APPENDIX B

WELL SAMPLING LOGS

NAF El Centro
Groundwater Level Measurements

Station ID	Depth to Water from TOC (ft) Sept.-Oct. 2002	Depth to Water from TOC (ft) April 2003	Depth to Water from TOC (ft) January 2004	TOC Elevation (ft relative to MSL)	Water Elevation (ft relative to MSL) October 2002	Water Elevation (ft relative to MSL) April 2003	Water Elevation (ft relative to MSL) January 2004
116-MW3	8.87	9.56	9.79	-45.47	-54.34	-55.03	-55.26
116-MW4	12.27	12.70	12.92	-42.82	-55.09	-55.52	-55.74
116-MW5	12.18	12.51	12.74	-43.39	-55.57	-55.90	-56.13
533-MW2	10.76	11.67	11.88	-40.69	-51.45	-52.36	-52.57
535-MW1	NM	9.11	9.74	-42.73	NA	-51.84	-52.47
539-MW2	9.06	10.13	11.41	-40.47	-49.53	-50.60	-51.88
539-MW3	6.80	7.86	9.10	-42.86	-49.66	-50.72	-51.96
EC10-MW6[a]	24.31	24.62	24.92	-46.19	-70.50	-70.81	-71.11
EC10-MW7	39.05	38.75	39.28	-48.07	-87.12	-86.82	-87.35
EC10-MW8	36.69	37.59	36.79	-47.82	-84.51	-85.41	-84.61
EC17-MW2	13.03	13.67	14.00	-46.22	-59.25	-59.89	-60.22
EC1-MW7	23.12	23.66	24.43	-46.52	-69.64	-70.18	-70.95
EC1-MW8[b]	22.19	22.62	23.10	-46.26	-68.54	-68.97	-69.36
EC1-MW9[c]	23.31	23.62	24.21	-46.29	-68.77	-69.08	-70.50
EC1-MW10	NM	NM	25.41	-45.70	NA	NA	-71.11
EC1-MW11	NM	NM	23.06	-46.73	NA	NA	-69.79
EC1-MW12	NM	NM	23.71	-45.27	NA	NA	-68.98
EC2-MW1	21.77	22.41	23.29	-46.39	-68.16	-68.80	-69.68
EC2-MW2	23.01	23.50	24.70	-47.16	-70.17	-70.66	-71.86
EC2-MW4	20.42	21.28	22.51	-45.78	-66.20	-67.06	-68.29
EC2-MW6	18.78	19.71	20.45	-47.10	-65.88	-66.81	-67.55
EC2-MW7	17.50	19.54	20.22	-47.13	-64.63	-66.67	-67.35
EC2-MW8	16.93	19.49	21.60	-47.89	-64.82	-67.38	-69.49
EC2-MW9	23.53	24.57	24.51	-47.00	-70.53	-71.57	-71.51
EC2-MW10	16.80	17.76	18.77	-48.28	-65.08	-66.04	-67.05
EC2-MW11	18.62	20.34	21.66	-47.11	-65.73	-67.45	-68.77
EC2-MW12	18.67	20.21	21.17	-47.84	-66.51	-68.05	-69.01
EC6-MW1	DRY	DRY	DRY	-47.82	NA	NA	NA
EC7-MW1	17.37	17.13	DRY	-47.09	-64.46	-64.22	NA
EC7-MW10	19.39	18.74	18.64	-47.84	-67.23	-66.58	-66.48
EC7-MW12	17.00	17.51	17.86	-48.71	-65.71	-66.22	-66.57
EC7-MW13	DRY	DRY	DRY	-44.90	NA	NA	NA
EC7-MW14	23.55	24.14	24.73	-46.35	-69.90	-70.49	-71.08
EC7-MW2	DRY	DRY	DRY	-46.83	NA	NA	NA
EC7-MW6	16.10	16.69	17.20	-48.34	-64.44	-65.03	-65.54
EC7-MW7	13.23	13.88	14.29	-46.93	-60.16	-60.81	-61.22
EC7-MW8	16.23	16.68	17.23	-47.83	-64.06	-64.51	-65.06
EC7-MW9	18.60	19.13	19.67	-49.24	-67.84	-68.37	-68.91

NAF El Centro
Groundwater Level Measurements

Station ID	Depth to Water from TOC (ft) Sept.-Oct. 2002	Depth to Water from TOC (ft) April 2003	Depth to Water from TOC (ft) January 2004	TOC Elevation (ft relative to MSL)	Water Elevation (ft relative to MSL) October 2002	Water Elevation (ft relative to MSL) April 2003	Water Elevation (ft relative to MSL) January 2004
EC8-MW1	22.78	23.52	24.49	-46.75	-69.53	-70.27	-71.24
EC-P2	20.36	20.83	21.22	-47.12	-67.48	-67.95	-68.34
EC-P3	12.01	13.30	14.06	-48.25	-60.26	-61.55	-62.31
EC-P4	35.45	35.88	36.64	-48.08	-83.53	-83.96	-84.72
EC-P5	22.05	22.38	22.94	-46.34	-68.39	-68.72	-69.28
EC-P7	39.40	39.06	39.52	-48.07	-87.47	-87.13	-87.59
EC-P8	27.35	27.90	28.73	-46.37	-73.72	-74.27	-75.10
EC-P9	16.80	17.27	17.65	-48.45	-65.25	-65.72	-66.10
MW116-2	9.39	9.89	10.09	-45.39	-54.78	-55.28	-55.48
MW533-1	9.82	9.45	9.74	-42.73	-52.55	-52.18	-52.47
MW539-1	7.48	8.54	9.90	-41.99	-49.47	-50.53	-51.89
NEX-MW1	7.41	7.96	7.94	-44.60	-52.01	-52.56	-52.54
NEX-MW2	7.67	7.62	7.58	-45.14	-52.81	-52.76	-52.72
NEX-MW3	7.86	8.46	8.41	-44.10	-51.96	-52.56	-52.51
NEX-MW4	7.66	8.31	8.25	-44.26	-51.92	-52.57	-52.51
NEX-MW5	7.11	8.34	8.29	-44.34	-51.45	-52.68	-52.63
NEX-MW6	7.62	8.16	8.09	-44.67	-52.29	-52.83	-52.76
NEX-MW7[d]	11.91	12.42	8.87	-40.44	-52.35	-52.86	NA
NEX-MW8	12.05	12.69	12.50	-40.62	-52.67	-53.31	-53.12

ACRONYMS/ABBREVIATIONS:

ft	feet
NA	not applicable
NM	not measured
MSL	mean sea level
TOC	top of casing

NOTES:

[a] Field notes indicate that water level is below the bottom of the screen in the well sump

[b] Well was resurveyed, groundwater elevations in 2002 and 2003 based on casing elevation of -46.35 ft relative to MSL

[c] Well was resurveyed, groundwater elevations in 2002 and 2003 based on casing elevation of -45.46 ft relative to MSL

[d] Wellhaed was reconstructed after 2003 monitoring event and has not been resurveyed.

043-GWS-01

Groundwater Level Record

CLEAN 3, NAF El Centro
23818-043

Measured by: P. Wiegand
Verified by: Kathryn Umbarger

Well I.D.	Date	Time	DTW (feet TOC)	Total Depth (feet TOC)	Depth to Product (feet TOC)	Product Thickness (feet)	Previous DTW (feet TOC)*	Difference from previous DTW (feet)	Remarks
EC1-MW9	9/30/02	1232	23.31	—	N/A	N/A			Unable to tag bottom because of pump in well
EC-P5	9/30/02	1243	22.05	—	N/A	N/A			
EC7-MW13	9/30/02	1306	Dry	22.66					
EC7-MW14	9/30/02	1317	23.55	—	—	—			w/pump out of well. Remove weed mat.
EC2-MW1	9/30/02	1324	21.77	24.45	N/A	N/A			
EC-P2	9/30/02	1342	20.36	—	N/A	N/A			
EC2-MW6	9/30/02	1348	18.78	—	N/A	N/A			
EC7-MW12	9/30/02	1408	17.00	—	0.0	0.0			
EC7-MW9	9/30/02	1420	18.60 after pulling pump.		Will let stabilize		overnight		remeasure tomorrow.
EC1-MW7	9/30/02	1528	23.12	—	N/A	N/A			
EC1-MW8	9/30/02	1536	22.19	—	N/A	N/A			
EC6-MW1	9/30/02	1547	Dry	17.31	N/A	N/A			
EC7-MW7	10/1/02	0812	13.23	—	N/A	N/A			
EC7-MW2	10/1/02	0827	Dry	18.43	N/A	N/A			
EC7-MW1	10/1/02	0832	17.37	18.38	N/A	N/A			
EC-P9	10/1/02	0844	16.80	—	N/A	N/A			
EC7-MW8	10/1/02	0846	16.23	—	N/A	N/A			
EC7-MW6	10/1/02	0900	16.10	—	N/A	N/A			
EC-P3	10/1/02	0920	12.01	20.44	N/A	N/A			
EC10-MW6	10/1/02	1052	24.31	25.30	N/A	N/A			
EC10-MW8	10/1/02	1100	36.69	47.30	N/A	N/A			
EC10-MW7	10/1/02	1105	39.05	46.43	N/A	N/A			
EC-P7	10/1/02	1109	39.40	70.37	N/A	N/A			
EC7-MW9	10/1/02	1131	18.60	20.40	N/A	N/A			w/pump out of well and overnight recovery.
EC7-MW2	10/1/02	1327	13.03	18.79	N/A	N/A			

Note:

DTW = depth to water

* = previous water levels measured on (date): various

TOC = top of casing

Instrument type: Heron Dipper-T

NEMFac ID No.: 002157

Groundwater Level Record

CLEAN 3, NAF El Centro
23818-043

Measured by: Tom Kirk

Verified by: Kathryn Ombarger

Well I.D.	Date	Time	DTW (feet TOC)	Total Depth (feet TOC)	Depth to Product (feet TOC)	Product Thickness (feet)	Previous DTW (feet TOC)*	Difference from previous DTW (feet)	Remarks
EC7-MW10	10/02/02	1345	19.39	NA	NA	NA			Dedicated Pump, no TD meas'd
EC8-MW01	10/02/02	1400	22.78	28.25					

Initial Reviewed 10/17/02

Note:

* = previous water levels measured on (date): —

DTW = depth to water

TOC = top of casing

Instrument type: Heron Dipper-T

NEMFac ID No.: 002157

043-GWS-02

Groundwater Level Record

CLEAN 3, NAF El Centro
23818-043

Measured by: K. Umbarger
Verified by: Pat Wiegand

Well I.D.	Date	Time	DTW (feet TOC)	Total Depth (feet TOC)	Depth to Product (feet TOC)	Product Thickness (feet)	Previous DTW (feet TOC)*	Difference from previous DTW (feet)	Remarks
116-MW5	10/1/02	0945	12.18	17.16	—	0	—	—	
116-MW4	10/1/02	0953	12.27	17.40	—	0	—	—	
MW116-2	10/1/02	1002	9.39	15.25	—	0	—	—	
MW116-3	10/1/02	1008	8.87	14.73	—	0	—	—	
NEX-MW4	10/1/02	1220	7.66	14.91	—	0	—	—	
NEX-MW3	10/1/02	1225	7.86	13.94	—	0	—	—	
NEX-MW6	10/1/02	1230	7.62	14.77	—	0	—	—	
NEX-MW5	10/1/02	1234	7.11	14.35	—	0	—	—	
NEX-MW1	10/1/02	1241	7.41	13.80	—	0	—	—	
NEX-MW2	10/1/02	1245	7.67	15.13	—	0	—	—	
NEX-MW7	10/1/02	1257	11.91	17.83	—	0	—	—	
NEX-MW8	10/1/02	1302	12.05	17.50	—	0	—	—	
533-MW2	10/1/02	1454	10.76	16.73	— JPW 10/1/02	0	—	—	
~~MW533~~-1	10/1/02	1503	7.48	16.32	—	0	—	—	
539-MW2	10/1/02	1508	9.06	17.16	—	0	—	—	
539-MW3	10/1/02	1518	6.80	14.77	—	0	—	—	
MW533-1	10/2/02	1015	9.82	—	9.81	0.01	—	—	TD not measured, product skimmer pump in well.

(100) 10/1/02 MW539 JPW 10/1/02

J. Patrick Wiegand 10/10/02

Note:
* = previous water levels measured on (date): Various

DTW = depth to water
TOC = top of casing

Instrument type: Heron Dipper-T

NEMFac ID No.: 002157

Groundwater Level Record

CLEAN 3, NAF El Centro
23818-024

Measured by: Dennis Parker

Verified by: Pat Wiegand

Well or Piezometer I.D.	Date	Time	DTW (feet TOC)	Total Depth (feet TOC)	Depth to Product (feet TOC)	Product Thickness (feet)	Previous DTW (feet TOC)*	Difference from previous DTW (feet)	Remarks
EC2-MW1	10/15/02	0650	21.87	—	N/A	N/A	---	—	
EC2-MW2	10/15/02	0654	23.01	—	N/A	N/A	22.50	+0.51	
EC2-MW4	10/15/02	0702	20.42	—	N/A	N/A	19.40	+1.02	
EC2-MW6	10/15/02	0744	18.94	—	N/A	N/A	22.00	-3.06	
EC2-MW7	10/15/02	0715	17.50	—	N/A	N/A	17.08	+0.42	Had to pull pump to measure. WL at bottom 0.5' of pump
EC2-MW8	10/15/02	0720	16.93	—	N/A	N/A	18.40	-1.47	
EC2-MW9	10/15/02	1038	~~23.58~~ 23.53 JWS 10/14/02	—	N/A	N/A	24.03	-0.50	
EC2-MW10	10/15/02	0707	16.80	—	N/A	N/A	16.20	+0.60	
EC2-MW11	10/15/02	0728	18.62	—	N/A	N/A	17.34	+1.28	
EC2-MW12	10/15/02	0724	18.67	—	N/A	N/A	18.50	+0.17	
EC-P2	10/15/02	0746	20.46	—	N/A	N/A	20.35	+0.11	
EC-P4	10/15/02	0718	35.45	—	N/A	N/A	35.20	+0.25	
EC-P8	10/15/02	0658	27.35	—	N/A	N/A	27.00	+0.35	

J. Pat Wiegand

Note:

* previous water levels measured on (date): 6/25/02 to 7/9/02

DTW = depth to water

TOC = top of casing

Instrument type: Solinst

NEMFac Number: 000293

4

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	533-MW2

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 533	Pat Wiegand

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY T. Kirk

PURGING DATE: 10/2/02
WEATHER: clear, breezy
TEMPERATURE: ~83°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/02/02
TIME OF SAMPLING: 1230
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G028

PUMP VOLUME	V_p	=	100	ml.
TUBING INSIDE DIAMETER	D	=	0.17	in.
TUBING LENGTH	L	=	480	in.
PUMP INLET DEPTH	(blw TOC)		13.5	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA / FIELD PARAMETERS (within range for 3 consecutive measurements)

Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	COMMENTS
0810	—	—	—	—	—	—	—	—	10.91	w/meter# 000293
1115	1122	1120								Flow rate 160 ml/min
1122	1127	2020	28.0	6.04	10668	136.4	28.89	93.6	11.24	change to 451 D.O meter
1127	1135	2420	28.4	6.28	9821	103.8	28.58	40.8	11.50	Reduced discharge rate
1135	1145	3220	29.1	6.40	9859	110.1	0.87	26.5	11.35	
1145	1152	3650	28.9	6.48	11083	113.1	3.30	27.3	11.31	
1152	1202		28.96	6.51	10846	113.3	3.75	27.3	11.32	
1157	—		29.38	6.51	10287	115.4	1.37	25.8	11.33	Collect samples

to 1202

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20927	10/2/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20927	10/2/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			
✓	09-10	TPH Gas (MS/MSD)	Glass	2 X 40ml	4°C + HCl	1.15	20927	10/2/02	APPL

REMARKS: Collect MS/MSD for TPH-gas.

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	MW539-1

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 539	P. Wiegand

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY T. Kirk

PURGING DATE: 10/2/02
WEATHER: clear, windy
TEMPERATURE: ~85°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/2/02
TIME OF SAMPLING: 1415
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G029 + C043G044 (F

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH (BLWTOC)		17.8	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480 * 16.39$ ml/in$^3 = 279$ ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1327	1336	1350	—	—	—	—	—	—	7.64	Begin purging, 150 ml/min
1336	1343	2400	29.9	6.57	22,240	-119.8	0.14	14.7	7.85	
1343	1349	3300	29.7	6.54	22,166	-132.1	0.12	4.35	8.03	
1349	1354	4050	29.97	6.53	22,293	-133.4	0.10	3.15	8.07	
1354	—		30.09	6.52	22,311	-135.3	0.09	2.49	8.10	Begin sampling

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20927	10/2/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20927	10/2/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			
FD	07-08	TPH-gas	Glass	2 X 40ml	4°C + HCl	1.15	20927	10/2/02	APPL
FD	11-12	TPH-diesel	Amberglass	2 X 1L	4°C	2.13	20927	10/2/02	APPL

C043G029

C043G044

REMARKS: Collect Field Duplicate C043G044 for TPH-gas and TPH-diesel.

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO.: 539-MW2
WELL SAMPLING RECORD	JOB NO.: 23818-043	SITE: UST Site 539	PREPARED BY: Pat Wiegand
			CHECKED BY: T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/3/02
WEATHER: clear, breezy to windy
TEMPERATURE: 68 - 75° F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/3/02
TIME OF SAMPLING: 0820
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G030

PUMP VOLUME	V_p = 100	ml.	
TUBING INSIDE DIAMETER	D = 0.17	in.	
TUBING LENGTH	L = 480	in.	
PUMP INLET DEPTH	(blw TOC) 15.6	ft.	

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
0634	—	—	—	—	—	—	—	—	9.21	SWL w/meter 000293
0730	0735	750	21.9	6.41	14411	-73.4	0.52	76.8	9.49	Begin purging, 150ml/min
0735	0740	1500	24.1	6.54	14603	-88.6	0.42	25.9	9.62	
0740	0748	2250	25.3	6.63	14900	-95.9	0.38	~~25.9~~ 18.1	9.76	Reduce Q rate to 130ml/min
0748	0756	3290	24.43	6.68	14,700	-99.0	0.32	13.3	9.74	
0756	0801	3940	23.66	6.72	14501	-97.7	0.28	14.9	9.77	
0801	0806	4590	24.01	6.70	14563	-97.6	0.26	15.0	9.78	Begin Sampling @ 0806

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20928	10/3/02	APPL
✓	07 - 08	TPH-gasoline	Glass	~~2~~ 3 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20928	10/3/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			
✓	04-06	VOCs w/oxygenates (MS/MSD)	Glass	3x40 ml	4°C + HCl	1.32	20928	10/3/02	APPL

REMARKS: Collect MS/MSD for VOCs w/oxygenates

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO. 539-MW 3
WELL SAMPLING RECORD	JOB NO. 23818-043	SITE UST Site 539	PREPARED BY Pat Wiegand
			CHECKED BY T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/3/02
WEATHER: clear, windy
TEMPERATURE: ~ 78 °F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/3/02
TIME OF SAMPLING: 1020
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G031

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(blw TOC)	14.6	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
0913	—	—	—	—	—	—	—	—	7.09	SWL w/meter 000293
0922	0927	650	26.37	6.98	21,147	-96.4	0.10	20.5	7.20	purge rate 150 ml/min
0927	0932	1300	27.15	6.87	21,056	-107.2	0.16	14.2	7.38	
0932	0937	1950	27.56	6.82	22,267	-111.3	0.63	11.1	7.47	reduced flow to 125 ml/min
0937	0942	2575	27.48	6.80	22,220	-107.7	0.80	9.27	7.52	
0942	0947	3200	27.40	6.80	22,291	-106.7	1.31	7.07	7.55	
0947	0952	3825	27.34	6.79	22,194	-105.4	1.78	7.07	7.57	Prepare to sample.
0952	0957	4450	27.30	6.79	22,225	-106.9	2.02	5.85	7.58	↓ ↓ ↓
0957	1002	5075	27.34	6.79	22,214	-106.7	2.09	6.45	7.58	Begin sampling

13/02 W

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/3/02	3 × 40 ml	4°C + HCl	1.32	20928	10/3/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20928	10/3/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO. 116-MW3
WELL SAMPLING RECORD	JOB NO. 23818-043	SITE UST Site 116	PREPARED BY Pat Wiegand
			CHECKED BY T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP		
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/3/02
WEATHER: clear, breezy to windy
TEMPERATURE: 80-85°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/03/02
TIME OF SAMPLING: 1250
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436025

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(blw TOC)	12.7	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 229 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1141	—	—	—	—	—	—	—	—	9.12	SWL w/meter 000293
1154	1159	750	29.32	6.79	22,214	47.7	4.12	72.6	9.33	Begin purging @150 ml/min
1159	1204	1500	29.36	6.74	21,630	55.9	4.01	36.9	9.52	
1204	1209	2250	29.60	6.70	21,483	73.1	3.95	15.4	9.62	
1209	1214	3000	29.90	6.68	21,478	81.2	3.91	10.6	9.73	
~~1213~~	~~1218~~									
1214	1219	3750	29.96	6.67	21,100	88.1	3.89	6.99	9.85	
1219	1224	4500	29.8	6.66	21,449	91.2	3.89	5.50	9.92	
1224	1229	5250	30.3	6.65	21,697	94.3	3.90	4.54	9.98	Begin Sampling
1229										

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20928	10/3/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20928	10/3/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	~~TG~~ MW116-2 10/3/02

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 116	Pat Wiegand

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY T. Kirk

PURGING DATE: 10/03/02
WEATHER: Clear, windy
TEMPERATURE: 80-85° F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/3/02
TIME OF SAMPLING: 1455
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G024

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH		(blw TOC)	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1346	—	—	—	—	—	—	—	—	9.49	SWL w/meter # 000293
1359	1404	850	31.4	6.38	34,551	-83.6	0.24	12.4	9.58	Begin purging @ 170 ml/m
1404	1409	1600	31.7	6.32	34,845	-90.7	0.18	8.59	9.73	Reduce purge rate to 150 ml/m
1409	1414	2350	31.75	6.34	34,886	-92.3	0.16	7.94	9.84	
1414	1419	3100	31.6	6.33	34,727	-94.6	0.14	6.97	9.97	
1419	1424	3850	31.51	6.33	34,662	-95.3	0.14	6.99	10.05	
1424	1429	4600	31.60	6.32	34,629	-95.9	0.12	6.57	10.11	
1430										Begin Sampling

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20928	10/3/02	APPL
✓	07 - 08	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20928	10/3/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3	20929		
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO.: 116-MW4
WELL SAMPLING RECORD	JOB NO.: 23818-043	SITE: UST Site 116	PREPARED BY: Pat Wiegand
			CHECKED BY: T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/4/02
WEATHER: clear, breezy
TEMPERATURE: 70°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/4/02
TIME OF SAMPLING: 0745, for FD - 0758
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G026 + C043G043 (FD)

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH		(blw TOC) 14.9	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA / FIELD PARAMETERS (within range for 3 consecutive measurements)

Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%] 10/4/02	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	COMMENTS
0628	—	—	—	—	—	—	—	—	12.38	SWL w/meter 000293
0654	0705	1800	22.8	5.92	30,221	-79.7	7.03	28.3	12.65	Begin purging at 170 ml/m
0705	0710	2550	23.03	6.05	31,184	-83.6	6.79	17.1	12.81	Reduced flow to 150 ml/min
0710	0715	3300	22.5	6.14	30,927	-80.1	6.65	11.7	12.91	
0715	0720	4050	22.5	6.18	30,887	-77.5	6.56	9.0	12.97	
0720	0725	4900	23.2	6.21	31,311	-75.8	6.47	7.37	13.02	
0725	0730	5550	23.3	6.22	31,399	-74.6	6.43	7.38	13.08	
0730	0735	6300	23.5	6.25	31,511	-73.7	6.36	7.17	13.12	Ready to Sample

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/4/02	3 × 40 ml	4°C + HCl	1.32	20930	10/4/02	APPL
✓	07 - 08	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20930	10/4/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			
C043G043 ✓	01-03	VOCs w/oxygenates (FD)	Glass	3 x 40ml	4°C + HCl	1.32			APPL

C043G026

REMARKS: Sample No. C043G043 is a field duplicate for VOCs w/oxygenates at 0758 hrs.

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	116-MW5

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 116	Pat Wiegand

CHECKED BY: T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/4/02
WEATHER: clear, calm to breezy
TEMPERATURE: ~75-80°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/4/02
TIME OF SAMPLING: 0955
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436027

PUMP VOLUME	V_p	=	100	ml.
TUBING INSIDE DIAMETER	D	=	0.17	in.
TUBING LENGTH	L	=	480	in.
PUMP INLET DEPTH	(blw TOC) 14.6			ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
0844	—	—	—	—	—	—	—	—	12.30	SWL w/meter 000293 KW 10/4/0
0902	0907	700	25.95	6.65	38339	71.1	0.43	44.1	12.45	Begin purging @ ~~900~~ 1140 ml/min
0907	0912	1400	26.80	6.63	38940	69.2	1.13	24.1	12.52	
0912	0917	2100	27.14	6.60	39026	66.9	1.86	13.3	12.63	
0917	0922	2750	27.68	6.58	39,224	65.5	1.89	7.97	12.78	Reduce flow to 130ml/min
0922	0927	3400	27.60	6.57	39,222	67.8	1.61	6.25	12.88	
0927	0932	4050	27.43	6.55	39,080	69.5	1.64	5.86	12.94	
0932	0937	4700	27.45	6.54	39,159	71.2	1.56	5.08	12.99	
0937	—									Prepare to collect sample

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20930	10/4/02	APPL
✓	07 - 08	TPH-gasoline	Glass	KW 10/4/02 ~~2~~ 3 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20930	10/4/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO.: NEX-MW1
WELL SAMPLING RECORD	JOB NO.: 23818-043	SITE: UST Site 200 (NEX)	PREPARED BY: Pat Wiegand
			CHECKED BY: T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/4/02
WEATHER: clear, calm to breezy
TEMPERATURE: ~85-90°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/4/02
TIME OF SAMPLING: 1223
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G032

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(blw TOC)	11.3	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1116	—	—	—	—	—	—	—	—	7.48	SWL w/meter 000293
1126	1135	1350	32.3	6.76	12,044	-143.2	1.81	492	7.67	Begin purging @150 ml/min
1135	1140	2100	32.3	6.70	11,945	-147.5	2.13	337	7.74	
1140	1145	2850	32.3	6.65	11,956	-150.6	2.83	182	7.88	Reduce flow rate to 130 ml/min
1145	1150	3500	32.7	6.61	12,004	-150.1	2.84	74.3	7.98	
1150	1155	4150	32.66	6.60	12,088	-149.6	2.78	51.4	8.02	
1155	1200	4700	32.76	6.59	12,115	-147.6	2.85	37.7	8.11	
1200	1205	5350	33.13	6.59	12,190	-146.1	2.79	28.1	8.17	
1205	1210	6000	33.26	6.56	12,194	-145.9	2.81	24.5	8.25	
1210	1215		33.31	6.51	12,268	-145.6	2.75	22.7	8.29	
1215	1220		33.3	6.54	12,259	-145.4	2.74	20.4	8.31	Collect Sample

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/4/02	3 × 40 ml	4°C + HCl	1.32	70930	10/4/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	70930	10/4/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	NEX-MW5

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 200 (NEX)	Pat Wiegand

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY T. Kirk

PURGING DATE: 10/4/02
WEATHER: clear, calm
TEMPERATURE: 90°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/4/02
TIME OF SAMPLING: 1348
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436036

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(blw TOC)	11.8	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (μmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1251	—	—	—	—	—	—	—	—	7.23	SWL w/meter #000293
1302	1310	1200	33.14	6.94	8873	-73.3	1.85	53.3	7.40	Begin purging @ 150 ml/min
1310	1315	1950	33.27	6.90	8872	-76.7	1.87	41.6	7.58	
1315	1320	2700	33.08	6.88	8841	-79.8	1.85	36.9	7.68	
1320	1325	3450	33.13	6.86	8844	-81.3	1.93	32.7	7.75	
1325	1330	4200	33.07	6.83	8835	-81.9	1.96	27.9	7.82	
1330	1335	4950	32.94	6.80	8817	-81.6	2.07	26.1	7.85	
1335	1340	5700	32.81	6.84	8784	-81.2	2.12	24.5	7.91	Collect sample

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/4/02	3 × 40 ml	4°C + HCl	1.32	20930	10/4/02	APPL
✓	07 - 08	TPH-gasoline	Glass 10/4/02	2 × 40 ml	4°C + HCl	1.15	20930	10/4/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	NEX-MW6

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 200 (NEX)	Pat Wiegand

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING DATE: 10/4/02
WEATHER: clear, breezy
TEMPERATURE: ~90°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/4/02
TIME OF SAMPLING: 1500
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G037

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(below TOC)	12.2	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480 * 16.39$ ml/in$^3 = 229$ ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1420	—	—	—	—	—	—	—	—	7.78	SWL w/meter 000293
1426	1435	1350	33.14	6.88	9,164	1.0	3.30	3.06	7.82	Begin purging at 150 ml/min
1435	1440	2100	32.98	6.83	9,142	1.2	3.31	1.71	7.90	
1440	1445	2850	32.69	6.80	9,264	0.2	3.35	1.44	7.96	
1455	1455	4350	32.58	6.77	9,074	-2.7	3.49	1.17	8.05	Collect sample:

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/4/02	3 × 40 ml	4°C + HCl	1.32	20930	10/4/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	20930	10/4/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO.: NEX-MW2
WELL SAMPLING RECORD	JOB NO.: 23818-043	SITE: UST Site 200 (NEX)	PREPARED BY: Pat Wiegand
			CHECKED BY: T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	Low Flow MP
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/7/02
WEATHER: clear, calm
TEMPERATURE: ~90°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/7/02
TIME OF SAMPLING: 1100
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G033

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(blw TOC)	12.0	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39\ ml/in^3$

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480 * 16.39\ ml/in^3 = 279$ ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (μmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1000	—	—	—	—	—	—	—	—	8.86	SWL w/meter 000293
1012	1019	490	34.58	6.20	7,691	159.3	1.10	26.1		Begin purging @ 70 ml/min
~~1019~~	~~1025~~	~~540~~	KW 10/6/02							
1019	1025	1030	34.87	6.37	8,037	99.8	0.25	30.1	7.91	Pumping rate to 90 ml/min
KW 10/6/02 1030	1030	1630	35.34	6.53	8,124	54.6	0.23	32.3	7.96	Pumping to 120 ml/min
1030	1035	2230	34.9	6.54	8,096	21.3	0.13	40.3	7.99	
1035	1040	2830	34.68	6.59	7,911	2.8	0.15	35.1	8.00	
1040	1045	3430	34.69	6.68	7,911	-1.2	0.15	33.9	8.03	
1045	1050	4030	34.64	6.66	7,910	-0.6	0.11	36.5	8.04	
1050	1055	4630	34.86	6.73	7,923	0.6	0.13	36.0	8.05	Collect Samples

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/7/02	3 × 40 ml	4°C + HCl	1.32	20933	10/7/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 3 × 40 ml	4°C + HCl	1.15	20933	10/7/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

WELL SAMPLING RECORD

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	NEX-MW3

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 200 (NEX)	Pat Wiegand

CHECKED BY: T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/7/02
WEATHER: clear, calm to breezy
TEMPERATURE: ~90-95°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/7/02
TIME OF SAMPLING: 1225, 1227 for FD
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436034 and C0436045 (FD)

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(below TOC)	10.9	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1135	—	—	—	—	—	—	—	—	7.96	SWL w/ meter 000293
1144	1150	900	33.27	6.72	7,986	76.9	0.16	3.55	8.05	Begin purging @ 150 ml/min
1150	1155	1650	33.29	6.69	7,988	64.8	0.23	1.60	8.15	
1155	1200	2400	33.64	6.68	8,040	52.0	0.14	1.04	8.21	
1200	1205	3150	33.74	6.67	8,043	46.6	0.15	0.89	8.25	
1205	1210	3900	33.52	6.67	8,146	40.3	~~0.08~~	1.06	8.30	DO = 0.07
1210	1215	4650	33.59	6.67	8,020	40.4	0.06	0.82	8.31	Collect Samples
										NO C0436034
										C0436045 (FD)

10/7/02

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
436034 ✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20933	10/7/02	APPL
436034 ✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	20933	10/7/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			
436045 ✓	01-03	VOCs w/oxygenates (FD)	Glass	3 x 40 ml	4°C + HCl	1.32	20933	10/7/02	APPL
436045 ✓	07-08	TPH Gas (FD)	Glass	2 x 40 ml	4°C + HCl	1.15	20933	10/7/02	APPL

REMARKS: Collect field duplicate sample No. C0436045 for VOCs w/oxygenates and TPH-gasoline @ 1227 hrs

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	NEX-MW 4

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 200 (NEX)	Pat Wieyand

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY T. Kirk

PURGING DATE: 10/7/02
WEATHER: clear, breezy.
TEMPERATURE: ~90-95°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/7/02
TIME OF SAMPLING: 1420
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G035

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(blw TOC)	11.5	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1331	—	—	—	—	—	—	—	—	7.80	SWL w/meter 000293
1338	1345	840	33.62	6.78	10,674	81.7	0.24	7.54	7.90	Begin purging @120 ml/min
1345	1350	1440	33.44	6.70	11,014	70.7	0.15	11.8	7.96	
1350	1355	2040	33.32	6.63	11,059	60.3	0.13	9.90	8.03	
1355	1400	2640	33.61	6.67	11,205	52.9	0.07	7.11	8.12	
1400	1405	3240	33.40	6.56	11,474	47.1	0.06	5.26	8.18	
1405	1410	3840	33.35	6.53	11,661	44.5	0.07	3.56	8.24	
1410	1415	4640	33.12	6.59	11,776	43.4	0.07	2.89	8.29	Collect sample

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/7/02	3 × 40 ml	4°C + HCl	1.32	20933	10/7/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	20933	10/7/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO.: NEX-MW7
WELL SAMPLING RECORD	JOB NO.: 23818-043	SITE: UST Site 200 (NEX)	PREPARED BY: Pat Wiegand
			CHECKED BY: T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/8/02
WEATHER: clear, calm to breezy
TEMPERATURE: ~83°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/08/02
TIME OF SAMPLING: 0955
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436038

PUMP VOLUME	V_p =	100	ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =	480	in.
PUMP INLET DEPTH	(blw TOC)	14.9	ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39$ ml/in^3 = 279 ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
0840	—	—	—	—	—	—	—	—	12.05	SWL w/meter 000293
0853	0900	1400	29.46	6.21	12,506	209.3	4.85	137	12.28	Begin purging @ 200 ml/min
0900	0905	2340	29.73	6.44	12,549	188.5	1.51	105	12.38	reduce flow to 170 ml/min
0905	0910	3160	29.84	6.57	12,572	165.9	1.68	79.6	12.45	Reduce flow to 155 ml/min
0910	0915	3935	29.84	6.63	12,591	146.0	1.71	65.3	12.48	
0915	0920	4710	30.00	6.70	12,708	126.1	2.16	35.5	12.49	
0920	0925	5485	30.12	6.72	12,759	115.2	2.39	23.5	12.49	
0925	0930	6260	30.29	6.75	12,768	101.3	2.72	18.7	12.50	
0930	0935	7035	30.55	6.79	12,772	91.7	2.92	15.9	12.50	
0935	0940	7810	30.75	6.79	12,781	85.2	3.04	13.7	12.50	
0940	0945	8585	30.86	6.82	12,883	77.2	3.33	11.1	12.51	
0945	0950	9360	30.97	6.78	12,875	75.9	3.34	10.8	12.51	collect sample at 0955

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20934	10/8/02	APPL
✓	07 - 08	TPH-gasoline	Glass per 10/8/02	2 × 40 ml	4°C + HCl	1.15	20934	10/8/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO.: NEX-MW08
WELL SAMPLING RECORD	JOB NO.: 23818-043	SITE: UST Site 200 (NEX)	PREPARED BY: Patrick (Megan)
			CHECKED BY: T. Kirk

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 10/8/02
WEATHER: clear, calm to breezy
TEMPERATURE: ~ 90°F
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 10/8/02
TIME OF SAMPLING: 1135
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G039

PUMP VOLUME	V_p = 100	ml.	
TUBING INSIDE DIAMETER	D = 0.17	in.	
TUBING LENGTH	L = 480	in.	
PUMP INLET DEPTH	(blw TOC) 15.0	ft.	

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39\ ml/in^3$

$V_S = (100) + 3.1415 * 0.17^2 / 4 * (480) * 16.39\ ml/in^3 = 279$ ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µmhos) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1048	—	—	—	—	—	—	—	—	12.11	SWL w/meter 000293
1058	1105	910	32.00	6.92	13,331	103.0	1.03	9.68	12.28	Begin purging @ 130 ml/min
1105	1110	1560	32.09	6.92	13,337	85.5	0.57	8.87	12.41	
1110	1115	2210	32.16	6.90	13,372	72.6	0.50	6.52	12.47	
1115	1120	2860	32.45	6.89	13,400	60.3	0.55	4.51	12.45	
1120	1125	3510	32.52	6.90	13,417	55.0	0.60	3.79	12.59	
1125	1130	4160	32.60	6.91	13,426	50.6	0.61	4.16	12.64	Collect sample @ 1135

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20934	10/8/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	20934	10/8/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE: 10/2/02	TIME: 1450	SAMPLE ID: C043T001

All samples collected this date ✓
Samples from the following wells:
WELL IDS: 533-MW2 and MW539-1

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - ~~03~~ 02	VOCs w/oxygenates	Glass	~~3~~ 1 × 40 ml	4°C + HCl	1.32	20927	10/2/02	APPL
✓	~~07 - 08~~	~~TPH-gasoline~~	~~Glass~~	~~3 × 40 ml~~	~~4°C + HCl~~	~~1.15~~			
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE: 10/2/02	TIME: 1530	SAMPLE ID: C043R001

All samples collected this date ✓
Samples from the following wells:
WELL IDS: 533-MW2 and MW539-1

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20927	10/2/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20927	10/2/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE: 10/2/02	TIME: 1450	SAMPLE ID: C043T010

All samples collected this date ✓
Samples from the following wells: WELL IDS: 533-MW2 and MW539-1

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20927		
✓	07 - ~~08~~ 7	TPH-gasoline	Glass	~~3~~ 2 × 40 ml	4°C + HCl	1.15	~~20927~~	10/2/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	PAW 10/2/02		
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE: 10/3/02	TIME: 1335	SAMPLE ID: C043R002

All samples collected this date ✓
Samples from the following wells: WELL IDS:

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/3/02	3 × 40 ml	4°C + HCl	1.32	20928	10/3/02	APPL
✓	07 - 08	TPH-gasoline	Glass ~~3~~ 2 × 40 ml	4°C + HCl	1.15	20928	↓	↓	
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20929	10/3/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	Kathryn Umbarger

THIS BLANK APPLIES TO:	DATE:	TIME:	SAMPLE ID:
	10/3/02	1440	C043T002

All samples collected this date ✓
Samples from the following wells:

WELL IDS: C043T011

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
C043T002 ✓	01 - ~~03~~	VOCs w/oxygenates	Glass	~~3~~ 2 × 40 ml	4°C + HCl	1.32	20928		APPL
C043T011 ✓	07 - ~~08~~	TPH-gasoline	Glass	~~3~~ 2 × 40 ml	4°C + HCl	1.15	20928		APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS: Trip for VOCs is C043T002, for TPH-gas is C043T011

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE:	TIME:	SAMPLE ID:
	10/4/02	1407	C043T003 - VOCs

All samples collected this date ✓
Samples from the following wells:

WELL IDS: C043T012 - TPH-gas

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
C043T003 ✓	01 - ~~03~~	VOCs w/oxygenates	Glass 10/4/02	~~3~~ 2 × 40 ml	4°C + HCl	1.32	20930	10/4/03	APPL
C043T012 ✓	07 - ~~08~~	TPH-gasoline	Glass 10/4/02	~~3~~ 2 × 40 ml	4°C + HCl	1.15	20930	10/4/03	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE: 10/4/02	TIME: 1415	SAMPLE ID: C043R003

All samples collected this date ✓
Samples from the following wells:
WELL IDS:

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass 10/4/02	3 × 40 ml	4°C + HCl	1.32	20930	10/4/02	APPL
✓	07 - 08	TPH-gasoline	Glass JPW	2 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20930	10/4/02	APPL
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE: 10/7/02	TIME: 1455	SAMPLE ID: C043R004

All samples collected this date ✓
Samples from the following wells:
WELL IDS:

LABORATORY ANALYSIS

JPW 10/7/02

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20932	10/7/02	APPL
✓	07 - 08	TPH-gasoline	Glass	2 × 40 ml	4°C + HCl	1.15	20932	10/7/02	APPL
JPW 10/7/02	~~11 - 12~~	~~TPH-diesel~~	~~Amber Glass~~	~~2 × 1 L~~	~~4°C~~	~~2.13~~	3		
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3	JPW		
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE:	TIME:	SAMPLE ID:
	10/7/02	1422 (both)	C043T004 VOCs C043T013 TPH-gas

All samples collected this date	✓	WELL IDS:
Samples from the following wells:		

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
43T004 ✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20933	10/7/02	APPL
43T013 ✓	07 - 08	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	20933	10/7/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

~~RINSATE/TRIP~~ Source **BLANK LOG**

JOB NO.	PREPARED BY	CHECKED BY
23818-043	Pat Wiegand	T. Kirk

THIS BLANK APPLIES TO:	DATE:	TIME:	SAMPLE ID:
	10/7/02	1515	C043B001

All samples ~~collected this date~~	✓	WELL IDS:
Samples from the following wells:		

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
✓	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20937	10/7/02	APPL
✓	07 - 08	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	3		
✓	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	PW 10/7/02		
✓	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
✓	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3	3		
✓	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6	20937	10/7/02	APPL
	~~19~~	~~Copper by ICP~~	~~Plastic~~	~~1 × 1 L~~	~~4°C + HNO_3~~	~~4.6~~	PW 10/7/02		
✓	21	Anions	Plastic	1 × 1 L	4°C	5.9	20937	10/7/02	APPL
✓	21	TDS	Plastic	1 × 1 L	4°C	5.38	3		
✓	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4	PW 10/7/02		
✓	21	pH	Plastic	1 × 1 L	4°C	5.15	20937	10/7/02	APPL
							3		
							PW 10/7/02		

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043	R. Umbarger	T. Kirk

THIS BLANK APPLIES TO:	DATE:	TIME:	SAMPLE ID:
	10/8/02	0955 (both)	CT0043T005 (VOCs) CT0043T014 (TPHg)

		WELL IDS:
All samples collected this date	✓	
Samples from the following wells:		

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type 10/8/02	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
0043T005 ✓	01 ~~-03~~	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20934	10/8/02	APPL
0043T014 ✓	07 ~~-08~~	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	20934	10/8/02	APPL
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

Bechtel

PROJECT	SOURCE
CLEAN 3, NAF El Centro	

RINSATE/TRIP BLANK LOG

JOB NO.	PREPARED BY	CHECKED BY
23818-043		

THIS BLANK APPLIES TO:	DATE:	TIME:	SAMPLE ID:
		~~0955~~	~~CT0043T005 (VO~~ ~~CT0043T014~~

		WELL IDS:
All samples collected this date		
Samples from the following wells:		

LABORATORY ANALYSIS

Sampled	Container #	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	20934	10/8/02	APPL
	07 - 08	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15			
	11 - 12	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13			
	15 - 16	Pesticides/PCBs	Amber Glass	2 × 1 L	4°C	3.3			
	19	TAL metals	Plastic	1 × 1 L	4°C + HNO_3	4.3			
	19	Tin by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	19	Copper by ICP	Plastic	1 × 1 L	4°C + HNO_3	4.6			
	21	Anions	Plastic	1 × 1 L	4°C	5.9			
	21	TDS	Plastic	1 × 1 L	4°C	5.38			
	21	Alkalinity	Plastic	1 × 1 L	4°C	5.4			
	21	pH	Plastic	1 × 1 L	4°C	5.15			

REMARKS:

043-BWL-02

Groundwater Level Record

CLEAN 3, NAF El Centro
23818-043

Check this column

Measured by: M. Petrie

Verified by: _____

4/21/03
116-mw3 ~~MW116-2~~ 4/21
mw116-2 ~~116-MW3~~ 4/21
jpw

Well I.D.	Date	Time	Depth to Water (feet TOC)	Total Well Depth (feet TOC)	Depth to Product (feet TOC)	Product Thickness (feet)	Previous DTW (feet TOC)[a]	Difference from previous DTW (feet)	Remarks
~~MW116-2~~	4/21/03	1453	9.56				9.6		
~~116-MW3~~	4/21/03	1500	9.89				10.88		
116-MW4	4/21/03	1503	12.70				12.75		
116-MW5	4/21/03	1505	12.51				12.58		
MW-533-1	4/25/03	~~1513~~ 1415 jpw	~~7.96~~ 9.95 jpw		~~0.0~~	0.0	10.45		
533-MW2	4/21/03	1600	11.67				11.74		
535-MW-01	4/21/03	1552	9.11				9.45		
MW539-1	4/21/03	1606	8.54				9.43		
539-MW2	4/21/03	1611	10.13				10.98		
539-MW3	4/21/03	1617	7.86				8.65		
NEX-MW1	4/21/03	1513	7.96				7.92		
NEX-MW2	4/21/03	1519	7.62				7.59		
NEX-MW3	4/21/03	1530	8.46				8.41		
NEX-MW4	4/21/03	1533	8.31				8.29		
NEX-MW5	4/21/03	1526	8.34				8.31		
NEX-MW6	4/21/03	1523	8.16				8.12		
NEX-MW7	4/21/03	1540	12.42				12.32		
NEX-MW8	4/21/03	1544	12.69				12.37		
EC10-MW6	4/22/03	0838	24.62				Dry		
EC10-MW7	4/22/03	0847	38.75				38.92		
EC-P7	4/22/03	0849	39.06				39.2		
EC10-MW8	4/22/03	0843	37.59				37		
EC17-MW2	4/21/03	1437	13.67				13.6		
EC-P3	4/22/03	1300	13.30				12.94		
EC6-MW1	4/22/03	0859	Dry	17.32			Dry		

Note:

a = previous water levels measured on (date[s]): January 2003

DTW = depth to water

TOC = top of casing

Instrument type: Solinst

NEMFac Number: 000293

043-BWL-02

Groundwater Level Record

CLEAN 3, NAF El Centro
23818-043

Measured by: M. Petric

Verified by: _____

Well I.D.	Date	Time	Depth to Water (feet TOC)	Total Well Depth (feet TOC)	Depth to Product (feet TOC)	Product Thickness (feet)	Previous DTW (feet TOC)[a]	Difference from previous DTW (feet)	Remarks
EC-P5	4/22/03	0914	22.38				21.89		
EC1-MW7	4/22/03	0904	23.66				23.3		
EC1-MW8	4/22/03	0907	22.62				22.44		
EC1-MW9	4/22/03	0910 ~~0904~~ 4/24/03	~~23.6~~	23.62			23.48		
EC2-MW1	4/22/03	1000	22.49				22.08		
EC2-MW2	4/22/03	1015	23.50				23.39		
EC2-MW4	4/22/03	0722	21.28				20.88		
EC-P8	4/22/03	0726	27.90				27.66		
EC2-MW6	4/22/03	0947	19.71				19.04		
EC-P2	4/22/03	0943	20.83				20.62		
EC2-MW7	4/22/03	0710	19.54				18.7		Pulled pump to measure
EC2-MW8	4/22/03	0717	19.49				19.18		Pulled pump to measure
EC-P4	4/22/03	0715	35.88				35.58		
EC2-MW9	4/22/03	~~0956~~ 1056	~~19.13~~	24.57			23.91		Pulled pump to measure
EC2-MW10	4/22/03	~~0928~~ 1025	~~18.74~~	17.76			17.3		~~Auto.~~
EC2-MW11	4/22/03	1036	20.34				19.42		
EC2-MW12	4/22/03	~~0937~~ 1032	~~17.51~~	20.21			19.7		~~Pulled pump to measure~~
EC8-MW1	4/22/03	1005	23.52				23.19		
EC7-MW1	4/22/03	1212	17.13				17.37 (10/02)		
EC7-MW2	4/22/03	1202	Dry	18.33			Dry		
EC7-MW6	4/22/03	1249	16.69				16.51		
EC7-MW7	4/22/03	1241	13.88				13.79		
EC7-MW8	4/22/03	1222	16.68				16.6		
EC-P9	4/22/03	1224	17.27				17.19		
EC7-MW9	4/22/03	0956	19.13				18.93		

Note:

a = previous water levels measured on (date[s]): January 2003

DTW = depth to water

TOC = top of casing

Instrument type: Solinst

NEMFac Number: 000293

043-BWL-02

Groundwater Level Record

CLEAN 3, NAF El Centro
23818-043

Measured by: ______________

Verified by: ______________

Well I.D.	Date	Time	Depth to Water (feet TOC)	Total Well Depth (feet TOC)	Depth to Product (feet TOC)	Product Thickness (feet)	Previous DTW (feet TOC)[a]	Difference from previous DTW (feet)	Remarks
EC7-MW10	4/22/03	0928	18.74				18.5		Ants
EC7-MW12	4/22/03	0937	17.51				17.25		
EC7-MW13	4/22/03	0902	Dry	22.51			Dry		
EC7-MW14	~~4/22/03~~	1011	24.14	~~24.14~~omp			23.55 (10/02)		

Note:

a = previous water levels measured on (date[s]): January 2003

DTW = depth to water

TOC = top of casing

Instrument type: ______________

NEMFac Number: ______________

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO.: MW539-1
WELL SAMPLING RECORD	JOB NO.: 23818-043	SITE: UST 539	PREPARED BY: M. Petric

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	X	X
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY: D. Parker

PURGING DATE: 4/23/03
WEATHER: sunny
TEMPERATURE: ~70
SUBCONTRACTOR: ~~REI/B+C~~ AMP

DATE OF SAMPLING: 4/23/03
TIME OF SAMPLING: 1050
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G106

PUMP VOLUME V_p = ml.
TUBING INSIDE DIAMETER 1/4 inch D = 0.17 in.
TUBING LENGTH L = in.
PUMP INLET DEPTH ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

V_S = ( ) + 3.1415 * 0.17^2 / 4 * ( ) * 16.39 ml/in^3 = ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs) AMP	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µS/cm) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
~~3957~~									8.62	@ 8.62' BTOC
AMP 0954	1004	~1200 ml	26.2	6.55	~~2.80~~ 2.00	-046	0.2	71.2		Flow = 125 mL/min (hydraccord cooling?)
AMP 1004	1011	~2000 ml	26.4	6.61	1.82*	-037	0.2	59.1	8.93	*cond @ 20 ATC setting?
AMP 1016	1016	~2750 ml	26.5	6.64	1.85*	-050	0.2	59.0	9.02	Flow = 125 ml/min
AMP 1016	1021	~3375	26.5	6.65	5.38*	-066	0.2	55.5	9.05	
AMP 1026	1026	~4000	26.5	6.67	9.66*	-066	0.2	50.2	9.13	
AMP 1026	1031	~4625	26.6	6.67	2.88*	-069	0.1	46.6	9.18	
AMP 1036	1036	~5250	26.7	6.68	2.79*	-073	0.1	45.6	9.22	
AMP 1036	1040	~5875	26.6	6.69	2.86*	-077	0.1	44.5	9.25	Collect sample 1050

AMP

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
—	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	—	—	—
✓	01 - 03	BTEX w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.35	20967	4/23/03	APPL
—	11 - 13	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	—	—	—
✓	~~31 - 32~~ 13-14 AMP	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20967	4/23/03	APPL
—	31 - 32	TPH as diesel & JP-5	Amber Glass	2 × 1 L	4°C	2.18	—		—

AMP

NOTE: In COMMENTS section of COC, indicate that EDF deliverable is required and all oxygenates should be reported by lab.

REMARKS:

AMP

Bechtel

WELL SAMPLING RECORD

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	539-MW23

JOB NO.	SITE	PREPARED BY
23818-043	UST 539	MPetrie

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	X	X
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY D. Parker

PURGING DATE: 4/23/03
WEATHER: hot/sunny
TEMPERATURE: ~75
SUBCONTRACTOR: N/A

DATE OF SAMPLING: 4/23/03
TIME OF SAMPLING: ~~1250~~ 1245 MPW 5/15/03
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436107

PUMP VOLUME	V_p =		ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =		in.
PUMP INLET DEPTH			ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

V_S = ( ) + 3.1415 * 0.17^2 / 4 * ( ) * 16.39 ml/in^3 = ml

PURGING DATA / **FIELD PARAMETERS** (within range for 3 consecutive measurements) / **COMMENTS**

Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µS/cm) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	COMMENTS
1132										start pump, WL - 10.21
AMP 1132	1145	~~260~~ 420	30.2	6.84	0.898*	-.083	0.9	128.3	10.42	ATC = 2* Flow ~ 60 ml
AMP 1145	1150 AMP	~~795~~ 790	29.9	6.73	0.997*	-054	1.4	120.6	10.50	Flow ~ 75
AMP 1150	1155	1795	28.0	6.76	11.39++	-058	1.5	76.6	10.79	++ ATC = 20
AMP 1155	1200	2295	27.5	6.67	11.80++	-081	1.1	67.3	10.84	flow rate = 100 ml/min
AMP 1200	1205	2795	28.3	6.69	11.83++	-075	1.0	60.3	10.84	
AMP 1205	1210	3295	28.8	6.71	11.85++	-083	1.0	55.2	10.84	
AMP 1210	1215	3795	29.4	6.69	11.80++	-083	1.0	50.3	10.83	
AMP 1215	1220	4295	29.8	6.66	11.86++	-084	1.0	45.8	10.77	
AMP 1220	1225	4795	30.1	6.63	11.87++	-085	0.9	42.9	10.73	
AMP 1225	1230	5295	30.0	6.62	11.29++	-084	0.8	40.4	10.83	collect sample

AMP

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	-	-	-
X	01 - 03	BTEX w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.35	20967	4/23/03	APPL
	11 - 13	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	-	-	-
X	~~31 - 32~~ 13 - 14	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20967	4/23/03	APPL
	31 - 32	TPH as diesel & JP-5	Amber Glass	2 × 1 L	4°C	2.18	-	-	-

AMP

NOTE: In COMMENTS section of COC, indicate that EDF deliverable is required and all oxygenates should be reported by lab.

REMARKS: WL @ 10.21 before pumping

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	539-MW3

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST 539	M. Petrie

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	X	X
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY D. Parker

PURGING DATE: 4/23/03
WEATHER: hot, sunny
TEMPERATURE: ~80
SUBCONTRACTOR: —

DATE OF SAMPLING: 4/23/03
TIME OF SAMPLING: ~~1425~~ ~~1410~~ 1425 flow 5/15/03
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G103 8

PUMP VOLUME	V_p =		ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =		in.
PUMP INLET DEPTH			ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

V_S = ( ) + 3.1415 * 0.17^2 / 4 * ( ) * 16.39 ml/in^3 = ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µS/cm) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1325	1325	—	—	—	—	—	—	—	7.85 (w/o pump)	@ 7.92 w/o pump.
1325	1330	750	28.7	6.83	15.86	-086	0.2	43.2	8.15	flow rate = 150 mL/min
1330	1335	1500	27.5	6.66	16.31	-97	0.3	22.0	8.30	
1335	1340	2250	27.6	6.62	16.30	-100	0.3	17.8	8.40	
1340	1345	3000	27.6	6.61	16.35	-105	0.1	15.5	8.45	
1345	1350	3750	27.6	6.61	16.38	-107	0.1	14.3	8.52	
1350	1355	4500	27.8	6.60	16.42	-105	0.1	13.5	8.52	
1355	1400	5250	28.0	6.59	16.29	-109	0.1	10.22	8.57	
1400	1405	6000	27.7	6.59	16.32	-110	0.1	8.55	8.61	
1405	1410	6750	27.6	6.59	16.30	-113	0.1	8.31	8.65	
1410	1415	7500	27.9	6.58	16.41	-112	0.1	7.79	8.67	collected sample

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
—	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32	—	—	—
X	01 - 03	BTEX w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.35	20967	4/23/03	APPL
—	11 - 13	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	—	—	—
X	~~31 - 32~~ 13-14	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20967	4/23/03	APPL
—	31 - 32	TPH as diesel & JP-5	Amber Glass	2 × 1 L	4°C	2.18	—	—	—

NOTE: In COMMENTS section of COC, indicate that EDF deliverable is required and all oxygenates should be reported by lab.

REMARKS: took equipt rinsate here

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	116-MW3

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 116	M. Petrie

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	✓	✓
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY D. Parker

PURGING DATE: 4/24/03
WEATHER: clear, calm, ~70°F
TEMPERATURE: ~70°F
SUBCONTRACTOR: NA

DATE OF SAMPLING: 4/24/03
TIME OF SAMPLING: 0905 and 0920 (Dup)
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436100 & C0436101 (Dup)

PUMP VOLUME	V_p =		ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =		in.
PUMP INLET DEPTH			ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

V_S = ( ) + 3.1415 * 0.17^2 / 4 * ( ) * 16.39 ml/in^3 = ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µS/cm) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
0715	—	—	—	—	—	—	—	—	9.52	SWL
0811	~~0816~~		?					4.36	9.45	begin purging; FR = 230 ml/min
0811	0816	1150	25.5	6.40	14720	-016	0.9	~~4.36~~	9.95	flow reduced to 150 ml/min.
0816	0821	1900	25.6	6.60	14030	-044	1.6	5.10	10.12	
0821	0826	2650	25.5	6.64	14450	-045	1.8	2.34	10.24	
0826	0831	3400	25.5	6.69	14450	-046	2.0	1.57	10.38	
0831	0836	4150	25.7	6.72	14410	-042	2.1	0.89	10.57	
0836	0841	4900	25.7	6.74	14380	-041	2.1	0.76	10.66	
0841	0846	5650	25.8	6.75	14460	-037	1.9	0.66	10.76	
0846	0851	6400	25.8	6.76	14390	-034	2.1	0.45	10.88	
0851	0856	7150	25.7	6.76	14420	-030	2.0	0.49	11.01	sample collected

OMP

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32			
✓	01 - 03	BTEX w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.35	20968	4/24/03	APPL
✓	~~11 - 13~~ 07-09	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	~~31 - 32~~ 13-14	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20968	4/24/03	APPL
	31 - 32	TPH as diesel & JP-5	Amber Glass	2 × 1 L	4°C	2.18			

OMP

NOTE: In COMMENTS section of COC, indicate that EDF deliverable is required and all oxygenates should be reported by lab.

REMARKS: FR = flow rate Global ID# T060250313

1150
750
500

collect REGULAR and DUPLICATE Samples for all parameters.

Bechtel

WELL SAMPLING RECORD

PROJECT	JOB NO.	SITE	WELL NO.	PREPARED BY
CLEAN 3, NAF El Centro	*23818-043*	UST site 116	MW116-2 ~~116 MW2~~ JPW 5/15/03	M. Petrie

CHECKED BY: D. Parker

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	X	X
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 4/24/03
WEATHER: sunny ~70s
TEMPERATURE: ~70
SUBCONTRACTOR: —

DATE OF SAMPLING: 4/24/03
TIME OF SAMPLING: 1115
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G102

PUMP VOLUME	V_p =		ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =		in.
PUMP INLET DEPTH			ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

V_S = ( ) + 3.1415 * 0.17^2 / 4 * ( ) * 16.39 ml/in^3 = ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µS/cm) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1025	1035	1250	25.9	6.79	22000	-129	0.5	20.3	10.17	SWL = 9.92' BTOC @ 5/25 ml/min
1035	1040	1875	25.6	6.73	22200	-129	0.5	16.4	10.25	
1040	1045	2500	25.6	6.70	22100	-130	0.4	15.4	10.35	
1045	1050	3125	25.6	6.69	22200	-130	0.4	16.0	10.42	
1050	1055	3750	25.6	6.67	22100	-131	0.4	15.2	10.52	
1055	1100	4375	25.7	6.67	22200	-130	0.4	15.2	10.60	collect sample

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32			
✓	01 - 03	BTEX w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.35	20968	4/24/03	APPL
✓	~~01 - 03~~ 11 - 12 JPW	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	~~31 - 32~~ 13 - 14 JPW	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20968	4/24/03	APPL
	31 - 32	TPH as diesel & JP-5	Amber Glass	2 × 1 L	4°C	2.18			

NOTE: In COMMENTS section of COC, indicate that EDF deliverable is required and all oxygenates should be reported by lab.

REMARKS: Global ID # T060250313

Bechtel	PROJECT: CLEAN 3, NAF El Centro		WELL NO.: 116-MW4
WELL SAMPLING RECORD	JOB NO.: 23818-043	SITE: UST site 116	PREPARED BY: M Petrie
			CHECKED BY: D Parker

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	X	X
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

PURGING DATE: 4/24/03
WEATHER: hot/clear
TEMPERATURE: ~80
SUBCONTRACTOR: –

DATE OF SAMPLING: 4/24/03
TIME OF SAMPLING: 1330
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436103

PUMP VOLUME	V_p =		ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =		in.
PUMP INLET DEPTH			ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

V_S = ( ) + 3.1415 * 0.17^2 / 4 * ( ) * 16.39 ml/in^3 = ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µS/cm) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1235	1245	1300	28.3	6.89	22800	-101	0.2	14.6	13.10	SWL 12.74, FR=130 mL/min
1245	1250	1950	28.4	6.80	22800	-106	0.0	8.33	13.28	
1250	1255	2600	28.5	6.75	22700	-109	0.1	6.06	13.48	
1300	1305	3250	28.4	6.73	22800	-111	6.4	4.07	13.54	
1305	1310	3900	28.5	6.71	22800	-113	6.1	3.54	13.63	
1310	1315	4550	28.3	6.70	22800	-114	6.0	3.33	13.73	
1315	1320	5200	28.4	6.69	22800	-116	5.6	3.62	13.83	sample collected

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32			
✓	01 - ~~06~~	BTEX w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.35	20968	4/24/03	APPL
✓	~~01 - 12~~ 12	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	↓	↓	↓
✓	~~31 - 33~~ 13	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20968	4/24/03	APPL
	31 - 32	TPH as diesel & JP-5	Amber Glass	2 × 1 L	4°C	2.18			

NOTE: In COMMENTS section of COC, indicate that EDF deliverable is required and all oxygenates should be reported by lab.

REMARKS: Collect MS/MSD for BTEX plus oxygenates and TPH-gasoline
Global ID# T060250313

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	116-MW5

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST site 116	M. Petrie

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	X	X
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY D. Parker

PURGING DATE: 4/25/03
WEATHER: hot
TEMPERATURE: ~75F
SUBCONTRACTOR: —

DATE OF SAMPLING: 4/25/03
TIME OF SAMPLING: 0855
SAMPLE MATRIX: Groundwater
SAMPLE ID: C0436104

PUMP VOLUME	V_p =		ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =		in.
PUMP INLET DEPTH			ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

V_S = ( ) + 3.1415 * 0.17^2 / 4 * ( ) * 16.39 ml/in^3 = ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µS/cm) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
0750	0800	1300	23.1	6.65	25600	-006	0.8	67.0	12.88	SWL = 12.54, FR=130ml/min
0800	0805	1950	23.2	6.70	25500	+002	0.8	54.0	12.99	
0805	0810	2600	23.2	6.78	25800	-005	0.6	39.9	13.06	
0810	0815	3250	23.3	6.80	25900	-005	0.5	26.3	13.16	
0815	0820	3900	23.3	6.81	25500	-006	0.4	15.99	13.21	
0820	0825	4550	23.4	6.82	25900	-006	0.4	16.4	13.25	
0825	0830	5200	23.4	6.83	26000	-005	0.4	13.6	13.30	
0830	0835	5850	23.5	6.83	26100	-004	0.4	9.20	13.34	
0835	0840	6500	23.7	6.83	25800	-004	0.4	9.30	13.39	
0840	0845	7150	24.1	6.83	25400	-003	0.3	8.44	13.45	sample collected

OMP

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32			
X	01 - 03	BTEX w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.35	20969	4/25/03	APPL
X	01 - 03 ~~11 - 13~~	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15	↓	↓	↓
X	~~31 - 32~~	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	↓	↓	↓
	31 - 32	TPH as diesel & JP-5	Amber Glass	2 × 1 L	4°C	2.18	OMP		

01-09 PPL 4/25/03
13-14 PW 4/25/03

OMP

NOTE: In COMMENTS section of COC, indicate that EDF deliverable is required and all oxygenates should be reported by lab.

REMARKS: Global ID # T060250313

Bechtel

PROJECT	WELL NO.
CLEAN 3, NAF El Centro	533-MW2

WELL SAMPLING RECORD

JOB NO.	SITE	PREPARED BY
23818-043	UST Site 533	MPetrie

	PURGE METHOD	SAMPLING METHOD
BLADDER. PUMP	X	X
PER. PUMP		
BAILER		
OTHER:		

PURGING CRITERIA: pH, conductivity, ORP, DO, and turbidity. Minimum one pump system volume.

CHECKED BY D. Parker

PURGING DATE: 4/25/03
WEATHER: 80°F sunny, wet, breezy
TEMPERATURE: " " "
SUBCONTRACTOR: –

DATE OF SAMPLING: 4/25/03
TIME OF SAMPLING: 1140
SAMPLE MATRIX: Groundwater
SAMPLE ID: C043G105

PUMP VOLUME	V_p =		ml.
TUBING INSIDE DIAMETER	D =	0.17	in.
TUBING LENGTH	L =		in.
PUMP INLET DEPTH			ft.

PUMPING SYSTEM VOLUME CALCULATION

PUMPING SYSTEM VOLUME (V_S)

$V_S = V_P + \pi * D^2 / 4 * L * 16.39$ ml/in^3

V_S = ( ) + 3.1415 * 0.17^2 / 4 * ( ) * 16.39 ml/in^3 = ml

PURGING DATA			FIELD PARAMETERS (within range for 3 consecutive measurements)							COMMENTS
Time Begin (hrs)	Time Finish (hrs)	Water Removed (ml)	Temp (°C)	pH [± 0.1]	Conductivity (µS/cm) [± 3%]	ORP (mV) [± 10 mV]	DO (mg/L) [± 10%]	Turbidity (NTU) [± 10%]	Water Level (ft)	
1035	1045	1750	27.8	6.89	8380	-001	2.0	125	12.13	Static WL = 11.70' RP=175 ml/min
1045	1050	2625	27.8	6.88	8310	+002	2.2	93.7	12.19	
1050	1055	3500	27.7	6.89	8360	+003	2.3	67.0	12.26	
1055	1100	4375	27.8	6.90	8420	+004	2.2	48.8	12.31	
1100	1105	5250	28.0	6.90	8460	+005	2.3	40.4	12.36	
1105	1110	6125	28.0	6.91	8500	+006	2.4	33.7	12.44	
1110	1115	7000	28.0	6.91	8640	+006	2.3	25.7	12.45	
1115	1120	7875	28.0	6.91	8740	+008	2.4	24.5	12.48	
1120	1125	8750	28.1	6.88	8760	+007	2.3	24.3	12.51	Collect Sample

LABORATORY ANALYSIS

Sampled	Container	Analysis	Type	Volume	Preservative	Pay Item	COC#	Ship Date	Laboratory
	01 - 03	VOCs w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.32			
X	01 - 03	BTEX w/oxygenates	Glass	3 × 40 ml	4°C + HCl	1.35	20969	4/25/03	APPL
	11 - 13	TPH-gasoline	Glass	3 × 40 ml	4°C + HCl	1.15			
X	~~31 - 32~~ 13-14	TPH-diesel	Amber Glass	2 × 1 L	4°C	2.13	20969	4/25/03	APPL
	31 - 32	TPH as diesel & JP-5	Amber Glass	2 × 1 L	4°C	2.18			

NOTE: In COMMENTS section of COC, indicate that EDF deliverable is required and all oxygenates should be reported by lab.

REMARKS: Global ID # T0602258658

7875 4375 875 5250 875 6125 875 7000 875 7875 875 8750

175 8 875 1750 875 2625