Groundwater Sample Logs
Groundwater Split Samples
July – August 2001
(TtNUS, Roux Associates)

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: IPGW-EB05-073101

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

Sample Method: Direct pour/pump
Depth Sampled: N/A Feet Screened Interval Depth N/A feet
Sample Date & Time: 7/31/01 0835 hours N/A /Dup
Sampler(s): J. Lambert
Data Recorded By: J. Lambert Signature: J. Lambert
Notes: Pump DIUF through sampling tubing.
Length of tubing = 33 ft

H&S Survey Meter N/A PPM Water Quality Instrument N/A
Pre-pump insertion WL N/A ft 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				

DIUF lot # = 0365151

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
N/A	N/A	N/A									

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

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

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: IPGW-EB04-072301

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

Sample Method: Direct pour / pump
Depth Sampled: N/A Feet Screened Interval Depth N/A feet
Sample Date & Time: 7/23/01 0945 hours /Dup
Sampler(s): J. Lambert
Data Recorded By: J. Lambert Signature: J. Lambert
Notes: Pump DIUF through sample tubing
Tubing length is 12 ft

H&S Survey Meter N/A PPM Water Quality Instrument N/A
Pre-pump insertion WL N/A ft Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate + TDS	= ICI - (4) N18				
* Anions	= ICI - (4) N18				

DIUF lot # = 0305151

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
N/A											

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

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: IPGW-EB03-~~071701~~ 71801

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

Sample Method: Direct Pour/Pump
Depth Sampled: N/A Feet Screened Interval Depth N/A feet
Sample Date & Time: 7/18/01 0920 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 N/A
Pre-pump insertion WL N/A ft Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate/TDS =	IC (4) N/A				
* Anions =	IC (-CH) N/A				

Notes:
Pump DIUF water through sample tubing. Sampling tubing = 15 ft in length. DIUF Lot # = 0305151

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
N/A											

* Anions = chloride, nitrite, nitrate, sulfate, & phosphate.

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.

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: IPGW-EB02-071301

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

Sample Method: Direct Pour/Pump
Depth Sampled: _____ Feet Screened Interval Depth _____ feet
Sample Date & Time: 7/13/01 0945 hours N/A /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: Jessica Danieli
Notes: DIUF Pumped through sample tubing - 20ft in length
DIUF Lot # 2 0510011

H&S Survey Meter N/A PPM
Pre-pump insertion WL N/A ft
Water Quality Instrument N/A
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		

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
N/A	N/A	N/A									

* 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~~ sample log sheets from the ISRT's consultant (Roux Associates) are attached. Refer to the copies for additional sample details.

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: IPGW-EB01-071001

Tetra Tech NUS Job No./PMS N0564-0324 ~~N0345-0310~~ 7110101
QC: Equipment Blank (If applicable)

Sample Method: Direct Pour
Depth Sampled: N/A Feet Screened Interval Depth N/A feet
Sample Date & Time: 7/10/01 hours N/A /Dup
Sampler(s): J. Danieli & K. Nuppula
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Pour DIUF-through sample tubing = 150ft in length
DIUF Lot # = 0510011

H&S Survey Meter N/A PPM
Pre-pump insertion WL N/A ft
Water Quality Instrument N/A
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate	C 0131020				
Anions **	C 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
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A.

** Anions = Chloride, Nitrite, Nitrate, Sulfate, Phosphate.

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

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB7-03GW02R

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

Sample Method: low-stress
Depth Sampled: 32.5 Feet Screened Interval Depth ~~30.5~~ 29.5-34.5 feet below TOC
Sample Date & Time: 7 / 25 / 01 1410 hours N/A /Dup
Sampler(s): J. Lambert
Data Recorded By: J. Lambert Signature: J. Lambert
Notes: stick-up height = 1.8 ft above ground surface
Total well depth = 34.5 ft below TOC

H&S Survey Meter N/A PPM** Water Quality Instrument YSI 600XC
Pre-~~pump~~ insertion WL 12.04 ft** Post - pump insertion WL N/A ft
tubing

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate + TDS		- ICI-(4) N18			
*Anions		- ICI-(4) N18			

Clock Time 24hr	*Water Depth below MP ft	Pump Dial 1 N/A	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
1250	—	Begin	purging								
1335	—	Begin	parameters								
1405	—	"	360	14	13.94	3518	6.98	-300.1	0.57	17.0	
1410	—	Begin	sampling								

TOC = top of casing

*Anions = Nitrate, Nitrite, sulfate, phosphate, + Chloride
** Depth to water only measured prior to inserting tubing. Well diameter = 1/2 inch

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

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB1040 GW01NS

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

Sample Method: Low Flow
Depth Sampled: 13 Feet Screened Interval Depth 9-14 feet
Sample Date & Time: 8/17/01 1200 hours N/A /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Stick-up Height = 1.05 ft above G.S.
Total Depth = 14'
Depth measured in Ft below TOC

H&S Survey Meter N/A PPM
*Pre-pump insertion WL 10 ft
Water Quality Instrument YSI 600XL
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate/ TDS =	1C1-(H)N18				
**ANIONS =	1C1-(H)N18				

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
1200	Begin Purge - Begin Collecting Sample***										
1240	Stop Purge allow well to Recharge										
1400 -	Continue Sampling										
1420 -	Sampling Complete										

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

*** Collect - Bicarborate/ TDS first.
Water - Black, Silty + Strong Odor.
Collect Sample by Check valve on end of dedicated tubing

TOC = Top of Casing.
*Water level measured = prior to inserting tubing. Not continuously monitored
** ANIONS = sulfate, phosphate, Nitrite, nitrate, + chloride.
Well = 0.5 inch
G.S. = ground surface.

Note: Roux Began Sampling well on 7/30/01 - Collect last of sample on 8/15/01 - See attached log sheet.

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

Sample CB1-04GW01NS Page 1 of 1 Field Staff: LC/AG

Date Sampled 7/30/01, 7/31/01, 8/1/01, 8/2/01, 8/3/01, 8/15/01
Stick-up Height 1.5 feet
Depth to Water 11.3 feet below top of casing
Total Depth 14.0 feet below top of casing
Depth of Tubing (sample interval) 12.0 feet below top of casing

Start purge 0930, 1615
Start parameters
End purge 0955, 1640
Total purge time: ____ hours, ____ 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
very low recharge, collect 3 VOC's on 7/30 w/ pump
7/31 – collect 1 As/As Spec. sample w/ check valve
8/1 - collected 1 Total/Dis. Met. Sample w/ check valve
8/2 - collected 1 unfiltered 8270 sample; 8/3/01 collected 1 TPO4 sample in 1/2 hr.
8/15 collected 1 filtered SVOC and 1 TSS/bicarb. sample time 1 hour.

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB205GW03R

Tetra Tech NUS Job No./PMS ~~N0345~~ N05604-0324
QC: N/A (If applicable)

Sample Method: Low Flow
Depth Sampled: 29.5 Feet Screened Interval Depth ____ feet
Sample Date & Time: 8/17/01 1450 hours N/A Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Stick-up Height = 0.1 ft above GS
Total Depth = 31.5
Depth Measured in ft below TOC

H&S Survey Meter N/A PPM
** Pre-pump insertion WL 13.09 ft
Water Quality Instrument YSI 600XL
Post - pump insertion WL N/A ft

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

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
1310	Start	Purging									odor
1445	—	N/A	300	10	15.90	1859	6.63	-74.3	0.62	29	noted
1445	- Stop Purging										+
1450-	Begin Sampling										sheen
											noted.

TOC = Top of casing
GS = ground surface

* 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 not continuously measured, only measured prior to inserting tube.
well = 1" inch steel casing.
= discrete sample.

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

Sample CB2-05GW03R Page 1 of 1 Field Staff: LC / CY

Date Sampled 8/17/01
Stick-up Height 0.1 feet
Depth to Water 13.09 feet below top of casing
Total Depth 31.5 feet below top of casing
Depth of Tubing (sample interval) 29.5 feet below top of casing

Sulfide: 0.08 mg/L
ferrous iron: 3.30 mg/L

Start purge 1310
Start parameters 1400
End purge 1445
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)
1400		300	5	15.90	1857	6.54	-44.0	0.91	130
1405	5	300		15.77	1859	6.54	-46.6	0.91	70
1410	10	300		15.73	1829	6.54	-62.4	1.03	31
1415	15	300		15.73	1859	6.60	-65.0	0.83	29
1420	20	300		15.72	1860	6.61	-70.9	0.70	22
1425	25	300		15.75	1858	6.62	-57.3	0.91	32
1430	30	300	10	15.80	1855	6.62	-55.9	0.61	40
1435	35	300		15.76	1859	6.63	-68.4	0.66	27
1440	40	300		15.74	1856	6.63	-62.8	0.62	28
1445	45	300		15.90	1859	6.63	-74.3	0.62	29

Comments

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

Sample CB7-03GW02R Page 1 of 1 Field Staff: AG

Date Sampled 7/25/01
Stick-up Height 1.8 feet
Depth to Water 12.04 feet below top of casing
Total Depth 34.5 feet below top of casing
Depth of Tubing (sample interval) 32.5 feet below top of casing

sulfide 0.80 mg/L
ferrous iron 0.01 mg/L

Start purge 1250
Start parameters 1335
End purge 1405
Total purge time: 1 hours, ~~30~~ 15 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)
1335	0	360	9	14.05	3597	6.95	-284.5	0.73	18.8
1340	5			13.95	3545	6.92	-292.9	0.57	17.8
1345	10			13.89	3523	6.94	-293.1	0.61	17.3
1350	15			13.89	3522	6.96	-290.8	0.68	18.0
1355	20			13.89	3515	6.97	-293.7	0.57	16.0
~~1351~~ 1400	25			13.99	3516	6.97	-296.7	0.56	16.7
1405	30		14	13.94	3518	6.98	-300.1	0.57	17.0

Comments
EPA collected 2L in 10 minutes.

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB6-03GW03

Tetra Tech NUS Job No./PMS N~~0345~~-
QC: N/A (If applicable)

Sample Method: low-stress
Depth Sampled: 32.3 Feet Screened Interval Depth 32.5-22.5 feet
Sample Date & Time: 7/31/01 1245 hours N/A /Dup
Sampler(s): J. Lambert, J. Daniel
Data Recorded By: J. Lambert Signature: J. Lambert
Notes: Stick-up height = 2.0 ft above ground surface
Total well depth = 32.5 ft below TOC
All depth measurements are in feet below TOC

H&S Survey Meter N/A PPM Water Quality Instrument YSI 600 XL
Pre-pump insertion WL 13.81 ft* below TOC Post - pump insertion WL ____ ft

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

Clock Time 24hr	* Water Depth below MP ft	Pump Dial 1 N/A	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gals	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0940	—	Start	purge								
1005	—	Start	parameters								
7/31/01 1235	—	N/A	400	20	16.~~[illegible]~~	7/31/01					
7/31/01 1240											
1245	—	N/A	400	20	16.44	6150	7.79	-318.7	0.45	5.5	- Stop purging
1245	- Start	Sampling									water = DK. yellow & odor.

TOC = top of casing

* Water level measurement taken only prior to tubing insertion - well diameter = 1/2 inch.
** Anions = Nitrate, Nitrite, Sulfate, Phosphate, and 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

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

Sample CB6-03GW03 Page 1 of 2 Field Staff: AG

Date Sampled 7/31/01
Stick-up Height 2 feet
Depth to Water 13.81 feet below top of casing
Total Depth 32.5 feet below top of casing
Depth of Tubing (sample interval) 32.3 feet below top of casing

Sulfide: 0.10 mg/L
ferrous iron: 0.09 mg/L

Start purge 0940
Start parameters 1005
End purge
Total purge time: ____ hours, ____ minutes
Parameters Stabilized? ____

Purging Information

Time of Day	Elapsed Time (min)	Purge Rate (mL/min)	Cumulative Volume Purged (gallons)	3% Temperature (degrees C)	3% Spec. Cond. (uS)	+/-.1 pH	+/-10 ORP (mV)	1% DO (mg/L)	1% Turbidity (NTU)
1005	0	400	5	15.28	6297	7.87	-210.3	0.91	100
1010	5			15.74	6328	7.86	-261.2	0.70	25
1015	10			15.62	6320	7.86	-276.2	0.58	20
1020	15			15.70	6327	7.86	-286.4	0.26	22
1025	20			15.78	6323	7.86	-289.9	0.23	7.4
1030	25			15.76	6300	7.86	-300.2	0.19	13
1035	30			15.68	6313	7.85	-296.1	0.19	13
1040	35			15.77	6297	7.85	-299.5	0.14	10
1045	40			15.70	6297	7.85	-303.7	0.20	13
1050	45			15.64	6311	7.85	-308.2	0.25	12
1055	50			15.78	6275	7.85	-310.1	0.22	7.9
~~1010~~ 1100	55			16.00	6258	7.84	-315.1	0.29	7.5
1105	60			15.91	6241	7.84	-317.3	0.24	7.6
1110	65			15.79	6252	7.84	-316.6	0.29	5.9
1115	70			15.91	6231	7.84	-314.3	0.20	6.8
1120	75			15.93	6219	7.83	-326.1	0.18	6.7
1125	80			15.74	6249	7.83	-321.8	0.11	6.4
1130	85			16.01	6210	7.82	-323.6	0.13	5.5
~~1135~~	~~90~~			[illegible]	[illegible]	7.83	[illegible]	[illegible]	5.9

Comments
EPA collected 2 L in 10 minutes

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

Sample CB6-036W03 Page 2 of 2 Field Staff: AG

Date Sampled 7/31/01
Stick-up Height 2 feet
Depth to Water 13.81 feet below top of casing
Total Depth 32.5 feet below top of casing
Depth of Tubing (sample interval) 32.3 feet below top of casing

Start purge 0940
Start parameters 1005
End purge 1240
Total purge time: 3 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)
1150	105	400	15	16.12	6195	7.82	-322.0	-0.11	80
1155	110			16.15	6211	7.81	-321.1	0.15	16
1200	115			16.10	6.82	7.81	-316.7	0.10	68
1210	125			16.28	6161	7.80	-312.4	0.10	64
1225	140			16.12	6193	7.80	-314.3	0.27	16
1230	145			16.26	6149	7.80	-317.5	0.25	7.3
1235	~~140~~ 150			16.22	6171	7.80	-320.1	0.41	5.8
1240	155			16.35	6157	7.79	-318.0	0.42	5.8
1245	160			16.44	6150	7.79	-318.7	0.43	5.3

Comments

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB404GW01NS

Tetra Tech NUS Job No./PMS N0564- 0325 ~~N0345-~~
QC: N/A (If applicable)

Sample Method: Low Flow
Depth Sampled: _____ Feet Screened Interval Depth _____ feet
Sample Date & Time: 8/16/01 1210 hours N/A /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli

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

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

Notes:
Stick-up Height = 2.11ft
Total well depth = 21ft
Depth measurements in Ft below TOC

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
0840	Start Purging										
NO	Parameters	Taken.									
1240	Collect Sample			~1.0							
1210											

Note: Allow well to purge for 3½ Hrs - then Begin Sampling.

Flow rate - very low - only getting trickle of water from well.

* = no water level - could not get ~~well~~ water level indicator past ~13 ft.

** ANIONS = phosphate, Nitrite, Nitrate, Sulfide, Chlorid

~~TOC = Top of Casing~~

~~NA - well dries out - wait for well to Recharge - to Collect Sample.~~

Well diameter = 0.5 inch.

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 CB4-04GW01 Page 1 of 1 Field Staff: CY

Date Sampled 8/16/01
Stick-up Height 2.11 feet
Depth to Water 17.75 feet below top of casing
Total Depth 21 feet below top of casing
Depth of Tubing (sample interval) 20 feet below top of casing

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

Start purge 0840
Start parameters
End purge 1210
Total purge time: 3 hours, 30 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
pumping much less than 50 mL/min

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB5036W03

Tetra Tech NUS Job No./PMS: ~~N0345~~ N0564-0324
QC: ~~IPGW~~ IPGW-DUP016-081601 (If applicable)

Sample Method: Low Flow
Depth Sampled: 37 Feet Screened Interval Depth 33-38 feet
Sample Date & Time: 8/16/01 1410 hours 1500 /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Stick up Height =
Total depth = 38
Depths measured in ft below TOC

H&S Survey Meter NA PPM
Pre-pump insertion WL 10.18 ft *
Water Quality Instrument YSI 6000XL
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

Clock Time 24hr	Water Depth below MP ft *	Pump Dial 1 N/A	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
1230	Start Purging										
1305	Start Parameters										
1400	~~Begin~~		400ml/min		12.47	19526	7.69	-73.4	0.44	14	
1410	Begin Sampling										

** Anions = Chloride, nitrate, nitrite, Sulphate, phosphate

* Water level measured prior to inserting tubing. Water level not continuously measured. Can not fit water level indicator + tubing downwell. Well only 0.5 inch in 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

TOC = Top of Casing

Note: Duplicate collected at this location - for TtNUS only - no duplicate for Roux Associates.

Note: water yellow-orange in color + strong odor.

Note: Water reacting w/ HCL in VOA vials

HAT

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

Sample CBS-03GW03 Page 1 of ~~2~~ 1 Field Staff: HAT

Date Sampled 8/16/01
Stick-up Height 2.8 feet
Depth to Water 10.18 feet below top of casing
Total Depth 38' feet below top of casing
Depth of Tubing (sample interval) 37' feet below top of casing

sulfide = 0.48 mg/L
ferrous iron = 1.15 mg/L

Start purge 1230
Start parameters 1305
End purge 1400
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)
1305	0	400		12.89	18858	7.59	8.5	0.56	50
1310	5			12.91	18849	7.59	7.5	0.54	34
1315	10			12.82	18842	7.63	0.6	0.48	27
1320	15			12.84	18908	7.64	-7.7	0.41	20
1325	20			12.79	19014	7.65	-20.0	0.52	16
1330	25			12.74	19085	7.64	-26.7	0.56	16
1335	30			12.67	19211	7.65	-39.8	0.49	14
1340	35			12.56	19338	7.70	-55.8	0.55	13
1345	40			12.60	19339	7.67	-59.3	0.55	13
1350	45			12.51	19393	7.68	-65.4	0.45	13
1355	50			12.48	19456	7.68	-73.9	0.42	14
1400	55			12.47	19526	7.69	-75.4	0.44	14

Comments
Odor, strong reaction (bubbles + smoke) w/ HCl & H_2SO_4 & sulfide reagent

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB2 05GW02

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

Sample Method: Low Flow
Depth Sampled: 20.75 Feet Screened Interval Depth 7.75-22.75 feet
Sample Date & Time: 8/17/01 1215 hours N/A /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Stick-up Height = 0.1 ft above G.S.
Total depth = 22.75
Depth measurements in ft below TOC

H&S Survey Meter 0 PPM
*Pre-pump insertion WL 12.96 ft
Water Quality Instrument YSI 600XL
Post - pump insertion WL ____ ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate		TDS =		ICI - (4) N18	
** ANIONS		=		ICI - (4) N18	

Clock Time 24hr	*Water Depth below MP ft	Pump Dial 1 N/A	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
0925	Start	Purging									
1210	N/A	N/A	200	10	15.45	1624	5.95	-279.1	0.95	140	Stop Purge
1215	Begin	Sampling									

Note: water yellowish in color.

* water level- prior to inserting Tubing. No continuously monitored. Well = 1" PVC

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

** Anions = sulfate, phosphate, nitrite, nitrate, chloride.

TOC = Top of Casing

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

Sampl CB2-05GW02 Page 1 of 2 Field Staff: LC

Date Sampled 8/17/01
Stick-up Height 0.1 feet
Depth to Water 12.96 feet below top of casing
Total Depth 22.75 feet below top of casing
Depth of Tubing (sample interval) 20.75 feet below top of casing

Sulfide: 0.12 mg/L
ferrous iron: 3.30 mg/L

Start purge 0925
Start parameters 0945
End purge 1210
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)
0945		200		16.50	1760	5.94	-109.3	1.76	118
0950	5	200		16.35	1705	5.99	-144.9	1.11	—
0955	10	200		16.30	1705	6.02	-163.1	1.00	63.8
1000	15	200		16.20	1695	6.02	-159.1	0.94	42.7
1005	20	200		16.35	1687	6.01	-162.0	0.95	43.0
1010	25	200		16.27	1685	6.01	-157.7	0.92	44.6
1015	30	200		16.25	1673	6.01	-159.1	0.91	46.2
1020	35	200		15.84	1664	6.00	-165.3	1.03	112
1025	40	200	5	15.70	1665	5.99	-171.2	1.00	140
1030	45	200		15.77	1651	5.98	-178.9	0.92	85
1035	50	200		15.78	1648	5.98	-184.7	0.91	80
1040	55	200		15.72	1647	5.98	-191.9	0.91	85
1045	60	200		15.70	1646	5.97	-196.5	0.88	90
1050	65	200		15.70	1644	5.97	-219.1	0.91	90
1055	70	200		15.51	1642	5.97	-259.7	0.90	120
1100	75	200		15.53	1629	5.96	-302.5	0.88	400
1105	80	200		15.40	1627	5.96	-323.1	0.88	550
1110	85	200		15.42	1627	5.96	-326.5	0.94	480
[illegible]	[illegible]	[illegible]		15.29	1624	5.95	-280.1	1.07	110

Comments

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

Sample B2-05GW02 Page 2 of 2 Field Staff: LC

Date Sampled 8/17/01
Stick-up Height 0.1 feet
Depth to Water 12.96 feet below top of casing
Total Depth 22.75 feet below top of casing
Depth of Tubing (sample interval) 20.75 feet below top of casing

Start purge 0925
Start parameters 0945
End purge 1210
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)
1125	100	200		15.37	1625	5.95	-275.0	1.00	110
1130	105	200		15.26	1624	5.95	-284.6	0.98	150
1135	110	200		15.23	1622	5.94	-259.2	1.00	160
1140	120	200	10	15.29	1619	5.94	-272.8	0.99	200
1145	125	200		15.25	1623	5.95	-326.8	0.95	360
1150	130	200		15.28	1624	5.95	-322.9	0.94	210
1155	135	200		15.21	1630	5.96	-305.0	0.96	140
1200	140	200		15.25	1628	5.96	-284.3	1.04	150
1205	145	200		15.26	1628	5.95	-280.3	0.98	140
1210	150	200		16.45	1624	5.95	-279.1	0.95	140

Comments

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB2066GW02N3

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

Sample Method: Low Flow
Depth Sampled: 13.8 Feet Screened Interval Depth _____ feet
Sample Date & Time: 8/17/01 1155 hours N/A/Dup
Sampler(s): J. Danielli
Data Recorded By: J. Danielli Signature: J. Danielli
Notes: Total Depth: 14ft below TOC
Stick-up Height = 2.0ft above GS.
Depth measured in ft below TOC

H&S Survey Meter N/A PPM
Pre-pump insertion WL _____ ft
Water Quality Instrument YSI-600XL
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate/TDS =	ICI-(4) N18				
ANIONS =	ICI-(4) N18				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1 N/A	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
1140	Start	Purging									
1150	N/A	N/A	50ml/min	0.75	23.33	2084	6.79	-62.9	3.50	850	Stop Purge
1155	Start	Sampling									Water orange in color
											Odor Noted

TOC = Top of Casing
GS = ground Surface
** water level couldn't be measured prior to inserting tubing.
no continuously measured
* 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.

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call Brooks + give (206) 632-6206 Finally Rebecca Wood
Airbill No

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

Sample CB2-06GW02NS Page 1 of 1 Field Staff: CY

Date Sampled 8-17-01
Stick-up Height 2.0 feet
Depth to Water feet below top of casing
Total Depth 14' feet below top of casing
Depth of Tubing (sample interval) 13.8' feet below top of casing

Sulfide: 0.71 mg/L
ferrous iron: 3.30 mg/L

Start purge 1110
Start parameters Not able to collect
End purge 1150
Total purge time: 8 hours, 37 minutes
Parameters Stabilized? Not able to collect

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)
1150	40	50 ml/min	0.75	23.33°C	2084	6.79	-162.9	3.50	800

Comments
1/2" water level ~~well~~ Not able to be measured = probe will not go down. Used tubing to determine approximate depth to water = 11'; Purge until dry or ~~water~~ at least 3 well volume Purged more than 3x volume - total purge volume about 0.75 gal. - Slight sheen on water, Med. odor

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB4-056W03NS

Tetra Tech NUS Job No./PMS ~~N0345~~- N4123-0325
QC: N/A (If applicable)

Sample Method: Low Flow
Depth Sampled: 33 Feet Screened Interval Depth 29-30 feet
Sample Date & Time: 8/31/01 1445 hours N/A /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Stick-up Height = 1.0 ft above Ground
Total Depth = 35.0 ft below TOC Surface.
Depth Measurements = below TOC

H&S Survey Meter N/A PPM Water Quality Instrument 600XL-YSI
* Pre-pump insertion WL ~~N/A~~ ft Post - pump insertion WL NA ft
~~12~~ 21.80 ft below TOC

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

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
1100	Readings Taken.										Note:
1445	Begin Sampling										Water
											very
											silty -
											DK gray
											in color.

TOC = Top of Casing

* - Water level not continuously measured, only measured prior to inserting tubing

** Anions = nitrate, nitrite, sulfate, phosphate, 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.

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Note: Use discrete Sampler to collect sample - 1inch diameter.

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

Sample CB4-05GW03NS Page 1 of 1 Field Staff: ~~HMT~~ LC

Date Sampled 8/31/01
Stick-up Height 1 feet
Depth to Water 21.80 feet below top of casing
Total Depth 35.0 feet below top of casing
Depth of Tubing (sample interval) 33.0 feet below top of casing

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

Start purge ~~1045~~ ~~1130~~ LC
Start parameters
End purge 1445
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)

Comments

~~purged full day & then sampled [illegible] LC~~
water extremely silty, label sample NS

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB3405W02 NS

Tetra Tech NUS Job No./PMS ~~N0346~~ N0S6H- 0.32 4
QC: N/A (If applicable)

Sample Method: Low Flow
Depth Sampled: Feet Screened Interval Depth feet
Sample Date & Time: 8/16/01 1030 hours N/A /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: Stickup Height = 1.18ft
Total Well depth = 31ft
depth measured in FT below TOC

H&S Survey Meter N/A PPM
Pre-pump insertion WL * ft
Water Quality Instrument
Post - pump insertion WL ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate/ TDS =	(C)-(4) N/B				
** AN IONS =	(C)-(H) N/B				

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
0840	Start Purging										
	No Parameters										Taken
10.30	Start Sampling.			0.5gals							

Note: Well dries out - wait for well to Recharge to collect sample.

** Anions = sulfate, phosphate, ~~sulfite~~, nitrite, nitrate, chloride

TOC = Top of casing

* WL measured prior to inserting tubing.

Well diameter = 0.5 inch

Note: Water DK Brown in color. Very Turbid and silty - no odor.

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 CB4-04GW02 Page 1 of 1 Field Staff: HAT

Date Sampled 8/16/01
Stick-up Height _____ feet
Depth to Water NM feet below top of casing
Total Depth 31 feet below top of casing
Depth of Tubing (sample interval) 30 feet below top of casing

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

Start purge 0830 → 1130
Start parameters _____
End purge _____
Total purge time: 3 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
purged till dry & then sampled recharge

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CE4-03GW01

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

Sample Method: low stress
Depth Sampled: 8.0 Feet Screened Interval Depth 10.0 - 5.0 feet below TOC
Sample Date & Time: 7/1/~~923~~ 01 JC 1125 hours ____ /Dup
Sampler(s): J. Lambert
Data Recorded By: J. Lambert Signature: J. Lambert
Notes: stick-up height = 0.7 ft ~~be~~ above ground surface
well depth is 10.0 ft below TOC
all depth measurements are in ft below TOC

H&S Survey Meter N/A PPM
Pre-~~pump~~ tubing insertion WL 6.67 ft below TOC
Water Quality Instrument YSI 600xl
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Bicarbonate + TDS	- lot # ICI-(4) N18				
* Anions	- lot # ICI-(4) N18				

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
1410	—	Start	purging	***							
				7/23/01							
1020		Start purging									
1125		Start	sampling - 1 well volume has been purged								

TOC = Top of casing

*Anions = Nitrate, Nitrite, Sulfate, Phosphate, + Chloride
* Water level measured prior to tube insertion only. Well diameter = 1 inch

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 - Well is not recharging enough - water level is too low, cannot sample today. Will return on 7/23, purge 1 well volume, and then sample.

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Final GSIP SOW Soil/Groundwater Investigation
Groundwater Sampling Form

Sample LF4-03GW01 Page 1 of 1 Field Staff: AG

Date Sampled 7/19/01
Stick-up Height 0.7 feet
Depth to Water 6.67 feet below top of casing
Total Depth 10.0 feet below top of casing
Depth of Tubing (sample interval) 8.0 feet below top of casing

Start purge ~~B~~AG 1410
Start parameters
End purge 1740
Total purge time: 3 hours, 30 minutes
Parameters Stabilized? No

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

Worked on well for 3½ hours. Purged well dry. very slow recharge
1410 started purging at 1700 checked water level it was down to 9ft.
Only purged about 2 gallons with the addition of 1 gallon of DI water.

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

Sample LE4-036MW0INS Page 1 of 1 Field Staff: AG

Date Sampled 7/19/01, 7/23/01
Stick-up Height 0.7 feet
Depth to Water 6.67, 5.05 feet below top of casing
Total Depth 10.0 feet below top of casing
Depth of Tubing (sample interval) 8.0 feet below top of casing

Start purge ~~AG~~ 1410
Start parameters
End purge 1740
Total purge time: 3 hours, 30 minutes +30 total 4 hours.
Parameters Stabilized? No

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

Worked on well for 3½ hours. Purged well dry. very slow recharge
1410 started purging at 1700 checked water level it was down to 9ft.
Only purged about 2 gallons with the addition of 1 gallon of DI water
7/23 began sampling @ 1125 ~~finished to~~ stopped at 1725 could not fill all bottles today.
FPA collected 2L in 2 hours.

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

Sample LE4-030W01NS Page 1 of 1 Field Staff: AG

Date Sampled 7/19/01, 7/23/01, 7/24/01, 7/25/01
Stick-up Height 0.7 feet
Depth to Water 6.67, 5.05 feet below top of casing
Total Depth 10.0 feet below top of casing
Depth of Tubing (sample interval) 8.0 feet below top of casing

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

Start purge AG 1410
Start parameters
End purge 1740
Total purge time: 3 hours, 30 minutes +30 total 4 hours
Parameters Stabilized? No

7/24/01 collected no fals + discard 0730 still need filtered (2.0 hrs)

7/25/01 - collect 1 filtered svo 1 DOC (1.5 hrs.)

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

Worked on well for 3½ hours. Purged well dry. very slow recharge
1410 started purging at 1740 checked water level it was down to 9ft.
only purged about 2 gallons with the addition of 1 gallon of DI water

7/23 began sampling @ 1125 ~~finished to~~ stopped at 1725 could not fill all bottles today.
[illegible] 21 in 2 hours

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB9-04GW01

Tetra Tech NUS Job No./PMS N0345- N0569-0324
QC: (DUP) IPGWDP04-072301 (If applicable)

Sample Method: low-stress
Depth Sampled: 7.5 Feet Screened Interval Depth 4.0-9.0 feet below
Sample Date & Time: 7/23/01 1320 hours 1330 /Dup TOC
Sampler(s): J. Lambert
Data Recorded By: J. Lambert Signature: J. Lambert
Notes: stick-up height is 1.1 ft above ground surface
well depth is 9.0 ft below TOC
all well depth measurements are in feet below TOC

H&S Survey Meter N/A PPM
Pre-~~pump in~~ insertion WL 4.1 ft tubing
Water Quality Instrument YSI 600xL
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			

Clock Time 24hr	Water Depth below MP ft *	Pump Dial 1 N/A	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
1205	—	Start	purge								
1240	—	Start	parameters								
1310	—	—	400	10	19.55	408	6.93	-51.8	2.22	1.00	end parameters
1320	—	Start	sampling								

TOC = top of casing

* Water level measured prior to insertion only. Well diameter = 1 inch
** 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

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

Sample CB9-04GW01 Page 1 of 1 Field Staff: LC

Date Sampled 7/23/01
Stick-up Height 1.1 feet
Depth to Water 4.1 feet below top of casing
Total Depth 9.0 feet below top of casing
Depth of Tubing (sample interval) 7.5 feet below top of casing

Sulfide: 0.02mg/L
ferrous iron: 3.30mg/L

Start purge 1205
Start parameters 1240
End purge 1310
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)
1240		400	5	19.72	407	5.90	-51.1	1.68	9.6
1245	5	400		19.68	408	5.91	-52.5	1.83	3.9
1250	10	400		19.66	408	5.92	-53.1	2.00	2.2
1255	15	400		19.60	407	5.92	-53.3	1.93	1.7
1300	20	400		19.68	407	5.93	-53.1	2.07	1.1
1305	25	400		19.62	407	5.93	-52.7	2.17	0.70
1310	30	400	10	19.55	408	5.93	-51.8	2.22	1.00

Comments
EPA collected 4L in 25 min.

CLICK TO CONTINUE

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: Industri-Plex
Sample ID: CB9-05GW01

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

Sample Method: low-stress
Depth Sampled: 9.0 Feet Screened Interval Depth 6.0-11.0 feet below TOC
Sample Date & Time: 7/23/01 1550 hours /Dup
Sampler(s): J. Lambert
Data Recorded By: J. Lambert Signature: J. Lambert
Notes: stick-up height = 1.1 feet below TOC
well depth = 11.0 feet below TOC
all well depth measurements are in feet below TOC

H&S Survey Meter N/A PPM
Pre-~~pump~~ tubing insertion WL 4.51 ft
Water Quality Instrument YSI 600 XL
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			

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
1500	–	Start	Purge								
1515	–	Start	Parameters								
1545	–	–	400	5	19.40	477	5.73	-49.4	2.57	1.4	
1550		Start	Sampling								

TOC = top of casing *

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