APPENDIX A

WELL SAMPLING LOG FORMS FOR SHALLOW WELLS AND GROUNDWATER SAMPLING FIELD DATA SHEETS FOR DEEP MULTI-PORT WELLS

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 1

GEOFON INCORPORATED

22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.

Project No: 4-12812

Navy Contract No.: N68711-01-D-6008, D.O. No. 0001

Sampled By: Marco M. & J. D. Jones

Date: 5/19/04

Weather: Sunny & warm

PURGE VOLUME CALCULATION (casing volume):

(120 - 25.60) X 4^2 X 3 X 0.0408 = 184.87 Gallons

TD (feet) — WL (feet) — D (inches) — # Vols — Calculated Purge Volume

PURGE METHOD / PUMP INTAKE SETTING

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos

Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
1140	25.60	0	7.63	44.5	3.2	9.1	22.8	253	
1147		35	7.65	42.4	2.7	6.1	19.6	254	
1155		75	7.59	40.5	0.45	9.0	19.0	250	
1202		110	7.79	41.5	0.75	5.1	19.1	252	
1210		150	7.92	46.9	6.7	8.8	18.7	258	H2O flow paused for 20 secs.
1217	25.60	185	7.86	41.4	0.35	5.0	18.4	266	

Total Purge Volume: 185 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 1138 Purge time start: 1140

Clear and odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	*Duplicate*	*Blank*	*Other (Trip / Source / _____)*
Sample ID: MW- 1	Sample ID:	Type:	Type:
Sample Time: 1217	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 5	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 10

GEOFON INCORPORATED

22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-12812
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Tony M. & J. D. Jones
Date: 5/24/04
Weather: partly cloudy & warm

PURGE VOLUME CALCULATION (casing volume):

(155 - 73.20) X 4^2 X 3 X 0.0408 = 160.20 Gallons

TD (feet) — WL (feet) — D (inches) — # Vols — Calculated Purge Volume

PURGE METHOD / PUMP INTAKE SETTING

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos

Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
0849	73.20	0	5.42	0.0	45	7.7	18.5	318	Tan in color
0859		30	6.14	77.0	19	8.6	19.0	304	Clear in color
0910		63	6.50	77.4	10	8.1	19.0	287	
0920		93	6.69	77.9	6.2	7.8	19.1	282	
0931		126	6.89	78.4	3.0	8.3	19.3	291	
0941		156	6.86	78.6	2.8	8.2	19.4	286	
0943	73.20	162	6.89	78.2	3.5	8.2	19.4	286	

Total Purge Volume: 162 (Gallons)

Total Discharge: 3.03 (Casing Volumes)

Approx. Purge Rate: 3 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 0847 Purge time start: 0849

Clear and odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	*MS/MSD*	*Blank*	*Other (Trip / Source / _____)*
Sample ID: MW- 10	Sample ID: _____	Type: _____	Type: _____
Sample Time: 0943	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 5	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 13

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-12812
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Marco M. & J. D. Jones
Date: 5/25/04
Weather: partly cloudy & warm

PURGE VOLUME CALCULATION (casing volume):

(235 - 167.0) X 4^2 X 3 X 0.0408 = 133.17 Gallons
TD (feet) WL (feet) D (inches) # Vols Calculated Purge Volume

PURGE METHOD / PUMP INTAKE SETTING

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

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
0715	167	0	6.16	46.2	65	8.5	19.4	278	Brown in color
0735		27	6.39	45.0	7.7	6.7	19.8	280	Clear in color
0751		54	6.72	45.7	1.9	7.7	19.5	283	
0809		81	6.85	45.6	1.3	7.5	19.5	281	
0827		108	6.84	45.3	0.95	7.9	19.6	283	
0845	167	135	7.03	45.8	1.2	7.9	18.3	284	

Total Purge Volume: 135 (Gallons)

Total Discharge: 3.04 (Casing Volumes)

Approx. Purge Rate: 1.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 0714 Purge time start: 0715

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

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	*MS/MSD*	*Blank*	*Other (Trip / Source / _____)*
Sample ID: MW- 13	Sample ID: _____	Type: _____	Type: _____
Sample Time: 0851	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 9	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 15

GEOFON INCORPORATED

22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-12812
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Tony M. & J. D. Jones
Date: 5/20/04
Weather: partly cloudy & cool

PURGE VOLUME CALCULATION (casing volume):

(74 - 31.21) X 4^2 X 3 X 0.0408 = 83.80 Gallons
TD (feet) WL (feet) D (inches) # Vols Calculated Purge Volume

PURGE METHOD / PUMP INTAKE SETTING

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

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
1012	31.21	0	6.91	0.0	7.4	8.1	19.1	278	
1017		15	6.93	34.4	5.8	8.6	18.2	285	
1023		30	7.08	36.2	3.8	7.8	17.9	281	
1028		45	7.16	36.1	4.2	7.8	17.5	278	
1034		60	7.20	35.8	4.3	8.7	17.0	279	
1039		75	7.25	35.9	3.5	8.1	17.9	277	
1042	31.21	84	7.30	36.0	3.1	7.6	18.5	274	

Total Purge Volume: 84 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 3.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 1005 Purge time start: 1012

Clear & odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	*MS/MSD*	*Blank*	*Other (Trip / Source / _____)*
Sample ID: MW- 15	Sample ID: Dupe-6-2Q04	Type: _____	Type: _____
Sample Time: 1043	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 5	No. of Containers: 5	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 16

GEOFON INCORPORATED

22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.

Project No: 4-12812

Navy Contract No.: N68711-01-D-6008, D.O. No. 0001

Sampled By: Tony M., Marco M., & J. D. Jones

Date: 5/19/04

Weather: sunny & warm

PURGE VOLUME CALCULATION (casing volume):

(285 - 219.38) X 4^2 X 3 X 0.0408 = 128.51 Gallons

TD (feet) — WL (feet) — D (inches) — # Vols — Calculated Purge Volume

PURGE METHOD / PUMP INTAKE SETTING

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos

Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
0921	219.38	0	7.45	37.9	8.1	8.2	21.6	260	
0932		22	7.51	36.6	3.0	8.1	22.2	263	
0943		44	7.60	36.8	0.95	7.8	21.8	261	
0954		66	7.65	44.4	0.10	7.9	22.0	256	
1005		88	7.40	36.9	0.45	9.1	23.0	268	
1016		110	7.60	36.8	0.80	8.1	22.7	261	
1026	219.38	130	7.59	39.0	2.2	9.0	24.1	264	

Total Purge Volume: 130 (Gallons)

Total Discharge: 3.03 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 0912 Purge time start: 0921

Clear & odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	*MS/MSD*	*Blank*	*Other (Trip / Source / _____)*
Sample ID: MW- 16	Sample ID:	Type:	Type:
Sample Time: 1031	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 8	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 5

GEOFON INCORPORATED

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Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.

Project No: 4-12812

Navy Contract No.: N68711-01-D-6008, D.O. No. 0001

Sampled By: Tony M. & J. D. Jones

Date: 5/20/04

Weather: Cool & cloudy

PURGE VOLUME CALCULATION (casing volume):

(140 - 57.05) X 4^2 X 3 X 0.0408 = 162.45 Gallons

TD (feet) — WL (feet) — D (inches) — # Vols — Calculated Purge Volume

PURGE METHOD / PUMP INTAKE SETTING

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos

Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
0802	57.05	0	5.48	30.0	55	8.2	16.9	278	Brownish and odorless
0818		32	5.94	26.2	30	8.9	16.7	271	Light tan in color
0834		64	6.37	26.0	14	8.8	16.8	272	Clear in color
0850		96	6.49	26.0	8.3	8.0	17.0	281	
0906		128	6.69	26.1	7.9	8.1	17.4	282	
0922		160	6.91	26.0	6.7	8.7	17.2	280	
0924	57.05	164	6.87	26.4	6.3	8.6	17.5	281	

Total Purge Volume: 164 (Gallons)

Total Discharge: 3.03 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 0755 Purge time start: 0802

Clear and odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	*MS/MSD*	*Blank*	*Other (Trip / Source /)*
Sample ID: MW- 5	Sample ID: MW- 5	Type:	Type:
Sample Time: 0926	Sample Time: 0926	Sample ID:	Sample ID:
No. of Containers: 5	No. of Containers: 5	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 6

GEOFON INCORPORATED

22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-12812
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Marco M., Tony M. & J. D. Jones
Date: 5/19/04
Weather: Cool & sunny

PURGE VOLUME CALCULATION (casing volume):

(245 - 168.60) X 4^2 X 3 X 0.0408 = 149.62 Gallons

TD (feet) - WL (feet)) X D (inches) X # Vols X 0.0408 = Calculated Purge Volume

PURGE METHOD

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos

PUMP INTAKE SETTING

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
0732	168.6	0	5.84	72.8	80	7.3	18.5	280	Brownish in color
0747		30	6.58	70.4	36	7.3	18.6	263	Clear in color
0802		60	6.88	70.6	23	7.3	19.0	264	
0817		90	6.87	71.2	16	7.2	19.2	268	
0832		120	7.28	71.6	15	7.2	18.9	266	
0847	168.6	150	7.33	71.5	9.7	7.1	18.6	268	

Total Purge Volume: 150 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 0710 Purge time start: 0732

Clear and odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***MS/MSD***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW- 6	Sample ID: _____	Type: _____	Type: _____
Sample Time: 0851	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 5	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 7

GEOFON INCORPORATED

22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-12812
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Marco M. & J. D. Jones
Date: 5/26/04
Weather: sunny

PURGE VOLUME CALCULATION (casing volume):

(275 - 197.11) X 4^2 X 3 X 0.0408 = 152.54 Gallons

TD (feet) — WL (feet) — D (inches) — # Vols — Calculated Purge Volume

PURGE METHOD

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos

PUMP INTAKE SETTING

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
0956	197.11	0	6.08	40.8	29	8.2	24.3	293	
1027		31	6.45	40.8	20	7.8	22.6	272	
1058		62	7.03	40.4	21	7.2	22.9	279	
1129		94	7.26	39.6	26	5.7	22.9	282	
1200		125	7.37	39.8	26	5.0	23.1	290	
1228	197.11	153	7.48	40.5	13.0	5.7	24.8	287	

Total Purge Volume: 153 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 1.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 0907 Purge time start: 0956

Clear and odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***MS/MSD***	***Blank***	***Other (Trip / Source /)***
Sample ID: MW- 7	Sample ID: Dupe-7-2Q04	Type:	Type:
Sample Time: 1236	Sample Time: ------	Sample ID:	Sample ID:
No. of Containers: 6	No. of Containers: 6	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 8

GEOFON INCORPORATED

22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-12812
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Marco M. & J. D. Jones
Date: 5/26/04
Weather: sunny & warm

PURGE VOLUME CALCULATION (casing volume):

(205 - 123.30) X 4^2 X 3 X 0.0408 = 160.00 Gallons

TD (feet) — WL (feet) — D (inches) — # Vols — Calculated Purge Volume

PURGE METHOD / PUMP INTAKE SETTING

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos

Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
1319	123.30	0	7.59	31.4	14.1	9.7	20.1	298	
1332		32.5	7.40	29.8	5.1	8.2	19.3	295	
1345		65	7.38	29.4	4.9	8.7	19.5	294	
1358		97.5	7.51	29.6	2.0	9.1	19.4	294	
1411		130	7.47	29.4	0.4	8.6	20.3	293	
1423	123.30	160	7.59	29.9	0.5	8.7	22.7	293	

Total Purge Volume: 160 (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 1318 Purge time start: 1319

Clear and odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	*MS/MSD*	*Blank*	*Other (Trip / Source / _____)*
Sample ID: MW- 8	Sample ID: MW-8	Type: _____	Type: _____
Sample Time: 1432	Sample Time: 1432	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: 6	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 9

GEOFON INCORPORATED

22632 Golden Springs Dr., Suite 27
Diamond Bar, CA 9176
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-12812
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Marco M. & J. D. Jones
Date: 5/19/04
Weather: sunny & warm

PURGE VOLUME CALCULATION (casing volume):

(68 - 20.58) X 4^2 X 3 X 0.0408 = 92.87 Gallons
TD (feet) WL (feet) D (inches) # Vols Calculated Purge Volume

PURGE METHOD

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos

PUMP INTAKE SETTING

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
1302	20.58	0							Unable to grab horiba. The time and flow of water was to fast to grab accurately.
1306		18	7.80	35.1	16	5.6	24.1	280	
1310		36	7.57	34.0	65	9.0	22.2	282	
1314		54	7.47	34.8	70	5.4	22.1	286	
1318		72	7.38	34.5	60	5.1	21.3	286	
1322		90	7.41	34.2	28	5.5	21.5	285	
1323	20.58	94	7.33	35.2	22	5.1	22.9	274	

Total Purge Volume: 94 (Gallons)

Total Discharge: 3.04 (Casing Volumes)

Approx. Purge Rate: 4.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at 1301 Purge time start: 1302

Clear and odorless

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***MS/MSD***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW- 9	Sample ID: _____	Type: _____	Type: _____
Sample Time: 1327	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 5	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-19
Sampling Zone No.: 5 to 1
Depth (ft): 498, 444, 392, 314, 242
Beginning of Session: 14.04
End of Session: 14.07

Start Time: 850
Finish Time: 1206

Date: **4/29/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	139.36	X	170.43	X	170.42	X	X	139.30	910	5.70	5.9	18.7	52.8
5	2	X	X	X	X	X	X	X	X	X	138.39	X	170.42	X	170.42	X	X	138.40	932	6.90	6.1	18.4	46.1
4	1	X	X	X	X	X	X	X	X	X	115.50	X	147.02	X	147.03	X	X	116.02	1013	7.54	1.2	19.5	43.0
3	1	X	X	X	X	X	X	X	X	X	93.61	X	124.29	X	124.31	X	X	93.41	1041	7.90	2.5	18.9	55.6
3	2	X	X	X	X	X	X	X	X	X	93.48	X	124.31	X	124.30	X	X	93.39	1105	8.12	3.6	18.0	56.0
2	1	X	X	X	X	X	X	X	X	X	59.51	X	90.08	X	90.11	X	X	59.52	1131	8.27	10.0	19.3	72.5
1	1	X	X	X	X	X	X	X	X	X	28.37	X	58.61	X	58.60	X	X	28.25	1156	8.64	28.0	18.7	29.7

Notes:

port 5: clear & odorless port 4: clear & odorless port 3: clear & odorless

port 2: clear & odorless port 1: light yellow in color & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-21
Sampling Zone No.: 5 to 1
Depth (ft): 372, 310, 240, 161, 90
Beginning of Session: 14.16
End of Session: 14.2

Start Time: 641
Finish Time: 922

Date: **4/30/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	130.71	X	157.84	X	157.82	X	X	130.72	657	4.98	4.9	16.1	66.8
4	1	X	X	X	X	X	X	X	X	X	103.94	X	130.97	X	130.96	X	X	103.61	723	6.94	0.9	16.7	51.2
3	1	X	X	X	X	X	X	X	X	X	73.68	X	101.03	X	101.03	X	X	73.48	747	7.43	1.8	17.1	81.0
2	1	X	X	X	X	X	X	X	X	X	39.12	X	66.72	X	66.73	X	X	39.05	811	7.72	4.5	16.5	90.8
1	1	X	X	X	X	X	X	X	X	X	14.22	X	35.24	X	35.25	X	X	14.30	836	7.69	0.2	17.6	78.5
1	2	X	X	X	X	X	X	X	X	X	14.25	X	35.25	X	35.25	X	X	14.32	902	7.60	1.7	17.7	78.7
1	3	X	X	X	X	X	X	X	X	X	14.22	X	35.22	X	35.25	X	X	14.29	916	7.51	3.2	17.8	78.4

Notes:

port 5: clear & odorless port 4: clear & odorless port 3: clear & odorless

port 2: clear & odorless port 1:clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-20
Sampling Zone No.: 5 to 1
Depth (ft): 900, 700, 562, 392, 230
Beginning of Session: 14.22
End of Session: 14.52

Start Time: 701
Finish Time: 1112

Date: **5/3/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	310.69	X	329.50	X	329.51	X	X	310.62	720	6.05	0.3	20.3	32.1
5	2	X	X	X	X	X	X	X	X	X	309.52	X	329.52	X	329.50	X	X	309.53	756	7.57	0.5	19.8	22.8
4	1	X	X	X	X	X	X	X	X	X	224.05	X	244.83	X	244.75	X	X	224.29	827	8.24	11.0	21.1	22.2
3	1	X	X	X	X	X	X	X	X	X	164.54	X	183.27	X	183.27	X	X	164.20	909	7.53	0.3	25.3	38.0
2	1	X	X	X	X	X	X	X	X	X	89.88	X	108.89	X	108.94	X	X	90.07	950	7.03	0.0	24.7	24.2
2	2	X	X	X	X	X	X	X	X	X	90.06	X	108.88	X	108.95	X	X	90.05	1023	7.05	0.4	25.8	24.0
1	1	X	X	X	X	X	X	X	X	X	19.32	X	38.01	X	38.08	X	X	19.37	1110	7.19	1.4	26.3	32.0

Notes:

port 5: clear & odorless port 4: clear & slight H2S odor port 3: clear & odorless

port 2: clear & odorless port 1:clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-18
Sampling Zone No.: 5 to 1
Depth (ft): 684, 564, 424, 330, 270
Beginning of Session: 14.03
End of Session: 14.04

Start Time: 656
Finish Time: 1029

Date: **5/4/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	159.54	X	213.73	X	213.72	X	X	159.53	712	5.66	0.5	20.9	36.1
5	2	X	X	X	X	X	X	X	X	X	158.49	X	213.74	X	213.72	X	X	158.48	738	6.31	1.0	20.3	22.8
4	1	X	X	X	X	X	X	X	X	X	108.34	X	162.40	X	162.40	X	X	108.20	803	6.26	1.1	21.5	27.9
4	2	X	X	X	X	X	X	X	X	X	108.14	X	162.38	X	162.39	X	X	108.16	831	6.70	1.8	20.9	27.8
3	1	X	X	X	X	X	X	X	X	X	47.17	X	102.99	X	103.01	X	X	47.18	908	7.02	0.1	21.7	37.9
2	1	X	X	X	X	X	X	X	X	X	14.21	X	61.28	X	61.26	X	X	14.27	934	7.75	1.8	25.0	33.2
1	1	X	X	X	X	X	X	X	X	X	14.19	X	35.01	X	34.98	X	X	14.24	1012	7.78	2.3	27.5	28.3

Notes:

port 5: clear & odorless port 4: slightly cloudy & odorless port 3: clear & odorless

port 2: clear & odorless port 1:clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-17(part 1)
Sampling Zone No.: 5 to 1
Depth (ft): 726, 582, 468, 370, 250
Beginning of Session: 14.06
End of Session: 14.22

Start Time: 701
Finish Time: 1131

Date: **5/5/2004**
Page: 1 of 2

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	X	X	X	X	X	X	X	X	X	170.64	X	248.09	X	247.98	X	X	170.79	719	5.35	990.0	18.6	33.7
5	2	X	X	X	X	X	X	X	X	X	170.67	X	248.09	X	247.91	X	X	170.64	751	5.50	990.0	18.8	22.2
5	3	X	X	X	X	X	X	X	X	X	170.61	X	248.09	X	247.95	X	X	170.73	818	6.74	990.0	20.6	20.1
4	1	X	X	X	X	X	X	X	X	X	108.84	X	185.67	X	185.68	X	X	108.88	848	6.93	2.8	20.8	21.7
4	2	X	X	X	X	X	X	X	X	X	108.83	X	185.67	X	185.66	X	X	108.85	915	7.74	2.0	21.3	23.3
4	3	X	X	X	X	X	X	X	X	X	106.19	X	185.66	X	185.69	X	X	106.32	939	8.10	2.8	19.7	23.4
3	1	X	X	X	X	X	X	X	X	X	59.13	X	135.62	X	135.41	X	X	59.12	1001	7.87	11.0	21.0	34.5
2	1	X	X	X	X	X	X	X	X	X	16.33	X	94.44	X	94.44	X	X	16.35	1039	7.95	1.5	23.5	44.1
1	1	X	X	X	X	X	X	X	X	X	14.22	X	42.81	X	42.78	X	X	14.24	1117	8.10	0.7	25.2	29.3

Notes:

port 5: brown in color & odorless port 4: clear & odorless port 3: clear & odorless
port 2: clear & odorless port 1:clear & odorless
** Part 2 sampling event is printed on separate sheet.

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-17(part 2)
Sampling Zone No.: 4
Depth (ft): 582
Beginning of Session: 14.09
End of Session: 14.06

Start Time: 1137
Finish Time: 1212

Date: **5/11/2004**
Page: 2 of 2

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	X	X	X	X	X	X	X	X	X	109.06	X	185.50	X	185.51	X	X	109.19	1157	7.89	2.2	23.6	21.8

Notes:
port 4: clear & odorless

** MW-17 port 4 sampled twice due to proper sample bottles being unavailable at the original sampling event on 5/5/04

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-3
Sampling Zone No.: 5 to 1
Depth (ft): 653, 558, 346, 252, 172
Beginning of Session: 14.11
End of Session: 14.2

Start Time: 647
Finish Time: 1014

Date: **5/6/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	181.37	X	256.84	X	256.83	X	X	181.66	707	5.06	65.0	18.8	3.3
5	2	X	X	X	X	X	X	X	X	X	179.77	X	256.84	X	256.84	X	X	179.86	733	6.60	32.0	19.7	25.6
4	1	X	X	X	X	X	X	X	X	X	140.90	X	215.79	X	215.79	X	X	140.95	802	7.14	5.4	20.3	26.4
3	1	X	X	X	X	X	X	X	X	X	48.59	X	125.69	X	125.67	X	X	48.65	835	7.28	0.85	20.9	29.3
2	1	X	X	X	X	X	X	X	X	X	14.29	X	84.92	X	84.93	X	X	14.36	907	7.42	3.4	21.7	27.9
1	1	X	X	X	X	X	X	X	X	X	14.20	X	50.92	X	50.92	X	X	14.31	938	7.62	5.1	21.3	33.4
1	2	X	X	X	X	X	X	X	X	X	14.28	X	50.92	X	50.92	X	X	14.32	1004	7.72	9.2	20.0	34.1

Notes:
port 5: brown in color & slight H2S odor port 4: clear & slight H2S odor port 3: clear & H2S odor

port 2: clear & slight H2S odor port 1:clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-14
Sampling Zone No.: 5 to 1
Depth (ft): 540, 456, 382, 277, 207
Beginning of Session: 14.11
End of Session: 14.14

Start Time: 1111
Finish Time: 1405

Date: **5/6/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	186.03	X	181.78	X	181.81	X	X	186.02	1126	7.71	4.8	24.6	23.4
5	2	X	X	X	X	X	X	X	X	X	184.39	X	181.83	X	181.83	X	X	184.36	1149	7.97	4.6	22.9	23.1
4	1	X	X	X	X	X	X	X	X	X	150.20	X	145.53	X	145.59	X	X	150.19	1215	7.72	0.55	25.2	40.4
3	1	X	X	X	X	X	X	X	X	X	117.61	X	113.47	X	113.54	X	X	117.88	1248	7.67	1.5	26.0	74.4
2	1	X	X	X	X	X	X	X	X	X	72.22	X	68.13	X	68.19	X	X	72.04	1320	7.79	1.8	25.4	80.2
1	1	X	X	X	X	X	X	X	X	X	41.35	X	38.21	X	38.29	X	X	41.46	1355	7.76	11.0	25.9	87.0

Notes:

port 5: clear & slight H2S odor port 4: clear & slight H2S odor port 3: clear & H2S odor

port 2: clear & H2S odor port 1:clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-22
Sampling Zone No.: 5 to 1
Depth (ft): 588, 467, 389, 329, 245
Beginning of Session: 14.05
End of Session: 14.22

Start Time: 659
Finish Time: 1019

Date: **5/10/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	201.95	X	198.56	X	198.55	X	X	201.93	712	5.38	0.20	17.9	50.2
5	2	X	X	X	X	X	X	X	X	X	201.99	X	198.58	X	198.57	X	X	201.95	748	6.79	0.75	18.6	0.0
5	3	X	X	X	X	X	X	X	X	X	201.91	X	198.57	X	198.57	X	X	201.88	804	7.83	0.25	18.4	25.7
4	1	X	X	X	X	X	X	X	X	X	150.09	X	146.95	X	146.95	X	X	149.87	833	7.85	0.65	18.2	24.7
3	1	X	X	X	X	X	X	X	X	X	115.91	X	114.14	X	114.13	X	X	116.01	908	7.41	0.25	18.6	38.0
2	1	X	X	X	X	X	X	X	X	X	90.05	X	88.10	X	88.09	X	X	89.95	938	7.64	1.50	20.5	35.4
1	1	X	X	X	X	X	X	X	X	X	53.08	X	51.69	X	51.69	X	X	53.06	1007	7.64	15.0	20.6	74.4

Notes:

port 5: clear & H2S odor port 4: clear & odorless port 3: clear & odorless

port 2: clear & odorless port 1:clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-4
Sampling Zone No.: 5 to 1
Depth (ft): 513, 392, 322, 240, 150
Beginning of Session: 14.08
End of Session: 14.15

Start Time: 701
Finish Time: 1103

Date: **5/11/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	140.15	X	205.61	X	205.59	X	X	140.18	706	5.21	35.0	18.3	35.6
5	2	X	X	X	X	X	X	X	X	X	138.62	X	205.61	X	205.59	X	X	138.64	730	6.51	50.0	17.4	23.7
4	1	X	X	X	X	X	X	X	X	X	88.53	X	153.22	X	153.20	X	X	88.37	755	6.73	12.0	19.9	24.7
3	1	X	X	X	X	X	X	X	X	X	57.87	X	123.11	X	123.09	X	X	57.81	826	7.16	21.0	20.5	28.4
2	1	X	X	X	X	X	X	X	X	X	22.07	X	87.66	X	87.65	X	X	22.09	855	6.97	9.7	21.2	68.7
2	2	X	X	X	X	X	X	X	X	X	22.06	X	87.66	X	87.64	X	X	22.08	918	7.34	15.0	21.3	70.5
1	1	X	X	X	X	X	X	X	X	X	14.14	X	50.13	X	50.08	X	X	14.21	948	8.01	11.0	22.3	30.5
1	2	X	X	X	X	X	X	X	X	X	14.14	X	50.12	X	50.08	X	X	14.20	1035	7.95	14.0	23.4	30.2
1	3	X	X	X	X	X	X	X	X	X	14.16	X	50.11	X	50.08	X	X	14.21	1054	7.92	13.0	23.5	30.0

Notes:
port 5: light brown & H2S odor port 4: clear & slight H2S odor port 3: yellowish in color & gasoline odor

port 2: clear & odorless port 1:clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-12
Sampling Zone No.: 5 to 1
Depth (ft): 548, 436, 323, 243, 140
Beginning of Session: 14.07
End of Session: 14.08

Start Time: 652
Finish Time: 1013

Date: **5/12/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	202.88	X	211.15	X	211.13	X	X	202.75	710	5.25	11.0	16.1	35.1
5	2	X	X	X	X	X	X	X	X	X	201.25	X	211.15	X	211.13	X	X	201.23	733	5.82	16.0	16.4	29.2
4	1	X	X	X	X	X	X	X	X	X	154.94	X	164.40	X	164.26	X	X	154.89	803	6.39	0.0	16.8	0.0
4	2	X	X	X	X	X	X	X	X	X	154.97	X	164.36	X	164.27	X	X	154.89	831	6.86	1.3	17.2	33.1
3	1	X	X	X	X	X	X	X	X	X	105.69	X	115.62	X	115.63	X	X	105.60	859	7.16	2.6	18.8	27.1
2	1	X	X	X	X	X	X	X	X	X	70.78	X	81.23	X	81.25	X	X	70.66	928	7.29	2.0	18.0	34.2
1	1	X	X	X	X	X	X	X	X	X	25.62	X	38.62	X	35.65	X	X	25.71	1008	7.47	6.6	18.6	32.3

Notes:
port 5: clear & H2S odor port 4: clear & H2S odor port 3: clear & H2S odor

port 2: clear & H2S odor port 1:clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-11
Sampling Zone No.: 5 to 1
Depth (ft): 639, 524, 429, 259, 149
Beginning of Session: 14.15
End of Session: 14.11

Start Time: 801
Finish Time: 1130

Date: **5/13/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	248.03	X	232.61	X	232.55	X	X	247.81	820	8.33	22.0	18.3	20.5
5	2	X	X	X	X	X	X	X	X	X	246.99	X	232.58	X	232.55	X	X	242.96	845	8.49	70.0	17.6	20.8
4	1	X	X	X	X	X	X	X	X	X	199.22	X	189.13	X	189.08	X	X	199.16	911	8.48	3.6	19.2	15.8
3	1	X	X	X	X	X	X	X	X	X	158.18	X	146.23	X	146.16	X	X	158.14	940	8.45	5.0	20.0	27.7
3	2	X	X	X	X	X	X	X	X	X	158.01	X	146.20	X	146.08	X	X	158.29	1008	8.14	55.0	19.0	27.7
2	1	X	X	X	X	X	X	X	X	X	84.46	X	74.07	X	74.05	X	X	84.49	1033	8.18	8.3	20.3	28.6
1	1	X	X	X	X	X	X	X	X	X	36.98	X	33.89	X	33.91	X	X	37.01	1059	8.19	8.4	21.4	36.4
1	2	X	X	X	X	X	X	X	X	X	35.08	X	33.88	X	33.90	X	X	34.97	1124	8.32	4.0	19.7	36.6

Notes:

port 5: clear & H2S odor port 4: clear & H2S odor port 3: slight discoloration & H2S odor

port 2: clear & H2S odor port 1:clear & H2S odor

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-23
Sampling Zone No.: 5 to 1
Depth (ft): 542, 445, 319, 254, 174
Beginning of Session: 14.01
End of Session: 14.04

Start Time: 653
Finish Time: 956

Date: **5/17/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	208.10	X	207.46	X	207.29	X	X	208.10	708	5.88	3.1	18.8	33.8
5	2	X	X	X	X	X	X	X	X	X	207.48	X	207.41	X	207.28	X	X	207.54	733	8.00	2.8	18.8	29.0
4	1	X	X	X	X	X	X	X	X	X	166.62	X	165.54	X	165.54	X	X	166.55	800	7.94	0.55	18.5	24.9
3	1	X	X	X	X	X	X	X	X	X	111.92	X	111.87	X	111.87	X	X	111.94	833	7.29	10.0	18.0	27.5
2	1	X	X	X	X	X	X	X	X	X	83.73	X	83.76	X	83.75	X	X	83.71	903	7.28	0.8	18.6	63.0
1	1	X	X	X	X	X	X	X	X	X	49.00	X	49.59	X	49.58	X	X	48.94	940	7.50	8.3	18.5	79.5

Notes:
port 5: clear & strong H2S odor port 4: clear & H2S odor port 3: clear & slight H2S odor

port 2: clear & odorless port 1:clear & strong H2S odor

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Water Pressure Inside Casing: _____

Well ID: MW-24
Sampling Zone No.: 5 to 1
Depth (ft): 678, 554, 435, 373, 299
Beginning of Session: 14
End of Session: 14.06

Start Time: 645
Finish Time: 1045

Date: **5/18/2004**
Page: 1 of 1

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	X	X	X	X	X	X	X	X	X	198.14	X	225.29	X	225.30	X	X	198.04	659	5.56	0.6	19.8	33.0
4	1	X	X	X	X	X	X	X	X	X	144.32	X	172.45	X	172.47	X	X	144.31	736	6.51	1.5	19.5	20.7
3	1	X	X	X	X	X	X	X	X	X	92.76	X	121.82	X	121.80	X	X	92.67	812	6.88	3.9	19.3	25.1
2	1	X	X	X	X	X	X	X	X	X	65.50	X	95.17	X	95.17	X	X	65.74	857	7.11	4.6	20.4	28.7
1	1	X	X	X	X	X	X	X	X	X	24.83	X	55.35	X	55.34	X	X	24.89	938	7.18	7.5	20.5	35.3
1	2	X	X	X	X	X	X	X	X	X	25.09	X	55.35	X	55.35	X	X	25.12	1013	7.30	4.0	19.8	36.2
1	3	X	X	X	X	X	X	X	X	X	24.45	X	55.34	X	55.34	X	X	24.43	1036	7.50	2.3	20.3	36.4

Notes:

port 5: clear & H2S odor port 4: clear & slight H2S odor port 3: clear & slight H2S odor

port 2: clear & odorless port 1:clear & odorless

Total Volume: _____