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

Sample CL2-05GW01 Page 1 of 1 Field Staff: AG

Date Sampled 7/11/01
Stick-up Height 2.0 feet
Depth to Water 11.10 feet below top of casing
Total Depth 15.7 feet below top of casing
Depth of Tubing (sample interval) 14.7 feet below top of casing

Sulfide: 0.03 mg/L
ferrous iron: 3.30 mg/L

Start purge 1200
Start parameters
End purge ~~1610~~ 1616
Total purge time: 4 hours, 10 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)
*	1555				19.06	1748	6.26	-147.4	6.88	40
*	1605			~~45~~ ~~20~~	17.38	1699	6.14	-122.7	6.55	45

Comments
EPA sample 2 L for 30 minutes
* YSI samples were collected in a beaker and sampled without flow through chamber. Samples were not able to be taken earlier due to the amount of sediment and lack of flow.

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CH2-04GW05

Tetra Tech NUS Job No./PMS ~~N0345~~ N0564-0324
QC: N/A (If applicable)

Sample Method: Low Flow
Depth Sampled: 58.5 Feet Screened Interval Depth 55.5-60.5 feet
Sample Date & Time: 7 / 12 / 01 1145 hours N/A /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli

H&S Survey Meter N/A PPM Water Quality Instrument YSI-600XL
** Pre-~~pump~~ Tubing insertion WL 5.83 ft below TOC Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate / TDS =	IC1-(4) N18				
* Anions =	IC1-(4) N18				

Notes: Casing Stick up = 1.8ft above Ground Surface.
Total Depth = 60.5 ft below TOC
(mp) measurements in feet below TOC

Clock Time 24hr	** Water Depth below MP ft	Pump Dial 1 N/A	Purge Rate ml/min	Cum. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0935 -	Start Purging										
1135	—	N/A	300	10	14.73	679	6.14	-335.9	0.73	11.3	Stop Purge
1145	Begin Sampling										

TOC = Top of Casing
* Anions = Sulfate, phosphate, nitrite nitrate, & Chloride.

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms and~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

** Water level - measured prior to inserting tubing and not continuous measured. Well = 0.5 inches I.D. - can not fit water level indicator in well w/ tubing.

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

Sample CH2-04GW05 Page 1 of ___ Field Staff: LC

Date Sampled 7/12/01
Stick-up Height 1.8 feet
Depth to Water 6.83 feet below top of casing
Total Depth 60.5 feet below top of casing
Depth of Tubing (sample interval) 58.5 feet below top of casing

Sulfide: 0.0mg/L
ferrous iron: 3.30mg/L

Start purge 0935
Start parameters 1025
End purge 1135
Total purge time: 2 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)
1025		300	4	15.52	690	7.08	-168.6	3.13	92.7
1030	5	300		14.97	680	6.21	-190.8	1.20	148
1035	10	300	5	14.53	682	6.15	-196.0	0.99	120
1040	15	300		14.61	682	6.13	-214.8	0.72	53.8
1045	20	300		15.05	679	6.14	-304.4	0.77	32.4
1050	25	300		14.54	678	6.13	-371.4	0.77	22.1
1055	30	300		14.84	679	6.13	-387.8	0.75	18.5
1105	40	300		14.79	682	6.13	-365.1	0.75	16.9
1115	50	300		14.56	679	6.13	-373.8	0.75	16.0
1120	55	300		14.67	681	6.14	-350.4	0.74	11.9
1125	60	300		14.52	678	6.14	-332.1	0.69	11.6
1130	65	300		14.77	678	6.13	-330.6	0.72	11.2
1135	70	300	10	14.73	679	6.14	-335.9	0.73	11.3

Comments

EPA collected 2L in 15 min.

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CH2-04GW06

Tetra Tech NUS Job No./PMS ~~N0345~~ N0564-0324
QC: IP6W-DUP02-071201 (If applicable)

Sample Method: Low Flow

Depth Sampled: 68.2 Feet Screened Interval Depth 65.2-70.2 feet
Sample Date & Time: 7/12/01 1045 hours 1155/Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Casing Stick up = 0.8ft above GS
Total Depth = 70.2ft below TOC
(mp) = measurements in ft below TOC

H&S Survey Meter N/A PPM Water Quality Instrument YSI-600XL
** ~~Pre-pump~~ insertion WL 5.44 ft tubing below TOC Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate/TDS =	1C1-(4) N18				
* Anions =	1C1-(4) N18				

Clock Time 24hr	Water Depth below MP ft **	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gal	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0930-	Start Purge.	N/A									
1035-	—	N/A	320	~2.5	14.43	1224	6.67	-203.4	1.21	13	Stop Purge
1045-	Begin Sampling.										

Note: Roux-collects MS/MSD at this location. No MS/MSD Sample for TtNUS.

TOC = Top of Casing
* Anions = nitrite, nitrate, phosphate, sulfate & chloride.

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms and~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

GS = Ground Surface

** Water level - measured prior to inserting tubing and not continuously measured. Well = 0.5 inches inside diameter (I.d). Can not fit water level indicator in well w/ tubing.

ROUX ASSOCIATES, INC.
Final GSIP SOW Soil/Groundwater Investigation
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Sample CH2046W06 Page 1 of ___ Field Staff: AG

Date Sampled 7/12/01
Stick-up Height 0.8 feet
Depth to Water 5.44 feet below top of casing
Total Depth 70.2 feet below top of casing
Depth of Tubing (sample interval) 68.2 feet below top of casing

Sulfides 0.01 mg/L
ferrous iron ~ 3.38 mg/L

Start purge 0930
Start parameters 0955
End purge 1035
Total purge time: ___ hours, 40 minutes
Parameters Stabilized? Yes

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C) 3%	Spec. Cond. (uS) 3%	pH +/- .1	ORP (mV) +/- 10	DO (mg/L) 10%	Turbidity (NTU) 10%
0955	0	320		14.82	1209	6.66	-234.2	2.14	16
1000	5			14.72	1205	6.68	-223.7	1.69	16
1005	10			14.75	1206	6.68	-220.1	1.65	17
1010	15			14.63	1203	6.68	-217.0	1.51	17
1015	20			14.69	1205	6.68	-217.7	1.42	15
1020	25			14.~~16~~60 AG	1229	6.68	-212.2	1.32	15
1025	30			14.60	1207	6.69	-209.3	1.24	13
1030	35			14.50	1205	6.69	-203.8	1.23	13
1035	40		7	14.43	1224	6.69	-203.4	1.21	13

Comments
EPA collected 4 L in 25 minutes
Collected samples for MS + MSD

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

Sample CH2-020GW05 Page 1 of ___ Field Staff: AG

Date Sampled 7/12/01
Stick-up Height 1.2 feet
Depth to Water 6.01 feet below top of casing
Total Depth 43.0 feet below top of casing
Depth of Tubing (sample interval) 41.0 feet below top of casing

Sulfide 0.01 mg/L
ferrous iron: 2.04 mg/L

Start purge 1400
Start parameters 1420
End purge 1525
Total purge time: 1 hours, 5 minutes
Parameters Stabilized? yes

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)
1420	0	400		12.64	1645	6.03	-96.7	0.68	10
1425	5			12.55	1646	6.03	-95.1	0.71	9.8
1430	10			12.53	1621	6.02	-90.3	0.45	7.8
1435	15			12.55	1620	6.02	-89.9	0.46	9.1
1440	20			12.26	1612	6.03	-87.6	0.42	6.3
1445	25			12.38	1602	6.03	-85.5	0.44	7.1
1450	30			12.22	1590	6.03	-85.5	0.43	5.7
1455	35			12.37	1582	6.04	-85.2	0.42	4.6
1500	40			12.40	1578	6.04	-84.3	0.39	5.2
1505	45			12.44	1572	6.04	-83.9	0.44	4.6
1510	50			12.34	1570	6.04	-83.3	0.43	6.1
1515	55			12.37	1563	6.04	-82.8	0.42	4.3
1520	60			12.23	1555	6.04	-81.8	0.42	4.7
1525	65		10	12.15	1546	6.04	-81.5	0.46	4.5
1530	70								

Comments EPA sampled 2L in 10 minutes

TETRA TECH NUS, INC. (10/19/10)

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB9-02/6W02

Tetra Tech NUS Job No./PMS N0~~345~~ 664 032V
QC: N/A (If applicable)

Sample Method: LOW FLOW GROUNDWATER
Depth Sampled: 28.5 Feet Screened Interval Depth 24.5-29.5 feet
Sample Date & Time: 07 / 10 / 01 1515 hours N/A /Dup
Sampler(s): KBNuppula, J. Danieli
Data Recorded By: KBN Signature: Kara Nuppula
Notes:
Depths measured from TOC. Total Depth = 29.5
Casing Sticks UP Height = 2.1 ft above Ground Surface
Odor noted & Sheen on water.

H&S Survey Meter N/A PPM Water Quality Instrument YSI 600XL
~~Pre-pump insertion WL~~ ** ft ~~Post-pump insertion WL~~ ft
pre-tubing insertion = 6.0

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Anions	C	1036020			
TDS/ Bicarbonate	C	1036020			

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gal	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1340	Purge Began										
1355	Parameters Began										
	Sampling										
1505	—	N/A	300	7.5GAL	16.23	6757	6.04	-18.3	-0.04	9.33	
1515	Sampling Began										

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms and~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

** NOTE: 1" monitorwell is too small for both sampling tube & water level indicator

TOC = top of casing

Anions include nitrate, nitrite, phosphate, sulfate, & chloride

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

Sample: CB9-02GW02 Page 1 of 1 Field Staff: AG/HAT

Date Sampled: 7/10/01
Stick-up Height: 2.1 feet
Total Depth: 29.5 feet below top of casing
Depth of Tubing (sample interval): 28.5 feet below top of casing

sulfide: 0.27mg/L
Depth to water 16.0ft below TOC
Ferrous Iron 3.30mg/L

Start purge: 1340
Start parameters: 1355
End purge: 1505
Total purge time: 1 hours, 25 minutes
Parameters Stabilized? Y

Total Purge Time 1hr 25min

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C) 3%	Spec. Cond. (uS) 3%	pH +/-1	ORP (mV) +/-10	DO (mg/L) AG 10%	Turbidity (NTU) 10%
1355 @ HAT	0	300		16.77	6866	6.00	-138.5	~~17.8~~ 0.10	17.8
1400	5			15.96	6881	5.99	-135.9	-0.08	17.0
1405	10			15.59	6835	5.99	-131.7	-0.08	21.8
1410	15			15.66	6812	5.99	-130.3	-0.06	12.5
1415	20			15.46	6814	5.99	-128.0	-0.07	27.0
1420	25			15.74	6783	6.00	-126.4	-0.05	9.06
1425	30			15.86	6807	6.00	-125.6	-0.06	14.2
1430	35			15.84	6793	6.00	-124.5	-0.07	9.77
1435	40			15.63	6777	6.00	-122.8	-0.04	10.36
1440	45			15.67	6767	6.01	-122.0	-0.06	11.2
1445	50			15.88	6773	6.02	-121.5	-0.05	29.2
1450	55			16.02	6736	6.02	-120.5	-0.04	34.4
1455	60			16.10	6711	6.02	-120.0	-0.04	15.00
1500	65			15.94	6776	6.02	-118.7	-0.04	9.32
1505	70			16.12	6769	6.02	-118.3	-0.04	~~10~~ 8.86 HAT
				16.23	6757	6.04	-118.3	-0.04	9.33

Comments

EPA collected 2L for 15 ~~more~~ HAT min.
Sheen on water and oily odor.

TETRA TECH NUS, INC. 07/11/01

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB9-01/61003

Tetra Tech NUS Job No./PMS N0~~345~~ 564 0324
QC: N/A (If applicable)

Sample Method: LOW FLOW GROUNDWATER
Depth Sampled: 34.0 Feet Screened Interval Depth 30.0-35.0 feet
Sample Date & Time: 07 / 10 / 01 1455 hours N/A /Dup
Sampler(s): K. Nuppula, J. Danieli
Data Recorded By: KBN Signature: Kara Nuppula
Notes: depths measured from TOC. Total Depth = 35.0
Casing Sticks ~~Out~~ UP Height = 0.60 ft above Ground Surface.

H&S Survey Meter N/A PPM
~~Pre-pump insertion WL~~ ** ft
pre-tubing insertion = **

Water Quality Instrument YSI 600XL
~~Post-pump insertion WL~~ ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Anions	C	0131020			
TDS/ Bicarbonates	C	0131020			

Clock Time * 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gal	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
11:45	Began Purging										
12:45	Began Parameters										
14:35			200	15 GAL	14.87	5,2~~4~~50 KN	7.29	-181.2	18.26	8.42	
14:55	Began Sampling			~~15~~ KN							

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms and~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

** NOTE: 1 inch mykrowell is too small for both sampling tubing &
- TOC = top of casing
- Anions include nitrite, nitrate, phosphate, sulfate, chloride

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

Sample CB9-01GW03 Page 1 of 2 Field Staff: LC

Date Sampled 7/10/01
Stick-up Height 0.60 feet
Depth to water 6.45
Total Depth 35.0 feet below top of casing
Depth of Tubing (sample interval) 33.5 feet below top of casing

Sulfide: 0.22mg/L
Ferrous Iron: 0.52mg/L

Start purge 1145
Start parameters 1245 End Purge 1435
Total purge time: 2 hours, 50 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)
1245		200		14.40	5756	7.26	-191.6	9.69	76.3
1250	5	200		14.41	5733	7.27	-191.7	5.86	47.3
1255	10	200		14.40	5680	7.27	-188.9	6.76	35.5
1300	15	200		14.58	6623	7.27	-184.3	~~7.27~~ 12.70	27.8
1305	20	200		14.57	5595	7.28	-186.1	13.17	33.3
1310	25	200		14.47	5566	7.28	-187.8	5.53	21.6
1315	30	200		14.45	5557	7.28	-188.0	5.43	22.0
1320	35	200		14.56	5497	7.28	-187.5	5.63	19.9
1325	40	200		14.50	5440	7.28	-187.0	8.22	15.6
1330	45	200		14.49	5437	7.28	-185.6	9.73	12.2
1335	50	200		14.61	5421	7.29	-184.7	3.51	10.92
1340	55	200		14.64	5405	7.29	-184.0	3.35	7.11
1350	60	200		14.56	5293	7.29	-181.0	5.15	10.71
1355	65	200		14.66	5265	7.29	-181.9	3.95	9.78
1400	70	200		14.72	5221	7.29	-183.0	4.88	9.18
1405	75	200		14.76	5289	7.29	-184.2	10.60	7.72
1410	80	200		14.78	5316	7.29	-181.7	10.97	8.05
1415	85	200		14.82	5268	7.29	-180.9	8.58	9.08
1420	90	200		14.85	5289	7.29	-180.7	18.34	9.33

Comments
EPA collected 2L (20 min.)
VOC's may have air bubbles, sample is effervescent in contact w/ preservative

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

Sample CB9-01GW03 Page 2 of 2 Field Staff: LC

Date Sampled 7/10/01
Stick-up Height 0.60 feet
[redacted]
Total Depth 35.0 feet below top of casing
Depth of Tubing (sample interval) 33.5 feet below top of casing

Start purge 1145 ~~En~~
[redacted]
End purge
Total purge time: ____ hours, ____ minutes
Parameters Stabilized? ____

Depth to water .45ft below TOC

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)
1430	100	200		14.80	5226	7.29	-181.0	18.62 ~~20.99~~	9.36
1435	105	200		14.87	5250	7.29	-181.2	18.26	8.42

Comments

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex 10/11/01

Sample ID: CB4-03/GW03

Tetra Tech NUS Job No./PMS N0345-~~0370~~ 564 0324 (KBN)

QC: N/A (If applicable)

Sample Method: LOW FLOW GROUNDWATER

Depth Sampled: 45.5 Feet Screened Interval Depth 41.5-46.5 feet

Sample Date & Time: 07 / 10 / 01 12:25 hours N/A /Dup

Sampler(s): K. Nuppula, J. Danieli

Data Recorded By: KBN Signature: Kara Nuppula

Notes: DEPTHS FROM TOC. Total Depth = 46.5

Casing Sticks ~~out~~ up Height = 1.2 ft above ground surface.

H&S Survey Meter N/A PPM Water Quality Instrument YSI 600XL

~~Pre-pump insertion WL~~ ** ft ~~Post-pump insertion WL~~ ft

pre tubing insertion = 7.86**

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Anions	C 0188130				
TDS	C 0131020				
Bicarbonates					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gal	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
9:30	Began Purging										very silty → slo flo
	~~Stopped Purging~~ KBN										
10:20	Start Parameters										
12:15	End Purge										
12:15		N/A	300		15.72	1985	6.78	-88.9	-0.01	3.20	
12:25	Sampling Began										

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms~~ and sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

** NOTE: 1" diameter mykrowell is too small for both sampling tubing & water level indicator

· TOC = top of casing

· Anions include nitrite, nitrate, phosphate, sulfate, chloride

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

Sample CB4-03GW03 Page 1 of 2 Field Staff: AG/HAT

Date Sampled 7/10/01
Stick-up Height 1.2' feet
Depth to Water 7.68 7.68 feet below top of casing
Total Depth 46.5 feet below top of casing
Depth of Tubing (sample interval) 45 feet below top of casing

sulfide = 0.02 mg/L
Ferrous Iron = 1.54 mg/L

Start purge 0930
Start parameters 1020
End purge 1215
Total purge time: 2 hours, 15 minutes 2 hrs 45 min
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)
				±3%	3%	±0.1	±10	10%	10%
1020	0	300		17.11	1949	6.69	-126.9	-0.03	412
1025	5			15.73	1950	6.73	-117.9	0.01	207
1030	10			15.55	1951	6.75	-113.5	0.00	141
1035	15			15.58	1960	6.76	-108.2	0.00	101.4
1040	20			15.51	1962	6.75	-89.8	0.00	58.2
1045	25			15.57	1958	6.77	-101.8	0.01	45.5
1050	30			15.63	1959	6.78	-102.3	0.01	38.5
1055	35			15.62	1958	6.77	-102.5	0.01	25.6
1100	40			15.53	1971	6.77	-100.0	0.02	21.8
1105	45			15.58	1962	6.78	-101.4	0.00	17.6
1110	50			15.52	1968	6.78	-98.0	0.00	15.0
1115	55			15.48	1967	6.77	-99.0	0.00	11.3
1120	60			15.62	1968	6.77	-98.1	0.00	10.66
1125	65			15.60	1969	6.78	-98.6	-0.01	9.69
1130	70			15.64	1969	6.41	-26.4	-0.07	7.54
1135	75			15.76	1975	6.77	-87.9	-0.02	14.0
1140	80			15.71	1972	6.78	-94.5	-0.01	8.51
1145	85			15.65	1968	6.78	-95.9	0.00	7.74
1150	90			15.76	1973	6.79	-95.8	0.00	6.08

Comments
EPA collected 2 L for 15 min

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

Sample CB4-03GW03 Page 2 of 2 Field Staff: AG/HAT

Date Sampled 7/10/01
Stick-up Height 1.2 feet
Depth to Water 7.68 → 7.68
Total Depth 46.5 feet below top of casing
Depth of Tubing (sample interval) 45 feet below top of casing

Start purge 0930
Start parameters 1020
[redacted] → 1215 = End Purge
Total purge time: 2 hours, 45 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)
1155	95	300		15.60	1975	6.79	-95.7	-0.01	4.64
1200	100	↓		15.62	1972	6.79	-93.0	-0.01	5.16
1205	105			15.69	1971	6.80	-96.6	-0.01	4.07
1210	110			15.64	1975	6.79	-95.7	-0.01	3.94
1215	115	↓		15.78	1985	6.78	AG ~~-84.2~~ 88.9	-0.01	3.20
~~1220~~ HAT									

Comments

TETRA TECH NUS, INC. 7/11/01

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB9-01/GW01

Tetra Tech NUS Job No./PMS N0345 ~~0310~~ 564-0324 (KBN)
QC: N/A (If applicable)

Sample Method: LOW FLOW GROUNDWATER
Depth Sampled: 13.0 Feet Screened Interval Depth 9.0-14.0 feet
Sample Date & Time: 07 / 10 / 01 10:20 hours N/A /Dup
Sampler(s): K. Nuppula
Data Recorded By: KBN Signature: Kara Nuppula
Notes: Depths from TOC. Total Depth = 14.0
• Casing stick-up = 1.30ft above Ground ~~Above Grou~~ surface 7/11/01

H&S Survey Meter N/A PPM Water Quality Instrument YSI 600XL
~~Pre-pump insertion WL~~ ** ft ~~Post-pump insertion WL~~ ft
** Pre-tubing insertion = 7.51ft below TOC

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Anions	C	0131020			
Bicarbonate	C	0131020			
TDS					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gal	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
09:15	Started Purging										
09:40	Started Parameters										
10:10	Stopped Purging										
10:10	—	N/A	300	4.5 GAL	16.16	1595	6.93	-251.6	8.97	3.02	
10:20	Started Sampling										

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms and~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

** NOTE: 1/2 INCH mykrowell is too small for both sampling tubing & water level indicator

• TOC = top of casing
Anions include nitrite, nitrate, phosphate, chloride, & sulfate

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

Sample CB9-01GW01 Page 1 of 1 Field Staff: LC

Date Sampled 7/10/01
Stick-up Height 1.30 feet

Sulfide: 0.80mg/L

Start purge 0915
Start parameters 0940 → 0940
End purge 1010
Total purge time: — hours 55 minutes
Parameters Stabilized? Y

Total Depth 14.0 feet below top of casing
Depth of Tubing (sample interval) 12.0 feet below top of casing

Ferrous Iron: 1.08mg/L

Depth to water: 7.51ft below TOC.

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)
0940		500		16.55	1592	6.94	-219.2	7.63	129
0945	5	300		16.33	1586	6.93	-227.5	7.50	5.23
0950	10	300		16.22	1591	6.94	-238.7	7.90	5.35
0955	15	300		16.21	1590	6.94	-249.3	8.57	4.48
1000	20	300		16.17	1592	6.94	-248.3	8.75	3.80
1005	25	300		16.15	1592	6.93	-249.9	8.70	3.64
1010	30	300		16.16	1595	6.93	-251.6	8.93	3.02

Comments
EPA collected 2L of sample

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex 10/7/11/01
Sample ID: CB3-02/GW03

Tetra Tech NUS Job No./PMS N0~~345~~ 564- ~~XBN~~ 0324
QC: IPGW-DUP01-070901 (If applicable)

Sample Method: Low-Flow Groundwater Sampling
Depth Sampled: 22.3 Feet Screened Interval Depth 19.3-24.3 feet
Sample Date & Time: 7/9/01 1030 hours 1130 /Dup
Sampler(s): J. Danieli + K. Nuppula
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Depth Sampled in Feet below Top of Casing
Casing Stickup Height = 0.9ft. Total depth = 24.3ft below top of casing.

H&S Survey Meter N/A PPM Water Quality Instrument YSI-600XL
** ~~Pre-pump insertion~~ WL 15.11 ft Post - pump insertion WL N/A ft
Pre-tubing insertion * TOC

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate	C 1036020				
***Anions	C 1036020				
TDS	C 1036020				

Clock Time 24hr	** Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gal	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0		N/A									
0920 → Begin Purge											
0940 → Begin Recording Parameters											
1015	—	—	400mL/min	5gal	12.71	2785	6.81	-154.7	8.37	6.34	Stop Purge
1030 → Begin Sampling											

* TOC = Top of Casing
** Note = not able to measure water level w/ tubing in well. Well only 0.5 inches in diameter - can not fit water level indicator w/ tubing.
*** Anions = Chloride, Nitrite, Nitrate, Phosphate, Sulfate.

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms and~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

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

Sample CB3-026W03 Page 1 of 1 Field Staff: LC

Date Sampled ~~7/8~~/01 7/9/01 LC
Stick-up Height 0.9 feet
Depth to Water 15.59 feet below top of casing
Total Depth 24.3 feet below top of casing
Depth of Tubing (sample interval) 22.3 feet below top of casing

Sulfide: 0.03mg/L
Ferrous iron 2.03mg/L

Start purge 0920
Start parameters 0940
End purge 1015 1015
Total purge time: — hours, 55 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)
0940		400		12.65	2784	6.80	-129.7	3.64	23.1
0945	5	400		12.62	2790	6.79	-144.3	6.40	13.0
0950	10	400		12.71	2777	6.80	-128.5	6.15	9.07
0955	15	400		12.53	2785	6.80	-133.5	6.63	8.76
1000	20	400		12.55	2784	6.80	-141.7	7.72	7.93
1005	25	400		12.91	2792	6.81	-147.8	7.71	6.05
1010	30	400		12.77	2796	6.81	-152.8	7.91	6.59
1015	35	400		12.71	2785	6.81	-154.7	8.37	6.34

Comments
Tetra Tech NUS collected 3-1L plastic bottles to be analyzed for Bicarbonate, Anions, TDS and 3L for dup.
-collect sample at 1030

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex 1D711101
Sample ID: CB5-02-~~[illegible]~~ GW02

Tetra Tech NUS Job No./PMS N0~~345~~ 564 - ~~0310~~ KBN 0324
QC: MS/MSD (If applicable)

Sample Method: LOW FLOW GROUNDWATER SAMPLING
* Depth Sampled: 18.03 Feet Screened Interval Depth 14.03 - 19.03 feet
Sample Date & Time: 07 / 09 / 01 1120 hours N/A /Dup
Sampler(s): J. Danieli, K. Nuppula
Data Recorded By: Kara Nuppula Signature: Kara Nuppula
Notes: Depth sampled in feet below TOC*.
casing stick-up = 0.9 ft above Ground Surface
total depth = 19.03 ft below TOC (21.03-21.05)

H&S Survey Meter NA PPM Water Quality Instrument YSI-600XL
~~Pre-pump insertion WL~~ ft N/A ~~Post - pump insertion WL~~ ft
** pre-tubing insertion: 11.04

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate	> 0131020				
*** Anions					
TDS	0131020				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
09:40	purge began										
10:05	began reporting parameters										
11:20	**		~~[illegible]~~ 200	4 gal	16.59	4585	7.36	-135.2	0.48	70.0	purge stopped
11:20	began sampling										

* TOC = Top of Casing
** Cannot fit tubing alongwith water level ~~recorded~~ indicator in 1/2 inch mykrowells diameter.

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms and~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

* changed (2) (wrong # initially) ∴ sample depth = 20.03

*** Anions: Chloride, Nitrite, Nitrate, Phosphate, Sulfate

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

Sample B5-02GW02 Page 1 of ___ Field Staff: HAT/AG

Date Sampled 7/9/01

Stick-up Height 0.9 feet

Depth to water = 11.04

Sulfide = 0.12 mg/L

Start purge 0940 start parameters 1005

Total Depth 21.03 feet below top of casing

Depth of Tubing (sample interval) 20.03 feet below top of casing

ferrous iron = 0.37 mg/L

End purge 1115

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)
				3%	3%	±0.1	±10	10%	10%
1005	0	200		19.31	4549	7.43	-108.9	-0.22	155
1010	5			HAT ~~15~~ 17.04	4534	7.39	-131.7	-0.27	131
1015	10			16.72	4535	7.38	-152.6	-0.02	149
1020	15			16.89	4553	7.38	-141.2	0.08	204
1025	20			16.75	4560	7.38	-140.6	0.11	142
1030	25			16.45	4553	7.37	-144.4	0.15	120
1035	30			16.13	4575	7.36	-144.6	0.13	103.0
1040	35			16.16	4580	7.36	-147.0	0.12	87.5
1045	40			16.51	4580	7.36	-142.5	0.13	85.4
1050	45			16.70	4593	7.36	-142.9	0.26	78.5
1055	50			16.66	4592	7.36	-145.7	0.30	76.3
1100	55			16.89	4590	7.36	-139.1	0.33	74.2
1105	60			16.77	4594	7.36	-141.4	0.52	71.5
1110	65			16.75	4589	7.36	-140.2	0.52	71.3
1115	70			16.54	4585	7.36	-135.2	0.48	70.0
~~1120~~	~~75~~	HAT							

Comments

EPA collected 6L

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex IP 7111101
Sample ID: CBS-02~~0~~ GW03

Tetra Tech NUS Job No./PMS N0~~345~~ 564- ~~XBD~~ 0324
QC: N/A (If applicable)

Sample Method: LOW FLOW GROUNDWATER
Depth Sampled: 29 Feet Screened Interval Depth 25-30 TOC feet
Sample Date & Time: 07/09/01 1350 hours N/A /Dup
Sampler(s): J. Danielia K. Nuppula
Data Recorded By: KBN, JD Signature: Kara Nuppula
Notes:
depth sampled = feet below TOC., Total Depth = 30 ft
Stick-up length of casing = 2.1 ft above Ground Surface

H&S Survey Meter N/A PPM
~~Pre-pump~~ insertion WL ____ ft
Pre-Tubing = 9.87 L

Water Quality Instrument YSI 600XL
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate	C1036020				
Anions*	C1036020				
TDS	C1036020				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gal	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1300	Purging Began										
1315	Parameters started										
1345		NA	300	5.5 gal	14.26	2421	6.70	-183.9	-0.02	13.8	
1350	Began Sampling										

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).
4. Completed copies of ~~calibration forms and~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

TOC = top of casing

*Anions include nitrite, nitrate, chloride, phosphate

** NOTE: cannot fit water level indicator in well (≈1/2 in diameter) w/ tubing.

CLICK TO CONTINUE

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Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample BS-02GW03 Page 1 of ___ Field Staff: HAT/AG

Date Sampled 7/9/01
Stick-up Height 2.1 feet
Depth to Water 9.87 feet below top of casing
Total Depth ___ feet below top of casing
Depth of Tubing (sample interval) ___ feet below top of casing

Sulfide = 0.07 mg/L
Ferrous iron = 3.30 mg/L

Start purge 1300
Start parameters 1315
End purge 1345
Total purge time: 0 hours, 45 minutes
Parameters Stabilized? Y

0-45 minutes

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	Temperature (degrees C) 3%	Spec. Cond. (uS) 3%	pH +/- .1	ORP (mV) +/-10	DO (mg/L) 10%	Turbidity (NTU) 10%
1315	0	300		15.90	2401	6.67	-172.4	-0.07	60.9
1320	5			15.14	2401	6.67	-173.2	-0.05	33.7
1325	10			14.46	2425	6.67	-174.7	-0.04	16.6
1330	15			14.26	2430	6.68	-178.5	-0.01	13.4
1335	20			14.28	2419	6.70	-181.2	-0.02	13.0
1340	25			14.25	2423	6.70	-182.8	-0.02	13.7
1345	30			14.26	2421	6.70	-183.9	-0.02	13.8

Comments
EPA -> 3L