ATTACHMENT 4: FIELD LOGS

This attachment contains the groundwater sample collection field logs for the relatively shallow standpipe monitoring wells (MW-5 through MW-8, MW-10, MW-13, and MW-16), as well as the field data sheets for the Westbay™ multiport wells (MW-3, MW-4, MW-11, MW-12, MW-14, and MW-17 through MW-26). Groundwater sample collection was conducted by Geofon Incorporated.

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 5

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/27/06
Weather: cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(140 TD (feet) - 32.28 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 210.96 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
725	32.28	0	5.13	51.6	140	1.5	14.2	121	Brownish and cloudy, no odor
737	32.28	42	5.33	46.5	34	1.1	14.3	72	Cloudy, no odor
749	32.28	85	5.48	45.9	12	1.0	14.2	36	Slightly cloudy, no odor
801	32.28	127	5.73	45.8	7.3	1.2	14.2	46	Slightly cloudy, no odor
813	32.28	170	5.72	45.0	3.9	1.3	14.1	59	Clear, no odor
825	32.28	212	5.81	45.4	2.3	1.1	14.2	11	Clear, no odor

Total Purge Volume: 212 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 3.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 715 Purge time start: 725

RECHARGE BEHAVIOR: **X** Fast recharging
Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-5	Sample ID:	Type:	Type:
Sample Time: 835	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 12 (MS/MSD)	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 6

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/31/06
Weather: cloudy and cold

PURGE VOLUME CALCULATION (casing volume):

(245 - 142.71) X 4^2 X 3 X 0.0408 = 200.32 Gallons
TD (feet) - WL (feet) D (inches) # Vols Calculated Purge Volume

PURGE METHOD **PUMP INTAKE SETTING**

Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
712	142.71	0	4.81	0.1	79.0	1.7	18.1	145	Slightly brownish, no odor
732	142.71	40	5.25	0.1	44.6	1.7	17.8	52	Slightly brownish, no odor
752	142.71	80	5.47	0.1	7.52	2.0	17.5	154	Clear, no odor
812	142.71	120	5.84	0.09	4.61	0.7	16.3	-10	Clear, no odor
832	142.71	160	6.01	0.1	2.81	2.0	17.6	41	Clear, no odor
852	142.71	201	6.09	0.09	1.75	1.5	17.1	71	Clear, no odor

Total Purge Volume: 201 (Gallons)

Total Discharge: 3.0 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 708 Purge time start: 712

RECHARGE BEHAVIOR: **X** Fast recharging
Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-6	Sample ID: DUPE-8-1Q06	Type: _____	Type: _____
Sample Time: 902	Sample Time: --------	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: 6	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 7

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/29/06
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(275 TD (feet) - 171.62 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 202.46 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
725	171.62	0	5.20	66.2	42.5	0.7	20.3	121	Slightly brownish, no odor
743	171.62	41	5.52	65.7	13.4	0.5	20.4	96	Slightly brownish, no odor
801	171.62	82	5.68	66.1	8.42	0.8	19.9	92	Clear, no odor
819	171.62	123	5.92	66.9	9.05	0.7	20.5	86	Clear, no odor
837	171.62	164	6.05	65.8	9.18	1.0	20.1	121	Clear, no odor
855	171.62	205	6.22	65.8	4.05	0.8	18.4	126	Clear, no odor

Total Purge Volume: 205 (Gallons)

Total Discharge: 3.04 (Casing Volumes)

Approx. Purge Rate: 2.25 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 715 Purge time start: 725

RECHARGE BEHAVIOR: **X** Fast recharging
Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-7	Sample ID: _____	Type: _____	Type: _____
Sample Time: 902	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 12 (MS/MSD)	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 8

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/29/06
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(205 TD (feet) - 98.07 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 209.41 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
946	98.07	0	6.32	45.9	10.27	1.3	16.6	79	Slightly cloudy, no odor
1000	98.07	42	6.41	47.4	3.97	1.4	17.0	83	Clear, no odor
1014	98.07	84	6.44	47.1	1.89	1.6	17.1	67	Clear, no odor
1028	98.07	126	6.49	47.0	1.23	1.6	17.0	88	Clear, no odor
1042	98.07	168	6.60	47.1	1.62	1.8	17.0	77	Clear, no odor
1058	98.07	210	6.54	47.3	1.01	1.7	17.0	48	Clear, no odor

Total Purge Volume: 210 (Gallons)

Total Discharge: 3.0 (Casing Volumes)

Approx. Purge Rate: 3.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 942 Purge time start: 946

RECHARGE BEHAVIOR: **X** Fast recharging
Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-8	Sample ID: _____	Type: _____	Type: _____
Sample Time: 1059	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 10

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/30/06
Weather: cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(155 TD (feet) - 48.39 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 208.79 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
724	48.39	0	5.13	0.1	7.27	1.3	17.0	250	Clear, no odor
736	48.39	42	5.46	0.1	3.21	1.3	16.9	76	Clear, no odor
748	48.39	84	5.81	0.09	1.95	1.4	17.6	39	Clear, no odor
800	48.39	126	5.95	0.1	2.02	1.3	17.6	14	Clear, no odor
812	48.39	168	6.05	0.1	1.67	1.2	18.2	137	Clear, no odor
824	48.39	210	6.21	0.1	1.05	1.2	17.9	6	Clear, no odor

Total Purge Volume: 210 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 3.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 720 Purge time start: 724

RECHARGE BEHAVIOR: **X** Fast recharging
Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-10	Sample ID: _____	Type: _____	Type: _____
Sample Time: 833	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 12 (MS/MSD)	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 13

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/30/06
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(235 TD (feet) - 142.35 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 181.45 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
928	142.35	0	6.34	74.5	29.3	1.9	21.3	110	Clear, no odor
946	142.35	36	6.39	73.5	14.3	1.6	22.2	68	Clear, no odor
1004	142.35	73	6.51	74.1	5.73	1.5	22.5	113	Clear, no odor
1022	142.35	109	6.47	75.6	2.99	1.5	23.3	102	Clear, no odor
1040	142.35	146	6.51	76.3	2.26	1.7	23.7	108	Clear, no odor
1058	142.35	182	6.52	75.1	2.23	1.6	22.4	114	Clear, no odor

Total Purge Volume: 182 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 925 Purge time start: 928

RECHARGE BEHAVIOR: **X** Fast recharging
Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-13	Sample ID: _____	Type: _____	Type: _____
Sample Time: 1101	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 15

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/27/06
Weather: cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(74 TD (feet) - 31.57 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 83.10 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
914	31.57	0	5.85	59.4	2.69	1.0	16.2	39	Clear, no odor
921	31.57	17	5.96	59.7	1.50	1.1	16.7	20	Clear, no odor
928	31.57	34	6.13	59.5	3.38	1.1	17.0	21	Clear, no odor
935	31.57	51	6.20	59.2	3.82	1.4	16.9	5	Clear, no odor
942	31.57	68	6.15	59.3	3.99	1.0	17.1	-2	Clear, no odor
949	31.57	85	6.23	59.7	3.62	0.9	16.6	-8	Clear, no odor

Total Purge Volume: 85 (Gallons)

Total Discharge: 3.07 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 910 Purge time start: 914

RECHARGE BEHAVIOR: **X** Fast recharging
Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-15	Sample ID: _____	Type: _____	Type: _____
Sample Time: 949	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 2	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 16

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/30/06
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(285 TD (feet) - 195.19 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 175.88 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
1222	195.19	0	6.57	59.7	93.3	1.6	22.0	152	Slightly brownish, no odor
1236	195.19	35	6.79	58.4	22.3	2.2	22.4	115	Clear, no odor
1250	195.19	71	6.79	58.0	8.87	2.0	22.5	111	Clear, no odor
1304	195.19	106	6.73	58.3	4.25	1.9	23.2	108	Clear, no odor
1318	195.19	142	6.71	58.4	2.78	1.2	22.7	115	Clear, no odor
1332	195.19	177	6.75	58.4	1.75	1.9	22.8	114	Clear, no odor

Total Purge Volume: 177 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1217 Purge time start: 1222

Pump removed from well due to unresponsiveness. Portable pump used for sampling.

RECHARGE BEHAVIOR: **X** Fast recharging
Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-16	Sample ID: _____	Type: _____	Type: _____
Sample Time: 1335	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GEOFON INCORPORATED

Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-3
Sampling Zone No.: 4+2
Depth (ft): 653, 558, 346, 252, 172
Beginning of Session: 13.97 psia
End of Session: 14.03 psia

Start Time: 1032
Finish Time: 1223

Date: 3/20/06
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	211.66	✓	223.73	✓	223.73	✓	✓	211.64	1056	6.13	4.0	45.9	0.9	15.8	100
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	119.38	✓	134.44	✓	134.44	✓	✓	119.39	1123	6.88	1.5	52.9	1.0	15.6	-12
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	78.45	✓	93.69	✓	93.29	✓	✓	78.47	1200	6.93	6.9	56.6	0.9	16.2	105
DUPE 2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.05	✓	93.68	✓	93.68	✓	✓	80.08	—	—	—	—	—	—	—

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Notes:
port 5: NO SAMPLE port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR
port 2: CLEAR, NO ODOR port 1: NO SAMPLE

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-4
Sampling Zone No.: 3 to 1
Depth (ft): ~~515, 382~~, 322, 240, 150
Beginning of Session: 14.09 psia
End of Session: 14.07 psia

Start Time: 740
Finish Time: 925

Date: 3/16/06
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	60.09	✓	132.46	✓	132.44	✓	✓	60.12	758	5.48	13	52.7	1.0	15.2	29
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	24.72	✓	97.02	✓	97.02	✓	✓	24.77	834	5.64	9.1	0.1	0.7	15.8	83
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	23.70	✓	97.02	✓	97.02	✓	✓	23.72	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.13	✓	60.31	✓	60.30	✓	✓	14.21	922	6.10	12	38.8	1.2	17.8	19

MS/MSD

>2

Notes:

port 5: NO SAMPLE port 4: NO SAMPLE port 3: SLIGHTLY BROWN, SLIGHT ODOR

port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: ____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-11
Sampling Zone No.: 4 & 1
Depth (ft): ~~639~~, 524, 429, 259, 149
Beginning of Session: 14.04 psia
End of Session: 14.09 psia

Start Time: 720
Finish Time: 930

Date: 3/24/06
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe In	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	192.62	✓	196.97	✓	196.92	✓	✓	192.60	734	5.38	1.5	34.3	1.0	16.9	81
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	153.68	✓	155.30	✓	155.16	✓	✓	153.70	800	5.52	25	48.5	1.1	17.2	45
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.90	✓	82.90	✓	82.84	✓	✓	79.91	828	5.71	2.2	55.0	1.6	17.4	33
DUPE 2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.38	✓	82.87	✓	82.86	✓	✓	79.36	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	31.93	✓	39.86	✓	39.86	✓	✓	31.92	909	5.78	1.7	64.5	0.9	18.4	53
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	31.90	✓	39.85	✓	39.85	✓	✓	31.90	—	—	—	—	—	—	—

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Notes:

port 5: NO SAMPLE port 4: CLEAR, SLIGHT ODOR port 3: CLEAR, NO ODOR

port 2: CLEAR, SLIGHT ODOR port 1: CLEAR, SLIGHT ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-12
Sampling Zone No.: 5 to 1
Depth (ft): 548, 436, 323, 243, 140
Beginning of Session: 14.14 psia
End of Session: 14.12 psia

Start Time: 735
Finish Time: 1015

Date: 3/23/06
Page: 1 of 1

Water Pressure Inside Casing: ———

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	199.03	✓	219.50	✓	219.46	✓	✓	198.04	814	5.38	5.8	59.9	1.0	18.9	146
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	150.19	✓	173.34	✓	173.29	✓	✓	150.22	834	5.47	1.2	60.0	0.6	20.0	22
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.97	✓	125.00	✓	125.00	✓	✓	102.94	858	5.67	4.7	49.5	0.9	20.1	43
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	67.99	✓	90.68	✓	90.68	✓	✓	67.99	922	5.87	2.6	64.6	0.8	20.7	88
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	23.41	✓	48.82	✓	48.82	✓	✓	23.42	954	6.12	3.2	42.7	0.8	21.0	118
DUPE C 1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	22.39	✓	48.82	✓	48.82	✓	✓	22.38	—	—	—	—	—	—	—

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Notes:

port 5: CLEAR, SLIGHT ODOR port 4: CLEAR, STRONG ODOR port 3: CLEAR, NO ODOR

port 2: CLEAR, STRONG ODOR port 1: CLEAR, NO ODOR

Total Volume: ———

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-14
Sampling Zone No.: 5 to 1
Depth (ft): 540, 456, 382, 277, 207
Beginning of Session: 13.98 psia
End of Session: 14.01 psia

Start Time: 740
Finish Time: 1020

Date: 3/21/06
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	193.69	✓	192.73	✓	192.73	✓	✓	193.69	803	5.28	3.7	49.9	0.8	18.2	123
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	157.07	✓	156.37	✓	156.36	✓	✓	157.06	823	5.38	1.5	68.1	0.9	17.4	71
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	126.79	✓	124.32	✓	124.32	✓	✓	126.81	847	5.47	2.5	0.1	1.5	16.0	−1
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	81.01	✓	78.80	✓	78.79	✓	✓	81.01	915	5.78	1.9	.095	1.4	19.8	194
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.97	✓	78.77	✓	78.79	✓	✓	80.97	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	50.85	✓	48.79	✓	48.79	✓	✓	50.84	1012	5.94	8.8	.110	0.7	21.6	248

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Notes:

port 5: CLEAR, VERY SLIGHT ODOR port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR

port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: —

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GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-17
Sampling Zone No.: 4 to 2
Depth (ft): ~~726~~, 582, 468, 370, ~~260~~
Beginning of Session: 13.97 psia
End of Session: 13.97 psia

Start Time: 1115
Finish Time: 1305

Date: 3/21/06
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	185.37	✓	191.18	✓	191.15	✓	✓	185.39	1142	6.51	2.4	42.1	1.4	16.5	93
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	135.86	✓	139.05	✓	139.05	✓	✓	135.91	1211	6.38	12	85.8	1.8	15.5	87
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	135.84	✓	139.05	✓	139.05	✓	✓	135.79	—	—	—	—	—	—	—
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	93.27	✓	100.72	✓	100.71	✓	✓	93.27	1259	6.52	8.1	95.5	1.1	16.8	103

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Notes:

port 5: NO SAMPLE port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR

port 2: CLEAR, NO ODOR port 1: NO SAMPLE

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-18
Sampling Zone No.: 1-5
Depth (ft): 684, 564, 424, 330, 270
Beginning of Session: 14.02 psia @ 17.67
End of Session: 14.01 psia @ 19.02

Start Time: 0745
Finish Time: 1019

Date: 3-14-06
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler		Sample Collection Checks								Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	158.15	✓	221.50	✓	221.50	✓	✓	158.16	0809	5.63	2.1	34.6	1.8	14.1	92
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	107.83	✓	169.95	✓	169.95	✓	✓	107.83	0840	5.54	4.0	50.7	1.2	15.2	86
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.78	✓	111.01	✓	111.01	✓	✓	46.77	0915	5.63	2.3	65.4	2.8	15.6	58
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.13	✓	70.08	✓	70.08	✓	✓	14.13	0948	5.85	7.4	57.0	1.8	15.2	47
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.10	✓	44.27	✓	44.28	✓	✓	14.19	1011	6.00	5.4	48.3	1.2	15.6	33

Notes:
port 5: CLEAR NO ODOR port 4: CLEAR NO ODOR port 3: CLEAR NO ODOR
port 2: CLEAR NO ODOR port 1: CLEAR NO ODOR

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-19
Sampling Zone No.: 5to1
Depth (ft): 498, 444, 392, 314, 242
Beginning of Session: 1430 psia
End of Session: 13.99 psia

Start Time: 807
Finish Time: 945

Date: 3/20/06
Page: 1 of 1

Water Pressure Inside Casing: ——

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	175.46	✓	177.85	✓	177.85	✓	✓	177.39	825	5.13	5.1	92.5	0.9	15.9	128
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	152.01	✓	154.46	✓	154.46	✓	✓	151.99	845	5.49	1.0	80.0	0.9	15.5	50
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.40	✓	131.74	✓	131.73	✓	✓	129.42	901	5.72	3.3	80.1	0.9	16.1	46
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	95.50	✓	97.55	✓	97.55	✓	✓	95.52	919	5.88	6.5	0.1	0.4	16.1	107
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.40	✓	66.30	✓	68.29	✓	✓	64.42	938	6.18	38	44.0	1.3	14.9	2

Notes:

port 5: CLEAR, NO ODOR port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR

port 2: PINKISH BROWN, NO ODOR port 1: PINKISH BROWN, NO ODOR

Total Volume: ——

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-20
Sampling Zone No.: 1 THRU 5
Depth (ft): 900, 700, 562, 392, 230
Beginning of Session: 13.98 psia @ 10.94c
End of Session: 13.97 psia @ 16.70c

Start Time: 0727
Finish Time: 1040

Date: 3-9-06
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	307.61	✓	335.39	✓	335.39	✓	✓	307.61	0745	5.87	1.7	38	2.4	15.0	-214
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	220.53	✓	251.84	✓	251.84	✓	✓	220.53	0821	6.25	13	37.6	1.8	15.4	-237
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	160.40	✓	190.47	✓	190.47	✓	✓	160.41	0855	6.13	3.1	67.0	1.9	16.0	-135
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	160.40	✓	190.47	✓	190.47	✓	✓	160.40	0930	6.31	1.4	68.7	2.5	16.2	-112
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	89.96	✓	116.48	✓	116.48	✓	✓	90.00	0957	6.38	3.0	45.4	1.5	16.2	-119
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	21.23	✓	45.70	✓	45.70	✓	✓	21.25	1031	6.59	3.7	57.7	1.9	16.3	-88

Notes:
port 5: CLEAR SULFUR ODOR
port 4: CLEAR SULFUR ODOR
port 3: CLEAR NO ODOR
port 2: CLEAR NO ODOR
port 1: CLEAR NO ODOR

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-21
Sampling Zone No.: 1-5
Depth (ft): 372, 310, 240, 161, 90
Beginning of Session: 14.09 psia @ 9,94c
End of Session: 14.13 psia @ 21,91c

Start Time: 0741
Finish Time: 1051

Date: 3-8-06
Page: 1 of 1

Water Pressure Inside Casing: _____

2.5

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm in	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.15	✓	165.91	✓	165.90	✓	✓	129.15	0755	5.42	~~23~~	0.1	4.8	12.6	-93
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.13	✓	165.91	✓	165.91	✓	✓	129.12	0827	6.35	2.9	0.1	3.8	14.5	-77
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.10	✓	165.91	✓	165.91	✓	✓	129.10	0852	6.43	1.8	.099	2.7	14.4	-64
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.01	✓	139.05	✓	139.05	✓	✓	102.01	0920	6.54	4.8	93.1	1.7	18.8	-78
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	71.89	✓	109.11	✓	109.11	✓	✓	71.89	0948	6.54	5.0	.104	1.2	19.6	61
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	37.32	✓	74.77	✓	74.77	✓	✓	37.32	1011	6.72	6.7	.120	1.3	20.2	37
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.15	✓	43.27	✓	43.27	✓	✓	14.15	1041	6.90	5.1	.116	1.6	21.6	20

Notes:
port 5: NO SAMPLE FROM RUN #1 CLEAR NO ODOR
port 4: CLEAR NO ODOR
port 3: CLEAR NO ODAR
port 2: CLEAR, NO ODOR
port 1: CLEAR, NO ODOR

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-22
Sampling Zone No.: 3 to 1
Depth (ft): 588, 467, 389, 329, 245
Beginning of Session: 14.05 psia
End of Session: 14.04 psia

Start Time: 840
Finish Time: 1005

Date: 3/15/06
Page: 1 of 1

Water Pressure Inside Casing: ———

Port #	Run #	Surface Function Checks							Position Sampler		Sample Collection Checks								Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	116.22	✓	124.22	✓	124.23	✓	✓	116.23	900	5.26	2.2	78.2	1.2	17.5	106
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	90.18	✓	98.13	✓	98.13	✓	✓	90.18	928	5.62	2.8	60.9	1.2	18.0	41
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	53.44	✓	61.33	✓	61.34	✓	✓	53.42	1000	5.69	38	.091	1.1	18.9	138

Notes:

port 5: NO SAMPLE port 4: NO SAMPLE port 3: CLEAR, NO ODOR

port 2: CLEAR, NO ODOR port 1: SLIGHTLY BROWNISH IN COLOR, NO ODOR

Total Volume: ———

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-23
Sampling Zone No.: 4to1
Depth (ft): ~~542~~ 445, 319, 254, 174
Beginning of Session: 14.14 psia
End of Session: 14.11 psia

Start Time: 725
Finish Time: 950

Date: 3/22/06
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	164.82	✓	174.95	✓	174.95	✓	✓	164.82	745	5.30	1.7	46.7	0.9	15.7	144
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	110.38	✓	121.85	✓	121.84	✓	✓	110.35	809	5.43	13	48.6	0.9	16.9	113
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.21	✓	93.70	✓	93.71	✓	✓	82.14	834	5.51	1.7	0.1	1.6	18.4	171
DUPE MS/MSD 2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.13	✓	93.70	✓	93.70	✓	✓	82.12	—	—	—	—	—	—	—
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	81.88	✓	93.70	✓	93.70	✓	✓	81.89	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.52	✓	59.67	✓	59.65	✓	✓	47.53	944	5.70	8.0	.094	1.0	20.4	242

Notes:

port 5: NO SAMPLE port 4: CLEAR, STRONG ODOR port 3: CLEAR, SLIGHT ODOR

port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-24
Sampling Zone No.: 4 to 1
Depth (ft): ~~628~~, 554, 435, 373, 279
Beginning of Session: 13.96 psia
End of Session: 14.03 psia

Start Time: 725
Finish Time: 1000

Date: 3/17/06
Page: 1 of 1

Water Pressure Inside Casing: —

	Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP	
	4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	183.46	✓	182.10	✓	182.10	✓	✓	183.41	754	5.36	1.1	42.0	1.1	17.1	122	
	3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	132.06	✓	131.76	✓	131.75	✓	✓	132.07	821	5.66	2.8	43.3	1.1	16.7	30	
DUPE	2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	105.14	✓	105.00	✓	104.99	✓	✓	105.17	850	5.20	2.0	59.1	1.8	16.6	3	>2
	2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	105.13	✓	104.98	✓	104.99	✓	✓	105.15	—	—	—	—	—	—	—	
	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.15	✓	65.12	✓	65.12	✓	✓	64.15	940	5.85	3.5	61.8	1.1	16.2	61	>1
	1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.14	✓	65.12	✓	65.12	✓	✓	64.13	—	—	—	—	—	—	—	

Notes:

port 5: NO SAMPLE port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR

port 2: CLEAR, NO ODOR port 1: SLIGHTLY BROWNISH, NO ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-25
Sampling Zone No.: 1 THRU 5
Depth (ft): 713, 633, 503, 423, 358
Beginning of Session: 14.23 psia @ 7.94a
End of Session: 14.23 psia @ 22.11

Start Time: 0725
Finish Time: 1022

Date: 3-13-06
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	210.39	✓	208.10	✓	208.09	✓	✓	210.38	0747	5.62	1.7	54.6	92	20.8	-51
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	175.80	✓	174.41	✓	174.40	✓	✓	175.80	0823	5.66	3.4	79.5	1.2	18.9	15
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	119.40	✓	119.29	✓	119.29	✓	✓	119.40	0857	5.74	6.6	79.6	1.1	19.1	19
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	84.57	✓	84.98	✓	84.99	✓	✓	84.57	0930	6.13	1.8	71.3	1.2	19.7	15
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	56.67	✓	56.54	✓	56.54	✓	✓	56.66	1005	5.66	11.0	.999	1.0	19.8	101

Notes:

port 5: CLEAR SLIGHT SULFUR ODOR port 4: CLEAR NO ODOR port 3: CLEAR NO ODOR

port 2: CLEAR NO ODOR port 1: CLEAR NO ODOR

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-26
Sampling Zone No.: 1+2
Depth (ft): 215, 135
Beginning of Session: 13.95 psia @ 16.33c
End of Session: 13.95 psia @ 16.89c

Start Time: 0711
Finish Time: 0830

Date: 3-10-06
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Function Checks							Position Sampler	Sample Collection Checks									Water Quality Parameters								
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm in	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.49	✓	82.49	✓	82.49	✓	✓	82.48	0739	5.33	6.1	75.0	1.3	15.9	49
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	~~47.92~~	✓	~~58.85~~												
											47.79	✓	44.18	✓	44.18	✓	✓	47.80	0819	5.54	2.9	.999	1.4	15.6	120

Notes:

port 2: CLEAR NO ODOR port 1: CLEAR, NO ODOR

Total Volume: _____

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