ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B6-026W03 Page 1 of 1 Field Staff: LC

Date Sampled 3/12/01
Stick-up Height — feet
Depth to Water 10.95' feet below top of casing
Total Depth 23.0' feet below top of casing
Depth of Tubing (sample interval) 23.0' feet below top of casing

Sulfide: 0.80mg/L
ferrous iron: 0.49mg/L

Start purge 1310
Start parameters 1330
End purge 1410
Total purge time: 1 hours, 0 minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
1330		400		11.17	2210	7.39	-155.1	0.61	6.8
1335	5	400		11.00	2220	7.38	-167.1	0.50	7.0
1340	10	400		10.92	2219	7.38	-196.7	0.31	6.0
1345	15	400		11.04	2205	7.38	-214.0	0.26	6.2
1350	20	400		10.98	2200	7.38	-227.1	0.21	7.0
1355	25	400		11.01	2170	7.38	-252.8	0.17	6.7
1400	30	400		10.97	2167	7.37	-257.6	0.16	8.5
1405	35	400		10.92	2157	7.35	-266.0	0.17	8.8
1410	40	400		10.95	2150	7.35	-267.4	0.16	8.7

Comments

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well B603GW01 Date 9/20/00

Screen Setting 16-11 Measuring Point Description top of pipe Casing Diameter (inches) 1

Static Water Level 13.53 Measured Width Well Materials ✓ PVC ✓ ST. Steel

Total depth 18.7 Pump On: 1425 Pump Rate: 100

stickup 1.96

Purge Method Pump Off: 1615 Volumes Purged

Centrifugal ✓ Sample Time: 1545 Weather:

Submersible Sampled By: SD

Other DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1440	last water switched to smaller tubing											
	water black - odor											
1510		100					68.0					
1520					7.56	0.88	59.7	-173	1.03	27.2		
1525					7.55	0.89	49.0	-191	0.96	27.1		
1530					7.54	0.89	44.1	-201	0.74	26.9		
1535					7.54	0.89	30.2	-208	0.61	26.9		
1540					7.54	0.89	31.3	-212	0.58	26.9		
1545					7.54	0.89	29.8	-214	0.54	26.8	0.80 Limit	0.29

Constituents Sampled	Container Description	Number	Preservative
T Metals	plas	1	HNO_3
D Metals	"	1	"
T Arsenic	Amber	1	none
D Arsenic	"	1	"
Benz Tol	VOA	3	HCL
TSS	plas	1	non

Sampling Personnel SD pH-V

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pH 4.05 tubing 2' from bottom

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

1 1

Project/No. MA000646.0001.00002 Well B603GW02 Date 25Sept 00

Screen Setting 22-17 Measuring Point Description Top of Casing Casing Diameter (inches) 1"

Static Water Level 13.80 Measured Width Well Materials PVC ✓ SS. Steel

23. Total depth 25.0 Pump On: 1040 Pump Rate: 200ML/min

35 Purge Method SU 1.75 Pump Off: 1150 Volumes Purged

Centrifugal Sample Time: 1120 - 1145 Weather:

Submersible DUP / MS / MSD Sampled By: Diane Mosher

Other ✓

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1045							481					
							229					
1050	5				7.62	1.2 S/m	163	-358	0.33	15.5		
1100	15				7.59	1.4 S/M	102.6	-390	0.0	16.0		
1105					7.58	1.4 S/m	62.8	-385	0.0	15.9		
1110	25				7.58	1.4 S/m	48.9	-383	0.0	15.8		
1115	30				7.58	1.4 S/m	25.6	-386	0.0	16.0		
1120					7.58	1.5 S/m	13.1	-380	0.0	16.1		
1125	40										0.57	0.15
1145					7.59	1.4 S/m	17.8	-385		16.8		

Constituents Sampled	Container Description	Number	Preservative
TSS	Plas	1	Ice
TOTAL As, Spec	↓	1	↓
DISS As, Spec		1	HNO3 Ice
Total Metals		1	↓
DISS Metals		1	HCL Ice
Benzene	VOA	3	

Sampling Personnel Diane Mosher

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OH ✓ 3.98 Tubing set -2' bottom of well

ARCADIS GERAGHTY & MILLER

roundwater Sampling Form

1 1

Project/No. MA000646.0001.00002 Well B603GW03 Date 9/26/03

Screen Setting 32-27 Measuring Point Description ToC Casing Diameter (inches) 1

Static Water Level 14.42 Measured Width Well Materials ✓ PVC ✓ ST. Steel

Total depth 35.10 Pump On: 1055 Pump Rate: 200

Purge Method STICKUP 1.95 Pump Off: 1230 Volumes Purged

Centrifugal ✓ Sample Time: 1205 Weather: Rain 50

Submersible Sampled By: SD

Other DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
			≈1.5 with check valve									
1103		200					OR		C			
1120					7.60	0.695	369	-186	0.80	15.0		
1125					7.60	0.71	289	-214	0.52	15.2		
1135					7.57	0.73	129	-223	0.42	15.3		
1140					7.57	0.73	95.7	-224	0.41	15.3		
1145					7.56	0.73	73.8	-228	0.39	15.3		
1150					7.56	0.73	60.9	-226	0.38	15.2		
1155					7.56	0.73	49.7	-231	0.37	15.2		
1200					7.50	0.73	44.3	-233	0.36	15.2		
1205					7.56	0.73	41.2	-235	0.36	15.2	0.53	1.24

Constituents Sampled	Container Description	Number	Preservative
T Metals	plas	1	HNO3
D Metals	"	1	"
T Arsenic	amber	1	none
D Arsenic	"	1	"
Benz Tol	VOA	3	HCl
TSS	plas	1	none

Sampling Personnel

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pH 3.91 pH 3.9 tubing 2' from bottom

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Groundwater Sampling Form

Sample B6-04GW01 Page 1 of 1 Field Staff: HAT

Date Sampled 4/11/01
Stick-up Height 2' feet
Depth to Water 6.47 feet below top of casing
Total Depth 15 feet below top of casing
Depth of Tubing (sample interval) 14 feet below top of casing

Sulfide: 0.59 mg/L
ferrous iron: 0.16 mg/L

Start purge 1215
Start parameters
End purge
Total purge time: ____ hours, ____ minutes
Parameters Stabilized? N/

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)

Comments
Water & silt black, H_2O only gray, odor-

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B6-04GW02R MS Page 1 of 1 Field Staff: LC

Date Sampled 5/4/01
Stick-up Height 2.0 feet
Depth to Water 8.70 feet below top of casing
Total Depth 18.5' feet below top of casing
Depth of Tubing (sample interval) 17.5' feet below top of casing

Sulfide: 0.80 mg/L
Ferrous Iron: 3.30 mg/L

Start purge 0915
Start parameters
End purge 1050
Total purge time: 1 hours, 25 minutes
Parameters Stabilized? N

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)

Comments

PID = 27.3 ppm, collect 2 VOAs, 1 Total As/As Spec, 1 Total Metals, 1 Dis. Met, 1 TSS w/ pump

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B6-04GW03R/NS Page 1 of 1 Field Staff: HAT

Date Sampled 5/4/01
Stick-up Height 0.9 feet
Depth to Water 7.5 feet below top of casing
Total Depth 22 feet below top of casing
Depth of Tubing (sample interval) 21 feet below top of casing

sulfide = 0.80 mg/L
ferrous iron = 3.30 mg/L

Start purge 0900, 1345
Start parameters
End purge 1130, 1410
Total purge time: 2 hours, 55 minutes
Parameters Stabilized?

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)

Comments P/D = 2.5 ppm
Sample/well dot less than 50 mL/min. Collected condensed suite.

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well BG05GW01 Date 9/21/00

Screen Setting 12-7 Measuring Point Description top of pipe Casing Diameter (inches) 1

Static Water Level 8.19 Measured Width Well Materials PVC / ✓ ST. Steel

Total depth 15.02 stickup 2.04 Pump On: 1130 Pump Rate: 150

Purge Method Pump Off: 1243 Volumes Purged

Centrifugal ✓ Sample Time: 1220 Weather: cloudy windy

Submersible Sampled By:

Other DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1145					6.04	79	620	-68	3.31	19.4		
1150					6.38	76	162	-120	1.02	19.3		
1155					6.61	74	88.2	-147	0.74	19.2		
1200					6.69	74	68.4	-145	0.67	19.1		
1205					6.79	75	70.9	-146	0.61	18.9		
1210					6.82	75	62.0	-146	0.58	19.0		
1215					6.85	75	13.6	-146	0.56	19.0		
1220					6.89	75	8.27	-145	0.55	19.0	0.01	3.30 Limit

Constituents Sampled	Container Description	Number	Preservative
T Metals	plas	1	HNO3
D Metals	"	1	"
T Arsenic	plas amber	1	none
D Arsenic	"	1	"
Benz Tol	VOA	3	HCl
TSS	plas	1	none

Sampling Personnel SD

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pH-4.09 tubing 2' from bottom

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well BG05GW02 Date 9/25/00

Screen Setting 22-17 Measuring Point Description ToC Casing Diameter (inches) 1

Static Water Level 8.40 Measured Width Well Materials ✓ PVC ✓ ST. Steel

Total depth ~~24.90~~ 25.96 Pump On: 910 905 Pump Rate: 200

stickup 2.01 Purge Method Pump Off: 1025 Volumes Purged

Centrifugal ✓ Sample Time: 1000 Weather: Cloudy

Submersible Other DUP / MS / MSD Sampled By: SD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
910		200					OR					
915							OR					
925					6.70	0.13	647	-99	3.82	14.6		
930					6.60	0.14	473	-117	1.36	15.0		
935					6.63	0.14	243	-124	0.82	15.2		
940					6.64	0.14	150	-126	0.84	15.3		
945					6.65	0.14	89.2	-127	0.79	15.3		
950					6.65	0.14	68.1	-127	0.63	15.4		
955					6.65	0.14	42.2	-127	0.58	15.4		
1000					6.66	0.14	29.3	-127	0.58	15.4	0.07	3.30 Limit

Constituents Sampled	Container Description	Number	Preservative
T Metals	plas	1	HNO_3
D Metals	"	1	"
T Arsenic	plas Amber	1	none
D Arsenic	"	1	"
Benz Tol	VOA	3	HCL
TSS	plas	1	none

Sampling Personnel SD

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pH 4.04 tubing 2' from bottom

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Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B16-05GWO3NS Page 1 of 1 Field Staff: LC

Date Sampled 4/5/01
Stick-up Height 1.0 feet
Depth to Water 5.92 feet below top of casing
Total Depth 39.5 feet below top of casing
Depth of Tubing (sample interval) 39.0 feet below top of casing

Sulfide = 0.80 mg/L
ferrous iron = 3.30 mg/L

Start purge 1245
Start parameters 1615
End purge 1645
Total purge time: 4 hours, — minutes
Parameters Stabilized? N

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
1615		400		13.27	869	7.10	16.2	26.56	—
1620	5	400		12.69	887	6.81	6.3	20.95	—
1625	10	400		12.45	886	6.43	-4.5	7.56	—
1630	15	400		12.42	887	6.47	-21.3	3.78	—
1635	20	400		12.39	888	6.49	-26.4	3.55	—
1640	25	400		12.41	899	6.53	-30.0	3.63	—
1645	30	400		12.41	890	6.52	-31.2	3.46	—

Comments
extremely silty purge water, turbidity over range

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

1 1

Project/No. MA000646.0001.00002 Well B7-016W01 Date 12 Sept 2006

Screen Setting 9-4 Measuring Point Description Top of Casing Casing Diameter (inches) 1"

Static Water Level 5.82 Measured Width Well Materials PVC ✓ S.S. Steel

Total depth 13.22 Pump On: 1115 Pump Rate: 165 mL/min

Stickup 2.39

Purge Method Pump Off: 1235 Volumes Purged

Centrifugal Sample Time: 1200- Weather: Sun 70

Submersible Sampled By: Diane Mosher

Other ✓ DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (mL)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1120	0				6.25	0.15	990	-136	[illegible]	23.5	*D.O. = 1.29	
1125		165			6.51	0.15	990	-153	1.79	23.4		
1130	10				6.55	0.15	990	-129	3.71	22.9		
1135					6.46	0.15	700	-122	3.72	22.5		
1140	20				6.46	0.15	80	-121	3.88	22.5		
1145					6.46	0.15	55	-119	4.19	22.2		
1150	30				6.47	0.15	24	-119	4.33	22.1		
1155					6.46	0.15	21	-118	4.03	21.9		
1200	40				6.48	0.15	18	-117	3.99	21.8		
					6.48	0.15	55	-123	4.41	24.5		3.30

Constituents Sampled	Container Description	Number	Preservative
Benz. Toluene	VOA	3	HCl Ice
TSS	Plas	1	Ice
Total Metal	1	1	HNO3 Ice
Diss Metal		1	1
As tot Spec	Amber	1	Ice
As dis Spec	1	1	1

Sampling Personnel Diane Mosher pH - ✓

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ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

1 1

Project/No. MA000646.0001.00002 Well B7-016GW02 Date 13Sept 00

Screen Setting 16-11 Measuring Point Description Top of Casing Casing Diameter (inches) 1"

Static Water Level 6.11 Measured Width _____ Well Materials PVC / ~~St.~~ Steel

Total depth 18.90 Pump On: 1650 Pump Rate: 150 mL/m

Purge Method S/4 2.23 Pump Off: 1920 Volumes Purged _____

Centrifugal _____ Sample Time: 1850 Weather: Sun 70's

Submersible _____ Sampled By: DM

Other ✓ DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1650	0	150			6.62	0.16	O/R	-105	0.81	24.4		
1655					6.28	0.14	O/R	-99	0.32	23.5		
1700					6.26	0.14	O/R	-100	0.23	23.5		
1705					6.22	0.13	O/R	-101	0.75	23.3		
1710					6.23	0.12		-104	1.42	23.0		
1715					6.24	0.12		-105	1.43	22.8		
1720												
1725												
1730												
1736			—	—	6.28	0.09	494	-113	1.53	21.9		
1745					6.28	0.09	278	-113	2.04	21.8		
1755					6.25	80	100.6	-112	2.25	21.5		
1810					6.25	79	77.6	-113	2.33	21.1		
1826					6.26	78	68.3	-114	2.48	20.8		
1825					6.25	76	70.4	-112	2.40	20.4		
1830					6.25	76	93.4	-112	2.44	20.1		
1835		200			6.25	76	71.8	-112	2.39	19.8		
1840		150			6.24	75	58.8	-107	2.76	19.2		
1845					6.23	75	31.4	-102	3.04	18.9		
1850					6.22	75	24.7	-99	2.94	18.7	0.18	3.30
					6.18	75	28.6	-95	2.99	18.4		

Constituents Sampled	Container Description	Number	Preservative
Benzene Toluene	VOA	3	HCl Ice
TSS	plas	1	Ice
TOTAL As SPEC		1	Ice
DISS As Spec		1	Ice
Total Metals		1	HNO3 Ice
Diss Metals		1	HNO3 Ice

Sampling Personnel DMoshen pH-✓

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Resampled mid zone

1 of 1

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well B7-01-Gw-02 Date 9/19/00

Screen Setting 35-30 Measuring Point Description ToC Casing Diameter (inches) 1

Static Water Level ~~4.53~~ 6.29 Measured Width _____ Well Materials ✓ PVC ✓ ST. Steel

Total depth 37.60 Pump On: 1000 Pump Rate: _____

5/4 2.51

Purge Method Pump Off: 1215 Volumes Purged 5 7 4/5

Centrifugal _____ Sample Time: 1135 Weather: Sunny, 60's

Submersible _____

Other peristaltic DUP / MS / MSD Sampled By: AR

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide mg/L	Ferrous Iron mg/L
1035		150		2	5.92	53	137	-4	0.67	14.9		
1040		↓			5.91	52	65.6	-3	0.51	15.0		
1045					5.90	51	71.1	-3	0.50	15.4		
1055		↓			5.88	51	44.1	-2	0.60	16.0		
1100		100ml		3	5.87	52	38.9	-1	0.64	16.7		
1105		↓			5.87	51	33.5	-3	0.67	16.8		
1110					5.87	52	30.4	-3	0.69	16.9		
1115					5.89	52	31.0	-3	0.68	16.9		
1125		↓		4.5	5.90	52	21.4	-4	0.69	16.7		
1205												2.23
1216											0.11	

Constituents Sampled	Container Description	Number	Preservative
Benzene Toluene	Glass	3	HCl Ice 4 °C
Total Metals	plastic	1	HNO_3
Dissolved Metals	plastic	1	HNO_3
TSS	plastic	1	None
Total Arsenic	plastic	1	None
Dissolved Arsenic	plastic	1	None b

pH ✓

Sampling Personnel

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ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well BZ-01GW03 Date 9/18/00

Screen Setting 61-56

Measuring Point Description TOC

Casing Diameter (inches) 1

Static Water Level 6.31

Measured Width

Well Materials ☐ PVC ☑ ST. Steel

Total depth 64.1

Pump On: 1245

Pump Rate: 100

stickup 1.95

Purge Method

Pump Off: 1720

Volumes Purged

Centrifugal

Sample Time: 1645

Weather:

Submersible

Sampled By: SD

Other

DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ~~mS/cm~~ S/m	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1255	10				6.52	0.09	OR	-127	0.00	17.6		
1300					6.60	76mS	OR	-134	0.00	19.0		
1305		150			6.65	61mS	OR	-136	0.00	20.1		
1310					6.62	56	OR	-133	0.00	20.5		
1315		100			6.63	50	OR	-133	0.00	21.8		
1320					6.63	49	OR	-134	0.00	22.4		
1330					6.62	46	OR	-136	0.00	23.5		
1335					6.60	45	OR	-138	0.00	24.4		
1340					6.59	45	OR	-138	0.00	24.6		
1350					6.58	43	OR	-139	0.04	25.4		
1355	170				6.56	44	OR	-139	0.09	25.9		
1400					6.55	44	OR	-140	0.09	26.1		
1410		90			6.52	44	OR	-141	0.04	26.5		
1420					6.51	44	OR	-142	0.09	26.6		
1430					6.52	45	OR	-143	0.11	26.8		
1440					6.52	45	OR	-144	0.12	26.9		
1450	125				6.52	45	OR	-145	0.11	26.9		
1500					6.50	45	917	-146	0.11	26.8		
1510					6.50	46	770	-146	0.11	26.7		
1520					6.50	46	863	-146	0.13	26.6		

Constituents Sampled	Container Description	Number	Preservative
TMetals	plas	1	HNO_3
DMetals	"	1	"
TArsenic	amber	1	none
DArsenic	"	1	"
Benz Tol	VOA	3	HCl
TSS	plas	1	none

Sampling Personnel SD pH - ✓

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

2 2

Project/No. MA000646.0001.00002 Well B701GW03 Date 9/18/00

Screen Setting _____ Measuring Point Description _____ Casing Diameter (inches) _____

Static Water Level _____ Measured Width _____ Well Materials ___ PVC ___ ST. Steel

Total depth _____ Pump On: _____ Pump Rate: _____

Purge Method Pump Off: _____ **Volumes Purged** _____

Centrifugal ✓ **Sample Time:** _____ Weather: _____

Submersible _____ Sampled By: _____

Other _____ DUP / MS / MSD _____

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1530	165	80			6.50	46	703	-147	0.12	26.4		
1540					6.50	46	644	-147	0.11	26.3		
1550	185				6.50	45	571	-148	0.14	26.0		
1600					6.49	45	625	-148	0.14	25.6		
1610					6.50	45	511	-148	0.14	25.2		
1620					6.50	45	530	-147	0.16	25.0		
1630					6.49	45	581	-143	0.14	24.8		
1645					6.49	45	497	-143	0.15	24.8	0.80 Limit	3.30 Limit
4 hours - sampled "NS"												

Constituents Sampled	Container Description	Number	Preservative

Sampling Personnel _____

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-02GW01NS Page 1 of 1 Field Staff: LC

Date Sampled 3/9/01
Stick-up Height 1.8' feet
Depth to Water 11.59' feet below top of casing
Total Depth 20.7' feet below top of casing
Depth of Tubing (sample interval) 19.7' feet below top of casing

Sulfide: 0.80mg/L
Ferrous Iron: 3.30mg/L

Start purge 0930
Start parameters
End purge 1025
Total purge time: ____ hours, 55 minutes
Parameters Stabilized? N

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)

Comments
- Very silty sample, no water produced w/ peristaltic pump, sample w/ tubing and check valve
- collect condensed suite - sample VOC's directly from check valve, all other sample allowed to settle prior to collection in bottles

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-02GW02 Page 1 of 1 Field Staff: HT

HAT

Date Sampled 3/14/01
Stick-up Height ~~1.80~~ 0.8 feet
Depth to Water 11.88 feet below top of casing
Total Depth 28.5 feet below top of casing
Depth of Tubing (sample interval) 27.5 feet below top of casing

sulfide = 0.08 mg/L
ferrous iron = 3.30 mg/L

Start purge 1220
Start parameters 1250
End purge 1425
Total purge time: 2 hours, 5 minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
1250	0	300		11.50	1291	5.94	17.9	7.24	300
1255	5			11.51	1288	5.92	18.0	7.37	320
1300	10			11.51	1269	5.89	23.1	7.47	350
1305	15			11.55	1260	5.88	23.8	7.45	350
1310	20			12.15	1251	5.87	25.2	7.36	240
1315	25			11.53	1245	5.88	27.8	7.45	110
1320	30			11.46	1242	5.87	28.3	7.48	110
1325	35			11.54	1238	5.87	29.5	7.44	90
1330	40			11.93	1234	5.87	29.7	7.43	80
1335	45			12.10	1227	5.86	30.3	7.39	60
1340	50			12.39	1226	5.86	30.3	7.44	50
1345	~~60~~ 55	HAT		12.18	1220	5.86	30.7	7.37	45
1350	60			11.69	1218	~~5~~ 5.87 HT	31.8	7.42	45
1355	65			11.45	1216	5.87	32.6	7.47	45
1400	70			11.47	1211	5.87	33.8	7.40	37
1405	75			11.40	1209	5.87	33.5	7.43	~~35~~ HT 75
1410	80			11.36	1206	5.87	34.2	7.49	67.8
1415	85			11.39	1204	5.86	34.2	7.43	40.0
1420	90			11.43	1193	5.86	34.2	7.37	37.4
1425	95			11.71	1199	6.87	33.8	7.35	40.08

Comments

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-OBGW03NS Page 1 of 1 Field Staff: MH

Date Sampled 3/9/01
Stick-up Height -.9' feet
Depth to Water 11.21' feet below top of casing
Total Depth 38.8' feet below top of casing
Depth of Tubing (sample interval) 37.8' feet below top of casing

Sulfide: 0.80 mg/L
Ferrous Iron: 3.30 mg/L

Start purge 0925
Start parameters
End purge 1025
Total purge time: 1 hours, ____ minutes
Parameters Stabilized? N

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)

Comments

extremely silty, no water produced w/ peristaltic pump, sample w/ tubing + check valve condensed suite - Sample VOC's w/ check valve all other sample allowed to settle prior to collection in sample bottles

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well BG-03-GW-01 Date 9/21/00

Screen Setting 15-10 Measuring Point Description ToC Casing Diameter (inches) 1"

Static Water Level 11.2 Measured Width — Well Materials ✓ PVC / ST. Steel

Total depth 17.27 Pump On: 0820 Pump Rate: 100 ml/min

Purge Method stick 1.9' Pump Off: 1000 Volumes Purged 2.5

Centrifugal — **Sample Time:** 0930 Weather: Sunny 60's

Submersible — Sampled By: AR

Other Peristaltic DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide mg/L	Ferrous Iron mg/L
0855		100			4.03	0.47	94.6	278	8.62	19.8		
0900					3.89	0.47	89.0	279	8.24	18.9		
0905					3.86	0.47	71.6	279	8.04	18.5		
0910					3.86	0.46	65.6	279	7.85	18.4		
0915					3.86	0.46	35.9	280	7.80	18.4		
~~0918~~ 0919					3.86	0.46	34.6	280	7.73	18.4		
0921		↓		2.5	3.86	0.46	27.4	280	7.65	18.5		
1000												2.40
1010											0.80 limit	
Ph.	Cal.	H.01										

Constituents Sampled	Container Description	Number	Preservative
Benzene, Toluene	GLASS	3	HCl Ice 4°C
Total Metals	plastic	1	HNO_3
Dissolved Metals	plastic	1	HNO_3
Total Arsenic	plastic Amber	1	None
Dissolved Arsenic	plastic Amber	1	None
TSS	plastic	1	None ↓

Sampling Personnel pH-✓

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8/18/2000

Tubing (sample point) 2ft off Bottom of Boring

not sent in
missed 10% error margin on depth

CADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well B7-03-GW-02 Date 9/22/00

Screen Setting 21-16

Measuring Point Description ToC

Casing Diameter (inches) 1

Static Water Level 13.09

Measured Width

Well Materials PVC / ✓ ST. Steel

Total depth 21.9

Pump On: 0820

Pump Rate:

Stick 1.70
Purge Method

Pump Off: 1145

Volumes Purged

Weather: Sunny 60's

Centrifugal

Sample Time: 1110

Sampled By: AR

Submersible

Other Peristaltic

DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
0835		100					OR					
0845							OR					
0900							OR					
0910							801					
0920					7.11	0.28	636	-285	0.00	15.8		
925					7.16	0.28	505	-292	0.00	15.9		
0930					7.17	0.28	431	-299	0.00	16.0		
0935					7.17	0.28	378	-309	0.00	16.1		
0940					7.15	0.28	287	-317	0.00	16.2		
0945					7.13	0.29	247	-322	0.00	16.4		
0950					7.12	0.28	219	-322	0.00	16.5		
1005					7.10	0.27	178	-324	0.00	16.8		
1010					7.10	0.27	138	-333	0.00	16.9		
1015				2.5	7.10	0.27	92.8	-332	0.00	16.9		
1020					7.16	0.27	73.1	-335	0.00	17.0		
1025					7.10	0.27	65.6	-339	0.00	17.0		
1030					7.10	0.27	81.0	-342	0.00	17.1		
1035					7.11	0.27	80.3	-351	0.00	17.4		
1040					7.11	0.27	60.1	-350	0.00	17.6		
1045					7.11	0.27	42.7	-359	0.00	17.7		

Constituents Sampled	Container Description	Number	Preservative
Benzene, Toluene	GLASS	3	HCl, Ice
Total Metals	plastic	1	HNO_3
Dissolved Metals	plastic	1	HNO_3
TSS	plastic	1	none
Total Arsenic	plastic Amber	1	none
Dissolved Arsenic	plastic Amber	1	none

Sampling Personnel pH-✓

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8/18/2000

Tubing 2' from bottom of Boring

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well B7-03-GW-02 Date 9/22/00

Screen Setting ____ Measuring Point Description ____ Casing Diameter (inches) ____

Static Water Level 13.09 Measured Width ____ Well Materials PVC / ST. Steel

Total depth 21.9 Pump On: 0820 Pump Rate: ____

Purge Method 1.70 Pump Off: ____ Volumes Purged ____

Centrifugal ____ Sample Time: 1110 Weather: ____

Submersible ____ DUP / MS / MSD Sampled By: ____

Other ____

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide mg/L	Ferrous Iron mg/L
1050				3.5	7.11	0.27	47.6	-350	0.00	12.6		
1055					7.11	0.27	40.1	-340	0.00	12.6		
1100					7.11	0.27	25.4	-333	0.00	12.5		
1133												1.74
1143											6.80 Limit	

Constituents Sampled	Container Description	Number	Preservative

Sampling Personnel ____

ARCADIS GERAGHTY & MILLER

oundwater Sampling Form

Project/No. MA000646.0001.00002 Well B7-03-GW-02R Date 10/2/00

Screen Setting 30-25 Measuring Point Description ToC Casing Diameter (inches) 1"

Static Water Level 11.60 Measured Width Well Materials PVC / ✓ ST. Steel

Total depth 31.40 Pump On: 0845 Pump Rate: 100ml/min

Stickup 0.71 Purge Method Pump Off: 1140 Volumes Purged 7

Centrifugal Sample Time: 1005 Weather: Cloudy low 50's

Submersible Other Peristaltic DUP / MS / MSD Sampled By: AR

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
		100/	check valve		purged 2 gal							
0915		100		4			OR					
0925							220					
0940					4.02	0.46	36	309	9.10	13.4		
0945					4.03	0.46	45	298	9.06	13.5		
0950					4.02	0.46	34	298	8.33	13.7		
0955					4.03	0.46	25	299	8.26	13.9		
												1.9mg/L
1115											0.8mg/L	
1120											limit	

Constituents Sampled	Container Description	Number	Preservative
T Metals	plas	1	HNO3
D Metals	plas	1	HNO3
T Arsenic	amber	1	none
D Arsenic	amber	1	none
Benzene Toluene	VOA	3	HCl
TSS	plas	1	none

Sampling Personnel pH-✓

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Tubing 2' from Bottom

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well BJ-03-GW-03 Date 09/22/00

Screen Setting 51-46 Measuring Point Description TOC Casing Diameter (inches) 1

Static Water Level 13.11 Measured Width Well Materials PVC / ST. Steel

Total depth 51.76 Pump On: 1310 Pump Rate: 100 ml/min

Stick 1.71 Pump Off: 1705 Volumes Purged

Purge Method Sample Time: 1635 Weather: Sunny / 70's

Centrifugal Submersible Other peristaltic DUP / MS / MSD Sampled By: AR

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide mg/L	Ferrous Iron mg/L
1345		100		0.5			OR					
1400							OR					
1415				2.0			OR					
1430							OR					
1445							OR					
1500				3.0			OR					
1530		250					OR					
1535					7.19	0.95	238	-200	0.41	16.9		
1540		100			7.23	1.0	179	-213	0.00	16.4		
1544				4.0	7.27	1.1	167	-213	0.00	16.4		
1548					7.28	1.1	178	-213	0.00	17.0		
1552					7.29	1.1	139	-214	0.00	17.3		
1556					7.30	1.1	124	-214	0.00	17.6		
1600					7.30	1.1	105	-214	0.00	17.8		
1605					7.31	1.1	82	-212	0.00	17.9		
1610					7.31	1.1	48	-210	0.00	18.4		
1615					7.31	1.1	42	-207	0.00	18.6		
1620					7.31	1.1	41	-203	0.00	18.4		
1625					7.31	1.1	38	-205	0.00	18.5		
1640											0.49	1.04

Constituents Sampled	Container Description	Number	Preservative
Benzene Toluene	Glass	3	HCl Ice 4°C
Total Metals	plastic	1	HNO_3
Dissolved Metals	plastic	1	HNO_3
TSS	plastic	1	none
Total Arsenic	plastic Amber	1	none
Dissolved Arsenic	plastic Amber	1	none

Sampling Personnel pH-V

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8/18/2000

Tubing set 2' from bottom

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-046W01 Page 1 of 1 Field Staff: LC

Date Sampled 3/12/01
Stick-up Height ~ feet
Depth to Water ~~1.85'~~ ~~6.05~~ 7.85' feet below top of casing
Total Depth ~~33.0'~~ ~~13.5'~~ 12' feet below top of casing
Depth of Tubing (sample interval) ~~32.0~~ 12.5' feet below top of casing

Sulfide 0.49 mg/L
Ferrous Iron: 1.3 mg/L

Start purge 0945
Start parameters 1010
End purge 1050
Total purge time: 1 hours, 5 minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
1010		300		6.10	962	6.95	-55.6	5.52	6.5
1015	5	300		7.63	952	7.10	-69.8	5.81	4.6
1020	10	300		7.58	956	7.33	-78.6	5.26	4.9
1025	15	300		7.57	963	7.42	-81.7	5.15	2.4
1030	20	300		7.59	963	7.46	-83.2	4.83	1.4
1035	25	300		7.53	962	7.46	-83.7	4.96	5.9
1040	30	300		7.53	964	7.50	-84.2	5.07	4.8
1046	35	300		7.66	965	7.54	-86.0	4.71	4.4
1050	40	300		7.69	970	7.54	-86.3	4.95	4.7

Comments
too much snow to accurately measure Stick up

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-046W02 Page 1 of 1 Field Staff: LC

Date Sampled 4/10/01
Stick-up Height 1.0 feet
Depth to Water 5.10 feet below top of casing
Total Depth 23.0 feet below top of casing
Depth of Tubing (sample interval) 22.0 feet below top of casing

Sulfide: 0.09mg/L
ferrous iron: 1.89mg/L

Start purge 0845
Start parameters 0910
End purge 0955
Total purge time: 1 hours, 5 minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
0910		400		9.99	1756	6.62	123.6	0.31	18.8
0915	5	400		9.97	1743	6.83	18.3	0.14	19.1
0920	10	400		9.99	1751	6.90	-9.8	0.07	19.5
0925	15	400		9.99	1762	6.99	-40.9	0.05	20.0
0930	20	400		10.03	1765	7.02	-56.0	0.03	19.5
0935	25	400		10.03	1763	7.02	-57.3	0.02	20.3
0940	30	400		10.01	1769	7.04	-69.8	0.02	18.8
0945	35	400		10.01	1766	7.05	-74.9	0.01	19.4
0950	40	400		10.04	1767	7.06	-78.9	0.01	18.3
0955	45	400		10.04	1767	7.07	-84.6	0.01	18.2

Comments

water initially black w/ sheen → then become clear
pungent odor

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-04GW03 Page 1 of 1 Field Staff: HT/LC

Date Sampled 3/12/01
Stick-up Height _____ feet
Depth to Water ~~HAT 7.85~~ 6.05 feet below top of casing
Total Depth 33 feet below top of casing
Depth of Tubing (sample interval) 32 feet below top of casing

Sulfide: 0.07mg/L
ferrous iron: 0.26mg/L

Start purge 0945
Start parameters 1010
End purge 1115
Total purge time: 1 hours, 30 minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
1010	0	400		11.77	6561	7.68	50.4	0.12	190
1015	5			10.83	6545	7.68	39.7	0.20	100
1020	10			10.80	6518	7.68	54.5	0.33	35
1025	15			10.78	6492	7.68	63.7	0.45	25
1030	20			10.80	6482	7.69	70.5	0.52	20
1035	25			10.77	6460	7.69	77.1	0.54	16
1040	30			10.81	6438	7.69	83.1	0.62	17
1045	35			10.79	6437	7.70	88.0	0.66	15
1050	40 *								
1055	45			10.84	6401	7.69	102.2	0.69	14
1100	50			10.86	6383	7.71	101.9	0.80	15
1105	55			10.90	6375	7.71	105.6	0.87	13
1110	60			10.84	6376	7.71	110.2	0.90	12
1115	65			10.90	6351	7.71	113.1	0.93	12

Comments

* went to get new battery
Collected sample + MS/MSD, B7-04GW03MS and B7-04GW03MSD

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

1 of 1

Project/No. MA000646.0001.00002 Well B7-05-GW-01 Date 09/21/00

Screen Setting 11-6 Measuring Point Description ToC Casing Diameter (inches) 1"

Static Water Level 8.94 Measured Width Well Materials PVC ✓ ST. Steel

Total depth 12.74 Pump On: 1130 Pump Rate: 100

Stick 1.78 Purge Method Pump Off: 1300 Volumes Purged

Centrifugal Sample Time: 1240 Weather: Cloudy 60's

Submersible Sampled By: AR

Other Peristaltic DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide mg/L	Ferrous Iron mg/L
1155		100		1	3.94	0.47	377	255	8.47	20.8		
1200					3.93	0.47	260	255	8.50	19.4		
1205					3.92	0.47	242	255	8.27	18.6		
1210					3.91	0.46	90.3	256	8.01	18.2		
1215				2	3.92	0.46	40.3	256	7.26	18.1		
1220					3.91	0.46	23.8	256	7.17	18.1		
1225					3.92	0.46	28.0	256	7.32	18.2		
1245											~~0.12~~	3.3/[illegible]
1256											0.12	

Constituents Sampled	Container Description	Number	Preservative
Benzene, Toluene	Glass	3	HCl Ice
Total Metals	plastic	1	HNO3
Dissolved Metals	plastic	1	HNO3
TSS	plastic	1	none
Total Arsenic	plastic Amber	1	none
Dissolved Arsenic	plastic Amber	1	none

Sampling Personnel pH-✓

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8/18/2000

Sampling Point 2 ft from BOB

not sent in
missed 10% middle zone
(03 - to 78')

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well B7-05G1002 Date 25 Sept 00

Screen Setting 21.5-16.5 Measuring Point Description Top of Casing Casing Diameter (inches) 1"

Static Water Level 8.15 Measured Width W/L Meter Well Materials PVC ✓ ~~ST.~~ Steel

.5 Total depth 23.9 Pump On: 840 Pump Rate: 105 ML/min

S/u 1.21 Pump Off: 955 Volumes Purged 4gal

Purge Method Sample Time: 925-950 Weather:

Centrifugal Submersible Other ✓ DUP / MS / MSD Sampled By: D. Mosher

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
850	10				6.85	76	O/R	-2	2.07	14.1		
855					6.19	70	680	13	1.63	14.1		
900	20				6.16	69	373	11	0.69	14.1		
905					6.14	68	118	10	0.61	14.0		
910	30				6.13	67	45.6	11	0.53	14.0		
915	35				6.13	67	43.5	12	0.53	14.0		
920	40				6.12	67	23.9	13	0.51	14.0		2.65
950					6.18	69	17.8	12	0.74	13.7		

Constituents Sampled	Container Description	Number	Preservative
TSS	Plas	1	Ice
Diss As Spec	↓	1	↓
Total As Spec	↓	1	↓
Total Metals	↓	1	HNO3 Ice
Diss Metals	↓	1	↓
Benzene	VOA	3	HCL Ice

Sampling Personnel DM

F:\stds2000\forms\LOWFLO646.xls
8/18/2000

pH Check 3.99 Tubing back 1.0'

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well B705GW02R Date 9/27/00

Screen Setting 45-40

Static Water Level 14.34

Total depth 49.1

stickup 2.46

Purge Method

Centrifugal ✓

Submersible

Other

Measuring Point Description TOC

Measured Width

Pump On: 1055

Pump Off: 1530

Sample Time: 1500

DUP / MS / MSD

Casing Diameter (inches) 1

Well Materials PVC ✓ ST. Steel

Pump Rate: 100

Volumes Purged

Weather:

Sampled By: SD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1040				≈4g	very silty & sandy (fines)							
1110		150					OR					
1155							OR					
1255							OR					
1315		<100					OR					
1400							89					
1407							641					
1415					6.38	61	269	-80	1.04	16.7		
1420					6.36	61	256	-82	0.78	16.5		
1425					6.38	61	213	-84	0.71	16.4		
1430					6.38	61	161	-85	0.66	16.3		
1435					6.39	61	128	-85	0.65	16.4		
1440					6.40	61	94.9	-86	0.66	16.4		
1445					6.41	61	71.8	-86	0.66	16.4		
1450					6.41	61	71.1	-85	0.61	16.2		
1455					6.41	60	63.8	-85	0.64	16.4		
1500					6.43	61	47.6	-86	0.64	16.4		
				≈8.5								

Constituents Sampled	Container Description	Number	Preservative
T Metals	plas	1	HNO_3
D Metals	"	1	"
T Arsenic	amber	1	none
D Arsenic	"	1	"
Benz Tol	VOA	3	HCl
TSS	plas	1	none

Sampling Personnel

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8/18/2000

pH - 4.01

~~Turbid~~ tubing 3' from bottom

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

10/2/00 1 of 2

Project/No. MA000646.0001.00002 Well B705 GW03 Date 9/27/00

Screen Setting 77.5-72.5 Measuring Point Description ToC Casing Diameter (inches) 1

Static Water Level 20.30 Measured Width _____ Well Materials ✓ PVC ✓ ST. Steel

Total depth 78.20 Pump On: ~~1535~~ 0920 Pump Rate: 100

stickup 1.96 Purge Method Pump Off: 1405 Volumes Purged _____

Centrifugal ✓ Sample Time: 1320 Weather: _____

Submersible _____ Sampled By: SD

Other _____ DUP / MS / MSD

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
				≈4.5g	very silty & sandy							
10/2/00 came back to well to try to sample.												
				≈1g								
920	pump on						OR					
935		200					476					
950					5.78	73	280	-17	2.51	14.63		
955					6.28	71	324	-81	0.88	14.65		
1000		150			6.46	71	336	-104	0.75	14.68		
1010					6.64	71	350	-119	0.72	14.77		
1015		100			6.68	71	420	-122	0.71	14.93		
1030					6.77	71	446	-128	0.78	14.83		
1040					6.84	70	698	-146	0.71	14.79		
1050					6.85	70	726	-153	0.68	14.79		
1100					6.85	70	812	-156	0.67	14.81		
1110		<100			6.88	69	982	-161	0.64	14.90		
1125					6.93	69	1021	-169	0.66	15.11		
1140					6.95	68	OR	-172	0.62	15.41		
1200					6.98	46	OR	-177	0.60	15.64		

Constituents Sampled	Container Description	Number	Preservative
T Metals	plas	1	HNO_3
D Metals	"	1	"
T Arsenic	amber	1	none
D Arsenic	"	1	"
Benzene Toluene	VOA	3	HCL
TSS	plas	1	none

Sampling Personnel pH-4.05 Tubing 2.0' from bottom

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8/18/2000

ARCADIS GERAGHTY & MILLER

Groundwater Sampling Form

Project/No. MA000646.0001.00002 Well B705GW031S Date 10/2/00

Screen Setting _____ Measuring Point Description _____ Casing Diameter (inches) _____

Static Water Level _____ Measured Width _____ Well Materials PVC / ST. Steel

Total depth _____ Pump On: 920 Pump Rate: _____

Purge Method Pump Off: 1405 Volumes Purged _____

Centrifugal _____ Sample Time: 1320 Weather: _____

Submersible _____ Sampled By: _____

Other _____ DUP / MS / MSD _____

Time	Minutes Elapsed	Rate (gpm) (ML)	DTW	Gallons Purged	pH	Cond. umhos ms/cm	TURB (NTUs)	Redox (mV)	Diss. O2 (mg/L)	TEMP. (C) (F)	Sulfide	Ferrous Iron
1220		<100			6.99	38	OR	-180	0.58	15.91		
1235					7.07	38	1059	-187	0.62	16.45		
1250					7.08	38	893	-189	0.60	17.26		
~~1305~~												
1305					7.00	38	710	-186	0.56	18.08		
1320					7.02	38	380	-188	0.53	18.76	0.39	3.30, Limit
						sampled as MS						

Constituents Sampled	Container Description	Number	Preservative

Sampling Personnel _____

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ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-066W01 Page 1 of 1 Field Staff: LC

Date Sampled 3/16/01
Stick-up Height 1.9 feet
Depth to Water 7.34 feet below top of casing
Total Depth 12.5' feet below top of casing
Depth of Tubing (sample interval) 12.0 feet below top of casing

sulfide: 0.01 mg/L
ferrous iron: 0.66 mg/L

Start purge 0855
Start parameters 0915
End purge 1005
Total purge time: 1 hours, 10 minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
0915		400		5.22	276	7.55	52.8	8.03	67.7
0920	5	400		4.94	274	6.95	78.2	7.96	38.2
0925	10	400		5.06	272	6.62	94.9	7.87	35.4
0930	15	400		5.01	273	6.22	106.9	8.49	19.2
0935	20	400		5.04	272	6.03	114.9	7.87	18.0
0940	25	400		5.04	272	5.88	122	7.84	24.7
0945	30	400		5.02	272	5.77	127.1	7.91	18.1
0950	35	400		5.00	272	5.61	131.2	8.43	14.5
0955	40	400		5.00	272	5.53	134.2	7.88	13.5
1000	45	400		5.04	271	5.51	137.2	7.98	14.1
1005	50	400		5.08	271	5.50	138.8	7.97	13.3

Comments

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample BT-06GW02 Page 1 of 1 Field Staff: LC

Date Sampled 3/26/01
Stick-up Height 1.8' feet
Depth to Water ~~19.~~ 5.78' feet below top of casing
Total Depth 19.5' feet below top of casing
Depth of Tubing (sample interval) 18.5 feet below top of casing

Sulfide: 0.07mg/L
ferrous iron: 0.47mg/L

Start purge 0900
Start parameters 0925
End purge 1000
Total purge time: 1 hours, — minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
0925		400		7.36	345	7.32	120.1	6.51	9.5
0930	5	400		7.08	337	6.93	108.3	5.90	3.7
0935	10	400		6.95	321	6.33	112.2	5.72	2.0
0940	15	400		7.08	314	5.92	118.1	5.87	2.7
0945	20	400		7.05	313	5.90	117.9	5.83	3.0
0950	25	400		7.08	306	5.76	120.0	5.76	2.1
0955	30	400		7.10	305	5.75	121.0	5.77	2.1
1000	35	400		7.17	300	5.67	122.4	5.80	1.5

Comments

Collect sample and duplicate, BT-06GW0299

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-066W03 Page 1 of 1 Field Staff: HT

Date Sampled 3/16/01
Stick-up Height 0.7 feet
Depth to Water 6.55 feet below top of casing
Total Depth 23.5 feet below top of casing
Depth of Tubing (sample interval) 23.5 feet below top of casing

Sulfide = 0.01 mg/L
iron = 0.21 mg/L

Start purge 0955
Start parameters 0910
End purge 1000
Total purge time: 1 hours, 5 minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
0910	0	400		8.35	438	6.66	75.7	4.32	700
0915	5	↓		8.50	423	5.86	67.8	2.36	400
0920	10			8.46	424	5.43	100.1	2.06	164
0925	15			8.37	424	5.40	111.9	2.06	64.5
0930	20			8.41	423	5.36	124.2	2.31	25
0935	25			8.35	422	5.36	130.9	2.08	15.3
0940	30			8.50	420	5.31	~~280~~ 144	2.06	7.8
0945	35			8.53	421	5.31	148.6	2.03	5.6
0950	40			8.54	421	5.28	151.7	2.04	4.5
HT 0955	45			8.71	419	5.29	152.1	2.03	3.9
1000	50	↓		8.73	417	5.29	153.3	2.05	2.6

Comments

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-076W01 Page 1 of 1 Field Staff: LC

Date Sampled 4/4/01
Stick-up Height 2.0 feet
Depth to Water 5.36 feet below top of casing
Total Depth 16 feet below top of casing
Depth of Tubing (sample interval) 15 feet below top of casing

sulfide: 0.01 mg/L
ferrous iron: 1.76 mg/L

Start purge 1140
Start parameters 1320
End purge 1440
Total purge time: 3 hours, — minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
1320		400		9.33	173	6.26	120.3	8.93	145
1325	5	400		9.31	173	6.05	125.0	8.90	88.5
1330	10	400		9.32	172	5.99	126.8	8.96	65.8
1335	15	400		9.28	172	5.89	131.7	9.02	37.8
1340	20	400		9.24	171	5.89	133.4	9.12	35.6
1345	25	400		9.21	171	5.84	137.2	9.19	31.0
1350	30	400		9.23	171	5.84	137.9	9.16	29.7
1355	35	400		9.10	171	5.81	140.2	9.16	37.2
1400	40	400		9.14	170	5.80	142.1	9.15	36.0
1405	45	400		9.12	171	5.79	143.5	9.20	72.9
1410	50	400		9.14	170	5.80	145.3	9.25	98.6
1415	55	400		9.13	171	5.80	146.7	9.60	50.9
1420	60	400		9.08	170	5.78	148.2	9.29	36.1
1425	65	400		9.14	171	5.78	149.6	9.25	40.5
1430	70	400		9.19	170	5.78	151.1	9.40	33.1
1435	75	400		9.14	170	5.76	152.4	9.25	30.4
1440	80	400		9.13	170	5.77	153.6	9.25	31.2

Comments

7817
438-
0946

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-07GW02 Page 1 of ___ Field Staff: HAT

Date Sampled 4/5/01
Stick-up Height 2' feet
Depth to Water 8.66 feet below top of casing
Total Depth 25 feet below top of casing
Depth of Tubing (sample interval) 24 feet below top of casing

sulfide = 0.03 mg/L
ferrous iron = 0.84 mg/L

Start purge 1220
Start parameters 1250
End purge 1355
Total purge time: 1 hours, 35 minutes
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)	
1250	0	400		11.52	511	5.41	81.9	0.54	360	
1255	5			11.34	511	5.50	64.8	0.42	320	
1300	10			11.33	512	5.60	47.0	0.34	160	
1305	15			11.31	513	5.66	37.8	0.31	60	
1310	20			11.40	512	5.70	33.3	0.33	28	
1315	25			11.36	513	5.74	32.4	0.26	17	
1320	30			11.56	511	5.73	30.6	0.25	14	
1325	35			11.51	513	5.74	29.4	0.24	11	
1330	40			11.48	513	5.74	28.7	0.23	8.8	
1335	45			11.53	513	5.76	27.6	0.22	8.9	
1340	50			11.50	514	5.76	27.0	0.22	6.5	
1345	55			11.56	513	5.77	25.6	0.23	5.57	HAT
1350	60			11.47	514	5.77	25.3	0.22	5.97	
1355	65			11.36	515	5.77	25.0	0.21	5.57	
~~1400~~	~~70~~	HAT								

Comments

CLICK TO CONTINUE

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample B7-07GW03 Page 1 of 2 Field Staff: HAT

Date Sampled 4/4/01
Stick-up Height 1.2 feet
Depth to Water 9.64 feet below top of casing
Total Depth 38 feet below top of casing
Depth of Tubing (sample interval) 38 feet below top of casing

Sulfide: 0.02 mg/L
ferrous iron: 0.87

Start purge 1140
Start parameters 1240
End purge 1440
Total purge time: 3 hours, ___ minutes HAT
Parameters Stabilized? Y

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C)	Spec. Cond. (uS)	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)
1240	0	400		11.45	398	6.10	79.0	27.36	40
1245	5			11.43	400	5.90	47.1	2.25	32
1250	10			11.65	400	5.88	36.4	1.73	65
1255	15			11.66	400	5.92	20.2	1.40	140
1300	20			11.72	400	5.97	16.0	1.21	100
1305	25			11.79	400	5.96	12.2	1.12	95
1310	30			11.59	400	5.97	13.9	1.03	80
1315	35			11.42	399	6.01	15.4	1.15	55
1320	40			11.56	399	5.99	16.9	1.02	40
1325	45			11.69	399	5.99	17.6	1.01	30
1330	50			11.75	400	6.00	18.4	0.97	26
1335	55			11.76	400	5.99	20.2	0.95	20
1340	60			11.76	400	5.97	21.4	0.94	20
1345	65			11.80	400	5.96	22.4	0.93	15
1350	70			11.80	399	5.97	23.2	0.93	14
1355	75			11.65	400	5.96	24.8	0.90	12
1400	80			11.78	400	5.97	26.0	0.92	9.2
1405	85			11.76	400	6.00	26.4	0.94	8.3
HAT 1410	90	↓		11.76	400	5.98	28.0	~~0.89~~ 0.90 HAT	7.2

Comments