

## **ATTACHMENT 4: FIELD LOGS**

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This attachment contains the groundwater sample collection field logs for the relatively shallow standpipe monitoring wells (MW-1, MW-5 through 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-25). Groundwater sample collection was conducted by Geofon Incorporated.

# GROUNDWATER COLLECTION AND SAMPLE LOG

## WELL ID # 5



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.  
 Project No: 4-73803  
 Navy Contract No.: BATIELLE - JPL #G486048  
 Sampled By: Marco Mendoza, Jason Estep  
 Date: 2/14/05  
 Weather: partly cloudy and cool

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

### PURGE VOLUME CALCULATION (casing volume):

$$\left( \frac{140}{\text{TD (feet)}} - \frac{33.78}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{208.02}{\text{Calculated Purge Volume}} \text{ Gallons}$$

### 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
748	33.78	0	5.38	41.1	13.0	7.2	15.7	172	
803		41.6	5.75	34.7	4.80	9.1	15.7	134	
818		83	6.19	34.3	3.25	8.4	15.9	104	
833		125	6.42	34.3	3.18	9.3	15.9	99	
848		166	6.59	33.5	3.11	8.4	15.7	98	
903	33.78	208	6.70	33.4	2.92	8.7	16.1	97	

Total Purge Volume: 208 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 2.75 (GPM)

### OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 745 Purge time start: 748

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-5</u>	Sample ID: <u>DUPE-5-1005</u>	Type: _____	Type: _____
Sample Time: <u>903</u>	Sample Time: _____	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 - JPL #G486048  
 Sampled By: Marco Mendoza, Jason Estep  
 Date: 2/16/05  
 Weather: partly cloudy and cool

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**PURGE VOLUME CALCULATION (casing volume):**

$$\left( \frac{245}{\text{TD (feet)}} - \frac{154.12}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{177.98}{\text{Calculated Purge Volume}} \text{ Gallons}$$

**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
914	154.12	0	6.99	161	32.4	7.9	19.6	218	
937		36	7.23	160	8.99	8.3	19.5	210	
1001		71	7.21	160	2.64	8.3	20.0	218	
1024		107	7.34	160	1.83	8.3	20.2	220	
1048		142	7.39	159	1.93	8.5	20.5	216	
1111	154.12	177	7.43	159	2.38	8.6	20.9	230	

Total Purge Volume: 177 (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: 912 Purge time start: 914

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): \_\_\_\_\_

<b>Original</b>	<b>MS/MSD</b>	<b>Blank</b>	<b>Other ( Trip / Source / )</b>
Sample ID: <u>MW-6</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>1114</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

# GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 7



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.  
 Project No: 4-73803  
 Navy Contract No.: BATELLE - JPL 6486048  
 Sampled By: Marco Mendoza, Jason Estep  
 Date: 2/15/05  
 Weather: partly cloudy and cool

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 Telephone: (909) 396-7662  
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### PURGE VOLUME CALCULATION (casing volume):

$$\left( \frac{275}{\text{TD (feet)}} - \frac{176.36}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{193.18}{\text{Calculated Purge Volume}} \text{ Gallons}$$

### 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
808	176.36	0	5.61	.093	50.9	7.3	17.8	253	H <sub>2</sub> O BROWNISH
828		39	6.36	.094	32.6	7.5	18.3	210	
847		77	6.50	.095	17.8	7.4	18.7	201	
907		116	6.89	.095	15.6	7.6	19.2	199	
926		154	6.94	.095	13.7	7.6	19.0	196	
946	176.36	193	7.18	.095	12.5	6.6	19.3	198	

Total Purge Volume: 193 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 2 (GPM)

### OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 800 Purge time start: 0808

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): \_\_\_\_\_

<b>Original</b>	<b>MS/MSD</b>	<b>Blank</b>	<b>Other ( Trip / Source / )</b>
Sample ID: <u>MW-7</u>	Sample ID: <u>MS/MSD (8321 only)</u>	Type: _____	Type: _____
Sample Time: <u>946</u>	Sample Time: <u>946</u>	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5+1 (8321a)</u>	No. of Containers: <u>1</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.: BATIELLE - JPL #G486048  
 Sampled By: Marco Mendoza, Jason Estep  
 Date: 2/15/05  
 Weather: partly cloudy and cool

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 Fax: (909) 396-1455

**PURGE VOLUME CALCULATION (casing volume):**

$$\left( \frac{205}{\text{TD (feet)}} - \frac{101.4}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{202.89}{\text{Calculated Purge Volume}} \text{ Gallons}$$

**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
1233	101.40	0	7.34	42.9	7.87	8.6	17.7	134	
1248		41	7.24	43.0	2.46	8.3	17.7	101	
1303		81	7.29	43.3	2.99	9.8	17.9	97	
1318		122	7.38	43.1	1.95	8.7	17.5	102	
1333		162	7.52	43.0	0.89	8.6	17.4	100	
1348	101.40	202	7.44	43.1	0.67	8.5	17.3	115	

Total Purge Volume: 202 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 2.75 (GPM)

**OBSERVATIONS DURING PUMPING**

NOTES: (well condition, color, clarity, odor): Purge start at 1230 Purge time start: 1233

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-8</u>	Sample ID: <u>DURE-6-1405</u>	Type: _____	Type: _____
Sample Time: <u>1352</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>5 + 1 (32L)</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.: BATIELLE - JPL #G486048  
 Sampled By: Marco Mendoza, Jason Estep  
 Date: 2/16/05  
 Weather: partly cloudy and cool

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 Fax: (909) 396-1455

**PURGE VOLUME CALCULATION (casing volume):**

$$\left( \frac{155}{\text{TD (feet)}} - \frac{52.86}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{200.03}{\text{Calculated Purge Volume}} \text{ Gallons}$$

**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	52.86	0	5.21	.138	12.5	8.7	17.5	272	
741		40	5.88	.141	4.15	8.1	17.7	234	
753		80	6.45	.141	1.13	8.5	17.7	211	
804		120	6.52	.142	1.27	8.4	17.8	204	
816		160	6.68	.141	1.26	8.1	18.0	203	
827	52.86	200	6.87	.143	0.85	8.1	17.6	201	

Total Purge Volume: 200 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 3.5 (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): \_\_\_\_\_

<b>Original</b>	<b>MS/MSD</b>	<b>Blank</b>	<b>Other ( Trip / Source / )</b>
Sample ID: <u>MW-10</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>830</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

# GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 13



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.  
 Project No: 4-73803  
 Navy Contract No.: BATIELLE - JPL #6486048  
 Sampled By: Marco Mendoza, Jason Estep  
 Date: 2/15/05  
 Weather: partly cloudy and cool

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 Diamond Bar, CA 91765  
 Telephone: (909) 396-7662  
 Fax: (909) 396-1455

### PURGE VOLUME CALCULATION (casing volume):

$$\left( \frac{235}{\text{TD (feet)}} - \frac{147.87}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{170.64}{\text{Calculated Purge Volume}} \text{ Gallons}$$

### 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
1046	147.87	0	7.26	.103	46.7	8.7	19.6	221	
1100		34	7.30	.102	9.41	8.6	20.7	209	
1113		68	7.33	.102	4.23	9.3	20.3	209	
1127		102	7.34	.101	1.95	9.2	20.8	221	
1140		136	7.38	.100	1.70	8.4	22.0	216	
1154	147.87	170	7.21	.101	1.04	9.3	21.1	207	

Total Purge Volume: 170 (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 1042 Purge time start: 1046

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- 13</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>1156</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

# GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 15



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.  
 Project No: 4-73803  
 Navy Contract No.: BATTLE - JPL #G486048  
 Sampled By: Marco Mendoza, Jason Estep  
 Date: 2/17/05  
 Weather: partly cloudy and cool

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 Diamond Bar, CA 91765  
 Telephone: (909) 396-7662  
 Fax: (909) 396-1455

**PURGE VOLUME CALCULATION (casing volume):**

$$\left( \frac{74}{\text{TD (feet)}} - \frac{28.45}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{89.21}{\text{Calculated Purge Volume}} \text{ Gallons}$$

**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
805	28.45	0	5.00	.091	2.84	8.3	17.1	275	
812		18	5.64	.091	2.70	8.7	17.4	249	
819		35	6.08	44.9	3.94	8.2	17.7	115	
826		53	6.31	45.1	2.41	8.4	17.2	103	
833		70	6.42	45.1	2.92	7.9	17.4	97	
840		88	6.70	45.1	1.70	8.8	17.7	99	
842	28.45	89	6.80	45.1	1.21	8.3	17.4	100	

Total Purge Volume: 89 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

**OBSERVATIONS DURING PUMPING**

NOTES: (well condition, color, clarity, odor): Purge start at 800 Purge time start: 805

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): \_\_\_\_\_

<b>Original</b>	<b>MS/MSD</b>	<b>Blank</b>	<b>Other ( Trip / Source / )</b>
Sample ID: <u>MW-15</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>844</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>2</u>	No. of Containers: _____	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.: BATIELLE - JPL # G486048  
 Sampled By: Marco Mendoza, Jason Estep  
 Date: 2/16/05  
 Weather: partly cloudy and cool

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

**PURGE VOLUME CALCULATION (casing volume):**

$$\left( \frac{285}{\text{TD (feet)}} - \frac{200.66}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{165.17}{\text{Calculated Purge Volume}} \text{ Gallons}$$

**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
1147	200.66	0	7.70	1.092	2.62	10.4	22.8	247	
1204		33	7.64	1.091	35.3	9.5	22.5	240	H <sub>2</sub> O brownish
1220		66	7.65	1.091	9.12	10.1	22.5	239	
1237		99	7.65	1.092	8.67	9.7	22.1	237	
1253		132	7.63	1.092	1.60	9.3	22	233	
1310	200.66	165	7.69	1.092	1.23	8.9	22.6	258	

Total Purge Volume: 165 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 2 (GPM)

**OBSERVATIONS DURING PUMPING**

NOTES: (well condition, color, clarity, odor): Purge start at 1145 Purge time start: 1147

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): \_\_\_\_\_

<b>Original</b>	<b>MS/MSD</b>	<b>Blank</b>	<b>Other ( Trip / Source / )</b>
Sample ID: <u>MW-16</u>	Sample ID: <u>DUPE-7-1005</u>	Type: _____	Type: _____
Sample Time: <u>1314</u>	Sample Time: _____	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 Sampling**  
Multi-Port Well Field Data Sheet

JPL Pasadena

Contract #:

Well ID: MW-24

Sampling Zone No.: 4+1

Depth (ft): 278, 554, 435, 373, 279

Start Time: 859

Finish Time: 1100

Date: 1/25/04

Page: 1 of 1

Water Pressure Inside Casing: -----

Beginning of Session: 14.06 psia

End of Session: 14.05

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)
<u>4</u>	<u>1</u>	✓	✓	✓	✓	✓	✓	✓	✓	<u>144.31</u>	✓	<u>177.42</u>	✓	<u>177.43</u>	✓	✓	<u>144.34</u>	<u>923</u>	<u>5.65</u>	<u>2.3</u>	<u>19.5</u>	<u>34.2</u>	
<u>3</u>	<u>1</u>	✓	✓	✓	✓	✓	✓	✓	✓	<u>92.71</u>	✓	<u>127.37</u>	✓	<u>127.37</u>	✓	✓	<u>92.70</u>	<u>949</u>	<u>5.77</u>	<u>2.7</u>	<u>20.2</u>	<u>38.4</u>	
<u>2</u>	<u>1</u>	✓	✓	✓	✓	✓	✓	✓	✓	<u>65.80</u>	✓	<u>100.83</u>	✓	<u>100.83</u>	✓	✓	<u>65.81</u>	<u>1018</u>	<u>6.16</u>	<u>5.0</u>	<u>19.8</u>	<u>44.7</u>	
<u>1</u>	<u>1</u>	✓	✓	✓	✓	✓	✓	✓	✓	<u>25.20</u>	✓	<u>61.57</u>	✓	<u>61.57</u>	✓	✓	<u>25.19</u>	<u>1042</u>	<u>6.32</u>	<u>2.0</u>	<u>20.0</u>	<u>54.2</u>	

Notes:

port 5: NOT SAMPLED port 4: NO ODOR & CLEAR port 3: CLEAR w/ H<sub>2</sub>S ODOR  
port 2: CLEAR, NO ODOR port 1: CLEAR w/ SLIGHT ODOR

Total Volume: -----



# Groundwater Sampling

## Multi-Port Well Field Data Sheet

JPL Pasadena

Contract #:

Well ID: MW-21

Sampling Zone No.: 5+01

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

Start Time: 0709

Finish Time: 1025

Date: 1/27/05

Page: 1 of 1

Beginning of Session: 14.08 psia

End of Session: 14.16

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	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.42	✓	162.28	✓	162.30	✓	✓	129.44	747	4.83	2.7	14.0	1.05
<del>4</del>	<del>1</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>100.22</del>	<del>✓</del>	<del>125.05</del>	<del>✓</del>									
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.43	✓	135.45	✓	135.45	✓	✓	102.47	834	5.63	1.8	14.8	.98
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.37	✓	135.46	✓	135.45	✓	✓	102.42	900	5.95	1.8	15.7	.97
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	72.31	✓	105.61	✓	105.60	✓	✓	72.34	922	6.15	2.3	16.2	1.35
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	37.79	✓	71.45	✓	71.43	✓	✓	37.80	943	6.53	2.0	16.9	1.49
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.16	✓	40.17	✓	40.16	✓	✓	14.25	1021	6.83	4.0	17.6	1.37

**Notes:**

port 5: CLEAR, NO ODOUR      port 4: CLEAR, NO ODOUR      port 3: CLEAR, NO ODOUR  
 port 2: CLEAR, NO ODOUR      port 1: CLEAR, SLIGHT ODOUR

Total Volume: \_\_\_\_\_



### 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

Start Time: 0732

Finish Time: 1042

Date: 1/31/05

Page: 1 of 1

Water Pressure Inside Casing: \_\_\_\_\_

Beginning of Session: 14.07 psia

End of Session: 14.57

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	✓	✓	✓	✓	✓	✓	✓	✓	✓	192.33	✓	188.34	✓	188.32	✓	✓	192.33	808	5.28	5.0	15.9	31.8
<del>4</del>	<del>1</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>✓</del>	<del>156.05</del>	<del>✓</del>											
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	155.19	✓	151.86	✓	151.85	✓	✓	155.19	840	5.87	1.6	17.6	56.0
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	123.41	✓	119.76	✓	119.75	✓	✓	123.43	910	6.11	1.4	18.1	.120
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	123.39	✓	119.77	✓	119.75	✓	✓	123.38	933	6.49	1.9	18.9	.121
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.51	✓	73.96	✓	73.96	✓	✓	77.54	959	6.74	3.1	19.4	.129
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.45	✓	43.02	✓	43.01	✓	✓	47.46	1032	7.05	5.6	20.5	.139

**Notes:**

port 5: CLEAR, SLIGHT H<sub>2</sub>S ODOR port 4: CLEAR, SLIGHT ODOR port 3: CLEAR, NO ODOR

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

Total Volume: \_\_\_\_\_

> 3



# Groundwater Sampling

## Multi-Port Well Field Data Sheet

JPL Pasadena  
Contract #:

Well ID: MW-3

Sampling Zone No.: 4, 3, 2  
Depth (ft): ~~503, 558, 346, 252, 172~~

Start Time: 1145  
Finish Time: 1330

Date: 1/31/05  
Page: 1 of 1

Water Pressure Inside Casing: \_\_\_\_\_

Beginning of Session: 14.11 psia  
End of Session: 14.08 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)	Cond (mmhos)
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	210.83	✓	219.56	✓	219.55	✓	✓	210.75	1216	7.48	2.2	22.1	41.7	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	118.53	✓	131.00	✓	131.00	✓	✓	118.51	1239	7.50	1.7	20.5	44.6	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	78.13	✓	90.25	✓	90.25	✓	✓	78.13	1308	7.68	1.9	21.0	49.5	
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.11	✓	90.24	✓	90.25	✓	✓	77.13	1323	7.82	2.3	19.2	49.1	

Notes:

port 5: NOT SAMPLED     port 4: CLEAR, NO ODOUR     port 3: NO ODOUR, CLEAR  
port 2: CLEAR, NO ODOUR     port 1: NOT SAMPLED

Total Volume: \_\_\_\_\_



# Groundwater Sampling

## Multi-Port Well Field Data Sheet

**JPL Pasadena**

Contract #:

Well ID: MW-19

Sampling Zone No.: 5 + 1

Depth (ft): 498, 444, 392\*, 314, & 242

Start Time: 9:29

Finish Time: 11:55

Date: 2/1/05

Page: 1 of 1

Beginning of Session: 14.14

End of Session: 14.09

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)	Temp. (oC)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	147.07	✓	173.24	✓	173.24	✓	✓	147.10	955	6.06	11	17.2	63.6	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	123.62	✓	149.85	✓	149.84	✓	✓	123.63	1021	6.08	1.6	18.1	75.4	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	106.47	✓	127.86	✓	127.87	✓	✓	106.45	1057	6.48	3.9	19.5	77.3	
<del>2</del>	<del>1</del>	✓	✓	✓	✓	✓	✓	✓	✓	67.13	✓	93.74	✓	93.74	✓	✓	67.13	1120	6.79	3.5	19.8	.130	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	35.81	✓	63.72	✓	63.71	✓	✓	35.81	1146	7.21	30	20.4	49.3	

**Notes:**  
 port 5: CLEAR, NO ODOR      port 4: CLEAR, NO ODOR      port 3: CLEAR, NO ODOR  
 port 2: SLIGHT YELLOW-BROWN DISC, NO ODOR      port 1: SLIGHTLY YELLOWISH DISC, NO ODOR

Total Volume: \_\_\_\_\_



### Groundwater Sampling Multi-Port Well Field Data Sheet

**JPL Pasadena**

Contract #:

Well ID: MW-17

Sampling Zone No.: 4 to 2

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

Start Time: 723

Date: 2/2/05

Finish Time: 920

Page: 1 of 1

Beginning of Session: 14.11

End of Session: 14.07

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)	Temp. (oC)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	107.56	✓	186.55	✓	186.52	✓	✓	107.55	747	5.42	1.7	13.9	31.9	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	57.86	✓	134.10	✓	134.10	✓	✓	57.85	816	5.45	1.4	14.2	67.1	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	14.97	✓	96.86	✓	96.84	✓	✓	15.04	853	5.87	2.7	14.8	82.4	
2	2	✓	✓	✓	✓	✓	✓	✓	✓	14.96	✓	96.85	✓	96.84	✓	✓	15.03	913	6.38	3.8	15.4	82.0	

**Notes:**

port 5: NOT SAMPLED      port 4: CLEAR, SLIGHT ODOUR      port 3: CLEAR, SLIGHT H<sub>2</sub>S ODOUR

---

port 2: CLEAR, NO ODOUR      port 1: NOT SAMPLED

Total Volume: \_\_\_\_\_



**Groundwater Sampling**  
Multi-Port Well Field Data Sheet

JPL Pasadena

Contract #:

Well ID: MW-18

Sampling Zone No.: 5 to 2

Depth (ft): 684, 564, 424, 330, 270

Start Time: 1024

Finish Time: 1257

Date: 2/2/05

Page: 1 of 1

Beginning of Session: 14.09

End of Session: 14.06

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	✓	✓	✓	✓	✓	✓	✓	✓	✓	159.51	✓	213.29	✓	213.26	✓	✓	159.52	1057	7.04	2.4	19.8	29.3
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	107.76	✓	162.34	✓	162.35	✓	✓	107.77	1133	7.05	5.0	21.5	43.1
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.71	✓	105.68	✓	105.69	✓	✓	46.74	1159	7.19	2.8	20.7	55.9
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.21	✓	62.85	✓	62.84	✓	✓	14.29	1228	7.41	2.4	20.8	50.6
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.18	✓	62.85	✓	62.85	✓	✓	14.29	1249	7.21	2.5	20.9	54.8

Notes:

port 5: CLEAR, NO ODOUR    port 4: CLEAR, NO ODOUR    port 3: CLEAR, NO ODOUR  
 port 2: CLEAR, NO ODOUR    port 1: NOT SAMPLED

Total Volume: \_\_\_\_\_





### 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: 720  
Finish Time: 1010

Date: 2/3/05  
Page: 1 of 1

Beginning of Session: 14.09 pm  
End of Session: 14.07

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)	Temp. (oC)	Cond (mmhos)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	309.16	✓	330.89	✓	330.89	✓	✓	309.15	756	5.08	3.5	14.0	37.3	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	222.10	✓	244.47	✓	244.45	✓	✓	222.11	831	6.08	9.3	15.9	31.9	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	162.0	✓	183.74	✓	183.75	✓	✓	162.02	903	5.86	1.2	17.7	51.7	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	87.94	✓	109.00	✓	109.1	✓	✓	87.95	937	6.27	1.2	18.2	38.9	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	17.66	✓	37.39	✓	37.41	✓	✓	17.72	1004	6.48	4.2	18.4	47.1	

**Notes:**  
 port 5: CLEAR, STRONG ODR      port 4: CLEAR, H.S ODR      port 3: CLEAR, STRONG ODR  
 port 2: CLEAR, SUCENT ODR      port 1: CLEAR, NO ODR

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: 14.10

End of Session: 14.08

Start Time: 756

Finish Time: 1645

Date: 2/7/05

Page: 1 of 1

Water Pressure Inside Casing: \_\_\_\_\_

Port #	Run #	Surface Function Checks							Position Sampler	Deactivate Set Arm Locate Port	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)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	204.71	✓	201.77	✓	201.79	✓	✓	204.77	835	5.50	2.4	16.4	47.7
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	205.14	✓	201.77	✓	201.76	✓	✓	205.15	908				
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	205.12	✓	201.77	✓	201.76	✓	✓	205.15	937				
5	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	203.61	✓	201.76	✓	201.76	✓	✓	203.60	1001	6.66	3.1	17.6	47.9
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	171.03	✓	168.02	✓	168.02	✓	✓	171.01	1043	6.64	3.6	18.7	66.0
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	172.96	✓	168.01	✓	168.01	✓	✓	170.95	1113				
4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	170.93	✓	168.01	✓	168.00	✓	✓	170.95	1148	6.99	3.4	17.5	65.5
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	114.55	✓	112.75	✓	112.73	✓	✓	114.58	1225	7.22	5.0	18.8	59.6
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	114.50	✓	112.73	✓	112.70	✓	✓	114.51	1252				
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	114.91	✓	112.72	✓	112.70	✓	✓	114.91	130	7.52	4.6	18.3	62.3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.08	✓	78.22	✓	78.20	✓	✓	80.04	1246	7.85	15	16.8	56.8
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.56	✓	78.23	✓	78.22	✓	✓	79.57	1240				
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.53	✓	78.23	✓	78.20	✓	✓	79.52	1310				
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	51.13	✓	49.66	✓	49.66	✓	✓	51.15	1347	7.83	2.3	16.2	82.5
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	50.99	✓	49.66	✓	49.66	✓	✓	50.99	1617				
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	51.44	✓	49.67	✓	49.66	✓	✓	51.46	1647				

**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-11

Sampling Zone No.: 4 to 1

Depth (ft): 699, 524, 429, 259, 149\*

Start Time: 717

Finish Time: 940

Date: 2/8/05

Page: 1 of 1

Beginning of Session: 14.08 psia

End of Session: 14.07

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	✓	✓	✓	✓	✓	✓	✓	✓	195.42	✓	193.76	✓	193.72	✓	✓	195.43	743	5.24	1.73	14.1	26.2		
3	1	✓	✓	✓	✓	✓	✓	✓	✓	154.46	✓	152.22	✓	152.14	✓	✓	154.45	514	5.40	2.1	13.8	37.8		
2	1	✓	✓	✓	✓	✓	✓	✓	✓	80.74	✓	80.81	✓	80.77	✓	✓	80.73	837	5.73	1.42	14.7	44.4		
1	1	✓	✓	✓	✓	✓	✓	✓	✓	33.80	✓	39.25	✓	39.23	✓	✓	33.81	912	6.31	1.38	16.4	54.7		
1	2	✓	✓	✓	✓	✓	✓	✓	✓	33.25	✓	39.23	✓	39.23	✓	✓	33.27	934	6.59	2.02	18.0	54.5		

Notes:

port 5: NO SAMPLE                      port 4: CLEAR, H<sub>2</sub>S ODOR                      port 3: CLEAR, SLIGHT ODOR

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

Total Volume: \_\_\_\_\_



**Groundwater Sampling**  
Multi-Port Well Field Data Sheet

**JPL Pasadena**

Contract #:

Well ID: MW-4

Sampling Zone No.: 3 to 1

Start Time: 1017

Date: 2/8/05

Depth (ft): 518, 392, 322, 240, 150

Finish Time: 1220

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Beginning of Session: 14.04 psia

End of Session: 14.07 psia

Water Pressure Inside Casing: \_\_\_\_\_

Port #	Run #	Surface Function Checks							Position Sampler	Deactivate Set Arm Locate Port	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)
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	58.61	✓	129.63	✓	129.63	✓	✓	58.67	1046	6.76	14.4	22.4	40.9	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	22.83	✓	94.61	✓	94.61	✓	✓	22.85	1109	6.90	3.59	21.4	97.0	
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	22.80	✓	94.60	✓	94.61	✓	✓	22.89	1130	7.06	5.45	20.1	97.1	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.16	✓	59.84	✓	59.83	✓	✓	14.22	1215	7.42	23.3	19.8	45.2	

**Notes:**

port 5: NOT SAMPLED                      port 4: NOT SAMPLED                      port 3: YELLOWISH-BROWN, NO ODOOR

port 2: CLEAR, NO ODOOR                      port 1: CLEAR, NO ODOOR

Total Volume: \_\_\_\_\_



## Groundwater Sampling Multi-Port Well Field Data Sheet

**JPL Pasadena**

Contract #:

Well ID: MW-23

Sampling Zone No.: 4 to 1

Depth (ft): ~~445~~, 319, 254, 174

Start Time: 726

Finish Time: 0940

Date: 2/9/05

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Water Pressure Inside Casing: -----

Beginning of Session: 14.09 psia

End of Session: 14.07 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)	Cond (mmhos)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	165.53	✓	171.86	✓	171.85	✓	✓	165.54	800	5.31	2.08	16.3	38.7	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	110.91	✓	118.79	✓	118.79	✓	✓	110.91	824	6.26	9.70	16.4	37.7	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	82.69	✓	90.77	✓	90.76	✓	✓	82.69	847	6.41	1.45	15.9	93.0	
2	2	✓	✓	✓	✓	✓	✓	✓	✓	82.66	✓	90.76	✓	90.77	✓	✓	82.64	907	7.02	1.31	15.4	92.8	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	48.10	✓	57.22	✓	57.22	✓	✓	48.10	934	6.83	5.32	20.0	146	

**Notes:**

port 5: NOT SAMPLED    port 4: CLEAR, STRONG ODOR    port 3: CLEAR, STRONG ODOR  
port 2: CLEAR, STRONG ODOR    port 1: CLEAR, STRONG ODOR

Total Volume: -----



**Groundwater Sampling**  
Multi-Port Well Field Data Sheet

JPL Pasadena  
Contract #:

Well ID: MW-22

Sampling Zone No.: 3 to 1  
Depth (ft): ~~389, 467~~ 389, 329, 245

Start Time: 7:3  
Finish Time: 9:00

Date: 2/10/05  
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Water Pressure Inside Casing: -----

Beginning of Session: 14.00 psia  
End of Session: 14.03

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)	Temp. (oC)
3	1	✓	✓	✓	✓	✓	✓	✓	✓	115.26	✓	120.66	✓	120.64	✓	✓	115.26	738	5.13	0.99	16.7	.096	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	89.22	✓	94.65	✓	94.64	✓	✓	89.21	808	5.73	0.81	16.8	.092	
2	2	✓	✓	✓	✓	✓	✓	✓	✓	89.19	✓	94.65	✓	94.65	✓	✓	89.19	829	6.30	1.05	17.8	.091	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	52.49	✓	58.27	✓	58.27	✓	✓	52.44	857	6.41	15.8	17.5	.144	

**Notes:**  
 port 5: NOT SAMPLED port 4: NOT SAMPLED port 3: CLEAR, STRONG ODOR  
 port 2: CLEAR, NO ODOR port 1: SLIGHTLY BROWN, STRONG ODOR  
 Total Volume: -----



# 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

Start Time: 939  
Finish Time: 1240

Date: 2/10/05  
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Water Pressure Inside Casing: \_\_\_\_\_

Beginning of Session: 14.07 psia  
End of Session: 14.03 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)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	201.45	✓	215.51	✓	215.50	✓	✓	201.45	1008	7.21	3.21	17.2	42.7		
4	1	✓	✓	✓	✓	✓	✓	✓	✓	153.64	✓	170.22	✓	170.13	✓	✓	153.62	1037	7.24	1.40	17.7	46.3		
3	1	✓	✓	✓	✓	✓	✓	✓	✓	103.89	✓	122.26	✓	122.26	✓	✓	103.88	1107	7.70	1.95	19.3	39.0		
3	2	✓	✓	✓	✓	✓	✓	✓	✓	103.90	✓	122.26	✓	122.26	✓	✓	103.84	1147	7.89	2.01	20.4	44.5		
2	1	✓	✓	✓	✓	✓	✓	✓	✓	68.87	✓	88.27	✓	88.26	✓	✓	68.89	1208	7.92	2.68	20.8	50.9		
1	1	✓	✓	✓	✓	✓	✓	✓	✓	24.36	✓	48.85	✓	48.84	✓	✓	24.36	1230	8.01	8.00	20.8	51.0		

**Notes:**  
 port 5: CLEAR, NO ODOUR      port 4: CLEAR, NO ODOUR      port 3: CLEAR, NO ODOUR  
 port 2: CLEAR, NO ODOUR      port 1: CLEAR, NO ODOUR

Total Volume: \_\_\_\_\_