



January 10, 2014

Scott Miller, PG  
Remedial Project Manager  
Superfund Remedial Branch, Section C  
U.S. Environmental Protection Agency, Region 4  
61 Forsyth Street SW  
Atlanta, GA 30303-8909

**VIA EMAIL**

Subject: **December 2013 Monthly Progress Report**

Dear Mr. Miller:

On behalf of Beazer East, Inc. (Beazer), attached is the December 2013 Monthly Progress Report for the Koppers portion of the Cabot/Koppers Superfund Site in Gainesville, Florida. If you have any questions or comments, please contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gregory W. Council'.

Gregory W. Council, P.E.  
Principal Engineer

cc: Rusty Kestle, EPA  
Kelsey Helton, FDEP  
John Mousa, ACEPD  
Amy Schafer, City of Gainesville  
Rick Hutton, GRU  
Carrie McCoy, Black & Veatch  
John Herbert, GeoHydro Consultants  
Patricia Cline, Community Technical Advisor  
Linda Paul, Koppers, Inc.  
Mitchell Brouman, TRMI  
Mike Slenska, TRMI  
Donna Kopach, TRMI  
Jim Erickson, Tetra Tech

**December 2013  
MONTHLY PROGRESS REPORT  
Cabot/Koppers Superfund Site  
Gainesville, Florida**

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**1. Compliance Actions:**

- Beazer's Operation and Maintenance (O&M) Contractor performed routine treatment plant O&M services for the groundwater extraction and pretreatment system.
- Remedial Design activities are presently being conducted.

**2. Sampling/Test Results and Data:**

- Instantaneous flow rates and totalizer volumes were measured in each extraction well.
- The bi-weekly passive NAPL recovery program continues at Upper Hawthorn monitoring wells: 2.3 gallons of NAPL were removed from Upper Hawthorn wells during the past month (2 recovery events). A total of 558 gallons have been bailed or pumped since the start of the NAPL recovery program on June 19, 2004. The attached table provides details of the NAPL recovery volumes by well and date.
- In addition, NAPL was removed from 14 temporary injection points installed in the Former Process Area as part of the In-Situ Geochemical Stabilization (ISGS) program. This is a pilot demonstration for full scale design. Heavier than usual staining was observed at temporary Upper Hawthorn ISGS injection point 420N 340E on November 25, 2013. This location produced 22.7 gallons of product during the December 19th product recovery event. Two NAPL recovery events were conducted during the month, resulting in a total of 141.6 gallons removed.
- NAPL was removed from five Upper Hawthorn recovery wells installed in the Former Process Area as part of the ISGS program. Two NAPL recovery events were conducted during the month, resulting in 60.6 gallons removed.
- A total of 4,013,126 gallons of groundwater were recovered by the Surficial Aquifer drains and extraction well system during the past month (system run time of 672 hours). The average recovery rate for the month was approximately 99.5 gallons per minute (gpm). The recovery for each component is listed below.
  - Surficial Aquifer
    - Perimeter Extraction Wells: 659,432 gallons
    - Former North Lagoon Drain: 399,200 gallons
    - Former Drip Track Drain: 493,910 gallons
    - Former Process Area Drain: 416,100 gallons
    - Former South Lagoon Drain: 448,520 gallons
  - Upper Floridan Extraction Wells
    - FW-6: 21,480 gallons
    - FW-21B: 170,960 gallons
    - FW-31BE: 905,030 gallons
    - FW-32BE: 498,494 gallons

Approximately 320.4 million gallons have been recovered from the Surficial Aquifer extraction wells and four drains since the start of the Surficial Aquifer containment system in January 1995.

For the month, the total volume of water treated and discharged to the GRU wastewater system was 2,492,000 gallons. The remaining portion of the water, from Upper Floridan Aquifer wells, was treated and used for on-Property irrigation.

The Former South Lagoon and Former Process groundwater drain pumps were turned off for approximately 8.5 hours to pump and clean clarifiers and to treat backwash water.

### **3. Plans, Reports, Deliverables and Procedures Completed:**

- *Remedial Design Work Plan, Ver. 2* submitted December 9, 2013; approved December 26, 2013
- *Former Process Area In-Situ Geochemical Stabilization Remediation Demonstration Project: Phase I Characterization* submitted December 10, 2013
- Implementation of Off-Property Soil Replacement Pilot Project
- Surveying at properties in the Stephen Foster Neighborhood.
- Interviews of Stephen Foster neighborhood property owners and residents.
- Periodic maintenance checks and inspections.
- Treatment-plant component maintenance and repair as needed.
- Irrigation-system carbon breakthrough sample collection for VOCs and SVOCs.
- Repair of lateral and manifold piping at Carbon Adsorber A
- Repair of pump at FW-6.
- Replacement of flow meter elements at EW-16.
- Repair of flange on Irrigation pump.
- On-property irrigation using treated groundwater from FW-6, FW-21B, FW-31BE, and FW-32BE.
- Fourth quarter Total System Effluent (TSE) sampling event: December 26, 2013.
- 45 drums of PPE, spent filters, plastic, groundwater treatment sludge, DNAPL and water disposed on December 6, 2013.
- Meeting in Gainesville to discuss ISGS on December 18, 2013

### **4. Upcoming Actions:**

- Continuation of landscape surveys and interviews in the Stephen Foster neighborhood.
- NAPL collection at Upper Hawthorn monitoring wells: bi-weekly.
- NAPL collection at temporary Upper Hawthorn ISGS injection points: bi-weekly.
- First quarter groundwater sampling event: planned for February 16 - 21, 2014.
- Routine inspection, operation, maintenance, and monitoring.
- Submission of plans for Off-Property Soil Replacement at properties north of NW 30<sup>th</sup> Ave
- Soil replacement activities beginning north of NW 30<sup>th</sup> Ave (February)

### **5. Schedule Status:**

- The current remedial design schedule is attached.
- No significant delays were encountered during the reporting period.
- Detail has been added to schedule for Design Track #1 (Off-Property Soil Replacement – OU-5) to reflect the plan to submit parcel designs in blocks for approval.

**6. Plan/Schedule Modifications:**

- Minor schedule modifications were made to the schedule submitted last month.

**7. Community Involvement:**

- Tetra Tech's Community Coordinator has been in touch with many residents and property owners in the Stephen Foster neighborhood, and has been working closely with the city's project manager for the Stephen Foster soil replacement work.
- Tetra Tech participated in a meeting with Protect Gainesville Citizens on December 17, 2013
- Tetra Tech will participate in an upcoming community meeting sponsored by the City of Gainesville on January 18, 2014
- Future community involvement activities will be coordinated with EPA.

Hawthorn Group Passive NAPL Recovery (Page 1 of 6)

Well Date	HG-9S		HG-10S		HG-10D		HG-11S		HG-12S		HG-12D		HG-15S		HG-16S		HG-16D		FW-6		Total Vol. removed (gal)
	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	
6/19/2004	0.25		2.42		0.17		2.74		1.04		1.13		NM		1.08		NM		NM		-
7/7/2004	0.4		3.25		Stain		2.44		Stain		Stain		ND		0.75		ND		ND		-
7/20/2004	NM	0.1	3.24	0.8	ND	0	3.08	0.8	1.74	0.2	NM	Trace	NM	NM	1.74	0.1	NM	NM	NM	NM	2
8/3/2004	ND	0	3.29	0.3	ND	0	2.78	0.3	2.39	Trace	ND	0	ND	0	1.38	0.65	ND	0	ND	0	1.25
8/10/2004	ND	Trace	1.2	0.3	ND	0	2.69	0.4	2.25	0.5	NM	0	ND	0	0.5	0.2	ND	0	ND	0	1.4
8/17/2004	NM	0	3.03	0.7	NM	0	3.16	0.8	2.37	0.6	NM	0	ND	0	1.4	0.6	ND	0	ND	0	2.7
8/24/2004	NM	0	3.01	0.6	NM	Trace	1.27	0.4	0.39	0.3	NM	Trace	ND	0	1.24	0.3	ND	0	ND	0	1.6
8/31/2004	ND	0	2.87	0.2	ND	0	1.36	0.1	1.32	0.1	ND	0	ND	0	NM	0.1	ND	0	ND	0	0.5
9/8/2004	NM	0	2.09	0.6	NM	0	2.03	0.5	1.38	0.5	NM	0	ND	0	NM	0	ND	0	ND	0	1.6
9/14/2004	ND	0	3.21	0.5	NM	0	0.61	0.1	2.49	0.4	MN	0	1.94	0.3	1.9	0.3	ND	0	ND	0	1.6
9/21/2004	NM	0	2.76	0.6	NM	0	0.5	0.1	0.68	0.1	ND	0	NM	0	2.24	0.1	ND	0	ND	0	0.9
9/28/2004	ND	0	2.64	0.5	ND	0	1.88	0.2	1.15	0.2	NM	0	0.82	0.1	NM	0	ND	0	ND	0	1
10/5/2004	ND	0	4.85	0.8	Stain	0	1.3	0.25	1.6	0.3	ND	0	0.37	0.06	2.09	0.3	ND	0	ND	0	1.71
10/12/2004	ND	0	3.46	0.4	ND	0	3.12	0.4	1.88	0.3	ND	0	1.97	0.1	Stain	0.1	ND	0	ND	0	1.3
10/20/2004	ND	0	2.33	0.4	ND	0	2.58	0.4	1.27	0.2	ND	0	1.4	0.2	Stain	0.1	ND	0	ND	0	1.3
10/26/2004	ND	0	3.65	0.6	ND	0	3.94	0.6	1.89	0.3	ND	0	2.37	0.4	3.48	0.6	ND	0	ND	0	2.5
11/2/2004	ND	0	2.8	0.5	ND	0	3	0.5	2.4	0.4	ND	0	1.07	0.2	2.15	0.3	ND	0	ND	0	1.9
11/9/2004	ND	0	2.74	0.5	ND	0	2.16	0.4	2.51	0.4	ND	0	1.69	0.3	1.26	0.2	ND	0	ND	0	1.8
11/16/2004	ND	0	2.57	0.4	ND	0	2.38	0.4	1.37	0.2	ND	0	0.5	0.1	1.11	0.2	ND	0	ND	0	1.3
11/23/2004	Stain	0	3.16	0.5	Slit. Stain	0	3.23	0.5	1.86	0.3	ND	0	1.4	0.2	1.85	0.3	ND	0	ND	0	1.8
11/30/2004	ND	0	2.21	0.4	ND	0	3.77	0.6	2.2	0.4	ND	0	1.74	0.3	2.35	0.4	ND	0	ND	0	2.1
12/8/2004	ND	0	3.08	0.5	ND	0	3.24	0.5	1.8	0.3	ND	0	1.23	0.2	1.84	0.3	ND	0	ND	0	1.8
12/14/2004	ND	0	3.34	0.5	ND	0	3.92	0.6	2.16	0.3	ND	0	1.48	0.2	2.33	0.4	ND	0	ND	0	2
1/5/2005	ND	0	3.57	0.6	ND	0	5.51	0.9	2.8	0.4	ND	0	2.37	0.4	3.59	0.6	ND	0	ND	0	2.9
1/11/2005	ND	0	2.68	0.4	ND	0	3.41	0.6	1.82	0.3	ND	0	1.77	0.3	1.89	0.3	ND	0	ND	0	1.9
1/20/2005	ND	0	2.82	0.5	ND	0	3.03	0.5	1.63	0.3	ND	0	1.46	0.2	1.62	0.2	ND	0	ND	0	1.7
1/27/2005	ND	0	3.14	0.5	ND	0	3.73	0.6	2.04	0.3	ND	0	1.9	0.3	2.12	0.4	ND	0	ND	0	2.1
2/8/2005	ND	0	3.44	0.5	ND	0	4.77	0.8	2.57	0.4	ND	0	2.35	0.4	3.42	0.6	ND	0	ND	0	2.7
2/15/2005	ND	0	3.5	0.6	ND	0	5.38	0.9	2.85	0.5	ND	0	2.56	0.4	3.21	0.5	ND	0	ND	0	2.9
2/22/2005	ND	0	2.67	0.4	ND	0	3.69	0.6	2.05	0.3	ND	0	1.8	0.3	1.49	0.2	ND	0	ND	0	1.8
3/1/2005	ND	0	3.12	0.5	ND	0	4.43	0.7	2.45	0.4	ND	0	2.16	0.3	2.69	0.4	ND	0	ND	0	2.3
3/11/2005	ND	0	2.67	0.4	ND	0	3.48	0.6	1.9	0.3	ND	0	1.5	0.2	1.95	0.3	ND	0	ND	0	1.8
3/15/2005	ND	0	2.6	0.4	ND	0	3.57	0.6	1.87	0.3	ND	0	1.39	0.2	1.82	0.3	ND	0	ND	0	1.8
3/22/2005	ND	0	2.26	0.4	ND	0	3.5	0.6	2.06	0.3	ND	0	2.05	0.3	1.29	0.2	ND	0	ND	0	1.8
3/29/2005	ND	0	2	0.3	ND	0	2.38	0.4	2.1	0.3	ND	0	2.33	0.4	2.91	0.5	ND	0	ND	0	1.9
4/6/2005	ND	0	2.61	0.4	ND	0	2.74	0.4	1.4	0.2	ND	0	1.92	0.3	1.38	0.2	ND	0	ND	0	1.5
4/14/2005	ND	0	3.24	0.5	ND	0	3.29	0.5	1.37	0.2	ND	0	1.92	0.3	1.33	0.2	ND	0	ND	0	1.7
4/19/2005	ND	0	2.64	0.4	ND	0	3.34	0.5	1.75	0.3	ND	0	1.66	0.3	1.84	0.3	ND	0	ND	0	1.8
4/27/2005	ND	0	1.76	0.3	ND	0	1.98	0.3	1.59	0.3	ND	0	2.13	0.4	1.42	0.2	ND	0	ND	0	1.5
5/3/2005	ND	0	2.3	0.4	ND	0	2.77	0.4	1.32	0.2	ND	0	1.69	0.3	1.04	0.2	ND	0	ND	0	1.5
5/12/2005	ND	0	2.61	0.4	ND	0	3.22	0.5	1.86	0.3	ND	0	1.71	0.3	1.85	0.3	ND	0	ND	0	1.8
5/17/2005	ND	0	2.3	0.4	ND	0	2.75	0.4	1.61	0.3	ND	0	0.83	0.1	1.63	0.3	ND	0	ND	0	1.5
5/24/2005	ND	0	2.15	0.4	ND	0	1.58	0.3	2.33	0.4	ND	0	1.34	0.2	1.89	0.3	ND	0	ND	0	1.6
6/1/2005	ND	0	2.62	0.4	ND	0	2.36	0.4	1.04	0.2	ND	0	1.91	0.3	1.02	0.2	ND	0	ND	0	1.5
6/9/2005	ND	0	1.6	0.3	ND	0	1.97	0.3	1.11	0.2	ND	0	1.31	0.2	1.43	0.2	ND	0	ND	0	1.2
6/15/2005	ND	0	1.3	0.2	ND	0	1.57	0.3	1.17	0.2	ND	0	1.54	0.2	1.42	0.2	ND	0	ND	0	1.1
6/22/2005	ND	0	1.81	0.3	ND	0	1.62	0.3	1.65	0.3	ND	0	1.64	0.3	1.6	0.3	ND	0	ND	0	1.5
6/28/2005	ND	0	3.01	0.5	ND	0	3.21	0.5	1.12	0.2	ND	0	1.93	0.3	1.33	0.2	ND	0	ND	0	1.7
7/7/2005	ND	0	3.06	0.5	ND	0	0.87	0.1	2	0.3	ND	0	1.73	0.3	1.63	0.3	ND	0	ND	0	1.5
7/13/2005	ND	0	2.37	0.4	ND	0	1.98	0.3	1.2	0.2	ND	0	0.79	0.1	1.3	0.2	ND	0	ND	0	1.2
7/19/2005	ND	0	2.12	0.3	ND	0	1.71	0.3	1.02	0.2	ND	0	0.64	0.1	1.02	0.2	ND	0	ND	0	1.1
7/26/2005	ND	0	1.43	0.2	ND	0	0.87	0.1	0.76	0.1	ND	0	1.84	0.3	1.23	0.2	ND	0	ND	0	0.9
8/2/2005	ND	0	1.37	0.2	ND	0	0.76	0.1	0.62	0.1	ND	0	1.85	0.3	1.2	0.2	ND	0	ND	0	0.9
8/9/2005	ND	0	1.52	0.2	ND	0	0.65	0.1	0.98	0.2	ND	0	1.9	0.3	1.59	0.3	ND	0	ND	0	1.1
8/16/2005	ND	0	1.55	0.2	ND	0	0.62	0.1	0.86	0.1	ND	0	2.04	0.3	1.46	0.2	ND	0	ND	0	0.9
8/23/2005	ND	0	1.57	0.3	ND	0	0.83	0.1	1.06	0.2	ND	0	2.14	0.4	1.68	0.3	ND	0	ND	0	1.3

Hawthorn Group Passive NAPL Recovery (Page 2 of 6)

Well Date	HG-9S		HG-10S		HG-10D		HG-11S		HG-12S		HG-12D		HG-15S		HG-16S		HG-16D		FW-6		Total Vol. removed (gal)
	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	
8/30/2005	ND	0	1.71	0.3	ND	0	1.17	0.2	1.11	0.2	ND	0	1.83	0.3	1.93	0.3	ND	0	ND	0	1.3
9/7/2005	ND	0	1.57	0.3	ND	0	1.1	0.2	1.03	0.2	ND	0	1.85	0.3	1.94	0.3	ND	0	ND	0	1.3
9/13/2005	ND	0	1.2	0.2	ND	0	1.02	0.2	0.76	0.1	ND	0	1.64	0.3	1.67	0.3	ND	0	ND	0	1.1
9/20/2005	ND	0	1.05	0.2	ND	0	0.96	0.2	0.61	0.1	ND	0	1.49	0.2	1.63	0.3	ND	0	ND	0	1
9/27/2005	ND	0	0.92	0.1	ND	0	1.17	0.2	1.22	0.2	ND	0	1.34	0.2	1.23	0.2	ND	0	ND	0	0.9
10/4/2005	ND	0	0.97	0.2	ND	0	1.06	0.2	1.16	0.2	ND	0	1.24	0.2	1.14	0.2	ND	0	ND	0	1
10/11/2005	ND	0	1.17	0.2	ND	0	0.99	0.2	1.06	0.2	ND	0	1.14	0.2	1.22	0.2	ND	0	ND	0	1
10/25/2005	ND	0	1.21	0.2	ND	0	1.17	0.2	1.1	0.2	ND	0	1.32	0.2	1.34	0.2	ND	0	ND	0	1
11/8/2005	ND	0	1.4	0.2	ND	0	1.24	0.2	1.22	0.2	ND	0	1.34	0.2	1.37	0.2	ND	0	ND	0	1
11/30/2005	ND	0	1.42	0.2	ND	0	1.28	0.2	1.17	0.2	ND	0	1.4	0.2	1.45	0.2	ND	0	ND	0	1
12/14/2005	ND	0	1.43	0.2	ND	0	1.33	0.2	2.95	0.5	ND	0	1.53	0.2	1.39	0.2	ND	0	ND	0	1.3
1/3/2006	ND	0	1.59	0.3	ND	0	1.57	0.3	3.15	0.5	ND	0	1.7	0.3	1.5	0.2	ND	0	ND	0	1.6
1/19/2006	ND	0	3.76	0.6	stain	0	3.25	0.5	3.98	0.6	ND	0	3.01	0.5	2.85	0.5	ND	0	ND	0	2.7
2/10/2006	ND	0	3.01	0.5	ND	0	2.68	0.4	3.65	0.6	ND	0	2.8	0.5	2.59	0.4	ND	0	ND	0	2.4
2/23/2006	ND	0	3.08	0.5	ND	0	2.73	0.4	3.2	0.5	ND	0	2.84	0.5	2.68	0.4	ND	0	ND	0	2.3
3/7/2006	ND	0	2.61	0.4	ND	0	2.68	0.4	3.46	0.6	ND	0	2.02	0.3	2.49	0.4	ND	0	ND	0	2.1
3/21/2006	ND	0	2.46	0.4	ND	0	2.55	0.4	3.35	0.5	ND	0	1.74	0.3	2.22	0.4	ND	0	ND	0	2
4/4/2006	ND	0	2.26	0.4	ND	0	1.67	0.3	1.87	0.3	ND	0	2.3	0.4	2.23	0.4	ND	0	ND	0	1.8
4/18/2006	ND	0	2.15	0.4	ND	0	2.38	0.4	2.74	0.4	ND	0	2.34	0.4	2.48	0.4	ND	0	ND	0	2
5/3/2006	ND	0	2.01	0.3	ND	0	2.46	0.4	2.5	0.4	ND	0	2.34	0.4	2.99	0.5	ND	0	ND	0	2
5/17/2006	ND	0	5.64	0.9	ND	0	5.64	0.9	6	1	ND	0	6.74	1.1	5.82	0.9	ND	0	ND	0	4.8
5/30/2006	ND	0	3.12	0.5	ND	0	2.75	0.4	3.06	0.5	ND	0	2.43	0.4	2.45	0.4	ND	0	ND	0	2.2
6/15/2006	ND	0	3.27	0.5	ND	0	2.87	0.5	3.12	0.5	ND	0	2.58	0.4	2.59	0.4	ND	0	ND	0	2.3
6/27/2006	ND	0	2.8	0.5	ND	0	1.87	0.3	2.55	0.4	ND	0	2.34	0.4	1.99	0.3	ND	0	ND	0	1.9
7/13/2006	ND	0	2.96	0.5	ND	0	2.08	0.3	2.67	0.4	ND	0	2.5	0.4	2.23	0.4	ND	0	ND	0	2
7/25/2006	ND	0	3.07	0.5	ND	0	1.98	0.3	2.73	0.4	ND	0	2.6	0.4	2	0.3	ND	0	ND	0	1.9
8/8/2006	ND	0	2.26	0.4	ND	0	1.98	0.3	2.31	0.4	ND	0	2.01	0.3	2.05	0.3	ND	0	ND	0	1.7
8/22/2006	ND	0	2.11	0.3	ND	0	2.18	0.4	2.36	0.4	ND	0	2.28	0.4	2.31	0.4	ND	0	ND	0	1.9
9/5/2006	ND	0	2.26	0.4	ND	0	2.14	0.3	2.56	0.4	ND	0	2.46	0.4	2.43	0.4	ND	0	ND	0	1.9
9/19/2006	ND	0	2.47	0.4	ND	0	2.28	0.4	2.62	0.4	ND	0	2.66	0.4	2.49	0.4	ND	0	ND	0	2
10/3/2006	ND	0	2.51	0.4	ND	0	2.31	0.4	2.59	0.4	ND	0	2.7	0.4	2.62	0.4	ND	0	ND	0	2
10/17/2006	ND	0	2.56	0.4	ND	0	2.33	0.4	2.62	0.4	ND	0	2.71	0.4	2.54	0.4	ND	0	ND	0	2
10/31/2006	ND	0	2.41	0.4	ND	0	2.24	0.4	2.56	0.4	ND	0	2.64	0.4	2.49	0.4	ND	0	ND	0	2
11/14/2006	ND	0	2.57	0.4	ND	0	2.29	0.4	2.67	0.4	ND	0	2.7	0.4	2.54	0.4	ND	0	ND	0	2
11/28/2006	ND	0	1.92	0.3	ND	0	2.19	0.4	2.12	0.4	ND	0	2.52	0.4	2.23	0.4	ND	0	ND	0	1.9
12/12/2006	ND	0	1.97	0.3	ND	0	2.24	0.4	2.16	0.4	ND	0	2.54	0.4	2.26	0.4	ND	0	ND	0	1.9
12/27/2006	ND	0	2.1	0.3	ND	0	2.38	0.4	2.22	0.4	ND	0	2.6	0.4	2.24	0.4	ND	0	ND	0	1.9
1/10/2007	ND	0	2.31	0.4	ND	0	2.64	0.4	2.36	0.4	ND	0	2.75	0.4	2.34	0.4	ND	0	ND	0	2
1/23/2007	ND	0	2.37	0.4	ND	0	2.79	0.4	2.42	0.4	ND	0	2.71	0.4	2.4	0.4	ND	0	ND	0	2
2/6/2007	ND	0	2.42	0.4	ND	0	2.74	0.4	2.46	0.4	ND	0	2.65	0.4	2.46	0.4	ND	0	ND	0	2
2/20/2007	ND	0	2.48	0.4	ND	0	2.67	0.4	2.47	0.4	ND	0	2.56	0.4	2.49	0.4	ND	0	ND	0	2
3/6/2007	ND	0	2.52	0.4	ND	0	2.61	0.4	2.45	0.4	ND	0	2.65	0.4	2.54	0.4	ND	0	ND	0	2
3/20/2007	ND	0	2.31	0.4	ND	0	2.6	0.4	2.45	0.4	ND	0	2.53	0.4	2.47	0.4	ND	0	ND	0	2
4/3/2007	ND	0	2.42	0.4	ND	0	2.55	0.4	2.5	0.4	ND	0	2.5	0.4	2.49	0.4	ND	0	ND	0	2
4/17/2007	ND	0	2.52	0.4	ND	0	2.61	0.4	2.45	0.4	ND	0	2.56	0.4	2.43	0.4	ND	0	ND	0	2
5/9/2007	ND	0	3.51	0.6	ND	0	4.14	0.7	3.65	0.6	ND	0	3.64	0.6	3.92	0.6	ND	0	ND	0	3.1
5/31/2007	ND	0	2.11	0.3	ND	0	3.63	0.6	3.2	0.5	ND	0	2.83	0.5	2.47	0.4	ND	0	ND	0	2.3
6/12/2007	ND	0	1.97	0.3	ND	0	2.77	0.4	2.62	0.4	ND	0	2.3	0.4	2.03	0.3	ND	0	ND	0	1.8
6/26/2007	stain	0	2.07	0.3	stain	0	3.63	0.6	4.05	0.7	ND	0	2.8	0.4	2.49	0.4	ND	0	ND	0	2.4
7/10/2007	Trace	0	1.81	0.5	ND	0	11.64	1	7.04	1.25	ND	0	8.87	1.25	4.73	0.5	ND	0	ND	0	4.5
7/26/2007	stain	0	1.95	0.25	stain	0	12.45	2.75	7.45	1	ND	0	7.58	0.6	3.98	0.25	ND	0	ND	0	4.85
8/8/2007	stain	0	1.13	0.25	stain	0	12.38	2.5	7.05	1	ND	0	10.14	0.75	3.68	0.25	ND	0	ND	0	4.75
8/21/2007	stain	0	2.23	0.25	stain	0	10.34	2.25	5.98	1.25	ND	0	11.51	0.75	2.27	0.25	ND	0	ND	0	4.75
9/5/2007	stain	0	2	1.25	stain	0	7.7	1.5	5.31	1	ND	0	12.54	1	4.64	0.5	ND	0	ND	0	5.25
9/19/2007	stain	0	0.42	0.2	stain	0	2.98	0.4	2.97	0.3	ND	0	2.5	0.4	0.54	0.1	ND	0	ND	0	1.4
10/3/2007	stain	0	1.02	0.1	stain	0	7.6	1.5	4.53	0.75	ND	0	15.75	0.75	6.07	1.5	ND	0	ND	0	4.6

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Well	HG-9S		HG-10S		HG-10D		HG-11S		HG-12S		HG-12D		HG-15S		HG-16S		HG-16D		FW-6		Total Vol. removed (gal)
	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	
10/16/2007	stain	0	1.45	0.25	stain	0	6.46	0.5	4.61	0.25	ND	0	14.36	2	3.39	1	ND	0	ND	0	4
10/30/2007	stain	0	1.05	0.25	stain	0	5.18	0.6	3.12	0.5	ND	0	9.26	1.75	1.65	0.6	ND	0	ND	0	3.7
11/13/2007	stain	0	1.61	0.3	stain	0	5.04	0.8	3.01	0.4	ND	0	8.84	1.5	1.74	0.65	ND	0	ND	0	3.65
11/28/2007	stain	0	1.16	0.2	stain	0	5.24	0.85	2.95	0.4	ND	0	8.59	1.5	1.44	0.4	ND	0	ND	0	3.35
12/11/2007	stain	0	1.82	0.25	stain	0	4.88	0.65	2.98	0.4	ND	0	8.75	1.7	1.22	0.3	ND	0	ND	0	3.3
12/28/2007	stain	0	2.14	0.3	stain	0	5.4	0.8	3.39	0.5	ND	0	8.8	1.6	2.44	0.3	ND	0	ND	0	3.5
1/9/2008	stain	0	2.07	0.3	stain	0	4.81	0.8	3.76	0.5	ND	0	8.75	1.4	1.33	0.3	ND	0	ND	0	3.3
1/21/2008	stain	0	1.91	0.2	stain	0	4.64	0.6	2.86	0.4	ND	0	8.77	1.4	2.36	0.4	ND	0	ND	0	3
2/5/2008	stain	0	2.06	0.25	stain	0	5	1	3.18	0.5	ND	0	8.7	1.3	2.34	0.3	ND	0	ND	0	3.35
2/19/2008	ND	0	2.26	0.2	stain	0	4.45	0.9	3.26	0.5	ND	0	8.76	1.3	2.62	0.4	ND	0	ND	0	3.3
3/4/2008	stain	0	NM	0	NM	0	4.27	0.7	3.24	0.5	ND	0	8.24	1.25	2.53	0.3	ND	0	ND	0	2.75
3/20/2008	stain	0	NM	0	NM	0	4.5	0.9	3.16	0.4	ND	0	8.51	1.25	2.35	0.4	ND	0	ND	0	2.95
4/1/2008	stain	0	NM	0	NM	0	4.04	0.6	2.93	0.5	ND	0	7.95	1.2	2.42	0.4	ND	0	ND	0	2.7
4/16/2008	stain	0	NM	0	NM	0	4.43	0.7	2.72	0.4	ND	0	8.04	1.2	1.95	0.4	ND	0	ND	0	2.7
4/29/2008	stain	0	NM	0	NM	0	4.27	0.75	2.57	0.4	ND	0	8.29	1.1	1.56	0.4	ND	0	ND	0	2.65
5/13/2008	stain	0	NM	0	NM	0	4	0.75	2.79	0.5	ND	0	8.1	1.2	1.79	0.3	ND	0	ND	0	2.75
5/27/2008	stain	0	NM	0	NM	0	3.98	0.9	2.58	0.4	ND	0	7.9	1.2	1.57	0.3	ND	0	ND	0	2.8
6/10/2008	stain	0	NM	0	NM	0	3.84	0.7	2.72	0.4	ND	0	7.94	1.2	1.43	0.4	ND	0	ND	0	2.7
6/24/2008	stain	0	NM	0	NM	0	3.91	0.6	2.52	0.4	ND	0	7.76	1.1	1.42	0.3	ND	0	ND	0	2.4
7/10/2008	stain	0	NM	0	NM	0	3.99	0.7	3.15	0.4	ND	0	7.73	1	1.89	0.4	ND	0	ND	0	2.5
7/24/2008	stain	0	NM	0	NM	0	5.39	0.9	3.26	0.5	ND	0	8.38	1.1	1.83	0.3	ND	0	ND	0	2.8
8/7/2008	stain	0	NM	0	NM	0	4.38	0.75	2.85	0.3	ND	0	8.38	1.1	1.44	0.4	ND	0	ND	0	2.55
8/19/2008	stain	0	NM	0	NM	0	3.76	0.7	2.83	0.4	ND	0	8.27	1.1	1.16	0.3	ND	0	ND	0	2.5
9/3/2008	stain	0	stain	0	stain	0	4.34	0.7	2.83	0.4	ND	0	8.35	1.1	1.26	0.25	ND	0	ND	0	2.45
9/16/2008	stain	0	stain	0	stain	0	3.98	0.75	2.79	0.4	ND	0	8.6	1	1.32	0.25	ND	0	ND	0	2.4
9/30/2008	stain	0	0.59	0.1	stain	0	3.9	0.7	3.03	0.3	ND	0	7.97	1.1	1.39	0.3	ND	0	ND	0	2.5
10/14/2008	stain	0	1.17	0.1	stain	0	4.04	0.75	2.68	0.4	ND	0	7.96	1.1	1.52	0.3	ND	0	ND	0	2.65
10/28/2008	stain	0	1.37	0.2	stain	0	3.92	0.7	2.73	0.35	ND	0	7.88	1	1.4	0.3	ND	0	ND	0	2.55
11/11/2008	stain	0	1.48	0.2	stain	0	3.9	0.7	2.78	0.35	ND	0	8.15	1	1.33	0.25	ND	0	ND	0	2.5
11/25/2008	stain	0	1.35	0.2	stain	0	3.79	0.75	2.37	0.4	ND	0	7.84	1.1	1.04	0.25	ND	0	ND	0	2.7
12/13/2008	stain	0	1.43	0.2	stain	0	3.99	0.7	2.66	0.4	ND	0	7.97	1.2	1.13	0.2	ND	0	ND	0	2.7
12/23/2008	stain	0	1.38	0.2	stain	0	3.68	0.7	2.17	0.4	ND	0	8.34	0.8	1.12	0.2	ND	0	ND	0	2.3
1/6/2009	stain	0	1.18	0.2	stain	0	3.94	0.7	2.56	0.4	ND	0	8.11	1	1.29	0.2	ND	0	ND	0	2.5
1/20/2009	stain	0	1.44	0.25	stain	0	4.2	0.75	2.72	0.4	ND	0	8.07	0.9	0.94	0.2	ND	0	ND	0	2.5
2/3/2009	stain	0	3.77	0.2	stain	0	5.33	0.7	3.89	0.4	ND	0	9.33	0.9	3.29	0.25	ND	0	ND	0	2.45
2/18/2009	stain	0	1.49	0.25	stain	0	3.63	0.75	2.46	0.45	ND	0	7.96	0.9	1.32	0.2	ND	0	ND	0	2.55
3/4/2009	stain	0	1.99	0.25	stain	0	3.59	0.6	2.6	0.4	ND	0	7.74	1	1.03	0.2	ND	0	ND	0	2.45
3/17/2009	NM	0	NM	0	NM	0	NM	0	NM	0	NM	0	7.55	1	NM	0	NM	0	NM	0	1
3/18/2009	stain	0	1.89	0.25	stain	0	3.77	0.7	2.47	0.4	ND	0	6.18	0.65	0.97	0.15	ND	0	ND	0	2.15
3/31/2009	stain	0	1.81	0.2	stain	0	3.89	0.7	2.38	0.4	ND	0	6.94	0.9	0.94	0.1	ND	0	ND	0	2.3
4/14/2009	stain	0	1.5	0.3	stain	0	3.74	0.8	2.22	0.3	ND	0	6.6	0.9	1.09	0.1	ND	0	ND	0	2.4
5/1/2009	stain	0	1.54	0.3	stain	0	4.03	0.6	2.1	0.3	ND	0	6.74	0.75	1.27	0.2	ND	0	ND	0	2.15
5/15/2009	stain	0	1.6	0.25	stain	0	3.77	0.7	2.16	0.4	ND	0	7.2	0.75	1.02	0.2	ND	0	ND	0	2.3
5/27/2009	stain	0	1.41	0.3	stain	0	3.54	0.65	2.02	0.4	ND	0	6.75	0.95	0.82	0.3	ND	0	ND	0	2.6
6/9/2009	stain	0	1.5	0.3	stain	0	4	0.7	2.12	0.4	ND	0	6.99	1	0.86	0.3	ND	0	ND	0	2.7
6/25/2009	stain	0	1.54	0.3	stain	0	3.96	0.75	1.96	0.5	ND	0	7.43	0.8	0.63	0.25	ND	0	ND	0	2.6
7/9/2009	stain	0	1.71	0.3	stain	0	3.82	0.7	2.39	0.4	ND	0	7.13	0.9	0.91	0.1	ND	0	ND	0	2.4
7/24/2009	stain	0	1.95	0.25	stain	0	3.98	0.7	3.25	0.3	ND	0	6.78	1	0.97	0.1	ND	0	ND	0	2.35
8/6/2009	stain	0	1.83	0.25	stain	0	3.42	0.8	2.95	0.5	ND	0	7.36	1.1	1.03	0.2	ND	0	ND	0	2.85
8/20/2009	stain	0	1.87	0.3	stain	0	3.43	0.8	2.42	0.5	ND	0	7.93	1.1	1.07	0.2	stain	0	ND	0	2.9
9/3/2009	stain	0	1.81	0.3	stain	0	2.84	0.8	2.06	0.3	ND	0	7.04	1	0.92	0.1	stain	0	ND	0	2.5
9/16/2009	stain	0	1.53	0.3	stain	0	2.7	0.7	2.23	0.35	ND	0	6.73	0.8	1.05	0.15	stain	0	ND	0	2.3
9/30/2009	stain	0	2.1	0.3	stain	0	2.66	0.6	2.51	0.4	ND	0	6.69	0.9	1.13	0.2	stain	0	ND	0	2.4
10/21/2009	stain	0	2.83	0.3	stain	0	2.69	0.65	2.96	0.5	ND	0	6.94	1.05	1.21	0.2	stain	0	NM	0	2.7
11/5/2009	stain	0	3.01	0.3	stain	0	2.91	0.6	2.86	0.6	ND	0	6.75	2.1	1.33	0.2	stain	0	NM	0	3.8
11/18/2009	stain	0	1.88	0.3	stain	0	2.78	0.6	2.78	0.4	ND	0	5.15	1.6	1.57	0.2	stain	0	NM	0	3.1

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Well	HG-9S		HG-10S		HG-10D		HG-11S		HG-12S		HG-12D		HG-15S		HG-16S		HG-16D		FW-6		Total Vol. removed (gal)
	Date	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	
12/1/2009	stain	0	1.7	0.2	stain	0	2.54	0.6	2.92	0.45	ND	0	4	1	1.03	0.1	stain	0	NM	0	2.35
12/17/2009	stain	0	1.59	0.2	stain	0	2.69	0.5	2.79	0.5	ND	0	3.9	1	1.55	0.2	stain	0	NM	0	2.4
12/31/2009	stain	0	2.08	0.3	stain	0	2.54	0.6	2.74	0.4	ND	0	3.6	0.9	0.93	0.1	stain	0	NM	0	2.3
1/14/2010	stain	0	1.98	0.25	stain	0	2.38	0.6	3.03	0.4	ND	0	3.57	0.9	1.2	0.2	stain	0	NM	0	2.35
1/26/2010	stain	0	1.55	0.2	stain	0	2.39	0.5	2.06	0.3	ND	0	NA	0.65	1.06	0.1	stain	0	NM	0	1.75
2/10/2010	stain	0	1.51	0.1	stain	0	2.45	0.4	2.93	0.3	ND	0	3.33	0.65	1.15	0.1	stain	0	NM	0	1.55
2/25/2010	stain	0	1.8	0.25	stain	0	2.54	0.4	2.73	0.3	ND	0	3.13	0.4	0.95	0.1	stain	0	NM	0	1.45
3/10/2010	stain	0	1.97	0.25	stain	0	2.32	0.4	2.43	0.4	ND	0	4.14	0.5	1.26	0.2	stain	0	NM	0	1.75
3/29/2010	stain	0	2.35	0.3	stain	0	2.74	0.6	2.93	0.4	ND	0	5.17	0.75	0.93	0.1	stain	0	NM	0	2.15
4/14/2010	stain	0	1.6	0.2	stain	0	2.69	0.6	2.15	0.45	ND	0	5.29	0.9	0.97	0.1	stain	0	NM	0	2.25
4/29/2010	stain	0	2.06	0.3	stain	0	2.61	0.45	2.98	0.5	ND	0	5.65	1	1.53	0.2	stain	0	NM	0	2.45
5/14/2010	stain	0	1.36	0.2	stain	0	2.54	0.4	3.03	0.4	ND	0	5.43	0.8	1.05	0.1	stain	0	NM	0	1.9
5/26/2010	stain	0	1.82	0.15	stain	0	2.38	0.5	3.15	0.5	ND	0	5.2	0.75	1.87	0.2	stain	0	NM	0	2.1
6/10/2010	stain	0	2.01	0.25	stain	0	2.33	0.45	3.05	0.45	ND	0	5.1	0.8	1.47	0.15	stain	0	NM	0	2.1
6/24/2010	stain	0	1.18	0.15	stain	0	2.27	0.45	2.83	0.4	ND	0	5.14	0.8	1.5	0.2	stain	0	NM	0	2
7/8/2010	stain	0	1.32	0.25	stain	0	2.28	0.4	2.9	0.4	ND	0	4.9	0.75	1.88	0.1	stain	0	NM	0	1.9
7/21/2010	stain	0	1.5	0.2	stain	0	2.14	0.4	3.06	0.5	ND	0	4.8	0.8	1.05	0.15	stain	0	NM	0	2.05
8/5/2010	stain	0	1.56	0.2	stain	0	2.31	0.4	3.06	0.5	ND	0	4.7	0.8	1.47	0.15	stain	0	NM	0	2.05
8/19/2010	stain	0	1.96	0.1	stain	0	2.28	0.4	2.9	0.55	ND	0	4.99	0.8	1.06	0.2	stain	0	NM	0	2.05
9/2/2010	stain	0	2.01	0.25	stain	0	2.21	0.4	3.03	0.5	ND	0	4.95	0.65	1.37	0.2	stain	0	NM	0	2
9/15/2010	stain	0	2.08	0.25	stain	0	2.14	0.35	2.98	0.45	ND	0	5.04	0.75	1.07	0.1	stain	0	NM	0	1.9
9/29/2010	stain	0	2.07	0.3	stain	0	2.14	0.4	2.9	0.4	ND	0	4.95	0.65	1.77	0.15	stain	0	NM	0	1.9
10/13/2010	stain	0	2.53	0.4	stain	0	2.19	0.4	2.86	0.45	ND	0	5.2	0.7	1.27	0.15	stain	0	NM	0	2.1
10/28/2010	stain	0	2.51	0.25	stain	0	2.24	0.4	2.95	0.4	ND	0	5.34	0.8	1.05	0.1	stain	0	NM	0	1.95
11/10/2010	stain	0	1.97	0.3	stain	0	2.21	0.4	3.06	0.4	ND	0	5.15	0.75	1.09	0.15	stain	0	NM	0	2
11/24/2010	stain	0	1.9	0.3	stain	0	NM	0.4	2.92	0.4	ND	0	NM	0.75	1.48	0.15	stain	0	NM	0	2
12/9/2010	stain	0	NM	0.4	stain	0	NM	0.4	NM	0.45	ND	0	NM	0.65	NM	0.1	stain	0	NM	0	2
12/21/2010	stain	0	3.05	0.3	stain	0	1.93	0.5	3.02	0.5	ND	0	5.1	0.8	1.1	0.2	stain	0	NM	0	2.3
1/6/2011	stain	0	2.7	0.35	stain	0	2.37	0.4	2.88	0.45	ND	0	4.5	0.6	1.37	0.2	stain	0	NM	0	2
1/19/2011	stain	0	2.9	0.3	stain	0	2.11	0.4	3.11	0.4	ND	0	5.35	0.8	1.91	0.25	stain	0	NM	0	2.15
2/2/2011	stain	0	2.49	0.25	stain	0	2.19	0.4	3.03	0.4	ND	0	5.34	0.65	1.47	0.15	stain	0	NM	0	1.85
2/17/2011	stain	0	2.43	0.2	stain	0	2.18	0.4	3.05	0.4	ND	0	5.54	0.65	1.48	0.15	stain	0	NM	0	1.8
3/3/2011	stain	0	2.56	0.35	stain	0	2.14	0.4	3.12	0.45	ND	0	5.53	0.8	0.63	0.1	stain	0	NM	0	2.1
3/16/2011	stain	0	2.05	0.3	stain	0	1.94	0.4	2.96	0.4	ND	0	5.4	0.7	1.4	0.15	stain	0	NM	0	1.95
3/30/2011	stain	0	1.88	0.25	stain	0	2.08	0.4	3.03	0.4	ND	0	5.53	0.75	1.03	0.1	stain	0	NM	0	1.9
4/13/2011	stain	0	2.23	0.35	stain	0	1.67	0.35	2.94	0.4	ND	0	5.53	0.75	1.03	0.15	stain	0	NM	0	2
4/28/2011	stain	0	2.89	0.3	stain	0	2.09	0.4	3.02	0.4	ND	0	5.64	0.75	0.7	0.1	stain	0	NM	0	1.95
5/11/2011	stain	0	2.55	0.35	stain	0	1.98	0.4	2.92	0.4	ND	0	5.46	0.65	0.85	0.15	stain	0	NM	0	1.95
5/26/2011	stain	0	1.9	0.3	stain	0	1.98	0.4	3.05	0.4	ND	0	5.13	0.65	1.53	0.25	stain	0	NM	0	2
6/8/2011	stain	0	2.56	0.3	stain	0	2.03	0.4	2.89	0.4	ND	0	4.96	0.75	0.7	0.15	stain	0	NM	0	2
6/23/2011	stain	0	2.1	0.4	stain	0	2.19	0.4	3.05	0.45	ND	0	4.70	0.5	1.55	0.2	stain	0	NM	0	1.95
7/7/2011	stain	0	1.71	0.25	stain	0	2.14	0.4	3.05	0.4	ND	0	5.5	0.7	1.37	0.15	stain	0	NM	0	1.9
7/20/2011	stain	0	2.08	0.25	stain	0	1.94	0.4	2.86	0.35	ND	0	5.13	0.75	0.77	0.1	stain	0	NM	0	1.85
8/4/2011	stain	0	2.55	0.4	stain	0	2.19	0.45	2.66	0.4	ND	0	5.45	0.7	0.54	0.1	stain	0	NM	0	2.05
8/17/2011	stain	0	1.81	0.25	stain	0	2.11	0.4	2.91	0.4	ND	0	5.40	0.75	1.25	0.15	stain	0	NM	0	1.95
9/1/2011	stain	0	2.06	0.35	stain	0	2.18	0.4	2.92	0.35	ND	0	5.13	0.7	1.03	0.15	stain	0	NM	0	1.95
9/15/2011	stain	0	2.35	0.35	stain	0	2.04	0.4	2.46	0.4	ND	0	5.37	0.55	1.33	0.25	stain	0	NM	0	1.95
9/29/2011	stain	0	2.28	0.4	stain	0	1.98	0.4	2.86	0.4	ND	0	5.50	0.6	1.21	0.25	stain	0	NM	0	2.05
10/13/2011	stain	0	2.51	0.35	stain	0	1.97	0.4	2.84	0.35	ND	0	5.37	0.75	0.52	0.15	stain	0	NM	0	2
10/26/2011	stain	0	2.08	0.35	stain	0	1.68	0.35	3.04	0.4	ND	0	5.10	0.7	1.14	0.2	stain	0	NM	0	2
11/9/2011	stain	0	2.02	0.3	stain	0	1.61	0.3	2.95	0.4	ND	0	5.13	0.75	1.74	0.15	stain	0	NM	0	1.9
11/27/2011	stain	0	1.91	0.35	stain	0	2.24	0.4	2.92	0.45	ND	0	5.51	0.7	1.05	0.1	stain	0	NM	0	2
12/8/2011	stain	0	1.88	0.3	stain	0	1.64	0.3	3.12	0.35	ND	0	4.83	0.65	1.02	0.15	stain	0	NM	0	1.75
12/22/2011	stain	0	2	0.2	stain	0	1.94	0.35	2.36	0.4	ND	0	5.89	0.7	0.76	0.1	stain	0	NM	0	1.75
1/5/2012	stain	0	2.91	0.35	stain	0	1.97	0.3	2.87	0.3	ND	0	5.10	0.5	1.47	0.2	stain	0	NM	0	1.65
1/19/2012	stain	0	2.21	0.35	stain	0	2.38	0.4	2.87	0.4	ND	0	5.30	0.55	1.74	0.25	stain	0	NM	0	1.95



Hawthorn Group Passive NAPL Recovery (Page 5 of 6)

Well	HG-9S		HG-10S		HG-10D		HG-11S		HG-12S		HG-12D		HG-15S		HG-16S		HG-16D		FW-6		Total Vol. removed (gal)
	Date	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	
2/2/2012	stain	0	2.39	0.25	stain	0	2.19	0.5	2.86	0.4	ND	0	5.90	0.85	1.43	0.15	stain	0	NM	0	2.15
2/16/2012	stain	0	2.54	0.4	stain	0	2.29	0.45	2.75	0.4	ND	0	5.90	0.75	1.53	0.25	stain	0	NM	0	2.25
2/29/2012	stain	0	2.05	0.35	stain	0	2.39	0.45	2.76	0.35	ND	0	5.80	0.8	1.07	0.15	stain	0	NM	0	2.1
3/14/2012	stain	0	1.99	0.25	stain	0	2.27	0.45	2.63	0.4	ND	0	5.99	0.75	1.05	0.1	stain	0	NM	0	1.95
3/29/2012	stain	0	1.93	0.25	stain	0	2.47	0.45	2.57	0.4	ND	0	5.73	0.75	0.95	0.1	stain	0	NM	0	1.95
4/11/2012	stain	0	1.83	0.4	stain	0	2.5	0.4	2.6	0.4	ND	0	4.54	0.8	0.93	0.1	stain	0	NM	0	2.1
4/25/2012	stain	0	2.48	0.4	stain	0	2.68	0.45	2.46	0.3	ND	0	5.90	0.8	0.65	0.1	stain	0	NM	0	2.05
5/10/2012	stain	0	1.96	0.3	stain	0	2.62	0.5	2.95	0.35	ND	0	4.73	1	0.53	0.1	stain	0	NM	0	2.25
5/23/2012	stain	0	1.9	0.3	stain	0	2.74	0.5	2.16	0.35	ND	0	4.93	0.9	0.64	0.1	stain	0	NM	0	2.15
6/6/2012	stain	0	1.98	0.25	stain	0	2.98	0.45	2.55	0.3	ND	0	4.85	0.7	1.05	0.15	stain	0	NM	0	1.85
6/21/2012	stain	0	1.87	0.4	stain	0	2.9	0.5	2.85	0.4	ND	0	6.11	0.85	0.83	0.1	stain	0	NM	0	2.25
7/8/2012	stain	0	1.64	0.4	stain	0	2.95	0.45	2.46	0.4	ND	0	4.78	0.9	0.73	0.1	stain	0	NM	0	2.25
7/18/2012	stain	0	1.57	0.35	stain	0	2.97	0.45	2.25	0.45	ND	0	5.73	0.7	0.83	0.1	stain	0	NM	0	2.05
8/2/2012	stain	0	1.83	0.3	stain	0	2.68	0.4	2.58	0.3	ND	0	5.64	0.75	1.04	0.15	stain	0	NM	0	1.9
8/16/2012	stain	0	2.1	0.25	stain	0	2.77	0.35	2.65	0.3	ND	0	5.85	0.9	1.05	0.15	stain	0	NM	0	1.95
9/2/2012	stain	0	2.18	0.3	stain	0	2.96	0.4	2.78	0.4	ND	0	5.3	0.75	0.83	0.1	stain	0	NM	0	1.95
9/13/2012	stain	0	1.61	0.3	stain	0	2.97	0.4	2.54	0.3	ND	0	5.74	0.8	0.33	0.1	stain	0	NM	0	1.9
9/26/2012	stain	0	2.9	0.3	stain	0	2.38	0.4	2.97	0.4	ND	0	5.85	0.8	0.53	0.1	stain	0	NM	0	2
10/10/2012	stain	0	1.5	0.25	stain	0	1.88	0.4	2.91	0.45	ND	0	5.46	0.8	0.54	0.1	stain	0	NM	0	2
10/25/2012	stain	0	1.42	0.3	stain	0	1.79	0.4	2.51	0.4	ND	0	4.63	0.75	0.79	0.1	stain	0	NM	0	1.95
11/8/2012	stain	0	1.5	0.3	stain	0	1.82	0.35	2.33	0.4	ND	0	4.44	0.75	1.23	0.15	stain	0	NM	0	1.95
11/21/2012	stain	0	1.58	0.4	stain	0	1.77	0.3	2.25	0.3	ND	0	3.88	0.6	1.03	0.1	stain	0	NM	0	1.7
12/5/2012	stain	0	1.47	0.3	stain	0	1.84	0.35	2.22	0.3	ND	0	3.96	0.65	1.12	0.1	stain	0	NM	0	1.7
12/18/2012	stain	0	1.53	0.4	stain	0	1.76	0.4	2.3	0.25	ND	0	4.04	0.6	1.09	0.2	stain	0	NM	0	1.85
1/2/2013	stain	0	1.61	0.3	stain	0	1.87	0.3	2.36	0.3	ND	0	4.23	0.5	1.12	0.1	stain	0	NM	0	1.5
1/16/2013	stain	0	1.6	0.5	stain	0	1.85	0.4	2.36	0.4	ND	0	4.08	0.5	1.07	0.25	stain	0	NM	0	2.05
1/30/2013	stain	0	1.53	0.35	stain	0	1.78	0.4	2.23	0.4	ND	0	4.31	0.5	0.96	0.2	stain	0	NM	0	1.85
2/14/2013	stain	0	1.53	0.35	stain	0	1.8	0.35	2.49	0.4	ND	0	4.17	0.5	0.94	0.1	stain	0	NM	0	1.7
2/27/2013	stain	0	1.3	0.2	stain	0	1.74	0.25	1.85	0.3	ND	0	3.95	0.45	0.83	0.1	stain	0	NM	0	1.3
3/13/2013	stain	0	1.48	0.4	stain	0	1.81	0.4	1.99	0.3	ND	0	3.84	0.6	0.73	0.1	stain	0	NM	0	1.8
3/27/2013	stain	0	1.48	0.45	stain	0	1.82	0.35	1.6	0.4	ND	0	3.95	0.45	0.83	0.15	stain	0	NM	0	1.8
4/10/2013	stain	0	stain	0	stain	0	1.47	0.35	1.63	0.3	ND	0	3.54	0.45	0.77	0.15	stain	0	NM	0	1.25
4/24/2013	stain	0	stain	0	stain	0	1.77	0.35	1.86	0.4	ND	0	3.92	0.5	stain	0	stain	0	NM	0	1.25
5/8/2013	stain	0	stain	0	stain	0	1.7	0.35	1.83	0.4	ND	0	3.78	0.45	stain	0	stain	0	NM	0	1.2
5/22/2013	stain	0	stain	0	stain	0	1.64	0.35	1.83	0.4	ND	0	3.51	0.4	stain	0	stain	0	NM	0	1.15
6/5/2013	stain	0	stain	0	stain	0	1.81	0.4	1.85	0.3	ND	0	3.57	0.4	1.02	0.2	stain	0	NM	0	1.3
6/18/2013	stain	0	stain	0	stain	0	1.47	0.3	1.58	0.3	ND	0	3.43	0.4	stain	0	stain	0	NM	0	1
7/4/2013	stain	0	stain	0	stain	0	1.77	0.4	1.76	0.3	ND	0	3.57	0.5	stain	0	stain	0	NM	0	1.2
7/17/2013	stain	0	stain	0	stain	0	1.67	0.3	1.78	0.3	ND	0	3.19	0.4	0.94	0.15	stain	0	NM	0	1.15
7/31/2013	stain	0	stain	0	stain	0	1.04	0.25	1.65	0.25	ND	0	2.88	0.5	stain	0	stain	0	NM	0	1
8/15/2013	stain	0	stain	0	stain	0	1.72	0.4	1.48	0.3	ND	0	3.58	0.5	stain	0	stain	0	NM	0	1.2
9/4/2013	stain	0	stain	0	stain	0	2.21	0.55	2	0.4	stain	0	3.73	0.5	stain	0	stain	0	NM	0	1.45
9/18/2013	stain	0	stain	0	stain	0	1.7	0.5	1.4	0.3	ND	0	3.33	0.55	stain	0	stain	0	NM	0	1.35
10/3/2013	stain	0	stain	0	stain	0	1.28	0.5	1.46	0.3	ND	0	3.25	0.5	0.8	0.3	stain	0	NM	0	1.6
10/16/2013	stain	0	stain	0	stain	0	1.5	0.4	1.44	0.3	ND	0	2.76	0.45	stain	0	stain	0	NM	0	1.15
10/30/2013	stain	0	stain	0	stain	0	1.57	0.4	1.6	0.35	ND	0	3.07	0.35	stain	0	stain	0	NM	0	1.1
11/14/2013	stain	0	ND	0	stain	0	1.6	0.4	1.74	0.4	ND	0	2.63	0.35	stain	0	stain	0	NM	0	1.15
11/27/2013	stain	0	stain	0	stain	0	0.98	0.3	2.15	0.4	ND	0	2.84	0.4	stain	0	stain	0	NM	0	1.1
12/12/2013	stain	0	stain	0	stain	0	1.68	0.3	3.09	0.4	ND	0	2.64	0.35	0.52	0.25	stain	0	NM	0	1.3
12/26/2013	stain	0	ND	0	stain	0	1.54	0.3	1.82	0.35	ND	0	2.93	0.35	stain	0	stain	0	NM	0	1
<b>Total Removed</b>		0.1		80.10		0.0		135.80		104.80		0.0		170.86		65.95		0.0		0.0	557.61

Hawthorn Group Passive NAPL Recovery (Page 6 of 6)

Well	HG-9S		HG-10S		HG-10D		HG-11S		HG-12S		HG-12D		HG-15S		HG-16S		HG-16D		FW-6		Total Vol. removed (gal)
	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	Thickness (ft)	Vol. Removed (gal)	

Notes:

- 6/19/04 measured with bailer
- 7/07/04 measured with weighted cotton string
- Other dates used Bailer & Interface Probe
- ND indicates NAPL not detected
- NM indicates measurement not taken
- Stain indicates that NAPL stained measurement probe, but thickness was unmeasurable
- Blank indicated no measured DNAPL removal
- 10/25/05 began two-week schedule
- 5/17/06 used low-flow pump (as opposed to the bailer)
- 7/10/07 RH performed bailing
- 11/13/07 New Heron Oil/Water Interface Probe (H01L/SM01L) now in use
- 3/4/08 through 8/25/08 Key Environmental pumping well running 8 ft away from HG-10S and HG-10D
- 12/23/08 Michael Toundas performed DNAPL recovery
- 2/3/2009 difficulties with obtaining DNAPL/water interface with new tape
- 3/18/09 - only performed DNAPL recovery at HG-15S
- starting on 8/20/09 - used peristaltic pump at HG-11S & HG-15S; stain observed at HG-16D and M-22B
- 10/21/2009 - FW-6 no longer measured due to Upper Floridan IRM







GAINESVILLE REMEDIAL DESIGN

ID	WBS	Task Name	Duration	Predecessors	Start	Finish	1Q13		2Q13		3Q13		4Q13		1Q14		2Q14		3Q14		4Q14		1Q15		2Q15		3Q15		4Q15		1Q16		2Q16		3Q16		4Q16		1Q17				
							J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J
162	9.7	EPA and FDEP Approval of ICIAP	0 wks	161	Fri 2/14/14	Fri 2/14/14																																					
163	<b>9.8</b>	<b>Implement Beazer-Property Restrictive Covenant</b>	<b>47 wks</b>		<b>Fri 2/14/14</b>	<b>Fri 1/9/15</b>																																					
164	9.8.1	Draft Proprietary Controls Package	13 wks	162	Fri 2/14/14	Fri 5/16/14																																					
165	9.8.2	Submit Draft Proprietary Controls Package	0 wks	164	Fri 5/16/14	Fri 5/16/14																																					
166	9.8.3	Review and Updating	8 wks	165	Fri 5/16/14	Fri 7/11/14																																					
167	9.8.4	Update Title Search and Prepare Public Notice	8 wks	166	Fri 7/11/14	Fri 9/5/14																																					
168	9.8.5	Beazer Publish Public Notice	0 wks	167	Fri 9/5/14	Fri 9/5/14																																					
169	9.8.6	Public Comment Period	4.4 wks	168	Fri 9/5/14	Tue 10/7/14																																					
170	9.8.7	Address Comments and Exectute Restrictive Covenant	5 wks	169	Tue 10/7/14	Tue 11/11/14																																					
171	9.8.8	Record Restrictive Covenant at Alacha County Clerk of Court	0 wks	170	Tue 11/11/14	Tue 11/11/14																																					
172	9.8.9	Prepare Final Proprietary Controls Package	8.6 wks	171	Tue 11/11/14	Fri 1/9/15																																					
173	9.8.10	Submit Final Proprietary Controls Package	0 wks	172	Fri 1/9/15	Fri 1/9/15																																					

