SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-28-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JAM/DJL

Well ID: MW-3
Sampling Zone No.: 2
Starting Time: 1358

Depth (ft.): 252
Finishing Time: 1414

Water Pressure Inside MP Casing - Beginning of Session: 14.12
End of Session: 14.18

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.12	X	68.66	X	68.68	X	X	14.18	1415	9.29	-1	21.8	0.280
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 15 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-28-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAN/DJL

Well ID: MW-3
Depth (ft.): 346
Sampling Zone No.: 3
Starting Time: 1206
Finishing Time: 1324

Water Pressure Inside MP Casing - Beginning of Session: 45.41
End of Session: 45.43

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	45.41	X	109.78	X	109.79	X	X	45.43	1325	8.74	-3	20.3	0.376
2	X	X	X	X	X	X	44.87	X	109.77	X	109.79	X	X	44.89					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR
2ND RUN - STARTING TIME - 1334
FINISHING TIME - 1351
MS/MSD SAMPLE

Total Volume: 1.5L
2ND RUN - 1.25L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-28-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/PJL

Well ID: MW-3
Sampling Zone No.: 4
Starting Time: 1107
Depth (ft.): 558
Finishing Time: 1127

Water Pressure Inside MP Casing - Beginning of Session: 137.82
End of Session: 137.83

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	137.82	X	200.63	X	200.64	X	X	137.83	1128	9.82	-3	20.8	0.254
2	X	X	X	X	X	X	137.26	X	200.61	X	200.63	X	X	137.26					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR
SECOND RUN - STARTING TIME - 1139
FINISHING TIME - 1158
DUPLICATE SAMPLE

Total Volume: 1.5 L
SECOND RUN - 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-28-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JAM/DJL

Well ID: MW-3
Depth (ft.): 653
Sampling Zone No.: 5
Starting Time: 1033
Finishing Time: 1059

Water Pressure Inside MP Casing - Beginning of Session: 177.67
End of Session: 177.68

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	177.67	X	241.32	X	241.32	X	X	177.68	1100	11.03	0	19.0	0.264
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 0.75 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-30-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-4
Sampling Zone No.: 1
Starting Time: 1157

Depth (ft.): 150
Finishing Time: 1212

Water Pressure Inside MP Casing - Beginning of Session: 14.08
End of Session: 14.13

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.08	X	33.35	X	33.35	X	X	14.13	1214	8.60	0	20.2	0.484
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-30-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JAM/DJL

Well ID: MW-4
Sampling Zone No.: 2
Starting Time: 1117

Depth (ft.): 240
Finishing Time: 1130

Water Pressure Inside MP Casing - Beginning of Session: 19.46
End of Session: 19.50

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	19.46	X	72.65	X	72.66	X	X	19.50	1131	8.67	0	19.9	0.742
2	X	X	X	X	X	X	18.97	X	72.65	X	72.66	X	X	18.99					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR
2ND RUN - STARTING TIME - 1139
FINISHING TIME - 1150
DUPLICATE SAMPLE

Total Volume: 1.5L
2ND RUN - 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-30-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-4
Depth (ft.): 322
Sampling Zone No.: 3
Starting Time: 1030
Finishing Time: 1043

Water Pressure Inside MP Casing - Beginning of Session: 55.32
End of Session: 55.34

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	55.32	X	108.48	X	108.47	X	X	55.34	1044	8.27	15	19.7	0.381
2	X	X	X	X	X	X	54.80	X	108.47	X	108.46	X	X	54.81					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER ~~WAS~~ HAS A BROWNISH/YELLOW TINT, NO ODOR
2ND RUN – STARTING TIME – 1056
FINISHING TIME – 1112
MS/MSD SAMPLE

Total Volume: 1.5 L
2ND RUN – 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-30-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: DJL | TAM

Well ID: MW-4
Sampling Zone No.: 4
Starting Time: 1005

Depth (ft.): 392
Finishing Time: 1020

Water Pressure Inside MP Casing - Beginning of Session: 85.38
End of Session: 85.37

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	85.38	X	138.75	X	138.76	X	X	85.37	1021	9.05	4	19.5	0.326
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER HAS SLIGHT BROWNISH TINT, NO ODOR

Total Volume: 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-30-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-4
Sampling Zone No.: 5
Starting Time: 0939

Depth (ft.): 513
Finishing Time: 0956

Water Pressure Inside MP Casing - Beginning of Session: 138.16
End of Session: 138.16

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	138.16	X	191.13	X	191.14	X	X	138.16	0957	8.57	25	18.9	0.277
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER HAS A SLIGHT BROWN/YELLOW TINT, NO ODOR

Total Volume: 1.25L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-16-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS | TAM | DSL

Well ID: MW-11
Sampling Zone No.: 1
Starting Time: 1127

Depth (ft.): 149
Finishing Time: 1141

Water Pressure Inside MP Casing - Beginning of Session: 14.06
End of Session: 14.13

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.06	X	22.92	X	22.92	X	X	14.13	1143	8.97	-10	16.8	0.448
2	X	X	X	X	X	X	14.07	X	22.92	X	22.92	X	X	14.13					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR | NO ODOR

SECOND RUN - STARTING TIME: 1148
FINISHING TIME: 1159

Total Volume: ~~1.5 L~~ 1.75
1ST RUN - 1.25 L
2ND RUN - .50 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-16-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES | TAM | DJL

Well ID: MW-11
Sampling Zone No.: 2
Starting Time: 1058

Depth (ft.): 259
Finishing Time: 1116

Water Pressure Inside MP Casing - Beginning of Session: 14.10
End of Session: 14.17

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.10	X	58.94	X	58.91	X	X	14.17	1118	8.95	-5	16.9	0.334
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-16-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/JAM/DJL

Well ID: MW-11
Sampling Zone No.: 3
Starting Time: 0951

Depth (ft.): 429
Finishing Time: 1018

Water Pressure Inside MP Casing - Beginning of Session: 82.77
End of Session: 82.79

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	82.77	X	131.36	X	131.27	X	X	82.79	1019	8.98	-10	17.8	0.310
2	X	X	X	X	X	X	82.26	X	131.33	X	131.26	X	X	82.25					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR/ NO ODOR/ SLIGHT EFFERVESCENCE

Total Volume: 1.5 L

DUPLICATE SAMPLE - SECOND RUN: STARTING TIME: 1029
FINISHING TIME: 1048

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-16-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS | TAM | DJL

Well ID: MW-11
Sampling Zone No.: 4
Starting Time: 0915

Depth (ft.): 524
Finishing Time: 0936

Water Pressure Inside MP Casing - Beginning of Session: 123.81
End of Session: 123.80

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	123.81	X	174.63	X	174.58	X	X	123.80	0938	9.14	-10	17.9	0.185
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / SLIGHT ~~SULFER~~ SULFUR ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-15-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES | TAM | DJL

Well ID: MW-12
Sampling Zone No.: 1
Starting Time: 1141

Depth (ft.): 140
Finishing Time: 1157

Water Pressure Inside MP Casing - Beginning of Session: 23.67
End of Session: 23.68

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	23.67	X	20.83	X	20.83	X	X	23.68	1200	8.83	-2	17.2	0.355
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-15-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES | TAM | DJL

Well ID: MW-12
Sampling Zone No.: 2
Starting Time: 1115

Depth (ft.): 243
Finishing Time: 1130

Water Pressure Inside MP Casing - Beginning of Session: 68.69
End of Session: 68.68

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	68.69	X	64.56	X	64.57	X	X	68.68	1132	8.81	-4	17.8	0.372
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-15-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES|TAM|DJL

Well ID: MW-12
Sampling Zone No.: 3
Starting Time: 1045

Depth (ft.): 323
Finishing Time: 1102

Water Pressure Inside MP Casing - Beginning of Session: 103.62
End of Session: 103.61

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	103.62	X	99.16	X	99.16	X	X	103.61	1104	8.90	-4	17.3	0.340
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-15-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-12
Sampling Zone No.: 4
Starting Time: 1018

Depth (ft.): 436
Finishing Time: 1039

Water Pressure Inside MP Casing - Beginning of Session: 152.78
End of Session: 151.91

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	152.78	X	148.31	X	148.24	X	X	151.91	1041	8.82	10	17.2	0.362
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: ~~8/12~~ 10/15/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-12
Sampling Zone No.: 5
Starting Time: 0927

Depth (ft.): 548
Finishing Time: 1001

Water Pressure Inside MP Casing - Beginning of Session: 200.88
End of Session: 200.87

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	200.88	X	194.81	X	194.78	X	X	200.89	1004	8.08	-1	17.2	0.291
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-31-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: NES | TAM | DSL

Well ID: MW-14
Sampling Zone No.: 1
Starting Time: 1153

Depth (ft.): 207
Finishing Time: 1213

Water Pressure Inside MP Casing - Beginning of Session: 14.11
End of Session: 14.13

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.11	X	25.91	X	25.91	X	X	14.13	1215	8.55	0	19.8	1.24
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-31-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS | TAM | DJL

Well ID: MW-14
Sampling Zone No.: 2
Starting Time: 1121

Depth (ft.): 277
Finishing Time: 1140

Water Pressure Inside MP Casing - Beginning of Session: 26.83
End of Session: 26.86

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	26.83	X	56.45	X	56.46	X	X	26.86	1141	9.02	-3	19.5	1.12
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-31-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES|TAM|DSL

Well ID: MW-14
Sampling Zone No.: 3
Starting Time: 1039

Depth (ft.): 382
Finishing Time: 1107

Water Pressure Inside MP Casing - Beginning of Session: 72.71
End of Session: 72.72

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	~~70.54~~	~~X~~	~~93.12~~	~~X~~									
2							72.71	X	102.28	X	102.29	X	X	72.72	1108	9.11	-3	18.8	1.00
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-31-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-14
Sampling Zone No.: 4
Starting Time: 0938

Depth (ft.): 456
Finishing Time: 1000

Water Pressure Inside MP Casing - Beginning of Session: 105.54
End of Session: 105.54

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	105.54	X	134.4	X	134.4	X	X	105.54	1001	9.16	-3	15.4	.459
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-31-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS/TAM/DJL

Well ID: MW-14
Sampling Zone No.: 5
Starting Time: 0853

Depth (ft.): 540
Finishing Time: 0920

Water Pressure Inside MP Casing - Beginning of Session: 140.69
End of Session: 140.69

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	140.69	X	170.91	X	170.91	X	X	140.69	0921	9.45	-2	18.2	0.251
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 10 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 11-1-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-17
Sampling Zone No.: 2
Starting Time: 1236

Depth (ft.): 370
Finishing Time: 1251

Water Pressure Inside MP Casing - Beginning of Session: 14.28
End of Session: 14.30

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	~~14.24~~	X	78.12	X	78.12	X	X	14.30	1252	9.08	0	16.6	0.358
2							14.28												
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 11-1-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-17
Sampling Zone No.: 3
Starting Time: 1205
Finishing Time: 1223

Depth (ft.): 468

Water Pressure Inside MP Casing - Beginning of Session: 57.28
End of Session: 57.30

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	57.28	X	119.57	X	119.55	X	X	57.30	1224	9.13	6	17.5	0.317
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 11-1-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-17
Sampling Zone No.: 4
Starting Time: 1102
Depth (ft.): 582
Finishing Time: 1123

Water Pressure Inside MP Casing - Beginning of Session: 107.10
End of Session: 107.10

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	107.10	X	170.58	X	170.57	X	X	107.10	1124	9.38	3	17.5	0.268
2	X	X	X	X	X	X	106.53	X	170.57	X	170.55	X	X	106.54					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR, SOME EFFERVESCENCE
2ND RUN - STARTING TIME - 1135
FINISHING TIME - 1156
MS/MSD SAMPLE

Total Volume: 1.5 L
2ND RUN - 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 11-1-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: NW-17
Sampling Zone No.: 5
Starting Time: 1025

Depth (ft.): 726
Finishing Time: 1051

Water Pressure Inside MP Casing - Beginning of Session: 168.77
End of Session: 168.78

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	168.77	X	232.77	X	232.71	X	X	168.78	1052	9.12	62	16.8	0.239
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS MURKY, WHITE COLOR, NO ODOR

Total Volume: 1.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 11-4-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-18
Sampling Zone No.: 2
Starting Time: 1150

Depth (ft.): 330
Finishing Time: 1206

Water Pressure Inside MP Casing - Beginning of Session: 14.13
End of Session: 14.17

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.13	X	43.40	X	43.41	X	X	14.17	1208	8.81	-5	19.9	0.353
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 11-4-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-18
Depth (ft.): 424
Sampling Zone No.: 3
Starting Time: 1107
Finishing Time: 1136

Water Pressure Inside MP Casing - Beginning of Session: 37.68
End of Session: 37.68

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	37.68	X	86.50	X	86.50	X	X	37.68	1137	8.84	-4	18.3	0.426
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 11-4-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-18
Depth (ft.): 564
Sampling Zone No.: 4
Starting Time: 1025
Finishing Time: 1047

Water Pressure Inside MP Casing - Beginning of Session: 98.70
End of Session: 98.71

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	98.70	X	146.84	X	146.84	X	X	98.71	1047	9.25	-3	18.6	0.325
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 11-4-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-18
Sampling Zone No.: 5
Starting Time: 0940

Depth (ft.): 684
Finishing Time: 1013

Water Pressure Inside MP Casing - Beginning of Session: 150.00
End of Session: 150.00

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	150.00	X	148.60	X	148.57	X	X	150.00	1015	9.70	-4	17.3	0.227
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10/21/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/DJL

Well ID: MW-19
Sampling Zone No.: 1
Starting Time: 1211

Depth (ft.): 242
Finishing Time: 1241

Water Pressure Inside MP Casing - Beginning of Session: 14.10
End of Session: 14.15

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.10	✓	42.52	✓	42.52	✓	✓	14.15	1241	7.62	14	20.4	0.239
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS YELLOWISH SLIGHTLY ~~TURBID~~ EFFERVESCING

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10/21/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/DJL

Well ID: MW-19
Sampling Zone No.: 2
Starting Time: 1147

Depth (ft.): 314
Finishing Time: 1207

Water Pressure Inside MP Casing - Beginning of Session: 14.15
End of Session: 14.20

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.15	✓	74.04	✓	74.04	✓	✓	14.20	1207	8.09	~~0.91~~ ~10	20.1	0.91
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR - NO ODOR

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10/21/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/DJL

Well ID: MW-19
Sampling Zone No.: 3
Starting Time: 1021

Depth (ft.): 392
Finishing Time: 1142

Water Pressure Inside MP Casing - Beginning of Session: 35.50
End of Session: 35.51

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	35.50	✓	108.35	✓	108.35	✓	✓	35.51	1142	8.32	-10	18.4	0.92
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10/21/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/DJL

Well ID: MW-19
Sampling Zone No.: 4
Starting Time: 1033

Depth (ft.): 444
Finishing Time: 1115

Water Pressure Inside MP Casing - Beginning of Session: 58.73 1ST RUN
End of Session: ~~58.73~~ 56.18 2ND RUN

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	58.73	✓	130.38	✓	130.38	✓	✓	58.73	1057	9.26	-10	17.4	0.291
2	✓	✓	✓	✓	✓	✓	56.18	✓	130.37	✓	130.37	✓	✓	56.18					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR - NO ODOR

Total Volume: 1.75 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10/21/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/DSL

Well ID: MW-19
Sampling Zone No.: 5
Starting Time: 0956

Depth (ft.): 498
Finishing Time: 1022

Water Pressure Inside MP Casing - Beginning of Session: 82.34
End of Session: 82.34

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	82.34 ~~83.20~~	✓	153.76	✓	153.77	✓	✓	82.34	1022	7.62	-10	17.3	0.446
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR - NO ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-17-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES | TAM | DSL

Well ID: MW-20
Sampling Zone No.: 1
Starting Time: 1115

Depth (ft.): 230
Finishing Time: ~~1129~~

Water Pressure Inside MP Casing - Beginning of Session: 14.57
End of Session: 14.61

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.57	X	21.25	X	21.25	X	X	14.61	1132	8.62	-3	16.7	0.549
2	X	X	X	X	X	X	14.10	X	21.23	X	21.24	X	X	14.13					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.5L - 1ST RUN
0.25L - 2nd RUN
1.75L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-17-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES | TAM | DJL

Well ID: MW-20
Sampling Zone No.: 2
Starting Time: 1046

Depth (ft.): 392
Finishing Time: 1104

Water Pressure Inside MP Casing - Beginning of Session: 85.34
End of Session: 85.35

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	85.34	X	92.47	X	92.48	X	X	85.35	1106	8.88	-10	16.7	0.295
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR / NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-17-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-20
Sampling Zone No.: 3
Starting Time: 1008
Depth (ft.): 562
Finishing Time: 1035

Water Pressure Inside MP Casing - Beginning of Session: 159.39
End of Session: 159.40

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	159.39	X	167.48	X	167.48	X	X	159.40	1037	9.15	-10	16.8	0.391
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR/ SLIGHT SULFUR ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-17-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES | TAM | DJL

Well ID: MW-20
Sampling Zone No.: 4
Starting Time: 0934

Depth (ft.): 700
Finishing Time: 0959

Water Pressure Inside MP Casing - Beginning of Session: ~~228.40~~ TM 219.48
End of Session: 219.48

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	219.48	X	228.40	X	228.36	X	X	219.48	1000	10.03	-10	17.0	0.246
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR | NO ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-17-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES|TAM|DJL

Well ID: MW-20
Sampling Zone No.: 5
Starting Time: 0848

Depth (ft.): 900
Finishing Time: 0917

Water Pressure Inside MP Casing - Beginning of Session: 306.55
End of Session: 306.54

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	306.55	X	315.53	X	315.54	X	X	306.54	0919	10.05	-10	16.7	0.251
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR | SLIGHT SULFUR ODOR | SLIGHT EFFERVESCENCE

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-18-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS | TAM | DJL

Well ID: MW-21
Sampling Zone No.: 1
Starting Time: 0852
Finishing Time: 0906

Depth (ft.): 90

Water Pressure Inside MP Casing - Beginning of Session: 14.11
End of Session: 14.15

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.11	X	20.51	X	20.52	X	X	14.15	0907	7.65	9	18.2	0.97
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, WITH NO ODOR

Total Volume: 1.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-18-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: NGS | TAM | DJL

Well ID: MW-21
Depth (ft.): 161
Sampling Zone No.: 2
Starting Time: 0826
Finishing Time: 0841

Water Pressure Inside MP Casing - Beginning of Session: 39.52
End of Session: 39.53

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	39.52	X	51.84	X	51.85	X	X	39.53	0843	8.08	-2	18.1	1.21
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, WITH NO ODOR

Total Volume: 1.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS | TAM | DJL

Well ID: MW-21
Sampling Zone No.: 3
Starting Time: 0804
Depth (ft.): 240
Finishing Time: 0818
Date: 10-18-02

Water Pressure Inside MP Casing - Beginning of Session: 74.00
End of Session: 73.99

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	74.00	X	86.10	X	86.10	X	X	73.99	0820	8.35	-2	18.2	0.855
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, WITH NO ODOR

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-18-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-21
Sampling Zone No.: 4
Starting Time: 0745
Depth (ft.): 310
Finishing Time: 0759

Water Pressure Inside MP Casing - Beginning of Session: 104.12
End of Session: 104.14

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	104.12	X	115.99	X	116.00	X	X	104.14	0801	8.52	0	18.3	0.582
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR

Total Volume: 1.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-18-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES|TAM|DJL

Well ID: MW-21
Sampling Zone No.: 5
Starting Time: 0724

Depth (ft.): 372
Finishing Time: 0737

Water Pressure Inside MP Casing - Beginning of Session: 131.18
End of Session: 131.17

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	131.18	X	142.84	X	142.85	X	X	131.17	0739	8.42	-2	18.4	0.625
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, WITH NO ODOR

Total Volume: 1.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-23-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-22
Sampling Zone No.: 1
Starting Time: 1200

Depth (ft.): 245
Finishing Time: 1218

Water Pressure Inside MP Casing - Beginning of Session: 14.13
End of Session: 14.17

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.13	X	36.54	X	36.55	X	X	14.17	1220	8.17	0	19.5	1.09
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-23-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS | TAM | DJL

Well ID: MW-22
Sampling Zone No.: 2
Starting Time: 1126

Depth (ft.): 329
Finishing Time: 1146

Water Pressure Inside MP Casing - Beginning of Session: 21.40
End of Session: 21.40

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	21.40	X	74.21	X	74.22	X	X	21.40	1148	8.82	-8	19.6	0.432
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-23-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS/DAM/DJL

Well ID: MW-22
Sampling Zone No.: 3
Starting Time: 1057

Depth (ft.): 389
Finishing Time: 1112

Water Pressure Inside MP Casing - Beginning of Session: 46.60
End of Session: 46.60

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	46.60	X	100.40	X	100.41	X	X	46.60	1114	8.82	-7	19.7	0.423
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR, NO ODOR, HOWEVER VAPOR HAS A FETID ORGANIC ODOR.

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-23-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MGS|TAM|DJL

Well ID: MW-22
Sampling Zone No.: 4
Starting Time: 0942
Depth (ft.): 467
Finishing Time: 1048

Water Pressure Inside MP Casing - Beginning of Session: 80.12
End of Session: 80.13

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	80.12	X	132.92	X	132.92	X	X	80.13	1050	8.19	-5	19.6	0.272
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 0.75 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-22-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-23
Sampling Zone No.: 1
Starting Time: 1036
Finishing Time: 1054

Depth (ft.): 174

Water Pressure Inside MP Casing - Beginning of Session: 14.12
End of Session: 14.16

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	14.12	✓	34.35	✓	34.35	✓	✓	14.16	1056	8.63	20	18.7	1.16
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: Water is Clear no odor

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-22-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-23
Sampling Zone No.: 2
Starting Time: 1003

Depth (ft.): 254
Finishing Time: 1026

Water Pressure Inside MP Casing - Beginning of Session: 34.81
End of Session: 34.80

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	~~69.32~~ PSI 34.81	✓	69.32	✓	69.33	✓	✓	34.80	1026	8.49	-8	18.9°	0.91
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: water is clear no odor

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-22-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: ~~MES/TAM/DJL~~

Well ID: MW-23
Sampling Zone No.: 3
Starting Time: 0816

Depth (ft.): 319
Finishing Time: ~~0836~~ DJL

Water Pressure Inside MP Casing - Beginning of Session: 63.17
End of Session: ~~62.17 DJL~~ 62.14

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	63.17	✓	97.68	✓	97.67	✓	✓	63.17	0838	8.84	-7	19.1	0.362
2	✓	✓	✓	✓	✓	✓	62.13	✓	97.68	✓	97.68	✓	✓	62.14					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: Water Clear No Odor

Total Volume: ~~1.5 L~~ DJL 2.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10/22/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DSL

Well ID: MW-23
Sampling Zone No.: 4
Starting Time: 0720

Depth (ft.): 445

Finishing Time: ~~0743~~ 0809 psl

Water Pressure Inside MP Casing - Beginning of Session: 117.54
End of Session: 117.55

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	117.54	✓	151.15	✓	151.15	✓	✓	117.55	0745	9.03	-9	19.2	0.303
2	✓	✓	✓	✓	✓	✓	117.03	✓	151.15	✓	151.15	✓	✓	117.04					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: Water- Clear no odor

Total Volume: 2.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10/22/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/TAM/DJL

Well ID: MW-23-
Sampling Zone No.: 5
Starting Time: 0638

Depth (ft.): 542
Finishing Time: 0710

Water Pressure Inside MP Casing - Beginning of Session: 158.80
End of Session: 158.81

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	✓	✓	✓	✓	✓	✓	158.80	✓	192.96	✓	192.93	✓	✓	158.81	0713	10.72	20	19.0	0.340
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: Water is Clear no Odor

Total Volume: 0.75 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-29-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-24
Sampling Zone No.: 1
Starting Time: 1149

Depth (ft.): 279
Finishing Time: 1203

Water Pressure Inside MP Casing - Beginning of Session: 14.06
End of Session: 14.12

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	14.06	X	39.44	X	39.45	X	X	14.12	1204	9.16	-3	20.2	0.429
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 10-29-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JAM/DJL

Well ID: MW-24
Depth (ft.): 373
Sampling Zone No.: 2
Starting Time: 1103
Finishing Time: 1119

Water Pressure Inside MP Casing - Beginning of Session: 35.98
End of Session: 35.99

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	35.98	X	80.74	X	80.74	X	X	35.99	1120	9.36	0	20.3	0.517
2	X	X	X	X	X	X	33.90	X	80.72	X	80.72	X	X	33.91					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR.
2ND RUN - STARTING TIME - 1124
FINISHING TIME - 1143

Total Volume: ~~1.5 L~~ TM
1.25 L
2ND RUN .25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Date: 10-29-02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-24
Depth (ft.): 435
Sampling Zone No.: 3
Starting Time: 1027
Finishing Time: 1046

Water Pressure Inside MP Casing - Beginning of Session: 63.53
End of Session: 63.54

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	63.53	X	107.98	X	107.99	X	X	63.54	1047	10.09	0	20.3	0.280
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR.

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling
Field Data Sheet for Multi-Port Well

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: TAM/DJL

Well ID: MW-24
Sampling Zone No.: 4
Starting Time: 0950

Depth (ft.): 554
Finishing Time: 1017

Date: 10-29-02

Water Pressure Inside MP Casing - Beginning of Session: 114.90
End of Session: 114.92

Run No.	Surface Function Checks					Position Sampler	Sample Collection Checks								Water Quality Parameters				
	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	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	Turbidity (NTU)	Temperature (°C)	Conductivity (mmhos)
1	X	X	X	X	X	X	114.90	X	158.86	X	158.86	X	X	114.92	1018	10.12	-2	19.9	0.230
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS CLEAR WITH NO ODOR

Total Volume: 1.25 L

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 10-25-02
Personnel: MES/TAM/DJL

Well ID: MW-5
Equipment: GRUNDFOS REDI-FLO II DEDICATED SUBM. PUMP
Contractor: SOTA

	Before	Ref. Point	After
Depth to Water (ft.)	93.95	TOC	94.13
Depth to Sediment (ft.)	140	TOC	140
Thickness of Sediment (ft.)	~~0~~	TOC	~~0~~

Depth of Well (ft.) 140
Diameter of Casing (ft.) .333
Water Column Height (ft.) 46.05
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 • (Water Column Ht.[ft.]) • 7.48 gal./ft^3) = 30.07
(for 4" diam. casing - 0.653 gal./ft)
Casing Volumes Purged 3
Total Volume Purged (gal.) 90

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
~~920~~	~~2~~	~~0~~					
920	2	0					PUMP @ 265 HZ
925	2	10	6.57	8	16.1	0.678	WATER HAS SLIGHT
930	2	20	6.73	-1	16.2	0.701	YELLOW/BROWN TINT
935	2	30	6.76	-3	16.2	0.687	CLEAR
940	2	40	6.80	-5	16.3	0.683	CLEAR
945	2	~~45~~ 50	6.87	-6	16.3	0.674	CLEAR
950	2	60	6.89	~~31~~ -4	16.2	0.660	CLEAR
955	2	70	6.90	-4	16.2	0.653	CLEAR
1000	2	80	6.92	-4	16.3	0.656	CLEAR
1005	2	90	6.98	-3	16.2	0.654	CLEAR

Notes: WATER HAD NO ODOR DURING PURGING.

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 10-24-02
Personnel: MES | TAM | DJL

Well ID: MW-6
Equipment: 2" GRUNDFOS REDI-FLO II DEDICATED SUBM. PUMP
Contractor: SOTA

	Before	Ref. Point	After
Depth to Water (ft.)	198.29	TOC	198.90
Depth to Sediment (ft.)	245	TOC	245
Thickness of Sediment (ft.)	Ø	TOC	Ø

Depth of Well (ft.) 245
Diameter of Casing (ft.) .333
Water Column Height (ft.) 46.75
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 • (Water Column Ht.[ft.]) • 7.48 gal./ft^3) = 30.53
(for 4" diam. casing - 0.653 gal./ft)
Casing Volumes Purged 3
Total Volume Purged (gal.) 92

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1024		0					PUMP ON @ 240 Hz
1025	~1.5	0					PUMP @ 350 Hz
~~1039~~ 1040	1.5	7.5	7.11	-10	20.1	1.10	PUMP @ 400 Hz
1045	1.5	15	7.23	-10	20.4	1.14	clear
1050	1.5	22.5	7.21	3	20.5	1.15	clear
1055	1.5	30	7.22	2	20.5	1.13	Clear
1100	1.5	37.5	7.19	2	20.6	1.13	Clear
1105	1.5	45.0	7.20	-10	20.6	1.13	Clear
1110	1.5	52.5	7.19	-8	20.6	1.12	Clear
1115	1.5	60.0	7.23	-6	20.6	1.12	Clear
1120	1.5	67.5	7.22	-1	20.6	1.11	Clear
1125	1.5	75.0	7.16	-10	20.6	1.12	Clear
1130	1.5	82.5	7.21	1	20.6	1.11	Clear
1135	1.5	90.0	7.23	0	20.7	1.11	Clear
1137	1.5	93.0					

Notes: NO ODOR WHILE PURGING

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 11-6-02
Personnel: TAM | DJL

Well ID: MW-7
Equipment: GRUNDFOS REDI-FLO II DEDICATED SUBM. PUMP
Contractor: SOTA

	Before	Ref. Point	After
Depth to Water (ft.)	233.29	TOC	233.38
Depth to Sediment (ft.)	275	TOC	—
Thickness of Sediment (ft.)	Ø	TOC	Ø

Depth of Well (ft.) 275
Diameter of Casing (ft.) .333
Water Column Height (ft.) 41.71
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 • (Water Column Ht.[ft.]) • 7.48 gal./ft^3) = 27.2
(for 4" diam. casing - 0.653 gal./ft)
Casing Volumes Purged 3
Total Volume Purged (gal.) 81.6

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
0956	2	Ø					PUMP AT 380 HZ
1001		10	7.70	-4	19.8	0.441	WATER IS CLEAR
1006		20	8.05	-5	20.5	0.454	
1011		30	8.02	-5	20.8	0.454	
1016		40	8.10	-5	21.1	0.452	
1021		50	8.02	-5	21.2	0.454	
1026		60	8.05	-5	21.3	0.453	
1031		70	8.10	-5	21.3	0.453	
1036		80	8.02	-5	21.4	0.449	
1037		82					

Notes: REDI-FLO II DEDICATED SUBM. PUMP WHICH WAS USED IN THE PAST WAS RE-INSTALLED BY TAM/DJL ON 11-5-02. PUMP IS FUNCTIONING PROPERLY.

WATER WAS CLEAR WITH NO ODOR DURING PURGING

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 11-6-02
Personnel: TAM/DJL

Well ID: MW-8
Equipment: GRUNDFOS RGDI-FLO II DEDICATED SUBM. PUMP
Contractor:

	Before	Ref. Point	After
Depth to Water (ft.)	159.46	TOC	159.60
Depth to Sediment (ft.)	205	TOC	—
Thickness of Sediment (ft.)	Ø	TOC	Ø

Depth of Well (ft.) 205
Diameter of Casing (ft.) .333
Water Column Height (ft.) 45.54

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 • (Water Column Ht.[ft.]) • 7.48 gal./ft^3) = 29.7
(for 4" diam. casing - 0.653 gal./ft)
Casing Volumes Purged 3
Total Volume Purged (gal.) 89

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1120	2	Ø					PUMP AT 380 HZ
1125		10	7.70	0	19.5	0.426	WATER IS CLEAR
1130		20	7.52	10	19.6	0.410	
1135		30	7.53	7	19.4	0.407	
1140		40	7.42	16	19.6	0.402	
1145		50	7.39	10	19.5	0.401	
1150		60	7.33	10	19.4	0.398	
1155		70	7.30	6	19.4	0.396	
1200		80	7.24	4	19.3	0.397	
1205		90	7.34	-4	19.3	0.394	

Notes: WATER WAS CLEAR WITH NO ODOR DURING PURGING

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 11-5-02
Personnel: TAM | DJL

Well ID: MW-10
Equipment: GRUNDFOS RED-FLO II DEDICATED SUBM PUMP
Contractor: SOTA

	Before	Ref. Point	After
Depth to Water (ft.)	106.50	TOC	106.68
Depth to Sediment (ft.)	155	TOC	—
Thickness of Sediment (ft.)	∅	TOC	∅

Depth of Well (ft.) 155
Diameter of Casing (ft.) .333
Water Column Height (ft.) 48.5
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 • (Water Column Ht.[ft.]) • 7.48 gal./ft^3) = 31.7
(for 4" diam. casing - 0.653 gal./ft)
Casing Volumes Purged 3
Total Volume Purged (gal.) 95

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1003	2	0					PUMP ON 350 HZ
1008		10	7.31	9	19.6	1.25	Clear no odor
1013		20	7.88	-2	19.8	1.21	Clear no odor
1018		30	7.57	0	20.3	1.20	CLEAR, NO ODOR
1023		40	7.64	-1	20.4	1.21	CLEAR, NO ODOR
1028		50	7.65	-2	20.5	1.21	Clear, No odor
1033		60	7.65	-3	20.5	1.19	CLEAR, NO ODOR
1038		70	7.67	-2	20.3	1.19	CLEAR, NO ODOR
1043		80	7.72	-2	20.3	1.19	CLEAR, NO ODOR
1048		90	7.66	-3	20.1	1.19	CLEAR, NO ODOR
1051		96	7.62	-3	20.3	1.18	CLEAR, NO ODOR

Notes: WATER WAS CLEAR WITH NO ODOR DURING PURGING

MS/MSD SAMPLE TAKEN

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 10-24-02
Personnel: MCS/TAM/DSL

Well ID: MW-13
Equipment: GRUNDFOS REDI-FLO II DEDICATED SUBM. PUMP
Contractor: SOTA

	Before	Ref. Point	After
Depth to Water (ft.)	202.39	TOC	202.46
Depth to Sediment (ft.)	235	TOC	—
Thickness of Sediment (ft.)	0	TOC	0

Depth of Well (ft.) 235
Diameter of Casing (ft.) .333
Water Column Height (ft.) 32.61
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 • (Water Column Ht.[ft.]) • 7.48 gal./ft^3) = 21.29
(for 4" diam. casing - 0.653 gal./ft)
Casing Volumes Purged 3
Total Volume Purged (gal.) 64

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1320	1.5	0					PUMP ON 350 HZ
1325	1.5	7.5	7.59	-10	20.9	0.550	clear
1330	1.5	15	7.72	-10	21.4	0.541	clear
1335	1.5	22.5	7.68	-10	21.4	0.534	clear
1340	1.5	30	7.66	-10	21.5	0.534	clear
1345	1.5	37.5	7.67	-10	21.6	0.524	clear
1350	1.5	45	7.66	-10	21.7	0.524	clear
1355	1.5	52.5	7.68	-10	21.8	0.521	clear
1400	1.5	60	7.71	-10	21.8	0.518	clear
1402	1.5	63					

Notes: WATER WAS CLEAR WITH NO ODOR DURING PURGING

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 11-5-02
Personnel: TAM | DJL

Well ID: MW-16
Equipment: GRUNDFOS READY-FLO II DEDICATED SUBM. PUMP
Contractor: SOTA

	Before	Ref. Point	After
Depth to Water (ft.)	254.64	TOC	254.72
Depth to Sediment (ft.)	285	TOC	—
Thickness of Sediment (ft.)	Ø	TOC	Ø

Depth of Well (ft.) 285
Diameter of Casing (ft.) .333
Water Column Height (ft.) 30.36
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 • (Water Column Ht.[ft.]) • 7.48 gal./ft^3) = 19.8
(for 4" diam. casing - 0.653 gal./ft)
Casing Volumes Purged 3
Total Volume Purged (gal.) 60

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1135	2	Ø					PUMP ON 400 HZ
1140	1	10	8.25	-3	22.2	0.456	WATER IS CLEAR
1145	1	20	8.15	-3	22.6	0.445	WATER IS CLEAR
1150	1	30	8.18	-3	22.5	0.442	WATER IS CLEAR
1155	1	40	8.21	-3	22.6	0.443	WATER IS CLEAR
1200	1	50	8.18	-3	23.0	0.443	WATER IS CLEAR
1205	1	60	8.24	-3	22.6	0.442	WATER IS CLEAR

Notes: WATER WAS CLEAR WITH NO ODOR DURING PURGING

DUPLICATE SAMPLE TAKEN