



Consulting Engineers
and Scientists

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March 17, 2014
PBW Project No. 1358

VIA EMAIL

Mr. Kirk Coulter
MC-127
Environmental Cleanup Section I, Team 3, Remediation Division
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: DNAPL Recovery Pilot Test – 12-Month Status Update (February 2013 – January 2014)
Union Pacific Railroad Houston Wood Preserving Works Facility
4910 Liberty Road Facility, Houston, Texas
Post-Closure Care Permit No. HW-50343; Industrial SWR No. 31547

Dear Mr. Coulter:

Pastor, Behling & Wheeler, LLC (PBW), on behalf of Union Pacific Railroad Company, is providing this status update for the dense non-aqueous phase liquid (DNAPL) recovery pilot test being conducted at the Houston Wood Preserving Works Facility (the Site). As detailed in the PBW letter dated February 5, 2013, PBW proposed to conduct a 24-month DNAPL recovery pilot test at the Site consisting of monthly manual DNAPL recovery. This letter discusses the DNAPL recovery pilot test activities and results for the first 12 months of the study (February 2013 through January 2014).

The following monitoring wells were selected to be included in the DNAPL recovery test based on the amount of DNAPL historically observed in the wells:

Well Name	Zone	Min. DNAPL Thickness (ft.)	Max DNAPL Thickness (ft.)
MW-57A	A-TZ	4.11	4.25
MW-12B	B-TZ	0.41	5.70
MW-41B	B-TZ	5.06	24.14
MW-57B	B-CZ	0.44	0.50
MW-32B	B-CZ	5.77	6.13
MW-33BR	B-CZ	0.30	0.30
MW-70B	B-CZ	1.44	1.53
MW-75B	B-CZ	1.84	1.90
MW-34C	C-TZ	7.24	7.60
MW-44C	C-TZ	0.75	7.10
MW-45C	C-TZ	0.39	1.50
MW-46C	C-TZ	0.10	1.25

Notes:

Average depth to water values, minimum and maximum DNAPL thicknesses based on data collected between January 2011 and December 2012.

Figure 1 shows the location of the wells used in the pilot study.

The pilot test procedures consisted of measuring the depth to groundwater surface, the depth to the groundwater/DNAPL interface, and the total depth of the well relative to the top of well casing prior to DNAPL recovery. Using a peristaltic pump, DNAPL was pumped from the bottom of the well until groundwater is returned in the pump discharge. The volume of recovered DNAPL was estimated from each well, and the well was gauged to measure the total depth of the well and depth to residual DNAPL following pumping. Recovered DNAPL was temporarily stored at the Containment Storage Area. Waste manifests for the recovered DNAPL and groundwater are provided in Attachment A.

A summary of the DNAPL recovery measurements from February 2013 through January 2014 is provided on Table 1. DNAPL thicknesses prior to each month recovery efforts over time are presented on Figure 2. Observations from the recovery testing are provided below:

- Monitoring wells with the thickest DNAPL measurements included MW-12B and MW-41B on the west side of the Site (Figure 1). DNAPL thicknesses increased following the February 2013 recovery event in MW-12B (May 2013) and in MW-41B (June 2013). However, DNAPL thickness in well MW-12B gradual decreased from 8.18 feet in May 2013 to less than a foot thick measured in the well in January 2014. DNAPL thickness in MW-41B decreased from the August 2013 event (measured at 10.26 feet) but has leveled out to about 5.5 feet thick over the last two months (Figure 2).
- The other DNAPL wells tested showed significant decreases in DNAPL thicknesses over the first two months of testing, with some sporadic increases from May through August 2013 (Figure 2). Overall, over the 12-month period DNAPL thicknesses in the wells generally decreased to less than one-foot thick, except in MW-32B, which has leveled out between 1.13 feet and 1.26 feet over the past four months.
- DNAPL thickness in well MW-57B decreased from 1.28 feet thick in July 2013 to less than measureable (DNAPL noted on end of probe) thickness in January 2014. DNAPL thickness in MW-44C followed a similar pattern decreasing from 0.54 feet in July 2013 to no measureable thickness in December 2013, but increased to 0.38 feet in January 2014.
- Of the 12 wells tested as part of the pilot test, well MW-33BR did not have any measureable DNAPL during the 12-month period. Well MW-34C was gauged in October 2013, and no DNAPL was measured in the well. Since a street lane closure permit through the City of Houston is required for this well for the testing and no DNAPL was measured during the October 2013 event, this well was removed from the list of wells tested for the next 12-month period.
- An estimated total of 79 gallons of DNAPL have been recovered during the 12-month period, with monthly DNAPL recovery volumes slightly decreasing over the past six months to around 5.5 gallons. Approximately 47% of the DNAPL recovered is from wells MW-12B and MW-41B.

The preliminary results from the DNAPL recovery pilot test after the first 12 months indicate the following:

- Once per month DNAPL recovery activities are resulting in an overall decreasing DNAPL thickness trend in the wells tested.
- The current monthly recovery frequency appears to be effective with total DNAPL volume recovered decreasing in the wells over time. Given the decreasing trend, more frequent recovery activities would not likely be effective in increasing overall DNAPL recovery.

UPRR plans to continue the monthly DNAPL pilot test recovery efforts, and will submit the next status report following the July 2014 recovery event. Concurrently with the pilot test, PBW is assessing the recovery data for evaluating more effective DNAPL recovery efforts.

Mr. Kirk Coulter, TCEQ
DNAPL Recovery Pilot Test – 12-Month Status Update
UPRR HWPW, Houston, Texas
March 17, 2014
Page 3 of 3

If you have any questions or need additional information, please feel free to call me at (512) 671-3434 or Mr. Geoffrey Reeder of UPRR at (281) 350-7197.

Sincerely,

PASTOR, BEHLING & WHEELER, LLC

A handwritten signature in black ink, appearing to read 'Eric C. Matzner', with a stylized, cursive script.

Eric C. Matzner, P.G.
Senior Consultant

cc: Waste Program Manager, TCEQ Region 12, Houston
Mr. Geoffrey Reeder, P.G., UPRR – Spring, TX

TABLES

TABLE 1

**SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS**

DNAPL Recovery Date	MW-12B				MW-32B				MW-33BR				MW-34C			
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
2/14/2013	9.06	39.87	5.93	2.5	6.01	30.06	6.23	2	3.72	ND	0	---	NM	NM	NM	---
4/3/2013	9.41	39.95	5.85	1	4.86	33.61	2.68	1	4.02	PoP	0	---	NM	NM	NM	---
4/22/2013	8.61	31.64	14.16	0.5*	5.62	36.08	0.21	0.25	3.63	ND	0	---	NM	NM	NM	---
5/30/2013	8.47	37.62	8.18	1.5*	5.86	32.21	4.08	2	3.59	ND	0	---	NM	NM	NM	---
6/29/2013	9.62	38.22	7.58	1.5	6.79	33.59	2.7	1.5	6.07	ND	0	---	NM	NM	NM	---
7/22/2013	11.16	39.04	6.76	1	7.14	33.91	2.38	1.5	9.68	ND	0	---	NM	NM	NM	---
8/26/2013	11.31	39.61	6.19	1	7.48	33.83	2.46	1	9.86	ND	0	---	NM	NM	NM	---
9/27/2013	11.17	40.63	5.17	1	7.23	34.39	1.9	1	9.57	ND	0	---	NM	NM	NM	---
10/31/2013	11.09	43.71	2.09	1	7.16	34.96	1.33	0.53	9.32	ND	0	---	21.63	NM	NM	---
11/27/2013	11.17	44.06	1.74	1	7.29	35.03	1.26	0.53	9.16	ND	0	---	NM	NM	NM	---
12/31/2013	11.02	44.62	1.18	1	7.16	35.16	1.13	0.5	8.97	ND	0	---	NM	NM	NM	---
1/30/2014	11.34	45.12	0.68	1	6.72	34.82	1.47	0.53	7.41	ND	0	---	NM	NM	NM	---

DNAPL Recovery Date	MW-41B				MW-44C				MW-45C				MW-46C			
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
2/14/2013	8.91	41.1	3.71	3	18.96	62.95	7.85	1	21.26	69.9	0.7	0.25	21.07	71.3	1.6	0.25
4/3/2013	9.37	41.6	3.21	1.5	19.34	70.47	0.33	0.25*	21.39	70.39	0.21	0.25*	20.61	72.36	0.54	0.25*
4/22/2013	8.62	41.6	3.21	0.5*	18.62	70.64	0.16	0.25*	21.03	70.47	0.13	0.25*	20.61	72.61	0.29	0.25*
5/30/2013	8.73	34.16	10.65	2	18.43	70.01	0.79	0.25*	21.16	70.25	0.35	0.25*	20.59	71.61	1.29	0.25*
6/29/2013	9.72	37.12	7.69	2	19.34	70.32	0.48	0.25	21.93	70.32	0.28	0.25*	21.09	72.34	0.56	0.25*
7/22/2013	10.31	39.29	5.52	1.5	20.36	70.26	0.54	0.25	22.72	70.39	0.21	0.25*	21.96	72.16	0.74	0.25*
8/26/2013	10.09	34.55	10.26	2.5	20.62	70.39	0.41	0.25	22.86	70.31	0.29	0.25	22.23	72.32	0.58	0.25
9/27/2013	9.63	37.29	7.52	2	20.39	70.61	0.19	0.25	22.66	70.17	0.43	0.25	22.09	72.09	0.81	0.25
10/31/2013	9.52	38.16	6.65	2	20.17	70.75	0.05	0.066	22.59	70.42	0.18	0.13	22.41	72.34	0.56	0.2
11/27/2013	9.57	38.39	6.42	2	20.09	70.78	0.02	---	22.52	70.49	0.11	---	22.31	72.47	0.43	0.07
12/31/2013	9.42	39.36	5.45	2	20.01	70.8	PoP	---	22.39	70.46	0.14	---	22.03	72.53	0.37	0.07
1/30/2014	9.06	39.17	5.64	2	19.67	70.42	0.38	0.25	22.13	70.35	0.25	---	21.81	72.55	0.35	0.07

DNAPL Recovery Date	MW-57A				MW-57B				MW-70B				MW-75B				Approx DNAPL Recovered (gal)
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	
2/14/2013	10.56	22.12	4.78	0.5	28.56	41.41	1.54	0.25	6.57	34.09	1.61	0.25	10.01	34.1	3.1	0.25	10.25
4/3/2013	10.32	24.79	2.11	0.5	28.09	42.36	0.59	0.25*	6.79	35.26	0.44	0.25	13.71	36.47	0.73	0.25	5.5
4/22/2013	10.71	25.85	1.05	0.5	27.06	42.17	0.78	0.25	6.06	35.12	0.58	0.25	9.72	36.72	0.48	0.25	3.25
5/30/2013	10.63	24.16	2.74	0.5	27.13	41.63	1.32	0.25	6.19	34.67	1.03	0.25	9.61	35.09	2.11	0.75	7.25
6/29/2013	12.16	23.82	3.08	2	18.26	42.07	0.88	0.25	8.01	34.92	0.78	0.25*	10.61	35.61	1.59	0.75	8.25
7/22/2013	13.21	23.05	3.85	2	16.34	41.67	1.28	0.75	8.22	34.07	1.63	0.25*	9.74	35.71	1.49	0.75	7.5
8/26/2013	12.91	25.32	1.58	1	18.01	42.31	0.64	0.25	8.17	35.09	0.61	0.25	10.76	35.93	1.27	0.75	7.5
9/27/2013	12.72	25.71	1.19	0.75	17.74	42.51	0.39	0.25	8.32	35.34	0.36	0.25	10.52	36.39	0.81	0.5	6.5
10/31/2013	12.72	25.92	0.98	1	17.61	42.61	0.29	0.07	8.26	35.39	0.31	0.07	10.31	36.47	0.73	1	6.07
11/27/2013	12.61	25.98	0.92	1	17.54	42.67	0.23	0.07	8.12	35.42	0.28	0.07	10.39	36.51	0.69	1	5.74
12/31/2013	12.46	26.09	0.81	1	17.36	42.74	0.16	0.07	7.89	35.51	0.19	0.07	10.13	36.72	0.48	1	5.71
1/30/2014	11.79	26.15	0.75	0.25	17.04	NM	PoP	---	7.84	35.06	0.64	0.07	12.62	36.49	0.71	0.75	5.52

Notes:

* - indicates DNAPL and groundwater mixture

--- - No DNAPL pumped

DTW - Depth to water (feet Below Top of Casing (BTOC))

DTD - Depth to DNAPL (feet BTOC)

ND - Not detected

NM - Not measured

PoP - Product on probe, not measurable

FIGURES

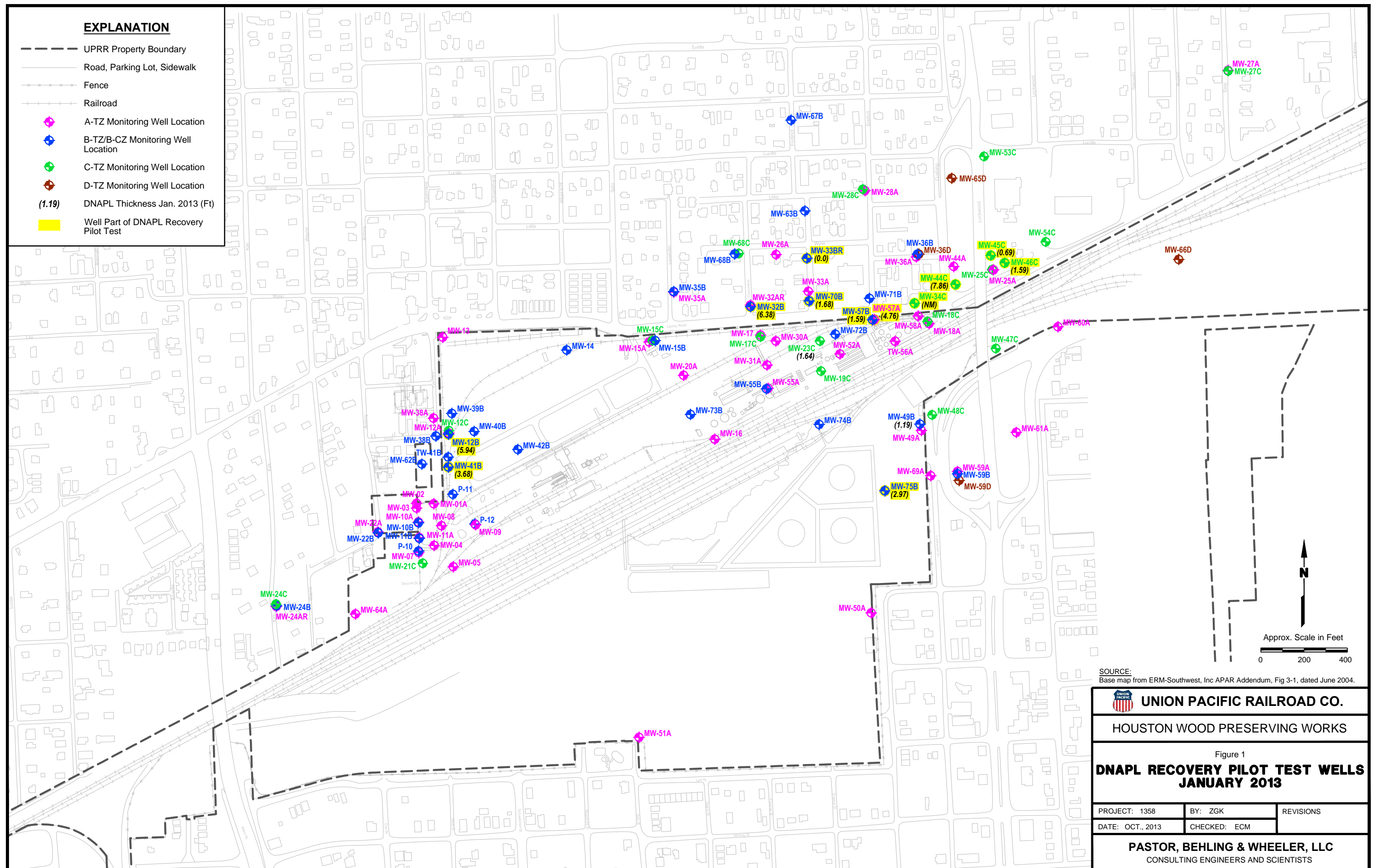
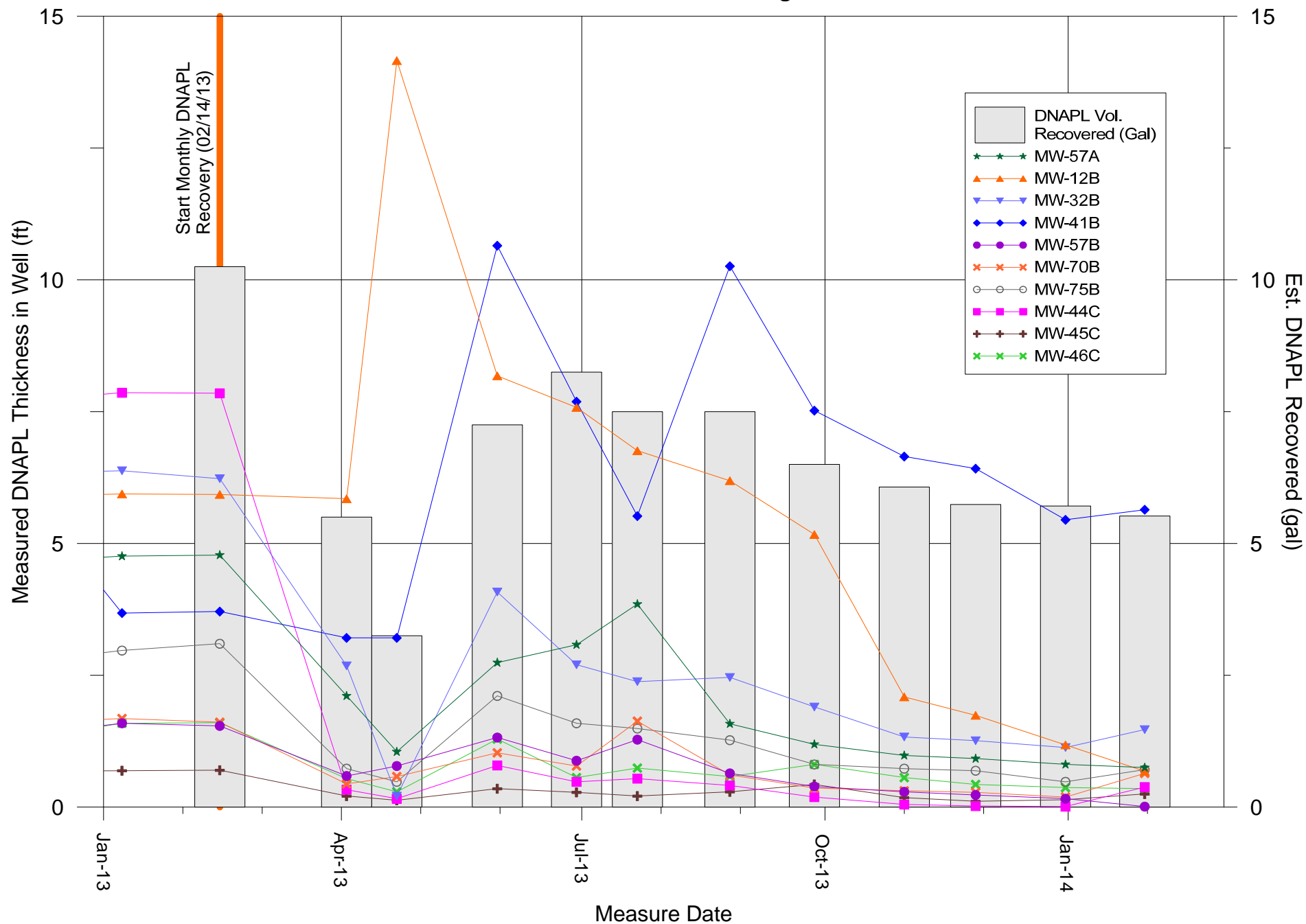


Figure 2
DNAPL Recovery Pilot Test February 2013 - January 2014
UPRR Houston Wood Preserving Works



ATTACHMENT A
WASTE MANIFESTS

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number TXD000820266	2. Page 1 of 1	3. Emergency Response Phone 888-780-3118	4. Manifest Tracking Number 011140887 JJK			
5. Generator's Name and Mailing Address UNION PACIFIC RAILROAD c/o USA, P.O. Box 67687 Houston, TX 77287				Generator's Site Address (if different than mailing address) 4910 Liberty Road Houston, TX 77287				
Generator's Phone: 281-350-7197				U.S. EPA ID Number TXR000032045				
6. Transporter 1 Company Name USA WASTE TRANSPORTATION SERVICES				U.S. EPA ID Number				
7. Transporter 2 Company Name				U.S. EPA ID Number				
8. Designated Facility Name and Site Address CLEAN HARBORS DEER PARK, LLC 2027 INDEPENDENCE PARKWAY SOUTH LA PORTE, TX 77571				U.S. EPA ID Number TXD065141978				
Facility's Phone: 281-830-2300								
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes		
		No.	Type					
X	1. UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., 8, PGIII, RQ (CREOSOTE) 1X55-DM	001	DM	250	P	9918	219H	F034
X	2. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S. (F034 WATER), 9, PGIII 1X55-DM	001	DM	350	P	0914	101H	F034
	3.							
	4.							
14. Special Handling Instructions and Additional Information 1)CH828200 2)CH228097								2469-ID-H156
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Officer's Printed/Typed Name GEOFFREY REEDER					Signature GEOFFREY REEDER		Month Day Year 5 14 13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
17. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name L. DE. MONE HATCH					Signature L. De Mone Hatch		Month Day Year 5 14 13	
Transporter 2 Printed/Typed Name					Signature		Month Day Year	
18. Discrepancy								
18a. Discrepancy Indication Specie <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
Manifest Reference Number: _____								
18b. Alternate Facility (or Generator) U.S. EPA ID Number								
Facility's Phone: _____								
18c. Signature of Alternate Facility (or Generator) Month Day Year								
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1.		2.		3.		4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name					Signature		Month Day Year	

DX7697138
*DX7697138

SC PPW 3/02/2011

2469-TD-H156

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number TXD000820286	2. Page 1 of 1/2	3. Emergency Response Phone 888-780-3116	4. Manifest Tracking Number 011917032 JJK			
5. Generator's Name and Mailing Address UNION PACIFIC RAILROAD c/o USA, P.O. Box 87687 Houston, TX 77287		Generator's Site Address (if different than mailing address) 4910 Liberty Road Houston, TX 77287						
Generator's Phone: 281-350-7197		U.S. EPA ID Number TXR000032045						
6. Transporter 1 Company Name USA WASTE TRANSPORTATION SERVICES		U.S. EPA ID Number TXD055141378						
7. Transporter 2 Company Name Clean Harbors Env. Svcs.		U.S. EPA ID Number TXD055141378						
8. Designated Facility Name and Site Address CLEAN HARBORS DEER PARK, LLC 2027 INDEPENDENCE PARKWAY SOUTH LA PORTE, TX 77571		Facility's Phone: 281-930-2300						
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes	
	X	1. NA3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., PGIII, RQ (CREOSOTE) 9.	0042 1	DM	250	P	0918	219H F034
	X	2. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S. (F034 PURGE WATER), 9, PGIII	004 2	DM	350	P	0914	101H F034
		3.						
		4.						
14. Special Handling Instructions and Additional Information 1)CH629200 2)CH228097								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Officer's Printed/Typed Name GEOFFREY REEDER		Signature GEOFFREY REEDER		Month Day Year 18 13 13				
INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:					
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name L. DE MONE HATCH		Signature L. De Mone Hatch		Month Day Year 18 13 13			
	Transporter 2 Printed/Typed Name Dynda OBrien, Agent for CHES		Signature Dynda OBrien		Month Day Year 18 14 13			
DESIGNATED FACILITY	18. Discrepancy							
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
	Manifest Reference Number:							
	18b. Alternate Facility (or Generator) Facility's Phone: U.S. EPA ID Number							
18c. Signature of Alternate Facility (or Generator) Month Day Year								
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. H060 2. H060 3. 4.								
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a		Printed/Typed Name Terri Stanner		Signature Terri Stanner		Month Day Year 18 12 13		

2469-TD-H156

DX 8449785

Form Approved, OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number TXD000820286	2. Page 1 of 2	3. Emergency Response Phone 888-780-3118	4. Manifest Tracking Number 012110684 JJK
5. Generator Name and Mailing Address UNION PACIFIC RAILROAD c/o USA, P.O. Box 87687 Houston, TX 77287		Generator's Site Address (if different from mailing address) 4010 Liberty Road Houston, TX 77287			
Generator's Phone: 281-580-7187					
6. Transporter 1 Company Name USA WASTE TRANSPORTATION SERVICES		U.S. EPA ID Number TXD000032046			
7. Transporter 2 Company Name Clean Harbors Env Sv		U.S. EPA ID Number MA003932229			
8. Designated Facility Name and Address 2027 INDEPENDENCE PARKWAY SOUTH LA PORTE, TX 77671		U.S. EPA ID Number TXD068141378			
Facility's Phone: 281-950-2300					
GENERATOR	9a. HUI	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type	11. Total Quantity	12. Unit Vol./Wt.
	X	1. NA3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., PGH, RQ (CREOSOTE)	001 DM	250	P
13. Waste Codes 0918 2104 F034					
14. Special Handling Instructions and Additional Information CREOSOTE					
15. GENERATOR/IMPORTER'S CERTIFICATION: I hereby declare that the contents of this assignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this assignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste characterization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Importer's Printed/Typed Name GEOFFREY REEDER		Signature GEOFFREY REEDER		Month Day Year 12/10/13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of export/leave: Date leaving U.S.:					
Transporter signature (for exports only):					
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name L. De Mone Hutch		Signature L. De Mone Hutch		Month Day Year 12/11/13	
Transporter 2 Printed/Typed Name Lynda O'Brien Agent for CHES		Signature Lynda O'Brien		Month Day Year 12/11/13	
18. Discrepancy					
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Package <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
18b. Discrepancy Indication Space					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1. H000 2. 3. 4.					
20. Designated Facility Owner or Operator: (Declaration of receipt of hazardous materials covered by the manifest except as noted in Item 18)					
Printed/Typed Name Terri Shriver		Signature Terri Shriver		Month Day Year 12/13/13	

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)