SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/29/02
Personnel: JHT/TPM

Well ID: MW-5
Equipment: SUB PUMP - 2"
Contractor: SOTA ENV.

	Before	Ref. Point	After
Depth to Water (ft.)	81.23	TOC	81.23
Depth to Sediment (ft.)	NOT MEASURED	↓	NOT MEASURED
Thickness of Sediment (ft.)	N/A	↓	N/A

Depth of Well (ft.) 140'
Diameter of Casing (ft.) 4"
Water Column Height (ft.) 58.77

0.66(WATER COLUMN HEIGHT) = CV

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 38.78

Casing Volumes Purged 3

Total Volume Purged (gal.) 117

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1000	3gpm	3	6.65	84	16.2	0.550	ORANGE IN COLOR
1013	↓	39	7.75	-10	16.3	0.484	CLEAR
1019	↓	58.5	7.39	-10	16.2	0.479	CLEAR
1027	↓	78	7.38	-10	16.4	0.484	CLEAR
1034	↓	97.5	7.38	-2	16.6	0.478	CLEAR
1041	↓	117	7.41	-9	16.8	0.479	CLEAR

Notes: NO NOTICABLE COLOR OR ODOR

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/30/02
Personnel: JNT/TAM

Well ID: MW-6
Equipment: 2" SUB PUMP
Contractor: SOTA ENV

	Before	Ref. Point	After
Depth to Water (ft.)	186.53	TOC	186.57
Depth to Sediment (ft.)	NOT MEASURED	↓	NOT MEASURED
Thickness of Sediment (ft.)	NOT MEASURED	↓	NOT MEASURED

Depth of Well (ft.) 245'
Diameter of Casing (ft.) 4"
Water Column Height (ft.) 58.47

0.66 (HEIGHT OF WATER COLUMN)

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 38.6

Casing Volumes Purged 3

Total Volume Purged (gal.) 116

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1108	2.5	2.5	7.06	21	18.8	1.30	SLIGHT ORANGE COLOR
1123	2.5	38.6	7.41	4	20.2	1.26	CLEAR
1150	.72	58	7.42	30	20.4	1.19	CLEAR
1158	2.4	77	7.48	35	20.3	1.19	CLEAR
1204	3.3	97	7.34	17	20.8	1.17	CLEAR
1213	2.1	116	7.34	25	20.4	1.16	CLEAR

Notes: NO NOTICABLE COLOR OR ODOR.

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 5/1/02
Personnel: MES/JNT

Well ID: MW-7
Equipment: 3½" GRUNDFOS SUBM. PUMP
Contractor: SOTA

	Before	Ref. Point	After
Depth to Water (ft.)			
Depth to Sediment (ft.)			
Thickness of Sediment (ft.)			

NOT MEASURED - SEE NOTE

Depth of Well (ft.) 275'
Diameter of Casing (ft.) 4"
Water Column Height (ft.) ~50'
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 33 gal
Casing Volumes Purged 3
Total Volume Purged (gal.) 99

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1130	2.78	2	8.17	34 ~~0.464~~	19.3	0.448	WATER IS CLEAR NO ODOR
1133	3.44	10	8.25	5	19.1	0.448	
1136	3.44	20	8.13	2	19.2	0.451	
1139	3.46	30	8.08	1	19.5	0.442	
1142	3.44	40	8.08	0	19.8	0.442	
1145	3.44	50	8.07	0	19.7	0.441	
1148	3.44	60	8.09	0	19.9	0.442	
1151	3.44	70	8.09	2	19.8	0.441	
1154	3.44	80	8.10	0	19.8	0.443	
1157	3.44	90	8.09	0	19.9	0.443	
1200	3.44	99	8.07	0	20.0	0.443	

Notes: UNABLE TO MEASURE WATER LEVEL DUE TO PILOT SYSTEM SETUP

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/30/02
Personnel: JNT/TAM

Well ID: MW-8
Equipment: 2" SUB PUMP
Contractor: SOTA ENV

	Before	Ref. Point	After
Depth to Water (ft.)	146.55	TOC	146.55
Depth to Sediment (ft.)	NOT MEASURED	↓	NOT MEASURED
Thickness of Sediment (ft.)	NOT MEASURED	↓	NOT MEASURED

Depth of Well (ft.) 205
Diameter of Casing (ft.) 4"
Water Column Height (ft.) 58.45

0.66(HEIGHT OF WATER COLUMN)=CV

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 38.6

Casing Volumes Purged 3

Total Volume Purged (gal.) 116

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1310							
~~1210~~ 1310	2	2	8.02	30	18.0	0.408	CLEAR
1325	2.44	38.6	7.81	30	18.0	0.395	CLEAR
1334	2.15	58	7.74	5	17.9	0.394	CLEAR
1344	1.9	77	7.80	6	17.8	0.395	CLEAR
1350	3.33	97	7.76	4	17.8	0.395	CLEAR
1358	2.38	116	7.79	2	17.8	0.395	CLEAR

Notes: NO NOTICABLE COLOR OR ODOR

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/29/02
Personnel: JPT/TDM

Well ID: MW-10
Equipment: 2" SUB PUMP
Contractor: SOTA ENV

	Before	Ref. Point	After
Depth to Water (ft.)	95.74	TOC	95.74
Depth to Sediment (ft.)	NOT MEASURED	↓	NOT MEASURED
Thickness of Sediment (ft.)	N/A	↓	N/A

Depth of Well (ft.) 155'
Diameter of Casing (ft.) 4"
Water Column Height (ft.) 59.26

0.66(HEIGHT OF WATER COLUMN) = CV

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 39.11

Casing Volumes Purged 3

Total Volume Purged (gal.) 117

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1335	3GPM	3	7.49	10	21.5	1.24	CLEAR
1348	↓	39	7.45	-10	20.9	1.24	CLEAR
1355	↓	58.5	7.41	5	20.8	1.24	CLEAR
1402	↓	78	7.40	15	20.2	1.23	CLEAR
1409	↓	97.5	7.40	6	20.6	1.22	CLEAR
~~1416~~	APPROX 1.5	117	7.43	0	21.0	1.22	CLEAR
1425							

Notes: N/O NOTICABLE COLOR OR ODOR

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/26/02
Personnel: JNT / TAM

Well ID: MW-13
Equipment: 2" SUB PUMP
Contractor: SOTA ENV

	Before	Ref. Point	After
Depth to Water (ft.)	189.68	TOC	189.68
Depth to Sediment (ft.)	NOT MEASURED	↓	NOT MEASURED
Thickness of Sediment (ft.)	N/A	↓	N/A

Depth of Well (ft.) 235.00
Diameter of Casing (ft.) 4"
Water Column Height (ft.) 45.32

0.66 (HEIGHT OF WATER COLUMN) = CV

Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 29.91

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
1005	3	3	7.55	14	19.5	0.694	Orange/Yellow color
1015	↓	30	7.86	34	20.6	0.591	Clear
1020		45	7.89	1	20.9	0.567	Clear
1025		60	7.91	31	21.0	0.560	Clear
1030	↓	75	7.85	36	21.0	0.564	Clear
1035	3	90	7.84	0	20.8	0.561	Clear

Notes: NO NOTICABLE COLOR OR ODOR

SOTA Environmental Technology, Inc.

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: JPL Pasadena
Project No: 00HW019
Date: 4/26/02
Personnel: JMT/TAM

Well ID: MW-16
Equipment: 2" SUB PUMP
Contractor: SOTA ENV

	Before	Ref. Point	After
Depth to Water (ft.)	242.98	TOC	243.01
Depth to Sediment (ft.)	NOT MEASURED	↓	NOT MEASURED
Thickness of Sediment (ft.)	N/A	↓	N/A

Depth of Well (ft.) 285
Diameter of Casing (ft.) 4"
Water Column Height (ft.) 42.02
Casing Volume (gal.) = π(Casing Diam.[ft.]/2)^2 (Water Column Ht.[ft.]) 7.48 gal./ft^3) = 27.73
Casing Volumes Purged 3
Total Volume Purged (gal.) 84

Time	Pump Rate (gpm)	Volume Purged (gal.)	pH	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	Comments
1125	1 GPM	1	8.30	0	19.6	0.563	Clear
~~10~~ 1153	↓	28	7.98	0	22.3	0.451	Clear
1207		42	7.99	0	22.2	0.449	Clear
1221		56	7.95	0	22.0	0.443	Clear
1235		70	8.00	0	21.7	0.441	Clear
1249	↓	84	7.97	0	21.4	0.442	Clear

Notes: NO NOTICABLE COLOR OR ODOR.

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/24/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JMT TAM

Well ID: MW-3
Sampling Zone No.: 2
Starting Time: 1430

Depth (ft.): ~~172~~ 252' JMT

Finishing Time: 1450

Water Pressure Inside MP Casing - Beginning of Session: 14.23
End of Session: 14.31

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	✓	✓	✓	✓	✓	✓	14.23	✓	73.44	✓	73.44	✓	✓	14.31	1448	9.46	118	16.7	0.363
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR.

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/24/02

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

Well ID: MW-3
Sampling Zone No.: 3
Starting Time: 1220

Depth (ft.): 346'
Finishing Time: 1412

Water Pressure Inside MP Casing - Beginning of Session: 45.47
End of Session: 45.50

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	✓	✓	✓	✓	✓	✓	45.47	✓	114.04	✓	114.24	✓	✓	45.50	1419	9.60	227	17.7	0.388
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR. SLIGHT EFFERVESCING.

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/24/02

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

Well ID: MW-3
Depth (ft.): 558
Sampling Zone No.: 4
Starting Time: 1115
Finishing Time: 1202

Water Pressure Inside MP Casing - Beginning of Session: 137.80
End of Session: 137.27

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	✓	✓	✓	✓	✓	✓	137.80	✓	199.50	✓	199.54	✓	✓	137.80	1145	9.72	55	17.9	0.277
2	✓	✓	✓	✓	✓	✓	137.28	✓	199.79	✓	199.80	✓	✓	137.27					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR, STRONG EFFERVESCING

Total Volume: 2.75L

SOTA Environmental Technology, Inc.

Page 1

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/24/02

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

Well ID: MW-3
Sampling Zone No.: 5
Starting Time: 0930

Depth (ft.): 653
Finishing Time: 1100

Water Pressure Inside MP Casing - Beginning of Session: 117.69
End of Session: 117.68

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	✓	✓	✓	✓	✓	✓	177.69	✓	240.21	✓	240.24	✓	✓	177.68	1108	11.33	45	~~18.0~~ TM	0.271
2																		18.0	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICEABLE ODOR, GREY IN COLOR.

Total Volume: .75L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/25/02

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

Well ID: MW-4
Sampling Zone No.: 1
Starting Time: 1215

Depth (ft.): 150
Finishing Time: 1230

Water Pressure Inside MP Casing - Beginning of Session: 14.13
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	✓	✓	✓	✓	✓	✓	14.13	✓	39.18	✓	39.19	✓	✓	14.16	1226	8.67	47	19.1	0.331
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: YELLOW TINT, NO ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/25/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT / TDM

Well ID: MW-4
Sampling Zone No.: 2
Starting Time: 1145
Depth (ft.): 240
Finishing Time: 1210

Water Pressure Inside MP Casing - Beginning of Session: 19.53
End of Session: 19.56

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	✓	✓	✓	✓	✓	✓	19.53	✓	77.43	✓	77.41	✓	✓	19.56	1159	9.02	41	20.2	0.745
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: YELLOW TINT TO WATER, NO NOTICABLE ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/25/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT / TPM

Well ID: MW-4
Sampling Zone No.: 3
Starting Time: 1105

Depth (ft.): 322
Finishing Time: 1140

Water Pressure Inside MP Casing - Beginning of Session: 55.36
End of Session: 55.39

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	✓	✓	✓	✓	✓	✓	55.36	✓	113.05	✓	113.06	✓	✓	55.39	1125	8.18	68	20.9	0.413
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/25/02

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

Well ID: MW-4
Sampling Zone No.: 4
Starting Time: 1025

Depth (ft.): 392'
Finishing Time: 1100

Water Pressure Inside MP Casing - Beginning of Session: 85.44
End of Session: 85.45

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	✓	✓	✓	✓	✓	✓	85.44	✓	143.05	✓	143.07	✓	✓	85.45	1059	9.15	43	21.2	0.415
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR.

Total Volume: 1.25L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/25/02

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

Well ID: MW-4
Depth (ft.): 513
Sampling Zone No.: 5
Starting Time: 0930
Finishing Time: 1025

Water Pressure Inside MP Casing - Beginning of Session: 138.23
End of Session: 138.25

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	✓	✓	✓	✓	✓	✓	138.23	✓	195.39	✓	195.41	✓	✓	138.25	1020	8.93	43	21.0	0.385
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: ORANG TINT TO THE WATER, NO NOTICABLE ODOR.

Total Volume: 1.25L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/19/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT / TPM

Well ID: MW-11
Sampling Zone No.: 1
Starting Time: 1140

Depth (ft.): 149
Finishing Time: 1155

Water Pressure Inside MP Casing - Beginning of Session: 14.07
End of Session: 14.09

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	✓	✓	✓	✓	✓	✓	14.07	✓	28.23	✓	28.20	✓	✓	14.09	1155	9.07	1	20.4	0.450
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR. SLIGHT EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/19/02

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

Well ID: MW-11
Depth (ft.): 259
Sampling Zone No.: 2
Starting Time: 1114
Finishing Time: 1135

Water Pressure Inside MP Casing - Beginning of Session: 14.10
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	✓	✓	✓	✓	✓	✓	14.10	✓	64.43	✓	64.36	✓	✓	14.18	1128	9.24	61	19.3	0.355
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR. SLIGHT EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/19/02

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

Well ID: MW-11
Depth (ft.): 429
Sampling Zone No.: 3
Starting Time: 1013
Finishing Time: 1100

Water Pressure Inside MP Casing - Beginning of Session: 83.18
End of Session: 83.19

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	✓	✓	✓	✓	✓	✓	83.18	✓	136.55	✓	136.40	✓	✓	83.22					
2	✓	✓	✓	✓	✓	✓	83.20	✓	136.55	✓	136.33	✓	✓	83.19	1100	9.24	2	18.8	0.340
3																			
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Notes: NO NOTICABLE COLOR OR ODOR, STRONG EFFERVESCING

Total Volume: 3.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/19/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT / Tom

Well ID: MW-11
Sampling Zone No.: 4
Starting Time: 0940
Depth (ft.): 524
Finishing Time: 1005

Water Pressure Inside MP Casing - Beginning of Session: 123.20
End of Session: 123.23

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	✓	✓	✓	✓	✓	✓	123.20	✓	179.80	✓	179.73	✓	✓	123.23	1001	9.97	8	17.3	0.189
2																			
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10																			
11																			
12																			

Notes: NO NOTICABLE COLOR. SULPHER SMELL AND STRONG EFFERVESCING

Total Volume: 1.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/11/02

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

Well ID: MW-12
Sampling Zone No.: 1
Starting Time: 1405

Depth (ft.): 140
Finishing Time: 1427

Water Pressure Inside MP Casing - Beginning of Session: 14.09
End of Session: 14.14

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	✓	✓	✓	✓	✓	✓	14.09	~~27.8~~ ✓	27.87	✓	27.88	✓	✓	14.14	1427	9.00	-10	23.3	0.340
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12																			

Notes: WATER IS CLEAR - NO COLOR OR ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/11/02

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

Well ID: MW-12
Depth (ft.): 243
Sampling Zone No.: 2
Starting Time: 1330
Finishing Time: 1355

Water Pressure Inside MP Casing - Beginning of Session: 14.16
End of Session: 14.19

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	✓	✓	✓	✓	✓	✓	14.16	✓	70.32	✓	70.32	✓	✓	14.19	1353	8.95	-10	21.9	0.391
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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: 4/11/02

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

Well ID: MW-12
Sampling Zone No.: 3
Starting Time: 1130

Depth (ft.): 323
Finishing Time: 1230

Water Pressure Inside MP Casing - Beginning of Session: 43.55
End of Session: 43.01

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	✓	✓	✓	✓	✓	✓	43.55	✓	104.90	✓	104.91	✓	✓	43.56	1157	9.09	-10	19.4	0.393
2	✓	✓	✓	✓	✓	✓	42.99	✓	104.88	✓	104.90	✓	✓	43.01					
3																			
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Notes: WATER IS CLEAR - NO NOTICEABLE COLOR OR ODOR.

Total Volume: 2.75 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/11/02

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

Well ID: MW-12
Depth (ft.): 436
Sampling Zone No.: 4
Starting Time: 1105
Finishing Time: 1125

Water Pressure Inside MP Casing - Beginning of Session: 91.88
End of Session: 91.89

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	✓	✓	✓	✓	✓	✓	91.88	✓	153.96	✓	153.90	✓	✓	91.89	1125	8.83	-10	19.4	0.401
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Notes: WATER IS CLEAR - NO ODOR. OR COLOR.

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/11/02

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

Well ID: MW-12
Depth (ft.): 548
Sampling Zone No.: 5
Starting Time: 1000
Finishing Time: 1057

Water Pressure Inside MP Casing - Beginning of Session: 140.63
End of Session: 140.65

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	✓	✓	✓	✓	✓	✓	136.67	✓	200.35	✓	193.71	✓	✓	140.24	—	—	NOT USED BOTTOM	CONNECTOR	LOOSE
2	✓	✓	✓	✓	✓	✓	140.63	✓	200.34	✓	200.33	✓	✓	140.65	1057	8.98	-10	19.8	0.332
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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: 4/18/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT / [illegible]

Well ID: MW-14
Sampling Zone No.: 1
Starting Time: 1355

Depth (ft.): 207
Finishing Time: 1410

Water Pressure Inside MP Casing - Beginning of Session: 14.12
End of Session: 14.19

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	✓	29.87	✓	29.86	✓	✓	14.19	1410	8.10	50	21.0	1.28
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Notes: NO NOTICABLE COLOR OR ODOR, SLIGHT EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/18/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JST/Tram

Well ID: MW-14
Sampling Zone No.: 2
Starting Time: 1217

Depth (ft.): 277
Finishing Time: 1345

Water Pressure Inside MP Casing - Beginning of Session: 27.23
End of Session: 27.27

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	✓	✓	✓	✓	✓	✓	27.23	✓	60.33	✓	60.33	✓	✓	27.27	1340	8.81	0	19.4	1.16
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10																			
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Notes: NO NOTICEABLE COLOR OR ODOR. SLIGHT EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/18/02

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

Well ID: MW-14
Sampling Zone No.: 3
Starting Time: 1148

Depth (ft.): 382
Finishing Time: 1207

Water Pressure Inside MP Casing - Beginning of Session: 73.11
End of Session: 73.11

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	✓	✓	✓	✓	✓	✓	73.11	✓	106.11	✓	106.12	✓	✓	73.11	1202	8.87	90	19.8	1.04
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Notes: NO NOTICABLE COLOR OR ODOR. STRONG EFFERVESCING

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/18/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JM/Tom

Well ID: MW-14
Sampling Zone No.: 4
Starting Time: 1044

Depth (ft.): 456
Finishing Time: 1140

Water Pressure Inside MP Casing - Beginning of Session: 105.40
End of Session: 104.89

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	✓	✓	✓	✓	✓	✓	105.40	✓	138.23	✓	138.23	✓	✓	105.46	1104	8.66	0	19.7	0.482
2	✓	✓	✓	✓	✓	✓	104.89	✓	138.21	✓	138.22	✓	✓	104.89					
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9																			
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12																			

Notes: NO NOTICABLE COLOR OR ODOR. SLIGHT EFFERVESCING

Total Volume: 2.75L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/18/02

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

Well ID: MW-14
Sampling Zone No.: 5
Starting Time: 0900

Depth (ft.): 540
Finishing Time: 1010

Water Pressure Inside MP Casing - Beginning of Session: 141.10
End of Session: 141.13

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	✓	✓	✓	✓	✓	✓	141.10	✓	174.69	✓	174.70	✓	✓	141.13	1008	9.36	1	19.6	0.257
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9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR. SLIGHT EFFERVESCING

Total Volume: 1.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/10/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JM/Tom

Well ID: MW-17
Sampling Zone No.: 2
Starting Time: 1508

Depth (ft.): 370'
Finishing Time:

Water Pressure Inside MP Casing - Beginning of Session: 15.00
End of Session:

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	✓	✓	✓	✓	✓	✓	15.00	✓	82.40	✓	82.40	✓	✓	15.05	1320	9.27	10	18.9	0.324
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3																			
4																			
5																			
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7																			
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9																			
10																			
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Notes: NO NOTICABLE COLOR OR ODOR, WATER IS EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/10/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JST/TPM

Well ID: MW-17
Depth (ft.): 468'
Sampling Zone No.: 3
Starting Time: 1400
Finishing Time: 1445

Water Pressure Inside MP Casing - Beginning of Session: 56.88
End of Session: 56.88

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	✓	✓	✓	✓	✓	✓	56.88	✓	123.89	✓	123.88	✓	✓	56.89	1416	9.30	10	18.6	0.332
2	✓	✓	✓	✓	✓	✓	56.85	✓	123.80	✓	123.77	✓	✓	56.88					
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO COLOR OR ODOR, WATER IS EFFERVESCING

Total Volume: 2.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/10/02

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

Well ID: MW-17
Depth (ft.): 582'
Sampling Zone No.: 4
Starting Time: 1100
Finishing Time: 1220

Water Pressure Inside MP Casing - Beginning of Session: 106.71
End of Session: 106.64

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	✓	✓	✓	✓	✓	✓	106.71	✓	174.40	✓	174.37	✓	✓	106.72	1123	8.83	10	18.3	.329
2	✓	✓	✓	✓	✓	✓	106.65	✓	174.39	✓	174.36	✓	✓	106.69					
3	✓	✓	✓	✓	✓	✓	106.67	✓	174.40	✓	174.34	✓	✓	106.64					
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR. WATER IS EFFERVESCING

Total Volume: 3.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/10/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JWT/TAW

Well ID: MW-17
Sampling Zone No.: 5
Starting Time: 0958

Depth (ft.): 726'
Finishing Time: 1040

Water Pressure Inside MP Casing - Beginning of Session: 169.43
End of Session: 169.45

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	✓	✓	✓	✓	✓	✓	169.43	✓	236.31	✓	~~28~~ 235.97	✓	✓	169.45	1040	5.51	~~387~~ 10	17.3	.387
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: WATER IS EFFERVESCING, NO NOTICABLE COLOR OR ODOR

Total Volume: 1.0L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/15/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT/TDM

Well ID: MW-18
Depth (ft.): 330'
Sampling Zone No.: 2
Starting Time: 1230
Finishing Time: 1450

Water Pressure Inside MP Casing - Beginning of Session: 14.05
End of Session: 14.10

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	✓	✓	✓	✓	✓	✓	14.05	✓	48.78	✓	48.78	✓	✓	14.10	~~1442~~	8.98	1	16.5	0.378
2															1429				
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/15/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JM / Tom

Well ID: MW-18
Depth (ft.): 424'
Sampling Zone No.: 3
Starting Time: 1205
Finishing Time: 1225

Water Pressure Inside MP Casing - Beginning of Session: 37.86
End of Session: 37.87

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	✓	✓	✓	✓	✓	✓	37.86	✓	91.09	✓	91.09	✓	✓	37.87	1221	9.12	0	16.8	~~.0432~~
2																			0.432
3																			
4																			
5																			
6																			
7																			
8																			
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10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR, SLIGHT EFFERVESCING

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/15/02

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

Well ID: MW-18
Sampling Zone No.: 4
Starting Time: 1127

Depth (ft.): 564'
Finishing Time: 1200

Water Pressure Inside MP Casing - Beginning of Session: 98.83
End of Session: 98.87

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	✓	✓	✓	✓	✓	✓	98.83	✓	150.52	✓	150.52	✓	✓	98.87	1150	9.18	0	17.4	0.330
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9																			
10																			
11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/15/02

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

Well ID: MW-18
Sampling Zone No.: 5
Starting Time: 1000

Depth (ft.): 684'
Finishing Time: 1120

Water Pressure Inside MP Casing - Beginning of Session: 148.48
End of Session: 149.11

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	✓	✓	✓	✓	✓	✓	148.48	✓	200.17	✓	199.88	✓	✓	150.47	1048	9.54	0	18.5	0.248
2	✓	✓	✓	✓	✓	✓	149.00	✓	201.44	✓	201.41	✓	✓	149.11					
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 2.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/17/02

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

Well ID: MW-19
Sampling Zone No.: 1
Starting Time: 1448

Depth (ft.): 242
Finishing Time: 1513

Water Pressure Inside MP Casing - Beginning of Session: 14.17
End of Session: 14.23

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	✓	✓	✓	✓	✓	✓	14.17	✓	46.98	✓	46.98	✓	✓	14.23	1501	9.00	46	18.8	0.286
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Notes: NO NOTICABLE COLOR OR ODOR, STRONG EFFERVESCING.

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/17/02

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

Well ID: MW-19
Sampling Zone No.: 2
Starting Time: 1250

Depth (ft.): 314
Finishing Time: 1440

Water Pressure Inside MP Casing - Beginning of Session: 14.22
End of Session: 14.29

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	✓	✓	✓	✓	✓	✓	14.22	✓	78.92	✓	78.93	✓	✓	14.29	1423	7.86	15	18.1	0.666
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Notes: NO NOTICEABLE COLOR OR ODOR.
STRONG EFFERVESCING

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/17/02

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

Well ID: MW-19
Sampling Zone No.: 3
Starting Time: 1217

Depth (ft.): 392
Finishing Time: 1245

Water Pressure Inside MP Casing - Beginning of Session: 31.96
End of Session: 31.95

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	✓	✓	✓	✓	✓	✓	31.96	✓	113.25	✓	113.20	✓	✓	31.95	1234	8.34	42	18.4	1.04
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Notes: NO NOTICABLE COLOR OR ODOR.
STRONG EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/17/02

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

Well ID: MW-19
Sampling Zone No.: 4
Starting Time: 1141

Depth (ft.): 444
Finishing Time: 1210

Water Pressure Inside MP Casing - Beginning of Session: 55.68
End of Session: 55.69

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	✓	✓	✓	✓	✓	✓	55.68	✓	135.63	✓	135.64	✓	✓	55.69	1156	9.69	42	17.4	0.288
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Notes: - NO NOTICABLE COLOR OR ODOR
STRONG EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/17/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JST / TDM

Well ID: MW-19
Depth (ft.): 498
Sampling Zone No.: 5
Starting Time: 0935
Finishing Time: 1120

Water Pressure Inside MP Casing - Beginning of Session: 78.29
End of Session: 78.29

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	✓	✓	✓	✓	✓	✓	78.29	✓	159.02	✓	159.04	✓	✓	78.29	1120	9.14	378	18.3	0.526
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Notes: NO NOTICABLE COLOR OR ODOR
STRONG EFFERVESCING

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/16/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT/Pam

Well ID: MW-20
Sampling Zone No.: 1
Starting Time: 1355
Depth (ft.): 230'
Finishing Time: 1428

Water Pressure Inside MP Casing - Beginning of Session: 15.84
End of Session: 15.90

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	✓	✓	✓	✓	✓	✓	15.84	✓	25.55	✓	25.62	✓	✓	15.90	1428	8.93	44	16.9	0.589
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/16/02

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

Well ID: MW-20
Sampling Zone No.: 2
Starting Time: 1126

Depth (ft.): 392'
Finishing Time: 1350

Water Pressure Inside MP Casing - Beginning of Session: 86.60
End of Session: 86.66

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	✓	✓	✓	✓	✓	✓	86.60	✓	96.27	✓	96.60	✓	✓	86.66	1335	9.65	0	16.5	0.279
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Notes: NO NOTICABLE COLOR OR ODOR, STRONG EFFERVESCING

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/16/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT/TDM

Well ID: MW-20
Sampling Zone No.: 3
Starting Time: 1049

Depth (ft.): 562'
Finishing Time: 1120

Water Pressure Inside MP Casing - Beginning of Session: 160.65
End of Session: 160.65

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	✓	✓	✓	✓	✓	✓	160.65	✓	166.00	✓	166.01	✓	✓	160.65	1110	9.19	0	16.3	0.489
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Notes: NO NOTICABLE COLOR OR ODOR, STRONG EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/16/02

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

Well ID: MW-20
Sampling Zone No.: 4
Starting Time: 0942

Depth (ft.): 700'
Finishing Time: 1035

Water Pressure Inside MP Casing - Beginning of Session: 220.79
End of Session: 220.24

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	✓	✓	✓	✓	✓	✓	220.79	✓	230.80	✓	230.75	✓	✓	220.75	1005	10.12	3	16.5	0.273
2	✓	✓	✓	✓	✓	✓	220.24	✓	230.78	✓	230.74	✓	✓	220.24					
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Notes: STRONG SULPHER ODOR TO THE WATER
WATER IS EFFERVESCING. NO COLOR TO THE WATER

Total Volume: 2.75L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/16/02

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

Well ID: MW-20
Depth (ft.): 900'
Sampling Zone No.: 5
Starting Time: 0857
Finishing Time: 0930

Water Pressure Inside MP Casing - Beginning of Session: 307.85
End of Session: 307.85

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	✓	✓	✓	✓	✓	✓	307.85	✓	318.41	✓	318.41	✓	✓	307.85	0925	10.46	27	16.2	0.290
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Notes: NO NOTICABLE COLOR OR ODOR
SLIGHT EFFERVESCING

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/9/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: MES/JWT/Ham

Well ID: MW-21
Depth (ft.): 90'
Sampling Zone No.: 1
Starting Time: 1348
Finishing Time: 1400

Water Pressure Inside MP Casing - Beginning of Session: 14.17
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	✓	✓	✓	✓	✓	✓	14.17	✓	24.56	✓	24.55	✓	✓	14.17	1300	6.17	3	20.0	0.96
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Notes: NO NOTICEABLE COLOR OR ODOR

Total Volume: 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/9/02

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

Well ID: MW-21
Sampling Zone No.: 2
Starting Time: 1245
Depth (ft.): 161
Finishing Time: 1255

Water Pressure Inside MP Casing - Beginning of Session: 40.37
End of Session: 40.38

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	✓	✓	✓	✓	✓	✓	40.37	✓	56.32	✓	56.32	✓	✓	40.38	1255	6.13	3	18.1	1.26
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/9/02

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

Well ID: MW-21
Sampling Zone No.: 3
Starting Time: 1214

Depth (ft.): 240'
Finishing Time: 1228

Water Pressure Inside MP Casing - Beginning of Session: 74.90
End of Session: 74.91

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	✓	✓	✓	✓	✓	✓	74.90	✓	90.71	✓	90.71	✓	✓	74.91	1228	6.12	3	18.5	1.06
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12																			

Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/9/02

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

Well ID: MW-21
Sampling Zone No.: 4
Starting Time: 1131

Depth (ft.): 310
Finishing Time: 1154

Water Pressure Inside MP Casing - Beginning of Session: 105.04
End of Session: 105.02

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	✓	✓	✓	✓	✓	✓	105.04	✓	120.70	✓	120.70	✓	✓	105.02	1154	6.05	1	18.07	0.646
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.25 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/9/02

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

Well ID: MW-21
Sampling Zone No.: 5
Starting Time: 1101

Depth (ft.): 372
Finishing Time: 1125

Water Pressure Inside MP Casing - Beginning of Session: 131.63
End of Session: 131.63

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	✓	✓	✓	✓	✓	✓	131.63	✓	147.54	✓	147.55	✓	✓	131.63	1120	5.84	2	19.1	0.845
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Notes: WATER IS CLEAR - NO ODOR

Total Volume: ~~2.0 L~~ 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/12/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT / ~~[illegible]~~ TAM

Well ID: MW-22
Sampling Zone No.: 1
Starting Time: 1122

Depth (ft.): 245'
Finishing Time: 1140

Water Pressure Inside MP Casing - Beginning of Session: 14.14
End of Session: 14.19

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	✓	✓	✓	✓	✓	✓	14.14	✓	41.22	✓	41.22	✓	✓	14.19	1249	8.31	7	21.3	0.981
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/12/02

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

Well ID: MW-22
Sampling Zone No.: 2
Starting Time: 1048

Depth (ft.): 329'
Finishing Time: 1120

Water Pressure Inside MP Casing - Beginning of Session: 22.58
End of Session: 21.73

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	✓	✓	✓	✓	✓	✓	22.58	✓	78.86	✓	78.87	✓	✓	21.73	1210	9.18	45	19.7	0.471
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/12/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JST/PAM

Well ID: MW-22
Sampling Zone No.: 3
Starting Time: 1021

Depth (ft.): 389
Finishing Time: 1047

Water Pressure Inside MP Casing - Beginning of Session: 47.89
End of Session: 47.90

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	✓	✓	✓	✓	✓	✓	47.89	✓	105.01	✓	105.02	✓	✓	47.90	1139	9.09	78	20.0	0.416
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/12/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT/TPM

Well ID: MW-22
Sampling Zone No.: 4
Starting Time: 0924

Depth (ft.): 467'
Finishing Time: 1019

Water Pressure Inside MP Casing - Beginning of Session: 80.94
End of Session: 80.93

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	✓	✓	✓	✓	✓	✓	80.94	✓	137.60	✓	137.60	✓	✓	80.93	1107	8.66	0	19.9	0.287
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9																			
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11																			
12																			

Notes: NO COLOR, SULPHER ODOR

Total Volume: 1.0 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

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

Well ID: MW-23
Sampling Zone No.: 1
Starting Time: 1440
Depth (ft.): 174
Finishing Time: 1515
Date: 4/23/02

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	✓	39.61	✓	39.60	✓	✓	14.16	1457	8.52	27	24.2	1.20
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/23/02

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

Well ID: MW-23 Depth (ft.): 254
Sampling Zone No.: 2
Starting Time: 1220 Finishing Time: 1420

Water Pressure Inside MP Casing - Beginning of Session: 35.49
End of Session: 35.54

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	✓	✓	✓	✓	✓	✓	35.49	✓	74.54	✓	74.57	✓	✓	35.54	1414	8.80	1	22.4	1.03
2																			
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12																			

Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/23/02

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

Well ID: MW-23
Sampling Zone No.: 3
Starting Time: 1145

Depth (ft.): 319
Finishing Time: 1215

Water Pressure Inside MP Casing - Beginning of Session: 63.93
End of Session: 63.95

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	✓	✓	✓	✓	✓	✓	63.93	✓	102.89	✓	102.91	✓	✓	63.95	1203	9.15	37	22.5	0.411
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12																			

Notes: N/O NOTICABLE COLOR OR ODOR.

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/23/02

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

Well ID: MW-23
Sampling Zone No.: 4
Starting Time: 1055
Depth (ft.): 445'
Finishing Time: 1140

Water Pressure Inside MP Casing - Beginning of Session: 118.85
End of Session: 117.80

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	✓	✓	✓	✓	✓	✓	✓ JNT	✓	156.39	✓	156.39	✓	✓	118.89	1108	9.40	37	22.5	0.321
2							118.85												
3	✓	✓	✓	✓	✓	✓	117.81	✓	156.40	✓	156.39	✓	✓	117.80					
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11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR.

Total Volume: 2.75L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/23/02

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

Well ID: MW-23
Sampling Zone No.: 5
Starting Time: 0930

Depth (ft.): 542'
Finishing Time: 1050

Water Pressure Inside MP Casing - Beginning of Session: 159.60
End of Session: 159.60

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	✓	✓	✓	✓	✓	✓	159.60	✓	198.24	✓	198.00	✓	✓	~~156~~ 159.60 JNT	1045	10.99	38	22.3	0.387
2																			
3	✓	✓ JNT	✓	✓	✓	✓													
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10																			
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12																			

Notes: NO NOTICABLE COLOR OR ODOR. STRONG EFFERVESCING.

Total Volume: .75L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/22/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JWT/[illegible]

Well ID: MW-24
Sampling Zone No.: 1
Starting Time: 1408

Depth (ft.): 279
Finishing Time: 1430

Water Pressure Inside MP Casing - Beginning of Session: 14.11
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	✓	✓	✓	✓	✓	✓	14.11	✓	~~48.76~~ 44.76	✓	44.73	✓	✓	14.12	1429	9.30	47	23.0	0.399
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11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR. SLIGHT EFFERVESCING.

Total Volume: 1.5L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/22/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JT / TAm

Well ID: MW-24
Sampling Zone No.: 2
Starting Time: 1207

Depth (ft.): 373
Finishing Time: 1354

Water Pressure Inside MP Casing - Beginning of Session: 36.90
End of Session: 36.89

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	✓	✓	✓	✓	✓	✓	36.90	✓	85.47	✓	85.48	✓	✓	36.89	1359	9.58	6	22.5	0.339
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11																			
12																			

Notes: NO NOTICABLE COLOR OR ODOR. SLIGHT EFFERVESCING

Total Volume: 1.5 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/22/02

Project Name: JPL Pasadena
Project No: 00HW019
Personnel: JNT/Tom

Well ID: MW-24
Sampling Zone No.: 3
Starting Time: 1100

Depth (ft.): 435
Finishing Time: 1147

Water Pressure Inside MP Casing - Beginning of Session: 63.89
End of Session: 63.49

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	✓	✓	✓	✓	✓	✓	63.89	✓	112.50	✓	112.50	✓	✓	63.90	1120	9.96	47	22.8	0.281
2	✓	✓	✓	✓	✓	✓	63.45	✓	112.52	✓	112.51	✓	✓	63.49					
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Notes: NO NOTICABLE COLOR OR ODOR, STRONG EFFERVESCING

Total Volume: 2.75 L

SOTA Environmental Technology, Inc.

Groundwater Sampling

Field Data Sheet for Multi-Port Well

Date: 4/22/02

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

Well ID: MW-24
Depth (ft.): 554
Sampling Zone No.: 4
Starting Time: 0920
Finishing Time: 1050

Water Pressure Inside MP Casing - Beginning of Session: 115.25
End of Session: 115.29

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	✓	✓	✓	✓	✓	✓	115.25	✓	163.13	✓	163.15	✓	✓	115.29	1042	10.32	48	22.2	0.249
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Notes: NO NOTICABLE COLOR OR ODOR

Total Volume: 1.25L