MW-17, MW-18, MW-19, MW-20, MW-21, MW-24, MW-25
pH, Temp, Conductivity.
(taken while samples were taken)

GEOFON INCORPORATED

Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-3
Sampling Zone No.: 5 to 1
Depth (ft): 653, 558, 346, 252, 172
Beginning of Session: 14.09 psia
End of Session: 14.14 psia

Start Time: 830
Finish Time: 1309

Date: 7/27/05
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)	Temp. (oC)	Cond (mmhos)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	252.77	✓	263.06	✓	263.07	✓	✓	252.79	858	5.47	3.6	23.6	41.0
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	251.29	✓	263.10	✓	263.09	✓	✓	251.32	—				
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	212.35	✓	222.01	✓	222.01	✓	✓	212.37	948	5.87	1.6	24.8	40.8
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	211.83	✓	222.00	✓	222.01	✓	✓	211.86	—				
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	119.49	✓	132.82	✓	132.86	✓	✓	119.46	1045	6.46	1.2	25.8	49.6
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	119.47	✓	132.82	✓	132.84	✓	✓	119.47	—				
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.48	✓	92.15	✓	92.20	✓	✓	79.46	1140	6.51	3.9	27.8	51.9
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.47	✓	92.14	✓	92.19	✓	✓	79.49	—				
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.41	✓	92.15	✓	92.21	✓	✓	79.40	—				
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	44.53	✓	58.92	✓	59.02	✓	✓	44.67	1301	7.44	6.8	25.2	49.0

Total Volume: ——

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

mS/cm

GEOFON INCORPORATED

Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-4
Sampling Zone No.: 3 to 1
Depth (ft): ~~518,392~~,322,240,150
Beginning of Session: 14.11 psia
End of Session: 14.17 psia

Start Time: 750
Finish Time: 1000

Date: 8/2/05
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)	Temp. (oC)	Cond (mmhos)
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	59.56	✓	129.85	✓	129.85	✓	✓	59.57	820	5.26	16	20.9	58.6
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	23.80	✓	94.67	✓	94.66	✓	✓	23.81	853	5.88	6.7	21.0	0.19
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	23.26	✓	94.64	✓	94.64	✓	✓	23.29	—				
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.21	✓	58.63	✓	58.60	✓	✓	14.25	956	6.47	5.5	22.8	42.2

Total Volume: ——

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

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-11
Sampling Zone No.: 4 to 1
Depth (ft): ~~899~~,524,429,259,149
Beginning of Session: 14.06 psig
End of Session: 14.07 psia

Start Time: 1035
Finish Time: 1410

Date: 8/2/05
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)	Temp. (oC)	Cond (mmhos)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	194.68	✓	194.89	✓	194.87	✓	✓	194.66	1104	6.81	0.40	24.0	24.8
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	153.69	✓	152.76	✓	152.74	✓	✓	153.71	1207	6.86	9.3	23.6	43.5
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.39	✓	81.15	✓	81.19	✓	✓	80.48	1307	6.87	1.4	25.1	51.9
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.35	✓	81.11	✓	81.13	✓	✓	79.42	—				
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	33.01	✓	39.81	✓	39.79	✓	✓	33.00	1407	6.88	0.35	24.7	60.8

Total Volume: ——

Notes:

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

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

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-12
Sampling Zone No.: 5 to 1
Depth (ft): 548, 436, 323, 243, 140
Beginning of Session: 14.09 psia
End of Session: 14.10 psia

Start Time: 0748
Finish Time: 1235

Date: 7/28/05
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)	Temp. (oC)	Cond (mmhos)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	200.71	✓	217.53	✓	21752	✓	✓	200.70	812	5.20	0.95	21.6	52.1
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	151.86	✓	171.74	✓	171.68	✓	✓	151.89	838	5.73	Ø	22.2	55.1
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	103.57	✓	123.48	✓	123.51	✓	✓	103.59	916	5.95	0.60	22.7	48.2
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	68.65	✓	89.32	✓	89.35	✓	✓	68.70	952	6.14	1.3	23.1	55.6
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	68.62	✓	89.32	✓	89.34	✓	✓	68.66	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	24.12	✓	47.96	✓	47.95	✓	✓	24.14	1231	6.81	28	25.3	57.3

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 #:

Well ID: MW-14
Sampling Zone No.: 5 to 1
Depth (ft): 540, 456, 382, 277, & 207
Beginning of Session: 14.05 psig
End of Session: 14.02 psig

Start Time: 1125
Finish Time: 1400

Date: 8/3/05
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)	Temp. (oC)	Cond (mmhos)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	195.38	✓	188.74	✓	188.81	✓	✓	195.48	1207	6.62	1.1	26.4	34.3
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	158.76	✓	152.53	✓	152.54	✓	✓	158.77	1232	6.75	0.45	25.5	64.6
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	126.92	✓	120.49	✓	120.51	✓	✓	126.95	1257	6.89	2.1	25.8	0.126
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	81.57	✓	75.26	✓	75.30	✓	✓	81.64	1323	7.13	2.0	26.3	0.137
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	51.00	✓	45.60	✓	45.60	✓	✓	51.02	1354	7.11	6.0	26.8	0.141

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 #:

Well ID: MW-17
Sampling Zone No.: 5 to 1
Depth (ft): 726, 582, 468, 370, 250
Beginning of Session: 14.01 psig
End of Session: 14.02 psig

Start Time: 803
Finish Time: 1600

Date: 8/15/05
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	170.95	✓	252.17	✓	252.06	✓	✓	170.97	833	5.92	50	18.0	36.8	5
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	170.92	✓	252.16	✓	252.10	✓	✓	170.97	—	—	—	—	—	
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	170.87	✓	252.18	✓	252.10	✓	✓	170.92	—	—	—	—	—	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	109.21	✓	190.27	✓	190.26	✓	✓	109.22	1032	6.17	2.0	19.9	34.3	4
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	109.20	✓	190.31	✓	190.27	✓	✓	109.17	—	—	—	—	—	
4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	108.61	✓	190.33	✓	190.29	✓	✓	108.67	—	—	—	—	—	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	59.36	✓	141.17	✓	141.14	✓	✓	59.35	1201	6.23	21	22.2	73.9	3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	59.33	✓	141.18	✓	141.18	✓	✓	59.35	—	—	—	—	—	
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	59.28	✓	141.16	✓	141.15	✓	✓	59.32	—	—	—	—	—	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.46	✓	100.49	✓	100.49	✓	✓	16.48	1331	6.57	4.3	23.8	87.7	2
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.39	✓	100.51	✓	100.54	✓	✓	16.45	—	—	—	—	—	
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	15.61	✓	100.52	✓	100.53	✓	✓	15.94	—	—	—	—	—	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.05	✓	49.79	✓	49.80	✓	✓	14.16	1527	7.12	0.85	24.4	34.1	1
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.06	✓	49.78	✓	49.76	✓	✓	14.12	—	—	—	—	—	

Total Volume: ——

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

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-18
Sampling Zone No.: 5 to 1
Depth (ft): 684, 564, 424, 330, 270
Beginning of Session: 14.04 psig
End of Session: 14.07 psig

Start Time: 800
Finish Time: 1730

Date: 7/21/05
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	160.04	✓	216.29	✓	216.35	✓	✓	160.03	828	5.96	1.7	23.4	34.0	5
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	159.99	✓	216.32	✓	216.30	✓	✓	159.97	—	—	—	—	—	
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	159.92	✓	216.30	✓	216.28	✓	✓	159.93	—	—	—	—	—	
5	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	157.84	✓	216.30	✓	216.27	✓	✓	157.81						
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	108.57	✓	165.82	✓	165.84	✓	✓	108.59	1028	5.81	3.4	27.3	44.4	4
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	108.47	✓	165.78	✓	165.82	✓	✓	108.52	—	—	—	—	—	
4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	108.32	✓	165.70	✓	165.78	✓	✓	108.43	—	—	—	—	—	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.37	✓	109.05	✓	109.11	✓	✓	47.44	1239	6.03	0.65	30.0	60.5	3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.33	✓	109.04	✓	109.08	✓	✓	47.40	—	—	—	—	—	
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.81	✓	109.05	✓	109.07	✓	✓	46.87	—	—	—	—	—	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.18	✓	69.46	✓	69.41	✓	✓	14.16	1410	6.64	1.6	31.4	58.5	2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.16	✓	44.22	✓	44.21	✓	✓	14.18	1455	6.92	1.9	30.5	40.0	1
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.11	✓	44.23	✓	44.22	✓	✓	14.21	—	—	—	—	—	
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.11	✓	44.23	✓	44.19	✓	✓	14.13	—	—	—	—	—	
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.15	✓	69.48	✓	69.43	✓	✓	14.16	—	—	—	—	—	
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.14	✓	69.47	✓	69.43	✓	✓	14.16	—	—	—	—	—	
2	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.15	✓	69.46	✓	69.42	✓	✓	14.15	—	—	—	—	—	

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 #:

Well ID: MW-19
Sampling Zone No.: 5 to 1
Depth (ft): 498, 444, 392, 314, & 242
Beginning of Session: 14.12 psia
End of Session: 14.06 psia

Start Time: 740
Finish Time: 1502

Date: 7/20/05
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	176.16	✓	175.60	✓	175.62	✓	✓	176.17	816	5.38	1.5	23.5	0.119	5
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	176.17	✓	175.60	✓	175.59	✓	✓	176.17	—	—	—	—	—	
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	176.16	✓	175.56	✓	175.56	✓	✓	176.17	—	—	—	—	—	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	152.75	✓	152.10	✓	152.14	✓	✓	152.77	1022	6.00	0.20	26.6	0.110	4
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	152.74	✓	152.09	✓	152.12	✓	✓	152.77	—	—	—	—	—	
4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	152.73	✓	152.07	✓	152.10	✓	✓	152.74	—	—	—	—	—	
4	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	152.76	✓	152.07	✓	152.11	✓	✓	152.75	—	—	—	—	—	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	130.20	✓	129.87	✓	129.94	✓	✓	130.25	1210	6.59	2.0	27.3	0.101	3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	130.21	✓	129.89	✓	129.93	✓	✓	130.27	—	—	—	—	—	
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	130.21	✓	129.88	✓	129.91	✓	✓	130.23	—	—	—	—	—	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	96.42	✓	95.83	✓	95.87	✓	✓	96.46	1317	7.01	2.8	29.3	0.143	2
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	96.41	✓	95.81	✓	95.87	✓	✓	96.47	—	—	—	—	—	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	65.19	✓	65.20	✓	65.28	✓	✓	65.27	1415	7.47	29	29.7	48.1	1
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	65.24	✓	65.25	✓	65.30	✓	✓	65.31	—	—	—	—	—	
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	65.25	✓	65.24	✓	65.27	✓	✓	65.26	—	—	—	—	—	

Notes:

Total Volume: ——

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

port 2: CLEAR, NO ODOR port 1: SLIGHT BROWNISH HUE, NO ODOR

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-20
Sampling Zone No.: 5 to 1
Depth (ft): 900, 700, 562, 392, 230
Beginning of Session: 14.09 psig
End of Session: 14.11 psig

Start Time: 0755
Finish Time: 1645

Date: 8/1/05
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	308.77	✓	333.72	✓	333.71	✓	✓	308.77	827	6.07	0.40	20.2	36.6	5
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	308.72	✓	333.73	✓	333.72	✓	✓	308.68	—	—	—	—	—	
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	308.64	✓	333.71	✓	333.71	✓	✓	308.63	—	—	—	—	—	
5	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	307.08	✓	333.73	✓	333.71	✓	✓	307.07	—	—	—	—	—	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	222.40	✓	244.81	✓	244.75	✓	✓	222.41	1051	6.47	8.0	23.1	34.7	4
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	222.37	✓	244.77	✓	244.69	✓	✓	222.40	—	—	—	—	—	
4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	221.33	✓	244.71	✓	244.68	✓	✓	221.31	—	—	—	—	—	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	162.13	✓	177.02	✓	177.04	✓	✓	162.15	1215	6.04	0.90	25.8	60.2	3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	162.06	✓	177.00	✓	177.02	✓	✓	162.11	—	—	—	—	—	
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	161.00	✓	176.96	✓	176.97	✓	✓	161.01	—	—	—	—	—	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	87.83	✓	111.24	✓	111.33	✓	✓	87.94	1406	7.01	0.15	26.6	41.6	2
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	87.80	✓	111.29	✓	111.28	✓	✓	87.90	—	—	—	—	—	
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	86.79	✓	111.28	✓	111.34	✓	✓	86.83	—	—	—	—	—	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	17.13	✓	41.46	✓	41.43	✓	✓	17.15	1522	6.81	7.5	28.8	66.6	1
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.95	✓	41.43	✓	41.41	✓	✓	17.10	—	—	—	—	—	
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	17.05	✓	41.45	✓	41.44	✓	✓	17.09	—	—	—	—	—	

Total Volume: ——

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

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-21
Sampling Zone No.: 5 to 1
Depth (ft): 372, 310, 240, 161, 90
Beginning of Session: 14.12 psig
End of Session: 14.05 psig

Start Time: 747
Finish Time: 423

Date: 7/26/05
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.78	✓	164.06	✓	164.06	✓	✓	129.77	817	5.11	1.1	22.8	0.130	5
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.72	✓	164.07	✓	164.08	✓	✓	129.73	—					
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.66	✓	164.07	✓	164.07	✓	✓	129.69	—					
5	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	128.66	✓	164.08	✓	164.08	✓	✓	128.65	—					
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	103.55	✓	137.20	✓	137.23	✓	✓	103.57	958	6.20	0.55	25.6	0.124	4
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	103.50	✓	137.19	✓	137.23	✓	✓	103.53	—					
4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.43	✓	137.17	✓	137.21	✓	✓	102.47	—					
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	73.30	✓	107.29	✓	107.35	✓	✓	73.37	1123	7.53	3.2	25.9	0.162	3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	73.31	✓	107.32	✓	107.34	✓	✓	73.32	—					
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	73.20	✓	107.28	✓	107.32	✓	✓	73.26	—					
3	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	73.17	✓	107.27	✓	107.33	✓	✓	73.2[illegible]	—					
3	5	✓	✓	✓	✓	✓	✓	✓	✓	✓	70.16	✓	107.31	✓	107.30	✓	✓	70.19	—					
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	38.68	✓	73.14	✓	73.19	✓	✓	38.73	1353	7.43	1.4	25.9	0.183	2
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	38.65	✓	73.14	✓	73.18	✓	✓	38.68	—					
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	38.62	✓	73.13	✓	73.17	✓	✓	38.65	—					
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.14	✓	41.98	✓	41.95	✓	✓	14.13	1515	7.39	37	32.2	0.143	1
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.13	✓	41.99	✓	41.90	✓	✓	14.12	—					
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.11	✓	41.97	✓	41.94	✓	✓	14.18	—					

Total Volume: ——

Notes:

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

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

GEOFON INCORPORATED

Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-22
Sampling Zone No.: 3 to 1
Depth (ft): ~~596~~, ~~487~~, 389, 329, 245
Beginning of Session: 14.09 psia
End of Session: 14.10 psia

Start Time: 8/5
Finish Time: 1033

Date: 8/3/05
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)	Temp. (oC)	Cond (mmhos)
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	115.35	✓	121.23	✓	121.21	✓	✓	115.36	843	5.13	0.25	20.3	60.5
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	115.36	✓	121.24	✓	121.24	✓	✓	115.34	—				
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	89.29	✓	95.24	✓	95.24	✓	✓	89.27	942	5.83	0.40	22.7	58.5
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	52.59	✓	59.55	✓	59.55	✓	✓	52.60	1028	6.10	5.8	25.3	0.121

Total Volume: ——

Notes:
port 5: NOT SAMPLED port 4: NOT SAMPLED port 3: CLEAR, SLIGHT ODOR
port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-23
Sampling Zone No.: 4 to 1
Depth (ft): ~~542~~445, 319, 254, 174
Beginning of Session: 14.02 psig
End of Session: 14.06 psig

Start Time: 800
Finish Time: 1015

Date: 8/4/05
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)	Temp. (oC)	Cond (mmhos)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	165.10	✓	172.59	✓	172.59	✓	✓	165.09	821	5.53	0.65	22.8	42.2
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	110.46	✓	119.43	✓	119.43	✓	✓	110.47	846	6.02	4.5	24.2	42.4
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	110.45	✓	119.42	✓	119.43	✓	✓	110.46	—	—	—	—	—
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.45	✓	91.35	✓	91.36	✓	✓	82.44	935	6.03	0.95	24.9	99.0
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.63	✓	57.69	✓	57.75	✓	✓	47.68	1012	6.28	23	25.5	0.123

Notes:
port 5: NOT SAMPLED 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 #:

Well ID: MW-24
Sampling Zone No.: 5 to 1
Depth (ft): 678, 554, 435, 373, 279
Beginning of Session: 14.06 psia
End of Session: 14.05 psia

Start Time: 750
Finish Time: 1600

Date: 7/25/05
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)	Temp. (oC)	Cond (mmhos)	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	145.37	✓	180.07	✓	180.11	✓	✓	145.38	823	5.52	1.6	24.3	34.0	4
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	145.35	✓	180.07	✓	180.10	✓	✓	145.37	—	—	—	—	—	
4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	145.31	✓	180.10	✓	180.11	✓	✓	145.35	—	—	—	—	—	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	93.67	✓	129.96	✓	129.98	✓	✓	93.70	953	5.94	2.9	26.2	37.7	3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	93.70	✓	129.97	✓	129.98	✓	✓	93.70	—	—	—	—	—	
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	93.64	✓	129.95	✓	129.99	✓	✓	93.68	—	—	—	—	—	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	66.70	✓	103.45	✓	103.51	✓	✓	66.77	1137	7.00	3.4	25.0	45.0	2
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	66.69	✓	103.47	✓	103.51	✓	✓	66.72	—	—	—	—	—	
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	65.58	✓	103.47	✓	103.51	✓	✓	65.64	—	—	—	—	—	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	25.96	✓	64.48	✓	64.51	✓	✓	25.94	1255	6.95	4.9	25.3	49.3	1
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	25.98	✓	64.47	✓	64.49	✓	✓	25.93	—	—	—	—	—	
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	25.85	✓	64.43	✓	64.47	✓	✓	25.91	—	—	—	—	—	
1	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	25.87	✓	64.41	✓	64.44	✓	✓	25.90	—	—	—	—	—	
1	5	✓	✓	✓	✓	✓	✓	✓	✓	✓	25.01	✓	64.42	✓	64.47	✓	✓	25.02	—	—	—	—	—	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	198.37	✓	232.59	✓	232.62	✓	✓	198.36	320	7.28	1.3	26.4	39.9	5
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	198.35	✓	232.60	✓	232.62	✓	✓	198.35	—	—	—	—	—	
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	198.32	✓	232.61	✓	232.62	✓	✓	198.36	—	—	—	—	—	

Notes:

Total Volume: ——

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

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

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-25
Sampling Zone No.: 5 to 1
Depth (ft): 713,633,503,423,358
Beginning of Session: 14.07 psia
End of Session: 14.09 psia

Start Time: 805
Finish Time: 1800

Date: 7/19/05
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)	Temp. (oC)	Cond (mmhos)
	5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	203.14	✓	204.61	✓	204.62	✓	✓	203.16	859	5.80	1.00	22.9	46.8
	4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	168.53	✓	170.92	✓	170.92	✓	✓	168.54	934	6.18	4.10	23.5	67.0
	3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	112.59	✓	115.71	✓	115.73	✓	✓	112.62	1015	6.25	6.4	25.0	63.9
	2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.73	✓	81.18	✓	81.26	✓	✓	77.74	1049	6.52	7.3	26.6	56.8
	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	49.35	✓	52.39	✓	52.46	✓	✓	49.42	1126	6.62	5.8	27.3	85.8
BATTELLE	5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	202.81	✓	204.55	✓	204.58	✓	✓	202.88	—	—	—	—	—
	5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	202.77	✓	204.56	✓	204.58	✓	✓	202.79	—	—	—	—	—
	5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	201.77	✓	204.56	✓	204.56	✓	✓	201.76	—	—	—	—	—
	4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	168.57	✓	170.89	✓	170.91	✓	✓	168.60	1248	—	—	—	—
	4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	168.51	✓	170.89	✓	170.91	✓	✓	168.50	1421	—	—	—	—
	4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	166.01	✓	170.82	✓	170.88	✓	✓	166.04	1449	—	—	—	—
	3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	112.59	✓	115.72	✓	115.76	✓	✓	112.56	1510	—	—	—	—
	3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	112.56	✓	115.72	✓	115.73	✓	✓	112.53	—	—	—	—	—
	2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.58	✓	81.20	✓	81.27	✓	✓	77.63	1609	—	—	—	—
	2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.50	✓	81.25	✓	81.28	✓	✓	77.65	—	—	—	—	—
	3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	109.89	✓	115.74	✓	115.74	✓	✓	109.88	—	—	—	—	—
	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	48.73	✓	52.45	✓	52.44	✓	✓	48.72	—	—	—	—	—
	1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	48.70	✓	52.45	✓	52.46	✓	✓	48.68	—	—	—	—	—

5
4
3
2
1

Total Volume: ——

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

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:

Well ID: MW-26
Sampling Zone No.: 2 + 1
Depth (ft): 215, 135
Beginning of Session: 14.07 psia
End of Session: 14.15 psia

Start Time: 1109
Finish Time: 1225

Date: 8/4/05
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)	Temp. (oC)	Cond (mmhos)
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	81.86	✓	81.90	✓	81.97	✓	✓	81.96	1128	6.64	1.9	26.1	75.8
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.29	✓	44.57	✓	44.57	✓	✓	47.31	1158	6.88	0.15	27.4	88.7
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.29	✓	44.56	✓	44.58	✓	✓	47.29	—				

Notes:

Total Volume: ----

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

From: Headington, Gregory
Sent: Monday, June 27, 2005 1:33 PM
To: Shiao, Tien
Subject: RE: Temperature, ORP, DO, pH for the production wells and MW-1
Garfield and Sunset and Bangham taken on 6-02-05 and the others were taken on 6-03-05.

MW1 was sampled on 6-05-05, ph – 7.59 cond – 0.597 DO – 0.81 temp – 14.1 ORP – 222mv

---

From: Shiao, Tien
Sent: Monday, June 27, 2005 1:24 PM
To: Headington, Gregory
Subject: RE: Temperature, ORP, DO, pH for the production wells and MW-1

Hi Greg,

Just a few quick questions.

Were these parameters taken on 06/03/05? And were these parameters taken for MW-1?

Thanks,
Tien

From: Headington, Gregory
Sent: Monday, June 27, 2005 1:08 PM
To: Shiao, Tien
Subject: RE: Temperature, ORP, DO, pH for the production wells and MW-1

Garfield, pH – 7.95 cond – 0.485 DO – 8.10 temp – 22.3 ORP – 266mv

Bangham, pH – 8.30 cond – 0.644 DO – 7.06 temp – 20.2 ORP – 215mv

LFWC-2, pH – 6.41 cond – 0.716 DO – 10.57 temp – 19.7 ORP – 211mv

LAWC-3, pH – 7.51 cond – 0.503 DO – 10.54 temp – 16.9 ORP – 175.3mv

Sunset, pH – 7.81 cond – 0.883 DO – 7.23 temp – 19.2 ORP – 234mv

---

From: Shiao, Tien
Sent: Monday, June 27, 2005 11:44 AM
To: Headington, Gregory
Subject: Temperature, ORP, DO, pH for the production wells and MW-1

Hi Greg,

I hope you had a great weekend! When you get the chance could you provide the above for me? I can photocopy the information from your field log book too.

Thanks,
Tien

Tien Shiao
Battelle Memorial Institute
Environmental Restoration Dept.
505 King Ave., Columbus, OH 43204
Room: 10-1-80
Business: (614) 424-3754

Mobile: (614) 370-3939
Fax: (614) 458-3754
shiaoh@battelle.org
www.battelle.org

From: Headington, Gregory
Sent: Monday, June 27, 2005 1:08 PM
To: Shiao, Tien
Subject: RE: Temperature, ORP, DO, pH for the production wells and MW-1

Garfield, pH – 7.95 cond – 0.485 DO – 8.10 temp – 22.3 ORP – 266mv

Bangham, pH – 8.30 cond – 0.644 DO – 7.06 temp – 20.2 ORP – 215mv

LFWC-2, pH – 6.41 cond – 0.716 DO – 10.57 temp – 19.7 ORP – 211mv

LAWC-3, pH – 7.51 cond – 0.503 DO – 10.54 temp – 16.9 ORP – 175.3mv

Sunset, pH – 7.81 cond – 0.883 DO – 7.23 temp – 19.2 ORP – 234mv

---

From: Shiao, Tien
Sent: Monday, June 27, 2005 11:44 AM
To: Headington, Gregory
Subject: Temperature, ORP, DO, pH for the production wells and MW-1

Hi Greg,

I hope you had a great weekend! When you get the chance could you provide the above for me? I can photocopy the information from your field log book too.

Thanks,
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DO & ORP were taken later b/c they were missed when the actual samples were taken.

DO & ORP for MW-17, MW-18, MW-19, MW-20, MW-21, MW-24, and MW-25

JPL 4Q05 Groundwater Monitoring Water Quality Parameters

Well ID	Date	Time	pH	Turbidity (NTU)	Conductivity (mmhos)	Dissolved Oxygen	Temperature (°C)	ORP
MW-1	11/18/2005	12:22	6.96	0.85	66.5	11.4	19.2	148
MW-3-1	11/4/2005	11:32	6.60	3.6	46.5	11.4	18.4	169
MW-3-2		10:59	6.37	2.3	50.2	11.9	19.1	179
MW-3-3		10:09	6.06	0.40	51.0	12.4	18.4	160
MW-3-4		9:10	5.86	2.9	45.0	11.9	19.6	111
MW-3-5		8:38	5.67	3.4	42.2	11.3	18.8	218
MW-4-1	11/14/2005	10:44	7.15	4.0	37.8	13.3	23.5	123
MW-4-2		9:58	6.22	19	0.100	12.2	26.1	276
MW-4-3		9:28	6.19	14	47.2	9.7	22.9	185
MW-4-4		8:39	5.80	4.8	41.1	8.3	20.7	178
MW-4-5		8:04	5.51	19	39.9	9.0	19.3	224
MW-5	10/27/2005	12:21	6.07	1.3	31.7	10.5	18.1	162
MW-6	10/28/2005	9:34	6.19	1.9	0.101	10.1	20.1	257
MW-7	11/22/2005	8:59	6.13	6.0	58.0	8.8	20.5	147
MW-8	11/21/2005	12:44	6.71	0.25	44.9	9.2	18.7	133
MW-9	10/20/2005	12:59	6.24	12	35.9	7.6	22.7	42
MW-10	11/21/2005	8:37	6.29	0.30	96.6	9.9	17.1	88
MW-11-1	11/15/2005	11:37	6.30	1.1	60.9	10.9	23.1	179
MW-11-2		10:58	6.44	2.7	50.0	10.3	23.0	201
MW-11-3		10:10	5.98	7.9	45.2	10.2	23.3	60
MW-11-4		9:36	5.97	1.5	25.6	10.7	21.7	117
MW-11-5		8:43	5.70	7.0	38.7	10.9	21.2	206
MW-12-1	11/17/2005	10:15	6.45	10.0	49.6	14.5	22.3	167
MW-12-2		9:38	6.29	1.7	61.5	11.1	22.0	146
MW-12-3		9:11	6.11	0.85	44.6	11.2	21.4	104
MW-12-4		8:24	5.59	0.40	55.8	9.9	18.5	140
MW-12-5		7:56	5.40	1.5	52.3	10.3	17.8	214
MW-13	11/22/2005	11:38	6.59	7.3	65.8	11.5	26.4	202
MW-14-1	11/7/2005	11:36	6.21	3.3	0.131	10.8	22.0	328
MW-14-2		10:57	5.99	3.1	0.125	10.2	21.2	268
MW-14-3		10:25	5.73	0.90	0.113	10.5	20.9	291
MW-14-4		9:54	5.59	0.55	64.8	11.0	20.6	211
MW-14-5		8:58	5.62	2.5	39.4	10.8	19.8	246
MW-15	10/27/2005	13:58	6.70	2.9	52.1	8.8	19.0	144
MW-16	10/28/2005	12:44	6.69	0.25	48.9	12.1	23.1	147
MW-17-1	11/1/2005	10:39	6.50	0.4	35.1	11.2	21.1	204
MW-17-2		10:07	6.08	2.7	90.5	12.1	21.4	210
MW-17-3		9:11	5.74	4.8	72.1	10.6	20.5	172
MW-17-4		8:40	5.85	1.5	34.4	11.2	20.2	178
MW-17-5		8:07	5.55	110	36.1	11.6	17.8	233
MW-18-1	11/3/2005	10:55	6.72	2.8	37.9	12.7	20.8	195
MW-18-2		10:21	6.51	7.1	55.0	12.0	20.5	162
MW-18-3		9:50	5.83	1.2	60.2	11.0	19.1	194
MW-18-4		9:21	5.66	2.6	45.7	10.9	19.8	210
MW-18-5		8:47	5.60	2.1	36.1	10.1	18.0	241
MW-19-1	11/2/2005	10:21	6.53	34	40.2	8.5	18.7	166
MW-19-2		9:49	6.19	50	0.104	8.6	19.3	276
MW-19-3		9:18	6.14	2.2	65.5	9.1	18.2	145
MW-19-4		8:48	5.77	0.30	72.3	9.3	18.1	164
MW-19-5		7:58	5.27	0.65	78.4	10.3	15.8	227
MW-20-1		10:47	6.12	1.5	72.5	11.1	18.5	126

JPL 4Q05 Groundwater Monitoring Water Quality Parameters

Well ID	Date	Time	pH	Turbidity (NTU)	Conductivity (mmhos)	Dissolved Oxygen	Temperature (°C)	ORP
MW-1	11/18/2005	12:22	6.96	0.85	66.5	11.4	19.2	148
MW-3-1		11:32	6.60	3.6	46.5	11.4	18.4	169
MW-3-2		10:59	6.37	2.3	50.2	11.9	19.1	179
MW-3-3	11/4/2005	10:09	6.06	0.40	51.0	12.4	18.4	160
MW-3-4		9:10	5.86	2.9	45.0	11.9	19.6	111
MW-3-5		8:38	5.67	3.4	42.2	11.3	18.8	218
MW-4-1		10:44	7.15	4.0	37.8	13.3	23.5	123
MW-4-2		9:58	6.22	19	0.100	12.2	26.1	276
MW-4-3	11/14/2005	9:28	6.19	14	47.2	9.7	22.9	185
MW-4-4		8:39	5.80	4.8	41.1	8.3	20.7	178
MW-4-5		8:04	5.51	19	39.9	9.0	19.3	224
MW-5	10/27/2005	12:21	6.07	1.3	31.7	10.5	18.1	162
MW-6	10/28/2005	9:34	6.19	1.9	0.101	10.1	20.1	257
MW-7	11/22/2005	8:59	6.13	6.0	58.0	8.8	20.5	147
MW-8	11/21/2005	12:44	6.71	0.25	44.9	9.2	18.7	133
MW-9	10/20/2005	12:59	6.24	12	35.9	7.6	22.7	42
MW-10	11/21/2005	8:37	6.29	0.30	96.6	9.9	17.1	88
MW-11-1		11:37	6.30	1.1	60.9	10.9	23.1	179
MW-11-2		10:58	6.44	2.7	50.0	10.3	23.0	201
MW-11-3	11/15/2005	10:10	5.98	7.9	45.2	10.2	23.3	60
MW-11-4		9:36	5.97	1.5	25.6	10.7	21.7	117
MW-11-5		8:43	5.70	7.0	38.7	10.9	21.2	206
MW-12-1		10:15	6.45	10.0	49.6	14.5	22.3	167
MW-12-2		9:38	6.29	1.7	61.5	11.1	22.0	146
MW-12-3	11/17/2005	9:11	6.11	0.85	44.6	11.2	21.4	104
MW-12-4		8:24	5.59	0.40	55.8	9.9	18.5	140
MW-12-5		7:56	5.40	1.5	52.3	10.3	17.8	214
MW-13	11/22/2005	11:38	6.59	7.3	65.8	11.5	26.4	202
MW-14-1		11:36	6.21	3.3	0.131	10.8	22.0	328
MW-14-2		10:57	5.99	3.1	0.125	10.2	21.2	268
MW-14-3	11/7/2005	10:25	5.73	0.90	0.113	10.5	20.9	291
MW-14-4		9:54	5.59	0.55	64.8	11.0	20.6	211
MW-14-5		8:58	5.62	2.5	39.4	10.8	19.8	246
MW-15	10/27/2005	13:58	6.70	2.9	52.1	8.8	19.0	144
MW-16	10/28/2005	12:44	6.69	0.25	48.9	12.1	23.1	147
MW-17-1		10:39	6.50	0.4	35.1	11.2	21.1	204
MW-17-2		10:07	6.08	2.7	90.5	12.1	21.4	210
MW-17-3	11/1/2005	9:11	5.74	4.8	72.1	10.6	20.5	172
MW-17-4		8:40	5.85	1.5	34.4	11.2	20.2	178
MW-17-5		8:07	5.55	110	36.1	11.6	17.8	233
MW-18-1		10:55	6.72	2.8	37.9	12.7	20.8	195
MW-18-2		10:21	6.51	7.1	55.0	12.0	20.5	162
MW-18-3	11/3/2005	9:50	5.83	1.2	60.2	11.0	19.1	194
MW-18-4		9:21	5.66	2.6	45.7	10.9	19.8	210
MW-18-5		8:47	5.60	2.1	36.1	10.1	18.0	241
MW-19-1		10:21	6.53	34	40.2	8.5	18.7	166
MW-19-2		9:49	6.19	50	0.104	8.6	19.3	276
MW-19-3	11/2/2005	9:18	6.14	2.2	65.5	9.1	18.2	145
MW-19-4		8:48	5.77	0.30	72.3	9.3	18.1	164
MW-19-5		7:58	5.27	0.65	78.4	10.3	15.8	227

#3 & He3 results provided = Garfield, Bangham, Sunset, LAWC-3, MW1, LFWC-2

MW-20-1	11/8/2005	10:47	6.12	1.5	72.5	11.1	18.5	126
MW-20-2		10:14	6.13	0.60	41.9	10.7	18.3	92
MW-20-3		9:44	6.13	0.65	61.8	10.9	17.9	113
MW-20-4		9:07	6.27	3.7	36.8	10.3	17.4	-35
MW-20-5		8:29	5.86	1.8	37.0	11.1	17.7	-39
MW-21-1	10/21/2005	10:15	6.41	7.6	0.114	9.9	17.4	156
MW-21-2		9:46	6.10	4.3	0.134	11.6	17.4	161
MW-21-3		9:10	5.86	3.4	0.124	9.8	16.8	171
MW-21-4		8:42	5.57	3.4	82.3	10.9	17.1	59
MW-21-5		8:13	5.41	1.8	0.093	12.1	18.1	200
MW-22-1	11/9/2005	11:08	6.40	11	0.110	9.3	18.0	170
MW-22-2		10:23	6.31	1.2	57.8	9.2	18.2	51
MW-22-3		9:17	5.79	0.15	68.6	10.0	18.4	85
MW-22-4		8:47	6.02	2.7	40.5	8.9	19.2	91
MW-22-5		8:17	5.87	0.70	44.2	8.7	19.0	24
MW-23-1	11/11/2005	10:24	6.52	5.9	0.128	11.9	20.3	310
MW-23-2		9:47	6.52	2.5	98.6	11.9	19.9	108
MW-23-3		9:19	6.25	1.9	44.1	11.3	18.9	132
MW-23-4		8:34	6.86	1.7	42.0	8.5	17.9	171
MW-23-5		7:30	6.78	2.7	48.0	9.0	16.3	89
MW-24-1	10/31/2005	10:35	6.66	4.0	53.2	9.5	22.3	170
MW-24-2		9:58	6.40	2.2	50.8	8.8	22.7	145
MW-24-3		9:21	6.30	2.0	39.0	9.2	21.4	123
MW-24-4		8:45	6.14	1.0	32.6	10.0	21.7	82
MW-24-5		8:10	5.56	0.70	44.8	10.1	21.1	203
MW-25-1	11/16/2005	11:28	6.50	9.8	99.1	9.7	24.8	210
MW-25-2		10:44	6.38	1.7	64.6	9.0	24.6	179
MW-25-3		10:00	6.03	7.8	70.2	6.3	22.6	187
MW-25-4		9:16	5.64	21	73.3	7.8	21.9	154
MW-25-5		8:14	5.46	1.1	52.6	8.8	19.4	237
MW-26-1	11/18/2005	10:10	6.39	0.65	97.4	12.9	24.2	238
MW-26-2		8:48	5.32	6.1	86.5	13.7	22.4	232

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-21
Sampling Zone No.: 5+1
Depth (ft): 372, 310, 240, 161, 90
Beginning of Session: 14.14 psia
End of Session: 14.17 psia

Start Time: 724
Finish Time: 1017

Date: 10/21/05
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	128.37	✓	162.10	✓	162.06	✓	✓	128.34	813	5.41	1.8	.093	12.1	18.1	200
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	101.39	✓	135.21	✓	135.20	✓	✓	101.42	842	5.57	3.4	82.3	10.9	17.1	59
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	71.82	✓	105.27	✓	105.26	✓	✓	71.85	910	5.86	3.4	.124	9.8	16.8	171
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	37.43	✓	70.99	✓	71.02	✓	✓	37.41	946	6.10	4.3	.134	11.6	17.4	161
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.22	✓	39.59	✓	39.60	✓	✓	14.27	1015	6.41	7.6	.114	9.9	17.4	156

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-24
Sampling Zone No.: 5+.1
Depth (ft): 678, 554, 435, 373, 279
Beginning of Session: 14.18 psia
End of Session: 14.22 psia

Start Time: 737
Finish Time: 1037

Date: 10/31/05
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	237.45	✓	229.51	✓	229.48	✓	✓	237.41	810	5.56	0.70	44.8	10.1	21.1	203
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	183.70	✓	177.11	✓	177.60	✓	✓	183.74	845	6.14	1.0	32.6	10.0	21.7	82
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	132.08	✓	126.89	✓	126.88	✓	✓	132.06	921	6.50	2.0	39.0	9.2	21.4	128
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	105.19	✓	100.12	✓	100.14	✓	✓	105.18	958	6.40	2.2	50.8	8.8	22.7	145
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.58	✓	60.29	✓	60.31	✓	✓	64.59	1035	6.66	4.0	53.2	9.5	22.3	170

Notes:

port 5: CLEAR, SLIGHT ODOR port 4: CLEAR, SLIGHT ODOR port 3: CLEAR, STRONG 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-17
Sampling Zone No.: 5 to 1
Depth (ft): 726, 582, 468, 370, 260
Beginning of Session: 14.15 psia
End of Session: 14.14 psia

Start Time: 735
Finish Time: 1045

Date: 11/1/05
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	247.85	✓	250.36	✓	250.26	✓	✓	247.92	807	5.55	110	36.1	11.6	17.8	233
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	185.42	✓	187.01	✓	186.99	✓	✓	185.36	840	5.85	1.5	34.4	11.2	20.2	178
DUPE < 3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	135.86	✓	134.88	✓	134.84	✓	✓	135.92	911	5.74	4.8	72.1	10.6	20.5	172 > 3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	135.81	✓	134.60	✓	134.54	✓	✓	135.83	—	—	—	—	—	—	—
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	93.22	✓	95.65	✓	95.65	✓	✓	93.26	1007	6.08	2.7	90.5	12.1	21.4	210
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	41.25	✓	46.58	✓	46.61	✓	✓	41.26	1039	6.50	1.4	35.1	11.2	21.1	204

Notes:
port 5: SLIGHTLY CLOUDY, 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.: 5 to 1
Depth (ft): 498, 444, 392, 314, 242
Beginning of Session: 14.10 psia
End of Session: 14.14 psia

Start Time: 725
Finish Time: 1025

Date: 11/2/05
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
DUPE 5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	176.25	✓	172.98	✓	172.97	✓	✓	176.27	758	5.27	0.65	78.4	10.3	15.8	227
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	176.25	✓	172.97	✓	172.99	✓	✓	176.31	—	—	—	—	—	—	—
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	152.75	✓	149.60	✓	149.61	✓	✓	152.73	848	5.77	0.30	72.3	9.3	18.1	164
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	130.17	✓	127.39	✓	127.37	✓	✓	130.17	918	6.14	2.2	65.5	9.1	18.2	145
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	96.29	✓	93.12	✓	93.12	✓	✓	96.27	949	6.19	.50	41.04	8.6	19.3	276
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	65.17	✓	61.68	✓	61.69	✓	✓	65.20	1021	6.53	3.4	40.2	8.5	18.7	166

>5

Notes:

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

port 2: SLIGHTLY BROWNISH, NO ODOR port 1: SLIGHTLY YELLOWISH BROWN, NO ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-18
Sampling Zone No.: 5 to 1
Depth (ft): 684, 564, 424, 330, 270
Beginning of Session: 14.12 psia
End of Session: 14.08 psia

Start Time: 810
Finish Time: 1100

Date: 11/3/05
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks							Position Sampler	Arm out	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		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	✓	✓	✓	✓	✓	✓	✓	✓	✓	159.12	✓	214.42	✓	214.37	✓	✓	159.08	847	5.60	2.1	36.1	10.1	18.0	241
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	106.86	✓	163.83	✓	163.95	✓	✓	106.85	921	5.66	2.6	45.7	10.9	19.8	210
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	45.82	✓	105.51	✓	105.51	✓	✓	45.85	950	5.83	1.2	60.2	11.0	19.1	194
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.30	✓	64.89	✓	64.87	✓	✓	14.30	1021	6.51	7.1	55.0	12.0	20.5	162
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.28	✓	39.27	✓	39.24	✓	✓	14.30	1055	6.72	2.8	37.9	12.7	20.8	195

Total Volume: —

Notes:

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

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

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-3
Sampling Zone No.: 5 to 1
Depth (ft): 653, 558, 346, 252, 172
Beginning of Session: 14.15 psia
End of Session: 14.15 psia

Start Time: 805
Finish Time: 1136

Date: 11/4/05
Page: 1 of 1

Water Pressure Inside Casing: ——

		Surface Function Checks							Position Sampler		Sample Collection Checks								Water Quality Parameters							
Port #	Run #	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	✓	✓	✓	✓	✓	✓	✓	✓	✓	252.25	✓	259.89	✓	259.89	✓	✓	252.32	838	5.67	3.4	422	11.3	18.8	218	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	210.93	✓	218.82	✓	218.81	✓	✓	210.89	910	5.86	2.9	45.0	11.9	19.6	111	>4
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	210.89	✓	218.83	✓	218.83	✓	✓	210.87	—	—	—	—	—	—	—	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	118.65	✓	129.57	✓	129.56	✓	✓	118.67	1009	6.06	0.40	51.0	12.4	18.4	160	>3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	118.72	✓	129.54	✓	129.55	✓	✓	118.74	—	—	—	—	—	—	—	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	78.24	✓	88.60	✓	88.60	✓	✓	78.27	1059	6.37	2.3	50.2	11.9	19.1	179	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	43.41	✓	54.91	✓	54.91	✓	✓	43.45	1132	6.60	3.6	46.5	11.4	18.4	169	

Notes:
port 5: CLEAR, STRONG ODOR port 4: CLEAR, SLIGHT 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-14
Sampling Zone No.: 5 to 1
Depth (ft): 540, 456, 382, 277, 207
Beginning of Session: 14.07 psia
End of Session: psia

Start Time: 820
Finish Time: 1215

Date: 11/7/05
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	
ms/msd <	5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	195.58	✓	189.70	✓	189.69	✓	✓	195.63	958	5.62	2.5	39.4	10.8	19.8	246	> 5
	5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	195.57	✓	189.70	✓	189.68	✓	✓	195.59	—	—	—	—	—	—	—	
	4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	158.87	✓	153.16	✓	153.18	✓	✓	158.85	954	5.59	0.55	64.8	11.0	20.6	211	
	3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	126.55	✓	121.05	✓	121.06	✓	✓	126.59	1025	5.73	0.90	0.113	10.5	20.9	291	
	2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.76	✓	75.36	✓	75.38	✓	✓	80.76	1057	5.99	3.1	.125	10.2	21.2	268	
DUPE <	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	50.65	✓	45.15	✓	45.15	✓	✓	50.68	1136	6.21	3.3	.131	10.8	22.0	328	> 1
	1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	50.16	✓	45.13	✓	45.16	✓	✓	50.14	—	—	—	—	—	—	—	

Notes:

Total Volume: —

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

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

GEOFON INCORPORATED

Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-20
Sampling Zone No.: 5+1
Depth (ft): 900, 700, 562, 392, 230
Beginning of Session: 14.13 psia
End of Session: 14.11 psia

Start Time: 755
Finish Time: 1052

Date: 11/8/05
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	307.41	✓	331.79	✓	331.79	✓	✓	307.41	829	5.86	1.8	37.0	11.1	17.7	-39
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	220.25	✓	244.30	✓	244.27	✓	✓	220.27	907	6.27	3.7	36.8	10.3	17.4	-35
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	160.10	✓	184.59	✓	184.54	✓	✓	160.14	944	6.13	.65	61.8	10.9	17.9	113
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	86.03	✓	111.16	✓	111.15	✓	✓	86.06	1014	6.13	.60	46.9	10.7	18.3	92
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	15.85	✓	40.72	✓	40.73	✓	✓	15.88	1047	6.12	1.5	72.5	11.1	18.5	126

Notes:
port 5: CLEAR, STRONG H_2S ODOR port 4: CLEAR, STRONG ODOR port 3: CLEAR, SLIGHT ODOR
port 2: CLEAR, SLIGHT 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.: 5 to 1
Depth (ft): 588, 467, 389, 329, 245
Beginning of Session: 14.08 psia
End of Session: 14.13 psia

Start Time: 748
Finish Time: 1115

Date: 11/9/05
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	201.70	✓	203.66	✓	203.65	✓	✓	201.66	817	5.87	0.70	44.2	8.7	19.0	24
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	149.23	✓	152.62	✓	152.61	✓	✓	149.22	847	6.02	2.7	40.5	8.9	19.2	91
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	115.42	✓	120.37	✓	120.35	✓	✓	115.42	917	5.79	.15	68.6	10.0	18.4	85
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	115.40	✓	120.36	✓	120.36	✓	✓	115.41	—	—	—	—	—	—	—
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	89.35	✓	94.24	✓	94.23	✓	✓	89.33	1023	6.31	1.2	57.8	9.2	18.2	51
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	52.71	✓	57.18	✓	57.16	✓	✓	52.69	1108	6.40	11	.110	9.3	18.0	170

ms/msd < 3 > 3

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

Total Volume: —