LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

Appendix 6

Well Development Logs

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
PH: (585) 454-6110 FAX: (585) 454-3066

GROUNDWATER DEVELOPMENT FORM

WELL I.D. GMX-MW-1

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: M. Cummings (Geomatrix)
Date: 6/23/2010
Weather: Sunny, ~80°F, Humid, Light Breeze

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 26.1 -Feet
Depth of Well: 30.21 -Feet
Single Well Volume: 0.67 -Gallons

PURGE & SAMPLING METHOD

☒ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
11:20	2.0	7.33	18.0	1535.00	OR	-6	silty, no odors

Total 2.00 Gallons Purged Purge Start: 11:20 Purge End: 11:20

OBSERVATIONS:

Well dry after 2.0 gallons purged
On 6/24/10 at 09:15 - DTW=29.38 ft
All readings taken w/ Horiba U-10

Well Volume (1" well) = 0.0408-gal/ft.	Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.	

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GMX-MW-2

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: Emily Gillen
Date: 6/23/2010
Weather: Sunny, ~80°F, Humid, Light Breeze

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: -Feet
Depth of Well: 37.15 -Feet
Single Well Volume: 1.94 -Gallons

PURGE & SAMPLING METHOD

☑ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)		Comments
10:33	1.5	6.84	17.6	3.38	418		Color = Light brown
10:46	3.5	6.84	19.3	3.02	421		LNAPL or DNAPL observed = No
10:52	5.0	6.85	14.7	3.71	539		Odor: YES
10:58	6.5	6.74	13.8	3.74	481		Sheen: NO
11:05	8.5	6.73	13.5	3.81	379		
11:12	10.0	6.71	13.3	3.81	393		
11:17	11.5	6.73	13.4	3.79	280		
11:24	13.5	6.72	13.3	3.83	259		
11:29	15.0	6.79	13.6	3.78	256		
11:41	16.5	6.78	13.6	3.79	10		

Total 16.50 Gallons Purged Purge Start: 10:30 Purge End: 11:45

OBSERVATIONS:

All readings taken w/ Horiba U-10
Last turbidity reading taken with 2020i Turbidimeters
Water was clear during development - did not appear turbid

Well Volume (1" well) = 0.0408-gal/ft.	Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.	

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GMX-MW-3

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: M. Cummings (Geomatrix)
Date: 6/23/2010
Weather: Sunny, ~80°F, Humid, Light Breeze

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 27.26 -Feet
Depth of Well: 31.93 -Feet
Single Well Volume: 0.80 -Gallons

PURGE & SAMPLING METHOD

☒ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
10:20	2.0	6.89	15.6	4926.00	87.5	-147	clear, some floculant (dead insects)
10:30	4.0	6.83	15.1	2919.00	85.9	-146	
10:38	5.0	6.76	15.3	2930.00	32.2	-146	clear, no odors
10:45	7.0	6.77	N/A	2920.00	37.2	-142	

Total 7.00 Gallons Purged Purge Start: 10:20 Purge End: 10:45

OBSERVATIONS:

All readings taken w/ Horiba U-10

Well Volume (1" well) = 0.0408-gal/ft.
Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.

LABELLA Associates, P.C.
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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GMX-MW-4

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: Emily Gillen
Date: 6/23/2010
Weather: Sunny, ~70°F, Humid

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 28.7 -Feet
Depth of Well: 37.20 -Feet
Single Well Volume: 1.40 -Gallons

PURGE & SAMPLING METHOD

[X] Bailer - Type: PVC -Dedicated
[ ] Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)		Comments
8:33	1.5	6.67	15.6	4.41	485		Color = Gray
8:50	3.0	6.89	14.8	4.19	359		LNAPL or DNAPL observed = No
8:58	4.5	6.83	14.3	4.16	431		Odor: YES
9:02	5.0	6.82	14.2	4.19	391		Sheen: NO
9:12	6.5	6.88	14.2	4.24	455		
9:20	8.0	6.84	13.9	4.29	286		
9:26	9.5	6.85	14.1	4.30	208		
9:33	11.5	6.86	13.7	4.36	191		
9:40	13.0	6.86	13.9	4.40	167		
9:48	15	6.86	13.9	4.43	200		

Total 15.00 Gallons Purged Purge Start: 8:25 Purge End: 9:48

OBSERVATIONS:

Water is clear - doesn't appear turbid
Purged 10 well volumes

Well Volume (1" well) = 0.0408-gal/ft.
Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GMX-MW-5

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: Emily Gillen
Date: 6/23/2010
Weather: Sunny, ~80°F, Humid

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 22.36 -Feet
Depth of Well: 33.57 -Feet
Single Well Volume: 1.80 -Gallons

PURGE & SAMPLING METHOD

[X] Bailer - Type: PVC -Dedicated
[ ] Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)		Comments
1:12	1.5	7.06	16.1	2.67	628 (OMIT)		Color = Light brown
1:17	2.5	6.81	14.2	2.99	21.4		LNAPL or DNAPL observed = No
1:26	4.0	6.86	15.3	3.07	27.6		Odor: YES
1:32	5.0	7.03	14.5	3.33	29.6		Sheen: NO
1:37	6.0	7.31	15.1	3.55	5.86		

Total 6.00 Gallons Purged Purge Start: 13:07 Purge End: 13:37

OBSERVATIONS:

First turbidity reading taken w/ Horiba U-10. Rest of turbidity readings taken w/ 2020i Turbidimeters
Water clear during development
Well recharged quickly

Well Volume (1" well) = 0.0408-gal/ft.	Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.	

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GMX-MW-6S

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: M. Cummings (Geomatrix)
Date: 6/24/2010
Weather:

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 23.45 -Feet
Depth of Well: 25.15 -Feet
Single Well Volume: 0.27 -Gallons

PURGE & SAMPLING METHOD

☒ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
9:00	0.5	7.50	13.6	1387.00	OR	68	silty, no odor
	0.8						

Total _____ Gallons Purged Purge Start: Purge End:

OBSERVATIONS:

All readings taken w/ Horiba U-10
Well dry after 0.75 gallons purged.

Well Volume (1" well) = 0.0408-gal/ft.	Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.	

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GMX-MW-6D

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: M. Cummings (Geomatrix)
Date: 6/23/2010
Weather: Sunny, ~80°F, Humid, Light Breeze

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 10.5 -Feet
Depth of Well: 44.30 -Feet
Single Well Volume: 4.40 -Gallons

PURGE & SAMPLING METHOD

☒ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
9:15	2.5	10.95	14.0	4910.00	91.8	-350	initial, clear, H2S odor
9:30	6.0	8.30	17.0	6770.00	OR	-404	strong odor, turbid
9:40	8.0	7.25	17.7	106900.00	OR	-394	

Total 8.00 Gallons Purged Purge Start: 9:15 Purge End: 9:40

OBSERVATIONS:

well dry after 8.0 gallons purged.
11:00 - well recovers to <1.0 ft.
On 6/24/10 at 08:50 - DTW=42.55 ft
All readings taken w/ Horiba U-10

Well Volume (1" well) = 0.0408-gal/ft.	Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.	

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. P-1

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: M. Cummings (Geomatrix)
Date: 6/23/2010
Weather: Sunny, ~80°F, Humid, Light Breeze

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 24.57 -Feet
Depth of Well: 35.35 -Feet
Single Well Volume: 1.70 -Gallons

PURGE & SAMPLING METHOD

☒ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
12:30	2.0	6.72	21.4	5353.00	N/A*	-102	slightly turbid, strong petroleum odor and
12:40	3.4	6.81	18.6	5481.00	N/A*	-103	sheen
13:10	8.0	6.64	18.4	5342.00	17.1	-86	clear, petroleum odor and sheen

Total 8.00 Gallons Purged Purge Start: 12:30 Purge End: 13:10

OBSERVATIONS:

*LaBella turbidity meter malfunctioning, lend it to them for first tubidity reading.
All readings taken w/ Horiba U-10

Well Volume (1" well) = 0.0408-gal/ft.
Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. P-5

Project Name: FESL
Project No.: 210173
Location: 110-210 Colfax Street
Development By: Emily Gillen
Date: 6/24/2010
Weather: Cloudy, ~70°F, Windy

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 6.65 -Feet
Depth of Well: 18.20 -Feet
Single Well Volume: 1.80 -Gallons

PURGE & SAMPLING METHOD

[X] Bailer - Type: PVC -Dedicated
[ ] Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)		Comments
8:46	1.5	8.04	16.4	0.96	17.7		Color = Light brown
8:53	3.5	7.39	15.1	0.95	15.1		LNAPL or DNAPL observed = No
8:57	4.5	7.34	14.6	0.81	31.4		Odor: NO
9:01	5.5	7.30	14.3	0.81	17.2		Sheen: NO
9:12	6.5	7.15	14.3	0.82	26.9		

Total 6.50 Gallons Purged Purge Start: 8:40 Purge End: 9:13

OBSERVATIONS:

7.26 ft water level after development at 9:13 AM - quick recharge
Water clear during development

Well Volume (1" well) = 0.0408-gal/ft.	Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.	

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GW-5

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: M. Cummings (Geomatrix)
Date: 6/23/2010
Weather: Sunny, ~80°F, Humid, Light Breeze

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 9.85 -Feet
Depth of Well: 23.00 -Feet
Single Well Volume: 1.28 -Gallons

PURGE & SAMPLING METHOD

☒ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
13:40	0.0	7.84	16.3	1223.00	N/A	-156	clear, no odor
13:45	3.5	7.40	13.9	1768.00	N/A	-108	clear, no odor
13:50	5.0	7.33	12.9	1768.00	N/A	-102	clear, no odor
13:54	6.5	7.30	13.2	1789.00	N/A	-97	clear, no odor
13:58	8.0	7.27	13.1	1791.00	N/A	-92	clear, no odor
14:00	9.0	7.30	13.2	1789.00	6.47	-91	

Total 9.00 Gallons Purged Purge Start: 13:40 Purge End: 14:00

OBSERVATIONS:

All readings taken w/ Horiba U-10

Well Volume (1" well) = 0.0408-gal/ft.
Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GW-6

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: GOC (Geomatrix)
Date: 8/19/2010
Weather:

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 15.84 -Feet
Depth of Well: 24.50 -Feet
Single Well Volume: 1.40 -Gallons

PURGE & SAMPLING METHOD

☒ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
	2.0	6.36	16.6	215.00	530	-119	very good recovery
	4.0	7.71	16.4	302.00	300	-189	
	6.0	7.54	16.7	277.00	248	-179	
	8.0	7.47	16.1	271.00	131	-171	
	10.0	7.21	16.1	270.00	74	-158	
	12.0	7.26	16.1	272.00	48	-150	

Total 12.00 Gallons Purged Purge Start: N/A Purge End: N/A

OBSERVATIONS:

All readings taken w/ Horiba U-53

Well Volume (1" well) = 0.0408-gal/ft.
Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. GMX-MW-2

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: GOC (Geomatrix)
Date: 8/19/2010
Weather:

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 12.61 -Feet
Depth of Well: 26.80 -Feet
Single Well Volume: 2.30 -Gallons

PURGE & SAMPLING METHOD

[X] Bailer - Type: PVC -Dedicated
[ ] Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
	22.0	7.01	16.8	390.00	239	-143	
	24.0	8.10	16.4	383.00	180	-204	
	25.0	7.15	16.4	378.00	85	-149	could not seem to reduce turbidity
	26.0	6.99	16.3	380.00	80	-144	by continuous bailing. Removed
	28.0	6.91	16.4	378.00	72	-141	~14 well volumes.
	30.0	7.40	16.5	395.00	140	-166	
	32.0	7.3	16.4	387.00	82	-164	

Total 32.00 Gallons Purged Purge Start: N/A Purge End: N/A

OBSERVATIONS:

All readings taken w/ Horiba U-53

Well Volume (1" well) = 0.0408-gal/ft.
Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. MW-16S

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: GOC (Geomatrix)
Date: 8/19/2010
Weather:

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 26.64 -Feet
Depth of Well: 37.80 -Feet
Single Well Volume: 1.80 -Gallons

PURGE & SAMPLING METHOD

[x] Bailer - Type: PVC -Dedicated
[ ] Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
	1.5	9.20	18.8	185.00	256	-269	bits of organic matter throughout
	3.0	7.70	18.4	160.00	153	-181	water is slippery and sudsy
	5.0	7.40	18.3	152.00	160	-173	
	7.0	6.81	17.8	147.00	124	-142	
	9.0	6.82	17.6	146.00	144	-148	
	10.0	6.80	17.6	149.00	75	-151	
	12.0	6.86	17.4	145.00	66	-158	

Total 12.00 Gallons Purged Purge Start: N/A Purge End: N/A

OBSERVATIONS:

All readings taken w/ Horiba U-53

Well Volume (1" well) = 0.0408-gal/ft.
Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. MW-16D

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: GOC (Geomatrix)
Date: 8/19/2010
Weather:

PURGE VOLUME CALCULATION

Well Diameter: 4.0 -Inch
Static Water Level: 26.85 -Feet
Depth of Well: 46.55 -Feet
Single Well Volume: 13.20 -Gallons

PURGE & SAMPLING METHOD

☒ Bailer - Type: PVC -Dedicated
☐ Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
	4.0	8.38	20.4	298.00	509	-257	gray, turbid, silty
	9.0	6.88	18.2	314.00	930	-158	
	14.0	8.08	17.8	322.00	>1000	-227	
	18.0	9.30	18.7	318.00	860	-215	let sit while dumped water
	23.0	9.08	18.2	320.00	454	-274	
	30.0	7.58	17.3	326.00	206	-205	
	35.0	9.67	17.2	318.00	90.6	-318	let sit while dumped water
	38.0	7.04	16.5	329.00	70.1	-180	
	42.0	7.07	16.2	328.00	44.2	-185	
	45.0	7.28	15.9	326.00	51.3	-210	

Total 51.30 Gallons Purged
Purge Start: N/A
Purge End: N/A

OBSERVATIONS:

All readings taken w/ Horiba U-53
pH appeared to increase after well was allowed to recover for several minutes.

Well Volume (1" well) = 0.0408-gal/ft.	Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.	

LABELLA Associates, P.C.

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GROUNDWATER DEVELOPMENT FORM

WELL I.D. MW-17

Project Name: FESL
Project No.: 210173
Location: 1655 Lexington Avenue
Development By: GOC (Geomatrix)
Date: 8/19/2010
Weather:

PURGE VOLUME CALCULATION

Well Diameter: 2.0 -Inch
Static Water Level: 12.61 -Feet
Depth of Well: 26.80 -Feet
Single Well Volume: 2.27 -Gallons

PURGE & SAMPLING METHOD

[X] Bailer - Type: PVC -Dedicated
[ ] Pump - Type
Sampling Device: Dedicated Bailer
Pump Rate:

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (oC)	Conductivity (mS/cm)	Turbidity (NTU)	Redox Potential (mV)	Comments
	2.0	8.20	18.9	463.00	432	-224	gray, some silt, strong sulfur odor
	4.0	7.90	18.1	455.00	930	-208	
	6.0	8.74	17.9	400.00	403	-228	
	8.0	7.66	17.8	396.00	344	-178	
	9.0	7.50	17.1	396.00	156	-174	very good recovery
	10.0	6.83	17.2	405.00	550	-141	
	12.0	7.21	17.05	382.00	274	-156	
	13.0	7.01	16.61	387.00	124	-147	
	14.0	7.36	16.55	380.00	99	-167	
	15.0	7.76	17.1	386.00	90	-178	
	17.0	7.54	17.7	415.00	480	-160	
	20.0	7.16	16.7	407.00	260	-153	

Total 20.00 Gallons Purged Purge Start: N/A Purge End: N/A

OBSERVATIONS:

All readings taken w/ Horiba U-53

Well Volume (1" well) = 0.0408-gal/ft.	Well Volume (4" well) = 0.65-gal/ft.
Well Volume (2" well) = 0.163-gal/ft.	

GEOMATRIX

Wells TD -9.95 12.65

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: LAB-102
Sample ID: _____ Duplicate ID: _____
Sample Depth: _____
Project and Task No.: _____
Project Name: FESL
Date: 10/12/10
Sampled By: ME
Method of Purging: whale pump
Method of Sampling: _____

Initial Depth to Water: 9.95
Depth to Water after Sampling: _____
Total Depth to Well: 21.5
Well Diameter: 4"
1 Casing/Borehole Volume: 12.65 x 0.6 = 7.6g (Circle one)
4 Casing/Borehole Volumes: 16g total (Circle one)
Total Casing/Borehole Volumes Removed: _____

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Dissolved Oxygen (mg/l)	Redox Potential (mV; SSCE)	Remarks (color, turbidity, and sediment)
10:00			7.0	14.5	7.73	3470			
10:20			14.0	14.3	7.65	3390			
10:40			16.0	14.2	7.59	3375			

pH CALIBRATION (choose two)				
Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Field Temperature °C				
Instrument Reading				

Model or Unit No.: * VR covers slowly

SPECIFIC ELECTRICAL CONDUCTANCE - CALIBRATION			
KCL Solution (µS/cm=µmhos/cm)	1413 at 25°C	12880 at 25°C	
Field Temperature °C			
Instrument Reading			

Model or Unit No.:

REDOX CALIBRATION		DISSOLVED OXYGEN CALIBRATION	
Standard Solution	468 mV	Salinity %	
Field Temperature °C		Altitude	
Instrument Reading		Instrument Reading	
Model or Unit No.: Ag/AgCl Electrode (SSCE)		Model or Unit No.:	

Notes:

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: LAB-104
Sample ID: _____ Duplicate ID: _____
Sample Depth: _____
Project and Task No.: _____
Project Name: FEST
Date: 10/12/00
Sampled By: WE
Method of Purging: intake pump
Method of Sampling: _____

Initial Depth to Water: 18.3
Depth to Water after Sampling: 21.9'
Total Depth to Well: 24.0
Well Diameter: 4" D
1 Casing/Borehole Volume: 5.7 ~~7.6~~ 3.42 (Circle one)
4 Casing/Borehole Volumes: 15g (Circle one)
Total Casing/Borehole Volumes Removed: _____

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Dissolved Oxygen (mg/l)	Redox Potential (mV; SSCE)	Remarks (color, turbidity, and sediment)
11:00			5g	13.9	7.47	3290			slight sheen & H_2S odor
11:08			10g	13.7	7.43	3175			* clear, no sheen H_2S odor persists
11:15			15g	13.7	7.45	3190			

pH CALIBRATION (choose two)

Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Field Temperature °C				
Instrument Reading				

Model or Unit No.: * w/L does not drop below 21.9' during

SPECIFIC ELECTRICAL CONDUCTANCE - CALIBRATION

KCL Solution (µS/cm=µmhos/cm)	1413 at 25°C	12880 at 25°C	
Field Temperature °C			
Instrument Reading			

Model or Unit No.:

REDOX CALIBRATION		DISSOLVED OXYGEN CALIBRATION	
Standard Solution	468 mV	Salinity %	
Field Temperature °C		Altitude	
Instrument Reading		Instrument Reading	
Model or Unit No.: Ag/AgCl Electrode (SSCE)		Model or Unit No.:	

Notes:

GEOMATRIX

3
5.5
+.6
5.30

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: MW-10b
Sample ID: _____ Duplicate ID: _____
Sample Depth: _____
Project and Task No.: _____
Project Name: _____
Date: 10/12/10
Sampled By: MRL
Method of Purging: whale pump
Method of Sampling: _____

Initial Depth to Water: 25.0
Depth to Water after Sampling: _____
Total Depth to Well: 30.5'
Well Diameter: 4"D
1 Casing/Borehole Volume: 5.5 + 0.6 = 5.3 (Circle one)
4 Casing/Borehole Volumes: _____ (Circle one)
Total Casing/Borehole Volumes Removed: _____

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Dissolved Oxygen (mg/l)	Redox Potential (mV; SSCE)	Remarks (color, turbidity, and sediment)
1145			5	14.1	7.46	3745			clear, slight H_2S odor
1200			10	14.0	7.53	3740			
1210			15	13.9	7.51	3875			

pH CALIBRATION (choose two)

Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Field Temperature °C				
Instrument Reading				

Model or Unit No.: w/l steady at 25.2' btc during purging

SPECIFIC ELECTRICAL CONDUCTANCE - CALIBRATION

KCL Solution (µS/cm=µmhos/cm)	1413 at 25°C	12880 at 25°C	
Field Temperature °C			
Instrument Reading			

Model or Unit No.:

REDOX CALIBRATION		DISSOLVED OXYGEN CALIBRATION	
Standard Solution	468 mV	Salinity %	
Field Temperature °C		Altitude	
Instrument Reading		Instrument Reading	
Model or Unit No.: Ag/AgCl Electrode (SSCE)		Model or Unit No.:	

Notes:

25.45
-20.05
4.95

GEOMATRIX

WELL SAMPLING AND/OR DEVELOPMENT RECORD

Well ID: well 6 (LAB-188) 2"
Sample ID: _____ Duplicate ID: _____
Sample Depth: _____
Project and Task No.: _____
Project Name: FBL
Date: 10/12/10
Sampled By: mk
Method of Purging: bailer / whale pump
Method of Sampling: _____

Initial Depth to Water: 20.5'
Depth to Water after Sampling: _____
Total Depth to Well: 25.45'
Well Diameter: 4"
1 Casing/Borehole Volume: 4.95 × 0.6 (3g)
(Circle one)
4 Casing/Borehole Volumes: _____
(Circle one)
Total Casing/Borehole Volumes Removed: _____

Time	Intake Depth	Rate (gpm)	Cum. Vol. (gal.)	Temp. (°C)	pH (units)	Specific Electrical Conductance (µS/cm)	Dissolved Oxygen (mg/l)	Redox Potential (mV; SSCE)	Remarks (color, turbidity, and sediment)
9:00			4.0	14.7	8.23	3640			black, silty, ½ Sador
9:30			6.0	14.5	7.65	3620			A.A. drawing
				* going dry after 5.0g.			Allow to	recover	& sample @ 6.0g.

pH CALIBRATION (choose two)				
Buffer Solution	pH 4.0	pH 7.0	pH 10.0	
Field Temperature °C				
Instrument Reading				

Model or Unit No.:

SPECIFIC ELECTRICAL CONDUCTANCE - CALIBRATION			
KCL Solution (µS/cm=µmhos/cm)	1413 at 25°C	12880 at 25°C	
Field Temperature °C			
Instrument Reading			

Model or Unit No.:

REDOX CALIBRATION		DISSOLVED OXYGEN CALIBRATION	
Standard Solution	468 mV	Salinity %	
Field Temperature °C		Altitude	
Instrument Reading		Instrument Reading	
Model or Unit No.: Ag/AgCl Electrode (SSCE)		Model or Unit No.:	

Notes: