11/4/98	EPRI-9811-121	GW	1.2	6.38	7.3	5600	7230	1.0	J4	U	0.025	U	0.003	0.018	0.020	U
EP-56	2/4/99	EPRI-9902-123	GW	1	7.23	7.6	5600	6130	0.74	J4	U	0.025	U	0.004	0.011	0.037	UJ1
EP-56 D	2/4/99	EPRI-9902-179	GW	1	7.24	8.2	5640	6140	1.3	J4	U	0.025	U	0.004	0.013	0.032	UJ1
EP-56	5/4/99	EPRI-9905-124	GW	1.9	7.13	7.6	5580	5850	1.3	0.005	U	0.025	U	0.005	0.015	0.037	
EP-56	08/04/99	EPRI-9908-124	GW		7.17	7.5	5390	5460	2.8	0.005	U	0.025	U	0.004	0.026	0.02	U
Average				1.36	7.11	7.64	5547	5697	1.754	0.005	0.010	0.025	U	0.004	0.033	0.028	
Median				1.08	7.15	7.6	5550	5930	1.700	0.005	0.010	0.025	U	0.003	0.031	0.026	
Standard Deviation				0.58	0.25	0.23	72	1656	0.724	0.000	0.000	0.001	0.000	0.001	0.019	0.008	
Minimum				0.77	6.38	7.30	5390	1063	0.740	0.004	0.010	0.025	U	0.003	0.011	0.020	
Maximum				2.51	7.34	8.20	5640	7230	2.900	0.005	0.010	0.027	U	0.005	0.058	0.039	
EP-57	08/16/97	EPRI-9708-122	GW	1	7.30	7.90	3330	3370	1.1	0.005	U	0.025	U	0.003	U	0.03	0.027
EP-57	11/14/97	EPRI-9711-122	GW	1.72	7.01	7.40	3070	3500	0.97	0.005	U	0.025	U	0.003	U	0.005	U
EP-57	02/18/98	EPRI-9802-122	GW	0.78	7.01	7.50	2900	3530	0.98	J4	U	0.025	U	J4	U	0.005	U
EP-57	05/18/98	EPRI-9805-122	GW	1.01	7.18	7.50	2610	2440	0.79	0.005	U	0.025	U	0.003	U	0.005	U
EP-57	8/24/98	EPRI-9808-122	GW	0.23	7.01	7.7	3250	2840	0.60	0.005	U	0.025	U	0.003	U	0.010	U
EP-57	11/16/98	EPRI-9811-122	GW	0.3	7.07	7.6	2070	1913	0.52	0.005	U	0.025	U	0.003	U	0.020	U
EP-57	2/24/99	EPRI-9902-124	GW	0.2	7.15	7.7	3020	3460	0.56	0.005	U	0.025	U	0.003	U	0.028	U
EP-57	5/13/99	EPRI-9905-125	GW	0.6	7.11	7.8	2340	2120	0.35	0.005	U	0.025	U	0.003	U	0.640	U
EP-57	08/10/99	EPRI-9908-125	GW	0.3	7.07	7.6	2670	2560	0.25	0.005	U	0.025	U	0.003	U	0.005	U
Average				0.64	7.08	7.60	2741	2795	0.628	0.005	0.010	0.025	U	0.003	0.088	0.020	
Median				0.45	7.07	7.6	2785	2700	0.580	0.005	0.010	0.025	U	0.003	0.005	0.020	
Standard Deviation				0.52	0.07	0.13	397	643	0.268	0.000	0.000	0.000	0.092	0.000	0.223	0.001	
Minimum				0.20	7.01	7.40	2070	1913	0.250	0.005	0.010	0.025	U	0.003	0.005	0.020	
Maximum				1.72	7.18	7.80	3250	3530	0.980	0.005	0.010	0.025	U	0.003	0.640	0.022	
EP-58	08/16/97	EPRI-9708-123	GW	0.24	6.54	6.90	11230	11340	1.4	0.005	U	0.025	U	0.003	U	0.16	0.022
EP-58	11/14/97	EPRI-9711-123	GW	0.84	6.54	6.90	11480	14130	4.8	0.005	U	0.025	U	0.003	U	0.027	0.024
EP-58	02/18/98	EPRI-9802-123	GW	0.79	6.38	6.80	11510	13740	4.2	0.005	U	0.025	U	J4	U	0.027	U
EP-58	05/18/98	EPRI-9805-123	GW	0.43	6.35	6.80	11500	11490	4.5	0.005	U	0.025	U	0.003	U	0.034	0.023
EP-58	8/24/98	EPRI-9808-123	GW	0.8	6.4	7.0	11600	11680	4.1	0.005	U	0.025	U	0.003	U	0.046	0.030
EP-58	11/16/98	EPRI-9811-123	GW	1.3	6.39	7.2	11580	11290	3.7	0.005	U	0.025	U	0.003	U	0.036	0.020
EP-58	2/24/99	EPRI-9902-125	GW	1	6.53	7.8	11510	13950	3.7	0.005	U	0.025	U	0.003	U	0.030	0.020
EP-58	5/13/99	EPRI-9905-126	GW	0.9	6.38	7.2	11660	10090	5.1	0.005	U	0.025	U	0.003	U	0.034	0.020
EP-58	08/10/99	EPRI-9908-126	GW	0.5	6.49	8	11590	11610	4.1	0.005	U	0.025	U	0.003	U	0.019	0.02

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
Average				0.76	6.44	7.18	11518	12147	3.956	0.005	0.010	0.025	1.277	0.003	0.046	0.022
Median				0.80	6.4	7	11510	11610	4.100	0.005	0.010	0.025	1.000	0.003	0.034	0.020
Standard Deviation				0.32	0.08	0.44	123	1426	1.065	0.000	0.000	0.000	0.600	0.000	0.043	0.003
Minimum				0.24	6.35	6.80	11230	10090	1.400	0.005	0.010	0.025	0.900	0.003	0.019	0.020
Maximum				1.30	6.54	8.00	11660	14130	5.100	0.005	0.011	0.025	2.700	0.003	0.160	0.030
EP-59	08/09/97	EPRI-9708-124	GW	2.08	6.98	7.70	4780	4750	3.6	0.005	0.01	0.025	U	0.003	U	0.023
EP-59	11/05/97	EPRI-9711-124	GW	0.2	7.23	7.60	4660	5340	3.8	0.005	0.01	0.025	U	0.003	U	0.021
EP-59	02/05/98	EPRI-9802-124	GW	1.06	7.09	7.30	4640	5630	3.4	0.005	0.01	0.025	U	0.003	U	0.02
EP-59	05/08/98	EPRI-9805-124	GW	1.33	7.13	7.70	4800	5600	3.1	0.005	0.01	0.025	U	0.003	U	0.043
EP-59	8/10/98	EPRI-9808-124	GW	1.75	7.09	7.4	4850	4750	3.2	0.005	0.010	0.025	U	0.003	U	0.046
EP-59 D	8/10/98	EPRI-9808-184	GW			7.4	4850		3.2	0.005	0.010	0.025	U	0.003	U	0.059
EP-59	11/9/98	EPRI-9811-124	GW	2.7	7.04	7.4	4980	4980	2.9	0.007	0.010	0.025	U	0.003	U	0.22
EP-59	2/10/99	EPRI-9902-126	GW	0.7	7.13	7.6	5260	5320	2.6	0.005	0.010	0.025	U	0.003	U	0.045
EP-59 D	2/10/99	EPRI-9902-185	GW	0.7	7.14	8.3	5270	5230	2.6	0.005	0.010	0.025	U	0.003	U	0.055
EP-59	5/6/99	EPRI-9905-127	GW	0.8	7.01	7.4	5060	5400	3.1	0.005	0.010	0.025	U	0.003	U	0.039
EP-59	08/03/99	EPRI-9908-127	GW	0.4	7.18	7.4	4920	4950	2.8	0.005	0.01	0.025	U	0.003	U	0.02
Average				1.17	7.10	7.56	4915	5195	3.118	0.005	0.010	0.025	0.101	0.003	0.277	0.054
Median				0.93	7.11	7.4	4850	5275	3.100	0.005	0.010	0.025	0.100	0.003	0.290	0.043
Standard Deviation				0.79	0.08	0.28	212	322	0.384	0.001	0.000	0.000	0.003	0.000	0.049	0.057
Minimum				0.20	6.98	7.30	4640	4750	2.600	0.005	0.010	0.025	0.100	0.003	0.180	0.020
Maximum				2.70	7.23	8.30	5270	5630	3.800	0.007	0.010	0.025	0.110	0.003	0.330	0.220
EP-60	08/08/97	EPRI-9708-125	GW	2.44	6.98	7.50	9140	8840	0.007	0.005	0.011	0.025	U	0.003	U	0.026
EP-60	11/05/97	EPRI-9711-125	GW	0.16	6.99	7.50	8560	9660	0.005	U	0.01	0.025	U	0.003	U	0.021
EP-60	02/05/98	EPRI-9802-125	GW	1.7	6.95	7.30	8780	10210	0.009	0.005	0.01	0.034	0.4	0.003	U	0.027
EP-60	05/08/98	EPRI-9805-125	GW	1.23	7.24	7.60	8880	9880	0.008	0.005	0.01	0.025	U	0.003	U	0.052
EP-60	8/10/98	EPRI-9808-125	GW	3.77	7.06	7.7	8700	8310	0.007	0.005	0.010	0.025	U	0.003	U	0.055
EP-60	11/9/98	EPRI-9811-125	GW	3.6	7.21	7.7	8480	8240	0.009	0.005	0.010	0.025	U	0.003	U	0.15
EP-60	2/10/99	EPRI-9902-127	GW	1.9	7	7.8	8670	8650	0.009	0.005	0.010	0.025	U	0.003	U	0.059
EP-60	5/6/99	EPRI-9905-132	GW	0.7	6.8	7.4	8670	9010	0.007	0.005	0.010	0.025	U	0.003	U	0.027
EP-60	08/03/99	EPRI-9908-128	GW	3	7.18	7.6	8570	8410	0.006	0.005	0.01	0.025	U	0.003	U	0.02
Average				2.06	7.05	7.57	8717	9023	0.007	0.005	0.010	0.026	0.394	0.003	0.236	0.049
Median				1.90	7	7.6	8670	8840	0.007	0.005	0.010	0.025	0.180	0.003	0.240	0.027
Standard Deviation				1.26	0.14	0.16	199	726	0.001	0.000	0.000	0.003	0.408	0.000	0.017	0.041
Minimum				0.16	6.80	7.30	8480	8240	0.005	0.005	0.010	0.025	0.100	0.003	0.200	0.020
Maximum				3.77	7.24	7.80	9140	10210	0.009	0.005	0.011	0.034	1.300	0.003	0.260	0.150
EP-61	08/16/97	EPRI-9708-126	GW	2.3	7.15	7.90	9290	9210	0.005	U	0.01	0.025	U	0.003	U	0.021
EP-61	11/14/97	EPRI-9711-126	GW	1.71	6.93	7.20	9080	11290	0.011	0.005	0.01	0.025	U	0.003	U	0.021
EP-61	02/18/98	EPRI-9802-126	GW	1.68	6.85	7.30	9200	10350	0.025	J4	0.01	0.025	U	0.003	U	0.02

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (ftd)	pH (ftd)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (ftd)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
EP-61 D	02/18/98	EPRI-9802-180	GW	1.68	6.85	7.40	9190	10350	0.015 J4	0.005 J4	0.01	0.025 U	1	0.003 U	0.35 U	0.02 U, U, J4
EP-61	05/18/98	EPRI-9805-126	GW	0.51	6.95	7.30	8860	8810	0.008	0.005 U	0.01	0.025 U	0.18	0.003 U	0.31 U	0.022
EP-61	8/24/98	EPRI-9808-126	GW	0.74	7.03	7.5	8620	8710	0.011	0.005 U	0.010	0.025 U	0.13	0.003 U	0.26 U	0.022
EP-61	11/16/98	EPRI-9811-126	GW	1.1	7.02	7.6	8530	8320	0.008	0.005 U	0.010	0.025 U	0.11	0.003 U	0.29 U	0.02
EP-61	2/24/99	EPRI-9902-128	GW	0.6	7.17	7.6	8320	9720	0.073	0.005 U	0.011	0.025 U	0.18	0.003 U	0.22 U	0.020 U
EP-61	5/13/99	EPRI-9905-129	GW	0.9	6.78	8.0	8240	7360	0.011	0.005 U	0.015	0.025 U	0.26	0.003 U	0.29 U	0.020 U
EP-61	08/10/99	EPRI-9908-129	GW	1.1	7.15	7.7	8070	8060	0.014	0.005 U	0.014	0.025 U	0.3	0.003 U	0.3 U	0.02 U
Average				1.23	6.99	7.55	8740	9218	0.018	0.005 U	0.011	0.025 U	0.511	0.003 U	0.318	0.021
Median				1.10	6.985	7.55	8740	9010	0.011	0.005 U	0.010	0.025 U	0.280	0.003 U	0.305	0.020
Standard Deviation				0.58	0.14	0.26	445	1208	0.020	0.000	0.002	0.000	0.490	0.000	0.060	0.001
Minimum				0.51	6.78	7.20	8070	7360	0.005	0.005 U	0.010	0.025 U	0.110	0.003 U	0.220	0.020
Maximum				2.30	7.17	8.00	9290	11290	0.073	0.005 U	0.015	0.025 U	1.400	0.003 U	0.420	0.022
EP-62	08/09/97	EPRI-9708-127	GW	1.45	7.10	7.70	5050	5030	1.1	0.005 U	0.01	0.025 U	0.1	0.003 U	0.36 U	0.023 J2
EP-62	11/05/97	EPRI-9711-127	GW	1.16	7.09	7.70	5050	5580	1.2	0.005 U	0.01	0.025 U	0.1	0.003 U	0.39 U	0.023
EP-62	02/05/98	EPRI-9802-127	GW	3.07	7.16	7.40	5460	5980	0.84	0.005 U	0.01	0.026 U	0.1	0.003 U	0.39 U	0.023
EP-62	05/08/98	EPRI-9805-127	GW	2.87	7.21	7.70	4820	5480	0.96	0.005 U	0.01	0.025 U	0.1	0.003 U	0.38 U	0.039
EP-62	8/10/98	EPRI-9808-127	GW	4.33	7.16	7.7	4840	4770	1.2	0.005 U	0.010	0.025 U	0.10	0.003 U	0.36 U	0.069
EP-62	11/9/98	EPRI-9811-127	GW	1.6	7.3	7.5	4680	4710	0.99	0.011	0.010	0.025 U	0.10	0.003 U	0.36 U	0.14
EP-62	2/10/99	EPRI-9902-129	GW	4.8	7.41	8.5	4500	4600	0.77	0.024	0.010	0.025 U	0.10	0.003 U	0.27 U	0.13
EP-62	5/6/99	EPRI-9905-130	GW	3.8	7.1	7.6	4420	4600	0.83	0.005 U	0.010	0.025 U	0.10	0.003 U	0.28 U	0.039
EP-62	08/03/99	EPRI-9908-130	GW	2.1	7.29	7.4	4410	4470	0.77	0.005 U	0.01	0.025 U	0.1	0.003 U	0.31 U	0.028
Average				2.80	7.20	7.69	4803	5024	0.962	0.008	0.010	0.025 U	0.100	0.003 U	0.344	0.057
Median				2.87	7.16	7.7	4820	4770	0.960	0.005 U	0.010	0.025 U	0.100	0.003 U	0.360	0.039
Standard Deviation				1.32	0.11	0.33	347	532	0.173	0.006	0.000	0.000	0.000	0.000	0.046	0.047
Minimum				1.16	7.09	7.40	4410	4470	0.770	0.005 U	0.010	0.025 U	0.100	0.003 U	0.270	0.023
Maximum				4.80	7.41	8.50	5460	5980	1.200	0.024	0.010	0.026 U	0.100	0.003 U	0.390	0.140
EP-63	08/09/97	EPRI-9708-128	GW	2.83	7.13	7.80	8100	880	0.019	0.005 U	0.01	0.025 U	0.1	0.003 U	0.23 U	0.022 J2
EP-63	11/05/97	EPRI-9711-128	GW	0.33	7.16	7.80	8260	9220	0.021	0.005 U	0.01	0.025 U	0.11	0.003 U	0.21 U	0.025
EP-63	02/05/98	EPRI-9802-128	GW	2.23	7.08	7.40	8210	9590	0.02	0.005 U	0.01	0.029 U	0.2	0.003 U	0.2	0.03
EP-63	05/08/98	EPRI-9805-128	GW	1.58	7.15	7.60	8390	9360	0.022	0.005 U	0.01	0.025 U	0.1	0.003 U	0.22 U	0.052
EP-63	8/10/98	EPRI-9808-128	GW	1.86	7.16	7.7	8470	8270	0.02	0.005 U	0.010	0.025 U	0.10	0.003 U	0.24 U	0.066
EP-63	11/9/98	EPRI-9811-128	GW	1.4	7.28	7.6	8480	8430	0.025	0.005 U	0.010	0.025 U	0.10	0.003 U	0.24 U	0.11
EP-63	2/10/99	EPRI-9902-130	GW	1.3	7.27	7.8	8440	8590	0.027	0.005 U	0.010	0.025 U	0.10	0.003 U	0.21 U	0.039
EP-63	5/6/99	EPRI-9905-131	GW	1	7.04	7.6	8300	8450	0.02	0.005 U	0.010	0.025 U	0.10	0.003 U	0.16 U	0.028
EP-63 D	5/6/99	EPRI-9905-181	GW	0.9	7.04	7.7	8210	8450	0.018	0.005 U	0.010	0.025 U	0.1	0.003 U	0.17 U	0.022 J4
EP-63	08/03/99	EPRI-9908-131	GW	1.2	7.18	7.1	8140	8240	0.021	0.005 U	0.012	0.025 U	0.1	0.003 U	0.23 U	0.023
Average				1.46	7.15	7.61	8300	7948	0.021	0.005 U	0.010	0.025 U	0.111	0.003 U	0.211	0.042
Median				1.35	7.155	7.65	8280	8450	0.021	0.005 U	0.010	0.025 U	0.100	0.003 U	0.215	0.029

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
Standard Deviation				0.71	0.08	0.22	138	2530	0.003	0.000	0.001	0.001	0.031	0.000	0.028	0.028
Minimum				0.33	7.04	7.10	8100	880	0.018	0.005	0.010	0.025	0.100	0.003	0.160	0.022
Maximum				2.83	7.28	7.80	8480	9590	0.027	0.005	0.012	0.029	0.200	0.003	0.240	0.110
EP-64	08/09/97	EPRI-9708-129	GW	3.96	7.39	7.80	8590	9700	0.025	0.005	0.010	0.025	0.100	0.003	0.5	0.023
EP-64	11/05/97	EPRI-9711-129	GW	0.19	7.25	7.80	11000	13050	0.048	0.005	0.010	0.025	0.100	0.003	0.7	0.03
EP-64	02/05/98	EPRI-9802-129	GW	3.76	7.98	7.90	10420	10800	0.043	0.005	0.010	0.049	0.100	0.003	0.65	0.024
EP-64	05/08/98	EPRI-9805-129	GW	2.60	6.82	8.00	10000	10940	0.041	0.005	0.010	0.025	0.100	0.003	0.61	0.053
EP-64	8/10/98	EPRI-9808-129	GW	3	7.4	7.9	9540	9410	0.04	0.005	0.010	0.025	0.100	0.003	0.60	0.067
EP-64	11/9/98	EPRI-9811-129	GW	4	7.55	7.7	9490	9450	0.045	0.014	0.010	0.025	0.100	0.003	0.58	0.32
EP-64	2/10/99	EPRI-9902-131	GW	2.9	7.89	8.5	9520	9670	0.039	0.011	0.010	0.025	0.100	0.003	0.48	0.084
EP-64	5/6/99	EPRI-9905-128	GW	2.3	7.57	7.9	9280	9910	0.038	0.005	0.010	0.025	0.100	0.003	0.49	0.043
EP-64	08/03/99	EPRI-9908-132	GW	5	7.48	7.8	8380	9420	0.036	0.005	0.010	0.025	0.100	0.003	0.51	0.026
Average				3.08	7.48	7.92	9580	10261	0.039	0.007	0.010	0.028	0.100	0.003	0.569	0.074
Median				3.00	7.48	7.9	9520	9700	0.040	0.005	0.010	0.025	0.100	0.003	0.580	0.043
Standard Deviation				1.37	0.34	0.23	823	1194	0.007	0.003	0.000	0.008	0.000	0.000	0.078	0.094
Minimum				0.19	6.82	7.70	8380	9410	0.025	0.005	0.010	0.025	0.100	0.003	0.480	0.023
Maximum				5.00	7.98	8.50	11000	13050	0.048	0.014	0.010	0.049	0.100	0.003	0.700	0.320
EP-65	08/16/97	EPRI-9708-130	GW	0.35	7.15	7.70	7420	7360	0.005	0.005	0.010	0.025	0.100	0.003	0.33	0.02
EP-65	11/14/97	EPRI-9711-130	GW	1.4	7.02	7.60	7380	9180	0.013	0.005	0.010	0.025	0.100	0.003	0.29	0.02
EP-65	02/18/98	EPRI-9802-130	GW	0.84	7.07	7.50	7500	9190	0.009	0.005	0.010	0.025	0.100	0.003	0.2	0.02
EP-65	05/18/98	EPRI-9805-130	GW	0.56	7.10	7.30	7440	7310	0.007	0.005	0.010	0.025	0.100	0.003	0.16	0.02
EP-65	8/24/98	EPRI-9808-130	GW	0.27	7.02	7.5	7330	7390	0.006	0.005	0.010	0.025	0.100	0.003	0.14	0.020
EP-65	11/16/98	EPRI-9811-130	GW	0.6	7.08	7.6	7280	7060	0.007	0.005	0.010	0.025	0.100	0.003	0.15	0.020
EP-65	2/24/99	EPRI-9902-132	GW	0.4	7.16	7.7	6980	8290	0.007	0.005	0.010	0.025	0.100	0.003	0.17	0.020
EP-65 D	2/24/99	EPRI-9902-194	GW	0.4	7.16	7.7	7010	8280	0.008	0.005	0.010	0.025	0.100	0.003	0.18	0.020
EP-65	5/13/99	EPRI-9905-133	GW	1	6.98	7.7	6740	6010	0.006	0.005	0.010	0.025	0.100	0.003	1.3	0.020
EP-65	08/10/99	EPRI-9908-133	GW	0.3	7.14	7.8	6610	6660	0.006	0.005	0.010	0.025	0.100	0.003	0.17	0.021
EP-65 D	08/10/99	EPRI-9908-204	GW	0.3	7.14	7.7	6610	6660	0.005	0.005	0.010	0.025	0.100	0.003	0.17	0.02
Average				0.58	7.09	7.62	7118	7581	0.007	0.005	0.010	0.025	0.159	0.003	0.296	0.020
Median				0.40	7.1	7.7	7280	7360	0.007	0.005	0.010	0.025	0.120	0.003	0.170	0.020
Standard Deviation				0.36	0.06	0.14	342	1036	0.002	0.000	0.000	0.000	0.085	0.000	0.338	0.000
Minimum				0.27	6.98	7.30	6610	6010	0.005	0.005	0.010	0.025	0.100	0.003	0.140	0.020
Maximum				1.40	7.16	7.80	7500	9190	0.013	0.005	0.010	0.025	0.300	0.003	1.300	0.021
EP-66	08/08/97	EPRI-9708-131	GW	6.7	7.05	7.50	8390	8370	13	0.005	0.011	0.025	0.100	0.003	0.26	0.046
EP-66	11/05/97	EPRI-9711-131	GW	1.3	6.80	7.50	7920	9020	11	0.005	0.010	0.025	0.150	0.003	0.26	0.027
EP-66	02/05/98	EPRI-9802-131	GW	4.42	7.09	7.60	7220	8290	9.7	0.005	0.010	0.032	0.100	0.003	0.26	0.024
EP-66	05/08/98	EPRI-9805-131	GW	2.99	7.39	7.70	7690	8980	10	0.005	0.010	0.025	0.100	0.003	0.25	0.059
EP-66	8/10/98	EPRI-9808-131	GW	6.54	6.95	7.5	8130	7820	11	0.007	0.010	0.025	0.100	0.003	0.30	0.092

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
EP-66	11/9/98	EPRI-9811-131	GW	5.3	7.09	7.4	7440	7530	8.6	0.078	0.010	0.066	0.10	0.003	0.24	0.63
EP-66	2/10/99	EPRI-9902-133	GW	5.3	7.17	8.0	7720	7700	9.1	0.034	0.010	0.025	0.10	0.003	0.20	0.22
EP-66	5/6/99	EPRI-9905-134	GW	5.5	6.98	7.5	7620	8660	9.9	0.011	0.010	0.025	0.10	0.003	0.20	0.094
EP-66	08/04/99	EPRI-9908-134	GW		7	7.8	8000	7680	10	0.005	0.01	0.025	0.1	0.003	0.28	0.022
Average				4.76	7.06	7.61	7792	8228	10.256	0.017	0.010	0.030	0.106	0.003	0.250	0.135
Median				5.30	7.05	7.5	7720	8290	10.000	0.005	0.010	0.025	0.100	0.003	0.260	0.059
Standard Deviation				1.82	0.16	0.19	358	574	1.289	0.025	0.000	0.014	0.017	0.000	0.033	0.196
Minimum				1.30	6.80	7.40	7220	7530	8.600	0.005	0.010	0.025	0.100	0.003	0.200	0.022
Maximum				6.70	7.39	8.00	8390	9020	13.000	0.078	0.011	0.066	0.150	0.003	0.300	0.630
EP-67	08/12/97	EPRI-9708-132	GW	1.5	6.74	7.60	4400	4490	0.015	0.005	0.010	0.025	0.1	0.003	0.14	0.022
EP-67	11/07/97	EPRI-9711-132	GW	0.9	6.84	7.40	4460	5000	0.042	0.005	0.010	0.025	0.1	0.003	0.15	0.038
EP-67	02/11/98	EPRI-9802-132	GW	1.71	6.66	7.30	4470	5820	0.015	0.005	0.010	0.025	0.1	0.003	0.13	0.02
EP-67	02/11/98	EPRI-9802-179	GW	1.71	6.66	7.30	4480	5820	0.015	0.005	0.010	0.025	0.1	0.003	0.13	0.02
EP-67	05/12/98	EPRI-9805-132	GW	0.94	6.94	7.20	4440	4450	0.015	0.005	0.010	0.025	0.1	0.003	0.14	0.028
EP-67	8/13/98	EPRI-9808-132	GW	1.09	6.79	7.6	4360	4310	0.013	0.005	0.010	0.025	0.1	0.003	0.15	0.031
EP-67	11/10/98	EPRI-9811-132	GW	1.6	6.77	7.4	4370	4350	0.021	0.005	0.010	0.025	0.1	0.003	0.12	0.080
EP-67	2/10/99	EPRI-9902-134	GW	1.7	6.91	7.7	4340	4400	0.016	0.005	0.010	0.025	0.1	0.003	0.13	0.043
EP-67	5/7/99	EPRI-9905-135	GW	1.3	6.81	7.3	4440	4820	0.020	0.005	0.010	0.025	0.1	0.003	0.11	0.031
EP-67	08/05/99	EPRI-9908-135	GW		6.86	7.7	4330	4860	0.02	0.005	0.010	0.025	0.1	0.003	0.12	0.037
Average				1.38	6.80	7.45	4409	4832	0.019	0.005	0.010	0.025	0.100	0.003	0.132	0.035
Median				1.50	6.8	7.4	4420	4655	0.016	0.005	0.010	0.025	0.100	0.003	0.130	0.031
Standard Deviation				0.33	0.09	0.18	56	571	0.008	0.000	0.000	0.000	0.000	0.000	0.013	0.018
Minimum				0.90	6.66	7.20	4330	4310	0.013	0.005	0.010	0.025	0.100	0.003	0.110	0.020
Maximum				1.71	6.94	7.70	4480	5820	0.042	0.005	0.010	0.025	0.100	0.003	0.150	0.080
EP-68	08/14/97	EPRI-9708-133	GW	6.38	7.14	7.70	5430	5290	0.005	0.005	0.010	0.025	0.1	0.003	0.33	0.024
EP-68 D	08/14/97	EPRI-9708-174	GW	6.38	7.14	7.70	5330	5290	0.005	0.005	0.010	0.025	0.1	0.003	0.33	0.02
EP-68	11/11/97	EPRI-9711-133	GW	6.09	7.11	7.30	5440	5590	0.005	0.005	0.010	0.025	0.1	0.003	0.32	0.023
EP-68	02/11/98	EPRI-9802-133	GW	7.59	6.93	7.70	4980	6080	0.005	0.005	0.010	0.025	0.1	0.003	0.28	0.02
EP-68	05/13/98	EPRI-9805-133	GW	5.87	7.17	7.40	5690	5320	0.009	0.005	0.010	0.025	0.1	0.003	0.33	0.02
EP-68 D	05/13/98	EPRI-9805-179	GW			8.10	5740		0.01	0.005	0.010	0.025	0.1	0.003	0.34	0.02
EP-68	8/13/98	EPRI-9808-133	GW	6.52	7.16	7.8	4260	3990	0.007	0.005	0.010	0.025	0.1	0.003	0.25	0.031
EP-68	11/9/98	EPRI-9811-133	GW	6.4	7.4	7.9	4480	4130	0.009	0.005	0.010	0.025	0.1	0.003	0.26	0.071
EP-68	2/18/99	EPRI-9902-135	GW	5.6	7.31	7.5	3840	3690	0.005	0.005	0.010	0.025	0.1	0.003	0.16	0.062
EP-68	5/10/99	EPRI-9905-136	GW	6	7.08	7.6	4030	3990	0.005	0.005	0.010	0.025	0.1	0.003	0.17	0.030
EP-68	08/05/99	EPRI-9908-136	GW		7.17	7.9	4780	4790	0.005	0.005	0.010	0.025	0.1	0.003	0.25	0.02
Average				6.31	7.16	7.69	4909	4816	0.006	0.005	0.010	0.025	0.100	0.003	0.275	0.031
Median				6.38	7.15	7.7	4980	5040	0.005	0.005	0.010	0.025	0.100	0.003	0.280	0.023
Standard Deviation				0.56	0.13	0.23	676	817	0.002	0.000	0.002	0.000	0.000	0.000	0.064	0.018

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (ftd)	pH (ftd)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (ftd)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
Minimum				5.60	6.93	7.30	3840	3690	0.005	0.005	0.010	0.025	0.100	0.003	0.160	0.020
Maximum				7.59	7.40	8.10	5740	6080	0.010	0.005	0.016	0.025	0.100	0.003	0.340	0.071
EP-70	11/07/97	EPRI-9711-135	GW	0.75	6.91	7.50	6740	7510	1.7	0.013	0.01	0.025	0.1	0.003	0.22	0.18
EP-70	02/11/98	EPRI-9802-135	GW	0.56	6.79	7.40	6600	8480	1.4	0.014	0.01	0.025	0.1	0.003	0.22	0.2
EP-70	05/12/98	EPRI-9805-135	GW	0.38	7.07	7.40	6290	6210	1.2	0.012	0.01	0.025	0.1	0.003	0.21	0.19
EP-70R	08/12/97	EPRI-9708-135A	GW	0.52	6.84			7150								
EP-70R	08/26/97	EPRI-9708-135	GW		7.19	7.90	6970	1291	2	0.01	0.01	0.025	0.1	0.003	0.24	0.15
EP-70R	08/26/97	EPRI-9708-180	GW		7.19	7.60	6970	1291	1.9	0.01	0.01	0.025	0.1	0.003	0.26	0.13
EP-70	8/13/98	EPRI-9808-135	GW	1.39	6.94	7.6	6150	5960	1.2	0.013	0.010	0.025	0.10	0.003	0.22	0.21
EP-70	11/10/98	EPRI-9811-135	GW	0.9	7.02	7.4	6320	6220	1.0	0.015	0.010	0.025	0.10	0.003	0.21	0.23
EP-70 D	11/10/98	EPRI-9811-180	GW	0.8	7.02	7.3	6310	6230	1.0	0.014	0.010	0.025	0.16	0.003	0.2	0.23
EP-70	2/10/99	EPRI-9902-136	GW	0.9	7.04	7.7	6080	6080	0.83	0.014	0.010	0.025	0.10	0.003	0.18	0.24
EP-70	5/7/99	EPRI-9905-137	GW	0.7	6.92	7.5	6230	6630	0.83	0.009	0.010	0.025	0.1	0.003	0.19	0.14
EP-70	08/05/99	EPRI-9908-137	GW		7.01	7	6020	6660	0.72	0.009	0.01	0.025	0.1	0.003	0.18	0.16
Average				0.77	7.00	7.48	6425	5809	1.253	0.012	0.010	0.025	0.100	0.003	0.212	0.187
Median				0.75	7.015	7.5	6310	6225	1.200	0.013	0.010	0.025	0.100	0.003	0.210	0.190
Standard Deviation				0.29	0.12	0.23	341	2229	0.444	0.002	0.000	0.000	0.000	0.000	0.024	0.038
Minimum				0.38	6.79	7.00	6020	1291	0.720	0.009	0.010	0.025	0.100	0.003	0.180	0.130
Maximum				1.39	7.19	7.90	6970	8480	2.000	0.015	0.010	0.025	0.100	0.003	0.260	0.240
EP-71R	08/12/97	EPRI-9708-136	GW	0.43	6.79	7.50	6480	6560	0.16	0.005	0.01	0.025	0.1	0.003	0.28	0.02
EP-71	11/07/97	EPRI-9711-136	GW	0.54	6.85	7.50	6470	7180	0.19	0.005	0.01	0.025	0.1	0.003	0.32	0.027
EP-71	02/11/98	EPRI-9802-136	GW	0.82	6.70	7.50	6770	8670	0.14	0.005	0.01	0.025	0.1	0.012	0.26	0.027
EP-71	05/12/98	EPRI-9805-136	GW	0.39	6.99	7.30	6440	6400	0.13	0.005	0.01	0.025	0.1	0.003	0.27	0.023
EP-71	8/13/98	EPRI-9808-136	GW	0.31	6.86	7.5	6290	6260	0.14	0.005	0.010	0.025	0.10	0.003	0.29	0.028
EP-71	11/10/98	EPRI-9811-136	GW	1.1	7	7.3	5750	5670	0.13	0.006	0.010	0.025	0.10	0.003	0.23	0.081
EP-71	2/10/99	EPRI-9902-137	GW	1	7.01	7.7	5940	5970	0.12	0.005	0.010	0.025	0.10	0.003	0.21	0.025
EP-71	08/05/99	EPRI-9908-138	GW		6.92	7.5	5850	6560	0.13	0.005	0.01	0.025	0.1	0.003	0.24	0.026
Average				0.66	6.89	7.48	6249	6659	0.143	0.005	0.010	0.025	0.100	0.004	0.263	0.032
Median				0.54	6.89	7.5	6365	6480	0.135	0.005	0.010	0.025	0.100	0.003	0.265	0.027
Standard Deviation				0.32	0.11	0.13	362	927	0.023	0.000	0.000	0.000	0.000	0.003	0.035	0.020
Minimum				0.31	6.70	7.30	5750	5670	0.120	0.005	0.010	0.025	0.100	0.003	0.210	0.020
Maximum				1.10	7.01	7.70	6770	8670	0.190	0.006	0.010	0.025	0.100	0.012	0.320	0.081
EP-72	08/12/97	EPRI-9708-137	GW	0.37	6.77	7.80	6220	6300	0.48	0.21	0.01	0.025	0.1	0.003	0.51	0.45
EP-72	11/07/97	EPRI-9711-137	GW	0.95	6.86	7.40	6040	6810	0.49	0.2	0.01	0.025	0.1	0.003	0.38	0.47
EP-72	02/11/98	EPRI-9802-137	GW	0.72	6.72	7.40	6030	7900	0.5	0.21	0.01	0.025	0.1	0.003	0.36	0.53
EP-72	05/13/98	EPRI-9805-137	GW	0.29	7.02	7.50	6030	5970	0.5	0.22	0.01	0.025	0.1	0.003	0.39	0.54
EP-72	8/13/98	EPRI-9808-137	GW	0.21	6.89	7.5	6050	6000	0.49	0.20	0.010	0.025	0.10	0.003	0.43	0.54
EP-72	11/10/98	EPRI-9811-137	GW	1.2	7	7.3	6090	6080	0.45	0.20	0.010	0.025	0.10	0.003	0.42	0.47

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS				
EP-72	11/10/98	EPRI-9811-137	GW	1.2	7	7.3	6090	6080	0.45	0.2	0.01	U	0.025	U	0.1	U	0.003	U	0.42	0.47
Average				0.71	6.89	7.46	6079	6449	0.480	0.206	0.010	0.025	0.100	0.003	0.416	0.496				
Median				0.72	6.89	7.4	6050	6080	0.490	0.200	0.010	0.025	0.100	0.003	0.420	0.470				
Standard Deviation				0.42	0.12	0.17	67	703	0.022	0.008	0.000	0.000	0.000	0.000	0.049	0.039				
Minimum				0.21	6.72	7.30	6030	5970	0.450	0.200	0.010	0.025	0.100	0.003	0.360	0.450				
Maximum				1.20	7.02	7.80	6220	7900	0.500	0.220	0.010	0.025	0.100	0.003	0.510	0.540				
EP-73	08/12/97	EPRI-9708-138	GW	5.73	6.88	7.90	6760	6760	0.031	0.005	U	0.025	U	0.1	U	0.003	U	1.1	0.03	
EP-73	11/13/97	EPRI-9711-138	GW	1.2	6.91	7.40	6520	8610	0.033	0.005	U	0.025	U	0.1	U	0.003	U	1.1	0.033	
EP-73	02/12/98	EPRI-9802-138	GW	0.97	6.84	7.60	6850	9340	0.023	J4	0.01	U	0.025	U	1.2	0.022				
EP-73	05/11/98	EPRI-9805-138	GW	1.43	6.62	7.70	6900	7810	0.11	0.01	0.01	U	0.025	U	1.3	0.15				
EP-73	8/17/98	EPRI-9808-138	GW	0.81	6.97	7.5	6700	6610	0.031	0.005	U	0.025	U	0.10	U	0.003	U	1.2	0.043	
EP-73	11/5/98	EPRI-9811-138	GW	6.2	7.13	7.4	6580	5750	0.039	J4	0.010	U	0.10	U	1.1	0.19				
EP-73	2/9/99	EPRI-9902-139	GW	2.7	7.13	7.7	6540	6340	0.038	0.005	0.010	U	0.10	U	0.93	0.067				
EP-73	5/7/99	EPRI-9905-140	GW	0.8	6.97	7.5	6700	7670	0.037	0.005	U	0.025	U	0.1	U	1.0	0.040			
EP-73 D	5/7/99	EPRI-9905-183	GW	0.8	6.96	7.7	6700	7680	0.034	0.005	U	0.025	U	0.1	U	1.0	0.038			
EP-73	08/05/99	EPRI-9908-140	GW	5.2	7.01	7.5	6550	7280	0.027	0.005	U	0.025	U	0.1	U	1.1	0.029			
Average				2.58	6.94	7.59	6680	7385	0.040	0.006	0.010	0.025	0.100	0.003	1.103	0.064				
Median				1.32	6.965	7.55	6700	7475	0.034	0.005	0.010	0.025	0.100	0.003	1.100	0.039				
Standard Deviation				2.24	0.15	0.16	132	1077	0.025	0.003	0.000	0.000	0.000	0.000	0.110	0.058				
Minimum				0.80	6.62	7.40	6520	5750	0.023	0.005	0.010	0.025	0.100	0.003	0.930	0.022				
Maximum				6.20	7.13	7.90	6900	9340	0.110	0.012	0.010	0.025	0.100	0.004	1.300	0.190				
EP-75	08/12/97	EPRI-9708-140	GW	1.54	6.84	7.40	19620	18940	12	0.036	0.01	U	0.054	U	5.3	0.15				
EP-75	11/13/97	EPRI-9711-140	GW	1.96	6.82	7.20	18340	21300	21	0.019	0.01	U	0.051	U	4	0.16				
EP-75	02/06/98	EPRI-9802-140	GW	1.11	6.86	7.20	19240	23900	18	0.022	0.01	U	0.086	J4	4.49	0.14				
EP-75	05/11/98	EPRI-9805-140	GW	2.40	6.52	7.50	20000	20000	17	0.041	0.1	U	0.1	U	5.1	0.15				
EP-75	8/17/98	EPRI-9808-140	GW	1.13	6.85	7.4	18700	17890	18	0.005	U	0.042	0.10	U	3.7	0.14				
EP-75	11/5/98	EPRI-9811-140	GW	5	6.9	7.2	19100	16900	18	0.025	0.010	U	0.058	J4	5.4	0.44				
EP-75	2/22/99	EPRI-9902-140	GW	6.8	6.94	7.3	18720	22000	17	0.010	0.01	U	0.061	U	3.8	0.21				
EP-75	5/10/99	EPRI-9905-141	GW	0.3	6.87	7.6	19390	20100	18	0.009	0.010	U	0.075	U	4.0	0.062				
EP-75	08/06/99	EPRI-9908-141	GW	0.4	6.86	7.2	16010	18110	17	0.005	0.01	U	0.066	U	3.8	0.11				
Average				2.29	6.83	7.33	18791	19904	17.333	0.019	0.020	0.066	0.248	0.004	4.399	0.174				
Median				1.54	6.86	7.3	19100	20000	18.000	0.019	0.010	0.061	0.100	0.003	4.000	0.150				
Standard Deviation				2.20	0.12	0.15	1159	2224	2.345	0.013	0.030	0.018	0.363	0.001	0.693	0.107				
Minimum				0.30	6.52	7.20	16010	16900	12.000	0.005	0.010	0.042	0.100	0.003	3.700	0.062				
Maximum				6.80	6.94	7.60	20000	23900	21.000	0.041	0.100	0.100	1.200	0.007	5.400	0.440				
EP-76	08/12/97	EPRI-9708-141	GW	0.35	7.39	8.00	5110	5170	0.48	0.005	U	0.025	U	0.1	U	0.007	0.14			
EP-76	11/11/97	EPRI-9711-141	GW	0.16	7.21	7.50	4670	5050	0.48	0.005	U	0.025	U	0.1	U	0.004	0.17			

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS				
EP-76	02/06/98	EPRI-9802-141	GW	0.34	7.22	7.60	4800	6000	0.54	0.005	U	U	0.025	U	0.1	J4	0.005	U	0.13	0.07
EP-76	05/11/98	EPRI-9805-141	GW	1.04	7.22	7.70	5000	5390	0.41	0.005	U	U	0.025	U	0.1	U	0.003	U	0.14	0.085
EP-76	8/17/98	EPRI-9808-141	GW	0.11	7.21	7.6	5070	5090	0.42	0.005	U	U	0.025	U	0.10	U	0.008	U	0.16	0.073
EP-76	11/5/98	EPRI-9811-141	GW	0.9	7.61	7.7	5680	5150	2.3	J4	0.010	U	0.050	U	0.10	U	0.023	U	0.51	0.15
EP-76	2/22/99	EPRI-9902-141	GW	4.4	7.34	7.6	5120	5860	0.77	0.005	U	U	0.025	U	0.1	U	0.005	U	0.16	0.054
EP-76	5/10/99	EPRI-9905-142	GW	0.7	7.05	7.6	5490	5550	1.7	0.005	U	U	0.025	U	0.56	U	0.004	U	0.26	0.057
Average				1.00	7.28	7.66	5118	5408	0.888	0.006	0.010		0.028		0.158		0.007		0.209	0.091
Median				0.53	7.22	7.6	5090	5280	0.510	0.005	0.010		0.025		0.100		0.005		0.160	0.076
Standard Deviation				1.42	0.17	0.15	332	364	0.714	0.002	0.000		0.009		0.163		0.007		0.128	0.041
Minimum				0.11	7.05	7.50	4670	5050	0.410	0.005	0.010		0.025		0.100		0.003		0.130	0.054
Maximum				4.40	7.61	8.00	5680	6000	2.300	0.010	0.010		0.050		0.560		0.023		0.510	0.160
EP-77	08/12/97	EPRI-9708-142	GW	3.83	6.98	8.40	5400	5350	5.6	0.012	0.01	U	0.025	U	0.1	U	0.006		0.034	0.025
EP-77	11/13/97	EPRI-9711-142	GW	1.5	7.02	7.60	5350	6550	6	0.013	0.01	U	0.025	U	0.1	U	0.005		0.019	0.022
EP-77 D	11/13/97	EPRI-9711-178	GW			7.60	5360	6910	5.7	0.012	0.01	U	0.025	U	0.1	U	0.005		0.024	0.022
EP-77	02/12/98	EPRI-9802-142	GW	1.1	7.00	7.50	5350	5320	5.7	0.015	0.01	U	0.025	U	0.1	U	0.005		0.007	0.024
EP-77	05/13/98	EPRI-9805-142	GW	0.71	7.23	7.50	5070	5730	5.4	0.016	0.01	U	0.025	U	0.1	U	0.005		0.018	0.031
EP-77	8/17/98	EPRI-9808-142	GW	0.82	7.09	7.5	5800	5600	6.1	0.018	0.010	U	0.025	U	0.10	U	0.005	U	0.019	0.037
EP-77	11/11/98	EPRI-9811-142	GW		7.3	7.5	5770	5600	6.8	0.020	0.010	U	0.025	U	0.10	U	0.003	U	0.014	0.063
EP-77	2/11/99	EPRI-9902-142	GW	0.9	7.23	7.8	5450	5450	6.2	0.016	0.010	U	0.025	U	0.10	U	0.005		0.025	0.025
EP-77	5/7/99	EPRI-9905-143	GW	1.1	7.08	7.6	5350	5800	7.6	0.011	0.010	U	0.025	U	0.1	U	0.004		0.015	0.025
EP-77	08/05/99	EPRI-9908-143	GW	1.2	7.14	7.4	5110	5640	7.2	0.01	0.01	U	0.025	U	0.1	U	0.003		0.025	0.024
Average				1.40	7.12	7.64	5399	5817	6.230	0.014	0.010		0.025		0.100		0.005		0.020	0.030
Median				1.10	7.09	7.55	5355	5640	6.050	0.014	0.010		0.025		0.100		0.005		0.019	0.025
Standard Deviation				1.01	0.11	0.29	237	550	0.735	0.003	0.000		0.000		0.000		0.001		0.007	0.013
Minimum				0.71	6.98	7.40	5070	5320	5.400	0.010	0.010		0.025		0.100		0.003		0.007	0.022
Maximum				3.83	7.30	8.40	5800	6910	7.600	0.020	0.010		0.025		0.100		0.006		0.034	0.063
EP-78	08/13/97	EPRI-9708-143	GW	0.25	7.78	8.00	2600	2640	6.3	0.005	U	U	0.025	U	0.1	U	0.003	U	0.35	0.023
EP-78	11/18/97	EPRI-9711-143	GW	0.74	7.77	7.90	2310	2940	5.6	0.005	U	U	0.025	U	0.1	U	0.003	U	0.24	0.02
EP-78 D	11/18/97	EPRI-9711-179	GW			7.90	2320	3780	5.6	0.005	U	U	0.025	U	0.1	U	0.003	U	0.24	0.02
EP-78	02/06/98	EPRI-9802-143	GW	0.73	7.69	7.90	2940	3780	5.9	0.005	U	U	0.025	U	0.1	J4	0.003	U	0.22	0.02
EP-78	05/14/98	EPRI-9805-143	GW	0.82	7.70	8.00	3730	3750	5.6	0.005	U	U	0.025	U	0.1	U	0.003	U	0.21	0.02
EP-78	8/19/98	EPRI-9808-143	GW	0.24	7.73	8.1	3660	3740	5.4	0.005	U	U	0.025	U	0.10	U	0.003	U	0.25	0.025
EP-78	11/11/98	EPRI-9811-143	GW	1	8.05	8.1	2220	2170	6.4	0.005	U	U	0.025	U	0.10	U	0.003	U	0.74	0.033
EP-78	2/18/99	EPRI-9902-143			7.9	7.9	3450		4.7	0.005	U	U	0.025	U	0.1	U	0.003	U	0.20	0.029
EP-78	5/11/99	EPRI-9905-144	GW	2.3	7.62	7.3	3750	3770	5.5	0.005	U	U	0.025	U	0.10	U	0.003	U	0.22	0.026
EP-78 D	5/11/99	EPRI-9905-186	GW	2.2	7.62	7.5	3740	3830	5.9	0.005	U	U	0.025	U	0.10	U	0.003	U	0.22	0.028
EP-78	08/09/99	EPRI-9908-144	GW	0.9	7.86	7.8	2520	2440	5.9	0.005	U	U	0.025	U	0.1	U	0.003	U	0.68	0.02
Average				1.02	7.76	7.85	3022	3229	5.709	0.005	0.010		0.025		0.100		0.003		0.325	0.024

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
Median				0.82	7.73	7.9	2940	3740	5.600	0.005	0.010	0.025	0.100	0.003	0.240	0.023
Standard Deviation				0.75	0.13	0.25	649	677	0.461	0.000	0.000	0.000	0.000	0.000	0.195	0.005
Minimum				0.24	7.62	7.30	2220	2170	4.700	0.005	0.010	0.025	0.100	0.003	0.200	0.020
Maximum				2.30	8.05	8.10	3750	3630	6.400	0.005	0.010	0.025	0.100	0.003	0.740	0.033
EP-79	08/13/97	EPRI-9708-144	GW	1.06	7.47	8.00	4890	4870	0.011	0.005	U	0.025	U	0.003	0.17	0.02
EP-79	11/18/97	EPRI-9711-144	GW	0.77	7.43	8.20	4900	6500	0.01	0.005	U	0.025	U	0.003	0.19	0.02
EP-79	02/06/98	EPRI-9802-144	GW	0.63	7.42	7.90	4940	6700	0.007	0.005	U	0.025	U	0.003	0.18	0.02
EP-79	05/14/98	EPRI-9805-144	GW	0.43	7.52	7.80	5080	5150	0.008	0.005	U	0.025	U	0.003	0.17	0.02
EP-79	8/19/98	EPRI-9808-144	GW	0.15	7.5	8.0	5330	5420	0.01	0.005	U	0.025	U	0.003	0.17	0.026
EP-79	11/11/98	EPRI-9811-144	GW	1.6	7.67	7.8	4710	4650	0.009	0.005	U	0.025	U	0.003	0.15	0.050
EP-79	2/18/99	EPRI-9902-144	GW	1	7.61	7.8	4650	4660	0.005	U	U	0.025	U	0.003	0.092	0.041
EP-79	5/11/99	EPRI-9905-145	GW	6.7	7.41	8.2	4900	4790	0.026	0.005	U	0.025	U	0.003	0.14	0.024
EP-79	08/09/99	EPRI-9908-145	GW	0.4	7.53	8	4730	4770	0.008	0.005	U	0.025	U	0.003	0.14	0.02
Average				1.42	7.51	7.97	4903	5279	0.010	0.005	0.011	0.025	0.100	0.003	0.156	0.027
Median				0.77	7.5	8	4900	4870	0.009	0.005	0.010	0.025	0.100	0.003	0.170	0.020
Standard Deviation				2.03	0.09	0.16	208	790	0.006	0.000	0.001	0.000	0.000	0.000	0.030	0.011
Minimum				0.15	7.41	7.80	4650	4650	0.005	0.005	0.010	0.025	0.100	0.003	0.092	0.020
Maximum				6.70	7.67	8.20	5330	6700	0.026	0.005	0.012	0.025	0.100	0.003	0.190	0.050
EP-80	08/13/97	EPRI-9708-145	GW	0.31	7.23	7.70	5040	5040	0.019	0.005	U	0.025	U	0.003	0.017	0.02
EP-80	11/17/97	EPRI-9711-145	GW	2.9	7.05	7.90	5100	6840	0.018	0.005	U	0.025	U	0.003	0.041	0.02
EP-80	02/05/98	EPRI-9802-145	GW	0.88	7.14	7.40	5040	6190	0.018	0.005	U	0.025	U	0.003	0.039	0.02
EP-80	05/13/98	EPRI-9805-145	GW	0.68	7.26	7.60	4960	5020	0.02	0.005	U	0.025	U	0.003	0.039	0.02
EP-80	8/19/98	EPRI-9808-145	GW	2.15	7.27	8.0	5180	5300	0.014	0.005	U	0.025	U	0.003	0.005	0.030
EP-80	11/11/98	EPRI-9811-145	GW	1.9	7.38	7.5	5130	5040	0.016	0.005	U	0.025	U	0.003	0.022	0.080
EP-80	2/18/99	EPRI-9902-145	GW	1.9	7.3	7.5	5290	5230	0.009	0.005	U	0.025	U	0.003	0.046	0.052
EP-80	5/11/99	EPRI-9905-146	GW	0.6	7.19	7.9	5170	5240	0.015	0.005	U	0.025	U	0.003	0.039	0.022
EP-80	08/09/99	EPRI-9908-146	GW	0.2	7.27	7.8	5240	5250	0.016	0.005	U	0.025	U	0.003	0.006	0.027
Average				1.28	7.23	7.70	5128	5461	0.016	0.005	0.010	0.025	0.100	0.003	0.028	0.032
Median				0.88	7.26	7.7	5130	5240	0.016	0.005	0.010	0.025	0.100	0.003	0.039	0.022
Standard Deviation				0.95	0.10	0.21	105	628	0.003	0.000	0.000	0.000	0.000	0.000	0.016	0.021
Minimum				0.20	7.05	7.40	4960	5020	0.009	0.005	0.010	0.025	0.100	0.003	0.005	0.020
Maximum				2.90	7.38	8.00	5290	6840	0.020	0.005	0.010	0.025	0.100	0.003	0.046	0.080
EP-81	08/13/97	EPRI-9708-146	GW	2.82	7.01	7.70	2550	2530	0.21	0.005	U	0.025	U	0.003	0.22	0.02
EP-81	11/17/97	EPRI-9711-146	GW	2.88	6.90	7.80	2390	3290	0.19	0.005	U	0.025	U	0.003	0.21	0.025
EP-81	02/05/98	EPRI-9802-146	GW	2.94	7.00	7.50	2560	2980	0.32	0.005	U	0.025	U	0.003	0.21	0.025
EP-81	05/14/98	EPRI-9805-146	GW	3.44	7.04	7.40	2540	2630	0.24	0.005	U	0.025	U	0.003	0.21	0.021
EP-81	8/19/98	EPRI-9808-146	GW	0.7	7.08	7.6	2630	2720	0.25	0.005	U	0.025	U	0.003	0.26	0.038
EP-81	11/11/98	EPRI-9811-146	GW	3.6	7.1	7.3	2430	2370	0.089	0.006	0.010	0.025	0.10	0.003	0.24	0.11

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS	
EP-81	2/18/99	EPRI-9902-146	GW	4.7	7.19	7.4	2550	2590	0.21	0.007	0.01	U	0.025	U	0.003	U	0.19
EP-81	5/11/99	EPRI-9905-147	GW	6.8	7	7.8	2530	2570	0.24	0.005	U	U	0.025	U	0.003	U	0.24
EP-81	08/09/99	EPRI-9908-147	GW	3.6	7.12	7.7	2830	3150	0.4	0.005	U	U	0.025	U	0.003	U	0.25
Average				3.50	7.05	7.58	2557	2759	0.239	0.005	0.010	0.025	0.100	0.003	0.226	0.052	
Median				3.44	7.04	7.6	2550	2630	0.240	0.005	0.010	0.025	0.100	0.003	0.220	0.038	
Standard Deviation				1.63	0.08	0.19	125	310	0.086	0.001	0.000	0.000	0.000	0.000	0.023	0.037	
Minimum				0.70	6.90	7.30	2390	2370	0.089	0.005	0.010	0.025	0.100	0.003	0.190	0.020	
Maximum				6.80	7.19	7.80	2830	3290	0.400	0.007	0.010	0.025	0.100	0.003	0.260	0.110	
EP-82	08/13/97	EPRI-9708-147	GW	1.31	7.06	7.70	3980	3960	0.016	0.005	U	U	0.025	U	0.003	U	0.27
EP-82	11/18/97	EPRI-9711-147	GW	2.15	7.03	8.00	3250	4070	0.011	0.005	U	U	0.025	U	0.003	U	0.21
EP-82	02/11/98	EPRI-9802-147	GW	1.73	6.94	7.60	4320	5360	0.006	0.005	U	U	0.025	U	0.003	U	0.17
EP-82	05/14/98	EPRI-9805-147	GW	0.67	7.12	7.60	4740	4780	0.01	0.005	U	U	0.025	U	0.003	U	0.18
EP-82	8/19/98	EPRI-9808-147	GW	0.43	7.16	7.7	4880	5000	0.009	0.005	U	U	0.025	U	0.003	U	0.18
EP-82	11/11/98	EPRI-9811-147	GW	1.6	7.33	7.4	4880	4820	0.01	0.005	U	U	0.025	U	0.003	U	0.22
EP-82	2/18/99	EPRI-9902-147	GW	0.5	7.28	7.6	4720	4770	0.005	0.005	U	U	0.025	U	0.003	U	0.13
EP-82	5/11/99	EPRI-9905-148	GW	1.5	7.15	7.8	4870	4970	0.010	0.005	U	U	0.025	U	0.003	U	0.18
EP-82	08/09/99	EPRI-9908-148	GW	0.4	7.23	7.7	4490	4560	0.01	0.005	U	U	0.025	U	0.003	U	0.17
Average				1.14	7.14	7.68	4459	4699	0.010	0.005	0.010	0.025	0.100	0.003	0.190	0.030	
Median				1.31	7.15	7.7	4720	4780	0.010	0.005	0.010	0.025	0.100	0.003	0.180	0.024	
Standard Deviation				0.65	0.12	0.16	546	446	0.003	0.000	0.000	0.000	0.000	0.000	0.039	0.013	
Minimum				0.40	6.94	7.40	3250	3960	0.005	0.005	0.010	0.025	0.100	0.003	0.130	0.020	
Maximum				2.15	7.33	8.00	4880	5360	0.016	0.005	0.010	0.025	0.100	0.003	0.270	0.058	
EP-83	08/13/97	EPRI-9708-148	GW	5.75	7.47	8.00	3940	3960	0.01	0.005	U	U	0.025	U	0.003	U	0.053
EP-83	11/18/97	EPRI-9711-148	GW	4.42	7.36	8.20	3940	4930	0.005	0.005	U	U	0.025	U	0.003	U	0.037
EP-83	02/06/98	EPRI-9802-148	GW	6.33	7.51	7.80	3720	4670	0.006	0.005	U	U	0.025	U	0.003	U	0.044
EP-83	05/13/98	EPRI-9805-148	GW	4.85	7.51	7.80	3840	3880	0.01	0.005	U	U	0.025	U	0.003	U	0.054
EP-83	8/19/98	EPRI-9808-148	GW	3.4	7.53	8.0	3930	4040	0.006	0.005	U	U	0.025	U	0.003	U	0.044
EP-83	11/12/98	EPRI-9811-148	GW		7.6	7.7	3680	3470	0.008	0.009	0.010	0.025	0.10	0.003	0.038	0.14	
EP-83	2/22/99	EPRI-9902-148	GW	6	7.58	7.8	3880	4510	0.005	0.005	U	U	0.025	U	0.003	U	0.039
EP-83 D	2/22/99	EPRI-9902-192	GW	5.8	7.57	7.8	3870	4510	0.005	0.005	U	U	0.025	U	0.003	U	0.040
EP-83	08/09/99	EPRI-9908-149	GW	4.9	7.48	7.9	3870	3910	0.006	0.005	U	U	0.025	U	0.003	U	0.047
Average				5.18	7.51	7.89	3852	4209	0.007	0.005	0.010	0.025	0.100	0.003	0.044	0.037	
Median				5.33	7.51	7.8	3870	4040	0.006	0.005	0.010	0.025	0.100	0.003	0.044	0.021	
Standard Deviation				0.97	0.07	0.15	94	467	0.002	0.001	0.000	0.000	0.000	0.000	0.006	0.039	
Minimum				3.40	7.36	7.70	3680	3470	0.005	0.005	0.010	0.025	0.100	0.003	0.037	0.020	
Maximum				6.33	7.60	8.20	3940	4930	0.010	0.009	0.010	0.025	0.100	0.003	0.054	0.140	
EP-84	08/13/97	EPRI-9708-149	GW	3.33	7.39	7.90	1958	1908	0.1	0.007	0.01	U	0.1	U	0.009	0.042	

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fid)	pH (fid)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fid)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
EP-84	11/18/97	EPRI-9711-149	GW	1.37	7.16	8.10	2650	3260	0.041	0.007	0.01	U	0.025	U	0.031	0.035
EP-84	02/06/98	EPRI-9802-149	GW	1.35	7.18	7.40	2990	3470	0.035	0.007	0.01	U	0.037	U	0.024	0.048
EP-84	05/13/98	EPRI-9805-146	GW	2.28	7.22	7.50	3040	3050	0.034	0.006	0.01	U	0.025	U	0.029	0.052
EP-84	8/19/98	EPRI-9808-149	GW	1.97	7.25	7.8	2780	2820	0.03	0.006	0.010	U	0.025	U	0.024	0.046
EP-84	11/12/98	EPRI-9811-149	GW		7.31	7.6	2980	2790	0.031	0.009	0.010	U	0.025	U	0.021	0.096
EP-84	2/22/99	EPRI-9902-149	GW	3.3	7.21	7.5	3070	3370	0.022	0.008	0.01	U	0.025	U	0.021	0.046
EP-84	5/11/99	EPRI-9905-150	GW	2.9	7.23	7.9	3030	3080	0.024	0.006	0.010	U	0.025	U	0.024	0.044
EP-84	08/09/99	EPRI-9908-150	GW	2.7	7.44	7.9	1838	1854	0.097	0.005	U	U	0.025	U	0.019	0.025
Average				2.40	7.27	7.73	2704	2845	0.046	0.007	0.010		0.026		0.025	0.048
Median				2.49	7.23	7.8	2980	3050	0.034	0.007	0.010		0.025		0.024	0.046
Standard Deviation				0.79	0.10	0.24	478	592	0.030	0.001	0.000		0.004		0.006	0.020
Minimum				1.35	7.16	7.40	1838	1854	0.022	0.005	0.010		0.025		0.019	0.025
Maximum				3.33	7.44	8.10	3070	3470	0.100	0.009	0.010		0.037		0.036	0.096
EP-85	08/13/97	EPRI-9708-150	GW	0.32	7.33	8.00	2900	2890	3.1	0.005	U	U	0.025	U	0.22	0.02
EP-85	11/17/97	EPRI-9711-150	GW	0.35	7.30	8.00	2300	2950	3.2	0.005	U	U	0.025	U	0.19	0.02
EP-85	02/05/98	EPRI-9802-150	GW	0.61	7.34	7.70	2600	3140	2.9	0.005	U	U	0.025	U	0.15	0.02
EP-85	05/14/98	EPRI-9805-150	GW	0.52	7.39	7.70	2970	3010	2.8	0.005	U	U	0.025	U	0.16	0.025
EP-85	8/19/98	EPRI-9808-150	GW	0.14	7.38	7.8	3240	3340	2.7	0.005	U	U	0.025	U	0.16	0.019
EP-85 D	8/19/98	EPRI-9808-180	GW			7.8	3250		2.7	0.005	U	U	0.025	U	0.16	0.032
EP-85	11/11/98	EPRI-9811-150	GW	1.5	7.51	7.7	2850	2800	3.1	0.005	U	U	0.025	U	0.24	0.033
EP-85	2/18/99	EPRI-9902-150	GW	0.4	7.45	7.6	2770	2780	2.5	0.005	U	U	0.025	U	0.16	0.029
EP-85 D	2/18/99	EPRI-9902-189	GW	0.4	7.45	7.7	2770	2780	2.6	0.005	U	U	0.025	U	0.16	0.044
EP-85	5/11/99	EPRI-9905-151	GW	0.5	7.32	8.0	3070	3120	2.9	0.005	U	U	0.025	U	0.17	0.020
EP-85	08/09/99	EPRI-9908-151	GW	0.5	7.38	7.8	3200	3230	2.8	0.005	U	U	0.025	U	0.2	0.02
EP-85 D	08/09/99	EPRI-9908-202	GW	0.5	7.38	7.8	3190	3220	2.8	0.005	U	U	0.025	U	0.2	0.02
Average				0.52	7.38	7.80	2926	3024	2.842	0.005	0.010		0.025		0.181	0.025
Median				0.50	7.38	7.8	2935	3010	2.800	0.005	0.010		0.025		0.165	0.020
Standard Deviation				0.35	0.06	0.13	290	199	0.211	0.000	0.000		0.000		0.029	0.008
Minimum				0.14	7.30	7.60	2300	2780	2.500	0.005	0.010		0.025		0.150	0.019
Maximum				1.50	7.51	8.00	3250	3340	3.200	0.005	0.010		0.025		0.240	0.044
EP-86	08/13/97	EPRI-9708-151	GW	7.68	7.63	8.00	2630	2610	0.011	0.005	U	U	0.025	U	0.043	0.02
EP-86	11/18/97	EPRI-9711-151	GW	5.56	7.54	8.30	2650	3240	0.007	0.005	U	U	0.025	U	0.038	0.02
EP-86	02/06/98	EPRI-9802-151	GW	6	7.53	7.80	2640	3300	0.005	U	U	U	0.025	U	0.029	0.02
EP-86	05/14/98	EPRI-9805-151	GW	8.01	7.70	7.90	2640	2670	0.008	0.005	U	U	0.025	U	0.041	0.02
EP-86	8/19/98	EPRI-9808-151	GW	7.66	7.67	8.1	2660	2690	0.005	0.005	U	U	0.025	U	0.038	0.025
EP-86	11/12/98	EPRI-9811-151	GW		7.45	7.9	2640	2480	0.006	0.005	U	U	0.025	U	0.033	0.038
EP-86 D	11/12/98	EPRI-9811-181	GW			7.9	2640		0.005	U	U	U	0.025	U	0.027	0.039
EP-86	2/18/99	EPRI-9902-151	GW	6.5	7.74	7.9	2600	2600	0.005	U	U	U	0.025	U	0.020	0.049
EP-86	5/11/99	EPRI-9905-152	GW	8.7	7.69	8.2	2570	2600	0.007	0.005	U	U	0.025	U	0.031	0.025

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS		
EP-86	08/09/99	EPRI-9908-152	GW	6.9	7.66	8.1	2600	2600	0.008	0.005	0.01	0.025	U	0.003	U	0.034	U	
Average																		
Median				7.13	7.62	8.01	2627	2754	0.007	0.005	0.010	0.025	0.100	0.003	0.033	0.028		
Standard Deviation				7.28	7.66	7.95	2640	2610	0.007	0.005	0.010	0.025	0.100	0.003	0.034	0.023		
Minimum				1.07	0.10	0.16	28	298	0.002	0.000	0.000	0.000	0.000	0.000	0.007	0.011		
Maximum				5.56	7.45	7.80	2570	2480	0.005	0.005	0.010	0.025	0.100	0.003	0.020	0.020		
				8.70	7.74	8.30	2660	3300	0.011	0.005	0.010	0.025	0.100	0.003	0.043	0.049		
EP-87	09/15/97	EPRI-9708-152	GW															
EP-87	11/18/97	EPRI-9711-152	GW	4.7	7.49	8.20	560	685	0.033	0.005	0.01	0.025	U	0.003	U	0.005	U	0.03
EP-87	08/10/99	EPRI-9908-153	GW	3.4	7.34	7.8	666	688	0.029	0.005	0.01	0.025	U	0.003	U	0.005	U	0.02
Average				4.05	7.42	7.83	591	687	0.039	0.005	0.012	0.028	0.100	0.004	0.005	0.027		
Median				4.05	7.415	7.8	560	687	0.033	0.005	0.010	0.025	0.100	0.003	0.005	0.030		
Standard Deviation				0.92	0.11	0.35	66	2	0.013	0.000	0.003	0.005	0.000	0.002	0.000	0.006		
Minimum				3.40	7.34	7.50	546	685	0.029	0.005	0.010	0.025	0.100	0.003	0.005	0.020		
Maximum				4.70	7.49	8.20	666	688	0.054	0.005	0.016	0.033	0.100	0.006	0.005	0.032		
EP-88	08/12/97	EPRI-9708-153	GW	0.73	7.35	8.40	5150	5370	0.02	0.005	0.01	0.025	U	0.003	U	0.094	0.025	
EP-88	11/11/97	EPRI-9711-153	GW	0.43	7.41	7.90	5240	5980	0.017	0.005	0.01	0.025	U	0.003	U	0.029	0.026	
EP-88	02/12/98	EPRI-9802-153	GW	1.53	7.24	7.80	5320	6600	0.017	0.005	0.01	0.025	U	0.003	U	0.011	0.031	
EP-88	05/11/98	EPRI-9805-153	GW	1.21	7.60	8.00	5370	5860	0.032	0.005	0.01	0.025	U	0.003	U	0.029	0.027	
EP-88	8/17/98	EPRI-9808-153	GW	0.85	7.31	7.7	5400	5460	0.027	0.005	0.010	0.025	U	0.003	U	0.024	0.036	J4
EP-88	11/11/98	EPRI-9811-153	GW	4.9	7.4	7.6	4940	4710	0.016	0.012	0.010	0.025	U	0.003	U	0.055	0.17	
EP-88	2/11/99	EPRI-9902-153	GW	1.3	7.53	8.2	5350	5360	0.028	0.008	0.010	0.025	U	0.003	U	0.018	0.077	
EP-88	5/7/99	EPRI-9905-154	GW	0.9	7.34	7.9	5340	5810	0.017	0.005	0.010	0.025	U	0.003	U	0.032	0.037	
EP-88	08/05/99	EPRI-9908-154	GW	4.4	7.34	8.1	5070	5930	0.021	0.005	0.01	0.025	U	0.003	U	0.038	0.025	
Average				1.81	7.39	7.96	5242	5676	0.022	0.006	0.010	0.025	0.100	0.003	0.037	0.050		
Median				1.21	7.35	7.9	5320	5810	0.020	0.005	0.010	0.025	0.100	0.003	0.029	0.031		
Standard Deviation				1.65	0.11	0.25	157	529	0.006	0.002	0.000	0.000	0.000	0.000	0.025	0.048		
Minimum				0.43	7.24	7.60	4940	4710	0.016	0.005	0.010	0.025	0.100	0.003	0.011	0.025		
Maximum				4.90	7.60	8.40	5400	6600	0.032	0.012	0.010	0.025	0.100	0.003	0.094	0.170		
EP-89	08/12/97	EPRI-9708-154	GW	5.34	7.04	7.90	2780	2800	0.01	0.005	0.01	0.025	U	0.003	U	0.029	0.02	
EP-89	11/13/97	EPRI-9711-154	GW	3.98	7.12	7.40	2770	3350	0.005	0.005	0.01	0.025	U	0.003	U	0.018	0.02	U
EP-89	02/11/98	EPRI-9802-154	GW	4.09	7.00	7.70	2770	3600	0.005	0.005	0.01	0.025	U	0.003	U	0.013	0.02	U
EP-89	05/13/98	EPRI-9805-154	GW	4.05	7.29	7.70	2780	2770	0.006	0.005	0.01	0.025	U	0.003	U	0.026	0.02	
EP-89	8/13/98	EPRI-9808-154	GW	3.55	7.17	7.9	2840	2810	0.009	0.005	0.010	0.025	U	0.003	U	0.028	0.038	J4
EP-89	11/10/98	EPRI-9811-154	GW	5.3	7.19	7.5	2860	2830	0.005	0.005	0.010	0.025	U	0.003	U	0.015	0.046	
EP-89	2/10/99	EPRI-9902-154	GW	3.7	7.32	8.0	2770	2810	0.007	0.005	0.010	0.025	U	0.003	U	0.023	0.037	
EP-89	5/7/99	EPRI-9905-155	GW	4.2	7.17	7.8	2790	2990	0.006	0.005	0.010	0.025	U	0.003	U	0.016	0.022	
EP-89	08/05/99	EPRI-9908-155	GW		7.24	7.9	2850	3220	0.009	0.005	0.01	0.025	U	0.003	U	0.02	0.026	

Table H-2. Summary of Groundwater Analytical Results, August 1997 through August 1999
Wells Dissolved Metals

Site	Date	Samp #	Type	(O) (fid)	pH (fid)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fid)	Arsenic (AS) DIS	Cadmium (CD) DIS	Chromium (CR) DIS	Copper (CU) DIS	Iron (FE) DIS	Lead (PB) DIS	Selenium (SE) DIS	Zinc (ZN) DIS
EP-89 D	08/05/99	EPRI-9908-198	GW		7.24	8	2860	3220	0.009	0.005	0.01	0.025	0.1	0.003	0.019	0.022
Average				4.28	7.18	7.78	2807	3040	0.007	0.005	0.010	0.025	0.100	0.003	0.021	0.027
Median				4.07	7.18	7.85	2785	2910	0.007	0.005	0.010	0.025	0.100	0.003	0.020	0.022
Standard Deviation				0.68	0.10	0.20	40	290	0.002	0.000	0.000	0.000	0.000	0.000	0.006	0.010
Minimum				3.55	7.00	7.40	2770	2770	0.005	0.005	0.010	0.025	0.100	0.003	0.013	0.020
Maximum				5.34	7.32	8.00	2860	3600	0.010	0.005	0.010	0.025	0.100	0.003	0.029	0.046
EP-90	12/12/97	EPRI-9711-139	GW		7.41	8.10	2920	3700	0.15	0.005	0.01	0.025	0.1	0.003	0.69	0.19
EP-90	02/17/98	EPRI-9802-139	GW	5.13	7.12	7.80	2950	3920	0.18		0.01	0.025	0.1	0.003	0.75	0.02
EP-90	05/13/98	EPRI-9805-139	GW	3.68	7.39	7.80	2900	2740	0.17	0.005	0.01	0.025	0.1	0.003	0.86	0.027
EP-90	8/17/98	EPRI-9808-139	GW	1.91	7.42	7.8	2380	2390	0.21	0.005	0.010	0.025	0.10	0.003	0.51	0.040
EP-90	11/5/98	EPRI-9811-139	GW	1.7	7.43	7.6	2660	512	0.17	0.005	0.010	0.025	0.10	0.003	0.61	0.054
EP-90	2/11/99	EPRI-9902-155	GW	1.2	7.41	7.9	3340	3320	0.15	0.005	0.010	0.025	0.10	0.003	0.42	0.020
EP-90	5/10/99	EPRI-9905-156	GW	4.4	7.01	7.7	4090	4360	0.13	0.005	0.010	0.025	0.1	0.003	0.86	0.038
EP-90	08/05/99	EPRI-9908-156	GW	1.1	7.19	7.8	4960	4960	0.16	0.005	0.01	0.025	0.1	0.003	1.1	0.025
Average				2.73	7.30	7.81	3275	3238	0.165	0.005	0.010	0.025	0.100	0.003	0.725	0.052
Median				1.91	7.4	7.8	2935	3510	0.165	0.005	0.010	0.025	0.100	0.003	0.720	0.033
Standard Deviation				1.64	0.17	0.15	850	1379	0.024	0.000	0.000	0.000	0.000	0.000	0.218	0.057
Minimum				1.10	7.01	7.60	2380	512	0.130	0.005	0.010	0.025	0.100	0.003	0.420	0.020
Maximum				5.13	7.43	8.10	4960	4960	0.210	0.005	0.010	0.025	0.100	0.003	1.100	0.190

TABLE H-3

**ANALYTICAL RESULTS FOR TOTAL METALS,
GROUNDWATER SAMPLES, EM WELLS**

Table H-3. Summary of Groundwater Analytical Results, August 1999 through February 2000
EM Total Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity		Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
							SC (lab)	SC (fld)								
EM-1	08/11/99	EPRI-9908-168	GW	1.5	7.38	7.8	5610	5500	0.005	U	0.01	U	0.23	J4	0.005	U
EM-1	10/30/99	EPRI-9911-161	GW		7.16	7.8	5600	5050	0.005	U	0.01	U	0.59	J2	0.005	U
EM-1	01/31/00	EPRI-0002-195	GW	1.02	7.26	7.8	5580	5310	0.005	U	0.01	U	0.84		0.007	U
Average				1.26	7.27	7.80	5597	5287	0.005		0.010		0.553		0.006	0.027
Median				1.26	7.26	7.8	5600	5310	0.005		0.010		0.590		0.005	0.020
Standard Deviation				0.34	0.11	0.00	15	225.91	0.000		0.000		0.307		0.001	0.013
Minimum				1.02	7.16	7.80	5580	5050	0.005		0.010		0.230		0.005	0.020
Maximum				1.50	7.38	7.80	5610	5500	0.005		0.010		0.840		0.007	0.042
EM-2	08/06/99	EPRI-9908-169	GW	1.6	6.81	7.5	5740	6320	1.9	U	0.01	U	2.4		0.11	0.038
EM-2	10/29/99	EPRI-9911-262	GW	1.1	6.6	7.7	6040	5360	1.4	U	0.01	U	0.1	U	0.17	0.02
EM-2	01/25/00	EPRI-0002-196	GW	3.3	7.05	7.7	5330	5160	1	U	0.01	U	1.2	J4	0.12	0.02
Average				2.00	6.82	7.63	5703	5613	1.433		0.010		1.233		0.133	0.026
Median				1.60	6.81	7.7	5740	5360	1.400		0.010		1.200		0.120	0.020
Standard Deviation				1.15	0.23	0.12	356		0.451		0.000		1.150		0.032	0.010
Minimum				1.10	6.60	7.50	5330	5160	1.000		0.010		0.100		0.110	0.020
Maximum				3.30	7.05	7.70	6040	6320	1.900		0.010		2.400		0.170	0.038
EM-4	08/06/99	EPRI-9908-170	GW	0.8	7.21	7.9	10440	10600	0.007	U	0.01	U	0.18		0.005	0.022
EM-4	10/29/99	EPRI-9911-164	GW	2.1	6.96	7.8	9400	8720	0.012	U	0.01	U	0.1	U	0.005	0.037
EM-4	01/25/00	EPRI-0002-197	GW	1.5	7.28	7.8	9240	9300	0.005	U	0.01	U	0.1	U	0.005	0.021
Average				1.47	7.15	7.83	9693	9540	0.008		0.010		0.127		0.005	0.027
Median				1.50	7.21	7.8	9400	9300	0.007		0.010		0.100		0.005	0.022
Standard Deviation				0.65	0.17	0.06	652	963	0.004		0.000		0.046		0.000	0.009
Minimum				0.80	6.96	7.80	9240	8720	0.005		0.010		0.100		0.005	0.021
Maximum				2.10	7.28	7.90	10440	10600	0.012		0.010		0.180		0.005	0.037
EM-5	08/06/99	EPRI-9908-171	GW	0.7	7.46	7.8	2660	2630	2.3		0.01	U	0.72		0.007	0.11
EM-5	11/02/99	EPRI-9911-165	GW	4.1	7.38	7.9	3010	3210	2.4		0.01	U	0.87	J2	0.005	0.061
EM-5	11/02/99	EPRI-9911-236	GW	4	7.39	8	3020	3190	2.3		0.01	U	0.83	J2	0.005	0.063
EM-5	01/25/00	EPRI-0002-198	GW	0.3	7.51	8	2100	2050	2.6		0.01	U	0.53	J4	0.006	0.072
Average				2.28	7.44	7.93	2698	2770	2.400		0.010		0.738		0.006	0.077
Median				2.35	7.425	7.95	2835	2910	2.350		0.010		0.775		0.006	0.068
Standard Deviation				2.06	0.06	0.10	432		0.141		0.000		0.152		0.001	0.023
Minimum				0.30	7.38	7.80	2100	2050	2.300		0.010		0.530		0.005	0.061

Table H-3. Summary of Groundwater Analytical Results, August 1999 through February 2000
EM Total Metals

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity		Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
							SC (lab)	SC (fld)								
Maximum				4.10	7.51	8.00	3020	3210	2.600	0.017	0.010	0.025	0.870	0.012	0.007	0.110
EM-6	08/06/99	EPRI-9908-172	GW	0.5	7.3	8	3640	3840	0.033	0.007	0.01	0.067	0.1	0.008	0.071	0.1
EM-6	08/06/99	EPRI-9908-200	GW	0.4	7.3	8	3640	3850	0.032	0.007	0.01	0.065	0.1	0.009	0.07	0.1
EM-6	11/02/99	EPRI-9911-166	GW	2.2	7.3	8	3300	3660	0.037	0.007	0.01	0.069	0.12	J2	0.066	0.11
EM-6	01/25/00	EPRI-0002-199	GW	1.2	7.26	8	4330	4240	0.024	0.005	U	0.025	0.1	U	0.083	0.024
Average				1.08	7.29	8.00	3728	3898	0.032	0.007	0.010	0.057	0.105	0.011	0.073	0.084
Median				0.85	7.3	8	3640	3845	0.033	0.007	0.010	0.066	0.100	0.011	0.071	0.100
Standard Deviation				0.83	0.02	0.00	432	244	0.005	0.001	0.000	0.021	0.010	0.002	0.007	0.040
Minimum				0.40	7.26	8.00	3300	3660	0.024	0.005	0.010	0.025	0.100	0.008	0.066	0.024
Maximum				2.20	7.30	8.00	4330	4240	0.037	0.007	0.010	0.069	0.120	0.013	0.083	0.110
EM-7	08/06/99	EPRI-9908-173	GW	3.9	7.54	7.7	4410	4420	2.2	0.073	0.018	0.16	1.4	0.63	0.037	0.31
EM-7	10/30/99	EPRI-9911-167	GW		7.41	7.8	2520	2410	3.3	0.26	0.036	0.81	2.9	1.5	0.077	0.8
EM-7	01/31/00	EPRI-0002-200	GW	1.2	7.59	7.8	2260	1980	2.1	0.29	0.043	1.3	4	2	0.071	1
Average				2.55	7.51	7.77	3063	2937	2.533	0.208	0.032	0.757	2.767	1.377	0.062	0.703
Median				2.55	7.54	7.8	2520	2410	2.200	0.260	0.036	0.810	2.900	1.500	0.071	0.800
Standard Deviation				1.91	0.09	0.06	1173		0.666	0.118	0.013	0.572	1.305	0.693	0.022	0.355
Minimum				1.20	7.41	7.70	2260	1980	2.100	0.073	0.018	0.160	1.400	0.630	0.037	0.310
Maximum				3.90	7.59	7.80	4410	4420	3.300	0.290	0.043	1.300	4.000	2.000	0.077	1.000

TABLE H-4

**ANALYTICAL RESULTS FOR TOTAL METALS,
GROUNDWATER SAMPLES, EP WELLS**

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
EP-4	08/02/99	EPRI-9908-100	GW	1.3	7.61	7.8	2440	0.13	0.005	0.01	0.025	U	0.015	0.005	0.025
EP-4	10/25/99	EPRI-9911-100	GW	7.28	8.3	2660	2650	0.16	0.005	0.012	0.18	13.00	0.086	0.005	0.14
EP-4	01/29/00	EPRI-0002-100	GW	1	7.64	8	2310	0.13	0.005	0.01	0.025	U	0.057	0.005	0.074
Average				1.15	7.51	8.03	2470	0.140	0.005	0.011	0.077	7.57	0.053	0.005	0.080
Median				1.15	7.61	8	2440	0.130	0.005	0.010	0.025	7.50	0.057	0.005	0.074
Standard Deviation				0.21	0.20	0.25	177	0.017	0.000	0.001	0.089	5.40	0.036	0.000	0.058
Minimum				1.00	7.28	7.80	2310	0.130	0.005	0.010	0.025	2.20	0.015	0.005	0.025
Maximum				1.30	7.64	8.30	2660	0.160	0.005	0.012	0.180	13.00	0.086	0.005	0.140
EP-5	08/02/99	EPRI-9908-101	GW	1.8	7.44	7.9	3500	0.057	0.005	0.01	0.025	U	0.018	0.005	0.057
EP-5	10/25/99	EPRI-9911-101	GW		8.1	8.230		0.042	0.005	0.01	0.055	0.43	0.013	0.15	0.04
Average				1.80	7.44	8.00	5765	0.050	0.005	0.010	0.040	0.97	0.016	0.078	0.049
Median				1.80	7.44	8	5765	0.050	0.005	0.010	0.040	0.97	0.016	0.078	0.049
Standard Deviation				1.80	7.44	7.90	3300	0.011	0.000	0.000	0.021	0.76	0.004	0.103	0.012
Minimum				1.80	7.44	8.10	8230	0.042	0.005	0.010	0.025	0.43	0.013	0.005	0.040
Maximum				1.80	7.44	8.10	8230	0.057	0.005	0.010	0.055	1.50	0.018	0.150	0.057
EP-6	08/02/99	EPRI-9908-102	GW	1.6	7.37	8.4	7760	0.027	0.005	0.01	0.025	U	0.003	0.028	0.02
EP-6	10/25/99	EPRI-9911-102	GW	7.15	8	8070	8090	0.018	0.005	0.01	0.025	U	0.003	0.039	0.02
EP-6	01/29/00	EPRI-0002-102	GW	3.1	7.46	7.9	7860	0.02	0.005	0.01	0.031	0.39	0.016	0.042	0.03
Average				2.35	7.33	8.10	7897	0.022	0.005	0.010	0.027	0.20	0.007	0.036	0.023
Median				2.35	7.37	8	7860	0.020	0.005	0.010	0.025	0.12	0.003	0.039	0.020
Standard Deviation				1.06	0.16	0.26	158	0.005	0.000	0.000	0.003	0.16	0.008	0.007	0.006
Minimum				1.60	7.15	7.90	7760	0.018	0.005	0.010	0.025	0.10	0.003	0.028	0.020
Maximum				3.10	7.46	8.40	8070	0.027	0.005	0.010	0.031	0.39	0.016	0.042	0.030
EP-7	08/02/99	EPRI-9908-103	GW	1.9	7.33	7.7	3790	0.063	0.005	0.01	0.025	U	0.003	0.005	0.02
EP-7	10/25/99	EPRI-9911-103	GW	6.97	7.8	6700	6910	0.12	0.005	0.01	0.025	U	0.003	0.005	0.03
EP-7	10/25/99	EPRI-9911-206	GW		7.9	6700		0.12	0.005	0.01	0.025	U	0.003	0.005	0.02
EP-7	01/29/00	EPRI-0002-103	GW	1.7	7.27	7.5	3840	0.097	0.005	0.01	0.025	U	0.003	0.005	0.02
EP-7	01/29/00	EPRI-0002-230	GW	2.6	7.34	7.8	3820	0.095	0.005	0.01	0.025	U	0.005	0.005	0.02
Average				2.07	7.23	7.74	4970	0.099	0.005	0.010	0.025	3.88	0.003	0.005	0.022
Median				1.90	7.3	7.8	3840	0.097	0.005	0.010	0.025	3.50	0.003	0.005	0.020
Standard Deviation				0.47	0.17	0.15	1579	0.023	0.000	0.000	0.000	1.76	0.001	0.000	0.004
Minimum				1.70	6.97	7.50	3790	0.063	0.005	0.010	0.025	1.60	0.003	0.005	0.020
Maximum				2.60	7.34	7.90	6700	0.120	0.005	0.010	0.025	5.80	0.005	0.005	0.030
EP-12	08/11/99	EPRI-9908-104	GW	0.1	7.31	7.6	6110	2	0.005	0.01	0.025	U	0.004	0.48	0.02
EP-12	10/29/99	EPRI-9911-104	GW	2.5	8	8.3	4400	3.3	0.005	0.015	0.031	0.44	0.021	0.42	0.02

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (nd)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
EP-12	02/08/00	EPRI-0002-104	GW		7.5	5520		2.3	0.005	U	0.025	U	0.009	0.26	0.02
EP-12 D	02/08/00	EPRI-0002-237	GW		7.6	5420		2.6	0.005	U	0.025	U	0.011	0.28	0.021
Average					7.5	5363	5125	2.550	0.005		0.027		0.011	0.360	0.020
Median					7.6	5470	5125	2.450	0.005		0.025		0.010	0.350	0.020
Standard Deviation					0.37	710		0.557	0.000		0.003		0.007	0.107	0.001
Minimum					7.50	4400	4180	2.000	0.005		0.025		0.004	0.260	0.020
Maximum					8.30	6110	6070	3.300	0.005		0.031		0.021	0.480	0.021
EP-13	08/03/99	EPRI-9908-105	GW	2.6	7.19	11200	11300	38	0.66	0.01	0.053	0.40	0.009	5.7	0.068
EP-13	10/28/99	EPRI-9911-105	GW	3.7	7.03	8960	8160	31	0.38	0.01	0.025	U	0.01	4.4	J2
EP-13	01/25/00	EPRI-0002-105	GW	4.7	7.27	10170	9840	34	0.53	0.01	0.025	U	0.025	UJ1	4.5
Average					7.16	10110	9767	34.333	0.523	0.010	0.034	0.45	0.015	4.867	0.039
Median					7.19	10170	9840	34.000	0.530	0.010	0.025	0.47	0.010	4.500	0.030
Standard Deviation					0.25	1121		3.512	0.140	0.000	0.016	0.04	0.009	0.723	0.025
Minimum					7.50	8960	8160	31.000	0.380	0.010	0.025	0.40	0.009	4.400	0.020
Maximum					8.00	11200	11300	38.000	0.660	0.010	0.053	0.47	0.025	5.700	0.068
EP-14	08/03/99	EPRI-9908-106	GW	0.4	7.11	4300	4340	2.1	0.005	U	0.025	U	0.008	0.19	0.055
EP-14	10/28/99	EPRI-9911-106	GW	0.2	6.87	4750	5400	1.4	0.005	U	0.025	U	0.003	U	0.2
EP-14	01/25/00	EPRI-0002-106	GW	0.1	6.92	5130	4970	1.5	0.005	U	0.025	U	0.01	UJ1	0.21
Average					7.0	4727	4903	1.667	0.005	0.010	0.025	0.42	0.007	0.200	0.028
Median					7.5	4750	4970	1.500	0.005	0.010	0.025	0.18	0.008	0.200	0.020
Standard Deviation					0.35	415		0.379	0.000	0.000	0.000	0.42	0.004	0.010	0.024
Minimum					7.50	4300	4340	1.400	0.005	0.010	0.025	0.18	0.003	0.190	0.010
Maximum					8.10	5130	5400	2.100	0.005	0.010	0.025	0.90	0.010	0.210	0.055
EP-15	08/03/99	EPRI-9908-107	GW	2	7.19	4460	4500	0.014	0.005	U	0.025	U	0.003	U	0.15
EP-15 D	08/03/99	EPRI-9908-194	GW	2	7.19	4460	4520	0.014	0.005	U	0.025	U	0.003	U	0.15
EP-15	10/28/99	EPRI-9911-107	GW	1.3	6.85	4400	3960	0.021	0.012	0.01	0.025	U	0.004	0.12	J2
EP-15	01/24/00	EPRI-0002-107	GW	1.6	7.14	4560	4470	0.009	0.005	U	0.025	U	0.01	UJ1	0.14
Average					7.09	4470	4363	0.015	0.007	0.010	0.025	1.57	0.005	0.140	0.021
Median					7.7	4460	4485	0.014	0.005	0.010	0.025	0.97	0.004	0.145	0.021
Standard Deviation					0.26	66	269	0.005	0.004	0.000	0.000	1.37	0.003	0.014	0.001
Minimum					7.50	4400	3960	0.009	0.005	0.010	0.025	0.74	0.003	0.120	0.020
Maximum					8.10	4560	4520	0.021	0.012	0.010	0.025	3.60	0.010	0.150	0.022
EP-20	08/02/99	EPRI-9908-108	GW	1.6	6.89	9930	10090	1.1	0.03	0.01	0.026	0.90	0.005	UJ1	0.35
EP-20	10/26/99	EPRI-9911-108	GW	2.2	6.73	9800	9770	0.75	0.03	0.01	0.025	U	0.003	J4	0.27
EP-20	01/31/00	EPRI-0002-108	GW	2.1	6.86	9530	9120	0.97	0.076	0.01	0.025	U	0.004	0.28	0.06

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT				
EP-20 D	01/31/00	EPRI-0002-232	GW	1.1	6.8	7.5	9500	9050	0.9	0.066	0.01	U	0.025	U	1.90	0.007	0.29	0.055	
Average																			
Median				1.75	6.82	7.35	9690	9508	0.930	0.051	0.010		0.025		1.53	0.005	0.298	0.050	
Standard Deviation				1.85	6.83	7.35	9665	9445	0.935	0.048	0.010		0.025		1.65	0.005	0.285	0.051	
Minimum				0.51	0.07	0.17	209		0.146	0.024	0.000		0.000		0.43	0.002	0.036	0.009	
Maximum				1.10	6.73	7.20	9500	9050	0.750	0.030	0.010		0.025		0.90	0.003	0.270	0.040	
				2.20	6.89	7.50	9930	10090	1.100	0.076	0.010		0.026		1.90	0.007	0.350	0.060	
EP-21	08/10/99	EPRI-9908-109	GW	0.8	7.66	8	5140	5160	0.042	0.005	U		0.03		1.30	J4	0.017	0.079	
EP-21	11/03/99	EPRI-9911-109	GW	1.3	7.28	7.9	5240	5760	0.15	0.012	0.01	U	0.13		8.70	J4	0.015	0.079	
EP-21	02/01/00	EPRI-0002-109	GW	0.7	7.54	8.1	4880	1101	0.064	0.005	U		0.025		1.80	J4	0.071	0.15	
Average				0.93	7.49	8.00	5087	4007	0.085	0.007			0.062		3.93	0.034	0.034	0.410	
Median				0.80	7.54	8	5140	5160	0.064	0.005	0.010		0.030		1.80	0.016	0.017	0.150	
Standard Deviation				0.32	0.19	0.10	186		0.057	0.004	0.000		0.059		4.14	0.039	0.032	0.512	
Minimum				0.70	7.28	7.90	4880	1101	0.042	0.005	0.010		0.025		1.30	0.007	0.015	0.079	
Maximum				1.30	7.66	8.10	5240	5760	0.150	0.012	0.010		0.130		8.70	0.078	0.071	1.000	
EP-22 D	11/16/98	EPRI-9811-110	GW	0.9	7.51	8	7480	7480	0.008	0.005	U		0.025		0.10	U	0.054	0.083	
EP-22	01/26/00	EPRI-0002-110	GW	2.8	7.19	7.9	7500	6930	1.2	0.011	0.012		0.037		12.00	0.1	0.11	0.26	
Average				1.85	7.35	7.95	7490		1	0	0		0		6.05	0	0	0	
Median				1.85	7.35	7.95	7490		1	0	0		0		6.05	0	0	0	
Standard Deviation				1.34	0.23	0.07	14		1	0	0		0		8.41	0	0	0	
Minimum				0.90	7.19	7.90	7480		0	0	0		0		0.10	0	0	0	
Maximum				2.80	7.51	8.00	7500		1	0	0		0		12.00	0	0	0	
EP-23	08/04/99	EPRI-9908-111	GW		7.49	7.8	3750	3840	9.4	0.005	U		0.039		0.78	J4	0.009	0.099	
EP-23	10/30/99	EPRI-9911-111	GW		7.35	7.9	3340	3320	11	0.008	0.01	U	0.24		0.93	0.088	0.013	0.14	
EP-23	02/01/00	EPRI-0002-111	GW	1	7.49	7.8	4770	951	3.1	0.006	0.01	U	0.15		1.10	J1, J4	0.012	0.1	
Average				7.44	7.83	7.95	3953	2704	7.833	0.006	0.010		0.143		0.94	0.063	0.011	0.113	
Median				7.49	7.8	7.95	3750	3320	9.400	0.006	0.010		0.150		0.93	0.081	0.012	0.100	
Standard Deviation				0.08	0.06	0.06	736		4.177	0.002	0.000		0.101		0.16	0.037	0.002	0.023	
Minimum				1.00	7.35	7.80	3340	951	3.100	0.005	0.010		0.039		0.78	0.020	0.009	0.099	
Maximum				1.00	7.49	7.90	4770	3840	11.000	0.008	0.010		0.240		1.10	0.088	0.013	0.140	
EP-24	08/10/99	EPRI-9908-112	GW	0.6	7.05	7.8	5680	5640	0.013	0.005	U		0.025		0.17	J4	0.005	0.02	
EP-24	11/03/99	EPRI-9911-112	GW	1	6.96	7.7	5200	5990	0.007	0.005	U		0.022		1.40	0.009	0.005	0.024	
EP-24	02/01/00	EPRI-0002-112	GW	0.3	6.93	7.5	5120	1072	0.006	0.005	U		0.025		0.43	J1, J4	0.006	0.02	
Average				0.63	6.98	7.67	5333	4234	0.009	0.005			0.024		0.67	0.007	0.005	0.021	
Median				0.60	6.96	7.7	5200	5640	0.007	0.005	0.010		0.025		0.43	0.008	0.005	0.020	

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (ftd)	pH (ftd)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (ftd)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Standard Deviation			0.35	0.06	0.15	303		0.004	0.000	0.000	0.002	0.65	0.003	0.001	0.002
Minimum			0.30	6.93	7.50	5120	1072	0.006	0.005	0.010	0.022	0.17	0.003	0.005	0.020
Maximum			1.00	7.05	7.80	5680	5990	0.013	0.005	0.010	0.025	1.40	0.009	0.006	0.024
Geometric Mean			0.565	6.980	7.666	5328	3309	0.008	0.005	0.010	0.024	0.47	0.006	0.005	0.021
EP-25	08/11/99	EPRI-9908-113	GW		7.1	7210		1.1	0.005	U	0.025	U	J4	0.009	0.15
EP-25	11/03/99	EPRI-9911-113	GW	3.3	6.87	7.3	6580	7.8	0.005	U	0.06	6.70	0.052	J4	0.3
EP-25 D	11/03/99	EPRI-9911-238	GW	3.3	6.82	7.5	5640	6.7	0.005	U	0.041	6.20	0.034	J4	0.25
EP-25	02/08/00	EPRI-0002-113	GW		7.6	5200		4	0.006	0.01	0.14	7.50	0.12		0.1
Average			3.30	6.85	7.38	6158		4.900	0.005	0.010	0.067	7.15	0.054		0.230
Median			3.3	6.845	7.4	6110		5.350	0.005	0.010	0.051	7.10	0.043		0.235
Standard Deviation			0.00	0.04	0.22	908		2.994	0.001	0.000	0.051	0.88	0.048		0.063
Minimum			3.30	6.82	7.10	5200		1.100	0.005	0.010	0.025	6.20	0.009		0.150
Maximum			3.30	6.87	7.60	7210		7.800	0.006	0.010	0.140	8.20	0.120		0.300
EP-26	08/04/99	EPRI-9908-114	GW		7.4	2000	2200	0.28	J4	0.01	UJ	J4	0.1		
EP-26	01/26/00	EPRI-0002-114	GW	0.5	7.16	7.9	4440	0.085	0.29	0.01	U	17.00	0.12		0.53
Average				7.12	7.65	3220		0	1	0	0	9.60	0		1
Median				7.115	7.65	3220		0	1	0	0	9.60	0		1
Standard Deviation				0.06	0.35	1725		0	2	0	0	10.47	0		0
Minimum				7.07	7.40	2000		0	0	0	0	2.20	0		1
Maximum				7.16	7.90	4440		0	3	0	0	17.00	0		5
EP-29	08/02/99	EPRI-9908-115	GW	3.5	7.59	7.8	3180	0.26	0.005	U	0.025	U	0.008	UJ1	0.11
EP-29	10/26/99	EPRI-9911-115	GW	2.4	7.42	8.2	3160	0.27	J4	0.03	J4	14.00	2.34	0.013	J4
EP-29	01/31/00	EPRI-0002-115	GW	1.6	7.62	8.1	3190	0.33	0.005	U	0.025	U	0.01		0.18
Average			2.50	7.54	8.03	3177		0.287	0.005	0.025	0.026	10.40	0.010		0.140
Median			2.40	7.59	8.1	3180		0.270	0.005	0.030	0.025	10.00	0.010		0.130
Standard Deviation			0.95	0.11	0.21	15		0.038	0.000	0.009	0.001	3.42	0.003		0.036
Minimum			1.60	7.42	7.80	3160	3040	0.260	0.005	0.014	0.025	7.20	0.008		0.110
Maximum			3.50	7.62	8.20	3190	3220	0.330	0.005	0.030	0.027	14.00	0.013		0.180
EP-35	08/02/99	EPRI-9908-116	GW	2.9	6.92	7.1	6920	0.78	0.005	U	0.025	U	0.009	UJ1	1.7
EP-35	10/26/99	EPRI-9911-116	GW	1.7	6.71	7.8	6770	0.67	J4	0.011	J4	2.80	2.34	0.011	J4
EP-35	01/31/00	EPRI-0002-116	GW	1.7	6.91	7.7	6660	0.92	0.005	U	0.046	9.80	0.033		0.96
Average			2.10	6.85	7.53	6783		0.790	0.005	0.018	0.032	4.73	0.018		1.320
Median			1.70	6.91	7.7	6770		0.780	0.005	0.015	0.026	2.80	0.011		1.300
Standard Deviation			0.69	0.12	0.38	131		0.125	0.000	0.009	0.012	4.43	0.013		0.370
Minimum			1.70	6.71	7.10	6660	6350	0.670	0.005	0.011	0.025	1.60	0.009		0.960

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fid)	pH (fid)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fid)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Maximum			2.90	6.92	7.80	6920	7000	0.920	0.005	0.028	0.046	9.80	0.033	1.700	0.044
EP-43	08/11/99	EPRI-9908-117	GW	2	7.57	7.5	8070	0.32	0.005	U	0.025	U	J4	0.27	0.02
EP-43 D	08/11/99	EPRI-9908-206	GW	1.3	7.61	7.5	8060	0.33	0.005	U	0.025	U	J4	0.28	0.02
EP-43	10/29/99	EPRI-9911-117	GW	7.7	7.72	7.8	8130	1	0.005	U	0.027	U	J2	0.15	0.03
EP-43	02/08/00	EPRI-0002-117	GW		7.3	3900		1.3	0.005	U	0.035	2.40	0.023	0.12	0.028
Average			3.67	7.63	7.53	7040	7030	0.738	0.005	0.021	0.028	1.88	0.011	0.205	0.025
Median			2.00	7.61	7.5	8065	6890	0.665	0.005	0.010	0.026	1.70	0.009	0.210	0.024
Standard Deviation			3.51	0.08	0.21	2094	251	0.492	0.000	0.022	0.005	0.35	0.010	0.082	0.005
Minimum			1.30	7.57	7.30	3900	6880	0.320	0.005	0.010	0.025	1.70	0.003	0.120	0.020
Maximum			7.70	7.72	7.80	8130	7320	1.300	0.005	0.054	0.035	2.40	0.023	0.280	0.030
EP-44	10/26/99	EPRI-9911-162	GW	1.40	7.02	8.00	5740	3.100	0.005	U	0.036	1.10	2.4	0.089	0.120
EP-49	11/02/99	EPRI-9911-118	GW		5.4	10440		221	13	0.023	1.2	631.00	J2	0.11	420
EP-49	01/29/00	EPRI-0002-118	GW	0.1	6.62	7.4	9960	40	0.28	0.017	0.045	49.00	0.023	0.056	59
Average					6.40	10200		131	7	0	1	340.00	0	0	240
Median					6.4	10200		131	7	0	1	340.00	0	0	240
Standard Deviation					1.41	339		128	9	0	1	411.54	1	0	255
Minimum					5.40	9960		40	0	0	0	49.00	0	0	59
Maximum					7.40	10440		221	13	0	1	631.00	1	0	420
EP-51	08/04/99	EPRI-9908-119	GW		6.87	7.2	11040	0.37	J4	0.035	J4	0.31	J4	0.23	0.35
EP-51 D	08/04/99	EPRI-9908-196	GW		6.88	7.2	11020	0.55	J4	0.033	J4	1.30	J4	0.24	0.33
EP-51	11/02/99	EPRI-9911-119	GW	1.6	6.71	7.3	9920	0.97	0.034	3	0.25	4.20	0.038	0.29	0.5
EP-51	01/26/00	EPRI-0002-119	GW	6.86	6.86	7.5	9820	1.2	0.031	4.7	0.24	6.20	0.051	0.23	0.43
Average			4.23	6.83	7.30	10450	9493	0.773	0.033	2.078	0.156	3.00	0.026	0.248	0.403
Median			4.23	6.865	7.25	10470	9565	0.760	0.034	1.755	0.162	2.75	0.025	0.235	0.390
Standard Deviation			3.72	0.08	0.14	671	353	0.380	0.002	2.168	0.103	2.70	0.022	0.029	0.078
Minimum			1.60	6.71	7.20	9820	9000	0.370	0.031	0.100	0.051	0.31	0.004	0.230	0.330
Maximum			6.86	6.88	7.50	11040	9840	1.200	0.035	4.700	0.250	6.20	0.051	0.290	0.500
EP-52	08/05/99	EPRI-9908-120	GW	0.7	6.21	7.2	11190	1.4	0.51	0.16	0.39	2.20	0.44	0.29	2.7
EP-52	10/29/99	EPRI-9911-120	GW	1.5	6.07	7	11250	1.6	0.45	0.097	0.5	2.10	J2	0.25	2.2
EP-52	01/26/00	EPRI-0002-120	GW	0.4	6.38	8.6	11940	1.5	0.43	0.041	0.44	1.20	0.51	0.21	1.7
Average			0.87	6.22	7.60	11460	11137	1.500	0.463	0.099	0.443	1.83	0.567	0.250	2.200
Median			0.70	6.21	7.2	11250	11220	1.500	0.450	0.097	0.440	2.10	0.510	0.250	2.200
Standard Deviation			0.57	0.16	0.87	417		0.100	0.042	0.060	0.055	0.55	0.163	0.040	0.500
Minimum			0.40	6.07	7.00	11190	9900	1.400	0.430	0.041	0.390	1.20	0.440	0.210	1.700

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT	
																1.50
Maximum																
EP-53	08/04/99	EPRI-9908-121	GW		6.85	7.1	7190									
EP-53	10/26/99	EPRI-9911-121	GW	1	6.38	6.8	7380	42	0.46	0.01	0.025	1.70	0.004	0.62	1.1	
EP-53	02/01/00	EPRI-0002-121	GW	2	6.75	7.6	7520	55	1.8	0.01	0.041	7.00	0.006	1.7	5.5	
Average					6.66	7.17	7363	45	1.2	0.01	0.04	13.00	0.011	1.1	4	
Median					6.75	7.1	7380	47.333	1.153	0.010	0.035	7.23	0.007	1.140	3.533	
Standard Deviation					0.25	0.40	166	45.000	1.200	0.010	0.040	7.00	0.006	1.100	4.000	
Minimum					6.38	6.80	7190	6.807	0.671	0.000	0.009	5.65	0.004	0.541	2.237	
Maximum					6.85	7.60	7520	42.000	0.460	0.010	0.025	1.70	0.004	0.620	1.100	
EP-54	08/04/99	EPRI-9908-122	GW		6.37	7	11000	55.000	1.800	0.010	0.041	13.00	0.011	1.700	5.500	
EP-54	10/29/99	EPRI-9911-122	GW	7.4	6.57	7.4	10500	45	0.47	0.015	0.12	2.90	0.007	0.13	9.4	
EP-54	01/26/00	EPRI-0002-122	GW	7.9	6.51	7	7940	49	0.86	0.013	0.62	11.00	0.019	0.21	10	
Average					6.48	7.13	9813	57	0.57	0.016	0.38	16.00	0.022	0.12	12	
Median					6.51	7	10500	50.333	0.633	0.015	0.373	9.97	0.016	0.153	10.467	
Standard Deviation					0.10	0.23	1642	49.000	0.570	0.015	0.380	11.00	0.019	0.130	10.000	
Minimum					6.37	7.00	7940	6.110	0.203	0.002	0.250	6.61	0.008	0.049	1.361	
Maximum					6.57	7.40	11000	45.000	0.470	0.013	0.120	2.90	0.007	0.120	9.400	
EP-55	08/10/99	EPRI-9908-123	GW	0.5	6.33	6.9	10470	57.000	0.860	0.016	0.620	16.00	0.022	0.210	12.000	
EP-55	10/29/99	EPRI-9911-123	GW	1.6	6.2	8.1	10240	29	0.19	0.01	0.033	45.00	0.028	0.052	27	
EP-55	02/07/00	EPRI-0002-123	GW	1.3	6.38	6.9	10000	36	0.58	0.011	0.11	57.00	0.13	0.17	51	
Average					6.30	7.30	10237	54	0.16	0.01	0.031	46.00	0.031	0.15	29	
Median					6.33	6.9	10240	39.667	0.310	0.010	0.058	49.33	0.063	0.124	35.667	
Standard Deviation					0.09	0.69	235	36.000	0.190	0.010	0.033	46.00	0.031	0.150	29.000	
Minimum					6.20	6.90	10000	12.897	0.234	0.001	0.045	6.66	0.058	0.063	13.317	
Maximum					6.38	8.10	10470	29.000	0.160	0.010	0.031	45.00	0.028	0.052	27.000	
EP-56	08/04/99	EPRI-9908-124	GW		7.17	7.5	5390	54.000	0.580	0.011	0.110	57.00	0.130	0.170	51.000	
EP-56	10/26/99	EPRI-9911-124	GW	1.9	7.04	8.1	5290	2.2	0.005	0.01	0.025	2.90	0.01	0.024	0.049	
EP-56	10/26/99	EPRI-9911-220	GW		8.2	5300	5320	0.33	0.005	0.01	0.047	14.00	0.016	0.041	0.05	
EP-56	02/01/00	EPRI-0002-124	GW	1	7.03	7.8	5120	0.43	0.005	0.022	0.064	28.00	0.026	0.031	0.06	
EP-56	02/01/00	EPRI-0002-233	GW	0.7	7.1	7.8	5080	2.7	0.005	0.012	0.028	29.00	0.017	0.05	0.045	
Average					7.09	7.88	5236	2.1	0.005	0.012	0.03	23.00	0.015	0.051	0.041	
Median					7.07	7.8	5290	1.552	0.005	0.013	0.039	19.38	0.017	0.039	0.049	
Standard Deviation					0.06	0.28	131	2.100	0.005	0.012	0.030	23.00	0.016	0.041	0.049	
Minimum					7.03	7.50	5080	1.094	0.000	0.005	0.016	10.96	0.006	0.012	0.007	
Maximum					7.17	8.20	5390	0.330	0.005	0.010	0.025	2.90	0.010	0.024	0.041	

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT			
EP-57	08/10/99	EPRI-9908-125	GW	7.07	7.6	2670	2560	0.29	0.005	U	U	3.10	J4	0.003	U			
EP-57	11/03/99	EPRI-9911-125	GW	6.87	7.5	3230	3210	0.5	0.005	U	U	6.70	0.012	J4	0.005	U		
EP-57	02/07/00	EPRI-0002-125	GW	7.01	7.7	3080	2700	0.43	0.005	U	U	0.79	0.004	0.015	0.02	U		
Average				6.98	7.60	2993	2823	0.407	0.005	0.010	0.025	3.53	0.006	0.009	0.023			
Median				7.01	7.6	3080	2700	0.430	0.005	0.010	0.025	3.10	0.004	0.006	0.020			
Standard Deviation				0.10	0.10	290		0.107	0.000	0.000	0.000	2.98	0.005	0.006	0.006			
Minimum				6.87	7.50	2670	2560	0.290	0.005	0.010	0.025	0.79	0.003	0.005	0.020			
Maximum				7.07	7.70	3230	3210	0.500	0.005	0.010	0.025	6.70	0.012	0.015	0.030			
EP-58	08/10/99	EPRI-9908-126	GW	6.49	8	11590	11610	4	0.005	U	U	2.10	J4	0.004	0.02	U		
EP-58	11/03/99	EPRI-9911-126	GW	6.36	7	11310	12590	4.2	0.005	U	0.11	30.00	0.082	J4	0.1	0.15		
EP-58	02/07/00	EPRI-0002-126	GW	6.42	7.2	11700	10800	3.4	0.005	U	U	7.60	0.016	0.16	0.031			
Average				6.42	7.40	11533	11667	3.867	0.005	0.013	0.053	13.23	0.034	0.099	0.067			
Median				6.42	7.2	11590	11610	4.000	0.005	0.010	0.025	7.60	0.016	0.100	0.031			
Standard Deviation				0.07	0.53	201		0.416	0.000	0.006	0.049	14.78	0.042	0.062	0.072			
Minimum				6.36	7.00	11310	10800	3.400	0.005	0.010	0.025	2.10	0.004	0.037	0.020			
Maximum				6.49	8.00	11700	12590	4.200	0.005	0.020	0.110	30.00	0.082	0.160	0.150			
EP-59	08/03/99	EPRI-9908-127	GW	7.18	7.4	4920	4950	2.7	0.005	U	0.025	0.22	0.003	U	0.28	0.02	U	
EP-59	10/27/99	EPRI-9911-127	GW	6.99	8.1	4740	4780	2.6	0.005	U	0.062	2.10	0.016	J1	0.22	J2	0.05	
EP-59	01/28/00	EPRI-0002-127	GW	7.12	7.9	5160	4900	2.9	0.005	U	0.025	0.44	0.003	0.26	0.039			
Average				7.10	7.80	4940	4877	2.733	0.005	0.055	0.037	0.92	0.007	0.253	0.036			
Median				7.12	7.9	4920	4900	2.700	0.005	0.032	0.025	0.44	0.003	0.260	0.039			
Standard Deviation				0.10	0.36	211		0.153	0.000	0.057	0.021	1.03	0.008	0.031	0.015			
Minimum				6.99	7.40	4740	4780	2.600	0.005	0.012	0.025	0.22	0.003	0.220	0.020			
Maximum				7.18	8.10	5160	4950	2.900	0.005	0.120	0.062	2.10	0.016	0.280	0.050			
EP-60	08/03/99	EPRI-9908-128	GW	7.18	7.6	8570	8410	0.008	0.005	U	0.025	0.46	0.003	U	0.21	0.029		
EP-60	10/27/99	EPRI-9911-128	GW	6.82	8.1	8280	8130	0.01	0.005	U	0.025	2.00	0.003	U	0.18	J2	0.02	U
EP-60	01/28/00	EPRI-0002-128	GW	7.05	7.9	8320	7890	0.008	0.005	U	0.025	1.10	0.003	U	0.19	0.02	U	
Average				7.02	7.87	8390	8143	0.009	0.005	0.123	0.025	1.19	0.003	0.193	0.023			
Median				7.05	7.9	8320	8130	0.008	0.005	0.060	0.025	1.10	0.003	0.190	0.020			
Standard Deviation				0.18	0.25	157		0.001	0.000	0.118	0.000	0.77	0.000	0.015	0.005			
Minimum				6.82	7.60	8280	7890	0.008	0.005	0.050	0.025	0.46	0.003	0.180	0.020			
Maximum				7.18	8.10	8570	8410	0.010	0.005	0.260	0.025	2.00	0.003	0.210	0.029			
EP-61	08/10/99	EPRI-9908-129	GW	7.15	7.7	8070	8060	0.014	0.005	U	0.025	1.90	0.003	U	0.31	0.02	U	
EP-61	11/03/99	EPRI-9911-129	GW	6.96	7.8	8180	8990	0.039	0.005	U	0.091	14.00	0.035	J4	0.37	0.065		

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT	
EP-61	02/07/00	EPRI-0002-129	GW	0.9	7.09	7.7	8360	7780	0.026	U	0.025	U	0.003	U	0.34	U
Average				1.27	7.07	7.73	8203	8277	0.026		0.047		0.014		0.340	
Median				1.10	7.09	7.7	8180	8060	0.026		0.025		0.003		0.340	
Standard Deviation						0.06	146		0.013		0.038		0.018		0.030	
Minimum				0.90	6.96	7.70	8070	7780	0.014		0.025		0.003		0.310	
Maximum				1.80	7.15	7.80	8360	8990	0.039		0.091		0.035		0.370	
EP-62	08/03/99	EPRI-9908-130	GW	2.1	7.29	7.4	4410	4470	0.75	U	0.025	U	0.003	U	0.29	0.031
EP-62	10/27/99	EPRI-9911-130	GW	4.3	7.04	8.2	4000	3830	0.56	U	0.025	U	0.003	U	0.19	0.02
EP-62	01/28/00	EPRI-0002-130	GW	6.2	7.3	7.1	4460	4310	0.82	U	0.025	U	0.003	U	0.26	0.02
Average				4.20	7.21	7.57	4290	4203	0.710		0.025		0.003		0.247	
Median				4.30	7.29	7.4	4410	4310	0.750		0.025		0.003		0.260	
Standard Deviation						0.57	252		0.135		0.000		0.000		0.051	
Minimum				2.10	7.04	7.10	4000	3830	0.560		0.025		0.003		0.190	
Maximum				6.20	7.30	8.20	4460	4470	0.820		0.025		0.003		0.290	
EP-63	08/03/99	EPRI-9908-131	GW	1.2	7.18	7.1	8140	8240	0.022	U	0.025	U	0.007		0.24	0.041
EP-63	10/27/99	EPRI-9911-131	GW	1	6.95	7.7	7680	7710	0.024	U	0.035	U	0.009	U	0.14	0.02
EP-63	01/28/00	EPRI-0002-131	GW	0.3	7.22	7.8	7400	7010	0.022	U	0.025	U	0.003		0.12	0.02
Average				0.83	7.12	7.53	7740	7653	0.023		0.028		0.006		0.167	
Median				1.00	7.18	7.7	7680	7710	0.022		0.025		0.007		0.140	
Standard Deviation				0.47	0.15	0.38	374		0.001		0.006		0.003		0.064	
Minimum				0.30	6.95	7.10	7400	7010	0.022		0.025		0.003		0.120	
Maximum				1.20	7.22	7.80	8140	8240	0.024		0.035		0.009		0.240	
EP-64	08/03/99	EPRI-9908-132	GW	5	7.48	7.8	8380	9420	0.038	U	0.025	U	0.003	U	0.48	0.027
EP-64	10/27/99	EPRI-9911-132	GW	4.3	7.39	8.4	9080	9070	0.049	U	0.03		0.004	U	0.39	0.02
EP-64	01/28/00	EPRI-0002-132	GW	4.6	7.84	8.3	9410	8960	0.043	U	0.025	U	0.003		0.52	0.02
Average				4.63	7.57	8.17	8957	9150	0.043		0.027		0.003		0.463	
Median				4.60	7.48	8.3	9080	9070	0.043		0.025		0.003		0.480	
Standard Deviation				0.35	0.24	0.32	526		0.006		0.003		0.001		0.067	
Minimum				4.30	7.39	7.80	8380	8960	0.038		0.025		0.003		0.390	
Maximum				5.00	7.84	8.40	9410	9420	0.049		0.030		0.004		0.520	
EP-65	08/10/99	EPRI-9908-133	GW	0.3	7.14	7.8	6610	6660	0.012	U	0.025	U	0.003	U	0.18	0.02
EP-65	08/10/99	EPRI-9908-204	GW	0.3	7.14	7.7	6610	6660	0.012	U	0.025	U	0.003	U	0.19	0.02
EP-65	11/03/99	EPRI-9911-133	GW	2.3	6.93	7.6	6400	7130	0.033	U	0.026		0.007	J4	0.24	0.02
EP-65	02/07/00	EPRI-0002-133	GW	0.4	6.99	7.6	6520	6160	0.02	U	0.025	U	0.003		0.2	0.02
EP-65	02/07/00	EPRI-0002-236	GW	0.2	7	7.7	6500	6190	0.018	U	0.025	U	0.003	U	0.2	0.02

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Average			0.70	7.04	7.68	6528	6560	0.019	0.005	0.010	0.025	0.44	0.004	0.202	0.020
Median			0.30	7	7.7	6520	6660	0.018	0.005	0.010	0.025	0.56	0.003	0.200	0.020
Standard Deviation			0.90	0.10	0.08	88	401	0.009	0.000	0.000	0.000	0.22	0.002	0.023	0.000
Minimum			0.20	6.93	7.60	6400	6160	0.012	0.005	0.010	0.025	0.17	0.003	0.180	0.020
Maximum			2.30	7.14	7.80	6610	7130	0.033	0.005	0.010	0.026	0.67	0.007	0.240	0.020
EP-66	08/04/99	EPRI-9908-134	GW	7	7.8	8000	7680	9.6	0.012	0.01	0.026	0.22	0.004	0.28	0.045
EP-66	10/27/99	EPRI-9911-134	GW	6	6.92	5910	5920	6.1	0.005	0.01	0.025	0.82	0.004	0.22	0.03
EP-66	01/28/00	EPRI-0002-134	GW	6.4	7.28	7860	7530	10	0.005	0.01	0.025	0.80	0.005	0.21	0.02
Average			6.20	7.07	7.97	7257	7043	8.567	0.007	0.010	0.025	0.61	0.004	0.237	0.032
Median			6.2	7	7.8	7860	7530	9.600	0.005	0.010	0.025	0.80	0.004	0.220	0.030
Standard Deviation			0.28	0.19	0.29	1168		2.146	0.004	0.000	0.001	0.34	0.001	0.038	0.013
Minimum			6.00	6.92	7.80	5910	5920	6.100	0.005	0.010	0.025	0.22	0.004	0.210	0.020
Maximum			6.40	7.28	8.30	8000	7680	10.000	0.012	0.010	0.026	0.82	0.005	0.280	0.045
EP-67	08/05/99	EPRI-9908-135	GW		6.86	7.7	4330	0.023	0.005	0.01	0.025	0.21	0.003	0.11	0.023
EP-67	10/28/99	EPRI-9911-135	GW	2	6.64	7.3	4400	0.017	0.005	0.01	0.025	0.10	0.003	0.12	0.02
EP-67	01/24/00	EPRI-0002-135	GW	1.3	6.88	7.5	4380	0.009	0.005	0.01	0.025	0.12	0.011	0.1	0.02
Average			1.65	6.79	7.50	4370	4517	0.01633	0.005	0.010	0.025	0.14	0.006	0.11	0.021
Median			1.65	6.86	7.50	4380	4410	0.017	0.005	0.010	0.025	0.12	0.003	0.11	0.02
Standard Deviation			0.49	0.13	0.20	36		0.00702	8.23E-11	0.000	0	0.06	0.005	0.01	0.00173
Minimum			1.30	6.64	7.30	4330	4280	0.009	0.005	0.010	0.025	0.10	0.003	0.100	0.020
Maximum			2.00	6.88	7.70	4400	4860	0.023	0.005	0.010	0.025	0.21	0.011	0.120	0.023
EP-68	08/05/99	EPRI-9908-136	GW		7.17	7.9	4780	0.005	0.005	0.01	0.025	0.42	0.003	0.24	0.02
EP-68	10/28/99	EPRI-9911-136	GW	12.1	6.88	7.4	5900	0.005	0.005	0.01	0.025	0.36	0.003	0.29	0.02
EP-68	01/25/00	EPRI-0002-136	GW	5.4	7.07	7.8	5800	0.005	0.005	0.014	0.025	2.50	0.01	0.27	0.02
EP-68	01/25/00	EPRI-0002-221	GW	5.2	7.09	7.7	5780	0.005	0.005	0.016	0.025	4.60	0.01	0.26	0.02
Average			7.57	7.05	7.70	5565	5315	0.005	0.005	0.013	0.025	1.97	0.007	0.265	0.020
Median			5.4	7.08	7.75	5790	5450	0.005	0.005	0.012	0.025	1.46	0.007	0.265	0.020
Standard Deviation			3.93	0.12	0.22	526		0.000	0.000	0.003	0.000	2.02	0.004	0.021	0.000
Minimum			5.20	6.88	7.40	4780	4790	0.005	0.005	0.010	0.025	0.36	0.003	0.240	0.020
Maximum			12.10	7.17	7.90	5900	5570	0.005	0.005	0.016	0.025	4.60	0.010	0.290	0.020
EP-70	08/05/99	EPRI-9908-137	GW		7.01	7	6020		0.009	0.01	0.025	0.10	0.003	0.19	0.13
EP-70	10/28/99	EPRI-9911-137	GW	0.2	6.76	7.2	6220	0.8	0.009	0.01	0.025	0.10	0.003	0.22	0.14
EP-70	01/24/00	EPRI-0002-137	GW	0.2	7.03	7.6	6110	0.63	0.007	0.01	0.025	0.10	0.01	0.19	0.12
EP-70	01/24/00	EPRI-0002-219	GW	0.2	7.03	7.5	6100	0.64	0.008	0.01	0.025	0.10	0.009	0.19	0.12

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Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Average			0.20	6.96	7.33	6113	6195	0.705	0.008	0.010	0.025	0.10	0.006	0.198	0.128
Median			0.2	7.02	7.35	6105	6085	0.695	0.009	0.010	0.025	0.10	0.006	0.190	0.125
Standard Deviation			0.00	0.13	0.28	82		0.083	0.001	0.000	0.000	0.00	0.004	0.015	0.010
Minimum			0.20	6.76	7.00	6020	5950	0.630	0.007	0.010	0.025	0.10	0.003	0.190	0.120
Maximum			0.20	7.03	7.60	6220	6660	0.800	0.009	0.010	0.025	0.10	0.010	0.220	0.140
EP-71	08/05/99	EPRI-9908-138	GW	6.92	7.5	5850	6560	0.12	0.005	0.01	0.025	0.10	0.003	0.24	0.02
EP-71	10/28/99	EPRI-9911-138	GW	6.71	7.9	5800	5800	0.12	0.005	0.01	0.025	0.10	0.003	0.23	0.02
EP-71	01/24/00	EPRI-0002-138	GW	6.97	7.6	5950	5770	0.11	0.005	0.01	0.025	0.10	0.008	0.2	0.02
Average			0.55	6.87	7.67	5867	6043	0.117	0.005	0.010	0.025	0.10	0.005	0.223	0.020
Median			0.55	6.92	7.6	5850	5800	0.120	0.005	0.010	0.025	0.10	0.003	0.230	0.020
Standard Deviation			0.49	0.14	0.21	76		0.006	0.000	0.000	0.000	0.00	0.003	0.021	0.000
Minimum			0.20	6.71	7.50	5800	5770	0.110	0.005	0.010	0.025	0.10	0.003	0.200	0.020
Maximum			0.90	6.97	7.90	5950	6560	0.120	0.005	0.010	0.025	0.10	0.008	0.240	0.020
EP-72	01/24/00	EPRI-0002-139	GW	7.11	7.9	5700	5560	0.065	0.005	0.01	0.025	0.86	0.011	1.8	0.053
EP-73	08/05/99	EPRI-9908-140	GW	5.2	7.01	6550	7280	0.026	0.005	0.01	0.025	0.15	0.003	0.96	0.024
EP-73	10/29/99	EPRI-9911-140	GW	1.2	6.8	6520	5760	0.061	0.005	0.01	0.025	0.10	0.039	1.1	0.054
EP-73	01/26/00	EPRI-0002-140	GW	0.4	7.07	6600	6200	0.019	0.005	0.01	0.025	0.28	0.003	0.91	0.02
Average			2.27	6.96	7.63	6557	6413	0.035	0.005	0.010	0.025	0.18	0.015	0.990	0.033
Median			1.2	7.01	7.6	6550	6200	0.026	0.005	0.010	0.025	0.15	0.003	0.960	0.024
Standard Deviation			2.57	0.14	0.15	40		0.023	0.000	0.000	0.000	0.09	0.021	0.098	0.019
Minimum			0.40	6.80	7.50	6520	5760	0.019	0.005	0.010	0.025	0.10	0.003	0.910	0.020
Maximum			5.20	7.07	7.80	6600	7280	0.061	0.005	0.010	0.025	0.28	0.039	1.100	0.054
EP-75	08/06/99	EPRI-9908-141	GW	0.4	6.86	7.2	16010	16	0.005	0.01	0.066	0.37	0.01	3.6	0.094
EP-75	01/26/00	EPRI-0002-142	GW	1.8	7.01	7.7	18110	14	0.005	0.01	0.051	1.50	0.023	3.3	0.084
Average			1.10	6.94	7.45	17060		15	0	0.010	0.059	0.94	0.017	3.450	0.089
Median			1.10	6.935	7.45	17060		15	0	0.010	0.059	0.94	0.017	3.450	0.089
Standard Deviation			0.99	0.11	0.35	1485		1	0	0.000	0.011	0.80	0.009	0.212	0.007
Minimum			0.40	6.86	7.20	16010		14	0	0.010	0.051	0.37	0.010	3.300	0.084
Maximum			1.80	7.01	7.70	18110		16	0	0.010	0.066	1.50	0.023	3.600	0.094
EP-76	1/26/00	EPRI-0002-141	GW	0.7	7.33	8.3	5060	1.3	0.005	0.010	0.025	0.10	0.011	0.18	0.052
EP-77	08/05/99	EPRI-9908-143	GW	1.2	7.14	7.4	5110	6	0.01	0.01	0.025	0.55	0.011	0.023	0.036
EP-77	10/29/99	EPRI-9911-143	GW	0.6	6.94	8.4	5080	5.8	0.008	0.01	0.029	7.40	0.015	0.022	0.03
EP-77	10/29/99	EPRI-9911-227	GW					6	0.008	0.01	0.025	6.20	0.012	0.022	0.027
EP-77	01/25/00	EPRI-0002-143	GW	0.2	7.21	8.2	4500	7.7	0.012	0.01	0.025	0.51	0.012	0.023	0.02

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Average			0.67	7.10	7.98	4930	4783	6.375	0.010	0.010	0.026	3.67	0.013	0.023	0.028
Median			0.60	7.14	8.05	5055	4410	6.000	0.009	0.010	0.025	3.38	0.012	0.023	0.029
Standard Deviation			0.50	0.14	0.43	289	744	0.888	0.002	0.000	0.002	3.65	0.002	0.001	0.007
Minimum			0.20	6.94	7.40	4500	4300	5.800	0.008	0.010	0.025	0.51	0.011	0.022	0.020
Maximum			1.20	7.21	8.40	5110	5640	7.700	0.012	0.010	0.029	7.40	0.015	0.023	0.036
EP-78	08/09/99	EPRI-9908-144	GW	0.9	7.86	7.8	2520	5.2	0.005	U	0.025	U	0.007	0.14	0.03
EP-78	10/31/99	EPRI-9911-144	GW		7.43	8	2620	4.6	0.005	U	0.025	U	0.003	0.3	0.02
EP-78	01/28/00	EPRI-0002-144	GW	0.7	7.62	7.6	3400	4.8	0.005	U	0.025	U	0.009	0.24	0.036
Average			0.80	7.64	7.80	2847	2767	4.867	0.005	0.010	0.025	0.33	0.006	0.370	0.029
Median			0.8	7.62	7.8	2620	2610	4.800	0.005	0.010	0.025	0.26	0.007	0.300	0.030
Standard Deviation			0.14	0.22	0.20	482	427	0.306	0.000	0.000	0.000	0.27	0.003	0.176	0.008
Minimum			0.70	7.43	7.60	2520	2440	4.600	0.005	0.010	0.025	0.10	0.003	0.240	0.020
Maximum			0.90	7.86	8.00	3400	3250	5.200	0.005	0.010	0.025	0.62	0.009	0.570	0.036
EP-79	08/09/99	EPRI-9908-145	GW	0.4	7.53	8	4730	0.007	0.005	U	0.025	U	0.003	0.12	0.02
EP-79	10/31/99	EPRI-9911-145	GW		7.27	8	4500	0.009	0.005	U	0.025	U	0.003	0.12	0.02
EP-79	01/28/00	EPRI-0002-145	GW	0.2	7.48	8	4700	0.006	0.005	U	0.025	U	0.004	0.11	0.024
EP-79	01/28/00	EPRI-0002-227	GW	0.1	7.48	8	4710	0.006	0.005	U	0.025	U	0.006	0.11	0.025
Average			0.23	7.44	8.00	4660	4573	0.007	0.005	0.010	0.025	0.48	0.004	0.115	0.022
Median			0.2	7.48	8	4705	4520	0.007	0.005	0.010	0.025	0.45	0.004	0.115	0.022
Standard Deviation			0.15	0.12	0.00	107	133	0.001	0.000	0.001	0.000	0.43	0.001	0.006	0.003
Minimum			0.10	7.27	8.00	4500	4480	0.006	0.005	0.010	0.025	0.10	0.003	0.110	0.020
Maximum			0.40	7.53	8.00	4730	4770	0.009	0.005	0.011	0.025	0.90	0.006	0.120	0.025
EP-80	08/09/99	EPRI-9908-146	GW	0.2	7.27	7.8	5240	0.015	0.005	U	0.025	U	0.003	0.005	0.02
EP-80	10/27/99	EPRI-9911-146	GW	0.6	6.96	8.3	5320	0.015	0.005	U	0.025	U	0.003	0.032	0.02
EP-80	01/28/00	EPRI-0002-146	GW	0.8	7.22	8.1	5130	0.016	0.005	U	0.025	U	0.004	0.024	0.02
Average			0.53	7.15	8.07	5230	5133	0.015	0.005	0.010	0.025	0.46	0.003	0.020	0.020
Median			0.6	7.22	8.1	5240	5250	0.015	0.005	0.010	0.025	0.46	0.003	0.024	0.020
Standard Deviation			0.31	0.17	0.25	95	229	0.001	0.000	0.000	0.000	0.08	0.001	0.014	0.000
Minimum			0.20	6.96	7.80	5130	4870	0.015	0.005	0.010	0.025	0.38	0.003	0.005	0.020
Maximum			0.80	7.27	8.30	5320	5280	0.016	0.005	0.010	0.025	0.54	0.004	0.032	0.020
EP-81	08/09/99	EPRI-9908-147	GW	3.6	7.12	7.7	2830	0.36	0.005	U	0.025	U	0.005	0.14	0.032
EP-81	10/27/99	EPRI-9911-147	GW	4.9	6.83	8.1	2750	0.26	0.005	U	0.025	U	0.003	0.21	0.02
EP-81	01/28/00	EPRI-0002-147	GW	3.5	7.09	7.7	3310	0.64	0.005	U	0.025	U	0.006	0.26	0.032
Average			4.00	7.01	7.83	2963	2930	0.420	0.005	0.010	0.025	0.88	0.005	0.243	0.028

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Median			3.6	7.09	7.7	2830	2930	0.360	0.005	0.010	0.025	0.38	0.005	0.260	0.032
Standard Deviation			0.78	0.16	0.23	303	220	0.197	0.000	0.001	0.000	1.07	0.002	0.029	0.007
Minimum			3.50	6.83	7.70	2750	2710	0.260	0.005	0.010	0.025	0.15	0.003	0.210	0.020
Maximum			4.90	7.12	8.10	3310	3150	0.640	0.005	0.011	0.025	2.10	0.006	0.260	0.032
EP-82	08/09/99	EPRI-9908-148	GW	7.23	7.7	4490	4560	0.009	0.005	0.010	0.025	0.10	0.003	0.15	0.020
EP-82	10/31/99	EPRI-9911-148	GW	7.01	7.7	3600	3580	0.011	0.005	0.010	0.025	0.10	0.003	0.11	0.020
EP-82	01/27/00	EPRI-0002-148	GW	7.12	8.1	4340	4140	0.006	0.005	0.010	0.025	0.33	0.004	0.12	0.020
Average			0.35	7.12	7.83	4143	4093	0.009	0.005	0.010	0.025	0.18	0.003	0.127	0.020
Median			0.35	7.12	7.7	4340	4140	0.009	0.005	0.010	0.025	0.10	0.003	0.120	0.020
Standard Deviation			0.07	0.11	0.23	476	492	0.003	0.000	0.000	0.000	0.13	0.001	0.021	0.000
Minimum			0.30	7.01	7.70	3600	3580	0.006	0.005	0.010	0.025	0.10	0.003	0.110	0.020
Maximum			0.40	7.23	8.10	4490	4560	0.011	0.005	0.010	0.025	0.33	0.004	0.150	0.020
EP-83	08/09/99	EPRI-9908-149	GW	7.48	7.9	3870	3910	0.005	0.005	0.010	0.025	0.10	0.003	0.042	0.020
EP-83	10/30/99	EPRI-9911-149	GW	7.22	7.8	3900	3920	0.007	0.005	0.010	0.025	1.80	0.003	0.044	0.020
EP-83	10/30/99	EPRI-9911-229	GW	7.8	3910			0.008	0.005	0.010	0.025	2.00	0.003	0.046	0.023
EP-83	01/27/00	EPRI-0002-149	GW	7.47	8.3	3900	3710	0.006	0.005	0.010	0.025	0.25	0.003	0.046	0.020
EP-83	01/27/00	EPRI-0002-226	GW	7.46	8.2	3910	3710	0.005	0.005	0.010	0.025	0.27	0.003	0.04	0.020
Average			5.47	7.41	8.00	3898	3813	0.006	0.005	0.010	0.025	0.88	0.003	0.044	0.021
Median			5.70	7.465	7.9	3900	3810	0.006	0.005	0.010	0.025	0.27	0.003	0.044	0.020
Standard Deviation			0.49	0.13	0.23	16	118	0.001	0.000	0.000	0.000	0.93	0.000	0.003	0.001
Minimum			4.90	7.22	7.80	3870	3710	0.005	0.005	0.010	0.025	0.10	0.003	0.040	0.020
Maximum			5.80	7.48	8.30	3910	3920	0.008	0.005	0.010	0.025	2.00	0.003	0.046	0.023
EP-84	08/09/99	EPRI-9908-150	GW	7.44	7.9	1838	1854	0.095	0.005	0.010	0.025	0.11	0.025	0.017	0.020
EP-84	10/30/99	EPRI-9911-150	GW	6.88	7.4	3080	3070	0.031	0.006	0.010	0.025	0.10	0.027	0.026	0.035
EP-84	01/27/00	EPRI-0002-150	GW	7.12	8	3090	2920	0.029	0.007	0.010	0.046	0.50	0.087	0.023	0.047
Average			1.75	7.15	7.77	2669	2615	0.052	0.006	0.010	0.032	0.24	0.046	0.022	0.034
Median			1.75	7.12	7.9	3080	2920	0.031	0.006	0.010	0.025	0.11	0.027	0.023	0.035
Standard Deviation			1.34	0.28	0.32	720	1854	0.038	0.001	0.000	0.012	0.23	0.035	0.005	0.014
Minimum			0.80	6.88	7.40	1838	1854	0.029	0.005	0.010	0.025	0.10	0.025	0.017	0.020
Maximum			2.70	7.44	8.00	3090	3070	0.095	0.007	0.010	0.046	0.50	0.087	0.026	0.047
EP-85	08/09/99	EPRI-9908-151	GW	7.38	7.8	3200	3230	2.600	0.005	0.010	0.025	0.10	0.015	0.180	0.020
EP-85	08/09/99	EPRI-9908-202	GW	7.38	7.8	3190	3220	2.600	0.005	0.010	0.025	0.10	0.004	0.460	0.023
EP-85	10/27/99	EPRI-9911-151	GW	7.15	8.1	2700	2700	2.400	0.005	0.010	0.025	0.10	0.004	0.180	0.020
EP-85	10/27/99	EPRI-9911-224	GW	7.15	8.2	2700	2700	2.500	0.005	0.010	0.025	0.10	0.003	0.190	0.020
EP-85	01/28/00	EPRI-0002-151	GW	7.31	7.9	3000	2870	2.300	0.005	0.010	0.025	0.10	0.003	0.150	0.020

**Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals**

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Average			0.44	7.27	7.96	2958	2944	2.480	0.005	0.010	0.025	0.10	0.006	0.232	0.021
Median			0.50	7.31	7.9	3000	2870	2.500	0.005	0.010	0.025	0.10	0.004	0.180	0.020
Standard Deviation			0.13	0.12	0.18	249	266	0.130	0.000	0.000	0.000	0.00	0.005	0.128	0.001
Minimum			0.20	7.15	7.80	2700	2700	2.300	0.005	0.010	0.025	0.10	0.003	0.150	0.020
Maximum			0.50	7.38	8.20	3200	3230	2.600	0.005	0.010	0.025	0.10	0.015	0.460	0.023
EP-86	08/09/99	EPRI-9908-152	GW	6.9	7.66	8.1	2600	0.007	0.005	0.010	0.025	0.41	0.004	0.03	0.02
EP-86	10/31/99	EPRI-9911-152	GW		7.34	7.9	2640	0.005	0.005	0.010	0.025	0.17	0.003	0.033	0.02
EP-86	10/31/99	EPRI-9911-231	GW			8	2650	0.005	0.005	0.010	0.025	0.16	0.003	0.034	0.02
EP-86	01/27/00	EPRI-0002-152	GW	7.5	7.58	8.2	2640	0.005	0.005	0.010	0.025	0.66	0.006	0.031	0.02
Average			7.20	7.53	8.05	2633	2580	0.006	0.005	0.010	0.025	0.35	0.004	0.032	0.020
Median			7.20	7.58	8.05	2640	2600	0.005	0.005	0.010	0.025	0.29	0.004	0.032	0.020
Standard Deviation			0.42	0.17	0.13	22		0.001	0.000	0.000	0.000	0.24	0.001	0.002	0.000
Minimum			6.90	7.34	7.90	2600	2520	0.005	0.005	0.010	0.025	0.16	0.003	0.030	0.020
Maximum			7.50	7.66	8.20	2650	2620	0.007	0.005	0.010	0.025	0.66	0.006	0.034	0.020
EP-87	08/10/99	EPRI-9908-153	GW	3.4	7.34	7.8	666	0.027	0.005	0.010	0.025	3.00	0.007	0.005	0.02
EP-88	08/05/99	EPRI-9908-154	GW	4.4	7.34	8.1	5070	0.024	0.005	0.010	0.025	0.70	0.01	0.035	0.062
EP-88	10/30/99	EPRI-9911-154	GW		7.13	7.7	5300	0.022	0.005	0.010	0.025	0.51	0.003	0.055	0.021
EP-88	01/26/00	EPRI-0002-154	GW	2.3	7.4	8.6	5220	0.012	0.005	0.010	0.025	0.69	0.004	0.06	0.022
EP-88	01/26/00	EPRI-0002-223	GW	1.7	7.41	8.2	5230	0.013	0.005	0.010	0.025	0.75	0.004	0.057	0.021
Average			2.80	7.32	8.15	5205	5360	0.018	0.005	0.010	0.025	0.66	0.005	0.052	0.032
Median			2.30	7.37	8.15	5225	5270	0.018	0.005	0.010	0.025	0.70	0.004	0.056	0.022
Standard Deviation			1.42	0.13	0.37	97		0.006	0.000	0.000	0.000	0.11	0.003	0.011	0.020
Minimum			1.70	7.13	7.70	5070	4970	0.012	0.005	0.010	0.025	0.51	0.003	0.035	0.021
Maximum			4.40	7.41	8.60	5300	5930	0.024	0.005	0.010	0.025	0.75	0.010	0.060	0.062
EP-89	08/05/99	EPRI-9908-155	GW		7.24	7.9	2850	0.012	0.005	0.010	0.025	0.10	0.005	0.024	0.029
EP-89	08/05/99	EPRI-9908-198	GW		7.24	8	2860	0.011	0.005	0.010	0.025	0.10	0.004	0.024	0.025
EP-89	10/28/99	EPRI-9911-155	GW	2.8	6.92	8.1	2880	0.007	0.005	0.010	0.025	0.10	0.003	0.016	0.02
EP-89	10/28/99	EPRI-9911-225	GW	2.8	6.92	8.1	2880	0.007	0.005	0.010	0.025	0.10	0.004	0.016	0.02
EP-89	01/24/00	EPRI-0002-155	GW	3.5	7.14	7.9	2810	0.007	0.005	0.010	0.025	0.12	0.015	0.019	0.02
Average			3.03	7.09	8.00	2856	2870	0.009	0.005	0.010	0.025	0.10	0.006	0.020	0.023
Median			2.8	7.14	8	2860	2750	0.007	0.005	0.010	0.025	0.10	0.004	0.019	0.020
Standard Deviation			0.40	0.16	0.10	29	327	0.002	0.000	0.000	0.000	0.01	0.005	0.004	0.004
Minimum			2.80	6.92	7.90	2810	2580	0.007	0.005	0.010	0.025	0.10	0.003	0.016	0.020
Maximum			3.50	7.24	8.10	2880	3220	0.012	0.005	0.010	0.025	0.12	0.015	0.024	0.029

Table H-4. Summary of Ground water Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT	
EP-90	08/05/99	EPRI-9908-156	GW	1.1	7.19	7.8	4960	4960	0.005	U	0.01	U	0.048	1.40	0.019	0.054
EP-90	10/30/99	EPRI-9911-156	GW		6.92	7.6	4660	4680	0.005	U	0.01	U	0.025	U	0.003	U
EP-90	01/24/00	EPRI-0002-156	GW	0.5	7.17	7.8	5340	5010	0.005	U	0.01	U	0.025	U	0.011	U
Average				0.80	7.09	7.73	4987	4883	0.005		0.010		0.033	1.21	0.011	0.031
Median				0.8	7.17	7.8	4960	4960	0.005		0.010		0.025	1.40	0.011	0.020
Standard Deviation				0.42	0.15	0.12	341		0.000		0.000		0.013	0.91	0.008	0.020
Minimum				0.50	6.92	7.60	4660	4680	0.005		0.010		0.025	0.22	0.003	0.020
Maximum				1.10	7.19	7.80	5340	5010	0.005		0.010		0.048	2.00	0.019	0.054
EP-93	10/13/99	EPRI-9911-192	GW	4.6	7.33	7.7	5100	5180	0.005	U	0.01	U	0.025	U	0.008	0.053
EP-93	01/27/00	EPRI-0002-157	GW	3.4	7.31	8.1	5210	4890	0.031	U	0.14		0.044	61.00	0.033	0.1
Average				4.00	7.32	7.90	5155		0.018		0.075		0.035	36.00	0.021	0.077
Median				4	7.32	7.9	5155		0.018		0.075		0.035	36.00	0.021	0.077
Standard Deviation				0.85	0.01	0.28	78		0.018		0.092		0.013	35.36	0.018	0.033
Minimum				3.40	7.31	7.70	5100		0.005		0.010		0.025	11.00	0.008	0.053
Maximum				4.60	7.33	8.10	5210		0.031		0.140		0.044	61.00	0.033	0.100
EP-94	10/13/99	EPRI-9911-194	GW	5.9	7.18	7.6	5040	5110	0.007	U	0.01	U	0.025	U	0.008	0.075
EP-94	01/27/00	EPRI-0002-158	GW	2	7.31	8	4870	4580	0.014	U	0.01	U	0.025	U	0.007	0.028
Average				3.95	7.25	7.80	4955		0.011		0.010		0.025	1.35	0.008	0.052
Median				3.95	7.245	7.8	4955		0.011		0.010		0.025	1.35	0.008	0.052
Standard Deviation				2.76	0.09	0.28	120		0.005		0.000		0.000	1.20	0.001	0.033
Minimum				2.00	7.18	7.60	4870		0.007		0.010		0.025	0.50	0.007	0.028
Maximum				5.90	7.31	8.00	5040		0.014		0.010		0.025	2.20	0.008	0.075
EP-95	10/26/99	EPRI-9911-159	GW		6.67	8.3	3340	3110	0.006	J4	0.01	U	0.025	U	2.14	0.022
EP-95	01/27/00	EPRI-0002-159	GW	6	7.66	8.3	3380	3200	0.009	U	0.01	U	0.025	U	0.003	0.02
Average				7.17	8.30		3360		0.008		0.010		0.025	0.67	0.003	0.020
Median				7.165	8.3		3360		0.008		0.010		0.025	0.67	0.003	0.020
Standard Deviation				0.70	0.00	28			0.002		0.000		0.000	0.76	0.000	0.000
Minimum				6.67	8.30	3340			0.006		0.010		0.025	0.13	0.003	0.020
Maximum				7.66	8.30	3380			0.009		0.010		0.025	1.20	0.003	0.020
EP-96	10/13/99	EPRI-9911-193	GW	6.6	7.27	7.7	4960	5090	0.005	U	0.01	U	0.025	U	0.017	0.053
EP-96	01/27/00	EPRI-0002-160	GW	3.8	7.21	8	4930	4680	0.007	U	0.021	U	0.025	U	0.015	0.042
Average				5.20	7.24	7.85	4945		0.006		0.016		0.025	10.30	0.014	0.048
Median				5.2	7.24	7.85	4945		0.006		0.016		0.025	10.30	0.014	0.048
Standard Deviation				1.98	0.04	0.21	21		0.001		0.008		0.000	2.40	0.005	0.008

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity		Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
						SC (lab)	SC (fld)								
Minimum			3.80	7.21	7.70	4930		0.005	0.005	0.010	0.025	8.60	0.010	0.015	0.042
Maximum			6.60	7.27	8.00	4960		0.007	0.005	0.021	0.025	12.00	0.017	0.019	0.053
EP-97	10/18/99	EPRI-9911-196	GW	6.8	7.16	4940	5030	0.16	0.019	0.01	U	8.30	0.085	0.02	0.16
EP-97	01/27/00	EPRI-0002-161	GW	1	7.36	8.1	4880	0.14	0.013	0.01	U	4.70	0.13	0.008	0.16
Average			3.90	7.26	7.95	4980		0.150	0.016	0.010	0.210	6.50	0.108	0.014	0.160
Median			3.9	7.26	7.95	4980		0.150	0.016	0.010	0.210	6.50	0.108	0.014	0.160
Standard Deviation			4.10	0.14	0.21	57		0.014	0.004	0.000	0.028	2.55	0.032	0.008	0.000
Minimum			1.00	7.16	7.80	4940		0.140	0.013	0.010	0.190	4.70	0.085	0.008	0.160
Maximum			6.80	7.36	8.10	5020		0.160	0.019	0.010	0.230	8.30	0.130	0.020	0.160
EP-98	10/18/99	EPRI-9911-197	GW	4.9	7.66	8.1	6930	0.018	0.005	U	0.035	11.00	0.026	0.36	0.044
EP-98	01/27/00	EPRI-0002-162	GW	2.6	7.72	8.1	6960	0.027	0.005	U	0.044	3.90	0.027	0.65	0.048
Average			3.75	7.69	8.10	6870		0.023	0.005	0.010	0.040	7.45	0.027	0.505	0.046
Median			3.75	7.69	8.1	6870		0.023	0.005	0.010	0.040	7.45	0.027	0.505	0.046
Standard Deviation			1.63	0.04	0.00	707		0.006	0.000	0.000	0.006	5.02	0.001	0.205	0.003
Minimum			2.60	7.66	8.10	6370		0.018	0.005	0.010	0.035	3.90	0.026	0.360	0.044
Maximum			4.90	7.72	8.10	7370		0.027	0.005	0.010	0.044	11.00	0.027	0.650	0.048
EP-99	10/18/99	EPRI-9911-195	GW		7.6	5600		5.4	0.005	U	0.042	0.00	0.15	0.99	0.29
EP-100	10/20/99	EPRI-9911-198	GW	3.7	6.63	8	8830	0.008	0.022	0.01	U	0.34	0.007	0.42	0.13
EP-100	01/26/00	EPRI-0002-164	GW	1	6.75	7.5	9870	0.02	0.043	0.01	U	7.30	0.01	0.42	0.24
Average			2.35	6.69	7.75	9350		0.014	0.033	0.010	0.030	3.82	0.009	0.420	0.185
Median			2.35	6.69	7.75	9350		0.014	0.033	0.010	0.030	3.82	0.009	0.420	0.185
Standard Deviation			1.91	0.08	0.35	735		0.008	0.015	0.000	0.006	4.92	0.002	0.000	0.078
Minimum			1.00	6.63	7.50	8830		0.008	0.022	0.010	0.025	0.34	0.007	0.420	0.130
Maximum			3.70	6.75	8.00	9870		0.020	0.043	0.010	0.034	7.30	0.010	0.420	0.240
EP-101	10/21/99	EPRI-9911-199	GW	2.7	6.99	7.7	7220	7.2	0.78	0.01	U	2.60	0.015	2.3	0.16
EP-101	01/25/00	EPRI-0002-165	GW	2.1	7.26	7.8	8680	4.5	0.72	0.01	U	1.60	0.018	2.8	0.048
Average			2.40	7.13	7.75	7950		5.850	0.750	0.010	0.027	2.10	0.017	2.550	0.104
Median			2.4	7.125	7.75	7950		5.850	0.750	0.010	0.027	2.10	0.017	2.550	0.104
Standard Deviation			0.42	0.19	0.07	1032		1.909	0.042	0.000	0.002	0.71	0.002	0.354	0.079
Minimum			2.10	6.99	7.70	7220		4.500	0.720	0.010	0.025	1.60	0.015	2.300	0.048
Maximum			2.70	7.26	7.80	8680		7.200	0.780	0.010	0.028	2.60	0.018	2.800	0.160
EP-102	10/21/99	EPRI-9911-200	GW	3.2	7.05	7.8	2760	0.21	0.05	0.01	U	1600.00	0.004	5	0.094
EP-102	01/25/00	EPRI-0002-166	GW	0.6	7.24	7.9	2870	0.21	0.075	0.01	U	4800.00	0.012	4.8	0.045

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Average			1.90	7.15	7.85	2815		0.210	0.063	0.010	0.025	2900.00	0.008	4.900	0.070
Median			1.9	7.145	7.85	2815		0.210	0.063	0.010	0.025	2900.00	0.008	4.900	0.070
Standard Deviation			1.84	0.13	0.07	78		0.000	0.018	0.000	0.000	2687.01	0.006	0.141	0.035
Minimum			0.60	7.05	7.80	2760		0.210	0.050	0.010	0.025	1000.00	0.004	4.800	0.045
Maximum			3.20	7.24	7.90	2870		0.210	0.075	0.010	0.025	4800.00	0.012	5.000	0.094
EP-103	10/21/99	EPRI-9911-201	GW	4.6	7.21	8	1618	0.005	0.005	U	0.025	U	0.003	U	0.027
EP-103	01/24/00	EPRI-0002-167	GW	3.9	7.34	8.3	1498	0.011	0.005	U	0.025	U	0.013	U	0.02
Average			4.25	7.28	8.15	1544		0.008	0.005	0.010	0.025	3500.00	0.008	0.190	0.024
Median			4.25	7.275	8.15	1544		0.008	0.005	0.010	0.025	3500.00	0.008	0.190	0.024
Standard Deviation			0.49	0.09	0.21	65		0.004	0.000	0.000	0.000	2828.43	0.007	0.042	0.005
Minimum			3.90	7.21	8.00	1498		0.005	0.005	0.010	0.025	1500.00	0.003	0.160	0.020
Maximum			4.60	7.34	8.30	1590		0.011	0.005	0.010	0.025	5500.00	0.013	0.220	0.027
EP-104	10/21/99	EPRI-9911-202	GW	2.1	7.11	7.8	4600	0.071	0.005	U	0.025	U	0.006	0.11	0.02
EP-104	01/24/00	EPRI-0002-168	GW	1.5	7.28	8.1	4640	0.08	0.005	U	0.025	U	0.015	U	0.023
Average			1.80	7.20	7.95	4620		0.076	0.005	0.010	0.025	6550.00	0.011	0.102	0.022
Median			1.8	7.195	7.95	4620		0.076	0.005	0.010	0.025	6550.00	0.011	0.102	0.022
Standard Deviation			0.42	0.12	0.21	28		0.006	0.000	0.000	0.000	3464.82	0.006	0.012	0.002
Minimum			1.50	7.11	7.80	4600		0.071	0.005	0.010	0.025	4100.00	0.006	0.093	0.020
Maximum			2.10	7.28	8.10	4640		0.080	0.005	0.010	0.025	9000.00	0.015	0.110	0.023
EP-105	10/21/99	EPRI-9911-204	GW	4	7.15	8	4460	0.3	0.005	U	0.025	U	0.012	0.068	0.055
EP-105	01/25/00	EPRI-0002-169	GW	3.1	7.43	8	3780	0.4	0.005	U	0.078	57000.00	0.076	0.034	0.18
Average			3.55	7.29	8.00	4120		0.350	0.005	0.010	0.052	33050.00	0.044	0.051	0.118
Median			3.55	7.29	8	4120		0.350	0.005	0.010	0.052	33050.00	0.044	0.051	0.118
Standard Deviation			0.64	0.20	0.00	481		0.071	0.000	0.000	0.037	33870.41	0.045	0.024	0.088
Minimum			3.10	7.15	8.00	3780		0.300	0.005	0.010	0.025	9100.00	0.012	0.034	0.055
Maximum			4.00	7.43	8.00	4460		0.400	0.005	0.010	0.078	57000.00	0.076	0.068	0.180
EP-106	10/21/99	EPRI-9911-205	GW	5.6	7.14	7.7	4180	0.005	U	0.01	0.025	U	0.004	0.087	0.053
EP-106	01/25/00	EPRI-0002-170	GW	1.4	7.08	7.7	4950	0.007	0.005	U	0.025	U	0.014	0.11	0.022
Average			3.50	7.11	7.70	4565		0.006	0.005	0.010	0.025	1.85	0.009	0.099	0.038
Median			3.5	7.11	7.7	4565		0.006	0.005	0.010	0.025	1.85	0.009	0.099	0.038
Standard Deviation			2.97	0.04	0.00	544		0.001	0.000	0.000	0.000	1.77	0.007	0.016	0.022
Minimum			1.40	7.08	7.70	4180		0.005	0.005	0.010	0.025	0.60	0.004	0.087	0.022
Maximum			5.60	7.14	7.70	4950		0.007	0.005	0.010	0.025	3.10	0.014	0.110	0.053

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
EP-107	10/21/99	EPRI-9911-203	GW	5.2	6.99	7.8	6450	0.015	0.005	U	0.025	U	0.003	U	0.027
EP-107	01/24/00	EPRI-0002-171	GW	2.1	7.17	7.7	6270	0.012	0.005	U	0.025	U	0.009	UJ1	0.02
Average				3.65	7.08	7.75	6450	0.014	0.005	0.010	0.025	0.14	0.006	0.455	0.024
Median				3.65	7.08	7.75	6450	0.014	0.005	0.010	0.025	0.14	0.006	0.455	0.024
Standard Deviation				2.19	0.13	0.07	0	0.002	0.000	0.000	0.000	0.06	0.004	0.049	0.005
Minimum				2.10	6.99	7.70	6450	0.012	0.005	0.010	0.025	0.10	0.003	0.420	0.020
Maximum				5.20	7.17	7.80	6450	0.015	0.005	0.010	0.025	0.18	0.009	0.490	0.027
EP-108	10/26/99	EPRI-9911-172	GW		6.64	8.3	2810	0.7	0.005	U	0.025	U	2.30	0.037	0.06
EP-108	01/28/00	EPRI-0002-172	GW	1.5	7.52	8.2	3360	1.4	0.005	U	0.025	U	0.52	0.046	0.034
Average				1.50	7.08	8.25	3155	1.050	0.005	0.010	0.025	1.41	0.005	0.042	0.047
Median				1.5	7.08	8.25	3155	1.050	0.005	0.010	0.025	1.41	0.005	0.042	0.047
Standard Deviation					0.62	0.07	488	0.495	0.000	0.000	0.000	1.26	0.001	0.006	0.018
Minimum				1.50	6.64	8.20	2810	0.700	0.005	0.010	0.025	0.52	0.004	0.037	0.034
Maximum				1.50	7.52	8.30	3500	1.400	0.005	0.010	0.025	2.30	0.006	0.046	0.060
EP-109	10/26/99	EPRI-9911-173	GW		6.53	8.3	3470	0.007	0.005	U	0.025	U	0.91	0.063	0.02
EP-109	01/28/00	EPRI-0002-173	GW	3.1	7.4	7.9	4000	0.014	0.005	U	0.025	U	1.20	0.064	0.026
Average				3.10	6.97	8.10	3735	0.011	0.005	0.010	0.025	1.06	0.021	0.064	0.023
Median				3.1	6.965	8.1	3735	0.011	0.005	0.010	0.025	1.06	0.021	0.064	0.023
Standard Deviation					0.62	0.28	375	0.005	0.000	0.000	0.000	0.21	0.025	0.001	0.004
Minimum				3.10	6.53	7.90	3470	0.007	0.005	0.010	0.025	0.91	0.003	0.063	0.020
Maximum				3.10	7.40	8.30	4000	0.014	0.005	0.010	0.025	1.20	0.039	0.064	0.026
EP-110	10/29/99	EPRI-9911-174	GW	4	6.99	8.4	2780	0.005	0.005	U	0.025	U	1.30	0.017	0.02
EP-110	01/24/00	EPRI-0002-174	GW	3.4	7.23	7.8	2750	0.009	0.005	U	0.025	U	0.78	0.017	0.048
Average				3.70	7.11	8.10	2765	0.007	0.005	0.010	0.025	1.04	0.017	0.017	0.034
Median				3.7	7.11	8.1	2765	0.007	0.005	0.010	0.025	1.04	0.017	0.017	0.034
Standard Deviation				0.42	0.17	0.42	21	0.003	0.000	0.000	0.000	0.37	0.005	0.000	0.020
Minimum				3.40	6.99	7.80	2750	0.005	0.005	0.010	0.025	0.78	0.013	0.017	0.020
Maximum				4.00	7.23	8.40	2780	0.009	0.005	0.010	0.025	1.30	0.020	0.017	0.048
EP-111	10/28/99	EPRI-9911-175	GW	3.5	7.11	7.7	5450	0.97	0.005	U	0.039	15.00	0.047	0.01	0.13
EP-111	01/29/00	EPRI-0002-175	GW	0.1	7.21	7.8	5390	0.91	0.005	U	0.025	2.00	0.003	0.005	0.02
Average				1.80	7.16	7.75	5420	0.940	0.005	0.010	0.032	8.50	0.025	0.008	0.075
Median				1.8	7.16	7.75	5420	0.940	0.005	0.010	0.032	8.50	0.025	0.008	0.075
Standard Deviation				2.40	0.07	0.07	42	0.042	0.000	0.000	0.010	9.19	0.031	0.004	0.078
Minimum				0.10	7.11	7.70	5390	0.910	0.005	0.010	0.025	2.00	0.003	0.005	0.020

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Maximum			3.50	7.21	7.80	5450		0.970	0.005	0.010	0.039	15.00	0.047	0.010	0.130
EP-112	10/28/99	EPRI-9911-176	GW	8.5	7.32	7.8	5250	0.012	0.005	U	0.025	U	0.015	0.012	0.096
EP-112	01/29/00	EPRI-0002-176	GW	0.1	7.11	8	7130	0.013	0.005	U	0.025	U	0.003	0.007	0.02
Average			4.30	7.22	7.90	6385		0.013	0.005	0.010	0.025	5.74	0.009	0.010	0.058
Median			4.3	7.215	7.9	6385		0.013	0.005	0.010	0.025	5.74	0.009	0.010	0.058
Standard Deviation			5.94	0.15	0.14	1605		0.001	0.000	0.000	0.000	7.44	0.008	0.004	0.054
Minimum			0.10	7.11	7.80	5250		0.012	0.005	0.010	0.025	0.48	0.003	0.007	0.020
Maximum			8.50	7.32	8.00	7520		0.013	0.005	0.010	0.025	11.00	0.015	0.012	0.096
EP-113	10/28/99	EPRI-9911-177	GW	7.5	7.41	8	4060	0.005	0.005	U	0.025	U	0.009	0.005	U
EP-113	01/29/00	EPRI-0002-177	GW	0.1	7.3	7.6	4180	0.005	0.005	U	0.025	U	0.003	0.005	U
Average			3.80	7.36	7.80	4120		0.005	0.005	0.010	0.025	2.90	0.006	0.005	0.036
Median			3.8	7.355	7.8	4120		0.005	0.005	0.010	0.025	2.90	0.006	0.005	0.036
Standard Deviation			5.23	0.08	0.28	85		0.000	0.000	0.000	0.000	2.26	0.004	0.000	0.022
Minimum			0.10	7.30	7.60	4060		0.005	0.005	0.010	0.025	1.30	0.003	0.005	0.020
Maximum			7.50	7.41	8.00	4180		0.005	0.005	0.010	0.025	4.50	0.009	0.005	0.051
EP-114	11/18/99	EPRI-9911-178	GW	4.4	6.19	6.7	9800	118	0.13	0.019	0.044	58.00	0.02	0.06	35
EP-114	01/31/00	EPRI-0002-178	GW	0.3	6.35	6.6	8480	214	2.7	0.16	11	361.00	6.6	0.12	75
Average			2.35	6.27	6.65	9140		166.000	1.415	0.090	5.522	209.50	3.310	0.090	55.000
Median			2.35	6.27	6.65	9140		166.000	1.415	0.090	5.522	209.50	3.310	0.090	55.000
Standard Deviation			2.90	0.11	0.07	933		67.882	1.817	0.100	7.747	214.25	4.653	0.042	28.284
Minimum			0.30	6.19	6.60	8480		118.000	0.130	0.019	0.044	58.00	0.020	0.060	35.000
Maximum			4.40	6.35	6.70	9800		214.000	2.700	0.160	11.000	361.00	6.600	0.120	75.000
EP-115	11/22/99	EPRI-9911-179	GW	3.3	7.08	7.7	17800	1842	1.1	0.010	0.49	2.80	0.18	0.38	0.8
EP-115	01/31/00	EPRI-0002-179	GW	1.8	6.81	7.7	11440	10470	0.19	0.01	0.14	0.87	0.02	0.42	0.34
Average			2.55	6.95	7.70	14620.00		0.27	0.65	0.01	0.32	1.84	0.10	0.40	0.57
Median			2.55	6.945	7.7	14620		0.27	0.645	0.01	0.315	1.84	0.1	0.4	0.57
Standard Deviation			1.06	0.19	0.00	4497.20		0.01	0.64	0.00	0.25	1.36	0.11	0.03	0.33
Minimum			1.80	6.81	7.70	11440.00		0.26	0.19	0.01	0.14	0.87	0.02	0.38	0.34
Maximum			3.30	7.08	7.70	17800.00		0.28	1.10	0.01	0.49	2.80	0.18	0.42	0.80
EP-116	11/18/99	EPRI-9911-180	GW	2.4	6.56	7.3	6280	6460	1.2	0.032	3.7	41.00	2	0.47	6
EP-116	01/31/00	EPRI-0002-180	GW	2.1	6.92	7.6	6480	6020	1.5	0.044	6.9	90.00	4.1	0.42	4.4
Average			2.25	6.74	7.45	6380		3.600	1.350	0.038	5.300	65.50	3.050	0.445	5.200

Table H-4. Summary of Groundwater Analytical Results, August 1999 through February 2000
Wells Total Metals

Site	Date	Samp #	(O) (nd)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	Arsenic (AS) TOT	Cadmium (CD) TOT	Chromium (CR) TOT	Copper (CU) TOT	Iron (FE) TOT	Lead (PB) TOT	Selenium (SE) TOT	Zinc (ZN) TOT
Median			2.25	6.74	7.45	6380		3.600	1.350	0.038	5.300	65.50	3.050	0.445	5.200
Standard Deviation			0.21	0.25	0.21	141		1.838	0.212	0.008	2.263	34.65	1.485	0.035	1.131
Minimum			2.10	6.56	7.30	6280		2.300	1.200	0.032	3.700	41.00	2.000	0.420	4.400
Maximum			2.40	6.92	7.60	6480		4.900	1.500	0.044	6.900	90.00	4.100	0.470	6.000
EP-117	11/18/99	EPRI-9911-181	1.4	7.23	7.8	2580	2810	6	0.2	0.01	U	5.40	0.28	1.1	0.2
EP-117	01/31/00	EPRI-0002-181	1.3	7.35	7.5	2640	2590	11	2.7	0.16	2.1	228.00	10	1.1	3.4
Average			1.35	7.29	7.65	2610		8.500	1.450	0.085	1.093	116.70	5.140	1.100	1.800
Median			1.35	7.29	7.65	2610		8.500	1.450	0.085	1.093	116.70	5.140	1.100	1.800
Standard Deviation			0.07	0.08	0.21	42		3.536	1.768	0.106	1.424	157.40	6.873	0.000	2.263
Minimum			1.30	7.23	7.50	2580		6.000	0.200	0.010	0.086	5.40	0.280	1.100	0.200
Maximum			1.40	7.35	7.80	2640		11.000	2.700	0.160	2.100	228.00	10.000	1.100	3.400
EP-118	11/18/99	EPRI-9911-182	3.6	7.46	8	3460	3780	0.22	0.009	0.052	0.14	184.00	0.17	0.29	0.46
EP-118	01/31/00	EPRI-0002-182	1.6	7.74	8	3080	2950	0.43	0.071	0.27	1.2	868.00	2.5	0.28	1.7
Average			2.60	7.60	8.00	3270		0.325	0.040	0.161	0.670	526.00	1.335	0.285	1.080
Median			2.6	7.6	8	3270		0.325	0.040	0.161	0.670	526.00	1.335	0.285	1.080
Standard Deviation			1.41	0.20	0.00	269		0.148	0.044	0.154	0.750	483.66	1.648	0.007	0.877
Minimum			1.60	7.46	8.00	3080		0.220	0.009	0.052	0.140	184.00	0.170	0.280	0.460
Maximum			3.60	7.74	8.00	3460		0.430	0.071	0.270	1.200	868.00	2.500	0.290	1.700

TABLE H-5

**ANALYTICAL RESULTS FOR NUTRIENTS,
GROUNDWATER SAMPLES, EM WELLS**

Table H-5. Summary of Groundwater Analytical Results, August 1997 through February 2000
EM Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EM-1	08/13/97	EPRI-9708-155	GW	4.05	7.52	7.80	5200	5210	0.23	
EM-1	11/17/97	EPRI-9711-155	GW	4.96	7.20	8.00	4020	6250	0.073	
EM-1	02/19/98	EPRI-9802-155	GW	1.64	7.39	7.50	5480	6410	0.054	
EM-1	05/18/98	EPRI-9805-155	GW	3.15	7.43	7.60	5550	5480	0.05	U
EM-1	8/20/98	EPRI-9808-155	GW	1.57	7.38	7.8	5560	5600	0.050	U
EM-1	11/18/98	EPRI-9811-155	GW	2.20	7.06	7.6	5580	5540	0.050	U
EM-1	2/24/99	EPRI-9902-167	GW	2.20	7.46	7.6	5600	6860	0.050	U
EM-1	5/12/99	EPRI-9905-168	GW	2.30	6.94	7.9	5670	J3 5740	0.10	U,UJ4
EM-1	08/11/99	EPRI-9908-168	GW	1.5	7.38	7.8	5610	5500	0.05	U
EM-1	10/30/99	EPRI-9911-161	GW		7.16	7.8	5600	5050	0.17	UJ1
EM-1	01/31/00	EPRI-0002-195	GW	1.02	7.26	7.8	5580	5310	0.37	UJ1
Average				2.46	7.29	7.75	5405	5723	0.113	
Median				2.20	7.38	7.8	5580	5540	0.054	
Standard Deviation				1.24	0.18	0.15	475	556	0.104	
Minimum				1.02	6.94	7.50	4020	5050	0.050	
Maximum				4.96	7.52	8.00	5670	6860	0.370	
EM-2	08/11/97	EPRI-9708-156A	GW	6.28	7.08			4630		
EM-2	08/26/97	EPRI-9708-156	GW		7.40	7.90	4550	871	R 28	
EM-2	11/17/97	EPRI-9711-156	GW	1.41	7.00	7.70	3960	5150	17	
EM-2	02/17/98	EPRI-9802-156	GW	1.26	6.90	7.70	4150	5450	20	
EM-2	05/18/98	EPRI-9805-156	GW	4.29	7.14	7.50	4190	4180	19	
EM-2	8/13/98	EPRI-9808-156	GW	1.06	7.02	7.8	4210	4240	19	
EM-2	11/11/98	EPRI-9811-156	GW	3.50	7.23	7.5	4260	4190	19	
EM-2	2/22/99	EPRI-9902-168	GW	2.40	7.12	7.6	4510	5330	18	J4
EM-2	5/10/99	EPRI-9905-169	GW	1.30	6.71	7.4	6050	6480	99	
EM-2	08/06/99	EPRI-9908-169	GW	1.6	6.81	7.5	5740	6320	102	
EM-2	10/29/99	EPRI-9911-262	GW	1.1	6.6	7.7	6040	5360	72	
EM-2	01/25/00	EPRI-0002-196	GW	3.3	7.05	7.7	5330	5160	42	
Average				2.50	7.01	7.64	4817	4780	41	
Median				1.60	7.035	7.7	4510	5155	20	
Standard Deviation				1.68	0.22	0.15	809	1444	33	
Minimum				1.06	6.60	7.40	3960	871	17	
Maximum				6.28	7.40	7.90	6050	6480	102	
EM-4	08/11/97	EPRI-9708-158A	GW	2.72	7.28			10570		
EM-4	08/26/97	EPRI-9708-158	GW		7.50	7.90	10410	2090	R 0.3	
EM-4	11/17/97	EPRI-9711-158	GW	2.57	7.10	7.70	11300	14110	0.19	
EM-4	02/17/98	EPRI-9802-157	GW	1.14	6.97	7.40	11150	14370	0.25	
EM-4	05/18/98	EPRI-9805-157	GW	1.49	7.23	7.70	9420	10150	0.23	
EM-4	8/13/98	EPRI-9808-157	GW	1.06	7.02	7.8	9560	4240	R 0.22	
EM-4	11/11/98	EPRI-9811-157	GW	1.90	6.95	7.4	10460	10370	0.24	
EM-4	2/22/99	EPRI-9902-169	GW	8.30	7.27	7.5	9940	11540	0.15	J4
EM-4	5/10/99	EPRI-9905-170	GW	0.90	7.01	7.6	10270	10850	0.43	
EM-4	5/10/99	EPRI-9905-185	GW	1.00	7.01	7.7	10270	10780	0.35	
EM-4	08/06/99	EPRI-9908-170	GW	0.8	7.21	7.9	10440	10600	0.16	
EM-4	10/29/99	EPRI-9911-164	GW	2.1	6.96	7.8	9400	8720	0.23	UJ1,J4
EM-4	01/25/00	EPRI-0002-197	GW	1.5	7.28	7.8	9240	9300	0.2	UJ1,J4
Average				2.12	7.14	7.68	10155	9822	0.25	
Median				1.50	7.1	7.7	10270	10570	0.23	
Standard Deviation				2.05	0.17	0.17	668	3391	0.08	
Minimum				0.80	6.95	7.40	9240	2090	0.15	
Maximum				8.30	7.50	7.90	11300	14370	0.43	

Table H-5. Summary of Groundwater Analytical Results, August 1997 through February 2000
EM Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EM-5	08/11/97	EPRI-9708-159A	GW	0.96	7.65			5970		
EM-5	08/26/97	EPRI-9708-159	GW		7.64	8.00	6160	1187	R	0.15
EM-5	11/17/97	EPRI-9711-159	GW	0.79	7.30	7.70	6700	8790		0.05
EM-5	02/17/98	EPRI-9802-158	GW	1.84	7.17	7.70	6990	9310		0.28
EM-5	05/18/98	EPRI-9805-158	GW	1.21	7.59	7.90	4920	4950		0.16
EM-5	8/17/98	EPRI-9808-158	GW	0.18	7.50	7.8	4970	5010		0.19
EM-5	11/11/98	EPRI-9811-158	GW	3.50	7.43	7.6	5090	5030		0.10
EM-5	2/11/99	EPRI-9902-170	GW	0.90	7.47	7.8	4740	4800		0.050
EM-5	2/11/99	EPRI-9902-187	GW	0.90	7.48	7.8	4770	4800		0.050
EM-5	5/10/99	EPRI-9905-171	GW	0.70	7.35	7.7	3700	3800		0.1
EM-5	08/06/99	EPRI-9908-171	GW	0.7	7.46	7.8	2660	2630		0.36
EM-5	11/02/99	EPRI-9911-165	GW	4.1	7.38	7.9	3010	3210		0.17
EM-5	11/02/99	EPRI-9911-236	GW	4	7.39	8	3020	3190		0.11
EM-5	01/25/00	EPRI-0002-198	GW	0.3	7.51	8	2100	2050		0.11
										UJ1, J4
Average				1.54	7.45	7.82	4525	4623		0.145
Median				0.90	7.465	7.8	4770	4800		0.110
Standard Deviation				1.39	0.13	0.13	1551	2300		0.092
Minimum				0.18	7.17	7.60	2100	1187		0.050
Maximum				4.10	7.65	8.00	6990	9310		0.360
EM-6	08/11/97	EPRI-9708-160	GW	4.48	7.25	7.90	4520	4480		10
EM-6	08/11/97	EPRI-9708-173	GW			7.80	4500			8.2
EM-6	11/17/97	EPRI-9711-160	GW	0.98	7.15	7.60	4500	5750		6.9
EM-6	02/17/98	EPRI-9802-159	GW	0.91	7.04	7.80	4330	5810		9
EM-6	05/18/98	EPRI-9805-159	GW	1.57	7.21	7.60	4090	4310		6.6
EM-6	05/18/98	EPRI-9805-180	GW			7.50	4120			6.9
EM-6	8/17/98	EPRI-9808-159	GW	0.32	7.17	7.6	4600	4610		7.5
EM-6	11/11/98	EPRI-9811-159	GW	1.40	7.45	7.8	3550	3590		5.9
EM-6	2/11/99	EPRI-9902-171	GW	3.60	7.30	7.8	4290	4390		6.2
EM-6	5/10/99	EPRI-9905-172	GW	0.60	7.06	7.7	3810	4290		5.3
EM-6	08/06/99	EPRI-9908-172	GW	0.5	7.3	8	3640	3840		4.7
EM-6	08/06/99	EPRI-9908-200	GW	0.4	7.3	8	3640	3850		5.7
EM-6	11/02/99	EPRI-9911-166	GW	2.2	7.3	8	3300	3660		4.7
EM-6	01/25/00	EPRI-0002-199	GW	1.2	7.26	8	4330	4240		7.2
										J4
Average				1.51	7.23	7.79	4087	4402		6.8
Median				1.09	7.255	7.8	4205	4300		6.8
Standard Deviation				1.31	0.11	0.17	424	722		1.5
Minimum				0.32	7.04	7.50	3300	3590		4.7
Maximum				4.48	7.45	8.00	4600	5810		10.0
EM-7	11/17/97	EPRI-9711-161	GW	1.78	7.56	8.40	5700	7070		1.5
EM-7	02/19/98	EPRI-9802-160	GW	2.33	7.77	7.80	6020	6810		0.32
EM-7	05/07/98	EPRI-9805-160	GW	1.3	7.24	7.80	5560	6960		0.41
EM-7	08/20/98	EPRI-9808-160	GW	1.95	7.38	7.70	5220	5240		0.18
EM-7	11/11/98	EPRI-9811-160	GW	2.30	7.54	7.6	5310	5190		0.1
EM-7	2/24/99	EPRI-9902-172	GW	2.00	7.69	7.8	5110	6320		0.54
EM-7	5/12/99	EPRI-9905-173	GW	3.60	7.66	7.4	4540	J3 4560		0.10
EM-7	8/6/99	EPRI-9908-173	GW	3.90	7.54	7.7	4410	4420		0.23
EM-7	10/30/99	EPRI-9911-167	GW		7.41	7.8	2520	2410		0.16
EM-7	01/31/00	EPRI-0002-200	GW	1.2	7.59	7.8	2260	1980		0.37
										UJ1
										UJ4
Average				2.26	7.54	7.78	4665	5096		0.39
Median				2.00	7.55	7.8	5165	5215		0.28
Standard Deviation				0.93	0.16	0.25	1295	1811		0.42
Minimum				1.20	7.24	7.40	2260	1980		0.10
Maximum				3.90	7.77	8.40	6020	7070		1.50

TABLE H-6

**ANALYTICAL RESULTS FOR NUTRIENTS,
GROUNDWATER SAMPLES, EP WELLS**

**Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-4	08/06/97	EPRI-9708-100	GW	1.51	7.06	7.70	2350	2230	0.05	U
EP-4	11/04/97	EPRI-9711-100	GW	1	7.46	7.80	1656	1906	0.05	U
EP-4	02/04/98	EPRI-9802-100	GW	1.91	7.58	8.00	1595	1563	0.05	U
EP-4	05/05/98	EPRI-9805-100	GW	3.20	7.95	7.90	1831	1670	0.093	
EP-4	8/5/98	EPRI-9808-100	GW	1.34	7.36	7.8	1970	2190	0.050	U
EP-4	2/3/99	EPRI-9902-100	GW	1.20	8.08	8.1	1965	1620	0.21	
EP-4	5/5/99	EPRI-9905-100	GW	2.10	7.60	7.9	2170	2050	0.1	U
EP-4	08/02/99	EPRI-9908-100	GW	1.3	7.61	7.8	2440	2490	0.076	UJ1
EP-4	10/25/99	EPRI-9911-100	GW		7.28	8.3	2660	2650	0.11	
EP-4	01/29/00	EPRI-0002-100	GW	1	7.64	8	2310	2290	0.18	J3
Average				1.62	7.56	7.93	2095	2066	0.097	
Median				1.34	7.59	7.9	2070	2120	0.085	
Standard Deviation				0.70	0.30	0.18	350	372	0.057	
Minimum				1.00	7.06	7.70	1595	1563	0.050	
Maximum				3.20	8.08	8.30	2660	2650	0.210	
EP-5	08/06/97	EPRI-9708-101	GW	1.29	7.47	7.70	3350	3330	0.05	U
EP-5	11/04/97	EPRI-9711-101	GW	2.52	7.58	8.00	3100	3700	0.05	U
EP-5	02/04/98	EPRI-9802-101	GW	0.68	7.58	8.10	3070	3060	0.14	
EP-5	05/05/98	EPRI-9805-101	GW	5.22	7.81	8.00	2980	2560	0.055	
EP-5	8/5/98	EPRI-9808-101	GW	1.14	7.36	7.8	2900	3360	0.050	U
EP-5	11/3/98	EPRI-9811-101	GW	1.00	7.04	7.6	3010	2890	0.05	U
EP-5	2/3/99	EPRI-9902-101	GW	1.70	7.87	8.0	2820	2800	0.28	
EP-5	5/5/99	EPRI-9905-101	GW	2.20	7.52	8.1	2780	2600	0.1	U
EP-5	08/02/99	EPRI-9908-101	GW	1.8	7.44	7.9	3300	3550	0.05	U
EP-5	10/25/99	EPRI-9911-101	GW		7.18	8.1	8230	8380	0.36	
Average				1.95	7.49	7.93	3554	3623	0.119	
Median				1.70	7.495	8	3040	3195	0.053	
Standard Deviation				1.36	0.25	0.18	1653	1716	0.112	
Minimum				0.68	7.04	7.60	2780	2560	0.050	
Maximum				5.22	7.87	8.10	8230	8380	0.360	
EP-6	08/06/97	EPRI-9708-102	GW	1.47	7.34	7.90	7320	7240	11	
EP-6	11/04/97	EPRI-9711-102	GW	1.03	7.44	7.90	7010	7440	17	
EP-6	02/04/98	EPRI-9802-102	GW	3.1	7.53	8.00	6060	997	A 0.05	U
EP-6	05/05/98	EPRI-9805-102	GW	3.00	7.62	8.00	5810	4950	0.35	
EP-6	8/5/98	EPRI-9808-102	GW	1.24	7.30	8.0	6720	7440	3.2	
EP-6	11/3/98	EPRI-9811-102	GW	1.50	7.33	7.7	7120	7030	4.3	
EP-6	2/3/99	EPRI-9902-102	GW	2.50	7.51	7.9	7270	6960	0.38	
EP-6	5/5/99	EPRI-9905-102	GW	1.40	7.39	8.1	7400	7100	0.19	
EP-6	5/5/99	EPRI-9905-179	GW	1.60	7.43	7.9	7400	6810	0.1	U
EP-6	08/02/99	EPRI-9908-102	GW	1.6	7.37	8.4	7760	7630	6.6	
EP-6	10/25/99	EPRI-9911-102	GW		7.15	8	8070	8090	3.5	
EP-6	01/29/00	EPRI-0002-102	GW	3.1	7.46	7.9	7860	7430	1.2	J3
Average				1.96	7.41	7.98	7150	6593	3.99	
Median				1.60	7.41	7.95	7295	7170	2.20	
Standard Deviation				0.80	0.12	0.17	680	1919	5.27	
Minimum				1.03	7.15	7.70	5810	997	0.05	
Maximum				3.10	7.62	8.40	8070	8090	17.00	
EP-7	08/06/97	EPRI-9708-103	GW	1.66	7.17	7.80	2810	2580	0.05	U
EP-7	11/04/97	EPRI-9711-103	GW	1.55	7.36	7.90	2710	2850	0.05	U
EP-7	02/04/98	EPRI-9802-103	GW	1.62	7.30	7.90	2810	501	R 0.076	
EP-7	05/05/98	EPRI-9805-103	GW	3.73	7.67	7.80	2890	2500	0.05	U
EP-7	8/5/98	EPRI-9808-103	GW	0.690	7.28	7.8	2800	630	R 0.050	U
EP-7	11/3/98	EPRI-9811-103	GW	1.20	7.31	7.6	2660	2610	0.050	U
EP-7	2/3/99	EPRI-9902-103	GW	1.90	7.51	7.9	2960	2790	0.1	U
EP-7	2/3/99	EPRI-9902-177	GW	2.00	7.51	7.8	2950	2800	0.1	U
EP-7	5/5/99	EPRI-9905-103	GW	2.50	7.50	7.9	3110	3030	0.41	
EP-7	08/02/99	EPRI-9908-103	GW	1.9	7.33	7.7	3790	3800	0.13	UJ1
EP-7	10/25/99	EPRI-9911-103	GW		6.97	7.8	6700	6910	0.11	
EP-7	10/25/99	EPRI-9911-206	GW			7.9	6700		0.1	
EP-7	01/29/00	EPRI-0002-103	GW	1.7	7.27	7.5	3840	3630	0.17	J3
EP-7	01/29/00	EPRI-0002-230	GW	2.6	7.34	7.8	3820	3560	0.2	J3

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N
Average				1.92	7.35	7.79	3611	2938	0.12
Median				1.80	7.33	7.8	2955	2800	0.10
Standard Deviation				0.77	0.18	0.12	1373	1558	0.10
Minimum				0.69	6.97	7.50	2660	501	0.05
Maximum				3.73	7.67	7.90	6700	6910	0.41
EP-12	11/03/97	EPRI-9711-104	GW	1.44	6.80	7.30	5840	7490	21
EP-12	02/03/98	EPRI-9802-104	GW	1.55	6.76	7.40	6580	7870	32
EP-12	05/20/98	EPRI-9805-104	GW	2.38	7.05	7.60	5280	4820	18
EP-12	8/27/98	EPRI-9808-104	GW	1.12	6.79	7.3	6360	5650	33
EP-12	11/16/98	EPRI-9811-104	GW	1.70	6.88	7.5	5580	5710	16
EP-12	2/25/99	EPRI-9902-104	GW	2.60	7.08	7.4	4890	4980	13
EP-12	5/14/99	EPRI-9905-104	GW	1.30	6.86	7.7	6020	J3 5910	10
EP-12	5/14/99	EPRI-9905-193	GW	2.10	7	7.7	5900	J3 5950	14
EP-12	08/11/99	EPRI-9908-104	GW	0.1	7.31	7.6	6110	6070	12
EP-12	10/29/99	EPRI-9911-104	GW	2.5	8	8.3	4400	4180	0.86
EP-12	02/08/00	EPRI-0002-104	GW			7.5	5520		3.2
EP-12	02/08/00	EPRI-0002-237	GW			7.6	5420		2.1
EP-12									J4
Average				1.68	7.05	7.58	5658.3	5863.0	14.60
Median				1.625	6.94	7.55	5710.0	5810.0	13.50
Standard Deviation				0.76	0.37	0.27	615.5	1130.2	10.45
Minimum				0.10	6.76	7.30	4400.0	4180.0	0.86
Maximum				2.60	8.00	8.30	6580.0	7870.0	33.00
EP-13	08/07/97	EPRI-9708-105	GW	5.56	7.35	7.70	12500	12410	104
EP-13	11/06/97	EPRI-9711-105	GW	4.01	7.11	7.80	12210	14320	105
EP-13	02/17/98	EPRI-9802-105	GW	0.182	6.95	7.70	11910	14100	103
EP-13	05/07/98	EPRI-9805-105	GW	2.79	6.96	7.70	11440	10900	82
EP-13	8/6/98	EPRI-9808-105	GW	2.80	6.98	7.70	11220	11320	83
EP-13	11/4/98	EPRI-9811-105	GW	7.2	7.12	7.40	11420	12670	73
EP-13	2/8/99	EPRI-9902-105	GW	5.60	7.16	7.60	11200	11070	82
EP-13	5/6/99	EPRI-9905-105	GW	5.90	7.08	7.70	10640	11480	119
EP-13	08/03/99	EPRI-9908-105	GW	2.6	7.19	7.50	11200	11300	96
EP-13	10/28/99	EPRI-9911-105	GW	3.7	7.03	8.00	8960	8160	81
EP-13	01/25/00	EPRI-0002-105	GW	4.7	7.27	7.80	10170	9840	96
EP-13									
Average				4.09	7.11	7.69	11170	11597	93
Median				4.01	7.11	7.70	11220	11320	96
Standard Deviation				1.97	0.13	0.16	985	1770	14
Minimum				0.18	6.95	7.40	8960	8160	73
Maximum				7.20	7.35	8.00	12500	14320	119
EP-14	11/05/97	EPRI-9711-106	GW	0.4	6.91	7.50	4430	5020	19
EP-14	02/17/98	EPRI-9802-106	GW	0.35	6.76	7.50	4520	6090	17
EP-14	05/07/98	EPRI-9805-106	GW	1.60	6.86	7.40	4660	5500	13
EP-14	8/6/98	EPRI-9808-106	GW	0.500	6.9	7.7	3590	3890	4.3
EP-14	11/4/98	EPRI-9811-106	GW	1.00	6.92	7.2	4230	4600	10
EP-14	2/8/99	EPRI-9902-106	GW	0.700	6.95	7.6	5070	4950	18
EP-14	5/6/99	EPRI-9905-106	GW	6.00	6.85	7.4	4900	5240	29
EP-14	08/03/99	EPRI-9908-106	GW	0.4	7.11	7.5	4300	4340	31
EP-14	10/28/99	EPRI-9911-106	GW	0.2	6.87	8.1	4750	5400	39
EP-14	01/25/00	EPRI-0002-106	GW	0.1	6.92	7.5	5130	4970	23
EP-14									J4
Average				1.13	6.91	7.54	4558	5000	20
Median				0.45	6.91	7.5	4590	4995	19
Standard Deviation				1.77	0.09	0.24	457	622	10
Minimum				0.10	6.76	7.20	3590	3890	4
Maximum				6.00	7.11	8.10	5130	6090	39
EP-15	08/07/97	EPRI-9708-107	GW	2.84	7.20	7.80	3150	2830	23
EP-15	11/06/97	EPRI-9711-107	GW	2.37	7.30	7.90	3060	3180	12
EP-15	02/17/98	EPRI-9802-107	GW	2.45	7.12	7.70	3100	3980	17
EP-15	05/07/98	EPRI-9805-107	GW	2.47	7.35	7.80	2960	3320	18
EP-15	8/10/98	EPRI-9808-107	GW	1.77	7.34	7.9	2810	2750	13
EP-15	11/5/98	EPRI-9811-107	GW	1.5	7.21	7.6	3090	3040	18
EP-15	2/8/99	EPRI-9902-107	GW	2.50	7.27	7.8	3620	3560	18

**Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-15	2/8/99	EPRI-9902-181	GW	2.50	7.27	8.0	3600	3560	17	
EP-15	5/5/99	EPRI-9905-107	GW	7.30	7.12	7.7	4170	8580	21	R
EP-15	08/03/99	EPRI-9908-107	GW	2	7.19	7.5	4460	4500	32	
EP-15	08/03/99	EPRI-9908-194	GW	2	7.19	7.6	4460	4520	30	
EP-15	10/28/99	EPRI-9911-107	GW	1.3	6.85	8.1	4400	3960	20	
EP-15	01/24/00	EPRI-0002-107	GW	1.6	7.14	7.8	4560	4470	26	
Average				2.51	7.20	7.78	3649	4019	20	
Median				2.37	7.2	7.8	3600	3560	18	
Standard Deviation				1.51	0.13	0.17	669	1502	6	
Minimum				1.30	6.85	7.50	2810	2750	12	
Maximum				7.30	7.35	8.10	4560	8580	32	
EP-20	08/07/97	EPRI-9708-108	GW	1.98	6.72	7.40	11160	11270	235	
EP-20	11/03/97	EPRI-9711-108	GW	2.56	7.05	7.30	10760	12760	107	
EP-20	02/03/98	EPRI-9802-108	GW	2.36	7.06	7.40	10800	13110	201	
EP-20	05/06/98	EPRI-9805-108	GW	3.49	7.22	7.50	10510	10580	183	
EP-20	8/6/98	EPRI-9808-108	GW	2.39	6.88	7.6	10210	10440	163	
EP-20	11/4/98	EPRI-9811-108	GW	1.60	6.92	7.1	10370	10130	148	
EP-20	2/4/99	EPRI-9902-108	GW	2.40	6.96	7.4	9910	10010	107	
EP-20	5/4/99	EPRI-9905-108	GW	2.3	6.95	7.4	10320	10220	172	
EP-20	08/02/99	EPRI-9908-108	GW	1.6	6.89	7.2	9930	10090	143	
EP-20	10/26/99	EPRI-9911-108	GW	2.2	6.73	7.2	9800	9770	143	
EP-20	01/31/00	EPRI-0002-108	GW	2.1	6.86	7.5	9530	9120	84	
EP-20	01/31/00	EPRI-0002-232	GW	1.1	6.8	7.5	9500	9050	84	
Average				2.17	6.92	7.38	10233	10546	148	
Median				2.25	6.905	7.4	10265	10175	146	
Standard Deviation				0.59	0.14	0.15	520	1267	47	
Minimum				1.10	6.72	7.10	9500	9050	84	
Maximum				3.49	7.22	7.60	11160	13110	235	
EP-21	11/18/97	EPRI-9711-109	GW			7.80	6260		0.05	U
EP-21	02/18/98	EPRI-9802-109	GW	0.65	7.30	8.00	5980	8000	0.05	U
EP-21	05/21/98	EPRI-9805-109	GW	0.41	7.26	7.80	5740	1096	0.1	U
EP-21	8/24/98	EPRI-9808-109	GW	0.310	7.41	8.0	5680	5670	0.050	U
EP-21	11/16/98	EPRI-9811-109	GW	0.200	7.57	8.0	5690	5630	0.050	U
EP-21	2/24/99	EPRI-9902-109	GW	0.400	7.56	8.1	5670	5740	0.27	
EP-21	08/10/99	EPRI-9908-109	GW	0.8	7.66	8	5140	5160	0.05	J4
EP-21	11/03/99	EPRI-9911-109	GW	1.3	7.28	7.9	5240	5760	0.12	
EP-21	02/01/00	EPRI-0002-109	GW	0.7	7.54	8.1	4880	1101	1.2	J3
Average				0.60	7.45	7.97	5587	4770	0.22	
Median				0.53	7.475	8	5680	5650	0.05	
Standard Deviation				0.35	0.15	0.11	430	2421	0.38	
Minimum				0.20	7.26	7.80	4880	1096	0.05	
Maximum				1.30	7.66	8.10	6260	8000	1.20	
EP-22	08/15/97	EPRI-9708-110	GW	2.92	7.46	7.90	8540	8510	100	
EP-22	11/18/97	EPRI-9711-110	GW	1.01	7.16	7.40	9980	12900	158	
EP-22	02/18/98	EPRI-9802-110	GW	3.75	7.49	7.60	9900	11910	294	
EP-22	06/10/98	EPRI-9806-201	GW	2.26	7.63	7.70	9520	9560	210	
EP-22	8/24/98	EPRI-9808-110	GW	0.170	7.36	7.8	6840	6850	29	
EP-22	11/16/98	EPRI-9811-110	GW	0.900	7.51	8.0	7480	7480	13	
EP-22	01/26/00	EPRI-0002-110	GW	2.8	7.19	7.9	7500	6930	11	J3
Average				1.97	7.40	7.76	8537	9163	116	
Median				2.26	7.46	7.8	8540	8510	100	
Standard Deviation				1.30	0.17	0.21	1290	2424	109	
Minimum				0.17	7.16	7.40	6840	6850	11	
Maximum				3.75	7.63	8.00	9980	12900	294	
EP-23	08/11/97	EPRI-9708-111	GW	1.17	7.36	7.50	6790	6640	0.3	
EP-23	11/04/97	EPRI-9711-111	GW	0.73	7.51	7.70	6130	6810	0.16	
EP-23	02/04/98	EPRI-9802-111	GW	1.45	7.42	7.70	6190	7190	0.14	
EP-23	05/11/98	EPRI-9805-111	GW	0.88	7.13	7.60	5500	5790	0.05	U
EP-23	8/12/98	EPRI-9808-111	GW	0.990	7.47	7.7	5620	5010	0.058	

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Wells Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-23	11/5/98	EPRI-9811-111	GW	0.600	7.50	7.5	5790	4650	0.050	U
EP-23	2/11/99	EPRI-9902-111	GW			7.8	5470		0.050	U
EP-23	5/7/99	EPRI-9905-111	GW	0.9	7.41	7.8	4310	4420	0.14	J4
EP-23	5/14/99	EPRI-9905-111A	GW	1.90	7.29	7.8	4190	J3 4200	0.10	U
EP-23	08/04/99	EPRI-9908-111	GW		7.49	7.8	3750	3840	0.1	
EP-23	10/30/99	EPRI-9911-111	GW		7.35	7.9	3340	3320	0.32	UJ1
EP-23	02/01/00	EPRI-0002-111	GW	1	7.49	7.8	4770	951 R	0.19	UJ1
Average				1.06	7.41	7.74	5005	4618	0.12	
Median				0.95	7.445	7.8	5470	4535	0.10	
Standard Deviation				0.42	0.12	0.11	984	1792	0.08	
Minimum				0.60	7.13	7.50	3340	951	0.05	
Maximum				1.90	7.51	7.90	6190	7190	0.32	
EP-24	08/15/97	EPRI-9708-112	GW	1.13	6.70	8.00	5150	4660	0.05	U
EP-24	11/18/97	EPRI-9711-112	GW	0	0.00	7.70	5940	0	0.05	U
EP-24	02/18/98	EPRI-9802-112	GW	1.26	6.74	8.10	5130	5820	0.05	U
EP-24	05/21/98	EPRI-9805-112	GW	0.80	6.95	7.50	5380	999 R	0.1	U
EP-24	8/24/98	EPRI-9808-112	GW	0.501	6.79	7.3	5200	5000	0.050	U
EP-24	11/16/98	EPRI-9811-112	GW	0.600	6.93	7.7	5390	5220	0.050	U
EP-24	2/11/99	EPRI-9902-112	GW			7.8	5800		0.20	
EP-24	5/14/99	EPRI-9905-112	GW			7.4	6410	J3	0.10	U
EP-24	08/10/99	EPRI-9908-112	GW	0.6	7.05	7.8	5680	5640	0.08	J4
EP-24	11/03/99	EPRI-9911-112	GW	1	6.96	7.7	5200	5990	0.13	
EP-24	02/01/00	EPRI-0002-112	GW	0.3	6.93	7.5	5120	1072 R	0.16	UJ1
Average				0.69	6.12	7.68	5491	3822	0.09	
Median				0.60	6.93	7.7	5380	5000	0.08	
Standard Deviation				0.40	2.30	0.24	419	2403	0.05	
Minimum				0.00	0.00	7.30	5120	0	0.05	
Maximum				1.26	7.05	8.10	6410	5990	0.20	
EP-25	08/15/97	EPRI-9708-113	GW	1.32	7.13	7.40	5990	5730	0.94	
EP-25	11/19/97	EPRI-9711-113	GW			7.80	5470		0.05	U
EP-25	02/18/98	EPRI-9802-113	GW			7.60	5420		0.05	U
EP-25	05/21/98	EPRI-9805-113	GW			7.50	5760		0.1	U
EP-25	8/24/98	EPRI-9808-113	GW			7.2	5420		0.050	U
EP-25	11/16/98	EPRI-9811-113	GW			7.5	5470		0.055	
EP-25	5/14/99	EPRI-9905-113	GW			7.0	7880	J3	0.67	
EP-25	08/11/99	EPRI-9908-113	GW			7.1	7210		1	
EP-25	11/03/99	EPRI-9911-113	GW	3.3	6.87	7.3	6580	5750	0.12	
EP-25	11/03/99	EPRI-9911-238	GW	3.3	6.82	7.5	5640	5970	0.12	
EP-25	02/08/00	EPRI-0002-113	GW			7.6	5200		0.36	UJ1,J4
Average				2.64	6.94	7.41	6004	5817	0.32	
Median				3.30	6.87	7.5	5640	5750	0.12	
Standard Deviation						0.24	860		0.37	
Minimum				1.32	6.82	7.00	5200	5730	0.05	
Maximum				3.30	7.13	7.80	7880	5970	1.00	
EP-26	08/11/97	EPRI-9708-114	GW	5.26	7.69	7.20	544	568	2.3	
EP-26	11/04/97	EPRI-9711-114	GW	5.05	7.15	7.30	1700	1900	3.9	
EP-26	02/04/98	EPRI-9802-114	GW	5.74	7.58	7.40	202	239	1.4	
EP-26	05/07/98	EPRI-9805-114	GW	6.30	7.64	7.00	141	170	1.8	
EP-26	8/12/98	EPRI-9808-114	GW	5.59	7.21	7.4	188	190	2.1	
EP-26	11/4/98	EPRI-9811-114	GW	5.70	7.99	6.4	412	448	3.8	
EP-26	2/4/99	EPRI-9902-114	GW	6.90	7.26	7.4	133	170	1.4	
EP-26	5/5/99	EPRI-9905-114	GW	2.10	7.02	7.3	362	4440 R	3.0	
EP-26	08/04/99	EPRI-9908-114	GW		7.07	7.4	2000	2200	14	
EP-26	01/26/00	EPRI-0002-114	GW	0.5	7.16	7.9	4440	4210	4.9	J3
Average				4.79	7.38	7.27	1012	1454	4	
Median				5.59	7.235	7.35	387	508	3	
Standard Deviation				2.09	0.32	0.38	1377	1681	4	
Minimum				0.50	7.02	6.40	133	170	1	
Maximum				6.90	7.99	7.90	4440	4440	14	

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-29	08/07/97	EPRI-9708-115	GW	2.77	7.41	8.00	3090	3110	7.6	
EP-29	11/03/97	EPRI-9711-115	GW	0.52	7.09	7.90	2960	3610	6.3	
EP-29	02/03/98	EPRI-9802-115	GW	0.68	7.47	8.00	3100	3890	8.1	
EP-29	05/06/98	EPRI-9805-115	GW	4.14	7.59	8.00	3180	3470	7.5	
EP-29	8/6/98	EPRI-9808-115	GW	5.67	8.68	8.7	3070	3140	14	
EP-29	11/4/98	EPRI-9811-115	GW	5.20	8.42	8.5	3350	3150	8.9	
EP-29	2/3/99	EPRI-9902-115	GW	4.10	8.06	8.1	3130	3410	8.7	
EP-29	5/4/99	EPRI-9905-115	GW	2.30	7.68	8.2	3160	3120	4.4	
EP-29	5/4/99	EPRI-9905-177	GW	2.30	7.69	8.1	3140	3130	4.5	
EP-29	08/02/99	EPRI-9908-115	GW	3.5	7.59	7.8	3180	3220	3.3	
EP-29	10/26/99	EPRI-9911-115	GW	2.4	7.42	8.2	3160	3130	3.8	
EP-29	01/31/00	EPRI-0002-115	GW	1.6	7.62	8.1	3190	3040	4.3	UJ1
Average				2.93	7.73	8.13	3143	3285	7	
Median				2.59	7.605	8.1	3150	3145	7	
Standard Deviation				1.64	0.45	0.25	91	258	3	
Minimum				0.52	7.09	7.80	2960	3040	3	
Maximum				5.67	8.68	8.70	3350	3890	14	
EP-35	08/07/97	EPRI-9708-116	GW	5.98	7.55	8.00	6530	6150	67	
EP-35	11/03/97	EPRI-9711-116	GW	1.75	6.92	7.50	6340	7420	86	
EP-35	02/03/98	EPRI-9802-116	GW	2.11	6.99	7.60	6760	7940	82	
EP-35	05/06/98	EPRI-9805-116	GW	2.47	7.15	7.20	6530	6950	69	
EP-35	8/6/98	EPRI-9808-116	GW	1.89	6.91	7.6	6300	5300	79	
EP-35	11/4/98	EPRI-9811-116	GW	1.90	7.11	7.2	6220	6100	58	
EP-35	2/4/99	EPRI-9902-116	GW	3.80	7.03	7.4	6410	6140	66	
EP-35	5/4/99	EPRI-9905-116	GW	1.90	6.98	7.4	6810	6730	82	
EP-35	08/02/99	EPRI-9908-116	GW	2.9	6.92	7.1	6920	7000	88	
EP-35	10/26/99	EPRI-9911-116	GW	1.7	6.71	7.8	6770	6740	67	
EP-35	01/31/00	EPRI-0002-116	GW	1.7	6.91	7.7	6660	6350	39	
Average				2.55	7.02	7.50	6568	6620	71	
Median				1.90	6.98	7.5	6530	6730	69	
Standard Deviation				1.30	0.21	0.28	233	721	14	
Minimum				1.70	6.71	7.10	6220	5300	39	
Maximum				5.98	7.55	8.00	6920	7940	88	
EP-43	11/03/97	EPRI-9711-172	GW	0.52	7.31	7.60	4950	5830	0.05	U
EP-43	02/03/98	EPRI-9802-175	GW	0.03	7.09	7.50	9590	11980	0.05	U
EP-43	05/20/98	EPRI-9805-175	GW	1.50	7.07	7.50	4930	4480	8	
EP-43	8/27/98	EPRI-9808-175	GW	1.01	6.94	7.3	4720	4780	13	
EP-43	11/16/98	EPRI-9811-175	GW			7.2	5650		0.14	
EP-43	2/25/99	EPRI-9902-176	GW			7.8	7140		3.6	
EP-43	2/25/99	EPRI-9902-196	GW			7.7	7090		3.6	
EP-43	5/14/99	EPRI-9905-117	GW			7.4	8600	J3	2.9	
EP-43	08/11/99	EPRI-9908-117	GW	2	7.57	7.5	8070	6880	6.2	
EP-43	08/11/99	EPRI-9908-206	GW	1.3	7.61	7.5	8060	6890	6.9	
EP-43	10/29/99	EPRI-9911-117	GW	7.7	7.72	7.8	8130	7320	0.18	UJ1,J4
EP-43	02/08/00	EPRI-0002-117	GW			7.3	3900		0.61	UJ1,J4
Average				2.01	7.33	7.51	6736	6880	4	
Median				1.30	7.31	7.5	7115	6880	3	
Standard Deviation				2.59	0.31	0.19	1837	2499	4	
Minimum				0.03	6.94	7.20	3900	4480	0	
Maximum				7.70	7.72	7.80	9590	11980	13	
EP-44	10/26/99	EPRI-9911-162	GW	1.40	7.02	8.00	5740	5710	56	
EP-49	11/19/97	EPRI-9711-117	GW			3.50	11740		0.2	U
EP-49	02/19/98	EPRI-9802-117	GW			4.00	11440		0.05	U
EP-49	05/21/98	EPRI-9805-117	GW			3.60	10920		0.1	U
EP-49	8/27/98	EPRI-9808-117	GW		5.30	3.8	11000		0.25	U
EP-49	11/16/98	EPRI-9811-117	GW			3.7	10800		0.050	U
EP-49	2/25/99	EPRI-9902-117	GW			4.5	12320		0.13	
EP-49	5/14/99	EPRI-9905-118	GW			4.2	10570	J3	0.72	
EP-49	11/02/99	EPRI-9911-118	GW			5.4	10440		0.85	
EP-49	01/29/00	EPRI-0002-118	GW	0.1	6.62	7.4	9960	9530	6	J3

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
Average					5.96	4.46	11021		1	
Median					5.96	4	10920		0	
Standard Deviation						1.25	716		2	
Minimum				0.10	5.30	3.50	9960	9530	0	
Maximum				0.10	6.62	7.40	12320	9530	6	
EP-51	08/11/97	EPRI-9708-118A	GW	0.7	6.73			10400		
EP-51	08/26/97	EPRI-9708-118	GW	9.4	7.25	7.30	11800	10630	115	
EP-51	11/06/97	EPRI-9711-118	GW	2.35	6.58	7.30	11670	12140	138	
EP-51	11/06/97	EPRI-9711-174	GW			7.20	11440		134	
EP-51	02/12/98	EPRI-9802-118	GW	0.03	5.85	6.90	11070	13050	133	
EP-51	05/11/98	EPRI-9805-118	GW	1.42	6.29	8.20	11800	9890	146	
EP-51	8/12/98	EPRI-9808-118	GW	3.59	6.71	7.2	10080	9720	146	
EP-51	11/5/98	EPRI-9811-118	GW	1.00	6.67	6.8	9840	8180	136	
EP-51	11/5/98	EPRI-9811-178	GW			6.9	9820		134	
EP-51	2/9/99	EPRI-9902-118	GW	2.10	6.86	7.4	9060	8760	144	
EP-51	2/9/99	EPRI-9902-183	GW	2.10	6.87	7.4	9140	8780	141	
EP-51	5/6/99	EPRI-9905-119	GW	1.20	6.63	7.3	9870	9760	158	
EP-51	08/04/99	EPRI-9908-119	GW		6.87	7.2	11040	9560	192	
EP-51	08/04/99	EPRI-9908-196	GW		6.88	7.2	11020	9570	227	
EP-51	11/02/99	EPRI-9911-119	GW	1.6	6.71	7.3	9920	9840	202	
EP-51	01/26/00	EPRI-0002-119	GW	6.86	6.86	7.5	9820	9000	169	J3
Average				2.70	6.70	7.27	10493	9949	154	
Median				1.85	6.72	7.3	10080	9740	144	
Standard Deviation				2.75	0.32	0.32	953	1310	31	
Minimum				0.03	5.85	6.80	9060	8180	115	
Maximum				9.40	7.25	8.20	11800	13050	227	
EP-52	11/06/97	EPRI-9711-173	GW	6.54	6.10	7.10	9750	11000	157	
EP-52	02/12/98	EPRI-9802-176	GW	2	6.03	6.90	10870	13320	130	
EP-52	8/12/98	EPRI-9808-176	GW	3.33	6.17	7.0	10580	10850	113	
EP-52	8/12/98	EPRI-9808-182	GW			7.1	10560		116	
EP-52	11/5/98	EPRI-9811-176	GW	2.30	6.28	6.6	11100	9710	99	
EP-52	2/9/99	EPRI-9902-119	GW	4.90	6.38	7.1	11150	11040	112	
EP-52	5/6/99	EPRI-9905-120	GW	1.70	6.20	7.3	11250	11880	144	
EP-52	08/05/99	EPRI-9908-120	GW	0.7	6.21	7.2	11190	12290	130	
EP-52	10/29/99	EPRI-9911-120	GW	1.5	6.07	7	11250	9900	103	
EP-52	01/26/00	EPRI-0002-120	GW	0.4	6.38	8.6	11940	11220	114	J3
Average				2.60	6.20	7.19	10964	11246	122	
Median				2.00	6.2	7.1	11125	11040	115	
Standard Deviation				2.01	0.13	0.53	579	1131	18	
Minimum				0.40	6.03	6.60	9750	9710	99	
Maximum				6.54	6.38	8.60	11940	13320	157	
EP-53	08/11/97	EPRI-9708-172	GW	7.74	6.58	7.20	7790	7300	122	
EP-53	02/04/98	EPRI-9802-178	GW	1.43	6.43	7.00	7590	9580	97	
EP-53	06/10/98	EPRI-9806-200	GW	2.17	6.68	6.90	7470	7780	125	
EP-53	8/12/98	EPRI-9808-178	GW	0.99	6.66	7.2	7550	5010	156	
EP-53	11/5/98	EPRI-9811-179	GW	1.1	7.08	6.8	7980	6540	183	
EP-53	2/4/99	EPRI-9902-120	GW	1.80	6.44	7.1	7040	7780	93	
EP-53	5/5/99	EPRI-9905-121	GW	1.60	6.63	7.3	7120	15650	R 112	
EP-53	08/04/99	EPRI-9908-121	GW		6.85	7.1	7190	7240	31	
EP-53	10/26/99	EPRI-9911-121	GW	1	6.38	6.8	7380	7350	104	
EP-53	02/01/00	EPRI-0002-121	GW	2	6.75	7.6	7520	1594	R 113	
Average				2.20	6.65	7.10	7463	7582	114	
Median				1.60	6.645	7.1	7495	7325	113	
Standard Deviation				2.12	0.21	0.24	294	3543	40	
Minimum				0.99	6.38	6.80	7040	1594	31	
Maximum				7.74	7.08	7.60	7980	15650	183	
EP-54	08/11/97	EPRI-9708-119A	GW	1.64	6.06			10470		
EP-54	08/26/97	EPRI-9708-119	GW		6.60	6.90	11340	1980	R 0.24	
EP-54	11/06/97	EPRI-9711-119	GW	2.51	6.14	6.80	10750	12010	0.3	

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Wells Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-54	02/12/98	EPRI-9802-119	GW	1.94	5.98	7.40	10100	11060	3.1	
EP-54	05/11/98	EPRI-9805-119	GW	1.93	6.20	7.10	9780	11910	2.8	
EP-54	8/12/98	EPRI-9808-119	GW	3.35	6.31	7.2	10200	11320	1.5	
EP-54	11/5/98	EPRI-9811-119	GW	5.80	6.48	6.7	10680	9280	8.1	
EP-54	2/9/99	EPRI-9902-121	GW	5.70	6.60	7.4	10500	10150	7.6	
EP-54	5/6/99	EPRI-9905-122	GW	5.90	6.35	7.1	9540	11490	6.6	J4
EP-54	5/7/99	EPRI-9905-122A	GW	2.60	6.43	7.7	8980	9300	3.6	J4
EP-54	08/04/99	EPRI-9908-122	GW		6.37	7	11000	11260	8.6	
EP-54	10/29/99	EPRI-9911-122	GW	7.4	6.57	7.4	10500	8290	5.3	
EP-54	01/26/00	EPRI-0002-122	GW	7.9	6.51	7	7940	9910	10	J3
Average				4.24	6.35	7.14	10109	9879	5	
Median				3.35	6.37	7.1	10350	10470	4	
Standard Deviation				2.34	0.21	0.29	943	2625	3	
Minimum				1.64	5.98	6.70	7940	1980	0	
Maximum				7.90	6.60	7.70	11340	12010	10	
EP-55	08/15/97	EPRI-9708-120	GW	1.85	6.17	7.00	10550	10700	0.05	U
EP-55	11/19/97	EPRI-9711-120	GW	2.12	6.25	6.90	10480	12860	0.05	U
EP-55	02/12/98	EPRI-9802-120	GW	1.21	5.95	6.90	10510	14030	0.05	U
EP-55	05/20/98	EPRI-9805-120	GW	1.93	6.06	6.70	10280	10320	0.1	U
EP-55	8/27/98	EPRI-9808-120	GW	0.940	6.15	6.4	9980	10020	0.050	U
EP-55	11/16/98	EPRI-9811-120	GW	1.70	6.24	6.5	9940	9850	0.050	U
EP-55	2/11/99	EPRI-9902-122	GW	0.900	6.31	6.7	10240	10350	0.092	
EP-55	5/14/99	EPRI-9905-123	GW	1.00	6.25	7.1	10510	10850	0.13	J3
EP-55	08/10/99	EPRI-9908-123	GW	0.5	6.33	6.9	10470	10550	0.09	J4
EP-55	10/29/99	EPRI-9911-123	GW	1.6	6.2	8.1	10240	10290	0.23	UJ1,J4
EP-55	02/07/00	EPRI-0002-123	GW	1.3	6.38	6.9	10000	9420	1.3	UJ1
Average				1.37	6.21	6.92	10291	10840	0	
Median				1.30	6.24	6.9	10280	10350	0	
Standard Deviation				0.51	0.12	0.44	233	1373	0	
Minimum				0.50	5.95	6.40	9940	9420	0	
Maximum				2.12	6.38	8.10	10550	14030	1	
EP-56	08/11/97	EPRI-9708-121A	GW	2.51	7.34			5470		
EP-56	08/26/97	EPRI-9708-121	GW		7.25	7.60	5600	1063	R	0.77
EP-56	11/04/97	EPRI-9711-121	GW	0.77	7.12	7.60	5520	5930	2	
EP-56	02/04/98	EPRI-9802-121	GW	1.81	7.14	7.80	5520	6620	2.5	
EP-56	05/07/98	EPRI-9805-121	GW	1.08	7.03	7.60	5500	7170	3.2	
EP-56	8/12/98	EPRI-9808-121	GW	0.980	7.15	7.6	5520	5600	1.5	
EP-56	11/4/98	EPRI-9811-121	GW	1.20	6.38	7.3	5600	7230	0.42	
EP-56	2/4/99	EPRI-9902-123	GW	1.00	7.23	7.6	5600	6130	0.38	
EP-56	2/4/99	EPRI-9902-179	GW	1.00	7.24	8.2	5640	6140	0.39	
EP-56	5/4/99	EPRI-9905-124	GW	1.90	7.13	7.6	5580	5850	0.1	U
EP-56	08/04/99	EPRI-9908-124	GW		7.17	7.5	5390	5460	0.91	
EP-56	10/26/99	EPRI-9911-124	GW	1.9	7.04	8.1	5290	5320	0.63	
EP-56	10/26/99	EPRI-9911-220	GW			8.2	5300		0.63	
EP-56	2/1/00	EPRI-0002-124	GW	1.00	7.03	7.8	5120	4810	0.45	
EP-56	2/1/00	EPRI-0002-233	GW	0.70	7.1	7.8	5080	4850	0.45	
Median				1.08	7.14	7.6	5520	5850	1	
Standard Deviation				0.56	0.23	0.28	155	1534	1	
Minimum				0.77	6.38	7.30	5120	1063	0	
Maximum				2.51	7.34	8.20	5640	7230	3	
EP-57	08/16/97	EPRI-9708-122	GW	1	7.30	7.90	3330	3370	3.8	
EP-57	11/14/97	EPRI-9711-122	GW	1.72	7.01	7.40	3070	3500	1.5	
EP-57	02/18/98	EPRI-9802-122	GW	0.78	7.01	7.50	2900	3530	0.2	
EP-57	05/18/98	EPRI-9805-122	GW	1.01	7.18	7.50	2610	2440	0.16	
EP-57	8/24/98	EPRI-9808-122	GW	0.230	7.01	7.7	3250	2840	1.8	
EP-57	11/16/98	EPRI-9811-122	GW	0.300	7.07	7.6	2070	1913	0.054	
EP-57	2/24/99	EPRI-9902-124	GW	0.200	7.15	7.7	3020	3460	0.80	
EP-57	5/13/99	EPRI-9905-125	GW	0.600	7.11	7.8	2340	2120	0.45	J4
EP-57	08/10/99	EPRI-9908-125	GW	0.3	7.07	7.6	2670	2560	0.14	J4
EP-57	11/03/99	EPRI-9911-125	GW	1.3	6.87	7.5	3230	3210	0.11	
EP-57	02/07/00	EPRI-0002-125	GW	0.04	7.01	7.7	3080	2700	1.2	UJ1

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Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
Average				0.68	7.07	7.63	2870	2877	1	
Median				0.60	7.07	7.6	3020	2840	0	
Standard Deviation				0.53	0.11	0.15	403	577	1	
Minimum				0.04	6.87	7.40	2070	1913	0	
Maximum				1.72	7.30	7.90	3330	3530	4	
EP-58	08/16/97	EPRI-9708-123	GW	0.24	6.54	6.90	11230	11340	0.05	U
EP-58	11/14/97	EPRI-9711-123	GW	0.84	6.54	6.90	11480	14130	0.05	U
EP-58	02/18/98	EPRI-9802-123	GW	0.79	6.38	6.80	11510	13740	0.05	U
EP-58	05/18/98	EPRI-9805-123	GW	0.43	6.35	6.80	11500	11490	0.05	U
EP-58	8/24/98	EPRI-9808-123	GW	0.800	6.40	7	11600	11680	0.050	U
EP-58	11/16/98	EPRI-9811-123	GW	1.30	6.39	7.2	11580	11290	0.050	U
EP-58	2/24/99	EPRI-9902-125	GW	1.00	6.53	7.8	11510	13950	0.057	
EP-58	5/13/99	EPRI-9905-126	GW	0.900	6.38	7.2	11660	10090	0.10	U,UJ4
EP-58	08/10/99	EPRI-9908-126	GW	0.5	6.49	8	11590	11610	0.06	J4
EP-58	11/03/99	EPRI-9911-126	GW	1.1	6.36	7	11310	12590	0.071	
EP-58	02/07/00	EPRI-0002-126	GW	0.04	6.42	7.2	11700	10800	1.3	UJ1
Average				0.72	6.43	7.16	11515	12065	0	
Median				0.80	6.4	7	11510	11610	0	
Standard Deviation				0.38	0.08	0.40	140	1350	0	
Minimum				0.04	6.35	6.80	11230	10090	0	
Maximum				1.30	6.54	8.00	11700	14130	1	
EP-59	08/09/97	EPRI-9708-124	GW	2.08	6.98	7.70	4780	4750	7.7	
EP-59	11/05/97	EPRI-9711-124	GW	0.2	7.23	7.60	4660	5340	8.8	
EP-59	02/05/98	EPRI-9802-124	GW	1.06	7.09	7.30	4640	5630	10	
EP-59	05/08/98	EPRI-9805-124	GW	1.33	7.13	7.70	4800	5600	13	
EP-59	8/10/98	EPRI-9808-124	GW	1.75	7.09	7.4	4850	4750	12	
EP-59	8/10/98	EPRI-9808-184	GW			7.4	4850		13	
EP-59	11/9/98	EPRI-9811-124	GW	2.70	7.04	7.4	4980	4980	12	
EP-59	2/10/99	EPRI-9902-126	GW	0.700	7.13	7.6	5260	5320	15	
EP-59	2/10/99	EPRI-9902-185	GW	0.700	7.14	8.3	5270	5230	15	
EP-59	5/6/99	EPRI-9905-127	GW	0.800	7.01	7.4	5060	5400	14	
EP-59	08/03/99	EPRI-9908-127	GW	0.4	7.18	7.4	4920	4950	12	
EP-59	10/27/99	EPRI-9911-127	GW	3.9	6.99	8.1	4740	4780	11	
EP-59	01/28/00	EPRI-0002-127	GW	0.6	7.12	7.9	5160	4900	8.6	J3
Average				1.35	7.09	7.63	4921	5136	12	
Median				0.93	7.105	7.6	4850	5105	12	
Standard Deviation				1.09	0.08	0.31	212	324	2	
Minimum				0.20	6.98	7.30	4640	4750	8	
Maximum				3.90	7.23	8.30	5270	5630	15	
EP-60	08/08/97	EPRI-9708-125	GW	2.44	6.98	7.50	9140	8840	90	
EP-60	11/05/97	EPRI-9711-125	GW	0.16	6.99	7.50	8560	9660	90	
EP-60	02/05/98	EPRI-9802-125	GW	1.7	6.95	7.30	8780	10210	109	
EP-60	05/08/98	EPRI-9805-125	GW	1.23	7.24	7.60	8880	9880	76	
EP-60	8/10/98	EPRI-9808-125	GW	3.77	7.06	7.7	8700	8310	57	
EP-60	11/9/98	EPRI-9811-125	GW	3.60	7.21	7.7	8480	8240	40	
EP-60	2/10/99	EPRI-9902-127	GW	1.90	7.00	7.8	8670	8650	57	
EP-60	5/6/99	EPRI-9905-132	GW	0.700	6.80	7.4	8670	9010	83	
EP-60	08/03/99	EPRI-9908-128	GW	3	7.18	7.6	8570	8410	68	
EP-60	10/27/99	EPRI-9911-128	GW	0.7	6.82	8.1	8280	8130	63	
EP-60	01/28/00	EPRI-0002-128	GW	0.3	7.05	7.9	8320	7890	41	J3
Average				1.77	7.03	7.65	8641	8839	70	
Median				1.70	7	7.6	8670	8650	68	
Standard Deviation				1.29	0.14	0.23	245	770	22	
Minimum				0.16	6.80	7.30	8280	7890	40	
Maximum				3.77	7.24	8.10	9140	10210	109	
EP-61	08/16/97	EPRI-9708-126	GW	2.3	7.15	7.90	9290	9210	154	
EP-61	11/14/97	EPRI-9711-126	GW	1.71	6.93	7.20	9080	11290	164	
EP-61	02/18/98	EPRI-9802-126	GW	1.68	6.85	7.30	9200	10350	207	
EP-61	02/18/98	EPRI-9802-180	GW	1.68	6.85	7.40	9190	10350	210	

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N
EP-61	05/18/98	EPRI-9805-126	GW	0.51	6.95	7.30	8860	8810	156
EP-61	8/24/98	EPRI-9808-126	GW	0.74	7.03	7.5	8620	8710	117
EP-61	11/16/98	EPRI-9811-126	GW	1.10	7.02	7.6	8530	8320	131
EP-61	2/24/99	EPRI-9902-128	GW	0.600	7.17	7.6	8320	9720	91
EP-61	5/13/99	EPRI-9905-129	GW	0.900	6.78	8.0	8240	7360	166
EP-61	08/10/99	EPRI-9908-129	GW	1.1	7.15	7.7	8070	8060	82
EP-61	11/03/99	EPRI-9911-129	GW	1.8	6.96	7.8	8180	8990	100
EP-61	02/07/00	EPRI-0002-129	GW	0.9	7.09	7.7	8360	7780	93
Average				1.25	6.99	7.58	8662	9079	139
Median				1.10	6.99	7.6	8575	8900	143
Standard Deviation				0.56	0.13	0.25	444	1169	44
Minimum				0.51	6.78	7.20	8070	7360	82
Maximum				2.30	7.17	8.00	9290	11290	210
EP-62	08/09/97	EPRI-9708-127	GW	1.45	7.10	7.70	5050	5030	9.8
EP-62	11/05/97	EPRI-9711-127	GW	1.16	7.09	7.70	5050	5580	7.3
EP-62	02/05/98	EPRI-9802-127	GW	3.07	7.16	7.40	5460	5980	17
EP-62	05/08/98	EPRI-9805-127	GW	2.87	7.21	7.70	4820	5480	11
EP-62	8/10/98	EPRI-9808-127	GW	4.33	7.16	7.7	4840	4770	8.6
EP-62	11/9/98	EPRI-9811-127	GW	1.6	7.3	7.5	4680	4710	6.4
EP-62	2/10/99	EPRI-9902-129	GW	4.8	7.41	8.5	4500	4600	4.8
EP-62	5/6/99	EPRI-9905-130	GW	3.8	7.1	7.6	4420	4600	5.8
EP-62	08/03/99	EPRI-9908-130	GW	2.1	7.29	7.4	4410	4470	5.5
EP-62	10/27/99	EPRI-9911-130	GW	4.3	7.04	8.2	4000	3830	4.7
EP-62	01/28/00	EPRI-0002-130	GW	6.2	7.3	7.1	4460	4310	3.8
Average				3.24	7.20	7.68	4699	4851	8
Median				3.07	7.16	7.7	4680	4710	6
Standard Deviation				1.60	0.12	0.38	401	622	4
Minimum				1.16	7.04	7.10	4000	3830	4
Maximum				6.20	7.41	8.50	5460	5980	17
EP-63	08/09/97	EPRI-9708-128	GW	2.83	7.13	7.80	8100	880	R 25
EP-63	11/05/97	EPRI-9711-128	GW	0.33	7.16	7.80	8260	9220	21
EP-63	02/05/98	EPRI-9802-128	GW	2.23	7.08	7.40	8210	9590	18
EP-63	05/08/98	EPRI-9805-128	GW	1.58	7.15	7.60	8390	9360	14
EP-63	8/10/98	EPRI-9808-128	GW	1.86	7.16	7.7	8470	8270	13
EP-63	11/9/98	EPRI-9811-128	GW	1.4	7.28	7.6	8480	8430	6.4
EP-63	2/10/99	EPRI-9902-130	GW	1.30	7.27	7.8	8440	8590	7.3
EP-63	5/6/99	EPRI-9905-131	GW	1.00	7.04	7.6	8300	8450	6.4
EP-63	5/6/99	EPRI-9905-181	GW	0.90	7.04	7.7	8210	8450	7.9
EP-63	08/03/99	EPRI-9908-131	GW	1.2	7.18	7.1	8140	8240	7.6
EP-63	10/27/99	EPRI-9911-131	GW	1	6.95	7.7	7680	7710	4.3
EP-63	01/28/00	EPRI-0002-131	GW	0.3	7.22	7.8	7400	7010	2.5
Average				1.33	7.14	7.63	8173	7850	11
Median				1.25	7.155	7.7	8235	8440	8
Standard Deviation				0.73	0.10	0.21	327	2305	7
Minimum				0.30	6.95	7.10	7400	880	3
Maximum				2.83	7.28	7.80	8480	9590	25
EP-64	08/09/97	EPRI-9708-129	GW	3.96	7.39	7.80	8590	9700	77
EP-64	11/05/97	EPRI-9711-129	GW	0.19	7.25	7.80	11000	13050	114
EP-64	02/05/98	EPRI-9802-129	GW	3.76	7.98	7.90	10420	10800	136
EP-64	05/08/98	EPRI-9805-129	GW	2.60	6.82	8.00	10000	10940	120
EP-64	8/10/98	EPRI-9808-129	GW	3.00	7.40	7.9	9540	9410	71
EP-64	11/9/98	EPRI-9811-129	GW	4.00	7.55	7.7	9490	9450	66
EP-64	2/10/99	EPRI-9902-131	GW	2.90	7.89	8.5	9520	9670	86
EP-64	5/6/99	EPRI-9905-128	GW	2.30	7.57	7.9	9280	9910	73
EP-64	08/03/99	EPRI-9908-132	GW	5	7.48	7.8	8380	9420	77
EP-64	10/27/99	EPRI-9911-132	GW	4.3	7.39	8.4	9080	9070	76
EP-64	01/28/00	EPRI-0002-132	GW	4.6	7.84	8.3	9410	8960	86
Average				3.33	7.51	8.00	9519	10035	89
Median				3.76	7.48	7.9	9490	9670	77
Standard Deviation				1.35	0.33	0.27	752	1181	23

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
Minimum				0.19	6.82	7.70	8380	8960	66	
Maximum				5.00	7.98	8.50	11000	13050	136	
EP-65	08/16/97	EPRI-9708-130	GW	0.35	7.15	7.70	7420	7360	30	
EP-65	11/14/97	EPRI-9711-130	GW	1.4	7.02	7.60	7380	9180	66	
EP-65	02/18/98	EPRI-9802-130	GW	0.84	7.07	7.50	7500	9190	58	
EP-65	05/18/98	EPRI-9805-130	GW	0.56	7.10	7.30	7440	7310	35	
EP-65	8/24/98	EPRI-9808-130	GW	0.270	7.02	7.5	7330	7390	33	
EP-65	11/16/98	EPRI-9811-130	GW	0.600	7.08	7.6	7280	7060	31	
EP-65	2/24/99	EPRI-9902-132	GW	0.400	7.16	7.7	6980	8290	27	
EP-65	2/24/99	EPRI-9902-194	GW	0.400	7.16	7.7	7010	8280	31	
EP-65	5/13/99	EPRI-9905-133	GW	1.00	6.98	7.7	6740	6010	24	
EP-65	08/10/99	EPRI-9908-133	GW	0.3	7.14	7.8	6610	6660	36	J4
EP-65	08/10/99	EPRI-9908-204	GW	0.3	7.14	7.7	6610	6660	29	J4
EP-65	11/03/99	EPRI-9911-133	GW	2.3	6.93	7.6	6400	7130	25	
EP-65	02/07/00	EPRI-0002-133	GW	0.4	6.99	7.6	6520	6160	22	
EP-65	02/07/00	EPRI-0002-236	GW	0.2	7	7.7	6500	6190	20	
Average				0.67	7.07	7.62	6980	7348	33	
Median				0.40	7.075	7.65	6995	7220	31	
Standard Deviation				0.58	0.08	0.13	408	1042	13	
Minimum				0.20	6.93	7.30	6400	6010	20	
Maximum				2.30	7.16	7.80	7500	9190	66	
EP-66	08/08/97	EPRI-9708-131	GW	6.7	7.05	7.50	8390	8370	40	
EP-66	11/05/97	EPRI-9711-131	GW	1.3	6.80	7.50	7920	9020	44	
EP-66	02/05/98	EPRI-9802-131	GW	4.42	7.09	7.60	7220	8290	44	
EP-66	05/08/98	EPRI-9805-131	GW	2.99	7.39	7.70	7690	8980	45	
EP-66	8/10/98	EPRI-9808-131	GW	6.54	6.95	7.5	8130	7820	40	
EP-66	11/9/98	EPRI-9811-131	GW	5.30	7.09	7.4	7440	7530	31	
EP-66	2/10/99	EPRI-9902-133	GW	5.30	7.17	8.0	7720	7700	34	
EP-66	5/6/99	EPRI-9905-134	GW	5.50	6.98	7.5	7620	8660	38	
EP-66	08/04/99	EPRI-9908-134	GW		7	7.8	8000	7680	47	
EP-66	10/27/99	EPRI-9911-134	GW	6	6.92	8.3	5910	5920	30	
EP-66	01/28/00	EPRI-0002-134	GW	6.4	7.28	7.8	7860	7530	36	J3
Average				5.05	7.07	7.69	7627	7955	39	
Median				5.40	7.05	7.6	7720	7820	40	
Standard Deviation				1.72	0.17	0.27	654	873	6	
Minimum				1.30	6.80	7.40	5910	5920	30	
Maximum				6.70	7.39	8.30	8390	9020	47	
EP-67	08/12/97	EPRI-9708-132	GW	1.5	6.74	7.60	4400	4490	18	
EP-67	11/07/97	EPRI-9711-132	GW	0.9	6.84	7.40	4460	5000	17	
EP-67	02/11/98	EPRI-9802-132	GW	1.71	6.66	7.30	4470	5820	19	
EP-67	02/11/98	EPRI-9802-179	GW	1.71	6.66	7.30	4480	5820	19	
EP-67	05/12/98	EPRI-9805-132	GW	0.94	6.94	7.20	4440	4450	17	
EP-67	8/13/98	EPRI-9808-132	GW	1.09	6.79	7.6	4360	4310	15	
EP-67	11/10/98	EPRI-9811-132	GW	1.6	6.77	7.4	4370	4350	16	
EP-67	2/10/99	EPRI-9902-134	GW	1.70	6.91	7.7	4340	4400	14	
EP-67	5/7/99	EPRI-9905-135	GW	1.30	6.81	7.3	4440	4820	15	J4
EP-67	08/05/99	EPRI-9908-135	GW		6.86	7.7	4330	4860	17	
EP-67	10/28/99	EPRI-9911-135	GW	2	6.64	7.3	4400	4410	13	
EP-67	01/24/00	EPRI-0002-135	GW	1.3	6.88	7.5	4380	4280	20	
Average				1.45	6.81	7.45	4401	4743	16	
Median				1.60	6.825	7.4	4390	4430	17	
Standard Deviation				0.36	0.10	0.18	55	555	2	
Minimum				0.90	6.64	7.20	4330	4280	13	
Maximum				2.00	6.94	7.70	4480	5820	20	
EP-68	08/14/97	EPRI-9708-133	GW	6.38	7.14	7.70	5430	5290	24	
EP-68	08/14/97	EPRI-9708-174	GW			7.70	5330		25	
EP-68	11/11/97	EPRI-9711-133	GW	6.09	7.11	7.30	5440	5590	24	
EP-68	02/11/98	EPRI-9802-133	GW	7.59	6.93	7.70	4980	6080	33	
EP-68	05/13/98	EPRI-9805-133	GW	5.87	7.17	7.40	5690	5320	23	
EP-68	05/13/98	EPRI-9805-179	GW			8.10	5740		21	

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Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N
EP-68	8/13/98	EPRI-9808-133	GW	6.52	7.16	7.8	4260	3990	41
EP-68	11/9/98	EPRI-9811-133	GW	6.40	7.40	7.9	4480	4130	27
EP-68	2/18/99	EPRI-9902-135	GW	5.60	7.31	7.5	3840	3690	35
EP-68	5/10/99	EPRI-9905-136	GW	6.00	7.08	7.6	4030	3990	42
EP-68	08/05/99	EPRI-9908-136	GW		7.17	7.9	4780	4790	39
EP-68	10/28/99	EPRI-9911-136	GW	12.1	6.88	7.4	5900	5340	27
EP-68	01/25/00	EPRI-0002-136	GW	5.4	7.07	7.8	5800	5570	24
EP-68	01/25/00	EPRI-0002-221	GW	5.2	7.09	7.7	5780	5560	30
Average				6.65	7.13	7.68	5106	4945	30
Median				6.09	7.125	7.7	5380	5305	27
Standard Deviation				1.92	0.14	0.22	711	796	7
Minimum				5.20	6.88	7.30	3840	3690	21
Maximum				12.10	7.40	8.10	5900	6080	42
EP-70	08/12/97	EPRI-9708-135A	GW	0.52	6.84			7150	
EP-70	08/26/97	EPRI-9708-135	GW		7.19	7.90	6970	1291	R 62
EP-70	08/26/97	EPRI-9708-180	GW			7.60	6970		59
EP-70	11/07/97	EPRI-9711-135	GW	0.75	6.91	7.50	6740	7510	62
EP-70	02/11/98	EPRI-9802-135	GW	0.56	6.79	7.40	6600	8480	78
EP-70	5/12/98	EPRI-9805-135	GW	0.38	7.07	7.4	6290	6210	46
EP-70	8/13/98	EPRI-9808-135	GW	1.39	6.94	7.6	6150	5960	42
EP-70	11/10/98	EPRI-9811-135	GW	0.8	7.02	7.4	6320	6230	52
EP-70	11/10/98	EPRI-9811-180	GW			7.3	6310		55
EP-70	2/10/99	EPRI-9902-136	GW	0.900	7.04	7.7	6080	6080	20
EP-70	05/07/99	EPRI-9905-137	GW	0.7	6.92	7.5	6230	6630	43
EP-70	08/05/99	EPRI-9908-137	GW		7.01	7	6020	6660	53
EP-70	10/28/99	EPRI-9911-137	GW	0.2	6.76	7.2	6220	6220	39
EP-70	01/24/00	EPRI-0002-137	GW	0.2	7.03	7.6	6110	5950	38
EP-70	01/24/00	EPRI-0002-219	GW	0.2	7.03	7.5	6100	5950	40
Average				0.60	6.97	7.47	6365	6179	49
Median				0.56	7.01	7.5	6260	6220	49
Standard Deviation				0.36	0.12	0.22	323	1646	14
Minimum				0.20	6.76	7.00	6020	1291	20
Maximum				1.39	7.19	7.90	6970	8480	78
EP-71	08/12/97	EPRI-9708-136	GW	0.43	6.79	7.50	6480	6560	89
EP-71	11/07/97	EPRI-9711-136	GW	0.54	6.85	7.50	6470	7180	99
EP-71	02/11/98	EPRI-9802-136	GW	0.82	6.70	7.50	6770	8670	114
EP-71	05/12/98	EPRI-9805-136	GW	0.39	6.99	7.30	6440	6400	46
EP-71	8/13/98	EPRI-9808-136	GW	0.310	6.86	7.5	6290	6260	53
EP-71	11/10/98	EPRI-9811-136	GW	1.1	7.00	7.3	5750	5670	79
EP-71	2/10/99	EPRI-9902-137	GW	1.00	7.01	7.7	5940	5970	34
EP-71	08/05/99	EPRI-9908-138	GW		6.92	7.5	5850	6560	92
EP-71	10/28/99	EPRI-9911-138	GW	0.2	6.71	7.9	5800	5800	64
EP-71	01/24/00	EPRI-0002-138	GW	0.9	6.97	7.6	5950	5770	72
Average				0.63	6.88	7.53	6174	6484	74
Median				0.54	6.89	7.5	6120	6330	76
Standard Deviation				0.33	0.12	0.18	357	897	25
Minimum				0.20	6.70	7.30	5750	5670	34
Maximum				1.10	7.01	7.90	6770	8670	114
EP-72	08/12/97	EPRI-9708-137	GW	0.37	6.77	7.80	6220	6300	58
EP-72	11/07/97	EPRI-9711-137	GW	0.95	6.86	7.40	6040	6810	59
EP-72	02/11/98	EPRI-9802-137	GW	0.72	6.72	7.40	6030	7900	53
EP-72	05/13/98	EPRI-9805-137	GW	0.29	7.02	7.50	6030	5970	44
EP-72	8/13/98	EPRI-9808-137	GW	0.210	6.89	7.5	6050	6000	49
EP-72	11/10/98	EPRI-9811-137	GW	1.2	7.00	7.3	6090	6080	68
EP-72	01/24/00	EPRI-0002-139	GW	2.7	7.11	7.9	5700	5560	34
Average				0.92	6.91	7.54	6023	6374	52
Median				0.72	6.89	7.5	6040	6080	53
Standard Deviation				0.87	0.14	0.22	157	772	11
Minimum				0.21	6.72	7.30	5700	5560	34
Maximum				2.70	7.11	7.90	6220	7900	68

**Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-73	08/12/97	EPRI-9708-138	GW	5.73	6.88	7.90	6760	6760	25	
EP-73	11/13/97	EPRI-9711-138	GW	1.2	6.91	7.40	6520	8610	23	J4
EP-73	02/12/98	EPRI-9802-138	GW	0.97	6.84	7.60	6850	9340	24	
EP-73	05/11/98	EPRI-9805-138	GW	1.43	6.62	7.70	6900	7810	22	
EP-73	8/17/98	EPRI-9808-138	GW	0.810	6.97	7.5	6700	6610	21	
EP-73	11/5/98	EPRI-9811-138	GW	6.20	7.13	7.4	6580	5750	15	
EP-73	2/9/99	EPRI-9902-139	GW	2.70	7.13	7.7	6540	6340	16	
EP-73	5/7/99	EPRI-9905-140	GW	0.800	6.97	7.5	6700	7670	16	J4
EP-73	5/7/99	EPRI-9905-183	GW	0.80	6.96	7.7	6700	7680	21	J4
EP-73	08/05/99	EPRI-9908-140	GW	5.2	7.01	7.5	6550	7280	19	
EP-73	10/29/99	EPRI-9911-140	GW	1.2	6.8	7.6	6520	5760	19	
EP-73	01/26/00	EPRI-0002-140	GW	0.4	7.07	7.8	6600	6200	17	J3
Average				2.29	6.94	7.61	6660	7151	20	
Median				1.20	6.965	7.6	6650	7020	20	
Standard Deviation				2.15	0.15	0.16	129	1121	3	
Minimum				0.40	6.62	7.40	6520	5750	15	
Maximum				6.20	7.13	7.90	6900	9340	25	
EP-74	08/13/97	EPRI-9708-139	GW	9.41	7.42	8.00	2550	2530	5.9	
EP-75	08/12/97	EPRI-9708-140	GW	1.54	6.84	7.40	19620	18940	191	
EP-75	11/13/97	EPRI-9711-140	GW	1.96	6.82	7.20	18340	21300	193	J4
EP-75	02/06/98	EPRI-9802-140	GW	1.11	6.86	7.20	19240	23900	178	
EP-75	05/11/98	EPRI-9805-140	GW	2.40	6.52	7.50	20000	20000	E 148	
EP-75	8/17/98	EPRI-9808-140	GW	1.13	6.85	7.4	18700	17890	176	
EP-75	11/5/98	EPRI-9811-140	GW	5.00	6.90	7.2	19100	16900	111	
EP-75	2/22/99	EPRI-9902-140	GW	6.80	6.94	7.3	18720	22000	161	
EP-75	5/10/99	EPRI-9905-141	GW	0.300	6.87	7.6	19390	20100	160	
EP-75	08/06/99	EPRI-9908-141	GW	0.4	6.86	7.2	16010	18110	124	
EP-75	01/26/00	EPRI-0002-142	GW	1.8	7.01	7.7	18110	16220	175	J3
Average				2.24	6.85	7.37	18723	19536	162	
Median				1.67	6.86	7.35	18910	19470	168	
Standard Deviation				2.08	0.13	0.18	1114	2399	27	
Minimum				0.30	6.52	7.20	16010	16220	111	
Maximum				6.80	7.01	7.70	20000	23900	193	
EP-76	08/12/97	EPRI-9708-141	GW	0.35	7.39	8.00	5110	5170	5.2	
EP-76	11/11/97	EPRI-9711-141	GW	0.16	7.21	7.50	4670	5050	4.6	
EP-76	02/06/98	EPRI-9802-141	GW	0.34	7.22	7.60	4800	6000	4.7	
EP-76	05/11/98	EPRI-9805-141	GW	1.04	7.22	7.70	5000	5390	5	
EP-76	8/17/98	EPRI-9808-141	GW	0.110	7.21	7.6	5070	5090	5.7	
EP-76	11/5/98	EPRI-9811-141	GW	0.900	7.61	7.7	5680	5150	3.8	
EP-76	2/22/99	EPRI-9902-141	GW	4.4	7.34	7.6	5120	5860	0.63	J4
EP-76	5/10/99	EPRI-9905-142	GW	0.700	7.05	7.6	5490	5550	4.5	
EP-76	1/26/00	EPRI-0002-141	GW	0.700	7.33	8.3	5060	4860	4.2	J3
Average				0.97	7.29	7.73	5111	5347	4	
Median				0.70	7.22	7.6	5070	5170	5	
Standard Deviation				1.33	0.16	0.25	311	386	1	
Minimum				0.11	7.05	7.50	4670	4860	1	
Maximum				4.40	7.61	8.30	5680	6000	6	
EP-77	08/12/97	EPRI-9708-142	GW	3.83	6.98	8.40	5400	5350	0.67	
EP-77	11/13/97	EPRI-9711-142	GW	1.5	7.02	7.60	5350	6550	13	J4
EP-77	11/13/97	EPRI-9711-178	GW			7.60	5360		0.59	J4
EP-77	02/12/98	EPRI-9802-142	GW	1.1	7.00	7.50	5330	6910	0.4	
EP-77	05/13/98	EPRI-9805-142	GW	0.71	7.23	7.50	5070	5320	0.4	
EP-77	8/17/98	EPRI-9808-142	GW	0.82	7.09	7.5	5800	5730	0.42	
EP-77	11/11/98	EPRI-9811-142	GW		7.30	7.5	5770	5600	0.71	
EP-77	2/11/99	EPRI-9902-142	GW	0.900	7.23	7.8	5450	5450	0.59	
EP-77	5/7/99	EPRI-9905-143	GW	1.10	7.08	7.6	5350	5800	0.32	J4
EP-77	08/05/99	EPRI-9908-143	GW	1.2	7.14	7.4	5110	5640	1.8	
EP-77	10/29/99	EPRI-9911-143	GW	0.6	6.94	8.4	5080	4300	0.58	UJ1,J4
EP-77	10/29/99	EPRI-9911-227	GW			7.9	5030		0.47	UJ1,J4

**Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-77	01/25/00	EPRI-0002-143	GW	0.2	7.21	8.2	4500	4410	0.94	J4
Average				1.20	7.11	7.76	5277	5551	2	
Median				1.00	7.09	7.6	5350	5600	1	
Standard Deviation				0.99	0.12	0.35	336	769	3	
Minimum				0.20	6.94	7.40	4500	4300	0	
Maximum				3.83	7.30	8.40	5800	6910	13	
EP-78	08/13/97	EPRI-9708-143	GW	0.25	7.78	8.00	2600	2640	7.6	
EP-78	11/18/97	EPRI-9711-143	GW	0.74	7.77	7.90	2310	UJ1 2940	9.2	
EP-78	11/18/97	EPRI-9711-179	GW			7.90	2320	UJ1	8.7	
EP-78	02/06/98	EPRI-9802-143	GW	0.73	7.69	7.90	2940	3780	11	
EP-78	05/14/98	EPRI-9805-143	GW	0.82	7.70	8.00	3730	3750	11	
EP-78	8/19/98	EPRI-9808-143	GW	0.240	7.73	8.1	3660	3740	9.4	
EP-78	11/11/98	EPRI-9811-143	GW	1.00	8.05	8.1	2220	2170	8.1	
EP-78	2/18/99	EPRI-9902-143	GW	0.500	7.74	7.9	3450	3420	10	
EP-78	5/11/99	EPRI-9905-144	GW	2.30	7.62	7.3	3750	J3 3770	9.8	
EP-78	5/11/99	EPRI-9905-186	GW	2.20	7.62	7.5	3740	J3 3830	9.1	
EP-78	08/09/99	EPRI-9908-144	GW	0.9	7.86	7.8	2520	2440	6.7	
EP-78	10/31/99	EPRI-9911-144	GW		7.43	8	2620	2610	6.3	
EP-78	01/28/00	EPRI-0002-144	GW	0.7	7.62	7.6	3400	3250	11	J3
Average				0.94	7.72	7.85	3020	3195	9	
Median				0.74	7.715	7.9	2940	3335	9	
Standard Deviation				0.69	0.15	0.24	614	608	2	
Minimum				0.24	7.43	7.30	2220	2170	6	
Maximum				2.30	8.05	8.10	3750	3830	11	
EP-79	08/13/97	EPRI-9708-144	GW	1.06	7.47	8.00	4890	4870	9.5	
EP-79	11/18/97	EPRI-9711-144	GW	0.77	7.43	8.20	4900	6500	10	
EP-79	02/06/98	EPRI-9802-144	GW	0.63	7.42	7.90	4940	6700	11	
EP-79	05/14/98	EPRI-9805-144	GW	0.43	7.52	7.80	5080	5150	9.9	
EP-79	8/19/98	EPRI-9808-144	GW	0.150	7.50	8.0	5330	5420	9.5	
EP-79	11/11/98	EPRI-9811-144	GW	1.60	7.67	7.8	4710	4650	9.3	
EP-79	2/18/99	EPRI-9902-144	GW	1.00	7.61	7.8	4650	4660	10	
EP-79	5/11/99	EPRI-9905-145	GW	6.70	7.41	8.2	4900	J3 4790	9.2	
EP-79	08/09/99	EPRI-9908-145	GW	0.4	7.53	8	4730	4770	9.5	
EP-79	10/31/99	EPRI-9911-145	GW		7.27	8	4500	4480	7.5	
EP-79	01/28/00	EPRI-0002-145	GW	0.2	7.48	8	4700	4520	11	J3
EP-79	01/28/00	EPRI-0002-227	GW	0.1	7.48	8	4710	4520	11	J3
Average				1.19	7.48	7.98	4837	5086	10	
Median				0.63	7.48	8	4810	4780	10	
Standard Deviation				1.88	0.10	0.14	220	759	1	
Minimum				0.10	7.27	7.80	4500	4480	8	
Maximum				6.70	7.67	8.20	5330	6700	11	
EP-80	08/13/97	EPRI-9708-145	GW	0.31	7.23	7.70	5040	5040	1.4	
EP-80	11/17/97	EPRI-9711-145	GW	2.9	7.05	7.90	5100	6840	5	
EP-80	02/05/98	EPRI-9802-145	GW	0.88	7.14	7.40	5040	6190	7.1	
EP-80	05/13/98	EPRI-9805-145	GW	0.68	7.26	7.60	4960	5020	5.2	
EP-80	8/19/98	EPRI-9808-145	GW	2.15	7.27	8.0	5180	5300	0.084	
EP-80	11/11/98	EPRI-9811-145	GW	1.90	7.38	7.5	5130	5040	5.1	
EP-80	2/18/99	EPRI-9902-145	GW	1.90	7.30	7.5	5290	5230	9.8	
EP-80	5/11/99	EPRI-9905-146	GW	0.600	7.19	7.9	5170	J3 5240	5.6	
EP-80	08/09/99	EPRI-9908-146	GW	0.2	7.27	7.8	5240	5250	0.073	
EP-80	10/27/99	EPRI-9911-146	GW	0.6	6.96	8.3	5320	5280	7.4	
EP-80	01/28/00	EPRI-0002-146	GW	0.8	7.22	8.1	5130	4870	2.4	J3
Average				1.17	7.21	7.79	5145	5391	4	
Median				0.80	7.23	7.8	5130	5240	5	
Standard Deviation				0.88	0.12	0.28	110	590	3	
Minimum				0.20	6.96	7.40	4960	4870	0	
Maximum				2.90	7.38	8.30	5320	6840	10	
EP-81	08/13/97	EPRI-9708-146	GW	2.82	7.01	7.70	2550	2530	6.2	
EP-81	11/17/97	EPRI-9711-146	GW	2.88	6.90	7.80	2390	3290	8.2	

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N
EP-81	02/05/98	EPRI-9802-146	GW	2.94	7.00	7.50	2560	2980	9.4
EP-81	05/14/98	EPRI-9805-149	GW	3.44	7.04	7.40	2540	2630	7.9
EP-81	8/19/98	EPRI-9808-146	GW	0.700	7.08	7.6	2630	2720	6.9
EP-81	11/11/98	EPRI-9811-146	GW	3.60	7.10	7.3	2430	2370	12
EP-81	2/18/99	EPRI-9902-146	GW	4.70	7.19	7.4	2550	2590	9.7
EP-81	5/11/99	EPRI-9905-147	GW	6.80	7.00	7.8	2530	J3 2570	9.5
EP-81	08/09/99	EPRI-9908-147	GW	3.6	7.12	7.7	2830	3150	7.9
EP-81	10/27/99	EPRI-9911-147	GW	4.9	6.83	8.1	2750	2710	8
EP-81	01/28/00	EPRI-0002-147	GW	3.5	7.09	7.7	3310	2930	6.7
									J3
Average				3.63	7.03	7.64	2643	2770	8
Median				3.50	7.04	7.7	2550	2710	8
Standard Deviation				1.52	0.10	0.23	255	283	2
Minimum				0.70	6.83	7.30	2390	2370	6
Maximum				6.80	7.19	8.10	3310	3290	12
EP-82	08/13/97	EPRI-9708-147	GW	1.31	7.06	7.70	3980	3960	8.9
EP-82	11/18/97	EPRI-9711-147	GW	2.15	7.03	8.00	3250	UJ1 4070	6.4
EP-82	02/11/98	EPRI-9802-147	GW	1.73	6.94	7.60	4320	5360	9.1
EP-82	05/14/98	EPRI-9805-147	GW	0.67	7.12	7.60	4740	4780	10
EP-82	8/19/98	EPRI-9808-147	GW	0.430	7.16	7.7	4880	5000	8.7
EP-82	11/11/98	EPRI-9811-147	GW	1.60	7.33	7.4	4880	4820	9.5
EP-82	2/18/99	EPRI-9902-147	GW	0.500	7.28	7.6	4720	4770	10
EP-82	5/11/99	EPRI-9905-148	GW	1.50	7.15	7.8	4870	J3 4970	10
EP-82	08/09/99	EPRI-9908-148	GW	0.4	7.23	7.7	4490	4560	7.8
EP-82	10/31/99	EPRI-9911-148	GW		7.01	7.7	3600	3580	6
EP-82	01/27/00	EPRI-0002-148	GW	0.3	7.12	8.1	4340	4140	11
									J3
Average				1.06	7.13	7.72	4370	4546	9
Median				0.99	7.12	7.7	4490	4770	9
Standard Deviation				0.67	0.12	0.19	552	538	2
Minimum				0.30	6.94	7.40	3250	3580	6
Maximum				2.15	7.33	8.10	4880	5360	11
EP-83	08/13/97	EPRI-9708-148	GW	5.75	7.47	8.00	3940	3960	8.2
EP-83	11/18/97	EPRI-9711-148	GW	4.42	7.36	8.20	3940	UJ1 4930	6.5
EP-83	02/06/98	EPRI-9802-148	GW	6.33	7.51	7.80	3720	4670	7.6
EP-83	05/13/98	EPRI-9805-148	GW	4.85	7.51	7.80	3840	3880	9.1
EP-83	8/19/98	EPRI-9808-148	GW	3.40	7.53	8.0	3930	4040	7.5
EP-83	11/12/98	EPRI-9811-148	GW		7.60	7.7	3680	3470	7.9
EP-83	2/22/99	EPRI-9902-148	GW	6.00	7.58	7.8	3880	4510	8.3
EP-83	2/22/99	EPRI-9902-192	GW	5.80	7.57	7.8	3870	4510	6.1
EP-83	5/11/99	EPRI-9905-149	GW	5.60	7.51	8.0	3710	J3 3850	8.2
EP-83	08/09/99	EPRI-9908-149	GW	4.9	7.48	7.9	3870	3910	8
EP-83	10/30/99	EPRI-9911-149	GW		7.22	7.8	3900	3920	7.1
EP-83	10/30/99	EPRI-9911-229	GW			7.8	3910		6.8
EP-83	01/27/00	EPRI-0002-149	GW	5.8	7.47	8.3	3900	3710	9.8
EP-83	01/27/00	EPRI-0002-226	GW	5.7	7.46	8.2	3910	3710	9.9
									J3
Average				5.32	7.48	7.94	3857	4082	8
Median				5.70	7.51	7.85	3890	3920	8
Standard Deviation				0.85	0.10	0.19	88	433	1
Minimum				3.40	7.22	7.70	3680	3470	6
Maximum				6.33	7.60	8.30	3940	4930	10
EP-84	08/13/97	EPRI-9708-149	GW	3.33	7.39	7.90	1958	1908	8.4
EP-84	11/18/97	EPRI-9711-149	GW	1.37	7.16	8.10	2650	UJ1 3260	7.2
EP-84	02/06/98	EPRI-9802-149	GW	1.35	7.18	7.40	2990	3470	11
EP-84	05/13/98	EPRI-9805-146	GW	2.28	7.22	7.50	3040	3050	10
EP-84	8/19/98	EPRI-9808-149	GW	1.97	7.25	7.8	2780	2820	6.6
EP-84	11/12/98	EPRI-9811-149	GW		7.31	7.6	2980	2790	9.7
EP-84	2/22/99	EPRI-9902-149	GW	3.30	7.21	7.5	3070	3370	9.3
EP-84	5/11/99	EPRI-9905-150	GW	2.90	7.23	7.9	3030	J3 3080	9.4
EP-84	08/09/99	EPRI-9908-150	GW	2.7	7.44	7.9	1838	1854	6
EP-84	10/30/99	EPRI-9911-150	GW		6.88	7.4	3080	3070	7.1
EP-84	01/27/00	EPRI-0002-150	GW	0.8	7.12	8	3090	2920	11
									J3

**Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N
Average				2.22	7.22	7.73	2773	2872	9
Median				2.28	7.22	7.8	2990	3050	9
Standard Deviation				0.91	0.15	0.25	454	534	2
Minimum				0.80	6.88	7.40	1838	1854	6
Maximum				3.33	7.44	8.10	3090	3470	11
EP-85	08/13/97	EPRI-9708-150	GW	0.32	7.33	8.00	2900	2890	7.3
EP-85	11/17/97	EPRI-9711-150	GW	0.35	7.30	8.00	2300	2950	5.8
EP-85	02/05/98	EPRI-9802-150	GW	0.61	7.34	7.70	2600	3140	7.5
EP-85	05/14/98	EPRI-9805-150	GW	0.52	7.39	7.70	2970	3010	7.1
EP-85	8/19/98	EPRI-9808-150	GW	0.140	7.38	7.8	3240	3340	6.8
EP-85	8/19/98	EPRI-9808-180	GW			7.8	3250		6.7
EP-85	11/11/98	EPRI-9811-150	GW	1.50	7.51	7.7	2850	2800	7.6
EP-85	2/18/99	EPRI-9902-150	GW	0.400	7.45	7.6	2770	2780	7.2
EP-85	2/18/99	EPRI-9902-189	GW	0.400	7.45	7.7	2770	2780	6.6
EP-85	5/11/99	EPRI-9905-151	GW	0.500	7.32	8.0	3070	J3 3120	6.8
EP-85	08/09/99	EPRI-9908-151	GW	0.5	7.38	7.8	3200	3230	6.7
EP-85	08/09/99	EPRI-9908-202	GW	0.5	7.38	7.8	3190	3220	7.7
EP-85	10/27/99	EPRI-9911-151	GW	0.5	7.15	8.1	2700	2700	6.6
EP-85	10/27/99	EPRI-9911-224	GW	0.5	7.15	8.2	2700	2700	5.8
EP-85	01/28/00	EPRI-0002-151	GW	0.2	7.31	7.9	3000	2870	6.4
									J3
Average				0.50	7.35	7.85	2901	2966	7
Median				0.50	7.36	7.8	2900	2920	7
Standard Deviation				0.32	0.10	0.17	270	212	1
Minimum				0.14	7.15	7.60	2300	2700	6
Maximum				1.50	7.51	8.20	3250	3340	8
EP-86	08/13/97	EPRI-9708-151	GW	7.68	7.63	8.00	2630	2610	6.6
EP-86	11/18/97	EPRI-9711-151	GW	5.56	7.54	8.30	2650	UJ1 3240	5.9
EP-86	02/06/98	EPRI-9802-151	GW	6	7.53	7.80	2640	3300	5.8
EP-86	05/14/98	EPRI-9805-151	GW	8.01	7.70	7.90	2640	2670	5.6
EP-86	8/19/98	EPRI-9808-151	GW	7.66	7.67	8.1	2660	2690	5.8
EP-86	11/12/98	EPRI-9811-151	GW		7.45	7.9	2640	2480	6.8
EP-86	11/12/98	EPRI-9811-181	GW			7.9	2640		6.6
EP-86	2/18/99	EPRI-9902-151	GW	6.50	7.74	7.9	2600	2600	6.2
EP-86	5/11/99	EPRI-9905-152	GW	8.70	7.69	8.2	2570	J3 2600	5.6
EP-86	08/09/99	EPRI-9908-152	GW	6.9	7.66	8.1	2600	2600	5.8
EP-86	10/31/99	EPRI-9911-152	GW		7.34	7.9	2640	2620	4.9
EP-86	10/31/99	EPRI-9911-231	GW			8	2650		4.9
EP-86	01/27/00	EPRI-0002-152	GW	7.5	7.58	8.2	2640	2520	8.2
									J3
Average				7.17	7.59	8.02	2631	2721	6
Median				7.50	7.63	8	2640	2610	6
Standard Deviation				1.01	0.12	0.15	25	278	1
Minimum				5.56	7.34	7.80	2570	2480	5
Maximum				8.70	7.74	8.30	2660	3300	8
EP-87	09/15/97	EPRI-9708-152	GW			7.50	546		1.5
EP-87	11/18/97	EPRI-9711-152	GW	4.7	7.49	8.20	560	UJ1 685	2.2
EP-87	02/06/98	EPRI-9802-152	GW						
EP-87	08/10/99	EPRI-9908-153	GW	3.4	7.34	7.8	666	688	0.77
									J4
Average				4.05	7.42	7.83	591	687	1
Median				4.05	7.415	7.8	560	687	2
Standard Deviation				0.92	0.11	0.35	66	2	1
Minimum				3.40	7.34	7.50	546	685	1
Maximum				4.70	7.49	8.20	666	688	2
EP-88	08/12/97	EPRI-9708-153	GW	0.73	7.35	8.40	5150	5370	1.7
EP-88	11/11/97	EPRI-9711-153	GW	0.43	7.41	7.90	5240	5980	1
EP-88	02/12/98	EPRI-9802-153	GW	1.53	7.24	7.80	5320	6600	0.81
EP-88	05/11/98	EPRI-9805-153	GW	1.21	7.60	8.00	5370	5860	0.95
EP-88	8/17/98	EPRI-9808-153	GW	0.850	7.31	7.7	5400	5460	0.9
EP-88	11/11/98	EPRI-9811-153	GW	4.90	7.40	7.6	4940	4710	2.2
EP-88	2/11/99	EPRI-9902-153	GW	1.30	7.53	8.2	5350	5360	0.51
EP-88	5/7/99	EPRI-9905-154	GW	0.900	7.34	7.9	5340	5810	2.3
									J4

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-88	08/05/99	EPRI-9908-154	GW	4.4	7.34	8.1	5070	5930	1.7	
EP-88	10/30/99	EPRI-9911-154	GW		7.13	7.7	5300	5360	2.4	
EP-88	01/26/00	EPRI-0002-154	GW	2.3	7.4	8.6	5220	4970	3.1	J3
EP-88	01/26/00	EPRI-0002-223	GW	1.7	7.41	8.2	5230	5180	3	J3
Average				1.84	7.37	8.01	5244	5549	2	
Median				1.30	7.375	7.95	5270	5415	2	
Standard Deviation				1.48	0.12	0.30	135	512	1	
Minimum				0.43	7.13	7.60	4940	4710	1	
Maximum				4.90	7.60	8.60	5400	6600	3	
EP-89	08/12/97	EPRI-9708-154	GW	5.34	7.04	7.90	2780	2800	8.3	
EP-89	11/13/97	EPRI-9711-154	GW	3.98	7.12	7.40	2770	3350	9	J4
EP-89	02/11/98	EPRI-9802-154	GW	4.09	7.00	7.70	2770	3600	9.8	
EP-89	05/13/98	EPRI-9805-154	GW	4.05	7.29	7.70	2780	2770	7.7	
EP-89	8/13/98	EPRI-9808-154	GW	3.55	7.17	7.9	2840	2810	8.1	
EP-89	11/10/98	EPRI-9811-154	GW	5.30	7.19	7.5	2860	2830	8.2	
EP-89	2/10/99	EPRI-9902-154	GW	3.70	7.32	8.0	2770	2810	7.6	
EP-89	5/7/99	EPRI-9905-155	GW	4.20	7.17	7.8	2790	2990	7.1	J4
EP-89	08/05/99	EPRI-9908-155	GW		7.24	7.9	2850	3220	9.8	
EP-89	08/05/99	EPRI-9908-198	GW		7.24	8	2860	3220	9.4	
EP-89	10/28/99	EPRI-9911-155	GW	2.8	6.92	8.1	2880	2580	7.6	
EP-89	10/28/99	EPRI-9911-225	GW	2.8	6.92	8.1	2880	2580	7.3	
EP-89	01/24/00	EPRI-0002-155	GW	3.5	7.14	7.9	2810	2750	9.2	
Average				3.94	7.14	7.84	2818	2947	8	
Median				3.98	7.17	7.9	2810	2810	8	
Standard Deviation				0.83	0.13	0.21	44	310	1	
Minimum				2.80	6.92	7.40	2770	2580	7	
Maximum				5.34	7.32	8.10	2880	3600	10	
EP-9	05/07/98	EPRI-9805-178	GW	1.12	7.1	8.1	2650	3220	12	
EP-90	12/12/97	EPRI-9711-139	GW	0	7.41	8.10	2920	3700	10	
EP-90	02/17/98	EPRI-9802-139	GW	5.13	7.12	7.80	2950	3920	14	
EP-90	05/13/98	EPRI-9805-139	GW	3.68	7.39	7.80	2900	2740	12	
EP-90	8/17/98	EPRI-9808-139	GW	1.91	7.42	7.8	2380	2390	8.3	
EP-90	11/5/98	EPRI-9811-139	GW	1.70	7.43	7.6	2660	512	R 11	
EP-90	2/11/99	EPRI-9902-155	GW	1.20	7.41	7.9	3340	3320	12	
EP-90	5/10/99	EPRI-9905-156	GW	4.40	7.01	7.7	4090	4360	32	
EP-90	08/05/99	EPRI-9908-156	GW	1.1	7.19	7.8	4960	4960	38	
EP-90	10/30/99	EPRI-9911-156	GW		6.92	7.6	4660	4680	28	
EP-90	01/24/00	EPRI-0002-156	GW	0.5	7.17	7.8	5340	5010	33	
Average				2.18	7.25	7.79	3620	3559	20	
Median				1.70	7.29	7.8	3145	3810	13	
Standard Deviation				1.80	0.19	0.14	1057	1394	11	
Minimum				0.00	6.92	7.60	2380	512	8	
Maximum				5.13	7.43	8.10	5340	5010	38	
EP-93	10/13/99	EPRI-9911-192	GW	4.6	7.33	7.7	5100	5180	11	
EP-93	01/27/00	EPRI-0002-157	GW	3.4	7.31	8.1	5210	4890	9.5	J3
Average				0.5	7.045	7.7	5000	4845	30.5	
Median				0.5	7.045	7.7	5000	4845	30.5	
Standard Deviation				#DIV/0!	0.176777	0.141421	480.8326112	233.3452378	3.535533906	
Minimum				0.5	6.92	7.6	4660	4680	28	
Maximum				0.5	7.17	7.8	5340	5010	33	
EP-94	10/13/99	EPRI-9911-194	GW	5.9	7.18	7.6	5040	5110	14	
EP-94	01/27/00	EPRI-0002-158	GW	2	7.31	8	4870	4580	7.9	J3
Average				3.95	7.25	7.80	4955	4845	11	
Median				3.95	7.245	7.8	4955	4845	11	
Minimum				2.00	7.18	7.60	4870	4580	8	
Maximum				5.90	7.31	8.00	5040	5110	14	

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-95	10/26/99	EPRI-9911-159	GW		6.67	8.3	3340	3110	7.8	
EP-95	01/27/00	EPRI-0002-159	GW	6	7.66	8.3	3380	3200	9.6	J3
Average				6.00	7.17	8.30	3360	3155	9	
Median				6.00	7.165	8.3	3360	3155	9	
Minimum				6.00	6.67	8.30	3340	3110	8	
Maximum				6.00	7.66	8.30	3380	3200	10	
EP-96	10/13/99	EPRI-9911-193	GW	6.6	7.27	7.7	4960	5090	15	
EP-96	01/27/00	EPRI-0002-160	GW	3.8	7.21	8	4930	4680	15	J3
Average				5.20	7.24	7.85	4945	4885	15	
Median				5.20	7.24	7.85	4945	4885	15	
Minimum				3.80	7.21	7.70	4930	4680	15	
Maximum				6.60	7.27	8.00	4960	5090	15	
EP-97	10/18/99	EPRI-9911-196	GW	6.8	7.16	7.8	4940	5030	0.37	
EP-97	01/27/00	EPRI-0002-161	GW	1	7.36	8.1	5020	4880	0.46	UJ1, J3
Average				3.90	7.26	7.95	4980	4955	0	
Median				3.90	7.26	7.95	4980	4955	0	
Minimum				1.00	7.16	7.80	4940	4880	0	
Maximum				6.80	7.36	8.10	5020	5030	0	
EP-98	10/18/99	EPRI-9911-197	GW	4.9	7.66	8.1	6370	6930	12	
EP-98	01/27/00	EPRI-0002-162	GW	2.6	7.72	8.1	7370	6960	18	J3
Average				3.75	7.69	8.10	6870	6945	15	
Median				3.75	7.69	8.1	6870	6945	15	
Minimum				2.60	7.66	8.10	6370	6930	12	
Maximum				4.90	7.72	8.10	7370	6960	18	
EP-99	10/18/99	EPRI-9911-195	GW	9.1	7.03	7.6	5600	5660	68	
EP-100	10/20/99	EPRI-9911-198	GW	3.7	6.63	8	8830	9410	142	
EP-100	01/26/00	EPRI-0002-164	GW	1	6.75	7.5	9870	9230	250	J3
Average				2.35	6.69	7.75	9350	9320	196	
Median				2.35	6.69	7.75	9350	9320	196	
Minimum				1.00	6.63	7.50	8830	9230	142	
Maximum				3.70	6.75	8.00	9870	9410	250	
EP-101	10/21/99	EPRI-9911-199	GW	2.7	6.99	7.7	7220	7270	64	
EP-101	01/25/00	EPRI-0002-165	GW	2.1	7.26	7.8	8680	8860	77	
Average				2.40	7.13	7.75	7950	8065	71	
Median				2.40	7.125	7.75	7950	8065	71	
Minimum				2.10	6.99	7.70	7220	7270	64	
Maximum				2.70	7.26	7.80	8680	8860	77	
EP-102	10/21/99	EPRI-9911-200	GW	3.2	7.05	7.8	2760	2860	10	
EP-102	01/25/00	EPRI-0002-166	GW	0.6	7.24	7.9	2870	2810	5.6	J4
Average				1.90	7.15	7.85	2815	2835	8	
Median				1.90	7.145	7.85	2815	2835	8	
Minimum				0.60	7.05	7.80	2760	2810	6	
Maximum				3.20	7.24	7.90	2870	2860	10	
EP-103	10/21/99	EPRI-9911-201	GW	4.6	7.21	8	1590	1618	3.4	
EP-103	01/24/00	EPRI-0002-167	GW	3.9	7.34	8.3	1498	1465	1.1	
Average				4.25	7.28	8.15	1544	1542	2	
Median				4.25	7.275	8.15	1544	1542	2	
Minimum				3.90	7.21	8.00	1498	1465	1	
Maximum				4.60	7.34	8.30	1590	1618	3	
EP-104	10/21/99	EPRI-9911-202	GW	2.1	7.11	7.8	4600	4650	10	

Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
EP-104	01/24/00	EPRI-0002-168	GW	1.5	7.28	8.1	4640	4510	10	
Average				1.80	7.20	7.95	4620	4580	10	
Median				1.80	7.195	7.95	4620	4580	10	
Minimum				1.50	7.11	7.80	4600	4510	10	
Maximum				2.10	7.28	8.10	4640	4650	10	
EP-105	10/21/99	EPRI-9911-204	GW	4	7.15	8	4460	4600	4.5	
EP-105	01/25/00	EPRI-0002-169	GW	3.1	7.43	8	3780	3590	2.7	J4
Average				3.55	7.29	8.00	4120	4095	4	
Median				3.55	7.29	8	4120	4095	4	
Minimum				3.10	7.15	8.00	3780	3590	3	
Maximum				4.00	7.43	8.00	4460	4600	5	
EP-106	10/21/99	EPRI-9911-205	GW	5.6	7.14	7.7	4180	4300	6.6	
EP-106	01/25/00	EPRI-0002-170	GW	1.4	7.08	7.7	4950	4860	9.2	J4
Average				3.50	7.11	7.70	4565	4580	8	
Median				3.50	7.11	7.7	4565	4580	8	
Minimum				1.40	7.08	7.70	4180	4300	7	
Maximum				5.60	7.14	7.70	4950	4860	9	
EP-107	10/21/99	EPRI-9911-203	GW	5.2	6.99	7.8	6450	6500	90	
EP-107	01/24/00	EPRI-0002-171	GW	2.1	7.17	7.7	6450	6270	88	
Average				3.65	7.08	7.75	6450	6385	89	
Median				3.65	7.08	7.75	6450	6385	89	
Minimum				2.10	6.99	7.70	6450	6270	88	
Maximum				5.20	7.17	7.80	6450	6500	90	
EP-108	10/26/99	EPRI-9911-172	GW		6.64	8.3	2810	2850	4.2	
EP-108	01/28/00	EPRI-0002-172	GW	1.5	7.52	8.2	3500	3360	6.3	J3
Average				1.50	7.08	8.25	3155	3105	5	
Median				1.50	7.08	8.25	3155	3105	5	
Minimum				1.50	6.64	8.20	2810	2850	4	
Maximum				1.50	7.52	8.30	3500	3360	6	
EP-109	10/26/99	EPRI-9911-173	GW		6.53	8.3	3470	3330	5.2	
EP-109	01/28/00	EPRI-0002-173	GW	3.1	7.4	7.9	4000	3850	5.8	J3
Average				3.10	6.97	8.10	3735	3590	6	
Median				3.10	6.965	8.1	3735	3590	6	
Minimum				3.10	6.53	7.90	3470	3330	5	
Maximum				3.10	7.40	8.30	4000	3850	6	
EP-110	10/29/99	EPRI-9911-174	GW	4	6.99	8.4	2780	2510	7.1	
EP-110	01/24/00	EPRI-0002-174	GW	3.4	7.23	7.8	2750	2700	8.8	
Average				3.70	7.11	8.10	2765	2605	8	
Median				3.70	7.11	8.1	2765	2605	8	
Minimum				3.40	6.99	7.80	2750	2510	7	
Maximum				4.00	7.23	8.40	2780	2700	9	
EP-111	10/28/99	EPRI-9911-175	GW	3.5	7.11	7.7	5450	5410	0.2	UJ1
EP-111	01/29/00	EPRI-0002-175	GW	0.1	7.21	7.8	5390	5110	0.25	J3
Average				1.80	7.16	7.75	5420	5260	0	
Median				1.80	7.16	7.75	5420	5260	0	
Minimum				0.10	7.11	7.70	5390	5110	0	
Maximum				3.50	7.21	7.80	5450	5410	0	
EP-112	10/28/99	EPRI-9911-176	GW	8.5	7.32	7.8	5250	5090	0.095	UJ1
EP-112	01/29/00	EPRI-0002-176	GW	0.1	7.11	8	7520	7130	0.27	J3
Average				4.30	7.22	7.90	6385	6110	0	

**Table H-6. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Nutrients**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	NO3+N02 as N	
Median				4.30	7.215	7.9	6385	6110	0	
Minimum				0.10	7.11	7.80	5250	5090	0	
Maximum				8.50	7.32	8.00	7520	7130	0	
EP-113	10/28/99	EPRI-9911-177	GW	7.5	7.41	8	4060	4080	0.22	UJ1
EP-113	01/29/00	EPRI-0002-177	GW	0.1	7.3	7.6	4180	4050	0.28	J3
Average				3.80	7.36	7.80	4120	4065	0	
Median				3.80	7.355	7.8	4120	4065	0	
Minimum				0.10	7.30	7.60	4060	4050	0	
Maximum				7.50	7.41	8.00	4180	4080	0	
EP-114	11/18/99	EPRI-9911-178	GW	4.4	6.19	6.7	9800	10820	0.19	
EP-114	01/31/00	EPRI-0002-178	GW	0.3	6.35	6.6	8480	9070	18	
Average				2.35	6.27	6.65	9140	9945	9	
Median				2.35	6.27	6.65	9140	9945	9	
Minimum				0.30	6.19	6.60	8480	9070	0	
Maximum				4.40	6.35	6.70	9800	10820	18	
EP-115	11/22/99	EPRI-9911-179	GW	3.3	7.08	7.7	17800	1842	R 60	
EP-115	01/31/00	EPRI-0002-179	GW	1.8	6.81	7.7	11440	10470	35	
Average				2.55	6.95	7.70	14620	6156	48	
Median				2.55	6.945	7.7	14620	6156	48	
Minimum				1.80	6.81	7.70	11440	1842	35	
Maximum				3.30	7.08	7.70	17800	10470	60	
EP-116	11/18/99	EPRI-9911-180	GW	2.4	6.56	7.3	6280	6460	9.6	
EP-116	01/31/00	EPRI-0002-180	GW	2.1	6.92	7.6	6480	6020	8.9	UJ1
Average				2.25	6.74	7.45	6380	6240	9	
Median				2.25	6.74	7.45	6380	6240	9	
Minimum				2.10	6.56	7.30	6280	6020	9	
Maximum				2.40	6.92	7.60	6480	6460	10	
EP-117	11/18/99	EPRI-9911-181	GW	1.4	7.23	7.8	2580	2810	7.8	
EP-117	01/31/00	EPRI-0002-181	GW	1.3	7.35	7.5	2640	2590	6	UJ1
Average				1.35	7.29	7.65	2610	2700	7	
Median				1.35	7.29	7.65	2610	2700	7	
Minimum				1.30	7.23	7.50	2580	2590	6	
Maximum				1.40	7.35	7.80	2640	2810	8	
EP-118	11/18/99	EPRI-9911-182	GW	3.6	7.46	8	3460	3780	13	
EP-118	01/31/00	EPRI-0002-182	GW	1.6	7.74	8	3080	2950	13	
Average				2.60	7.60	8.00	3270	3365	13	
Median				2.60	7.6	8	3270	3365	13	
Minimum				1.60	7.46	8.00	3080	2950	13	
Maximum				3.60	7.74	8.00	3460	3780	13	

TABLE H-7

**ANALYTICAL RESULTS FOR COMMON IONS,
GROUNDWATER SAMPLES, EM WELLS**

Table H-7. Summary of Groundwater Analytical Results, August 1997 through February 2000
EM Common Ions

Site	Date	Sampl #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)		
EM-1	08/13/97	EPRI-9708-155	GW	4.05	7.52	7.80	5200	5210	3948	58	184	100	900	32	184	224	1.0	U	1849	687	0.81	
EM-1	11/17/97	EPRI-9711-155	GW	4.96	7.20	8.00	4020	6250	2899	6.6	173	95	857	30	148	181	1.0	U	1206	564	0.74	
EM-1	02/19/98	EPRI-9802-155	GW	1.64	7.39	7.50	5480	6410	4192	50	209	122	1075	28	186	227	1.0	U	1695	720	0.73	
EM-1	05/18/98	EPRI-9805-155	GW	3.15	7.43	7.60	5550	5480	3901	122	206	115	1008	28	186	227	1.0	U	1699	743	0.81	
EM-1	8/20/98	EPRI-9808-155	GW	1.57	7.38	7.8	5560	5600	4323	67	201	115	954	31	186	227	1.0	U	1808	779	0.78	
EM-1	11/18/98	EPRI-9811-155	GW	2.2	7.06	7.6	5580	5540	4258	59	220	121	983	30	192	234	1.0	U	1948	757	0.77	
EM-1	02/24/99	EPRI-9902-167	GW	2.2	7.46	7.6	5600	6860	4338	63	213	115	859	30	185	226	1.0	U	1542	714	0.87	
EM-1	05/12/99	EPRI-9905-168	GW	2.3	6.94	7.9	5670	5740	4225	6.9	226	158	950	46	182	222	J3	1.0	U	1880	358	0.82
EM-1	08/11/99	EPRI-9908-168	GW	1.5	7.38	7.8	5610	5500	4175	7.6	221	127	839	28	180	220	1.0	U	1858	759	0.86	
EM-1	10/20/99	EPRI-9911-161	GW	7.16	7.8	8.00	5600	5050	4061	12	J4	122	801	27	177	216	1.0	U	1554	797	0.81	
EM-1	01/31/00	EPRI-0002-195	GW	1.02	7.26	7.8	5580	5310	4038	14	J4	126	946	29	180	220	1.0	U	1846	762	0.77	
Average				2.46	7.29	7.75	5405	5723	4033	42	208	120	925	31	181	220	1.0		1717	695	0.80	
Median				2.20	7.38	7.8	5580	5540	4175	50	210	121	946	30	184	224	1.0		1808	743	0.81	
Standard Deviation				1.24	0.18	0.15	475	556	403	37	17	16	82	5	12	14	0.0		215	128	0.04	
Minimum				1.02	6.94	7.50	4020	5050	2899	7	173	95	801	27	148	181	1.0		1206	358	0.73	
Maximum				4.96	7.52	8.00	5670	6860	4338	122	226	158	1075	46	192	234	1.0		1948	797	0.87	
EM-2	08/11/97	EPRI-9708-156A	GW	6.28	7.08			4630														
EM-2	08/26/97	EPRI-9708-156	GW	7.40	7.90		4550	871	R 3589	68	204	74	831	16	280	342	1.0	U	1448	497	1.40	
EM-2	11/17/97	EPRI-9711-156	GW	1.41	7.00	7.70	3960	5150	2952	7.5	176	65	704	11	250	305	1.0	U	1185	456	1.30	
EM-2	02/17/98	EPRI-9802-156	GW	1.26	6.90	7.70	4150	5450	3159	20	179	72	791	15	263.934	322	1.0	U	1247	436	1.40	
EM-2	05/18/98	EPRI-9805-156	GW	4.29	7.14	7.50	4190	4180	2917	9.2	173	68	785	17	263	321	1.0	U	1197	428	1.50	
EM-2	8/13/98	EPRI-9808-156	GW	1.06	7.02	7.8	4210	4240	3115	15	187	71	896	16	282	344	1.0	U	1375	400	1.40	
EM-2	11/11/98	EPRI-9811-156	GW	3.5	7.23	7.5	4260	4190	3150	7.6	J4	185	773	15	272	332	1.0	U	1375	457	1.40	
EM-2	02/22/99	EPRI-9902-168	GW	2.40	7.12	7.6	4510	5330	3338	16	196	77	835	23	275	336	1.0	U	929	442	1.40	
EM-2	05/10/99	EPRI-9905-169	GW	1.3	6.71	7.4	6050	6480	4816	19	362	146	971	26	280	342	1.0	U	2124	405	J4	
EM-2	08/06/99	EPRI-9908-169	GW	1.6	6.81	7.5	5740	6320	4758	7.6	382	123	919	20	238	290	1.0	U	2107	366	1.50	
EM-2	10/29/99	EPRI-9911-262	GW	1.1	6.6	7.7	6040	5360	4494	J4	3.3	126	788	18	285	348	1.0	U	2354	554	1.30	
EM-2	01/25/00	EPRI-0002-196	GW	3.3	7.05	7.7	5330	5160	4038	64	236	86	813	16	298	364	1.0	U	1931	491	1.30	
Average				2.50	7.01	7.64	4817	4780	3666	28	239	89	828	18	272	331	1.0		1570	448	1.38	
Median				1.60	7.035	7.7	4510	5155	3338	16	196	74	813	16	275	336	1.0		1375	442	1.40	
Standard Deviation				1.68	0.22	0.15	809	1444	731	27	83	28	75	4	17	21	0.0		473	52	0.08	
Minimum				1.06	6.60	7.40	3960	871	2917	3	173	65	704	11	238	290	1.0		929	366	1.30	
Maximum				6.28	7.40	7.90	6050	6480	4816	76	382	146	971	26	298	364	1.0		2354	554	1.50	
EM-4	08/11/97	EPRI-9708-158A	GW	2.72	7.28			10570														
EM-4	08/26/97	EPRI-9708-158	GW	7.50	7.90		10410	2090	R 7094	15	J4	441	1684	38	127	155	1.0	U	450	3507	1.30	
EM-4	11/17/97	EPRI-9711-158	GW	2.57	7.10	7.70	11300	14110	7198	7.7	469	211	1959	42	126	154	1.0	U	547	3423	1.30	
EM-4	02/17/98	EPRI-9802-157	GW	1.14	6.97	7.40	11150	14370	7157	1	U	451	220	40	127.869	156	1.0	U	503	3358	1.30	
EM-4	05/18/98	EPRI-9805-157	GW	1.49	7.23	7.70	9420	10150	5744	1	U	383	168	37	116	142	1.0	U	376	2798	1.30	
EM-4	8/13/98	EPRI-9808-157	GW	1.06	7.02	7.8	9560	4240	R 6339	5.6	417	183	1640	33	128	156	1.0	U	466	2862	1.20	
EM-4	11/11/98	EPRI-9811-157	GW	1.9	7.5	7.4	10460	10370	6473	1.0	U	440	1551	34	138	168	1.0	U	500	3268	1.20	
EM-4	02/22/99	EPRI-9902-169	GW	8.3	7.27	7.5	9940	11540	5990	3.2	391	175	1572	49	120	146	1.0	U	1618	3200	1.30	
EM-4	05/10/99	EPRI-9905-170	GW	0.9	7.01	7.6	10270	10850	6081	3.6	425	198	1487	40	117	143	1.0	U	411	3348	J4	
EM-4	05/10/99	EPRI-9905-185	GW	1	7.01	7.7	10270	10780	6091	5.0	425	199	1526	40	126	154	1.0	U	446	2718	J4	
EM-4	08/06/99	EPRI-9908-170	GW	0.8	7.21	7.9	10440	10600	6683	3	403	188	1443	35	124	151	1.0	U	463	3029	1.30	

Table H-7. Summary of Groundwater Analytical Results, August 1997 through February 2000
EM Common Ions

Site	Date	Samp #	Type	(O) (fid)	pH (fid)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fid)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)		
EM-4	10/29/99	EPRI-9911-164	GW	2.1	6.96	7.8	9400	8720	5290	J4	U	357	159	1188	27	119,672	146	1.0	U	386	2341	1.20
EM-4	01/25/00	EPRI-0002-197	GW	1.5	7.28	7.8	9240	9300	5473	6	299	141	1287	26	127,869	156	1.0	U	433	3020	1.20	
Average				2.12	12.37	7.68	10155	9822	6301	4	408	186	1575	37	125	152	1.0	550	3073	1.27		
Median				1.50	7.21	7.7	10270	10570	6215	3	421	192	1562	38	126	154	1.0	457	3115	1.30		
Standard Deviation				2.05	18.82	0.17	668	3391	643	4	46	22	227	6	6	7	0.0	340	345	0.05		
Minimum				0.80	6.96	7.40	9240	2090	5290	1	299	141	1188	26	116	142	1.0	376	2341	1.20		
Maximum				8.30	75.00	7.90	11300	14370	7198	15	469	220	1959	49	138	168	1.0	1618	3507	1.30		
EM-5	08/11/97	EPRI-9708-159A	GW	0.96	7.65			5970														
EM-5	08/26/97	EPRI-9708-159	GW	0.79	7.30	7.70	6160	1187	R	36	J4	197	46	1238	79	162	1.0	U	1943	742	6.10	
EM-5	11/17/97	EPRI-9711-159	GW	0.79	7.30	7.70	6700	8790	5176	7.4	249	60	1445	83	174	212	1.0	U	2224	806	6.40	
EM-5	02/17/98	EPRI-9802-158	GW	1.84	7.17	7.70	6990	9310	5485	8.6	277	68	1528	87	159,836	195	1.0	U	2477	794	8.00	
EM-5	05/18/98	EPRI-9805-158	GW	1.21	7.59	7.90	4920	4950	3432	3.4	142	33	1084	54	128	156	1.0	U	1599	485	9.50	
EM-5	08/17/98	EPRI-9808-158	GW	0.18	7.5	7.8	4970	5010	3613	3.7	159	34	1071	60	154	188	1.0	U	1787	536	9.00	
EM-5	11/11/99	EPRI-9911-158	GW	3.5	7.43	7.6	5090	3771	3771	4.7	J4	195	42	1056	166	203	1.0	U	1718	586	7.10	
EM-5	02/11/99	EPRI-9902-170	GW	0.9	7.47	7.8	4740	4800	3460	5	173	39	770	50	159	194	1.0	U	1472	565	7.10	
EM-5	02/11/99	EPRI-9902-187	GW	0.9	7.48	7.8	4770	4800	3471	5.1	171	38	780	55	159	194	1.0	U	1563	571	7.10	
EM-5	05/10/99	EPRI-9905-171	GW	0.7	7.35	7.7	3700	3800	2554	5	111	27	692	31	112	137	1.0	U	1111	410	J4	
EM-5	08/06/99	EPRI-9908-171	GW	0.7	7.46	7.8	2660	2630	1786	1.4	78	16	479	27	130	159	1.0	U	715	296	4.80	
EM-5	11/02/99	EPRI-9911-165	GW	4.1	7.38	7.9	3010	3210	1980	1.5	79	18	495	29	163	199	1.0	U	827	146	6.40	
EM-5	01/25/00	EPRI-0002-198	GW	0.3	7.51	8	2100	2050	1320	1	U	51	12	351	141	172	1.0	U	503	224	5.30	
Average				1.54	7.45	7.82	4525	4623	3286	6	151	35	882	51	152	185	1.0	1444	498	6.85		
Median				0.90	7.465	7.8	4770	4800	3460	5	159	34	780	54	159	194	1.0	1563	536	6.50		
Standard Deviation				1.39	0.13	0.13	1551	2300	1320	9	70	17	385	23	18	22	0.0	608	213	1.35		
Minimum				0.18	7.17	7.60	2100	1187	1320	1	51	12	351	21	112	137	1.0	503	146	4.80		
Maximum				4.10	7.65	8.00	6990	9310	5485	36	277	68	1528	87	174	212	1.0	2477	806	9.50		
EM-6	08/11/97	EPRI-9708-160	GW	4.48	7.25	7.90	4520	4480	3400	3.1	127	80	897	14	322	393	1.0	U	1707	422	2.20	
EM-6	08/11/97	EPRI-9708-173	GW	0.98	7.15	7.60	4500	5750	3498	3.4	135	83	879	15	330	403	1.0	U	1653	442	2.20	
EM-6	11/17/97	EPRI-9711-160	GW	0.91	7.04	7.80	4330	5810	3160	2.2	124	78	902	14	318	388	1.0	U	1470	451	2.00	
EM-6	02/17/98	EPRI-9802-159	GW	1.57	7.21	7.60	4090	4310	2874	1	U	120	77	877	14	304,918	372	1.0	U	1280	419	1.90
EM-6	05/18/98	EPRI-9805-159	GW	0.32	7.17	7.6	4600	4610	3324	2.6	124	77	912	12	295	360	1.0	U	1223	390	2.00	
EM-6	05/18/98	EPRI-9805-180	GW	1.4	7.45	7.8	3550	3590	2462	2.5	J4	108	688	13	340	415	1.0	U	1539	454	1.90	
EM-6	08/17/98	EPRI-9808-159	GW	3.6	7.3	7.8	4290	4390	3129	1.7	124	75	710	15	260	317	1.0	U	1167	345	1.70	
EM-6	02/11/99	EPRI-9902-171	GW	0.6	7.06	7.7	3810	4290	2682	2.5	112	70	716	16	288	351	1.0	U	903	414	2.10	
EM-6	05/10/99	EPRI-9905-172	GW	0.6	7.06	7.7	3810	4290	2682	2.5	112	70	716	16	288	351	1.0	U	989	318	J4	

Table H-7. Summary of Groundwater Analytical Results, August 1997 through February 2000
EM Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (fld)	Specific Conductivity SC (lab)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)		
EM-6	08/06/99	EPRI-9908-172	GW	0.5	7.3	8	3640	3840	2567	2.4	102	60	697	12	255	311	1.0	U	1121	321	1.80	
EM-6	08/06/99	EPRI-9908-200	GW	0.4	7.3	8	3640	3850	2608	2.6	100	60	675	12	254	310	1.0	U	1221	322	1.80	
EM-6	11/02/99	EPRI-9911-166	GW	2.2	7.3	8	3300	3660	2281	4.1	91	51	539	9.6	249	304	1.0	U	1058	342	1.70	
EM-6	01/25/00	EPRI-0002-199	GW	1.2	7.26	8	4330	4240	3042	1	U	67	738	13	319	389	1.0	U	1210	438	2.00	
Average				1.51	7.23	7.79	4087	4402	2946	2	115	70	783	14	296	361	1.0		1270	393	1.94	
Median				1.09	7.255	7.8	4205	4300	2958	2	117	71	800	14	300	366	1.0		1222	417	1.95	
Standard Deviation				1.31	0.11	0.17	424	722	387	1	12	9	116	3	31	38	0.0		240	52	0.17	
Minimum				0.32	7.04	7.50	3300	3590	2281	1	91	51	539	10	249	304	1.0		903	318	1.70	
Maximum				4.48	7.45	8.00	4600	5810	3498	4	135	83	912	22	340	415	1.0		1707	454	2.20	
EM-7	11/17/97	EPRI-9711-161	GW	1.78	7.56	8.40	5700	7070	4264	54	215	42	1216	51	362	442	1.0	U	1864	714	4.90	
EM-7	02/19/98	EPRI-9802-160	GW	2.33	7.77	7.80	6020	6810	4588	9.2	234	48	1349	39	250	305	1.0	U	2064	679	6.10	
EM-7	05/07/98	EPRI-9805-160	GW	1.3	7.24	7.80	5560	6960	4029	37	216	43	1199	48	222.131	271	1.0	U	1755	614	6.70	
EM-7	08/20/98	EPRI-9808-160	GW	1.95	7.38	7.70	5220	5240	3967	116	174	33	1037	44	242	295	1.0	U	1667	570	7.10	
EM-7	11/11/98	EPRI-9811-160	GW	2.3	7.54	7.6	5310	5190	3952	294	14	36	1139	43	285	348	1.0	U	1731	546	6.60	
EM-7	02/24/99	EPRI-9902-172	GW	2	7.69	7.8	5110	6320	3836	125	195	36	957	41	280	342	1.0	U	1111	530	6.50	
EM-7	05/12/99	EPRI-9905-173	GW	3.6	7.66	7.4	4540	4560	3133	347	147	34	850	49	202	246	J3	1.0	U	1419	241	6.80
EM-7	08/06/99	EPRI-9908-173	GW	3.9	7.54	7.7	4410	4420	3121	139	142	27	834	37	235	287	1.0	U	1419	446	6.70	
EM-7	10/30/99	EPRI-9911-167	GW		7.41	7.8	2520	2410	1365	97	14	11	370	20	225	275	1.0	U	486	322	6.30	
EM-7	01/31/00	EPRI-0002-200	GW	1.2	7.59	7.8	2260	1980	1440	506	77	14	364	18	215	262	1.0	U	474	236	5.20	
Average				2.26	7.54	7.78	4665	5096	3390	172	166	32	932	39	252	307	1.0		1399	490	6.29	
Median				2.00	7.55	7.8	5165	5215	3894	121	185	35	997	42	239	291	1.0		1543	538	6.55	
Standard Deviation				0.93	0.16	0.25	1295	1811	1092	159	59	12	339	11	47	57	0.0		552	173	0.71	
Minimum				1.20	7.24	7.40	2260	1980	1440	9	61	11	364	18	202	246	1.0		474	236	4.90	
Maximum				3.90	7.77	8.40	6020	7070	4588	506	234	48	1349	51	362	442	1.0		2064	714	7.10	

TABLE H-8

**ANALYTICAL RESULTS FOR COMMON IONS,
GROUNDWATER SAMPLES, EP WELLS**

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (ft)	pH (ft)	pH (lab)	Specific Conductivity		TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)		
							SC (lab)	SC (ft)														
EP-4	08/06/97	EPRI-9708-100	GW	1.51	7.06	7.70	2350	2230	1557	14	135	36	356	17	318	388	1.0	U	454	356	1.2	
EP-4	11/04/97	EPRI-9711-100	GW	1.00	7.46	8.00	1656	1906	1102	22	56	15	251	12	284	346	1.0	U	287	196	1.4	
EP-4	02/04/98	EPRI-9802-100	GW	1.91	7.58	8.00	1595	1563	1076	54	74	20	257	12	246	300	1.0	U	346	190	1.1	
EP-4	05/05/98	EPRI-9805-100	GW	3.20	7.95	7.90	1831	1670	1211	58	99	27	270	21	267	326	1.0	U	377	213	0.97	
EP-4	08/05/98	EPRI-9808-100	GW	1.34	7.36	7.8	1970	2190	1345	29	105	27	303	12	271	331	1.0	U	437	242	1	
EP-4	02/03/99	EPRI-9902-100	GW	1.20	8.08	8.1	1965	1620	1295	3434	101	27	321	13	638	778	1.0	U	364	222	0.93	
EP-4	08/02/99	EPRI-9905-100	GW	2.1	7.6	7.9	2170	2050	1423	696	113	31	282	14	360	439	1.0	U	418	J3	206	
EP-4	08/02/99	EPRI-9908-100	GW	1.3	7.61	7.8	2440	2490	1650	338	J4	30	350	16	329	401	1.0	U	603	J3	206	
EP-4	10/25/99	EPRI-9911-100	GW		7.28	8.3	2660	2650	1767	237	129	36	390	20	277	338	J3	UJF	654	J4	272	
EP-4	01/29/00	EPRI-0002-100	GW	1	7.64	8	2310	2290	1470	448	127	33	332	15	277	338	1.0	U	524	308	J4	272
Average				1.62	7.56	7.93	2095	2066	1390	537	106	28	311	15	327	399	1.0	U	446	248	1	
Median				1.34	7.59	7.9	2070	2120	1384	158	109	29	312	15	280	342	1.0	U	428	232	1	
Standard Deviation				0.70	0.30	0.18	350	372	1043	1043	25	7	46	3	114	140	0.0	U	116	54	0	
Minimum				1.00	7.06	7.70	1595	1563	1076	14	56	15	251	12	246	300	1.0	U	287	190	1	
Maximum				3.20	8.08	8.30	2660	2650	1767	3434	135	36	390	21	638	778	1.0	U	654	356	1	
EP-5	08/06/97	EPRI-9708-101	GW	1.29	7.47	7.70	3350	3330	2342	199	96	39	650	16	766	935	1.0	U	544	424	2.8	
EP-5	11/04/97	EPRI-9711-101	GW	2.52	7.58	8.00	3100	3700	2141	186	80	35	623	11	746	910	1.0	U	434	343	2.8	
EP-5	02/04/98	EPRI-9802-101	GW	0.68	7.58	8.10	3070	3060	2106	30	78	33	671	18	734	895	1.0	U	519	361	2.3	
EP-5	05/05/98	EPRI-9805-101	GW	5.22	7.81	8.00	2980	2560	2116	169	85	34	629	18	644	786	1.0	U	410	336	2.6	
EP-5	08/05/98	EPRI-9808-101	GW	1.14	7.36	7.8	2900	3360	1991	12	76	30	594	9.2	691	843	1.0	U	396	353	2.6	
EP-5	11/03/99	EPRI-9911-101	GW	1.00	7.04	7.6	3010	2890	1909	J3	77	30	577	11	764	932	1.0	U	318	328	2.7	
EP-5	02/03/99	EPRI-9902-101	GW	1.70	7.87	8.0	2820	2800	1818	16	74	30	570	5.8	712	869	1.0	U	318	302	2.4	
EP-5	05/05/99	EPRI-9905-101	GW	2.20	7.52	8.1	2780	2600	1804	14	71	30	585	7.5	660	805	1.0	U	444	J3	285	
EP-5	08/02/99	EPRI-9908-101	GW	1.8	7.44	7.9	3300	3550	2288	149	J4	36	550	11	609	743	1.0	U	577	352	2.9	
EP-5	10/25/99	EPRI-9911-101	GW		7.18	8.1	8230	8380	5867	39	323	124	1497	25	436	532	J3	1.0	UJF	2066	1337	2.2
Average				1.95	7.49	7.93	3554	3623	2438	89	105	42	695	12	676	825	1.0	U	604	442	3	
Median				1.70	7.495	8	3040	3195	2111	55	79	34	609	11	702	856	1.0	U	439	348	3	
Standard Deviation				1.36	0.25	0.18	1653	1716	1218	78	77	29	284	6	99	121	0.0	U	521	317	0	
Minimum				0.68	7.04	7.60	2780	2560	1804	12	71	30	550	6	436	532	1.0	U	318	285	2	
Maximum				5.22	7.87	8.10	8230	8380	5867	199	323	124	1497	25	766	935	1.0	U	2066	1337	3	
EP-6	08/06/97	EPRI-9708-102	GW	1.47	7.34	7.90	7320	7240	6029	1.9	411	128	1409	36	324	395	1.0	U	2632	914	1.5	
EP-6	11/04/97	EPRI-9711-102	GW	1.03	7.44	7.90	7010	7440	5909	7.5	365	118	1409	25	348	425	1.0	U	2332	827	1.6	
EP-6	02/04/98	EPRI-9802-102	GW	3.10	7.53	8.00	6060	997	A	10	246	76	1167	25	476	581	1.0	U	1852	954	1.3	
EP-6	05/05/98	EPRI-9805-102	GW	3.00	7.62	8.00	5810	4950	4263	7.2	225	72	1215	28	384	468	1.0	U	1664	760	1.5	
EP-6	08/05/98	EPRI-9808-102	GW	1.24	7.30	8.0	6720	7440	5241	4.4	328	100	1414	31	380	464	1.0	U	2258	897	1.4	
EP-6	11/03/99	EPRI-9911-102	GW	1.50	7.33	7.7	7120	7030	5710	7.5	364	110	1348	30	372	454	1.0	U	2205	860	1.5	
EP-6	02/03/99	EPRI-9902-102	GW	2.50	7.51	7.9	7270	6960	5643	7.0	415	137	1282	34	367	448	1.0	U	2348	844	1.5	
EP-6	05/05/99	EPRI-9905-102	GW	1.40	7.39	8.1	7400	7100	5803	5.1	387	141	1462	26	373	455	1.0	U	2807	J3	882	
EP-6	05/05/99	EPRI-9905-179	GW	1.60	7.43	7.9	7400	6810	5894	3.8	380	139	1440	24	372	454	1.0	U	3168	J3	879	
EP-6	08/02/99	EPRI-9908-102	GW	1.6	7.37	8.4	7760	7630	6252	6	J4	143	1100	27	328	360	20.0	U	2975	1013	1.6	
EP-6	10/25/99	EPRI-9911-102	GW		7.15	8	8070	8090	6040	43	411	140	1383	27	380	464	J3	UJF	3357	912	1.3	
EP-6	01/29/00	EPRI-0002-102	GW	3.1	7.46	7.9	7860	7430	6144	23	408	133	1288	22	391	477	1.0	U	2964	912	1.2	
Average				1.96	7.41	7.98	7150	6593	5618	11	362	120	1326	28	375	454	2.6	U	2547	888	1	
Median				1.60	7.41	7.95	7295	7170	5849	7	384	131	1366	27	373	455	1.0	U	2490	890	2	
Standard Deviation				0.80	0.12	0.17	680	1919	638	12	65	25	116	4	38	52	5.5	U	524	64	0	
Minimum				1.03	7.15	7.70	5810	997	4263	2	225	72	1100	22	324	360	1.0	U	1664	760	1	
Maximum				3.10	7.62	8.40	8070	8090	6252	43	415	143	1462	36	476	581	20.0	U	3357	1013	2	

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)		
EP-7	08/06/97	EPRI-9708-103	GW	1.66	7.17	7.80	2810	2580	1942	12	103	34	490	12	320	390	1.0	U	672	320	1.7	
EP-7	11/04/97	EPRI-9711-103	GW	1.55	7.36	7.90	2710	2850	1974	15	96	32	484	5.9	320	390	1.0	U	687	311	1.8	
EP-7	02/04/98	EPRI-9802-103	GW	1.62	7.30	7.90	2810	501	R	1978	119	38	502	9.6	296	361	1.0	U	814	344	1.3	
EP-7	05/05/98	EPRI-9805-103	GW	3.73	7.67	7.80	2890	2500	1930	15	127	41	512	14	264	322	1.0	U	687	348	1.5	
EP-7	08/05/98	EPRI-9808-103	GW	0.69	7.28	7.8	2800	630	R	1938	106	34	506	9.5	243	296	1.0	U	767	365	1.7	
EP-7	11/03/98	EPRI-9811-103	GW	1.20	7.31	7.6	2660	2610	1790	18	83	27	446	9.0	237	289	1.0	U	567	322	1.9	
EP-7	02/03/99	EPRI-9902-103	GW	1.90	7.51	7.9	2960	2790	1960	12	103	34	553	5	U	362	1.0	U	702	320	1.8	
EP-7	02/03/99	EPRI-9902-177	GW	2.00	7.51	7.8	2950	2800	1998	11	110	36	570	5	U	360	1.0	U	735	322	1.7	
EP-7	05/05/99	EPRI-9905-103	GW	2.50	7.50	7.9	3110	3030	2119	10	112	39	551	7.5	320	390	1.0	U	829	334	1.7	
EP-7	08/02/99	EPRI-9908-103	GW	1.9	7.33	7.7	3790	3800	2664	15	146	47	500	11	300	366	1.0	U	907	467	1.7	
EP-7	10/25/99	EPRI-9911-103	GW		6.97	7.8	6700	6910	4506	23	330	103	1223	16	377	460	J3	1.0	U	1517	1197	1.7
EP-7	10/25/99	EPRI-9911-206	GW						4531	19	321	98	1168	15	372	454	J3	1.0	U	1503	1133	1.7
EP-7	01/29/00	EPRI-0002-103	GW	1.7	7.27	7.5	3840	3630	2516	36	123	40	652	7.2	334	407	1.0	U	924	581	1.9	
EP-7	01/29/00	EPRI-0002-230	GW	2.6	7.34	7.8	3820	3560	2446	36	124	40	669	7.3	310	378	1.0	U	852	469	1.9	
Average				1.92	7.35	7.79	3611	2938	2449	17	143	46	630	10	306	373	1.0		869	488	2	
Median				1.80	7.33	7.8	2955	2800	1988	15	116	39	532	9	305	372	1.0		791	346	2	
Standard Deviation				0.77	0.18	0.12	1373	1558	913	9	79	24	247	4	41	50	0.0		289	297	0	
Minimum				0.69	6.97	7.50	2660	501	1790	9	83	27	446	5	237	289	1.0		567	311	1	
Maximum				3.73	7.67	7.90	6700	6910	4531	36	330	103	1223	16	377	460	1.0		1517	1197	2	
EP-9	5/7/98	EPRI-9805-178	GW	1.12	7.10	8.10	2650	3220	1750	6	55	23	534	18	179	218	1.0	U	729	265	2	
EP-12	11/03/97	EPRI-9711-104	GW	1.44	6.80	7.30	5840	7490	4846	7.9	370	121	995	17	626	764	1.0	U	1925	539	1	
EP-12	02/03/98	EPRI-9802-104	GW	1.55	6.76	7.40	6580	7870	5491	8.3	437	148	1093	21	502	612	1.0	U	2603	666	0.92	
EP-12	05/20/98	EPRI-9805-104	GW	2.38	7.05	7.60	5280	4820	3938	88	321	113	959	27	726	886	1.0	U	1566	524	1.1	
EP-12	08/27/98	EPRI-9808-104	GW	1.12	6.79	7.3	6360	5650	5362	174	428	147	1172	12	596	727	1.0	U	2229	597	1.0	
EP-12	11/16/98	EPRI-9811-104	GW	1.70	6.88	7.5	5580	5710	4367	329	334	115	1024	18	724	883	1.0	U	1731	547	1.0	
EP-12	02/23/99	EPRI-9902-104	GW	2.60	7.08	7.4	4890	4980	3854	16	14	288	86	775	635	775	1.0	U	1412	323	1.0	
EP-12	05/14/99	EPRI-9905-104	GW	1.30	6.86	7.7	6020	5910	4936	41	14	134	1096	27	1650	2013	J4	1.0	U	2121	372	0.80
EP-12	05/14/99	EPRI-9905-103	GW	2.10	7	7.7	5900	5950	4840	66	14	134	1063	26	850	1037	J4	1.0	U	2093	376	0.76
EP-12	08/11/99	EPRI-9908-104	GW	0.1	7.31	7.6	6110	6070	4756	36	360	126	945	15	940	1147	1.0	U	1900	425	0.78	
EP-12	10/29/99	EPRI-9911-104	GW	2.5	8	8.3	4400	4180	3880	14	14	68	809	10	1276	1557	1.0	U	740	375	0.51	
EP-12	02/08/00	EPRI-0002-104	GW				5520		3880	46	14	94	924	11	995	1214	1.0	U	1433	439	0.9	
EP-12	02/08/00	EPRI-0002-237	GW				5420		3928	68	14	86	898	9.8	1035	1263	1.0	U	1350	417	0.87	
Average				1.68	7.05	7.58	5658	5863	4340	77	313	114	979	17	880	1073	1.0		1759	467	0.89	
Median				1.63	6.94	7.55	5710	5810	4562	47	331	118	977	16	788	962	1.0		1816	432	0.91	
Standard Deviation				0.76	0.37	0.27	615	1130	964	91	91	26	119	7	329	401	0.0		495	106	0.16	
Minimum				0.10	6.76	7.30	4400	4180	1881	8	138	68	775	10	502	612	1.0		740	323	0.51	
Maximum				2.60	8.00	8.30	6580	7870	5491	329	437	148	1172	27	1650	2013	1.0		2603	666	1.10	
EP-13	08/07/97	EPRI-9708-105	GW	5.56	7.35	7.70	12500	12410	11243	52	434	73	3087	110	552	429	1.0	U	5745	673	1.5	
EP-13	11/06/97	EPRI-9711-105	GW	4.01	7.11	7.80	12210	14320	10653	14	371	70	3043	91	346	422	1.0	U	5541	724	1.4	
EP-13	02/11/98	EPRI-9802-105	GW	0.18	6.95	7.70	11910	14100	10540	23	348	59	2992	102	342	417	1.0	U	5364	634	1.4	
EP-13	05/07/98	EPRI-9805-105	GW	2.79	6.96	7.70	11440	10900	9394	3.4	363	70	2776	327	399	399	1.0	U	5265	759	1.5	
EP-13	08/06/98	EPRI-9808-105	GW	2.80	6.98	7.7	11220	11320	9829	7.3	359	70	2468	83	340	415	1.0	U	5322	814	1.4	
EP-13	11/04/98	EPRI-9811-105	GW	7.2	7.12	7.4	11420	12670	9662	147	359	65	2684	85	351	428	1.0	U	4881	812	1.4	
EP-13	02/08/99	EPRI-9902-105	GW	5.6	7.16	7.6	11200	11070	9447	12	354	65	2040	90	323	394	1.0	U	4565	680	1.6	
EP-13	05/06/99	EPRI-9905-105	GW	5.90	7.08	7.7	10640	11480	8889	6.8	309	61	2555	76	337	411	1.0	U	4552	644	1.5	

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity (SC lab)	Specific Conductivity (SC fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)		
																					4.3	J4
EP-13	08/03/99	EPRI-9908-105	GW	2.6	7.19	7.5	11200	11300	9509	4.3	J4	354	62	2000	77	334	1.0	U	4734	770	1.5	
EP-13	10/28/99	EPRI-9911-105	GW	3.7	7.03	8	8960	8160	6935	3.9	265	42	1797	63	268	327	1.0	U	4164	596	1.4	
EP-13	01/25/00	EPRI-0002-105	GW	4.7	7.27	7.8	10170	9840	8099	12	256	47	1986	67	305	372	1.0	U	3497	700	1.5	
Average					7.11	7.69	11170	11597	9473	26	343	62	2493	85	329	402	1.0	U	4875	710	1	
Median					7.11	7.7	11220	11320	9509	12	354	65	2555	85	337	411	1.0	U	4881	700	2	
Standard Deviation					0.13	0.16	985	1770	1204	42	50	10	471	14	24	30	0.0	U	665	73	0	
Minimum					6.95	7.40	8960	8160	6935	3	256	42	1797	63	268	327	1.0	U	3497	596	1	
Maximum					7.20	8.00	12500	14320	11243	147	434	73	3087	110	352	429	1.0	U	5745	814	2	
EP-14	11/05/97	EPRI-9711-106	GW	0.40	6.91	7.50	4430	5020	3686	3.6	364	92	623	53	272	332	1.0	U	1876	347	1.5	
EP-14	02/17/98	EPRI-9802-106	GW	0.35	6.76	7.50	4520	6090	3852	2.6	383	97	671	51	265	323	1.0	U	1707	350	1.5	
EP-14	05/07/98	EPRI-9805-106	GW	1.60	6.86	7.40	4660	5500	3754	1.1	388	97	730	63	348	425	1.0	U	1989	344	1.6	
EP-14	08/06/98	EPRI-9808-106	GW	0.50	6.9	7.7	3590	3890	2867	3.9	211	54	645	35	383	467	1.0	U	1326	222	2.0	
EP-14	11/04/98	EPRI-9811-106	GW	1.00	6.92	7.2	4230	4600	3253	3.2	248	46	640	46	354	432	1.0	U	1542	294	2.0	
EP-14	02/08/99	EPRI-9902-106	GW	0.7	6.95	7.6	5070	4950	4178	6.8	J4	383	98	670	312	381	1.0	U	1557	307	2.0	
EP-14	05/06/99	EPRI-9905-106	GW	6.00	6.85	7.4	4900	5240	3939	5.6	J4	339	91	730	55	363	443	1.0	U	1906	J3	2.0
EP-14	08/03/99	EPRI-9908-106	GW	0.4	7.11	7.5	4300	4340	3349	16	J4	244	67	550	44	509	621	1.0	U	1229	358	J3
EP-14	10/28/99	EPRI-9911-106	GW	0.2	6.87	8.1	4750	5400	3667	4.2	336	86	688	55	323	394	1.0	U	1537	405	1.7	
EP-14	01/25/00	EPRI-0002-106	GW	0.1	6.92	7.5	5130	4970	4011	5.9	303	78	721	50	263	321	1.0	U	2150	338	1.6	
Average					6.91	7.54	4558	5000	3656	8	320	82	667	51	339	414	1.0	U	1680	326	2	
Median					6.905	7.5	4590	4995	3720	5	338	89	671	52	336	410	1.0	U	1625	341	2	
Standard Deviation					0.09	0.24	457	622	395	9	65	16	56	8	73	89	0.0	U	297	49	0	
Minimum					6.76	7.20	3590	3890	2867	1	211	54	550	35	263	321	1.0	U	1229	222	2	
Maximum					7.11	8.10	5130	6090	4178	32	388	98	730	63	509	621	1.0	U	2150	405	2	
EP-15	08/07/97	EPRI-9708-107	GW	2.84	7.20	7.80	3150	2830	2263	220	125	44	525	13	266	325	1.0	U	889	315	0.93	
EP-15	11/06/97	EPRI-9711-107	GW	2.37	7.30	7.90	3060	3180	2189	165	116	42	529	10	238	290	1.0	U	974	333	0.89	
EP-15	02/17/98	EPRI-9802-107	GW	2.45	7.12	7.70	3100	3980	2299	86	122	43	557	11	215	262	1.0	U	885	329	0.84	
EP-15	05/07/98	EPRI-9805-107	GW	2.47	7.35	7.80	2960	3320	2018	124	110	39	538	17	229	279	1.0	U	875	311	0.91	
EP-15	08/10/98	EPRI-9808-107	GW	1.77	7.34	7.9	2810	2750	1987	282	99	34	535	8.4	316	386	1.0	U	715	272	0.94	
EP-15	11/05/98	EPRI-9811-107	GW	1.5	7.21	7.6	3090	3040	2150	110	121	41	510	11	232	283	1.0	U	869	308	0.93	
EP-15	02/08/99	EPRI-9902-107	GW	2.5	7.27	7.8	3620	3560	2579	94	J4	166	59	520	13	220	268	1.0	U	958	367	0.88
EP-15	05/05/99	EPRI-9905-107	GW	7.30	7.12	7.7	4170	3560	2593	117	J4	161	58	520	13	220	268	1.0	U	967	372	0.87
EP-15	08/03/99	EPRI-9908-107	GW	2	7.19	7.5	4460	4500	3083	75	197	77	710	11	245	299	1.0	U	1212	J3	0.80	
EP-15	08/03/99	EPRI-9908-194	GW	2	7.19	7.6	4460	4520	3408	83	J4	217	76	600	12	242	295	1.0	U	1233	452	0.73
EP-15	10/28/99	EPRI-9911-107	GW	1.3	6.85	8.1	4400	3960	3250	60	J4	220	78	600	12	244	298	1.0	U	1363	432	0.74
EP-15	01/24/00	EPRI-0002-107	GW	1.6	7.14	7.8	4560	4470	2916	176	223	76	671	13	218	266	1.0	U	1356	509	0.71	
Average					7.20	7.78	3649	4019	2626	126	162	58	583	12	245	299	1.0	U	1062	367	1	
Median					7.2	7.8	3600	3560	2579	110	161	58	538	12	238	290	1.0	U	967	367	1	
Standard Deviation					0.13	0.17	669	1502	527	68	50	18	83	2	32	39	0.0	U	243	67	0	
Minimum					6.85	7.50	2810	2750	1987	49	99	34	510	8	215	262	1.0	U	715	272	1	
Maximum					7.35	8.10	4560	8580	3408	282	230	81	766	17	316	386	1.0	U	1509	509	1	
EP-20	08/07/97	EPRI-9708-108	GW	1.98	6.72	7.40	11160	11270	10541	161	584	323	2070	71	328	400	1.0	U	4582	817	2.3	
EP-20	11/03/97	EPRI-9711-108	GW	2.36	7.05	7.30	10760	12760	10175	78	520	310	2253	56	330	403	1.0	U	4608	786	2.4	
EP-20	02/03/98	EPRI-9802-108	GW	2.56	7.06	7.40	10800	13110	9914	74	536	320	1919	63	286	349	1.0	U	5063	890	1.9	
EP-20	05/06/98	EPRI-9805-108	GW	3.49	7.22	7.50	10510	10580	9230	50	530	315	2289	63	312	381	1.0	U	4635	780	2	

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO ₃	Bicarbonate (HCO ₃)	Carbonate (CO ₃)	Sulfate (SO ₄)	Chloride (CL)	Fluoride (F)	
EP-20	08/06/98	EPRI-9808-108	GW	2.39	6.88	7.6	10210	10440	9259	129	520	292	1664	57	308	376	1.0	U	4783	765	2.0
EP-20	11/04/98	EPRI-9811-108	GW	1.60	6.92	7.1	10370	10130	8932	90	493	274	1816	57	296	361	1.0	U	4376	739	2.5
EP-20	02/04/99	EPRI-9902-108	GW	2.40	6.96	7.4	9910	10010	8707	45	14	260	1801	76	294	359	1.0	U	3750	621	2.3
EP-20	05/04/99	EPRI-9905-108	GW	2.30	6.95	7.4	10320	10220	9135	53	14	302	2014	56	288	351	1.0	U	4861	13	1.3
EP-20	08/02/99	EPRI-9908-108	GW	1.6	6.89	7.2	9930	10090	8709	35	14	287	1600	53	305	372	1.0	U	4935	754	2.1
EP-20	10/26/99	EPRI-9911-108	GW	2.2	6.73	7.2	9800	9770	8197	106	14	266	1596	48	205	250	1.0	U	4216	686	2.2
EP-20	01/31/00	EPRI-0002-108	GW	2.1	6.86	7.5	9530	9120	8062	104	14	456	1747	48	291	355	1.0	U	4280	660	1.9
EP-20	01/31/00	EPRI-0002-232	GW	1.1	6.8	7.5	9500	9050	7844	50	14	268	1769	48	281	343	1.0	U	4288	689	1.8
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-21	11/18/97	EPRI-9711-109	GW				6260		3282	320	85	UJ1	49	450	1238	1510	1.0	U	1258	826	5.4
EP-21	02/18/98	EPRI-9802-109	GW	0.65	7.30	8.00	5980	8000	3770	27	14	51	1108	466	1586	1935	1.0	U	511	697	4.8
EP-21	05/21/98	EPRI-9805-109	GW	0.41	7.26	7.80	5740	1096	3237	269	56	44	959	416	1640	2001	1.0	U	372	695	5.7
EP-21	08/24/98	EPRI-9808-109	GW	0.31	7.41	8.00	5680	5670	3351	47	52	46	1033	46	1692	2064	1.0	U	321	653	5.5
EP-21	11/16/98	EPRI-9811-109	GW	0.20	7.57	8.1	5690	5630	3497	34	60	46	1022	450	1708	2084	1.0	U	404	675	5.5
EP-21	02/24/99	EPRI-9902-109	GW	0.40	7.56	8.0	5670	5740	3486	23	44	40	919	347	1756	2142	1.0	U	405	675	5.5
EP-21	08/10/99	EPRI-9908-109	GW	0.8	7.66	8	5140	5160	2974	19	32	39	805	282	1730	2111	1.0	U	88	608	6.3
EP-21	11/03/99	EPRI-9911-109	GW	1.3	7.28	7.9	5240	5760	2963	14	177	40	768	294	1590	1940	1.0	U	114	586	14
EP-21	02/01/00	EPRI-0002-109	GW	0.7	7.54	8.1	4880	1101	2942	13	25	36	714	322	1750	2135	1.0	U	104	638	14
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-22	08/15/97	EPRI-9708-110	GW	2.92	7.46	7.90	8540	8510	5188	14	106	91	1168	180	1078	1315	1.0	U	1866	711	5.1
EP-22	11/18/97	EPRI-9711-110	GW	1.01	7.16	7.40	9980	12900	7299	9	350	164	1942	116	327	399	1.0	U	3341	1368	4.2
EP-22	02/18/98	EPRI-9802-110	GW	3.75	7.49	7.60	9900	11910	6247	43	14	155	1664	281	729	889	1.0	U	2219	903	4.5
EP-22	06/10/98	EPRI-9806-201	GW	2.26	7.63	7.70	9520	9560	6203	30410	289	148	1477	245	2200	2684	1.0	U	2334	971	5.2
EP-22	08/24/98	EPRI-9808-110	GW	0.170	7.36	7.8	6840	6850	3958	1162	101	81	1226	104	952	1161	1.0	U	1571	691	3.9
EP-22	11/16/98	EPRI-9811-110	GW	0.900	7.51	8.0	7480	7480	4045	441	54	78	1292	126	1428	1742	1.0	U	1407	777	5.2
EP-22	01/26/00	EPRI-0002-110	GW	2.8	7.19	7.9	7500	6930	5829	438	448	161	1262	113	390	476	1.0	U	3940	499	2.2
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-23	08/11/97	EPRI-9708-111	GW	1.17	7.36	7.50	6790	6640	5028	124	218	115	930	80	212	259	1.0	U	3239	494	3.1
EP-23	11/04/97	EPRI-9711-111	GW	0.73	7.51	7.70	6130	6810	4089	61	181	96	876	76	264	322	1.0	U	2236	541	3.2
EP-23	02/04/98	EPRI-9802-111	GW	1.45	7.42	7.70	6190	7190	4183	45	192	99	854	76	252	307	1.0	U	2484	493	2.6
EP-23	05/11/98	EPRI-9805-111	GW	0.88	7.13	7.60	5500	5790	3492	99	131	71	821	70	330	403	1.0	U	1902	420	3.3
EP-23	08/12/98	EPRI-9808-111	GW	0.99	7.47	7.7	5620	5010	3423	204	168	89	874	62	357	436	1.0	U	1790	429	3.2
EP-23	11/05/98	EPRI-9811-111	GW	0.60	7.50	7.5	5790	4650	3517	176	115	64	829	52	339	414	1.0	U	1925	484	2.9

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO ₃	Bicarbonate (HCO ₃)	Carbonate (CO ₃)	Sulfate (SO ₄)	Chloride (CL)	Fluoride (F)	
EP-23	02/11/99	EPRI-9902-111	GW			7.8	5470		3346	150	152	80	640	65	363	443	1.0	U	1144	462	3.2
EP-23	05/07/99	EPRI-9905-111	GW	0.9	7.41	7.8	4310	4420	2374	87	74	44	580	57	554	676	1.0	U	901	330	3.8
EP-23	05/14/99	EPRI-9905-111A	GW	1.9	7.29	7.8	4190	4200	2388	47	69	49	599	97	588	717	1.0	U	1403	290	2.0
EP-23	08/04/99	EPRI-9908-111	GW		7.49	7.8	3750	3840	2130	23	49	31	618	37	628	766	1.0	U	838	257	4.2
EP-23	10/30/99	EPRI-9911-111	GW		7.55	7.9	3340	3320	1706	18	37	23	491	32	769	938	1.0	U	540	267	4.6
EP-23	02/01/00	EPRI-0002-111	GW	1	7.49	7.8	4770	951	R 2695	20	106	56	654	52	393	479	1.0	U	1386	383	3.3
Average				1.07	7.40	7.72	5154	4802	3198	88	124	68	731	63	421	513	1.0		1649	404	3
Median				0.99	7.42	7.75	5485	4650	3385	74	123	68	738	64	360	440	1.0		1597	425	3
Standard Deviation				0.40	0.12	0.13	1070	1806	969	64	59	29	147	18	173	211	0.0		772	98	1
Minimum				0.60	7.13	7.50	3340	951	1706	18	37	23	491	32	212	259	1.0		540	257	2
Maximum				1.90	7.51	7.90	6790	7190	5028	204	218	115	930	97	769	938	1.0		3239	541	5
EP-24	08/15/97	EPRI-9708-112	GW						3451	17	174	55	910	25	800	976	1.0	U	765	831	1.6
EP-24	11/18/97	EPRI-9711-112	GW	0.00	6.70	8.00	5150	4660	4168	8	393	56	1030	53	850	1037	1.0	U	1338	1003	3.1
EP-24	02/18/98	EPRI-9802-112	GW	1.26	6.74	8.10	5130	5820	3259	16	213	47	1033	29	984	1200	1.0	U	305	1027	2.6
EP-24	05/21/98	EPRI-9805-112	GW	0.80	6.95	7.50	5380	999	R 3208	143	196	59	980	34	930	1135	1.0	U	577	1024	2.5
EP-24	08/24/98	EPRI-9808-112	GW	0.50	6.79	7.3	5200	5000	3172	17	180	56	1064	28	1056	1288	1.0	U	264	970	2.5
EP-24	11/16/98	EPRI-9811-112	GW	0.60	6.93	7.7	5390	5220	3328	12	179	53	1051	29	1070	1305	1.0	U	298	1087	2.4
EP-24	02/11/99	EPRI-9902-112	GW						3336	79	206	80	920	35	1292	1576	1.0	U	206	1021	2.5
EP-24	05/14/99	EPRI-9905-112	GW						4137	31	212	92	1096	50	1346	1642	1.0	U	1132	1195	2.2
EP-24	08/10/99	EPRI-9908-112	GW	0.6	7.05	7.8	5880	5640	3538	23	213	55	894	30	1130	1379	1.0	U	273	1044	2.4
EP-24	11/03/99	EPRI-9911-112	GW	1	6.96	7.7	5200	5990	3092	14	174	42	853	28	1168	1425	1.0	U	266	1006	2.5
EP-24	02/01/00	EPRI-0002-112	GW	0.3	6.93	7.5	5120	1072	R 2742	26	159	40	940	29	1066	1301	1.0	U	111	1175	3
Average				0.69	6.12	7.68	5491	3822	3403	40	209	58	979	34	1063	1297	1.0		503	1035	2
Median				0.60	6.93	7.7	5380	5000	3328	23	196	55	980	29	1066	1301	1.0		298	1024	3
Standard Deviation				0.40	2.30	0.24	419	2403	424	42	64	15	80	9	169	207	0.0		407	98	0
Minimum				0.00	0.00	7.30	5120	0	2742	8	159	40	853	25	800	976	1.0		111	831	2
Maximum				1.26	7.05	8.10	6410	5990	4168	143	393	92	1096	53	1346	1642	1.0		1338	1195	3
EP-25	08/15/97	EPRI-9708-113	GW	1.32	7.13	7.40	5990	5730	3995	84	113	40	1040	78	990	1208	1.0	U	695	1127	1.6
EP-25	11/19/97	EPRI-9711-113	GW						3213	43	74	33	1136	53	1275	1556	1.0	U	304	965	1.7
EP-25	02/18/98	EPRI-9802-113	GW						3218	500	78	39	1232	59	1302	1588	1.0	U	147	937	1.6
EP-25	05/21/98	EPRI-9805-113	GW						3194	125	125	34	1098	166	1050	1281	1.0	U	572	971	1.9
EP-25	08/24/98	EPRI-9808-113	GW						3362	3199	114	48	1084	70	1110	1354	1.0	U	522	853	1.4
EP-25	11/16/98	EPRI-9811-113	GW						3422	166	113	35	1134	120	1180	1440	1.0	U	515	852	1.9
EP-25	05/14/99	EPRI-9905-113	GW						6245	12081	675	50	700	738	632	771	1.0	U	2996	885	5.0
EP-25	08/11/99	EPRI-9908-113	GW						5465	378	584	68	706	555	555	677	1.0	U	1860	955	1.9
EP-25	11/03/99	EPRI-9911-113	GW	3.3	6.87	7.3	6580	5750	4373	14	202	32	757	290	885	1080	1.0	U	1507	893	1.9
EP-25	11/03/99	EPRI-9911-238	GW	3.3	6.82	7.5	5640	5970	3270	126	198	31	757	287	1311	1599	1.0	U	554	683	2.1
EP-25	02/08/00	EPRI-0002-113	GW						3118	460	103	20	862	214	1300	1586	1.0	U	198	775	2.2
Average				2.64	6.94	7.41	6004	5817	3898	1721	216	39	955	239	1054	1285	1.0		897	900	2
Median				3.30	6.87	7.5	5640	5750	3362	274	114	35	1040	166	1110	1354	1.0		554	893	2
Standard Deviation				1.14	0.17	0.24	860	133	1056	3760	209	13	200	223	268	326	0.0		268	115	1
Minimum				1.32	6.82	7.00	5200	5730	3118	43	74	20	700	53	555	677	1.0		147	683	1
Maximum				3.30	7.13	7.80	7880	5970	6245	12081	675	68	1232	738	1311	1599	1.0		2996	1127	5
EP-26	08/11/97	EPRI-9708-114	GW	5.26	7.69	7.20	544	568	395	163	23	3.7	88	6.9	37	45	1.0	U	157	43	0.86
EP-26	11/04/97	EPRI-9711-114	GW	5.05	7.15	7.30	1700	1900	1191	99	62	13	244	20	36	44	1.0	U	561	163	1.4

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (nd)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-26	02/04/98	EPRI-9802-114	GW	5.74	7.58	7.40	202	239	145	100	9.1	2	26	13	21	26	1.0	U	46	12	0.78
EP-26	05/07/98	EPRI-9805-114	GW	6.30	7.64	7.00	141	170	102	70	9.9	1.5	14	15	17	21	1.0	U	26	5.3	0.58
EP-26	08/12/98	EPRI-9808-114	GW	5.59	7.21	7.4	188	190	130	85	13	2.1	18	5	36	44	1.0	U	35	10	0.56
EP-26	11/04/98	EPRI-9811-114	GW	5.70	7.99	6.4	412	448	282	146	21	3.1	44	7.3	20	24	1.0	U	104	19	0.77
EP-26	02/04/99	EPRI-9902-114	GW	6.90	7.26	7.4	133	170	78	51	8.3	1.1	14	5	16	20	1.0	U	29	7.6	0.56
EP-26	05/05/99	EPRI-9905-114	GW	2.10	7.02	7.3	362	444	239	244	30	4.1	25	5.0	34	41	1.0	U	89	13	0.50
EP-26	08/04/99	EPRI-9908-114	GW		7.07	7.4	2000	2200	1466	29	176	24	204	21	46	56	1.0	U	738	147	0.66
EP-26	01/26/00	EPRI-0002-114	GW	0.5	7.16	7.9	4440	4210	3169	450	231	71	753	42	264	322	1.0	U	1537	451	1.9
Average				4.79	7.38	7.27	1012	1454	720	144	58	13	143	14	53	64	1.0		332	88	1
Median				5.59	7.235	7.35	387	508	261	100	22	3	35	10	35	43	1.0		97	19	1
Standard Deviation				2.09	0.32	0.38	1377	1681	988	124	79	22	230	12	75	91	0.0		491	141	0
Minimum				0.50	7.02	6.40	133	170	78	29	8	1	14	5	16	20	1.0		26	5	1
Maximum				6.90	7.99	7.90	4440	4440	3169	450	231	71	753	42	264	322	1.0		1537	451	2
EP-29	08/07/97	EPRI-9708-115	GW	2.77	7.41	8.00	3090	3110	2085	1.1	79	27	567	29	312	381	1.0	U	742	289	3
EP-29	11/03/97	EPRI-9711-115	GW	0.52	7.09	7.90	2960	3610	2056	56	50	18	576	24	324	395	1.0	U	706	305	3
EP-29	02/03/98	EPRI-9802-115	GW	0.68	7.47	8.00	3100	3890	2073	13	52	20	677	27	234	285	1.0	U	973	317	2.7
EP-29	05/06/98	EPRI-9805-115	GW	4.14	7.59	8.00	3180	3470	2159	23	69	26	654	31	342	417	1.0	U	793	315	2.6
EP-29	08/06/98	EPRI-9808-115	GW	5.67	8.68	8.7	3070	3140	2129	23	39	21	681	19	160	177	9.0		939	339	2.9
EP-29	11/04/98	EPRI-9811-115	GW	5.20	8.42	8.5	3350	3150	2185	89	40	23	646	22	195	217	10.0		981	372	2.8
EP-29	02/03/99	EPRI-9902-115	GW	4.1	8.06	8.1	3130	3410	2121	211	49	21	660	22	276	337	1.0	U	743	307	2.9
EP-29	05/04/99	EPRI-9905-115	GW	2.30	7.68	8.2	3160	3120	2079	170	14	22	732	16	260	317	1.0	U	1049	314	3.0
EP-29	05/04/99	EPRI-9905-177	GW	2.30	7.69	8.1	3140	3130	1771	280	14	22	714	15	241	294	1.0	U	812	314	3.2
EP-29	08/02/99	EPRI-9908-115	GW	3.5	7.59	7.8	3180	3220	2143	1160	57	22	500	22	380	464	1.0	U	741	302	3.3
EP-29	10/26/99	EPRI-9911-115	GW	2.4	7.42	8.2	3160	3130	2052	572	14	23	597	18	298	364	1.0	U	829	313	3.1
EP-29	01/31/00	EPRI-0002-115	GW	1.6	7.62	8.1	3190	3040	2063	542	66	21	686	18	239	292	1.0	U	897	344	3
Average				2.93	7.73	8.13	3143	3285	2080	262	56	22	641	22	272	328	2.4		850	318	3
Median				2.59	7.605	8.1	3150	3145	2091	130	51	22	657	22	268	327	1.0		821	314	3
Standard Deviation				1.64	0.45	0.25	91	258	105	345	13	2	68	5	63	82	3.3		114	24	0
Minimum				0.52	7.09	7.80	2960	3040	1771	1	39	18	500	15	160	177	1.0		706	289	3
Maximum				5.67	8.68	8.70	3350	3890	2185	1160	79	27	732	31	380	464	10.0		1049	372	3
EP-35	08/07/97	EPRI-9708-116	GW	5.98	7.55	8.00	6530	6150	5678	4.8	395	176	1124	26	196	239	1.0	U	2558	575	0.95
EP-35	11/03/97	EPRI-9711-116	GW	1.75	6.92	7.50	6340	7420	5731	73	408	165	1116	19	404	493	1.0	U	2396	527	1.1
EP-35	02/03/98	EPRI-9802-116	GW	2.11	6.99	7.60	6760	7940	5859	14	443	170	1108	19	402	490	1.0	U	2654	545	0.99
EP-35	05/06/98	EPRI-9805-116	GW	2.47	7.15	7.20	6530	6950	5225	928	436	152	1192	29	492	600	1.0	U	2357	552	1.1
EP-35	08/06/98	EPRI-9808-116	GW	1.89	6.91	7.6	6300	5350	5259	212	417	163	1154	22	396	483	1.0	U	2426	555	1.0
EP-35	11/04/98	EPRI-9811-116	GW	1.90	7.11	7.2	6220	6100	5032	307	374	125	986	21	408	498	1.0	U	2357	539	1.0
EP-35	02/04/99	EPRI-9902-116	GW	3.80	7.03	7.4	6410	6140	5282	93	402	145	1039	22	442	539	1.0	U	2158	455	1.0
EP-35	08/02/99	EPRI-9908-116	GW	1.90	6.98	7.4	6810	6730	5702	266	14	166	1119	18	465	567	1.0	U	2822	561	1.1
EP-35	10/26/99	EPRI-9911-116	GW	2.9	6.92	7.1	6920	7000	6040	398	14	160	900	19	500	610	1.0	U	2620	1086	1
EP-35	01/31/00	EPRI-0002-116	GW	1.7	6.71	7.8	6770	6740	5791	454	14	148	1018	18	516	630	1.0	U	3387	475	1
Average				2.55	7.02	7.50	6568	6620	5559	297	429	157	1075	21	429	523	1.0		2559	576	1
Median				1.90	6.98	7.5	6530	6730	5678	266	426	160	1108	20	442	539	1.0		2426	545	1
Standard Deviation				1.30	0.21	0.28	233	721	309	274	37	14	84	3	90	109	0.0		328	174	0
Minimum				1.70	6.71	7.10	6220	5300	5032	5	374	125	900	18	196	239	1.0		2158	455	1
Maximum				5.98	7.55	8.00	6920	7940	6040	928	502	176	1192	29	516	630	1.0		3387	1086	1

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Sampl #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-43	11/03/97	EPRL-9711-172	GW	0.52	7.31	7.60	4950	5830	3361	14	118	55	974	60	538	656	1.0	U	987	806	2.6
EP-43	02/03/98	EPRL-9802-175	GW	0.03	7.09	7.50	9590	11980	6434	35	261	145	1692	58	590	720	1.0	U	1425	2405	2.1
EP-43	05/20/98	EPRL-9805-175	GW	1.50	7.07	7.50	4930	4480	3151	14	188	66	922	44	520	634	1.0	U	1073	785	2.4
EP-43	08/27/98	EPRL-9808-175	GW	1.01	6.94	7.3	4720	4780	3357	40	213	69	892	32	517	631	1.0	U	1242	615	2
EP-43	11/16/98	EPRL-9811-175	GW			7.2	5650		3105	753	218	74	1118	36	695	848	1.0	U	897	1022	2.1
EP-43	02/25/99	EPRL-9902-176	GW			7.8	7140		4905	190	34	108	1187	37	560	683	1.0	U	1156	1269	2.2
EP-43	02/25/99	EPRL-9902-196	GW			7.7	7090		4876	242	34	108	1220	36	549	670	1.0	U	1066	1302	2.2
EP-43	05/14/99	EPRL-9905-117	GW			7.4	8600	33	6257	52	34	133	1374	77	700	854	1.0	U	1484	1555	2.0
EP-43	08/11/99	EPRL-9908-117	GW	2	7.57	7.5	8070	6880	5598	15	354	125	1246	47	659	804	1.0	U	1790	1601	2.3
EP-43	08/11/99	EPRL-9908-206	GW	1.3	7.61	7.5	8060	6890	5560	14	371	129	1266	47	656	800	1.0	U	1774	1528	2.3
EP-43	10/29/99	EPRL-9911-117	GW	7.7	7.72	7.8	8130	7320	4692	34	294	123	1206	36	560	683	1.0	U	1183	1628	1.9
EP-43	02/08/00	EPRL-0002-117	GW			7.3	3900		2540	230	144	46	742	33	864	1054	1.0	U	449	478	2.5
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-44	10/26/99	EPRL-9911-162	GW	1.40	7.02	8.00	5740	5710	4586	848	34	165	735	65	333	406	1.0	U	2466	368	3
EP-49	11/19/97	EPRL-9711-117	GW			3.50	11740		17185	465	493	303	869	182	1	1	1.0	U	9515	867	33
EP-49	02/19/98	EPRL-9802-117	GW			4.00	11440		17442	430	466	305	614	207	1	1	1.0	U	7869	782	25
EP-49	05/21/98	EPRL-9805-117	GW			3.60	10920		14614	315	468	291	930	209	1	1	1.0	U	8599	689	30
EP-49	08/27/98	EPRL-9808-117	GW			5.3	11000		16111	254	515	270	1045	205	1	1.0	U	8448	822	27	
EP-49	11/16/98	EPRL-9811-117	GW			3.7	10800		15347	515	470	258	1549	240	1	1.0	U	8976	750	27	
EP-49	02/25/99	EPRL-9902-117	GW			4.5	12320		13384	545	472	237	794	240	1	1.0	U	5907	684	24	
EP-49	05/14/99	EPRL-9905-118	GW			4.2	10570	33	14083	804	493	288	819	342	1	1.0	U	7140	727	23	
EP-49	11/02/99	EPRL-9911-118	GW			5.4	10440		10031	329	462	231	1070	265	34	41.5	1.0	U	4941	840	15
EP-49	01/29/00	EPRL-0002-118	GW	0.1	6.62	7.4	9960	9530	7543	13	481	138	1752	267	760	927	1.0	U	4359	748	6.8
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-51	08/11/97	EPRL-9708-118A	GW	0.70	6.73			10400													
EP-51	08/26/97	EPRL-9708-118	GW	9.40	7.25	7.30	11800	10630	9539	35	655	478	1416	54	214	261	1.0	U	2125	2649	0.78
EP-51	11/06/97	EPRL-9711-118	GW	2.35	6.58	7.30	11670	12140	9116	41	658	469	1437	47	220	268	1.0	U	2401	2609	1.5
EP-51	11/06/97	EPRL-9711-174	GW			7.20	11440		8894	45	645	461	1409	46	221	270	1.0	U	2432	2746	1.6
EP-51	02/12/98	EPRL-9802-118	GW	0.03	5.85	6.90	11070	13050	8591	36	690	412	1322	51	210	256	1.0	U	2530	2369	7.3
EP-51	05/11/98	EPRL-9805-118	GW	1.42	6.29	8.20	11800	9890	8933	31	653	471	1501	63	252	307	1.0	U	2475	2627	2.1
EP-51	08/12/98	EPRL-9808-118	GW	3.59	6.71	7.2	10080	9720	8072	12	628	413	1304	42	205	250	1.0	U	2160	1983	1.4
EP-51	11/05/98	EPRL-9811-118	GW	1.00	6.67	6.8	9840	8180	7364	22	535	355	1133	43	198	242	1.0	U	1855	1936	1.2
EP-51	11/05/98	EPRL-9811-178	GW			6.9	9820		7079	21	543	354	1145	42	204	249	1.0	U	1966	1953	1.2
EP-51	02/09/99	EPRL-9902-118	GW	2.10	6.86	7.4	9060	8760	6783	24	584	366	880	45	189	231	1.0	U	1848	1671	1.4
EP-51	02/09/99	EPRL-9902-183	GW	2.10	6.87	7.4	9140	8780	7050	22	561	363	870	45	184	224	1.0	U	1340	1641	1.3
EP-51	05/06/99	EPRL-9905-119	GW	1.2	6.63	7.3	9870	9760	7314	27	547	409	1158	41	200	244	1.0	U	1940	2024	1.2
EP-51	08/04/99	EPRL-9908-119	GW			7.2	11040		8470	22	590	400	1028	39	187	228	1.0	U	2458	2357	1.8

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (ftd)	pH (ftd)	pH (lab)	Specific Conductivity SC (fab)	Specific Conductivity SC (ftd)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
EP-51	08/04/99	EPRI-9908-196	GW		6.88	7.2	11020	9570	8498	25	600	400	1068	40	179	218	1.0	2598	2327	1.8
EP-51	11/02/99	EPRI-9911-119	GW	1.6	6.71	7.3	9920	9840	6873	31	582	378	958	34	181	221	1.0	2133	1759	1.9
EP-51	01/26/00	EPRI-0002-119	GW	6.86	6.86	7.5	9820	9000	6849	38	588	378	1028	39	210	256	1.0	2147	2154	1.2
Average				2.70	6.70	7.27	10493	9949	7962	29	604	407	1177	45	204	248	1.0	2162	2188	2
Median				1.85	6.72	7.3	10080	9740	8072	27	590	400	1145	43	204	249	1.0	2147	2154	1
Standard Deviation				2.75	0.32	0.32	935	1310	956	9	48	44	209	7	19	23	0.0	340	369	2
Minimum				0.03	5.85	6.80	9060	8180	6783	12	535	354	870	34	179	218	1.0	1340	1641	1
Maximum				9.40	7.25	8.20	11800	13050	9539	45	690	478	1501	63	252	307	1.0	2598	2746	7
EP-52	11/06/97	EPRI-9711-173	GW	6.54	6.10	7.10	9750	11000	8243	57	557	211	1893	23	468	571	1.0	2953	1330	6.3
EP-52	02/12/98	EPRI-9802-176	GW	2.00	6.03	6.90	10870	13320	9266	86	581	252	2276	23	526	642	1.0	3538	1468	6.3
EP-52	08/12/98	EPRI-9808-176	GW	3.33	6.17	7.0	10580	10850	9183	14	587	258	1936	33	574	700	1.0	3566	1297	6.4
EP-52	08/12/98	EPRI-9808-182	GW			7.1	10560		9096	12	593	266	2099	35	572	698	1.0	3546	1238	4.8
EP-52	11/05/98	EPRI-9811-176	GW	2.30	6.28	6.6	11100	9710	9241	51	563	253	1931	26	597	728	1.0	3593	1308	6.4
EP-52	02/09/99	EPRI-9902-119	GW	4.9	6.38	7.1	11150	11040	9559	51	552	275	1730	26	579	706	1.0	3665	1342	6.9
EP-52	05/06/99	EPRI-9905-120	GW	1.70	6.20	7.3	11250	11880	9489	30	522	276	2170	25	34	716	1.0	4484	1290	6.6
EP-52	08/05/99	EPRI-9908-120	GW	0.7	6.21	7.2	11190	12290	9637	15	512	267	1823	21	560	683	1.0	4606	1269	6.3
EP-52	10/29/99	EPRI-9911-120	GW	1.5	6.07	7	11250	9900	8587	12	454	243	1709	19	603	736	1.0	3893	1308	6
EP-52	01/26/00	EPRI-0002-120	GW	0.4	6.38	8.6	11940	11220	9533	12	536	285	2209	21	618	622	64.8	3910	1429	6.3
Average				2.60	6.20	7.19	10964	11246	9183	34	544	259	1978	25	568	680	7.4	3775	1328	6
Median				2.00	6.2	7.1	11125	11040	9254	23	545	262	1934	24	576	699	1.0	3629	1308	6
Standard Deviation				2.01	0.13	0.53	579	1131	450	26	42	21	201	5	43	53	20.2	483	71	1
Minimum				0.40	6.03	6.60	9750	9710	8243	12	454	211	1709	19	468	571	1.0	2953	1238	5
Maximum				6.54	6.38	8.60	11940	13320	9637	86	593	285	2276	35	618	736	64.8	4606	1468	7
EP-53	08/11/97	EPRI-9708-172	GW	7.74	6.58	7.20	7790	7300	6739	239	394	89	1450	147	252	307	1.0	3200	494	4.9
EP-53	02/04/98	EPRI-9802-178	GW	1.43	6.43	7.00	7590	9580	6775	277	527	101	1264	124	210	256	1.0	3266	515	5.9
EP-53	06/10/98	EPRI-9806-200	GW	2.17	6.68	6.90	7470	7780	6269	275	475	82	1365	118	244	298	1.0	2825	520	6.3
EP-53	08/12/98	EPRI-9808-178	GW	0.99	6.66	7.2	7550	5010	6182	644	469	86	1270	120	285	348	1.0	2723	463	5.9
EP-53	11/05/98	EPRI-9811-179	GW	1.1	7.08	6.8	7980	6540	6819	177	516	90	1333	108	215	262	1.0	2915	444	5.0
EP-53	02/04/99	EPRI-9902-120	GW	1.80	6.44	7.1	7040	7780	6023	2356	509	83	1140	127	280	342	1.0	2665	424	6.2
EP-53	05/05/99	EPRI-9905-121	GW	1.60	6.63	7.3	7120	15650	5804	238	443	86	1245	92	255	311	1.0	3166	424	6.2
EP-53	08/04/99	EPRI-9908-121	GW		6.85	7.1	7190	7240	5354	428	330	96	937	76	258	315	1.0	2905	447	5.6
EP-53	10/26/99	EPRI-9911-121	GW	1	6.38	6.8	7380	7350	6050	440	534	95	1093	92	129	157	1.0	3108	472	6.3
EP-53	02/01/00	EPRI-0002-121	GW	2	6.75	7.6	7520	1594	5620	818	473	101	1337	80	290	354	1.0	2786	403	5.3
Average				2.20	6.65	7.10	7463	7582	6164	589	467	91	1243	108	242	295	1.0	2956	460	6
Median				1.60	6.645	7.1	7495	7325	6116	353	474	90	1267	113	253	309	1.0	2910	455	6
Standard Deviation				2.12	0.21	0.24	294	3543	501	653	64	7	150	23	48	59	0.0	214	40	1
Minimum				0.99	6.38	6.80	7040	1594	5354	177	330	82	937	76	129	157	1.0	2665	403	5
Maximum				7.74	7.08	7.60	7980	15650	6819	2356	534	101	1450	147	290	354	1.0	3266	520	6
EP-54	08/11/97	EPRI-9708-119A	GW	1.64	6.06			10470												
EP-54	08/26/97	EPRI-9708-119	GW	6.60	6.90	6.90	11340	1980	10210	386	432	276	1842	345	360	439	1.0	5049	891	16
EP-54	11/06/97	EPRI-9711-119	GW	2.51	6.14	6.80	10750	12010	9568	222	455	307	1984	375	407	497	1.0	5255	791	13
EP-54	02/12/98	EPRI-9802-119	GW	1.94	5.98	7.40	10100	11060	8548	43	414	255	1788	342	464	566	1.0	4900	790	5.7
EP-54	05/11/98	EPRI-9805-119	GW	1.93	6.20	7.10	9780	11910	8370	33	469	286	1576	378	445	543	1.0	4548	751	13
EP-54	08/12/98	EPRI-9808-119	GW	3.35	6.31	7.2	10200	11320	8465	25	515	320	1881	320	636	776	1.0	4762	708	12
EP-54	11/05/98	EPRI-9811-119	GW	5.8	6.48	6.7	10680	9280	8932	127	448	272	1811	300	690	842	1.0	4911	754	11

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
EP-54	02/09/99	EPRI-9902-121	GW	5.70	6.60	10150	8843	60	455	284	1410	320	741	904	1.0	U	3504	756	11
EP-54	05/06/99	EPRI-9905-122	GW	5.9	6.35	9540	7806	57	432	286	1484	367	744	908	1.0	U	4250	704	9.4
EP-54	05/07/99	EPRI-9905-122A	GW	2.6	6.43	8980	7303	58	395	226	1411	261	694	847	1.0	U	4217	648	9.2
EP-54	08/04/99	EPRI-9908-122	GW	6.37	7	11000	11260	17	497	295	1884	330	816	996	1.0	U	4971	727	11
EP-54	10/29/99	EPRI-9911-122	GW	7.4	6.57	10500	8290	60	440	230	1441	238	910	1110	1.0	U	3713	769	12
EP-54	01/26/00	EPRI-0002-122	GW	7.9	6.51	7940	9910	31	488	239	1269	290	714	871	1.0	U	3228	625	7.7
Average				4.24	6.35	10109	9879	93	453	273	1648	324	635	775	1.0		4442	743	11
Median				3.35	6.37	10350	10470	58	452	280	1682	325	692	845	1.0		4655	753	11
Standard Deviation				2.34	0.21	943	2625	108	35	30	241	41	175	214	0.0		662	70	3
Minimum				1.64	5.98	7940	1980	17	395	226	1269	258	360	439	1.0		3228	625	6
Maximum				7.90	6.60	11340	10210	386	515	320	1984	378	910	1110	1.0		5255	891	16
EP-55	08/15/97	EPRI-9708-120	GW	1.85	6.17	10550	10700	9746	569	373	1602	227	460	561	1.0	U	4747	945	17
EP-55	11/19/97	EPRI-9711-120	GW	2.12	6.25	10480	12860	7450	521	334	1830	211	900	1098	1.0	U	5186	998	24
EP-55	02/12/98	EPRI-9802-120	GW	1.21	5.95	10510	14030	9283	2141	324	1794	229	720	878	1.0	U	4863	922	22
EP-55	05/20/98	EPRI-9805-120	GW	1.93	6.06	10280	8056	466	501	305	1619	217	550	671	1.0	U	4672	813	21
EP-55	08/27/98	EPRI-9808-120	GW	0.94	6.15	9980	10020	8648	413	318	1100	192	600	732	1.0	U	4465	755	20
EP-55	11/16/98	EPRI-9811-120	GW	1.70	6.24	9940	9850	8458	523	314	1559	201	700	854	1.0	U	4598	842	20
EP-55	02/11/99	EPRI-9902-122	GW	0.900	6.31	10240	10350	8827	527	362	1350	175	576	703	1.0	U	3941	819	19
EP-55	05/14/99	EPRI-9905-123	GW	1	6.25	10510	10850	8951	541	374	1654	192	700	854	1.0	U	3651	909	14
EP-55	08/10/99	EPRI-9908-123	GW	0.5	6.33	10470	10550	8634	502	332	1441	119	711	867	1.0	U	4066	931	16
EP-55	10/29/99	EPRI-9911-123	GW	1.6	6.2	10240	10290	7364	567	316	1347	115	740	903	1.0	U	4550	890	15
EP-55	02/07/00	EPRI-0002-123	GW	1.3	6.38	10000	9420	8335	494	305	1342	117	660	805	1.0	U	4791	780	15
Average				1.37	6.21	10291	10840	8523	520	332	1513	181	665	811	1.0		4503	873	18
Median				1.30	6.24	10280	10350	8634	522	324	1559	192	700	854	1.0		4598	890	19
Standard Deviation				0.51	0.12	233	1373	716	22	26	219	44	117	142	0.0		449	76	3
Minimum				0.50	5.95	9940	9420	7364	493	305	1100	115	460	561	1.0		3651	755	14
Maximum				2.12	6.38	10550	14030	9746	569	374	1830	229	900	1098	1.0		5186	998	24
EP-56	08/11/97	EPRI-9708-121A	GW	2.51	7.34		5470												
EP-56	08/26/97	EPRI-9708-121	GW	7.25	7.60	5600	1063	4474	243	255	1026	27	262	320	1.0	U	1864	666	2.1
EP-56	11/04/97	EPRI-9711-121	GW	0.77	7.12	5520	5930	4378	565	265	1080	26	290	354	1.0	U	1863	646	2.4
EP-56	02/04/98	EPRI-9802-121	GW	1.81	7.14	5520	6620	4260	448	256	1043	29	282	344	1.0	U	2125	681	2.1
EP-56	05/07/98	EPRI-9805-121	GW	1.08	7.03	5500	7170	3956	358	253	1091	34	248	303	1.0	U	1793	616	1.9
EP-56	08/12/98	EPRI-9808-121	GW	0.98	7.15	5520	5600	3870	4150	269	1125	26	600	732	1.0	U	1804	618	2.0
EP-56	11/04/98	EPRI-9811-121	GW	1.20	6.38	5600	7230	4055	4339	246	989	28	640	781	1.0	U	1762	624	2.0
EP-56	02/04/99	EPRI-9902-123	GW	1.00	7.23	5600	6130	4291	1107	254	1073	31	650	793	1.0	U	1731	597	1.9
EP-56	05/04/99	EPRI-9905-124	GW	1.9	7.13	5580	6140	4173	5485	260	1073	35	736	898	1.0	U	1751	717	2.0
EP-56	08/04/99	EPRI-9908-124	GW	7.17	7.5	5390	5460	3978	224	227	928	28	460	561	1.0	U	2085	565	2.1
EP-56	10/26/99	EPRI-9911-124	GW	1.9	7.04	5290	5320	3852	2079	259	927	25	430	525	1.0	U	1915	592	2.3
EP-56	02/01/00	EPRI-0002-124	GW	1	7.03	5120	4810	3627	1395	301	952	28	350	427	1.0	U	1960	592	2.2
EP-56	02/01/00	EPRI-0002-233	GW	0.7	7.1	5080	4850	3421	849	299	993	30	283	345	1.0	U	1779	455	2.4
EP-56									855	292	994	26	290	354	1.0	U	1602	639	2.4

**Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions**

Site	Date	Sampl #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
Average				1.32	7.10	7.74	5447	5546	4023	1693	263	63	1025	28	411	502	1.0	1882	611	2
Median				1.04	7.135	7.6	5520	5725	4017	981	258	64	1035	28	320	391	1.0	1834	617	2
Standard Deviation				0.56	0.23	0.27	183	1487	292	1716	21	5	62	3	175	214	0.0	186	64	0
Minimum				0.70	6.38	7.30	5080	1063	3421	224	227	54	927	23	237	289	1.0	1602	455	2
Maximum				2.51	7.34	8.20	5640	7230	4474	5485	301	69	1125	35	736	898	1.0	2310	717	3
EP-57	08/16/97	EPRI-9708-122	GW	1.00	7.30	7.90	3330	3370	2510	452	129	87	587	23	1032	1259	1.0	521	284	1.2
EP-57	11/14/97	EPRI-9711-122	GW	1.72	7.01	7.40	3070	3500	2159	14	104	79	525	25	937	1143	1.0	466	278	1
EP-57	02/18/98	EPRI-9802-122	GW	0.78	7.01	7.50	2900	3530	1978	42	89	76	500	18	964	1176	1.0	298	261	0.94
EP-57	05/18/98	EPRI-9805-122	GW	1.01	7.18	7.50	2610	2440	1475	1076	71	64	455	18	1102	1344	1.0	172	258	0.95
EP-57	08/24/98	EPRI-9808-122	GW	0.230	7.01	7.7	3250	2840	2176	1172	152	95	614	15	1060	1293	1.0	548	269	0.99
EP-57	11/16/98	EPRI-9811-122	GW	0.300	7.07	7.6	2070	1913	1323	72	41	53	346	20	860	1049	1.0	64	174	0.89
EP-57	02/24/99	EPRI-9902-124	GW	0.200	7.15	7.7	3020	3460	2078	529	101	71	476	17	1022	1247	1.0	259	238	1.0
EP-57	05/13/99	EPRI-9905-125	GW	0.600	7.11	7.8	2340	2120	1459	20	62	63	335	17	1051	1282	1.0	56	142	0.94
EP-57	08/10/99	EPRI-9908-125	GW	0.3	7.07	7.6	2670	2560	1745	39	85	79	391	20	1060	1293	1.0	168	206	0.92
EP-57	11/03/99	EPRI-9911-125	GW	1.3	6.87	7.5	3230	3210	2124	2811	116	94	413	21	1405	1714	1.0	426	244	1
EP-57	02/07/00	EPRI-0002-125	GW	0.04	7.01	7.7	3080	2700	2074	233	84	100	385	19	1204	1469	1.0	254	219	0.89
Average				0.68	7.07	7.63	2870	2877	1918	587	94	78	457	19	1063	1297	1.0	294	234	1
Median				0.60	7.07	7.6	3020	2840	2074	233	89	79	455	19	1051	1282	1.0	259	244	1
Standard Deviation				0.53	0.11	0.15	403	577	369	848	31	15	93	3	144	176	0.0	175	45	0
Minimum				0.04	6.87	7.40	2070	1913	1323	14	41	53	335	15	860	1049	1.0	56	142	1
Maximum				1.72	7.30	7.90	3330	3530	2510	2811	152	100	614	25	1405	1714	1.0	548	284	1
EP-58	08/16/97	EPRI-9708-123	GW	0.240	6.54	6.9	11230	11340	9153	7753	463	161	2098	220	1900	2318	1.0	4586	989	4.9
EP-58	11/14/97	EPRI-9711-123	GW	0.84	6.54	6.90	11480	14130	9286	28	487	178	2396	260	1044	1274	1.0	4699	930	4.7
EP-58	02/18/98	EPRI-9802-123	GW	0.79	6.38	6.80	11510	13740	9349	72	497	198	2510	263	1056	1288	1.0	4006	851	4.7
EP-58	05/18/98	EPRI-9805-123	GW	0.43	6.35	6.80	11500	11490	8740	172	489	189	2245	232	1116	1362	1.0	4372	789	5
EP-58	08/24/98	EPRI-9808-123	GW	0.80	6.40	7.00	11600	11680	9442	17	486	193	1700	247	1106	1349	1.0	4867	922	5
EP-58	11/16/98	EPRI-9811-123	GW	1.30	6.39	7.2	11580	11290	9281	81	520	210	2085	299	1128	1376	1.0	4912	922	5.0
EP-58	02/24/99	EPRI-9902-125	GW	1.0	6.53	7.8	11510	13950	9294	58	510	203	1913	224	1114	1359	1.0	4560	830	5.2
EP-58	05/13/99	EPRI-9905-126	GW	0.900	6.38	7.2	11660	10090	9162	83	499	244	2100	250	1060	1220	1.0	3585	709	4.8
EP-58	08/10/99	EPRI-9908-126	GW	0.5	6.49	8	11590	11610	9236	39	531	226	1832	203	1076	1313	1.0	4036	990	4.8
EP-58	11/03/99	EPRI-9911-126	GW	1.1	6.36	7	11310	12590	8727	3932	518	215	1678	192	1684	2054	1.0	4936	960	5.2
EP-58	02/07/00	EPRI-0002-126	GW	0.04	6.42	7.2	11700	10800	9358	424	502	228	1801	196	1076	1313	1.0	5590	894	5.3
Average				0.72	6.43	7.16	11515	12065	9184	1151	500	204	2033	237	1209	1475	1.0	4559	890	5
Median				0.80	6.4	7	11510	11610	9281	81	499	203	2085	247	1106	1349	1.0	4586	922	5
Standard Deviation				0.38	0.08	0.40	140	1350	238	2475	19	24	276	33	294	359	0.0	548	87	0
Minimum				0.04	6.35	6.80	11230	10090	8727	17	463	161	1678	192	1000	1220	1.0	3585	709	5
Maximum				1.30	6.54	8.00	11700	14130	9442	7753	531	244	2510	299	1900	2318	1.0	5590	990	6
EP-59	08/09/97	EPRI-9708-124	GW	2.08	6.98	7.70	4780	4750	3693	1	191	93	876	105	432	527	1.0	1632	419	4.9
EP-59	11/05/97	EPRI-9711-124	GW	0.20	7.23	7.60	4660	5340	3629	6	169	84	818	95	420	512	1.0	1555	421	4.8
EP-59	02/05/98	EPRI-9802-124	GW	1.06	7.09	7.30	4640	5630	3594	2.7	168	80	807	95	412	503	1.0	1551	450	4.8
EP-59	05/08/98	EPRI-9805-124	GW	1.33	7.13	7.70	4800	5600	3743	1.7	181	93	868	100	364	444	1.0	1586	369	4.8
EP-59	08/10/98	EPRI-9808-124	GW	1.75	7.09	7.4	4850	4750	3678	1.0	193	92	920	107	350	427	1.0	1643	410	4.6
EP-59	08/10/98	EPRI-9808-184	GW		7.4	4850		3717	1.0	187	91	859	104	351	428	1.0	1560	427	4.6	
EP-59	11/09/98	EPRI-9811-124	GW	2.70	7.04	7.4	4980	4980	3831	5.0	189	93	914	91	367	448	1.0	1762	441	4.7
EP-59	02/10/99	EPRI-9902-126	GW	0.700	7.13	7.6	5260	5320	4083	13	203	104	720	100	333	406	1.0	1593	446	5.0

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Sampl #	Type	(O)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-59	02/10/99	EPRL-9902-185	GW	0.700	7.14	8.3	5270	5220	4065	14	214	105	700	100	334	407	1.0	U	1725	453	5.1
EP-59	05/06/99	EPRL-9905-127	GW	0.800	7.01	7.4	5060	5400	3749	8.2	190	103	825	91	356	434	1.0	U	1724	515	5.6
EP-59	08/03/99	EPRL-9908-127	GW	0.4	7.18	8.1	4920	4780	3779	4.6	14	96	809	95	302	368	1.0	U	1871	422	5.2
EP-59	10/27/99	EPRL-9911-127	GW	3.9	6.99	8.1	4740	4930	3474	9.8	182	91	779	92	320	390	J3	U	1498	438	5
EP-59	01/28/00	EPRL-0002-127	GW	0.6	7.12	7.9	5160	4900	3721	6.7	204	101	840	95	350	427	1.0	U	1874	522	4.8
Average				1.35	7.09	7.63	4921	5136	3750	6	189	94	826	98	361	440	1.0	U	1660	441	5
Median				0.93	7.105	7.6	4850	5105	3721	5	189	93	825	95	351	428	1.0	U	1632	438	5
Standard Deviation				1.09	0.08	0.31	212	324	169	4	13	7	66	5	39	48	0.0	U	122	41	0
Minimum				0.20	6.98	7.30	4640	4750	3474	1	168	83	700	91	302	368	1.0	U	1498	369	5
Maximum				3.90	7.23	8.30	5270	5630	4083	14	214	105	920	107	432	527	1.0	U	1874	522	6
EP-60	08/08/97	EPRL-9708-125	GW	2.44	6.98	7.50	9140	8840	8015	8.9	360	152	857	14	240	293	1.0	U	3055	1345	1.7
EP-60	11/05/97	EPRL-9711-125	GW	0.16	6.99	7.50	8560	9660	7339	27	571	229	1417	17	238	290	1.0	U	3090	1227	1.6
EP-60	02/05/98	EPRL-9802-125	GW	1.70	6.95	7.30	8780	10210	7495	6.3	584	237	1366	14	260	317	1.0	U	3000	1278	1.4
EP-60	05/08/98	EPRL-9805-125	GW	1.23	7.24	7.60	8880	9880	4857	7	575	231	1370	27	250	305	1.0	U	3180	1254	1.6
EP-60	08/10/98	EPRL-9808-125	GW	3.77	7.06	7.7	8700	8310	6865	1.2	561	215	1427	18	244	298	1.0	U	2931	1171	1.6
EP-60	11/09/98	EPRL-9811-125	GW	3.60	7.21	7.7	8480	8240	6907	6.7	506	191	1403	17	236	288	1.0	U	3090	1149	1.6
EP-60	02/10/99	EPRL-9902-127	GW	1.9	7.00	7.8	8670	8650	7317	38	570	226	1130	17	250	305	1.0	U	2540	1135	1.7
EP-60	05/06/99	EPRL-9905-132	GW	0.700	6.80	7.4	8670	9010	7149	11	551	250	1311	14	J4	312	1.0	U	2802	1366	J4
EP-60	08/03/99	EPRL-9908-128	GW	3	7.18	7.6	8570	8410	7299	2.5	J4	222	1233	15	245	299	1.0	U	3184	1073	1.7
EP-60	10/27/99	EPRL-9911-128	GW	0.7	6.82	8.1	8280	8130	6884	9.2	560	224	1160	15	259	316	J3	U	3085	1003	1.6
EP-60	01/28/00	EPRL-0002-128	GW	0.3	7.05	7.9	8320	7890	6583	9.8	520	205	1187	12	261	318	1.0	U	3101	1047	1.6
Average				1.77	7.03	7.65	8641	8839	6974	12	537	217	1260	16	249	304	1.0	U	3005	1186	2
Median				1.70	7	7.6	8670	8650	7149	9	560	224	1311	15	250	305	1.0	U	3085	1171	2
Standard Deviation				1.29	0.14	0.23	245	770	800	11	63	27	172	4	9	11	0.0	U	189	119	0
Minimum				0.16	6.80	7.30	8280	7890	4857	1	360	152	857	12	236	288	1.0	U	2540	1003	1
Maximum				3.77	7.24	8.10	9140	10210	8015	38	584	250	1427	27	261	318	1.0	U	3184	1366	2
EP-61	08/16/97	EPRL-9708-126	GW	2.30	7.15	7.90	9290	9210	8194	562	455	185	1723	22	300	366	1.0	U	3189	891	1.7
EP-61	11/14/97	EPRL-9711-126	GW	1.71	6.93	7.20	9080	11290	7684	38	436	182	1962	28	360	439	1.0	U	3446	941	1.7
EP-61	02/18/98	EPRL-9802-126	GW	1.68	6.85	7.30	9200	10350	8017	104	J4	201	2082	23	318	388	1.0	U	3213	857	1.6
EP-61	02/18/98	EPRL-9802-180	GW	1.68	6.85	7.40	9190	10350	7997	44	J4	210	2118	24	326	398	1.0	U	3375	826	1.6
EP-61	05/18/98	EPRL-9805-126	GW	0.51	6.95	7.30	8860	8810	7116	27	454	189	1684	24	356	434	1.0	U	3315	836	1.6
EP-61	08/24/98	EPRL-9808-126	GW	0.740	7.03	7.5	8620	8710	7198	99	460	193	1300	12	366	447	1.0	U	3524	732	1.6
EP-61	11/16/98	EPRL-9811-126	GW	1.10	7.02	7.6	8530	8320	7453	66	455	192	1496	23	340	415	1.0	U	3377	747	1.6
EP-61	02/24/99	EPRL-9902-128	GW	0.600	7.17	7.6	8320	9200	6893	75	386	164	1313	22	498	608	1.0	U	2761	J4	1.7
EP-61	05/13/99	EPRL-9905-129	GW	0.90	6.78	8.0	8240	7360	6722	12	399	197	1600	23	434	529	1.0	U	2824	619	1.7
EP-61	08/10/99	EPRL-9908-129	GW	1.1	7.15	7.7	8070	8060	6549	65	368	167	1357	17	387	472	1.0	U	2802	780	1.6
EP-61	11/03/99	EPRL-9911-129	GW	1.8	6.96	7.8	8180	8990	6418	1608	397	176	1367	20	397	484	J4	U	3023	J4	1.8
EP-61	02/07/00	EPRL-0002-129	GW	0.9	7.09	7.7	8360	7780	6950	14	375	168	1423	16	350	427	1.0	U	3860	623	1.7
Average				1.25	6.99	7.58	8662	9079	7266	226	428	185	1619	21	369	451	1.0	U	3226	771	2
Median				1.10	6.99	7.6	8575	8900	7157	66	445	187	1548	23	358	437	1.0	U	3264	764	2
Standard Deviation				0.56	0.13	0.25	444	1169	600	460	40	14	298	4	54	66	0.0	U	329	103	0
Minimum				0.51	6.78	7.20	8070	7360	6418	12	368	164	1300	12	300	366	1.0	U	2761	619	2
Maximum				2.30	7.17	8.00	9290	11290	8194	1608	477	210	2118	28	498	608	1.0	U	3860	941	2
EP-62	08/09/97	EPRL-9708-127	GW	1.45	7.10	7.70	5050	5030	3954	3.4	228	97	904	72	328	400	1.0	U	1760	434	3
EP-62	11/05/97	EPRL-9711-127	GW	1.16	7.09	7.70	5050	5580	3897	8.2	216	96	906	64	328	400	1.0	U	1919	497	2.9

**Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions**

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO ₃	Bicarbonate (HCO ₃)	Carbonate (CO ₃)	Sulfate (SO ₄)	Chloride (CL)	Fluoride (F)			
EP-62	02/05/98	EPRI-9802-127	GW	3.07	7.16	7.40	5460	5980	4317	20	233	114	935	69	322	393	1.0	U	2183	473	2.7		
EP-62	05/08/98	EPRI-9805-127	GW	2.87	7.21	7.70	4820	5480	3725	5.1	199	85	882	63	322	393	1.0	U	1785	405	3		
EP-62	08/10/98	EPRI-9808-127	GW	4.33	7.16	7.7	4840	4770	3665	1	U	84	881	66	343	418	1.0	U	1708	405	3		
EP-62	11/09/98	EPRI-9811-127	GW	1.60	7.30	7.5	4680	4710	3500	1.9	191	79	858	52	337	411	1.0	U	1646	432	2.8		
EP-62	02/10/99	EPRI-9902-129	GW	4.80	7.41	8.5	4500	4600	3379	17	197	80	660	55	319	351	19.0	U	1074	399	2.9		
EP-62	05/06/99	EPRI-9905-130	GW	3.80	7.10	7.6	4420	4600	3220	6.3	169	82	776	48	360	439	1.0	U	1328	431	3.2		
EP-62	08/03/99	EPRI-9908-130	GW	2.1	7.29	7.4	4410	4470	3315	2.2	J4	80	690	54	296	361	1.0	U	1519	382	3.2		
EP-62	10/27/99	EPRI-9911-130	GW	4.3	7.04	8.2	4000	3830	2801	6.2	146	64	599	38	278	339	J3	U	1278	359	2.9		
EP-62	01/28/00	EPRI-0002-130	GW	6.2	7.3	7.1	4460	4310	3169	5.6	192	81	786	45	396	483	1.0	U	1510	450	2.9		
Average				3.24	7.20	7.68	4699	4851	3540	7	196	86	807	57	330	399	2.6	U	1610	424	3		
Median				3.07	7.16	7.7	4680	4710	3300	6	197	82	858	55	328	400	1.0	U	1646	431	3		
Standard Deviation				1.60	0.12	0.38	401	622	426	6	30	13	114	11	31	41	5.4		314	40	0		
Minimum				1.16	7.04	7.10	4000	3830	2801	1	146	64	599	38	278	339	1.0	U	1074	359	3		
Maximum				6.20	7.41	8.50	5460	5980	4317	20	233	114	935	72	396	483	19.0	U	2183	497	3		
EP-63	08/09/97	EPRI-9708-128	GW	2.83	7.13	7.80	8100	880	6442	52	293	153	1638	33	390	476	1.0	U	2643	1045	2.3		
EP-63	11/03/97	EPRI-9711-128	GW	0.33	7.16	7.80	8260	9220	6381	32	260	152	1747	35	393	479	1.0	U	2779	1018	2.3		
EP-63	02/05/98	EPRI-9802-128	GW	2.23	7.08	7.40	8210	9590	6412	102	266	157	1579	39	436	532	1.0	U	2893	1067	2.1		
EP-63	05/08/98	EPRI-9805-128	GW	1.58	7.15	7.60	8390	9360	6332	18	273	166	1604	43	411	501	1.0	U	2941	973	2.2		
EP-63	08/10/98	EPRI-9808-128	GW	1.86	7.16	7.7	8470	8270	6466	6.1	251	151	1740	49	452	551	1.0	U	2759	928	2.2		
EP-63	11/09/98	EPRI-9811-128	GW	1.4	7.28	7.6	8480	8430	6424	4.6	237	146	1695	35	486	593	1.0	U	2941	1038	2.2		
EP-63	02/10/99	EPRI-9902-130	GW	1.30	7.27	7.8	8440	8590	6515	20	251	161	1450	45	435	531	1.0	U	2829	1029	2.2		
EP-63	05/06/99	EPRI-9905-131	GW	1.00	7.04	7.6	8300	8450	6237	19	233	176	1570	37	34	487	1.0	U	2544	1163	2.2		
EP-63	05/06/99	EPRI-9905-181	GW	0.90	7.04	7.7	8210	8450	6255	16	243	156	1519	46	34	638	1.0	U	2927	13	870	J4	2.0
EP-63	08/03/99	EPRI-9908-131	GW	1.2	7.18	7.1	8140	8240	6267	8.3	J4	172	1420	35	360	439	1.0	U	3102	893	2.1		
EP-63	10/27/99	EPRI-9911-131	GW	1	6.95	7.7	7680	7710	5687	11	244	150	1265	32	344	420	J3	U	2488	879	2		
EP-63	01/28/00	EPRI-0002-131	GW	0.3	7.22	7.8	7400	7010	5287	3.4	215	128	1306	29	467	570	1.0	U	2544	901	2.1		
Average				1.33	7.14	7.63	8173	7850	6242	24	254	156	1544	37	431	526	1.0	U	2783	984	2		
Median				1.25	7.155	7.7	8235	8440	6397	17	232	155	1575	36	436	532	1.0	U	2804	996	2		
Standard Deviation				0.73	0.10	0.21	327	2305	376	28	19	13	158	5	53	65	0.0	U	193	91	0		
Minimum				0.30	6.95	7.10	7400	880	5287	3	215	128	1265	29	344	420	1.0	U	2488	870	2		
Maximum				2.83	7.28	7.80	8480	9590	6532	102	293	176	1747	46	515	628	1.0	U	3102	1163	2		
EP-64	08/09/97	EPRI-9708-129	GW	3.96	7.39	7.80	8590	9700	7433	84	360	115	1713	25	266	325	1.0	U	3359	744	1.9		
EP-64	11/03/97	EPRI-9711-129	GW	0.19	7.25	7.80	11000	13050	9787	65	482	155	2601	23	319	389	1.0	U	4379	916	2		
EP-64	02/05/98	EPRI-9802-129	GW	3.76	7.98	7.90	10420	10800	9250	22	399	141	2200	26	210	256	1.0	U	4564	869	1.9		
EP-64	05/08/98	EPRI-9805-129	GW	2.60	6.82	8.00	10000	10940	8604	6.3	378	131	2185	34	214	261	1.0	U	4063	755	1.9		
EP-64	08/10/98	EPRI-9808-129	GW	3.00	7.4	7.9	9540	9410	8077	6.7	383	124	2135	25	264	322	1.0	U	3826	687	1.8		
EP-64	11/09/98	EPRI-9811-129	GW	4.00	7.55	7.7	9490	9450	7863	4.2	376	115	2055	23	239	292	1.0	U	3966	733	1.9		
EP-64	02/10/99	EPRI-9902-131	GW	2.90	7.89	8.5	9520	9670	7962	29	398	130	1480	20	205	226	12.0	U	2783	684	1.9		
EP-64	05/06/99	EPRI-9905-128	GW	2.30	7.57	7.9	9280	9910	7607	22	360	133	1952	24	184	224	1.0	U	3748	830	J4	1.9	
EP-64	08/03/99	EPRI-9908-132	GW	5	7.48	7.8	8380	9420	6922	11	J4	113	1578	18	253	309	1.0	U	4129	594	1.9		
EP-64	10/27/99	EPRI-9911-132	GW	4.3	7.39	8.4	9080	9070	7580	14	409	125	1739	21	263	304	J3	U	3930	703	1.8		
EP-64	01/28/00	EPRI-0002-132	GW	4.6	7.84	8.3	9410	8960	7541	15	390	125	2085	19	186	227	1.0	U	4261	780	1.8		
Average				3.33	7.51	8.00	9519	10035	8057	25	388	128	1975	24	237	285	2.7	U	3910	754	2		
Median				3.76	7.48	7.9	9490	9670	7863	15	383	125	2055	24	239	292	1.0	U	3966	744	2		
Standard Deviation				1.35	0.33	0.27	752	1181	845	26	38	12	325	5	41	52	3.8	U	495	92	0		
Minimum				0.19	6.82	7.70	8380	8960	6922	4	332	113	1480	18	184	224	1.0	U	2783	594	2		

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
Maximum				5.00	7.98	8.50	11000	13050	9787	84	482	155	2601	34	319	389	12.0	4564	916	2
EP-65	08/16/97	EPRI-9708-130	GW	0.35	7.15	7.70	7420	7360	6449	21	392	144	1380	24	408	498	1.0	2651	643	2.1
EP-65	11/14/97	EPRI-9711-130	GW	1.40	7.02	7.60	7380	9180	6235	25	373	143	1480	30	455	555	1.0	2699	676	1.9
EP-65	02/18/98	EPRI-9802-130	GW	0.84	7.07	7.50	7500	9190	6183	8.4	409	165	1661	24	427	521	1.0	2718	690	2
EP-65	05/18/98	EPRI-9805-130	GW	0.56	7.10	7.30	7440	7310	5726	132	328	139	1349	28	422	515	1.0	2892	689	2.1
EP-65	08/24/98	EPRI-9808-130	GW	0.270	7.02	7.5	7330	7390	5862	15	383	152	1000	22	500	610	1.0	2837	651	1.9
EP-65	11/16/98	EPRI-9811-130	GW	0.600	7.08	7.6	7280	7060	6004	13	368	150	1270	25	524	639	1.0	2778	640	1.9
EP-65	02/24/99	EPRI-9902-132	GW	0.400	7.16	7.7	6980	8290	5630	9.8	330	136	1264	24	597	728	1.0	1635	565	2.0
EP-65	02/24/99	EPRI-9902-194	GW	0.400	7.16	7.7	7010	8280	5730	7.5	335	138	1253	24	624	761	1.0	2309	575	2.0
EP-65	05/13/99	EPRI-9905-133	GW	1.00	6.98	7.7	6740	6010	5324	10	297	149	1250	26	587	716	1.0	2280	511	1.9
EP-65	08/10/99	EPRI-9908-133	GW	0.3	7.14	7.8	6610	6660	5163	20	307	132	1078	20	547	667	1.0	2577	570	1.1
EP-65	08/10/99	EPRI-9908-204	GW	0.3	7.14	7.7	6610	6660	5176	19	304	131	1107	21	524	639	1.0	2577	651	1.9
EP-65	11/03/99	EPRI-9911-133	GW	2.3	6.93	7.6	6400	7130	6536	64	283	126	1080	19	446	544	1.0	2545	473	2.1
EP-65	02/07/00	EPRI-0002-133	GW	0.4	6.99	7.6	6520	6160	5148	16	284	126	1135	17	576	703	1.0	2395	541	1.9
EP-65	02/07/00	EPRI-0002-236	GW	0.2	7	7.7	6500	6190	5129	16	283	128	1155	17	592	722	1.0	2338	491	1.9
Average				0.67	7.07	7.62	6980	7348	5750	27	334	140	1247	23	516	630	1.0	2517	598	2
Median				0.40	7.075	7.65	6995	7220	5728	16	329	139	1252	24	524	639	1.0	2577	608	2
Standard Deviation				0.58	0.08	0.13	408	1042	514	33	44	11	178	4	74	90	0.0	320	75	0
Minimum				0.20	6.93	7.30	6400	6010	5129	8	283	126	1000	17	408	498	1.0	1635	473	1
Maximum				2.30	7.16	7.80	7500	9190	6536	132	409	165	1661	30	624	761	1.0	2892	690	2
EP-66	08/08/97	EPRI-9708-131	GW	6.70	7.05	7.50	8390	8370	7776	78	666	161	1505	52	458	559	1.0	3474	697	3.2
EP-66	11/05/97	EPRI-9711-131	GW	1.30	6.80	7.50	7920	9020	7183	19	618	143	1502	48	408	498	1.0	3435	699	3.2
EP-66	02/03/98	EPRI-9802-131	GW	4.42	7.09	7.60	7220	8290	6329	5.6	541	122	1194	45	363	443	1.0	3098	625	3
EP-66	05/08/98	EPRI-9805-131	GW	2.99	7.39	7.70	7690	8980	6881	16	554	130	1429	58	392	478	1.0	3456	595	3.3
EP-66	08/10/98	EPRI-9808-131	GW	6.54	6.95	7.5	8130	7820	7017	1.7	591	140	1551	43	439	536	1.0	3523	606	3.4
EP-66	11/09/98	EPRI-9811-131	GW	5.30	7.09	7.4	7440	7500	6344	4	508	116	1326	43	385	470	1.0	3237	602	3.2
EP-66	02/10/99	EPRI-9902-133	GW	5.30	7.17	8.0	7720	7700	6808	7.9	585	139	1100	55	407	497	1.0	3054	622	3.3
EP-66	05/06/99	EPRI-9905-134	GW	5.50	6.98	7.5	7620	8660	6479	7.4	521	141	1298	43	44	488	1.0	2864	687	3.2
EP-66	08/04/99	EPRI-9908-134	GW	6	7	7.8	8000	7680	6952	8.9	594	147	1230	51	400	488	1.0	3404	564	3.7
EP-66	10/27/99	EPRI-9911-134	GW	6	6.92	8.3	5910	5920	4908	57	432	97	879	40	283	345	1.0	2631	420	3
EP-66	01/28/00	EPRI-0002-134	GW	6.4	7.28	7.8	7860	7530	6449	26	553	129	1313	42	425	519	1.0	3514	685	3
Average				5.05	7.07	7.69	7627	7955	6648	21	560	133	1302	49	396	484	1.0	3245	618	3
Median				5.40	7.05	7.6	7720	7820	6808	9	554	139	1313	48	400	488	1.0	3404	622	3
Standard Deviation				1.72	0.17	0.27	654	873	718	24	62	17	199	7	46	56	0.0	298	81	0
Minimum				1.30	6.80	7.40	5910	5920	4908	2	432	97	879	40	283	345	1.0	2631	420	3
Maximum				6.70	7.39	8.30	8390	9020	7776	78	666	161	1551	58	458	559	1.0	3523	699	4
EP-67	08/12/97	EPRI-9708-132	GW	1.50	6.74	7.60	4400	4490	4098	4	560	156	488	19	206	251	1.0	1923	415	0.82
EP-67	11/07/97	EPRI-9711-132	GW	0.90	6.84	7.40	4460	5000	4028	12	456	144	472	15	210	256	1.0	2228	377	0.79
EP-67	02/11/98	EPRI-9802-132	GW	1.71	6.66	7.30	4470	5820	4077	2.9	477	144	511	16	206	251	1.0	1896	384	0.72
EP-67	02/11/98	EPRI-9802-179	GW	1.71	6.66	7.30	4480	5820	4056	3.2	477	144	510	17	210	256	1.0	1969	385	0.72
EP-67	05/12/98	EPRI-9805-132	GW	0.94	6.94	7.20	4440	4450	3665	3.6	457	134	473	15	200	244	1.0	1900	364	0.79
EP-67	08/13/98	EPRI-9808-132	GW	1.09	6.79	7.6	4360	4310	3985	1.5	458	135	557	23	214	261	1.0	2017	362	0.74
EP-67	11/10/98	EPRI-9811-132	GW	1.6	6.77	7.4	4370	4350	3806	7	465	140	497	15	209	255	1.0	1823	364	0.75
EP-67	02/10/99	EPRI-9902-134	GW	1.7	6.91	7.7	4340	4400	3438	13	492	141	390	15	210	256	1.0	1343	346	0.79
EP-67	05/07/99	EPRI-9905-135	GW	1.30	6.81	7.3	4440	4820	3837	29	438	139	483	33	214	261	1.0	1959	324	0.80
EP-67	08/05/99	EPRI-9908-135	GW	1.30	6.86	7.7	4330	4860	3756	10	433	132	414	13	196	239	1.0	2117	356	0.8

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fid)	pH (fid)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fid)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-67	10/28/99	EPRI-9911-135	GW	2	6.64	7.3	4400	4410	3730	2.2	425	130	416	12	200	244	1.0	U	1925	400	0.76
EP-67	01/24/00	EPRI-0002-135	GW	1.3	6.88	7.5	4380	4280	3619	4.8	368	112	432	12	202	246	1.0	U	2036	405	0.72
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-68	08/14/97	EPRI-9708-133	GW	6.38	7.14	7.70	5430	5290	4246	19	337	141	784	18	180	220	1.0	U	1740	717	0.77
EP-68	08/14/97	EPRI-9708-174	GW			7.70	5330	4220	4320	19	320	133	774	18	183	224	1.0	U	1683	735	0.78
EP-68	11/11/97	EPRI-9711-133	GW	6.09	7.11	7.30	5440	5590	4350	38	314	132	841	12	183	223	1.0	U	1725	751	0.7
EP-68	02/11/98	EPRI-9802-133	GW	7.59	6.93	7.70	4980	6080	3957	89	33	114	765	17	200	244	1.0	U	1610	638	0.68
EP-68	05/13/98	EPRI-9805-133	GW	5.87	7.17	7.40	5690	5320	4125	46	299	129	815	16	180	220	1.0	U	1845	715	0.76
EP-68	05/13/98	EPRI-9805-179	GW			8.10	5740	4166	4166	51	316	133	840	16	185	226	1.0	U	1878	789	0.76
EP-68	08/13/98	EPRI-9808-133	GW	6.52	7.16	7.8	4260	3990	3232	25	236	99	672	16	212	259	1.0	U	1312	483	0.64
EP-68	11/09/98	EPRI-9811-133	GW	6.40	7.40	7.9	4480	4130	3329	51	207	88	630	14	203	248	1.0	U	1454	530	0.71
EP-68	02/18/99	EPRI-9902-135	GW	5.60	7.31	7.5	3840	3690	2926	49	185	86	586	17	214	261	1.0	U	861	436	0.73
EP-68	05/10/99	EPRI-9905-136	GW	6.00	7.08	7.6	4030	3990	2940	38	193	88	580	16	220	268	1.0	U	1064	407	0.74
EP-68	08/05/99	EPRI-9908-136	GW			7.9	4780	4790	3666	19	246	108	608	14	197	240	1.0	U	1609	555	0.75
EP-68	10/28/99	EPRI-9911-136	GW	12.1	6.88	7.4	5900	5340	4467	42	296	125	677	14	184	224	1.0	U	1885	848	0.74
EP-68	01/25/00	EPRI-0002-136	GW	5.4	7.07	7.8	5800	5570	4210	58	285	121	769	16	192	234	1.0	U	2051	764	0.72
EP-68	01/25/00	EPRI-0002-221	GW	5.2	7.09	7.7	5780	5560	4237	52	314	130	814	17	195	238	1.0	U	2067	783	0.73
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-70	08/12/97	EPRI-9708-135A	GW	0.52	6.84			7150													
EP-70	08/26/97	EPRI-9708-135	GW		7.19	7.90	6970	1291	R	5856	6.5	149	1238	31	252	307	1.0	U	2496	615	1.3
EP-70	08/26/97	EPRI-9708-180	GW			7.60	6970	5831		5831	9.8	152	1221	32	248	303	1.0	U	2639	626	1.3
EP-70	11/07/97	EPRI-9711-135	GW	0.75	6.91	7.50	6740	7510	5436	6.4	298	165	1236	25	246	300	1.0	U	2586	624	1.2
EP-70	02/11/98	EPRI-9802-135	GW	0.56	6.79	7.40	6600	8480	5373	1	304	159	1230	26	238	290	1.0	U	2464	608	1.1
EP-70	05/12/98	EPRI-9805-135	GW	0.38	7.07	7.40	6290	6210	4672	1	U	145	1097	20	232	283	1.0	U	2356	565	1.2
EP-70	08/13/98	EPRI-9808-135	GW	1.39	6.94	7.6	6320	5960	5053	6.3	301	153	1127	20	242	295	1.0	U	2374	516	1.1
EP-70	11/10/98	EPRI-9811-135	GW	0.8	7.02	7.4	6320	6230	5136	2.1	314	157	1182	24	234	285	1.0	U	2674	570	1.1
EP-70	11/10/98	EPRI-9811-180	GW			7.3	6310	5108		5108	1.9	157	1164	24	239	292	1.0	U	2477	587	1.1
EP-70	02/10/99	EPRI-9902-136	GW	0.900	7.04	7.7	6080	6080	4910	1.7	309	158	790	30	231	282	1.0	U	1970	518	1.1
EP-70	05/07/99	EPRI-9905-137	GW	0.700	6.92	7.5	6230	6630	4827	3.5	291	157	1009	50	237	289	1.0	U	2210	546	1.1
EP-70	08/05/99	EPRI-9908-137	GW			7.01	6020	6660	4798	3.1	291	151	930	20	180	220	1.0	U	2600	488	1.1
EP-70	10/28/99	EPRI-9911-137	GW	0.2	6.76	7.2	6220	6220	4909	1	U	143	852	17	236	288	1.0	U	2057	614	1.1
EP-70	01/24/00	EPRI-0002-137	GW	0.2	7.03	7.6	6110	5950	4832	2.8	260	134	954	18	240	293	1.0	U	2485	561	1
EP-70	01/24/00	EPRI-0002-219	GW	0.2	7.03	7.5	6100	5950	4771	2.7	262	135	927	18	243	296	1.0	U	2483	540	1
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-71	08/12/97	EPRI-9708-136	GW	0.43	6.79	7.50	6480	6560	5636	4.9	388	180	1046	21	248	303	1.0	U	2720	517	0.95
EP-71	11/07/97	EPRI-9711-136	GW	0.54	6.85	7.50	6470	7180	5567	10	380	185	1091	18	244	298	1.0	U	2564	573	0.92
EP-71	02/11/98	EPRI-9802-136	GW	0.82	6.70	7.50	6770	8670	5828	1.3	J3	180	1168	20	250	305	1.0	U	2575	574	0.8
EP-71	05/12/98	EPRI-9805-136	GW	0.39	6.99	7.30	6440	6400	5049	3.2	362	169	1058	18	246	300	1.0	U	2329	476	0.89
EP-71	08/13/98	EPRI-9808-136	GW	0.310	6.86	7.5	6290	6260	5538	1.0	U	179	1256	22	252	307	1.0	U	2424	498	0.86
EP-71	11/10/98	EPRI-9811-136	GW	1.1	7.00	7.3	5750	5670	4741	6.0	348	159	952	19	234	285	1.0	U	2506	478	0.85
EP-71	02/10/99	EPRI-9902-137	GW	1.0	7.01	7.7	5940	5970	5085	4.5	344	172	930	20	235	287	1.0	U	1840	47	0.89
EP-71	08/05/99	EPRI-9908-138	GW		6.92	7.5	5850	6560	4857	4	348	164	856	17	230	281	1.0	U	2329	475	0.92
EP-71	10/28/99	EPRI-9911-138	GW	0.2	6.71	7.9	5800	5800	4623	1.4	320	150	741	15	241	294	1.0	U	2117	528	0.86
EP-71	01/24/00	EPRI-0002-138	GW	0.9	6.97	7.6	5950	5770	4727	2.2	302	142	800	16	233	284	1.0	U	2438	503	0.86
Average				0.63	6.88	7.53	6174	6484	5165	4	356	168	970	19	241	294	1.0	U	2384	467	1
Median				0.54	6.89	7.5	6120	6350	5067	4	355	171	999	19	243	296	1.0	U	2431	501	1
Standard Deviation				0.33	0.12	0.18	357	897	440	3	30	14	183	2	8	10	0.0	U	253	152	0
Minimum				0.20	6.70	7.30	5750	5670	4623	1	302	142	730	15	230	281	1.0	U	1840	47	1
Maximum				1.10	7.01	7.90	6770	8670	5828	10	392	185	1256	22	252	307	1.0	U	2720	574	1
EP-72	08/12/97	EPRI-9708-137	GW	0.37	6.77	7.80	6220	6300	5403	6.4	366	167	997	25	238	290	1.0	U	2767	553	1.4
EP-72	11/07/97	EPRI-9711-137	GW	0.95	6.86	7.40	6040	6810	5075	11	347	162	995	25	235	287	1.0	U	2522	608	1.4
EP-72	02/11/98	EPRI-9802-137	GW	0.72	6.72	7.40	6030	7900	4975	16	J3	158	1016	25	232	283	1.0	U	2209	574	1.3
EP-72	05/13/98	EPRI-9805-137	GW	0.29	7.02	7.50	6030	5970	4600	2.9	327	150	985	21	231	282	1.0	U	2296	569	1.4
EP-72	08/13/98	EPRI-9808-137	GW	0.210	6.89	7.5	6050	6000	5094	4.5	361	165	1040	29	240	293	1.0	U	2303	552	1.3
EP-72	11/10/98	EPRI-9811-137	GW	1.2	7.00	7.3	6090	6080	5018	9.0	365	165	1086	23	235	287	1.0	U	2506	588	1.4
EP-72	01/24/00	EPRI-0002-139	GW	2.7	7.11	7.9	5700	5560	4539	16	250	148	900	16	242	295	1.0	U	2459	504	1.1
Average				0.92	6.91	7.54	6023	6374	4958	9	338	159	1003	23	236	288	1.0	U	2437	564	1
Median				0.72	6.89	7.5	6040	6080	5018	9	349	162	997	23	235	287	1.0	U	2459	569	1
Standard Deviation				0.87	0.14	0.22	157	772	299	5	41	8	57	4	4	5	0.0	U	188	33	0
Minimum				0.21	6.72	7.30	5700	5560	4539	3	250	148	900	16	231	282	1.0	U	2209	504	1
Maximum				2.70	7.11	7.90	6220	7900	5403	16	366	167	1086	29	242	295	1.0	U	2767	608	1
EP-73	08/12/97	EPRI-9708-138	GW	5.73	6.88	7.90	6760	6760	5763	2	287	117	1048	388	240	293	1.0	U	3223	485	2.8
EP-73	11/13/97	EPRI-9711-138	GW	1.20	6.91	7.40	6520	8610	5329	12	J4	113	1087	382	235	287	1.0	U	2584	441	2.6
EP-73	02/12/98	EPRI-9802-138	GW	0.97	6.84	7.60	6850	9340	5672	8.2	J3	125	1185	417	234	285	1.0	U	2861	466	2.4
EP-73	05/11/98	EPRI-9805-138	GW	1.43	6.62	7.70	6900	7810	5747	3.5	283	123	1148	387	223	272	1.0	U	3124	422	2.8
EP-73	08/17/98	EPRI-9808-138	GW	0.810	6.97	7.5	6700	6610	5365	2.9	286	121	1162	394	234	285	1.0	U	2754	469	2.7
EP-73	11/05/98	EPRI-9811-138	GW	6.20	7.13	7.4	6580	5750	5375	1.6	262	112	1126	330	238	290	1.0	U	2776	466	2.6
EP-73	02/09/99	EPRI-9902-139	GW	2.70	7.13	7.7	6540	6340	5245	10	278	119	830	400	235	287	1.0	U	2155	J4	2.9
EP-73	05/07/99	EPRI-9905-140	GW	0.800	6.97	7.5	6700	7670	5284	7.4	264	122	977	365	240	293	1.0	U	3116	410	2.7
EP-73	05/07/99	EPRI-9905-183	GW	0.8	6.96	7.7	6700	7680	5239	6.0	263	121	1009	382	235	287	1.0	U	3079	430	2.7
EP-73	08/05/99	EPRI-9908-140	GW	5.2	7.01	7.5	6550	7280	5277	6.9	262	117	1066	348	220	268	1.0	U	3032	439	2.7
EP-73	10/29/99	EPRI-9911-140	GW	1.2	6.8	7.6	6520	5760	4302	J4	2.1	J4	901	315	243	296	1.0	U	2596	468	2.9
EP-73	01/26/00	EPRI-0002-140	GW	0.4	7.07	7.8	6600	6200	4896	5.3	265	116	939	352	246	300	1.0	U	2622	408	2.8
Average				2.29	6.94	7.61	6660	7151	5291	6	271	118	1042	372	235	287	1.0	U	2827	445	3
Median				1.20	6.965	7.6	6650	7020	5307	6	265	118	1057	382	235	287	1.0	U	2819	440	3
Standard Deviation				2.15	0.15	0.16	129	1121	396	3	14	5	110	30	8	9	0.0	U	309	25	0
Minimum				0.40	6.62	7.40	6520	5750	4302	2	247	111	830	315	220	268	1.0	U	2155	408	2
Maximum				6.20	7.13	7.90	6900	9340	5763	12	292	125	1185	417	246	300	1.0	U	3223	485	3

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-74	08/13/97	EPRI-9708-139	GW	9.41	7.42	8.00	2550	2530	1771	31	87	36	448	7.6	240	293	1.0	U	710	253	0.85
EP-75	08/12/97	EPRI-9708-140	GW	1.54	6.84	7.40	19620	18940	20923	116	438	463	4680	586	654	798	1.0	U	13167	352	1.8
EP-75	11/13/97	EPRI-9711-140	GW	1.96	6.82	7.20	18340	21300	18239	41	34	406	5246	760	608	742	1.0	U	10061	258	1.5
EP-75	02/06/98	EPRI-9802-140	GW	1.11	6.86	7.20	19240	23900	19043	49	451	476	4055	655	236	288	1.0	U	11195	710	1.5
EP-75	05/11/98	EPRI-9805-140	GW	2.40	6.52	7.30	20000	20000	19297	260	452	501	4377	702	668	815	1.0	U	12795	377	2.3
EP-75	08/17/98	EPRI-9808-140	GW	1.13	6.85	7.4	18700	17890	18783	16	421	401	4249	661	621	758	1.0	U	11607	203	1.6
EP-75	11/05/98	EPRI-9811-140	GW	5.0	6.90	7.2	19100	16900	18662	11	455	477	4342	590	610	744	1.0	U	12536	302	1.8
EP-75	02/22/99	EPRI-9902-140	GW	6.80	6.94	7.3	18720	22000	17691	46	382	364	3962	858	544	664	1.0	U	9087	238	1.7
EP-75	05/10/99	EPRI-9905-141	GW	0.30	6.87	7.6	19390	20100	18775	102	447	472	4325	682	630	769	1.0	U	11378	277	1.8
EP-75	08/06/99	EPRI-9908-141	GW	0.4	6.86	7.2	16010	18110	14853	6.7	380	372	3775	672	418	510	1.0	U	4626	192	1.5
EP-75	01/26/00	EPRI-0002-142	GW	1.8	7.01	7.7	18110	16220	16215	87	391	355	3938	604	525	641	1.0	U	9219	164	1.7
Average				2.24	6.85	7.37	18723	19536	18157	73	422	429	4295	677	552	673	1.0		10567	307	2
Median				1.67	6.86	7.35	18910	19470	18451	48	430	435	4287	667	609	743	1.0		11287	268	2
Standard Deviation				2.08	0.13	0.18	11114	2399	1679	76	30	55	426	83	133	163	0.0		2523	157	0
Minimum				0.30	6.52	7.20	16010	16220	14853	7	380	355	3775	586	236	288	1.0		4626	164	2
Maximum				6.80	7.01	7.70	20000	23900	20923	260	455	501	5246	858	668	815	1.0		13167	710	2
EP-76	08/12/97	EPRI-9708-141	GW	0.35	7.39	8.00	5110	5170	3967	25	195	105	937	72	396	483	1.0	U	1889	492	2.1
EP-76	11/13/97	EPRI-9711-141	GW	0.16	7.21	7.50	4670	5030	3497	5.6	157	88	891	58	398	486	1.0	U	1498	479	2.1
EP-76	02/06/98	EPRI-9802-141	GW	0.34	7.22	7.60	4800	6000	3704	4	159	90	882	63	390	476	1.0	U	1527	422	1.9
EP-76	05/11/98	EPRI-9805-141	GW	1.04	7.22	7.70	5000	5390	3843	1.6	168	97	885	62	394	481	1.0	U	1758	426	2.1
EP-76	08/17/98	EPRI-9808-141	GW	0.110	7.21	7.6	5070	5090	3737	5	182	102	985	68	399	487	1.0	U	1779	503	1.9
EP-76	11/05/98	EPRI-9811-141	GW	0.900	7.61	7.7	5680	5150	4278	6.2	151	86	1084	198	391	477	1.0	U	2157	466	2.4
EP-76	02/22/99	EPRI-9902-141	GW	4.4	7.34	7.6	5120	5860	3717	4.2	169	94	550	135	392	478	1.0	U	1477	451	2.1
EP-76	05/10/99	EPRI-9905-142	GW	0.700	7.05	7.6	5490	5550	4026	2.3	187	112	922	113	398	486	1.0	U	1852	455	2.1
EP-76	01/26/00	EPRI-0002-141	GW	0.700	7.33	8.3	5060	4860	3613	2.7	164	92	837	104	389	475	1.0	U	1830	500	2.1
Average				0.97	7.29	7.73	5111	5347	3820	6	170	96	886	97	394	481	1.0		1752	466	2
Median				0.70	7.22	7.6	5070	5170	3737	4	168	94	891	72	394	481	1.0		1779	466	2
Standard Deviation				1.33	0.16	0.25	311	386	238	7	15	9	145	47	4	5	0.0		221	30	0
Minimum				0.11	7.05	7.50	4670	4860	3497	2	151	86	550	58	389	475	1.0		1477	422	2
Maximum				4.40	7.61	8.30	5680	6000	4278	25	195	112	1084	198	399	487	1.0		2157	503	2
EP-77	08/12/97	EPRI-9708-142	GW	3.83	6.98	8.40	5400	5350	4175	752	240	58	1034	35	308	364	6.0		2129	616	2.6
EP-77	11/13/97	EPRI-9711-142	GW	1.50	7.02	7.60	5350	6550	3956	142	223	53	1030	36	253	309	1.0	U	1793	608	2.4
EP-77	11/13/97	EPRI-9711-178	GW				5360	4057	4057	82	226	55	1045	35	254	310	1.0	U	1793	621	2.2
EP-77	02/12/98	EPRI-9802-142	GW	1.10	7.00	7.50	5330	6910	4046	249	228	51	1067	34	270	329	1.0	U	1808	636	2.4
EP-77	05/13/98	EPRI-9805-142	GW	0.71	7.23	7.50	5070	5320	3502	190	220	48	1054	35	224	273	1.0	U	1698	608	2.7
EP-77	08/17/98	EPRI-9808-142	GW	0.82	7.09	7.5	5800	5730	4255	18	254	58	1199	39	240	293	1.0	U	1996	684	2.6
EP-77	11/11/98	EPRI-9811-142	GW		7.30	7.5	5770	5600	4383	412	249	56	1192	37	248	303	1.0	U	2168	641	2.8
EP-77	02/11/99	EPRI-9902-142	GW	0.900	7.23	7.8	5450	5450	4029	256	227	50	850	40	243	296	1.0	U	1798	579	3.1
EP-77	05/07/99	EPRI-9905-143	GW	1.10	7.08	7.6	5350	5800	3880	177	200	50	940	55	273	333	1.0	U	1790	370	3.0
EP-77	08/05/99	EPRI-9908-143	GW	1.2	7.14	7.4	5110	5640	3766	22	182	42	823	32	189	230	1.0	U	2045	553	3.4
EP-77	10/29/99	EPRI-9911-143	GW	0.6	6.94	8.4	5080	4300	3006	14	190	45	809	26	410	500	1.0	U	1565	557	2.1
EP-77	01/25/00	EPRI-0002-143	GW	0.2	7.21	8.2	4500	4410	3152	13	144	36	820	27	270	329	1.0	U	1464	449	3.5
Average				1.20	7.11	7.76	5277	5551	3718	299	213	50	969	35	275	334	1.4		1818	573	3
Median				1.00	7.09	7.6	5350	5600	3956	190	223	50	1030	35	254	310	1.0		1793	608	3

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (nd)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
Standard Deviation																					
	Minimum			0.99	0.12	0.35	336	769	630	296	31	7	151	8	63	76	1.4	217	85	0	
	Maximum			0.20	6.94	7.40	4500	4300	2121	13	144	36	735	25	189	230	1.0	1464	370	2	
EP-78	08/13/97	EPRI-9708-143	GW	0.25	7.78	8.00	2600	2640	1773	9.8	46	26	492	46	282	344	1.0	807	179	4.9	
	11/18/97	EPRI-9711-143	GW	0.74	7.77	7.90	2310	2940	1437	J1 5.9	UJ1 43	UJ1 24	380	J1 46	242	295	1.0	674	179	4.8	
	11/18/97	EPRI-9711-179	GW		7.90	8.00	2320	UJ1	1484	J1 3.8	J4 44	UJ1 24	381	46	245	299	1.0	654	179	J1 4.9	
EP-78	02/06/98	EPRI-9802-143	GW	0.73	7.59	7.90	2940	3780	2004	10	61	33	483	57	276	337	1.0	876	252	4.2	
	05/14/98	EPRI-9805-143	GW	0.82	7.70	8.00	3730	3750	2364	18	78	40	669	48	297	362	1.0	1078	325	3.9	
	08/19/98	EPRI-9808-143	GW	0.240	8.03	8.1	3660	3740	2561	1.8	68	37	658	56	274	334	1.0	1143	331	3.7	
EP-78	11/11/98	EPRI-9811-143	GW	1.0	8.05	8.1	2220	2170	1422	46	J4 29	16	406	37	300	366	1.0	616	102	5.1	
	02/18/99	EPRI-9902-143	GW	0.500	7.74	7.9	3450	3420	2315	22	72	38	606	77	297	362	1.0	760	298	4.0	
	05/11/99	EPRI-9905-144	GW	2.30	7.62	7.3	3750	3770	2549	14	76	43	600	71	242	295	J3 1.0	1042	317	2.6	
EP-78	05/11/99	EPRI-9905-186	GW	2.20	7.62	7.5	3740	3830	2538	16	76	44	600	74	243	296	J3 1.0	1079	320	9.2	
	08/09/99	EPRI-9908-144	GW	0.9	7.86	7.8	2520	2440	1604	12	51	18	447	39	271	331	1.0	705	117	4.5	
	10/21/99	EPRI-9911-144	GW		7.43	8	2620	2610	1604	4.3	51	29	393	47	284	346	1.0	750	208	4.3	
EP-78	01/28/00	EPRI-0002-144	GW	0.7	7.62	7.6	3400	3250	2144	20	73	35	604	54	280	342	1.0	998	301	3.8	
	Average			0.94	7.72	7.85	3020	3195	1991	14	58	31	517	54	272	331	1.0	860	239	5	
	Median			0.74	7.715	7.9	2940	3335	2004	12	61	33	492	48	276	337	1.0	807	252	4	
Standard Deviation				0.69	0.15	0.24	614	608	449	12	18	9	110	13	22	27	0.0	186	82	2	
	Minimum			0.24	7.43	7.30	2220	2170	1422	2	29	16	380	37	242	295	1.0	616	102	3	
	Maximum			2.30	8.05	8.10	3750	3830	2561	46	78	44	669	77	300	366	1.0	1143	331	9	
EP-79	08/13/97	EPRI-9708-144	GW	1.06	7.47	8.00	4890	4870	3643	20	59	71	1018	9.3	388	473	1.0	1596	437	4.1	
	11/18/97	EPRI-9711-144	GW	0.77	7.43	8.20	4900	6500	3560	89	58	UJ1 71	1153	12	J1 372	454	1.0	1802	432	J1 3.7	
	02/06/98	EPRI-9802-144	GW	0.63	7.42	7.90	4940	6700	3770	37	59	74	1103	12	382	466	1.0	1748	451	3.9	
EP-79	05/14/98	EPRI-9805-144	GW	0.43	7.52	7.80	5080	5150	3404	718	56	69	1144	5	500	610	1.0	1518	468	4.4	
	08/19/98	EPRI-9808-144	GW	0.150	7.50	8.0	5330	5420	3921	1	U 60	74	1183	8.9	372	454	1.0	1766	524	3.9	
	11/11/98	EPRI-9811-144	GW	1.60	7.67	7.8	4710	4650	3451	47	J4 53	62	1077	9.5	385	470	1.0	1517	421	4.4	
EP-79	02/18/99	EPRI-9902-144	GW	1.00	7.61	7.8	4650	4660	3360	12	48	53	1016	12	386	471	1.0	1172	397	4.6	
	05/11/99	EPRI-9905-145	GW	6.70	7.41	8.2	4900	4790	3447	80	54	71	1050	10	366	447	J3 1.0	1477	453	4.6	
	08/09/99	EPRI-9908-145	GW	0.4	7.53	8	4730	4770	3360	6.3	50	62	974	8.7	378	437	1.0	1509	396	4.6	
EP-79	10/31/99	EPRI-9911-145	GW		7.27	8	4500	4480	2989	1	U 46	55	895	8	373	455	1.0	1362	445	4.6	
	01/28/00	EPRI-0002-145	GW	0.2	7.48	8	4700	4520	3214	26	55	60	965	7.6	333	406	1.0	1441	389	4.7	
	01/28/00	EPRI-0002-227	GW	0.1	7.48	8	4710	4520	3188	30	55	59	988	7.6	372	454	1.0	1369	393	4.7	
Average				1.19	7.48	7.98	4837	5086	3442	89	54	65	1047	9	382	466	1.0	1523	434	4	
	Median			0.63	7.48	8	4810	4780	3426	28	55	66	1034	9	373	455	1.0	1513	435	5	
	Standard Deviation			1.88	0.10	0.14	220	759	257	200	5	7	87	2	40	49	0.0	185	39	0	
EP-80	05/13/98	EPRI-9805-145	GW	0.68	7.26	7.60	4960	5020	3596	6.2	183	80	1004	15	409	499	1.0	1757	360	1.3	
	08/19/98	EPRI-9808-145	GW	2.15	7.27	8.0	5180	5300	3949	61	163	79	984	20	448	547	1.0	1880	435	1.3	
	11/11/98	EPRI-9811-145	GW	1.90	7.38	7.5	5130	5040	4016	77	J4 218	91	1045	18	430	525	1.0	2048	377	1.4	
EP-80	02/18/99	EPRI-9902-145	GW	1.90	7.30	7.5	5290	5230	4048	45	220	92	1016	23	405	494	1.0	1573	373	1.3	
	05/11/99	EPRI-9905-146	GW	0.600	7.19	7.9	5170	5240	3976	20	202	96	900	21	410	500	J3 1.0	1686	385	1.3	

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Sample #	Type	(O) (fld)	pH (lab)	pH (fld)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-80	08/09/99	EPRL-9908-146	GW	0.2	7.27	7.8	5240	5250	3934	18	196	94	961	20	418	510	1.0	U	1991	432	1.3
EP-80	10/27/99	EPRL-9911-146	GW	0.6	6.96	8.3	5320	5280	4080	27	242	95	896	17	405	494	1.0	U	2117	406	1.2
EP-80	01/28/00	EPRL-0002-146	GW	0.8	7.22	8.1	5130	4870	3845	9.8	218	86	978	15	421	514	1.0	U	1880	372	1.4
Average				1.17	7.21	7.79	5145	5391	3958	76	205	88	979	18	425	518	1.0	U	1889	390	1
Median				0.80	7.23	7.8	5130	5240	4016	45	202	87	984	19	421	514	1.0	U	1889	377	1
Standard Deviation				0.88	0.12	0.28	110	137	137	108	22	6	53	3	18	22	0.0	U	162	31	0
Minimum				0.20	6.96	7.40	4960	4870	3596	6	163	79	896	14	405	494	1.0	U	1573	356	1
Maximum				2.90	7.38	8.30	5320	6840	4080	382	242	96	1052	23	456	556	1.0	U	2117	435	1
EP-81	08/13/97	EPRL-9708-146	GW	2.82	7.01	7.70	2550	2530	2045	233	176	86	327	18	360	439	1.0	U	961	164	1.4
EP-81	11/17/97	EPRL-9711-146	GW	2.88	6.90	7.80	2390	3290	1809	11	150	79	311	14	438	534	1.0	U	748	102	1.2
EP-81	02/05/98	EPRL-9802-146	GW	2.94	7.00	7.50	2560	2980	1967	76	152	76	331	17	432	527	1.0	U	923	125	1.6
EP-81	05/14/98	EPRL-9805-149	GW	3.44	7.04	7.40	2540	2630	1850	45	140	75	330	12	440	537	1.0	U	776	100	1.4
EP-81	08/19/98	EPRL-9808-146	GW	0.700	7.08	7.6	2650	2720	2039	3.3	163	84	336	12	391	477	1.0	U	987	142	1.2
EP-81	11/11/98	EPRL-9811-146	GW	3.60	7.10	7.3	2430	2370	1862	43	174	85	294	11	451	550	1.0	U	952	70	1.2
EP-81	02/18/99	EPRL-9902-146	GW	4.70	7.19	7.4	2550	2590	2018	16	164	84	364	17	411	501	1.0	U	658	97	1.4
EP-81	05/11/99	EPRL-9905-147	GW	6.80	7.00	7.8	2530	33	1955	14	159	92	330	15	424	517	1.0	U	823	79	1.3
EP-81	08/09/99	EPRL-9908-147	GW	3.6	7.12	7.7	2830	3150	2169	6	176	77	389	21	381	465	1.0	U	1011	103	2.1
EP-81	10/27/99	EPRL-9911-147	GW	4.9	6.83	8.1	2150	2710	2090	16	180	93	340	14	351	428	1.0	U	959	135	1.4
EP-81	01/28/00	EPRL-0002-147	GW	3.5	7.09	7.7	3310	2930	2382	81	178	83	459	25	325	397	1.0	U	1216	242	2.7
Average				3.63	7.03	7.64	2643	2770	2017	49	165	83	346	16	400	488	1.0	U	910	124	2
Median				3.50	7.04	7.7	2550	2710	2018	16	164	84	331	15	411	501	1.0	U	952	103	1
Standard Deviation				1.52	0.10	0.23	255	283	163	67	13	6	45	4	42	51	0.0	U	152	48	0
Minimum				0.70	6.83	7.30	2390	2370	1809	3	140	75	294	11	325	397	1.0	U	658	70	1
Maximum				6.80	7.19	8.10	3310	3290	2382	233	180	93	459	25	451	550	1.0	U	1216	242	3
EP-82	08/13/97	EPRL-9708-147	GW	1.31	7.06	7.70	3980	3960	2948	7.3	151	74	693	21	362	442	1.0	U	1310	422	2.5
EP-82	11/18/97	EPRL-9711-147	GW	2.15	7.03	8.00	3250	4070	2274	36	14	48	613	17	416	508	1.0	U	865	361	2.7
EP-82	02/11/98	EPRL-9802-147	GW	1.73	6.94	7.60	4320	5360	3099	5.4	13	87	780	24	323	394	1.0	U	1311	500	2.3
EP-82	05/14/98	EPRL-9805-147	GW	0.67	7.12	7.60	4740	4780	3297	47	170	85	844	20	312	381	1.0	U	1317	530	2.5
EP-82	08/19/98	EPRL-9808-147	GW	0.430	7.16	7.7	4880	5000	3826	12	158	81	889	27	320	390	1.0	U	1604	567	2.7
EP-82	11/11/98	EPRL-9811-147	GW	1.60	7.33	7.4	4880	4820	3614	14	14	78	987	25	338	412	1.0	U	1629	568	2.8
EP-82	02/18/99	EPRL-9902-147	GW	0.500	7.28	7.6	4720	4770	3490	22	136	70	930	33	345	421	1.0	U	825	513	3.0
EP-82	05/11/99	EPRL-9905-148	GW	1.50	7.15	7.8	4870	4970	3576	13	144	86	850	33	326	398	1.0	U	1050	520	3.0
EP-82	08/09/99	EPRL-9908-148	GW	0.4	7.23	7.7	4490	4560	3217	7.2	118	69	877	19	390	476	1.0	U	1478	367	3.2
EP-82	10/31/99	EPRL-9911-148	GW	7.01	7.7	7.7	3600	3580	2369	1	U	72	624	24	428	522	1.0	U	872	392	3.2
EP-82	01/27/00	EPRL-0002-148	GW	0.3	7.12	8.1	4340	4140	3018	16	136	76	821	24	365	445	1.0	U	1326	440	2.6
Average				1.06	7.13	7.72	4370	4546	3157	16	136	72	810	24	357	435	1.0	U	1235	471	3
Median				0.99	7.12	7.7	4490	4770	3217	13	144	76	844	24	345	421	1.0	U	1311	500	3
Standard Deviation				0.67	0.12	0.19	552	538	493	14	31	15	121	5	40	48	0.0	U	291	77	0
Minimum				0.30	6.94	7.40	3250	3580	2274	1	72	43	613	17	312	381	1.0	U	825	361	2
Maximum				2.15	7.33	8.10	4880	5360	3826	47	170	87	987	33	428	522	1.0	U	1629	568	3
EP-83	08/13/97	EPRL-9708-148	GW	5.75	7.47	8.00	3940	3960	2910	6	86	73	748	12	308	376	1.0	U	1382	359	2.9
EP-83	11/18/97	EPRL-9711-148	GW	4.42	7.36	8.20	3940	4930	2741	112	76	68	799	13	340	415	1.0	U	1192	399	2.8
EP-83	02/06/98	EPRL-9802-148	GW	6.33	7.51	7.80	3720	4670	2660	8.1	73	66	735	12	296	361	1.0	U	1161	364	2.7
EP-83	05/13/98	EPRL-9805-148	GW	4.85	7.51	7.80	3840	3880	2558	4	71	64	763	5	294	359	1.0	U	1126	350	3.1
EP-83	08/19/98	EPRL-9808-148	GW	3.40	7.53	8.0	3930	4040	2847	1	69	63	758	8.6	308	376	1.0	U	1316	391	2.9

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO ₃	Bicarbonate (HCO ₃)	Carbonate (CO ₃)	Sulfate (SO ₄)	Chloride (CL)	Fluoride (F)
EP-83	11/12/98	EPRI-9708-148	GW		7.60	7.7	3680	3470	2641	17	74	63	756	12	292	356	1.0	1200	353	2.7
EP-83	02/22/99	EPRI-9902-148	GW	6.00	7.58	7.8	3880	4510	2740	7.0	71	64	740	8.5	290	354	1.0	1040	347	3.0
EP-83	02/22/99	EPRI-9902-152	GW	5.80	7.57	7.8	3870	4510	2663	5.8	73	66	747	11	304	371	1.0	997	341	3.1
EP-83	05/11/99	EPRI-9905-149	GW	5.60	7.51	8.0	3710	3850	2525	9.4	76	75	550	13	296	361	1.0	1156	205	3.0
EP-83	08/09/99	EPRI-9908-149	GW	4.9	7.48	7.9	3870	3910	2725	6.2	71	65	717	10	290	354	1.0	1266	336	3.1
EP-83	10/30/99	EPRI-9911-149	GW		7.22	7.8	3900	3920	2562	102	74	63	638	9.5	330	403	1.0	1280	443	3
EP-83	10/30/99	EPRI-9911-229	GW		7.8	3910		2642	79	74	83	64	621	9.5	311	379	1.0	1172	392	3
EP-83	01/27/00	EPRI-0002-149	GW	5.80	7.47	8.3	3900	3710	2609	16	75	65	759	9.1	301	367	1.0	1284	396	3.0
EP-83	01/27/00	EPRI-0002-226	GW	5.70	7.46	8.2	3910	3710	2610	18	75	65	753	9.1	309	377	1.0	1215	385	3.0
Median				5.68	7.51	7.8	3880	3940	2660	8	75	65	747	10	301	367	1.0	1192	359	3
Standard Deviation				0.89	0.10	0.18	90	437	112	40	5	4	71	2	15	19	0.0	108	56	0
Minimum				3.40	7.22	7.70	3680	3470	2525	1	69	63	550	5	290	354	1.0	997	205	3
Maximum				6.33	7.60	8.30	3940	4930	2910	112	86	75	799	13	340	415	1.0	1382	443	3
EP-84	08/13/97	EPRI-9708-149	GW	3.33	7.39	7.90	1958	1908	1525	18	148	62	224	8.5	224	273	1.0	524	184	0.8
EP-84	11/18/97	EPRI-9711-149	GW	1.37	7.16	8.10	2650	3260	1979	31	201	96	264	13	233	284	1.0	826	326	0.77
EP-84	02/06/98	EPRI-9802-149	GW	1.35	7.18	7.40	2990	3470	2293	4.4	219	104	390	11	242	295	1.0	942	371	0.63
EP-84	05/13/98	EPRI-9805-146	GW	2.28	7.22	7.50	3040	3050	2087	8.1	208	99	335	5	244	298	1.0	916	346	0.69
EP-84	08/19/98	EPRI-9808-149	GW	1.97	7.25	7.8	2780	2820	2183	1	195	88	268	7.2	242	295	1.0	924	330	0.66
EP-84	11/12/98	EPRI-9811-149	GW		7.31	7.6	2980	2790	2204	10	14	223	329	8.5	251	306	1.0	961	346	0.68
EP-84	02/22/99	EPRI-9902-149	GW	3.30	7.21	7.5	3070	3370	2276	3.1	212	103	345	5	247	301	1.0	687	326	0.69
EP-84	05/11/99	EPRI-9905-150	GW	2.90	7.23	7.9	3030	3080	2174	3.5	220	117	370	12	248	303	1.0	838	329	0.70
EP-84	08/09/99	EPRI-9908-150	GW	2.7	7.44	7.9	1838	1854	1288	4.5	126	56	195	6.2	188	229	1.0	506	157	0.9
EP-84	10/30/99	EPRI-9911-150	GW		6.88	7.4	3080	3070	2234	4	14	198	292	7.7	261	318	1.0	872	393	0.66
EP-84	01/27/00	EPRI-0002-150	GW	0.8	7.12	8	3090	2920	2196	62	216	101	338	7.6	251	306	1.0	1013	367	0.66
Average				2.22	7.22	7.73	2773	2872	2040	14	197	93	305	8	239	292	1.0	819	316	1
Median				2.28	7.22	7.8	2990	3030	2183	5	208	99	329	8	244	298	1.0	872	330	1
Standard Deviation				0.91	0.15	0.25	454	534	329	18	31	18	61	3	20	24	0.0	173	75	0
Minimum				0.80	6.88	7.40	1838	1854	1288	1	126	56	195	5	188	229	1.0	506	157	1
Maximum				3.33	7.44	8.10	3090	3470	2293	62	223	117	390	13	261	318	1.0	1013	393	1
EP-85	08/13/97	EPRI-9708-150	GW	0.32	7.33	8.00	2900	2890	2126	4.4	106	49	495	32	314	383	1.0	1034	193	3.6
EP-85	11/17/97	EPRI-9711-150	GW	0.35	7.30	8.00	2300	2950	1622	1.1	67	32	401	26	296	361	1.0	680	143	3.8
EP-85	02/05/98	EPRI-9802-150	GW	0.61	7.34	7.70	2600	3140	1882	7.9	89	43	431	30	292	356	1.0	840	179	3.4
EP-85	05/14/98	EPRI-9805-150	GW	0.52	7.39	7.70	2970	3010	2047	7.3	105	51	496	28	282	344	1.0	857	233	3.5
EP-85	08/19/98	EPRI-9808-150	GW	0.140	7.38	7.8	3240	3340	2432	1.8	112	55	550	29	298	364	1.0	1158	265	3.3
EP-85	08/19/98	EPRI-9808-180	GW		7.8	3250		2427	1.8	113	56	553	28	300	366	1.0	1145	264	3.2	
EP-85	11/11/98	EPRI-9811-150	GW	1.50	7.51	7.7	2850	2800	2011	13	74	45	502	28	311	379	1.0	1021	170	3.5
EP-85	02/18/99	EPRI-9902-150	GW	0.400	7.45	7.6	2770	2780	1998	7.3	91	42	483	34	300	366	1.0	584	193	3.7
EP-85	02/18/99	EPRI-9902-189	GW	0.400	7.45	7.7	2770	2780	1724	5.6	92	44	500	36	304	371	1.0	623	200	3.8
EP-85	05/11/99	EPRI-9905-151	GW	0.500	7.32	8.0	3070	3120	2061	1.0	107	57	540	34	292	356	1.0	949	230	3.8
EP-85	08/09/99	EPRI-9908-151	GW	0.5	7.38	7.8	3200	3230	2276	2.7	105	53	524	29	281	343	1.0	1119	224	3.7
EP-85	08/09/99	EPRI-9908-202	GW	0.5	7.38	7.8	3190	3220	2282	2.7	107	54	542	30	276	337	1.0	1106	216	3.7
EP-85	10/27/99	EPRI-9911-151	GW	0.5	7.15	8.1	2700	2700	1831	1.2	82	39	444	26	298	364	1.0	773	172	3.7
EP-85	10/27/99	EPRI-9911-224	GW	0.5	7.15	8.2	2700	2700	1821	1	84	41	458	27	303	370	1.0	742	173	3.7
EP-85	01/28/00	EPRI-0002-151	GW	0.2	7.31	7.9	3000	2870	1448	1.9	96	47	520	27	327	399	1.0	948	219	3.3
Average				0.50	7.35	7.85	2901	2966	1999	4	97	47	496	30	298	364	1.0	905	205	4
Median				0.50	7.36	7.8	2900	2920	2011	3	96	47	500	29	298	364	1.0	948	200	4

Table II-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Sample #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
Standard Deviation																					
Minimum				0.32	0.10	0.17	270	212	286	4	13	7	46	3	13	16	0.0	194	35	0	
Maximum				0.14	7.15	7.60	2300	2700	1448	1	67	32	401	26	276	337	1.0	584	143	3	
				1.50	7.51	8.20	3230	3340	2432	13	113	57	553	36	327	399	1.0	1158	265	4	
EP-86	08/13/97	EPRI-9708-151	GW	7.68	7.63	8.00	2630	2610	1780	78	46	33	493	11	292	356	1.0	658	285	2.8	
EP-86	11/18/97	EPRI-9711-151	GW	5.56	7.54	8.30	2650	3240	1758	182	42	32	519	10	340	415	1.0	664	291	2.7	
EP-86	02/06/98	EPRI-9802-151	GW	6.00	7.53	7.80	2640	3300	1812	201	41	33	497	12	314	383	1.0	679	287	2.5	
EP-86	05/14/98	EPRI-9805-151	GW	8.01	7.70	7.90	2640	2670	1628	61	40	30	507	5	284	346	1.0	599	274	2.8	
EP-86	08/19/98	EPRI-9808-151	GW	7.66	7.67	8.1	2660	2690	1823	4	40	31	501	7.7	288	351	1.0	782	275	2.7	
EP-86	11/12/98	EPRI-9811-151	GW		7.45	7.9	2640	2480	1762	183	43	33	522	10	339	414	1.0	647	271	2.7	
EP-86	02/18/99	EPRI-9902-151	GW	6.50	7.74	7.9	2640	2600	1751	146	43	32	531	11	300	366	1.0	640	271	2.8	
EP-86	05/11/99	EPRI-9905-152	GW	8.70	7.69	8.2	2570	2600	1689	12	42	33	520	8.8	290	354	1.0	652	250	2.8	
EP-86	08/09/99	EPRI-9908-152	GW	6.9	7.66	8.1	2600	2600	1716	15	42	32	490	9.2	271	331	1.0	652	228	2.7	
EP-86	10/31/99	EPRI-9911-152	GW		7.34	7.9	2640	2620	1687	11	39	29	452	8.5	300	366	1.0	550	351	2.7	
EP-86	01/31/99	EPRI-9911-231	GW			8	2650	2480	1665	8.8	39	30	452	8.6	291	355	1.0	575	309	2.7	
EP-86	01/27/00	EPRI-0002-152	GW	7.5	7.58	8.2	2640	2520	1626	28	45	32	517	8.4	291	355	1.0	600	304	2.7	
Average				7.17	7.59	8.02	2631	2721	1727	75	42	31	501	9	299	365	1.0	620	278	3	
Median				7.50	7.63	8	2640	2610	1751	42	42	32	507	9	291	355	1.0	640	275	3	
Standard Deviation				1.01	0.12	0.15	25	278	65	76	2	2	25	2	20	25	0.0	89	34	0	
Minimum				5.56	7.34	7.80	2570	2480	1626	4	39	28	452	5	271	331	1.0	390	224	3	
Maximum				8.70	7.74	8.30	2660	3300	1823	201	46	33	531	12	340	415	1.0	782	351	3	
EP-87	09/15/97	EPRI-9708-152	GW			7.50	546		365	20	72	17	18	5	232	283	1.0	41	7.6	0.47	
EP-87	11/18/97	EPRI-9711-152	GW	4.70	7.49	8.20	560	685	361	1	66	24	16	2	237	289	1.0	39	12	0.59	
EP-87	02/06/98	EPRI-9802-152	GW																		
EP-87	08/10/99	EPRI-9908-153	GW	3.4	7.34	7.8	666	688	405	458	77	26	23	5	440	537	1.0	48	15	0.64	
Average				4.05	7.42	7.83	591	687	377	160	72	22	19	4	303	370	1.0	43	12	1	
Median				4.05	7.415	7.8	560	687	365	20	72	24	18	5	237	289	1.0	41	12	1	
Standard Deviation				0.92	0.11	0.35	66	2	24	259	6	5	4	2	119	145	0.0	5	4	0	
Minimum				3.40	7.34	7.50	546	685	361	1	66	17	16	2	232	283	1.0	39	8	0	
Maximum				4.70	7.49	8.20	666	688	405	458	77	26	23	5	440	537	1.0	48	15	1	
EP-88	08/12/97	EPRI-9708-153	GW	0.73	7.35	8.40	5150	5370	3679	438	68	46	1145	8.8	442	527	6.0	1790	483	2.3	
EP-88	11/11/97	EPRI-9711-153	GW	0.43	7.41	7.90	5240	5980	3700	72	57	39	1323	4.9	443	540	1.0	1787	471	2.2	
EP-88	02/12/98	EPRI-9802-153	GW	1.53	7.24	7.80	5320	6600	3946	60	59	38	1344	6.9	278	339	1.0	1669	448	1.9	
EP-88	05/11/98	EPRI-9805-153	GW	1.21	7.60	8.00	5370	5860	4085	205	54	35	1366	10	484	590	1.0	1848	425	2.2	
EP-88	08/17/98	EPRI-9808-153	GW	0.850	7.31	7.7	5400	5460	3832	32	55	35	1359	15	503	614	1.0	1711	468	2.2	
EP-88	11/11/98	EPRI-9811-153	GW	4.90	7.40	7.6	4940	4710	3660	16	75	45	1184	8.5	411	501	1.0	1633	416	2.1	
EP-88	02/11/99	EPRI-9902-153	GW	1.30	7.53	8.2	5350	5360	3822	143	50	31	1060	9.0	537	655	1.0	1720	454	2.4	
EP-88	05/07/99	EPRI-9905-154	GW	0.900	7.34	7.9	5340	5810	3800	90	57	39	1139	10	469	572	1.0	1677	426	2.2	
EP-88	08/05/99	EPRI-9908-154	GW	4.4	7.34	8.1	5070	5930	3742	61	59	37	1031	6.7	410	500	1.0	1865	407	2.2	
EP-88	10/30/99	EPRI-9911-154	GW		7.13	7.7	5300	5360	3576	17	60	38	932	6.7	488	595	1.0	1726	493	2.2	
EP-88	01/26/00	EPRI-0002-154	GW	2.3	7.4	8.6	5220	4970	3560	29	74	49	1036	7.8	460	522	19.2	1732	493	2.1	
EP-88	01/26/00	EPRI-0002-223	GW	1.7	7.41	8.2	5230	5180	3462	30	76	49	1096	8	465	567	1.0	1645	460	2.1	
Average				1.84	7.37	8.01	5244	5549	3739	99	62	40	1168	9	449	544	2.9	1734	454	2	
Median				1.30	7.375	7.95	5270	5415	3721	61	59	39	1142	8	462	554	1.0	1723	457	2	
Standard Deviation				1.48	0.12	0.30	135	512	173	120	9	6	148	3	65	80	5.3	75	30	0	

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
Minimum				0.43	7.13	7.60	4940	4710	3462	16	50	31	932	5	278	339	1.0	1633	407	2
	Maximum			4.90	7.60	8.60	5400	6600	4085	438	76	49	1366	15	537	655	19.2	1865	493	2
EP-89	08/12/97	EPRI-9708-154	GW	5.34	7.04	7.90	2780	2800	2085	5.4	175	68	379	21	224	273	1.0	859	308	0.77
EP-89	11/13/97	EPRI-9711-154	GW	3.98	7.12	7.40	2770	3330	1956	2.9	157	62	350	20	230	281	1.0	777	356	0.72
EP-89	02/11/98	EPRI-9802-154	GW	4.09	7.00	7.70	2770	3600	1995	5.8	165	65	378	20	218	266	1.0	747	314	0.7
EP-89	05/13/98	EPRI-9805-154	GW	4.05	7.29	7.70	2780	2770	1814	2.2	155	62	360	15	216	264	1.0	797	336	0.77
EP-89	08/13/98	EPRI-9808-154	GW	3.55	7.17	7.9	2840	2810	2144	2	177	70	433	22	228	278	1.0	840	338	0.72
EP-89	11/10/98	EPRI-9811-154	GW	5.3	7.19	7.5	2860	2830	2067	4	170	67	387	20	223	272	1.0	860	336	0.76
EP-89	02/10/99	EPRI-9902-154	GW	3.70	7.32	8.0	2770	2810	1978	7.5	167	67	330	19	210	256	1.0	686	292	0.79
EP-89	05/07/99	EPRI-9905-155	GW	4.2	7.17	7.8	2790	2990	1941	3.0	154	63	378	45	216	264	1.0	818	294	0.76
EP-89	08/05/99	EPRI-9908-155	GW		7.24	7.9	2850	3220	2050	2.5	169	68	326	19	212	259	1.0	763	326	0.77
EP-89	08/05/99	EPRI-9908-198	GW		7.24	8	2860	3220	2045	8.1	168	67	368	18	214	261	1.0	811	316	0.8
EP-89	10/28/99	EPRI-9911-155	GW	2.8	6.92	8.1	2880	2580	2022	4.1	171	66	357	18	200	244	1.0	832	351	0.72
EP-89	10/28/99	EPRI-9911-225	GW	2.8	6.92	8.1	2880	2580	2016	5.2	175	70	365	18	227	277	1.0	838	345	0.71
EP-89	01/24/00	EPRI-0002-155	GW	3.5	7.14	7.9	2810	2750	1948	3.2	145	59	365	17	220	268	1.0	824	300	0.75
Average				3.94	7.14	7.84	2818	2947	2003	4	165	66	367	21	218	266	1.0	804	324	1
Median				3.98	7.17	7.9	2810	2810	2016	4	168	67	365	19	218	266	1.0	818	326	1
Standard Deviation				0.83	0.13	0.21	44	310	81	2	10	3	27	7	8	10	0.0	50	22	0
Minimum				2.80	6.92	7.40	2770	2580	1814	2	145	59	326	15	200	244	1.0	686	292	1
Maximum				5.34	7.32	8.10	2880	3600	2144	8	177	70	433	45	230	281	1.0	860	356	1
EP-90	12/12/97	EPRI-9711-139	GW	0.00	7.41	8.10	2920	3700	2138	1058	102	49	588	11	326	398	1.0	908	281	0.56
EP-90	02/17/98	EPRI-9802-139	GW	5.13	7.12	7.80	2950	3920	2132	129	117	58	510	9	244	298	1.0	832	316	0.51
EP-90	05/13/98	EPRI-9805-139	GW	3.68	7.39	7.80	2900	2740	1930	74	120	55	461	5	232	283	1.0	828	315	0.6
EP-90	08/17/98	EPRI-9808-139	GW	1.91	7.42	7.8	2380	2390	1654	7.8	75	36	421	8.1	220	268	1.0	637	234	0.76
EP-90	11/05/98	EPRI-9811-139	GW	1.7	7.43	7.6	2660	512	1807	38	88	43	419	7.8	235	287	1.0	732	244	0.69
EP-90	02/11/99	EPRI-9902-155	GW	1.20	7.41	7.9	3340	3320	2434	260	132	67	500	10	245	299	1.0	808	321	0.65
EP-90	05/10/99	EPRI-9905-156	GW	4.40	7.01	7.7	4090	4360	3026	21	184	100	665	13	230	281	1.0	1202	377	0.58
EP-90	08/05/99	EPRI-9908-156	GW	1.1	7.19	7.8	4960	4960	3789	186	191	100	687	10	271	331	1.0	1834	480	0.56
EP-90	10/30/99	EPRI-9911-156	GW		6.92	7.6	4660	4680	3464	9.7	193	101	680	9.8	255	311	1.0	1551	532	0.54
EP-90	01/24/00	EPRI-0002-156	GW	0.5	7.17	7.8	5340	5010	3948	236	204	106	756	11	283	345	1.0	2045	494	0.48
Average				2.18	7.25	7.79	3620	3559	2632	202	141	72	569	9	254	310	1.0	1138	359	1
Median				1.70	7.29	7.8	3145	3810	2286	102	126	63	549	10	245	299	1.0	870	319	1
Standard Deviation				1.80	0.19	0.14	1057	1394	855	315	48	27	123	2	32	39	0.0	500	107	0
Minimum				0.00	6.92	7.60	2380	512	1654	8	75	36	419	5	220	268	1.0	637	234	0
Maximum				5.13	7.43	8.10	5340	5010	3948	1058	204	106	756	13	326	398	1.0	2045	532	1
EP-93	10/13/99	EPRI-9911-192	GW	4.6	7.33	7.7	5100	5180	3728	1251	143	86	1005	19	772	942	1.0	1252	602	1.9
EP-93	01/27/00	EPRI-0002-157	GW	3.4	7.31	8.1	5210	4890	3560	1868	418	149	1090	24	1066	1301	1.0	1455	670	1.7
Average				4.00	7.32	7.90	5155	5035	3644	1560	281	118	1048	22	919	1122	1.0	1354	636	2
Median				4.00	7.32	7.9	5155	5035	3644	1560	281	118	1048	22	919	1122	1.0	1354	636	2
Standard Deviation				0.85	0.01	0.28	78	205	119	436	194	45	60	4	208	254	0.0	144	48	0
Minimum				3.40	7.31	7.70	5100	4890	3560	1251	143	86	1005	19	772	942	1.0	1252	602	2
Maximum				4.60	7.33	8.10	5210	5180	3728	1868	418	149	1090	24	1066	1301	1.0	1455	670	2

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-94	10/13/99	EPRI-9911-194	GW	5.9	7.18	7.6	5040	5110	3609	94	134	117	928	21	357	436	1.0	U	1290	655	1.3
EP-94	01/27/00	EPRI-0002-158	GW	2	7.31	8	4870	4580	3275	14	123	111	811	14	317	387	1.0	U	1448	668	1.3
Average				3.95	7.25	7.80	4955	4845	3442	54	129	114	870	18	337	412	1.0		1369	662	1
Median				3.95	7.245	7.8	4955	4845	3442	54	129	114	870	18	337	412	1.0		1369	662	1
Standard Deviation				2.76	0.09	0.28	120	375	57	8	8	4	83	5	28	35	0.0		112	9	0
Minimum				2.00	7.18	7.60	4870	4580	3275	14	123	111	811	14	317	387	1.0		1290	655	1
Maximum				5.90	7.31	8.00	5040	5110	3609	94	134	117	928	21	357	436	1.0		1448	668	1
EP-95	10/26/99	EPRI-9911-159	GW		6.67	8.3	3340	3110	2200	26	14	63	582	4.9	309	377	1.0	U	817	336	3.4
EP-95	01/27/00	EPRI-0002-159	GW	6	7.66	8.3	3380	3200	2187	2.7	44	65	625	5	301	367	1.0	U	972	332	3.7
Average				6.00	7.17	8.30	3360	3155	2194	14	46	64	604	5	305	372	1.0		895	334	4
Median				6.00	7.165	8.3	3360	3155	2194	14	46	64	604	5	305	372	1.0		895	334	4
Standard Deviation				#DIV/0!	0.70	0.00	28	64	9	16	3	1	30	10	6	7	0.0		110	3	0
Minimum				6.00	6.67	8.30	3340	3110	2187	3	44	63	582	5	301	367	1.0		817	332	3
Maximum				6.00	7.66	8.30	3380	3200	2200	26	48	65	625	5	309	377	1.0		972	336	4
EP-96	10/13/99	EPRI-9911-193	GW	6.6	7.27	7.7	4960	5090	3692	349	257	118	874	24	460	561	1.0	U	1416	573	1.1
EP-96	01/27/00	EPRI-0002-160	GW	3.8	7.21	8	4930	4680	3450	341	222	116	934	16	530	647	1.0	U	1577	493	1
Average				5.20	7.24	7.85	4945	4885	3571	345	240	117	904	20	495	604	1.0		1497	533	1
Median				5.20	7.24	7.85	4945	4885	3571	345	240	117	904	20	495	604	1.0		1497	533	1
Standard Deviation				1.98	0.04	0.21	21	290	171	6	25	1	42	6	50	61	0.0		114	57	0
Minimum				3.80	7.21	7.70	4930	4680	3450	341	222	116	874	16	460	561	1.0		1416	493	0
Maximum				6.60	7.27	8.00	4960	5090	3692	349	257	118	934	24	530	647	1.0		1577	573	1
EP-97	10/18/99	EPRI-9911-196	GW	6.8	7.16	7.8	4940	5030	3689	42	198	123	847	15	491	599	1.0	U	1310	545	1.5
EP-97	01/27/00	EPRI-0002-161	GW	1	7.36	8.1	5020	4880	3584	169	187	128	851	8.8	514	627	1.0	U	1679	609	1.1
Average				3.90	7.26	7.95	4980	4955	3637	106	193	126	849	12	502	613	1.0		1495	577	1
Median				3.90	7.26	7.95	4980	4955	3637	106	193	126	849	12	502	613	1.0		1495	577	1
Standard Deviation				4.10	0.14	0.21	57	106	74	90	8	4	3	4	16	20	0.0		261	45	0
Minimum				1.00	7.16	7.80	4940	4880	3584	42	187	123	847	9	491	599	1.0		1310	545	1
Maximum				6.80	7.36	8.10	5020	5030	3689	169	198	128	851	15	514	627	1.0		1679	609	2
EP-98	10/18/99	EPRI-9911-197	GW	4.9	7.66	8.1	6370	6930	4659	235	162	92	1290	134	383	467	1.0	U	2293	571	2.7
EP-98	01/27/00	EPRI-0002-162	GW	2.6	7.72	8.1	7370	6960	5153	162	112	78	1715	116	385	470	1.0	U	2867	559	3.4
Average				3.75	7.69	8.10	6870	6945	4906	199	137	85	1503	125	384	469	1.0		2580	565	3
Median				3.75	7.69	8.1	6870	6945	4906	199	137	85	1503	125	384	469	1.0		2580	565	3
Standard Deviation				1.63	0.04	0.00	707	21	349	52	35	10	301	13	2	2	0.0		406	8	0
Minimum				2.60	7.66	8.10	6370	6930	4659	162	112	78	1290	116	383	467	1.0		2293	559	3
Maximum				4.90	7.72	8.10	7370	6960	5153	235	162	92	1715	134	385	470	1.0		2867	571	3
EP-99	10/18/99	EPRI-9911-195	GW	9.1	7.03	7.6	5600	5660	4758	473	387	156	713	75	370	451	1.0	U	2587	354	3

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-100	10/20/99	EPRI-9911-198	GW	3.7	6.63	8	8830	9410	6895	162	548	286	1116	42	282	344	1.0	U	2588	1601	1.3
EP-100	01/26/00	EPRI-0002-164	GW	1	6.75	7.5	9870	9230	7385	204	658	332	1334	41	284	346	1.0	U	2545	1746	1.2
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-101	10/21/99	EPRI-9911-199	GW	2.7	6.99	7.7	7220	7270	5334	4245	132	40	1387	66	396	483	1.0	U	2856	670	1.8
EP-101	01/25/00	EPRI-0002-165	GW	2.1	7.26	7.8	8680	8860	6462	21	162	54	1893	49	255	311	1.0	U	3062	1463	1.5
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-102	10/21/99	EPRI-9911-200	GW	3.2	7.05	7.8	2760	2860	1936	21	128	28	360	107	300	366	1.0	U	949	197	1.6
EP-102	01/25/00	EPRI-0002-166	GW	0.6	7.24	7.9	2870	2810	1934	7.4	125	22	359	130	276	337	1.0	U	888	216	1.9
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-103	10/21/99	EPRI-9911-201	GW	4.6	7.21	8	1590	1618	1037	46	81	24	211	8.2	183	223	1.0	U	397	181	0.6
EP-103	01/24/00	EPRI-0002-167	GW	3.9	7.34	8.3	1498	1465	928	7	56	17	213	5	149	182	1.0	U	312	154	0.65
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-104	10/21/99	EPRI-9911-202	GW	2.1	7.11	7.8	4600	4650	2449	154	139	76	782	28	334	407	1.0	U	1671	503	2.1
EP-104	01/24/00	EPRI-0002-168	GW	1.5	7.28	8.1	4640	4510	3203	20	124	72	768	21	334	408	1.0	U	1463	498	2.1
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					
EP-105	10/21/99	EPRI-9911-204	GW	4	7.15	8	4460	4600	3410	216	196	80	692	28	282	344	1.0	U	1896	479	2.2
EP-105	01/25/00	EPRI-0002-169	GW	3.1	7.43	8	3780	3590	2704	246	147	53	610	18	220	268	1.0	U	1293	398	3.1
Average																					
Median																					
Standard Deviation																					
Minimum																					
Maximum																					

Table H-8. Summary of Groundwater Analytical Results, August 1997 through February 2000
Wells Common Ions

Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
EP-106	10/21/99 01/25/00	EPRI-9911-205 EPRI-0002-170	GW GW	5.6 1.4	7.14 7.08	7.7 7.7	4180 4950	4300 4850	3328 3837	130 17	232 234	99 109	595 777	19 14	253 244	309 298	1.0 1.0	1893 1960	355 423	1.2 0.88
EP-107	10/21/99 01/24/00	EPRI-9911-203 EPRI-0002-171	GW GW	5.2 2.1	6.99 7.17	7.8 7.7	6450 6450	6500 6270	4821 4749	22 2.4	436 335	211 169	733 757	26 16	160 150	195 183	1.0 1.0	1912 1925	1085 1046	0.89 0.92
EP-108	10/26/99 01/28/00	EPRI-9911-172 EPRI-0002-172	GW GW	1.5 1.5	7.52 8.2	8.2 8.2	3500	3360	2309	7.7	51	50	739	5.5	337	411	1.0	1022	361	2.5
EP-109	10/26/99 01/28/00	EPRI-9911-173 EPRI-0002-173	GW GW	3.1 3.1	7.4 7.9	8.3 8.3	3470 4000	3330 3850	2269 2714	64 30	115 101	68 74	563 726	32 15	296 317	361 387	1.0 1.0	1006 1297	337 432	2.2 2.5
EP-110	10/29/99 01/24/00	EPRI-9911-174 EPRI-0002-174	GW GW	4 3.4	6.99 7.23	8.4 7.8	2780 2730	2510 2700	1790 1921	149 18	158 137	65 58	334 400	19 18	230 220	281 268	1.0 1.0	805 782	327 286	0.74 0.76
EP-111	10/29/99 01/24/00	EPRI-9911-174 EPRI-0002-174	GW GW	3.70 0.42	7.11 0.17	8.1 0.42	2765 21	2605 134	1856 93	84 93	148 15	62 5	367 47	19 1	225 8	275 9	1.0 0.0	794 16	307 29	1 0
EP-112	10/29/99 01/24/00	EPRI-9911-174 EPRI-0002-174	GW GW	4.00 4.00	7.23 8.40	8.40 8.40	2780	2700	1921	149	158	65	334	19	230	281	1.0	805	327	0.74

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Wells Common Ions

Site	Date	Samp. #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)	
EP-111	10/28/99	EPRI-9911-175	GW	3.5	7.11	7.7	5450	5410	3963	303	285	79	836	66	357	436	1.0	1800	562	2.4	
EP-111	01/29/00	EPRI-0002-175	GW	0.1	7.21	7.8	5390	5110	3820	29	237	69	908	62	306	373	1.0	1932	509	2.4	
Average																					
Median				1.80	7.16	7.75	5420	5260	3892	166	261	74	872	64	332	405	1.0	1866	536	2	
Standard Deviation				1.80	7.16	7.75	5420	5260	3892	166	261	74	872	64	332	405	1.0	1866	536	2	
Minimum				2.40	0.07	0.07	42	212	101	194	34	7	51	3	37	45	0.0	93	37	0	
Maximum				0.10	7.11	7.70	5390	5110	3820	29	237	69	836	62	306	373	1.0	1800	509	2	
				3.50	7.21	7.80	5450	5410	3963	303	285	79	908	66	357	436	1.0	1932	562	2	
EP-112	10/28/99	EPRI-9911-176	GW	8.5	7.32	7.8	5250	5090	3209	296	137	71	639	69	422	515	1.0	1570	562	1.5	
EP-112	01/29/00	EPRI-0002-176	GW	0.1	7.11	8	7520	7130	5026	1.6	242	133	1067	101	550	671	1.0	2846	551	1.4	
Average																					
Median				4.30	7.22	7.90	6385	6110	4118	149	190	102	833	85	486	593	1.0	2208	557	1	
Standard Deviation				4.30	7.215	7.9	6385	6110	4118	149	190	102	833	85	486	593	1.0	2208	557	1	
Minimum				5.94	0.15	0.14	1605	1442	1285	208	74	44	303	23	90	110	0.0	902	8	0	
Maximum				0.10	7.11	7.80	5250	5090	3209	2	137	71	639	69	422	515	1.0	1570	551	1	
				8.50	7.32	8.00	7520	7130	5026	296	242	133	1067	101	550	671	1.0	2846	562	2	
EP-113	10/28/99	EPRI-9911-177	GW	7.5	7.41	8	4060	4080	2624	203	158	69	613	42	337	411	1.0	1358	408	2.8	
EP-113	01/29/00	EPRI-0002-177	GW	0.1	7.3	7.6	4180	4050	2930	21	151	65	701	42	307	375	1.0	1399	364	2.9	
Average																					
Median				3.80	7.36	7.80	4120	4065	2777	112	155	67	657	42	322	393	1.0	1379	386	3	
Standard Deviation				3.80	7.355	7.8	4120	4065	2777	112	155	67	657	42	322	393	1.0	1379	386	3	
Minimum				5.23	0.08	0.28	85	21	216	129	5	3	62	0	21	25	0.0	29	31	0	
Maximum				0.10	7.30	7.60	4060	4050	2624	21	151	65	613	42	307	375	1.0	1358	364	3	
				7.50	7.41	8.00	4180	4080	2930	203	158	69	701	42	337	411	1.0	1399	408	3	
EP-114	11/18/99	EPRI-9911-178	GW	4.4	6.19	6.7	9800	10820	8176	730	547	243	1400	231	794	969	1.0	4272	937	13	
EP-114	01/31/00	EPRI-0002-178	GW	0.3	6.35	6.6	8480	9070	7317	8392	960	355	1244	269	1400	1708	1.0	3440	930	12	
Average																					
Median				2.35	6.27	6.65	9140	9945	7747	4561	754	299	1322	250	1097	1339	1.0	3856	934	13	
Standard Deviation				2.35	6.27	6.65	9140	9945	7747	4561	754	299	1322	250	1097	1339	1.0	3856	934	13	
Minimum				2.90	0.11	0.07	933	1237	607	5418	292	79	110	27	428	523	0.0	588	5	1	
Maximum				0.30	6.19	6.60	8480	9070	7317	730	547	243	1244	231	794	969	1.0	3440	930	12	
				4.40	6.35	6.70	9800	10820	8176	8392	960	355	1400	269	1400	1708	1.0	4272	937	13	
EP-115	11/22/99	EPRI-9911-179	GW	3.3	7.08	7.7	17800	1842	13965	8.2	711	449	3200	126	493	601	1.0	4440	3600	4.6	
EP-115	01/31/00	EPRI-0002-179	GW	1.8	6.81	7.7	11440	10470	9032	100	34	276	1824	102	625	763	1.0	4112	1502	3.3	
Average																					
Median				2.55	6.95	7.70	14620	6156	11499	54	636	363	2512	114	559	682	1.0	4276	2551	4	
Standard Deviation				2.55	6.945	7.7	14620	6156	11499	54	636	363	2512	114	559	682	1.0	4276	2551	4	
Minimum				1.06	0.19	0.00	4497	6101	3488	65	107	122	973	17	94	115	0.0	232	1484	1	
Maximum				1.80	6.81	7.70	11440	1842	9032	8	560	276	1824	102	493	601	1.0	4112	1502	3	
				3.30	7.08	7.70	17800	10470	13965	100	711	449	3200	126	493	601	1.0	4440	3600	5	
EP-116	11/18/99	EPRI-9911-180	GW	2.4	6.56	7.3	6280	6460	4652	1529	406	92	800	65	466	569	1.0	2515	534	5.4	
EP-116	01/31/00	EPRI-0002-180	GW	2.1	6.92	7.6	6480	6020	4700	1993	531	118	1052	80	820	1000	1.0	2202	489	5.6	
Average																					
Median				2.25	6.74	7.45	6380	6240	4676	1761	469	105	926	73	643	785	1.0	2359	512	6	
Standard Deviation				2.25	6.74	7.45	6380	6240	4676	1761	469	105	926	73	643	785	1.0	2359	512	6	
				0.21	0.25	0.21	141	311	34	328	88	18	178	11	250	305	0.0	221	32	0	

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Site	Date	Samp #	Type	(O) (fld)	pH (fld)	pH (lab)	Specific Conductivity SC (lab)	Specific Conductivity SC (fld)	TDS	TSS	Calcium (CA) DIS	Magnesium (MG) DIS	Sodium (NA) DIS	Potassium (K) DIS	Total Alkalinity as CaCO3	Bicarbonate (HCO3)	Carbonate (CO3)	Sulfate (SO4)	Chloride (CL)	Fluoride (F)
Minimum				2.10	6.56	7.30	6280	6020	4652	1529	406	92	800	65	466	569	1.0	2202	489	5
Maximum				2.40	6.92	7.60	6480	6460	4700	1993	531	118	1052	80	820	1000	1.0	2515	534	6
EP-117	11/18/99	EPRL-9911-181	GW	1.4	7.23	7.8	2580	2810	1916	236	165	28	400	60	188	229	1.0	930	187	6
EP-117	01/31/00	EPRL-0002-181	GW	1.3	7.35	7.5	2640	2590	1914	11156	780	122	371	120	1560	1903	1.0	843	245	6
Average				1.35	7.29	7.65	2610	2700	1915	5696	473	75	386	90	874	1066	1.0	887	216	6
Median				1.35	7.29	7.65	2610	2700	1915	5696	473	75	386	90	874	1066	1.0	887	216	6
Standard Deviation				0.07	0.08	0.21	42	156	1	7722	435	66	21	42	970	1184	0.0	62	41	0
Minimum				1.30	7.23	7.50	2580	2590	1914	236	165	28	371	60	188	229	1.0	843	187	6
Maximum				1.40	7.35	7.80	2640	2810	1916	11156	780	122	400	120	1560	1903	1.0	930	245	6
EP-118	11/18/99	EPRL-9911-182	GW	3.6	7.46	8	3460	3780	2405	5852	179	93	600	49	476	581	1.0	1080	341	1.8
EP-118	01/31/00	EPRL-0002-182	GW	1.6	7.74	8	3080	2950	2146	14581	556	325	659	122	1060	1293	1.0	899	376	1.9
Average				2.60	7.60	8.00	3270	3365	2276	10217	368	209	630	86	768	937	1.0	990	359	2
Median				2.60	7.6	8	3270	3365	2276	10217	368	209	630	86	768	937	1.0	990	359	2
Standard Deviation				1.41	0.20	0.00	269	587	183	6172	267	164	42	52	413	503	0.0	128	25	0
Minimum				1.60	7.46	8.00	3080	2950	2146	5852	179	93	600	49	476	581	1.0	899	341	2
Maximum				3.60	7.74	8.00	3460	3780	2405	14581	556	325	659	122	1060	1293	1.0	1080	376	2