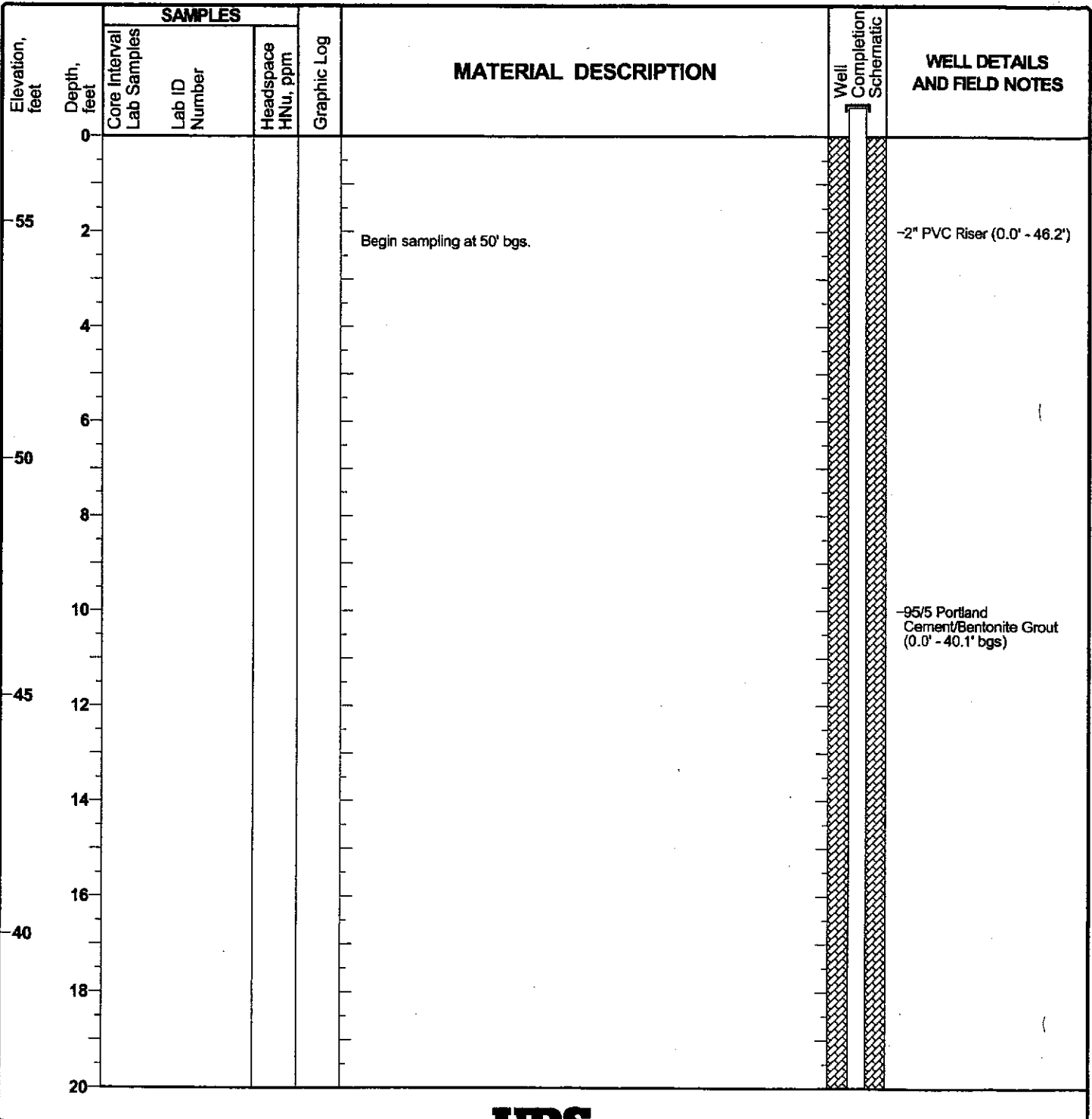


DC52-121

<b>Project:</b> Motiva - Monitoring Well and Soil Boring Data	<b>Log of Monitoring Well 9MW-11</b> Sheet 1 of 4
<b>Project Location:</b> Delaware City Refinery	
<b>Project Number:</b> 20240412.W1000	

Date(s) Drilled: 6/15/2007	Logged By: A Clark	Checked By:
Drilling Method: Geoprobe / Hollow Stem Auger	Drill Bit Size/Type:	Total Depth of Borehole: 67.0 feet
Drill Rig Type: Geoprobe 6620DT / MobileDrill B59	Drilling Contractor: BL Myers	Surface Elevation: 56.81 NAVD88
Groundwater Level(s):	Sampling Method(s):	Top of Casing Elevation:
Location: Methanol Plant	Borehole Completion:	



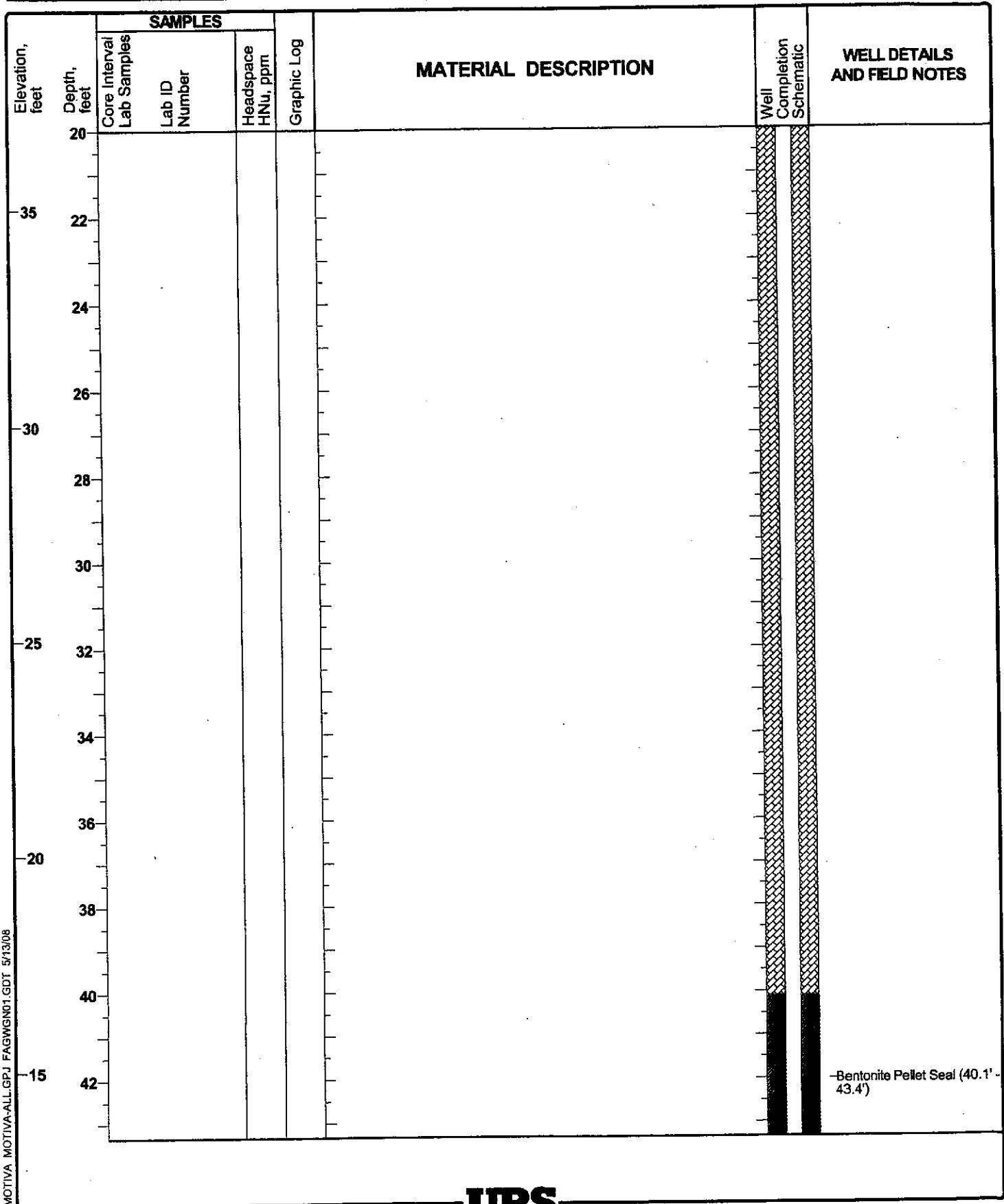
MOTIVA MOTIVA-ALL.GPJ FAGWGN01.GDT 5/13/08



Project: Motiva - Monitoring Well and Soil Boring Data  
 Project Location: Delaware City Refinery  
 Project Number: 20240412.W1000

Log of Monitoring Well 9MW-11

Sheet 2 of 4



MOTIVA MOTIVA-ALL.GPJ FAGWGN01.GDT 5/13/08

Elevation, feet	Depth, feet	SAMPLES			Graphic Log	MATERIAL DESCRIPTION	Well Completion Schematic	WELL DETAILS AND FIELD NOTES
		Core Interval Lab Samples	Lab ID Number	Headspace H <sub>2</sub> O, ppm				
44								
								-No. 2 Sand Filter Pack (43.4' - 66.2')
10	46							-2", 0.020" Slotted PVC Screen (46.2' - 66.2')
	48							
	50					Begin sampling at 50' bgs.		
	52					SAND, fine and SILT; wet, brownish yellow (10YR 6/8). GRAVEL, f-c, subrounded, some fine SAND, trace SILT. SAND, fine, some medium, few black mottles; brownish yellow (10YR 6/8 - 6/6). SAA, trace medium SAND; strong brown. lithified, very dark gray. SAND, fine, some to no SILT; bands of yellow (10YR 7/6), reddish yellow (7.5YR 6/8), strong brown (7.5YR 4/6), black brown (7.5YR 3/4), dark yellowish brown (10YR 3/4). SAND, fine, little medium, few black mottles; wet. No recovery.		All samples screened with PID, all readings 0.0ppm
5	54							
	56					SAND, fine, little medium, few black mottles; wet, brownish yellow to yellowish brown. No recovery.		
0	58							
	60					SAND, fine, little medium, few black mottles; wet, brownish yellow to yellowish brown. SAND, medium, little fine; brownish yellow (10YR 6/8). SAND, f-m, trace SILT; brownish yellow (10YR 6/8). SAND, fine, trace SILT; bands of dark yellow brown (10YR 4/4), yellow brown (10YR 5/6 - 4/6). 0.05' GRAVEL, lithified layer; very dark gray to black at 61.45' SILTY CLAY; laminated strong brown (7.5YR 5/8) and gray (7.5YR 6/1) with very dark gray (10YR 3/1) laminations at bottom. No recovery.		Columbia-Merchantville Contact (61.5')
-5	62							
	64							
	66					CLAY, some SILT, micaceous; stiff, very dark gray (10YR 3/1).		-No. 2 Sand Backfill (66.2' - 67.0')

MOTIVA MOTIVA-ALL.GPJ FAGWGN01.GDT 5/13/08

Project: Motiva - Monitoring Well and Soil Boring Data  
 Project Location: Delaware City Refinery  
 Project Number: 20240412.W1000

Log of Monitoring Well 9MW-11

Sheet 4 of 4

Elevation, feet	Depth, feet	SAMPLES			Graphic Log	MATERIAL DESCRIPTION	Well Completion Schematic	WELL DETAILS AND FIELD NOTES
		Core Interval Lab Samples	Lab ID Number	Headspace H/Nu, ppm				
-10						No recovery. End of boring at 67' bgs.		
	68							
	70							
-15	72							
	74							
	76							
-20	78							
	80							
	82							
-25	84							
	86							
-30	88							
	90							

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