GROUNDWATER MONITORING AND SAMPLING REPORT

PACIFIC GAS AND ELECTRIC EMERYVILLE MATERIALS FACILITY

EMERYVILLE, CALIFORNIA

Prepared for

Pacific Gas and Electric
Technical and Ecological Services
3400 Crow Canyon Road
San Ramon, California 94583

February 17, 1995

Prepared by

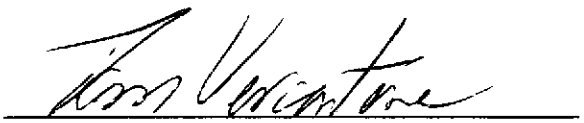
EMCON
1921 Ringwood Avenue
San Jose, California 95131-1721

Project0143-014.02

Groundwater Monitoring and Sampling Report
Pacific Gas and Electric Emeryville Materials Facility
Emeryville, California

The material and data in this report were prepared under the supervision and direction of the undersigned.

EMCON



Tom Vercoutere
Senior Geologist, R.G.

Orrin Childs
Project Manager

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1 GROUNDWATER GRADIENT AND DIRECTION

Fourth quarter groundwater levels were measured at Pacific Gas and Electric's (PG&E) Maintenance Facility in Emeryville, California (Figure 1), on December 12, 1994, using an electronic sounding device, and recorded on the historical monitoring well data form included in Appendix A. The groundwater elevations are summarized in Table 1. The December data were used in constructing a groundwater contour map (Figure 2). December water levels ranged from a low of 13.29 feet above mean sea level (MSL) in well ESE-3 to a high of 14.75 feet above MSL in well ESE-2. The estimated groundwater gradient is approximately 0.02 foot per foot (ft/ft) to the west toward San Francisco Bay.

2 SAMPLING, ANALYSIS, AND MONITORING PROGRAM RESULTS

Groundwater samples were collected from wells ESE-1 through ESE-4 following the protocol presented in Figure 3, on December 12, 1994, and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by U. S. Environmental Protection Agency (USEPA) method 602/8020, polychlorinated biphenyls (PCBs) by USEPA method 8080, and dielectric/transformer oil by USEPA method 3510/8015. Temperature, pH, and electrical conductivity (EC) were measured in the field and recorded on the water sample field data sheets (Appendix A). Field readings from the fourth quarter 1994 monitoring event are summarized in Table 1.

BTEX and PCBs were not detected at or above the method reporting limit (MRL) in any of the samples collected from ESE-1 through ESE-4. Transformer oil was detected at 80 micrograms per liter (mg/l) in well ESE-1. Transformer oil was not detected at or above the MRL in samples collected from ESE-2, ESE-3, or ESE-4. Certified analytical reports and chain-of-custody records are included in Appendix B. Fourth quarter and historical analytical data are summarized in Table 2.

3 FIELD AND LABORATORY QUALITY CONTROL RESULTS

Analytical data were evaluated for accuracy and precision based on field and laboratory quality control (QC) sample performance. The field QC consisted of collecting one trip blank and one field blank and analyzing them for BTEX.

Field and trip blanks are collected to assess the effect of field and laboratory environments on the analytical results and to identify false positives. No parameters were detected above their respective MRLs in the field blank or trip blank, indicating no adverse effects from sampling or analytical procedures.

The laboratory QC consisted of checking adherence to holding times and evaluating method blanks, and matrix spike (MS) and matrix spike duplicate (MSD) results.

Holding times are established by the USEPA and refer to the maximum time allowed to pass between sample collection and analysis by the laboratory. These limits assist in determining data validity. The method blank results are used to assess the effect of the laboratory environment on the analytical results. The MS and MSD recoveries are used to assess accuracy, and the relative percent difference (RPD) between the MS and MSD is used to assess the precision of the analytical results.

All analyses were done within the holding times specified by the USEPA. No compounds were detected in the daily method blanks. Recoveries of MS and MSD, and the RPDs between the duplicate results, were within the laboratory acceptance limits.

The field and laboratory QC results indicate that the analytical data are of acceptable quality.

Table 1

Pacific Gas and Electric Company
Emeryville, California
Field Measurements
Fourth Quarter 1994 and Historical Data

Sample Designation	Date	Top-of-Casing Elevation (ft, MSL)[1]	Depth to Water (feet)	Groundwater Elevation (ft, MSL)	Measured Total Depth (feet)	pH (units)	Temperature (°F)	Specific Conductance (µmhos/cm)[2]
ESE-1	03/28/94	23.66	10.06	13.60	30.8	8.48	73.1	600
ESE-1	04/07/94	23.66	10.22	13.44	NM[3]	NS[4]	NS	NS
ESE-1	12/12/94	23.66	9.18	14.48	30.6	7.26	63.4	588
ESE-2	03/28/94	27.80	10.13	17.67	34.2	7.67	67.5	580
ESE-2	04/07/94	27.80	14.37	13.43	NM[3]	NS	NS	NS
ESE-2	12/12/94	27.80	13.05	14.75	34.3	7.05	64.6	610
ESE-3	03/28/94	23.91	11.23	12.68	30.9	7.47	68.7	610
ESE-3	04/07/94	23.91	11.29	12.62	NM[3]	NS	NS	NS
ESE-3	12/12/94	23.91	10.62	13.29	31.0	7.19	63.9	600
ESE-4	03/28/94	24.33	10.63	13.70	31.4	7.77	66.3	610
ESE-4	04/07/94	24.33	10.85	13.48	NM[3]	NS	NS	NS
ESE-4	12/12/94	24.33	9.63	14.70	31.6	7.11	63.1	591

1. ft, MSL = feet relative to mean sea level
2. µmhos/cm = micromhos per centimeter at 77°F
3. NM = not measured
4. NS = not sampled

Table 2

Pacific Gas and Electric Company
Emeryville, California
Analytical Data

Fourth Quarter 1994 and Historical Data
(µg/l[1])

Sample Designation	Sample Date	PCB[2]	TEPH[3]	Benzene	Toluene	Ethylbenzene	Xylenes
ESE-1	03/28/94	<1[4]	340	<0.3	<0.3	<0.3	<0.3
ESE-1	12/12/94	<0.5	80	<0.5	<0.5	<0.5	<0.5
ESE-2	03/28/94	<1	250	0.8	1.5	<0.3	2.7
ESE-2	12/12/94	<0.5	<50	<0.5	<0.5	<0.5	<0.5
ESE-3	03/28/93	<1	<50	<0.3	<0.3	<0.3	<0.3
ESE-3	12/12/94	<0.5	<50	<0.5	<0.5	<0.5	<0.5
ESE-4	03/28/94	<1	<50	<0.3	<0.3	<0.3	<0.3
ESE-4	12/12/94	<0.5	<50	<0.5	<0.5	<0.5	<0.5
Trip blank	03/28/94	<1	<50	<0.3	<0.3	<0.3	<0.3
Trip blank	12/12/94	NA[5]	NA	<0.5	<0.5	<0.5	<0.5
Field blank	03/28/94	NA	NA	NA	NA	NA	NA
Field blank	12/12/94	NA	NA	<0.5	<0.5	<0.5	<0.5

1 µg/l = micrograms per liter
2 PCBs = polychlorinated biphenyls
3 TEPH = total extractable petroleum hydrocarbons
4 not detected at or above the specified method reporting limit
5 NA = not analyzed

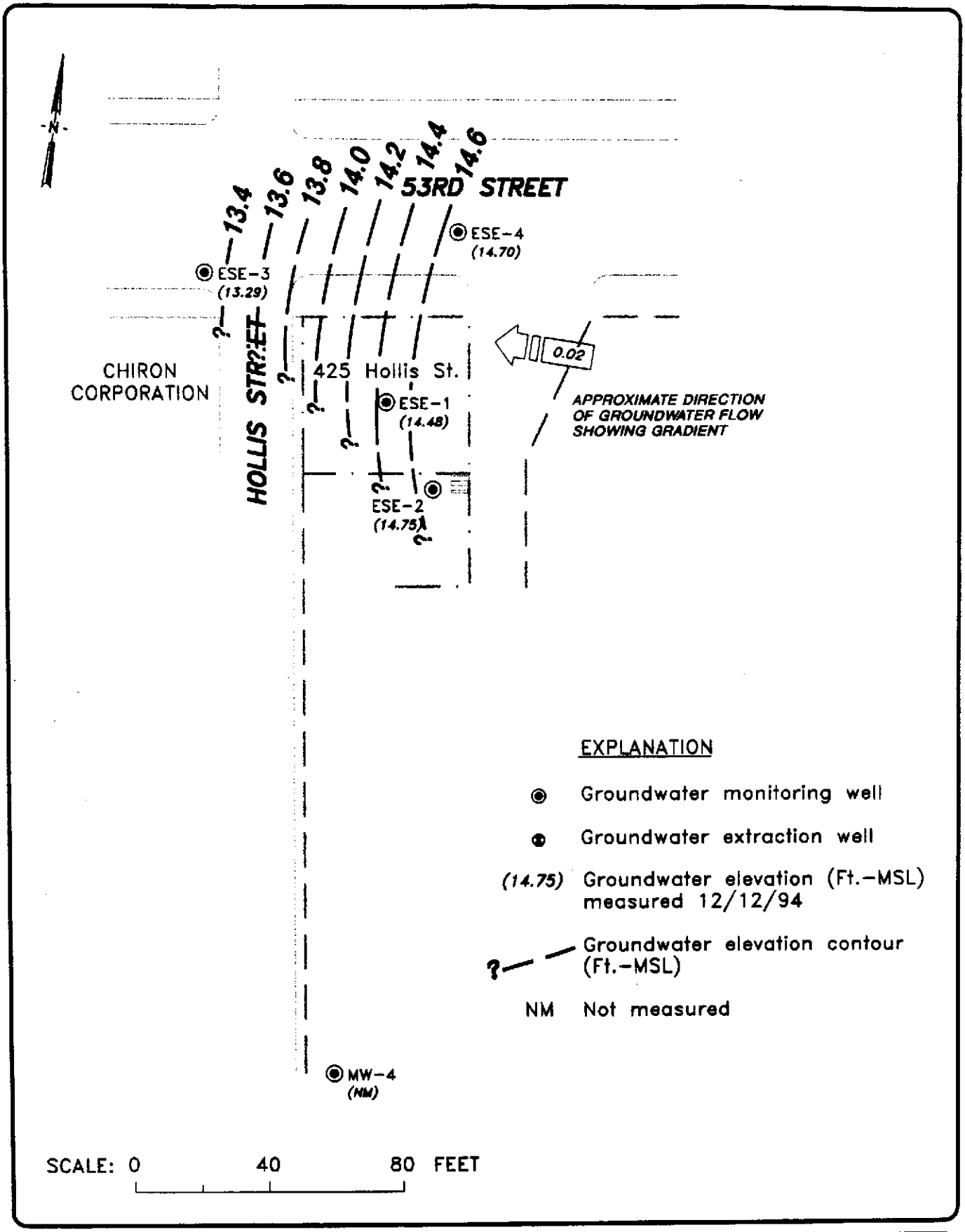
152753

EMCON Associates

PACIFIC GAS & ELECTRIC COMPANY
QUARTERLY MONITORING PROGRAM
EMERYVILLE, CALIFORNIA

SITE LOCATION

FIGURE
1
PROJECT NO.
143-014.02



EMCON Associates

PACIFIC GAS & ELECTRIC COMPANY
QUARTERLY MONITORING PROGRAM
EMERYVILLE, CALIFORNIA

GROUNDWATER CONTOURS
FOURTH QUARTER 1994

FIGURE 2

PROJECT NO. 143-014.02

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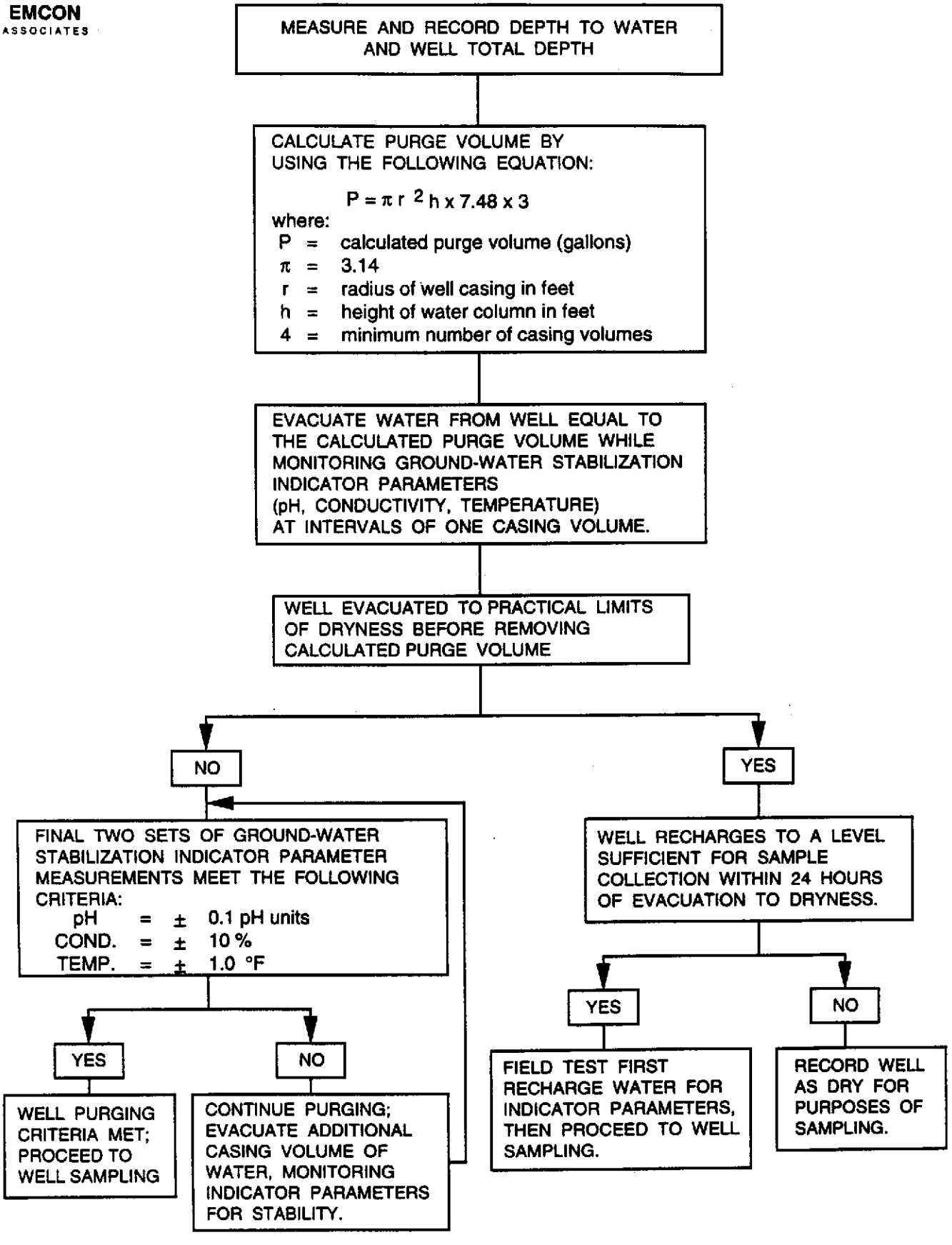
Figure 3

MONITORING WELL PURGING PROTOCOL

EMCON ASSOCIATES



APPENDIX A

HISTORICAL MONITORING WELL DATA FORM AND WATER SAMPLE FIELD DATA SHEETS

EMCON - Field Services
1921 Ringwood Avenue
San Jose, California

Signature

Historical Monitoring Well Data
PG&E Emeryville
0143-014.02

Well ID	Date	Depth to Floating Product (feet)	First Depth to Water (feet)	Second Depth to Water (feet)	Floating Product Thickness (feet)	Well Total Depth (feet)	Comments
Depth to liquid : 0.01 foot							Total depth : 0.1 foot
ESE-1	12-12-94	NA	9.18	9.18	NR	30.6	
ESE-2		ND	13.05	13.05	NR	34.3	
ESE-3		ND	10.62	10.62	NR	31.0	
ESE-4		ND	9.63	9.63	NR	31.6	

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WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 143-014.02 SAMPLE ID: ESE-1

PURGED BY: M Gallegos CLIENT NAME: PG&E Emeryville

SAMPLED BY: ↓ LOCATION: Emeryville, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 X 3 ___ 4 ___ 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): NR VOLUME IN CASING (gal.): 3.49

DEPTH TO WATER (feet): 9.18 CALCULATED PURGE (gal.): 10.49

DEPTH OF WELL (feet): 30.6 ACTUAL PURGE VOL. (gal.): 10.5

DATE PURGED: 12-12-94 Start (2400 Hr) 1136 End (2400 Hr) 1150

DATE SAMPLED: 12-12-94 Start (2400 Hr) 1205 End (2400 Hr) ___

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1140	3.5	7.17	570	62.4	BRN	Heavy
1145	7.0	7.24	588	62.9	"	"
1150	~~10.5~~	7.26	588	63.4	"	"
	~~Purge~~					

D. O. (ppm): NR ODOR: None NR (COBALT 0 - 500) NR. (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: NR

Parameters field filtered at this well: NR

PURGING EQUIPMENT

___ 2" Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Well Wizard™
___ Bailer (Teflon®)
X Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated
Other: ___

SAMPLING EQUIPMENT

___ 2" Bladder Pump
___ DDL Sampler
___ Dipper
___ Well Wizard™
X Bailer (Teflon®)
___ Bailer (Stainless Steel)
___ Submersible Pump
___ Dedicated
Other: ___

WELL INTEGRITY: Good LOCK #: —

REMARKS: Well dried at 7.5 Gallons

All Samples taken

Meter Calibration: Date: 12-12-94 Time: ___ Meter Serial #: 5011 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: ESE-2

Signature: [signature] Reviewed By: KR Page 1 of 4

Rev. 3, 2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 143-014.02 SAMPLE ID: ESE-2

PURGED BY: M. GALLEGOS CLIENT NAME: PG&E Emeryville

SAMPLED BY: LOCATION: Emeryville, CA.

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 X 3 ___ 4 ___ 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL):	NR	VOLUME IN CASING (gal.):	3.47
DEPTH TO WATER (feet):	13.05	CALCULATED PURGE (gal.):	10.41
DEPTH OF WELL (feet):	34.3	ACTUAL PURGE VOL. (gal.):	10.5

DATE PURGED: 12-12-94 Start (2400 Hr) 1052 End (2400 Hr) 1104

DATE SAMPLED: 12-12-94 Start (2400 Hr) 1115 End (2400 Hr) —

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1056	3.5	7.29	616	64.2	BRN	HEAVY
1101	7.0	7.09	603	64.5	"	"
1104	10.5	7.05	610	64.6	"	"

D. O. (ppm): NR ODOR: NONE

COLOR: NR (COBALT 0 - 500)

TURBIDITY: NR (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: NR

Parameters field filtered at this well: NR

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	X Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: —

REMARKS: All Samples taken

Meter Calibration: Date: 12-12-94 Time: 1045 Meter Serial #: 9011 Temperature °F: 64.1

(EC 1000 9371/1000) (DI ___) (pH 7 698/700) (pH 10 947/1009) (pH 4 402/___)

Location of previous calibration: ___

Signature: [signature] Reviewed By: KR Page 2 of 4

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WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 143-0140.02 SAMPLE ID: ESE-3

PURGED BY: M. Gallegos CLIENT NAME: PG+E

SAMPLED BY: M. Gallegos LOCATION: Emeryville, CA.

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 X 3 ___ 4 ___ 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): N/A VOLUME IN CASING (gal.): 3.32

DEPTH TO WATER (feet): 10.62 CALCULATED PURGE (gal.): 9.98

DEPTH OF WELL (feet): 31.0 ACTUAL PURGE VOL. (gal.): 10.0

DATE PURGED: 12-12-94 Start (2400 Hr) 1243 End (2400 Hr) 1254

DATE SAMPLED: 12-12-94 Start (2400 Hr) 1303 End (2400 Hr) ___

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1247	3.5	7.22	590	62.9	BRN	HEAVY
1251	7.0	7.19	594	63.4	"	"
1254	10.0	7.19	600	63.9	"	"

D. O. (ppm): NR ODOR: NONE. N/A (COBALT 0 - 500) N/A (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: N/R

Parameters field filtered at this well: N/R

PURGING EQUIPMENT		SAMPLING EQUIPMENT	
___ 2" Bladder Pump	___ Bailer (Teflon®)	___ 2" Bladder Pump	X Bailer (Teflon®)
___ Centrifugal Pump	X Bailer (PVC)	___ DDL Sampler	___ Bailer (Stainless Steel)
___ Submersible Pump	___ Bailer (Stainless Steel)	___ Dipper	___ Submersible Pump
___ Well Wizard™	___ Dedicated	___ Well Wizard™	___ Dedicated
Other: ___		Other: ___	

WELL INTEGRITY: Good LOCK #: —

REMARKS: All Samples taken

Meter Calibration: Date: 12-12-94 Time: ___ Meter Serial #: 9011 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: ESE-2

Signature: [signature] Reviewed By: KR Page 3 of 4

Rev. 3, 2/94

WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 1613-014.02 SAMPLE ID: ESE-4

PURGED BY: M. Crolleges CLIENT NAME: PG&E

SAMPLED BY: ↓ LOCATION: Emeryville, CA

TYPE: Ground Water X Surface Water ___ Treatment Effluent ___ Other ___

CASING DIAMETER (inches): 2 X 3 ___ 4 ___ 4.5 ___ 6 ___ Other ___

CASING ELEVATION (feet/MSL): N/R VOLUME IN CASING (gal.): 3.58

DEPTH TO WATER (feet): 9.63 CALCULATED PURGE (gal.): 10.74

DEPTH OF WELL (feet): 31.60 ACTUAL PURGE VOL. (gal.): 11.0

DATE PURGED: 12-12-96 Start (2400 Hr) 1325 End (2400 Hr) 1335

DATE SAMPLED: 12-12-96 Start (2400 Hr) 1345 End (2400 Hr) —

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
1328	4.0	7.03	571	61.2	Brn	Heavy
1331	7.5	7.09	585	62.8	"	"
1335	11.0	7.11	591	63.1	"	"

D. O. (ppm): N/R ODOR: None N/R (COBALT 0 - 500) N/R (NTU 0 - 200 or 0 - 1000)

Field QC samples collected at this well: FB-1

Parameters field filtered at this well: N/R

PURGING EQUIPMENT

- ___ 2" Bladder Pump
- ___ Centrifugal Pump
- ___ Submersible Pump
- ___ Well Wizard™
- ___ Bailer (Teflon®)
- X Bailer (PVC)
- ___ Bailer (Stainless Steel)
- ___ Dedicated

Other: ___

SAMPLING EQUIPMENT

- ___ 2" Bladder Pump
- ___ DDL Sampler
- ___ Dipper
- ___ Well Wizard™
- ___ Bailer (Teflon®)
- ___ Bailer (Stainless Steel)
- ___ Submersible Pump
- ___ Dedicated

Other: ___

WELL INTEGRITY: Good LOCK #: —

REMARKS: All Samples Taken

Meter Calibration: Date: 12-12-96 Time: ___ Meter Serial #: 5011 Temperature °F: ___

(EC 1000 ___ / ___) (DI ___) (pH 7 ___ / ___) (pH 10 ___ / ___) (pH 4 ___ / ___)

Location of previous calibration: ESE-2

Signature: [signature] Reviewed By: KR Page 4 of 4

APPENDIX B

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

CHROMALAB, INC.

Environmental Services (SDB)

December 19, 1994 *Submission #:* 9412166

P.G.& E. WATER QUAL GP S RAMON

Atten: O. Childs

Project: PG&E EMERYVILLE *Project#:* 143-014-02
Received: December 12, 1994

re: One sample for Polychlorinated Biphenyls (PCB's) analysis

Sample I.D.: ESE-1 *Sample No:* 72543
Sampled: December 12, 1994 *Analyzed:* December 15, 1994
Matrix: water *Method:* MOD. EPA 608

ANALYTE	RESULT (µg/L)	REPORTING LIMIT (µg/L)	BLANK RESULT (µg/L)
AROCLOR 1016	N.D.	0.5	N.D.
AROCLOR 1221	N.D.	0.5	N.D.
AROCLOR 1232	N.D.	0.5	N.D.
AROCLOR 1242	N.D.	0.5	N.D.
AROCLOR 1248	N.D.	0.5	N.D.
AROCLOR 1254	N.D.	0.5	N.D.
AROCLOR 1260	N.D.	0.5	N.D.

ChromaLab, Inc.

Alex Tam
Analytical Chemist

Ali Kharrazi
Organic Manager

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

December 19, 1994 *Submission #:* 9412166

P.G.& E. WATER QUAL GP S RAMON

Atten: O. Childs

Project: PG&E EMERYVILLE *Project#:* 143-014-02
Received: December 12, 1994

re: One sample for Polychlorinated Biphenyls (PCB's) analysis

Sample I.D.: ESE-2 *Sample No:* 72544
Sampled: December 12, 1994 *Analyzed:* December 15, 1994
Matrix: water *Method:* MOD. EPA 608

ANALYTE	RESULT (µg/L)	REPORTING LIMIT (µg/L)	BLANK RESULT (µg/L)
AROCLOR 1016	N.D.	0.5	N.D.
AROCLOR 1221	N.D.	0.5	N.D.
AROCLOR 1232	N.D.	0.5	N.D.
AROCLOR 1242	N.D.	0.5	N.D.
AROCLOR 1248	N.D.	0.5	N.D.
AROCLOR 1254	N.D.	0.5	N.D.
AROCLOR 1260	N.D.	0.5	N.D.

ChromaLab, Inc.

Alex Tam
Analytical Chemist

Ali Kharrazi
Organic Manager

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CHROMALAB, INC.

Environmental Services (SDB)

December 19, 1994 *Submission #:* 9412166

P.G.& E. WATER QUAL GP S RAMON

Atten: O. Childs

Project: PG&E EMERYVILLE *Project#:* 143-014-02
Received: December 12, 1994

re: One sample for Polychlorinated Biphenyls (PCB's) analysis

Sample I.D.: ESE-3 *Sample No:* 72546
Sampled: December 12, 1994 *Analyzed:* December 15, 1994
Matrix: water *Method:* MOD. EPA 608

ANALYTE	RESULT (µg/L)	REPORTING LIMIT (µg/L)	BLANK RESULT (µg/L)
AROCLOR 1016	N.D.	0.5	N.D.
AROCLOR 1221	N.D.	0.5	N.D.
AROCLOR 1232	N.D.	0.5	N.D.
AROCLOR 1242	N.D.	0.5	N.D.
AROCLOR 1248	N.D.	0.5	N.D.
AROCLOR 1254	N.D.	0.5	N.D.
AROCLOR 1260	N.D.	0.5	N.D.

ChromaLab, Inc.

Alex Tam
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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

December 19, 1994 *Submission #:* 9412166

P.G.& E. WATER QUAL GP S RAMON

Atten: O. Childs

Project: PG&E EMERYVILLE *Project#:* 143-014-02
Received: December 12, 1994

re: One sample for Polychlorinated Biphenyls (PCB's) analysis

Sample I.D.: ESE-4 *Sample No:* 72547
Sampled: December 12, 1994 *Analyzed:* December 15, 1994
Matrix: water *Method:* MOD. EPA 608

ANALYTE	RESULT (µg/L)	REPORTING LIMIT (µg/L)	BLANK RESULT (µg/L)
AROCLOR 1016	N.D.	0.5	N.D.
AROCLOR 1221	N.D.	0.5	N.D.
AROCLOR 1232	N.D.	0.5	N.D.
AROCLOR 1242	N.D.	0.5	N.D.
AROCLOR 1248	N.D.	0.5	N.D.
AROCLOR 1254	N.D.	0.5	N.D.
AROCLOR 1260	N.D.	0.5	N.D.

ChromaLab, Inc.

Alex Tam
Analytical Chemist

Ali Kharrazi
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CHROMALAB, INC.

Environmental Services (SDB)

December 19, 1994 *Submission #:* 9412166

P.G.& E. WATER QUAL GP S RAMON

Atten: O. Childs

Project: PG&E EMERYVILLE *Project#:* 143-014-02
Received: December 12, 1994

re: 6 samples for BTEX analysis.

Matrix: WATER
Sampled: December 12, 1994 *Run#:* 4902 *Analyzed:* December 16, 1994
Method: EPA 602/8020

Spl # CLIENT SMPL ID	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
72543 ESE-1	N.D.	N.D.	N.D.	N.D.
72544 ESE-2	N.D.	N.D.	N.D.	N.D.
72546 ESE-3	N.D.	N.D.	N.D.	N.D.
72547 ESE-4	N.D.	N.D.	N.D.	N.D.
72548 FB-1	N.D.	N.D.	N.D.	N.D.
72550 TB-1	N.D.	N.D.	N.D.	N.D.
Reporting Limits	0.5	0.5	0.5	0.5
Blank Result	N.D.	N.D.	N.D.	N.D.
Blank Spike Result (%)	109	109	109	113

Jack Kelly
Chemist

Ali Kharrazi
Organic Manager

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(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

QC JACK 15:52:52

CHROMALAB, INC.

Environmental Services (SDB)

December 19, 1994 *Submission #:* 9412166

P.G.& E. WATER QUAL GP S RAMON

Atten: O. Childs

Project: PG&E EMERYVILLE *Project #:* 143-014-02
Received: December 12, 1994

re: Four samples for Transformer Oil analysis

Matrix: WATER *Extracted:* December 14, 1994
Sampled: December 12, 1994 *Analyzed:* December 14-15, 1994
Method: EPA 3510/8015

Sample #	Client Sample ID	Transformer Oil* (µg/L)
72543	ESE-1	80
72544	ESE-2	N.D.
72546	ESE-3	N.D.
72547	ESE-4	N.D.
Blank		N.D.
Spike Recovery		114%
Dup Spike Recovery		118%
Reporting Limit		50

*Transformer Oil reference standard provided with submission #941172 was used for qualitative analysis. Samples were quantified against Diesel Standard.

ChromaLab, Inc.

Sirirat Chullakorn
Analytical Chemist

Ali Khatrazi
Organic Manager

cc

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

19710

CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Facsimile 510/484-1096

Chain of Custody

DATE 12-12-94 PAGE ____ OF ____

PROJ. MGR O. Childs
COMPANY Emcon Associates
ADDRESS 1921 Ringwood Ave.
San Jose, CA. 95131
SAMPLERS (SIGNATURE) (PHONE NO.) (408)453-7300 (FAX NO.) 408 453 0452

SUBM #: 9412166
CLIENT: EMCON
DUE: 12/19/94
REF #: 19710

ANALYSIS REPORT

SAMPLE ID	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		LUFT METALS: Cd, Cr, Pb	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	TEPH as Diesel			NUMBER OF CONTAINERS
ESE-1	12/12/94	1205	H_2O			X	X						X									X			6
ESE-2		1115				X	X						X									X			6
ESE-3		1303				X	X						X									X			6
ESE-4		1345				X	X						X									X			6
FB-1		—				X																			1
TB-1		—				X																			1

PROJECT INFORMATION

PROJECT NAME: PG&E Emeryville.
PROJECT NUMBER: 143-014-02
P.O. #:

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	26
HEAD SPACE	
REC'D GOOD CONDITION/COLD	
CONFORMS TO RECORD	

TAT: STANDARD 5-DAY | 24 | 48 | 72 | OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY 1	RELINQUISHED BY 2	RELINQUISHED BY 3
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
Manuel Gallegos 12/12/94		
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
Emcon Associates.		
(COMPANY)	(COMPANY)	(COMPANY)

RECEIVED BY 1	RECEIVED BY 2	RECEIVED BY (LABORATORY) 3
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
Ruda Nyachoto 1525		
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
Ruda Nyachoto 12/12/94		
(COMPANY)	(COMPANY)	(LAB)
ChromaLab		