

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, MW-15, 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 Sampling

Multi-Port Well Field Data Sheet



Contract #:

Well ID: MW-4

Sampling Zone No.: 3 to 1

Depth (ft): 513,392,322,240,150

Beginning of Session: 14.11 psia

End of Session: 14.17 asia

Start Time: 7.50

Finish Time: 1300

Date: 8/2/05

Page: 1 of 1

Water Pressure Inside Casing: -----

[illegible]

Notes:

port 5: NO SAMPLE TAKEN

port 4: NO SAMPLE TAKEN

port 3: No odor, yellowish color

port 2: CLERK, NO DOOR

port 1: CLEAR, NO ORDER

Total Volume: _____

100

Groundwater Sampling

Multi-Port Well Field Data Sheet

Groundwater Sampling

Multi-Port Well Field Data Sheet



Contract #:

Well ID: MW-14

Sampling Zone No.: 541

Depth (ft): 540, 456, 382, 277, & 207

Start Time: 1125

Finish Time: 1450

Date: 8/3/05

Page: 1 of 1

Water Pressure Inside Casing: -----

Beginning of Session: 14.05 psi

End of Session: 14.02 0519

[illegible]

Notes:

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

Total Volume: -----

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



Groundwater Sampling Multi-Port Well Field Data Sheet

JPL Pasadena

Contract #:

Well ID: MW-17

Sampling Zone No.: 5+1

Depth (ft): 726, 582, 468, 370, 250

Start Time: 803

Finish Time: 1600

Date: 8/15/05

Page: 1 of 1

Beginning of Session: 14.01 psig

End of Session: 14.02 psig

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	✓	✓	✓	✓	✓	✓	✓	✓	✓	170.95	✓	252.17	✓	252.06	✓	✓	170.97	833	5.92	50	18.0	36.8	
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	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	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	1381	6.57	4.3	23.8	82.7	
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	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.06	✓	49.78	✓	49.76	✓	✓	14.12	—	—	—	—	—	

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

Total Volume: _____



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 2519

End of Session: 14.07 2516

Start Time: 800

Finish Time: 1730

Date: 7/21/05

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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)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	160.04	✓	216.29	✓	216.35	✓	✓	160.03	828	5.96	1.7	23.4	34.0
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	✓	✓	157.91					
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	108.57	✓	165.82	✓	165.84	✓	✓	108.59	1028	5.89	3.4	27.3	44.4
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	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.33	✓	109.04	✓	109.08	✓	✓	47.40					
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.81	✓	109.05	✓	109.07	✓	✓	46.87					
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.15	✓	69.46	✓	69.41	✓	✓	14.16	1410	6.64	1.6	31.4	53.5
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.16	✓	44.22	✓	44.21	✓	✓	14.18	1455	6.92	1.9	30.5	40.0
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: _____



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

Start Time: 740

Finish Time: 1502

Date: 7/20/05

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Beginning of Session: 14.12 psia

End of Session: 14.26 psia

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			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	✓	✓	✓	✓	✓	✓	✓	✓	✓	176.16	✓	175.60	✓	175.62	✓	✓	176.17	816	5.38	1.5	23.5	0.119
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	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	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	✓	✓	✓	✓	✓	✓	✓	✓	✓	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	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	65.14	✓	65.25	✓	65.30	✓	✓	65.31	—	—	—	—	—
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	65.25	✓	65.24	✓	65.27	✓	✓	65.26	—	—	—	—	—

Notes:

port 5: CLEAR, NO ODOR

port 4: CLEAR, NO ODOR

port 3: CLEAR, NO ODOR

Total Volume: _____

port 2: CLEAR, NO ODOR

port 1: SLIGHT BROWNISH HUE, NO ODOR



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

Start Time: 0755

Date: 8/1/05

Finish Time: 1645

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Beginning of Session: 14.09 psi

End of Session: 14.11 psi

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)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	308.77	✓	333.72	✓	333.71	✓	✓	308.77	827	6.07	0.40	20.2	36.6
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	✓	332.71	✓	✓	307.07	—	—	—	—	—
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	222.40	✓	244.81	✓	244.75	✓	✓	222.41	1051	6.47	8.0	23.1	34.7
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	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	✓	✓	✓	✓	✓	✓	✓	✓	✓	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	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	16.99	✓	41.43	✓	41.41	✓	✓	17.10	—	—	—	—	—
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	17.05	✓	41.45	✓	41.44	✓	✓	17.09	—	—	—	—	—

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

Total Volume: -----



Groundwater Sampling Multi-Port Well Field Data Sheet

JPL Pasadena

Contract #:

Well ID: MW-21

Sampling Zone No.: 5721

Depth (ft): 372, 310, 240, 161, 90

Start Time: 747

Finish Time: 423

Date: 7/26/05

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Beginning of Session: 14.12 PSIG

End of Session: 14.05 PSIG

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			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	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.78	✓	164.06	✓	164.06	✓	✓	129.77	817	5.11	1.1	22.8	0.130
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	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	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	✓	✓	73.20	—	—	—	—	—
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	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	3.7	32.2	0.143
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.13	✓	41.99	✓	41.90	✓	✓	14.12	—	—	—	—	—
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.11	✓	41.97	✓	41.94	✓	✓	14.18	—	—	—	—	—

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

Total Volume: _____

Groundwater Sampling

Multi-Port Well Field Data Sheet



Groundwater Sampling Multi-Port Well Field Data Sheet

JPL Pasadena

Contract #:

Well ID: MW-24

Sampling Zone No.: 5+1

Depth (ft): 678, 554, 435, 373, 279

Start Time: 750

Finish Time: 1600

Date: 7/25/25

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Water Pressure Inside Casing: _____

Beginning of Session: 14.06 psia

End of Session: 14.05 psia

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)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	145.37	✓	180.07	✓	180.11	✓	✓	145.38	823	5.52	1.6	24.3	34.0
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	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	✓	✓	66.71	1137	7.00	3.4	25.0	45.0
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	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	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	198.35	✓	232.60	✓	232.62	✓	✓	198.35					
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	198.32	✓	232.61	✓	232.62	✓	✓	198.36					

Notes:

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

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

Total Volume: _____



Groundwater Sampling Multi-Port Well Field Data Sheet

JPL Pasadena

Contract #:

Well ID: MW-25

Sampling Zone No.: 5+1

Depth (ft): 713,633,503,423,358

Beginning of Session: 14.07 p.m.

End of Session: 14.09 p.m.

Start Time: 805

Finish Time: 1800

Date: 7/19/05

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			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	✓	✓	✓	✓	✓	✓	✓	✓	✓	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
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	1349				
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.80	✓	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					

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: _____

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 5

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73803
 Navy Contract No.: Battelle
 Sampled By: Marco Mendoza, Chase Brogdon
 Date: 8/11/05
 Weather: clear and mild

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{140}{\text{TD (feet)}} - \frac{38.74}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{198.3}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ ☒ 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 (° C)	ORP (mV)	Comments
730	38.74	0	5.19	33.4	50	9.1	17.7	258	Brownish color, no odor
750	38.74	40	5.68	29.2	17	10.6	17.9	187	Slightly brownish color, no odor
810	38.74	79	5.85	29.3	31	9.8	18.2	198	Yellowish brown color, no odor
830	38.74	119	5.99	29.4	5.3	8.6	18.8	192	Slightly yellowish color, no odor
850	38.74	159	6.14	29.8	4.6	11.4	19.1	212	Clear, no odor
910	38.74	199	6.24	29.8	2.6	9.7	21.6	225	Clear, no odor

Total Purge Volume: 199 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 2 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 725 Purge time start: 730

RECHARGE BEHAVIOR:

☒ 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): _____

<u>Original</u>	<u>MS/MSD or DUPE</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW- 5</u>	Sample ID: <u>DUPE-8-3Q05</u>	Type: _____	Type: _____
Sample Time: <u>914</u>	Sample Time: <u>-----</u>	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5</u>	No. of Containers: <u>5</u>	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 6

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73803
 Navy Contract No.: Battelle
 Sampled By: Marco Mendoza/Chase Brogdon
 Date: 8/11/05
 Weather: Clear and warm

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{245}{\text{TD (feet)}} - \frac{150.23}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{185.6}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ ☒ 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 (° C)	ORP (mV)	Comments
958	150.23	0	6.07	99.5	26	10.1	22.0	261	Heavy sediment content, no odor
1023	150.23	37	6.42	0.114	10	9.8	21.9	361	Clear, no odor
1048	150.23	75	6.62	0.113	4.7	9.5	22.1	369	Clear, no odor
1113	150.23	112	6.75	0.113	2.2	8.8	22.3	372	Clear, no odor
1138	150.23	150	6.67	0.112	1.2	10.2	22.7	371	Clear, no odor
1203	150.23	187	6.69	0.113	1.0	10.2	22.6	371	Clear, no odor

Total Purge Volume: 187 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 1.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 954 Purge time start: 958

RECHARGE BEHAVIOR:

☒ 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): _____

<u>Original</u>	<u>DUPE or MS/MSD</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW- 6</u>	Sample ID: <u>MW-6 (MS/MSD)</u>	Type: _____	Type: _____
Sample Time: <u>1208</u>	Sample Time: <u>1208</u>	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5</u>	No. of Containers: <u>5</u>	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 7

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-12812
 Navy Contract No.: Battelle
 Sampled By: Marco Mendoza/Chase Brogdon
 Date: 8/9/05
 Weather: clear and warm

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{275}{\text{TD (feet)}} - \frac{176.28}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{193.33}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ ☒ 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 (° C)	ORP (mV)	Comments
1023	176.28	0	6.71	53.8	75	7.8	24.5	204	Slightly brownish, no odor
1046	176.28	39	6.91	53.6	18	7.3	26.0	200	Clear, no odor
1109	176.28	78	6.89	55.3	9.2	6.6	25.9	219	Clear, no odor
1135	176.28	117	7.02	53.9	14	8.7	26.2	222	Clear, no odor
1201	176.28	155	7.18	55.5	7.8	6.9	26.7	234	Clear, no odor
1227	176.28	194	7.11	53.9	9.7	6.2	30.4	233	Clear, no odor

Total Purge Volume: 194 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 1.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1020 Purge time start: 1023

RECHARGE BEHAVIOR: ☒ 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): _____

<u>Original</u>	<u>DUPE or MS/MSD</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW- 7</u>	Sample ID: <u>MW-7 (MS/MSD)</u>	Type: _____	Type: _____
Sample Time: <u>1239</u>	Sample Time: <u>1239</u>	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5</u>	No. of Containers: <u>5</u>	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 8

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73803
 Navy Contract No.: Battelle
 Sampled By: Marco Mendoza/Chase Brogdon
 Date: 8/10/05
 Weather: clear and warm

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{205}{\text{TD (feet)}} - \frac{103.27}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{199.23}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ ☒ 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 (° C)	ORP (mV)	Comments
1134	103.27	0	7.29	44.2	8.5	15.8	21.3	212	Slightly cloudy, no odor
1150	103.27	40	7.26	44.2	2.4	15.0	21.9	200	Clear, no odor
1206	103.27	80	7.22	44.5	0.75	14.5	22.6	211	Clear, no odor
1222	103.27	120	7.23	43.1	1.1	14.6	22.4	209	Clear, no odor
1238	103.27	160	7.31	40.2	0.30	16.1	22.4	208	Clear, no odor
1254	103.27	200	7.21	45.1	0.30	12.7	27.7	221	Clear, no odor

Total Purge Volume: 200 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1130 Purge time start: 1134

RECHARGE BEHAVIOR:

☒ 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): _____

<u>Original</u>	<u>DUPE or MS/MSD</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW- 8</u>	Sample ID: <u>MW-8 (MS/MSD)</u>	Type: _____	Type: _____
Sample Time: <u>1302</u>	Sample Time: <u>1302</u>	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5</u>	No. of Containers: <u>5</u>	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 10

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73803
 Navy Contract No.: Battelle
 Sampled By: Marco Mendoza/Chase Brogdon
 Date: 8/10/05
 Weather: clear and warm

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{155}{\text{TD (feet)}} - \frac{54.89}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{196}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ ☒ 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 (° C)	ORP (mV)	Comments
1002	54.89	0	6.27	86.3	14	14.2	24.0	224	Clear, no odor
1015	54.89	39	6.42	86.6	5.6	13.1	23.7	189	Slightly cloudy, no odor
1028	54.89	78	6.62	85.7	5.1	12.7	23.7	167	Clear, no odor
1041	54.89	117	6.70	86.2	4.4	12.1	23.6	129	Clear, no odor
1054	54.89	156	6.76	84.5	3.2	13.0	23.5	178	Clear, no odor
1107	54.89	196	7.12	86.6	0.35	10.9	27.6	211	Slightly cloudy, no odor

Total Purge Volume: 196 (Gallons)

Total Discharge: 3.0 (Casing Volumes)

Approx. Purge Rate: 3 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 1000 Purge time start: 1002

RECHARGE BEHAVIOR:

☒ 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): _____

<u>Original</u>	<u>DUPE or MS/MSD</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW-10</u>	Sample ID: <u>DUPE-7-3Q05</u>	Type: _____	Type: _____
Sample Time: <u>1110</u>	Sample Time: <u>-----</u>	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5</u>	No. of Containers: <u>5</u>	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 13

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73803
 Navy Contract No.: Battelle
 Sampled By: Marco Mendoza/ Chase Brogdon
 Date: 8/9/05
 Weather: clear and mild

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{235}{\text{TD (feet)}} - \frac{147.83}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{170.7}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ ☒ 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 (° C)	ORP (mV)	Comments
758	147.83	0	5.20	68.5	13	11.2	22.4	249	Slightly cloudy, no odor
815	147.83	34	5.57	64.0	3.2	10.7	22.7	193	Clear, no odor
832	147.83	68	5.90	63.9	1.7	12.1	23.0	162	Clear, no odor
849	147.83	103	6.10	63.9	0.55	11.6	22.8	162	Clear, no odor
906	147.83	137	6.25	63.3	0.95	11.3	23.1	186	Clear, no odor
923	147.83	172	6.30	63.2	0.64	12.0	23.2	177	Clear, no odor

Total Purge Volume: 172 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 754 Purge time start: 758

RECHARGE BEHAVIOR:

☒ 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): _____

<u>Original</u>	<u>DUPE or MS/MSD</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW- 13</u>	Sample ID: <u>MW-13 (MS/MSD)</u>	Type: _____	Type: _____
Sample Time: <u>927</u>	Sample Time: <u>927</u>	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5</u>	No. of Containers: <u>5</u>	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 15

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73803
 Navy Contract No.: Battelle
 Sampled By: Marco Mendoza/ Chase Brogdon
 Date: 8/11/05
 Weather: clear and hot

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{74}{\text{TD (feet)}} - \frac{29}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{88.13}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ ☒ 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 (° C)	ORP (mV)	Comments
1256	29	0	6.91	48.3	4.3	8.8	20.8	255	Clear, no odor
1303	29	18	7.06	47.8	1.00	8.3	20.2	251	Clear, no odor
1311	29	36	7.11	47.1	1.5	7.8	20.9	248	Clear, no odor
1318	29	54	7.09	46.8	0.85	8.1	20.8	241	Clear, no odor
1325	29	72	7.15	46.7	1.1	8.3	20.6	236	Clear, no odor
1333	29	90	7.22	47.9	0.95	9.6	22.8	242	Clear, no odor

Total Purge Volume: 90 (Gallons)

Total Discharge: 3.06 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 1250 Purge time start: 1256

RECHARGE BEHAVIOR:

☒ 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): _____

<u>Original</u>	<u>DUPE or MS/MSD</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW- 15</u>	Sample ID: <u>DUPE-9-3Q05</u>	Type: _____	Type: _____
Sample Time: <u>1334</u>	Sample Time: <u>-----</u>	Sample ID: _____	Sample ID: _____
No. of Containers: <u>2</u>	No. of Containers: <u>2</u>	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 16

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73803
 Navy Contract No.: Battelle
 Sampled By: Marco Mendoza/ Chase Brogdon
 Date: 8/24/05
 Weather: partly cloudy and mild

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{285}{\text{TD (feet)}} - \frac{200.60}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{165.29}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ ☒ 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 (° C)	ORP (mV)	Comments
749	200.6	0	5.33	50.8	0	15.9	22.7	198	Clear, no odor
806	200.6	33	5.48	50.9	2.7	13.4	23.4	165	Clear, no odor
822	200.6	66	5.79	50.7	0.85	13.6	23.8	154	Clear, no odor
839	200.6	99	6.05	50.5	0.25	15.7	23.9	152	Clear, no odor
855	200.6	132	6.21	50.8	0.30	11.9	24.6	193	Clear, no odor
913	200.6	166	6.28	49.8	2.4	15.0	26.1	196	Clear, no odor

Total Purge Volume: 166 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 2 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 745 Purge time start: 749

RECHARGE BEHAVIOR:

☒ 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): _____

<u>Original</u>	<u>MS/MSD</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW- 16</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>926</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD