



Department of Energy
Savannah River Operations Office
P.O. Box A
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JUN 28 2010

Mr. Van Keisler, P. G., Manager
Federal Facility Agreement Section
Division of Site Assessment, Remediation and Revitalization
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Mr. Robert H. Pope
Savannah River Site Remedial Project Manager
Superfund Division
U. S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303

Dear Mr. Keisler and Mr. Pope:

SUBJECT: Submittal of the K-Area Burning/Rubble Pit and Rubble Pile (131-K and 631-20G) Operable Unit (KBRP OU), L-Area Burning/Rubble Pit and Rubble Pile (131-L, 131-3L, and 131-2L) OU (LBRP OU), and P-Area Burning/Rubble Pit (131-P) OU (PBRP OU) Combined Groundwater Monitoring Report, CERCLIS Numbers: 40, 56, and 59

REFERENCE: Submittal of the Proposal to Standardize Sampling and Reporting Requirements of Groundwater Data for P, L, and K Area Burning/Rubble Pit Operable Units, CERCLIS Numbers 59, 56, 40 (Correspondence #ACP-08-133, dated January 15, 2008)

In accordance with the terms of the Federal Facility Agreement and the Record of Decision (ROD) documents for the KBRP OU (WSRC-RP-97-862), LBRP OU (WSRC-RP-98-4195) and PBRP OU (WSRC-RP-2000-4197), the U. S. Department of Energy (DOE) is submitting the 2009 combined groundwater monitoring report indicated in the subject line above.

During January 2008, a Core Team agreement to combine the three OUs' groundwater data summaries was documented in the referenced letter of proposal to standardize sampling and reporting requirements (ACP-08-133). This agreement, which modified the three OUs' respective RODs referenced above, is fulfilled by submitting a combined sampling summary via a letter, annually, and a detailed groundwater report every five (5) years. The combined sampling summary reporting began in June 2008. Previous annual report data is also available for years 2006 and 2007. A report containing five (5) years of detailed groundwater data is scheduled to be submitted in year 2012.

The combined groundwater monitoring report titled, *2009 KLP BRP Annual Groundwater Data Summary Report*, follows.

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2009 KLP BRP Annual Groundwater Data Summary Report

K-Area Burning/Rubble Pit and Rubble Pile Operable Unit (KBRP OU)

The fifteen mixing zone wells at KBRP were sampled two times during the second and fourth quarters of calendar year 2009. Analytical results indicated that tetrachloroethylene (PCE) and trichloroethylene (TCE) concentrations remained about the same in 2009 from values in 2008. Contamination remains in the upper aquifer (AA horizon). All fifteen wells were below their respective MZCL or MCL in both quarters, as shown in Table 1. TCE and PCE collected from KRP 8 have dropped below their respective MCLs from 2008 to 2009. Second quarter data from KRP 6 is not available due to a decrease in water elevation that prevented sampling. Figure 1 shows the monitoring network and the PCE distribution for the fourth quarter.

Table 1: KBRP PCE and TCE Monitoring Well Data for 2009

Well	Well Type	PCE Trigger Level (µg/L)	PCE		TCE Trigger Level (µg/L)	TCE	
			2Q	4Q		2Q	4Q
KRP 4	Plume	43 ^a	1.1	ND	61 ^a	0.53	ND
KRP 5	Plume	43 ^a	ND	ND	61 ^a	ND	ND
KRP 6	Plume	43 ^a	ND	-	61 ^a	ND	-
KRP 7	Compliance	5 ^b	0.73	ND	5 ^b	ND	ND
KRP 8	Plume	43 ^a	4.8	4.32	61 ^a	3.5	2.54
KRP 9	Auxiliary Plume	43 ^a	19	19.4	61 ^a	19	18.9
KRP 10C	Intermediate	5 ^b	ND	ND	5 ^b	ND	ND
KRP 10D	Intermediate	5 ^b	ND	ND	5 ^b	ND	ND
KRP 11C	Intermediate	5 ^b	ND	ND	5 ^b	ND	ND
KRP 11D	Intermediate	5 ^b	ND	ND	5 ^b	ND	ND
KRP 12C	Compliance	5 ^b	ND	ND	5 ^b	ND	ND
KRP 12D	Compliance	5 ^b	ND	ND	5 ^b	ND	ND
KRP 13D	Compliance	5 ^b	ND	ND	5 ^b	ND	ND
KRP 15C	Compliance	5 ^b	ND	ND	5 ^b	ND	ND
KRP 15D	Compliance	5 ^b	ND	ND	5 ^b	ND	ND

ND = Not Detected

Bold values exceed the MCL

a = MZCL b = MCL

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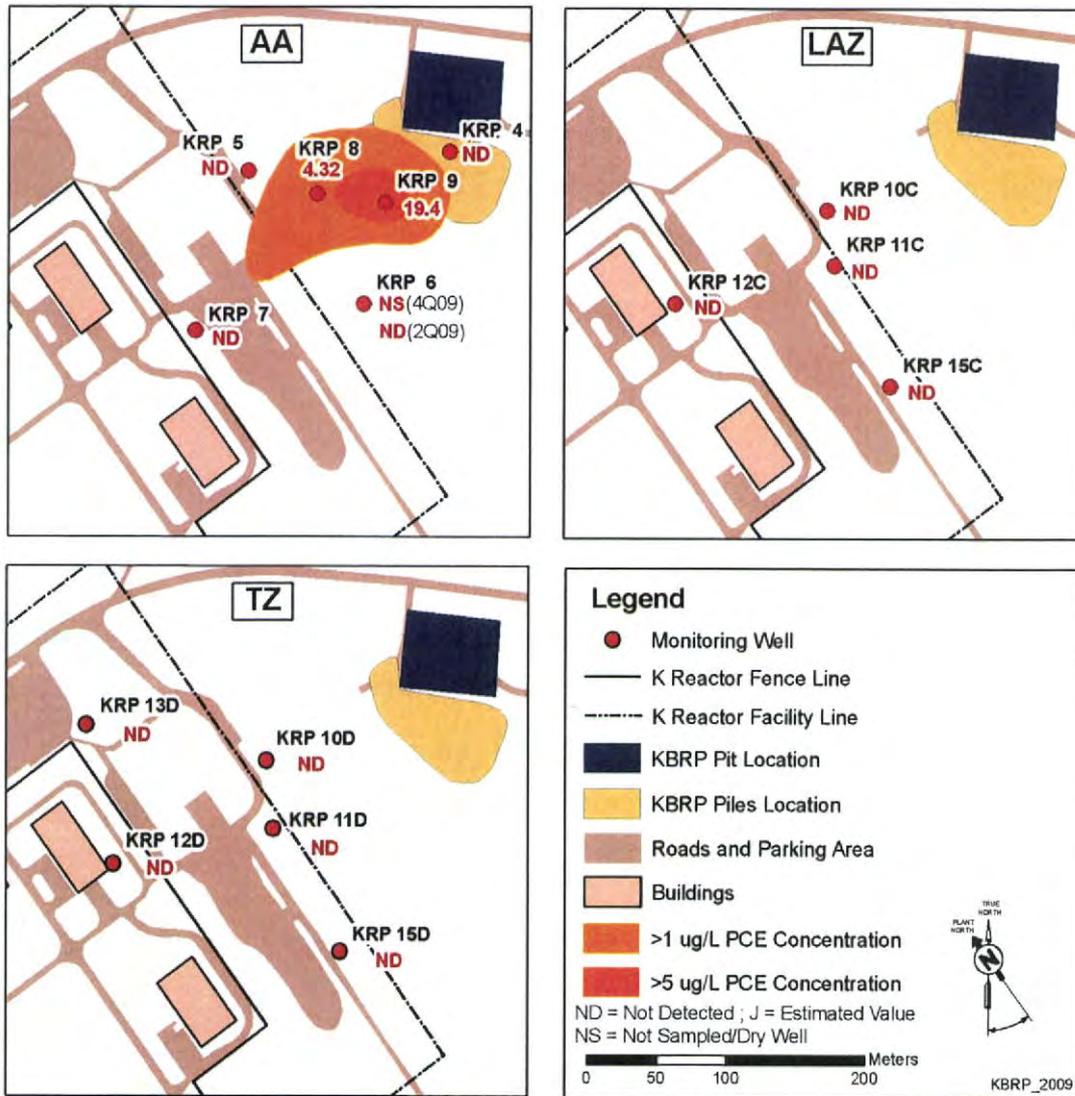


Figure 1: KBRP Monitoring Well Network and 4Q09 PCE Concentrations (µg/L)

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L-Area Burning/Rubble Pit and Rubble Pile OU (LBRP OU)

The five mixing zone wells at LBRP were sampled in the second and fourth quarters in calendar year 2009. The seepage station was sampled once in 2009 during the second quarter. Carbon tetrachloride (CCl₄) concentrations increased during 2009 from 2008 concentration at well LRP 6R. Most of the other monitoring stations slightly increased or remained the same during 2009 compared to 2008 values. Figure 2 shows the monitoring network and the CCl₄ distribution for the fourth quarter.

Table 2: LBRP CCl₄ Data for 2009

Station	Station Type	PCE Trigger Level (µg/L)	CCl ₄	
			2Q	4Q
LRP 6R	Plume	13 ^a	8.9	6.92
LRP 7D	Plume	13 ^a	0.71	1.18 J
LRP 8D	Compliance	5 ^b	0.69	1.1 J
LRP 9D	Compliance	5 ^b	0.62	1.02 J
LRP 10D	Compliance	5 ^b	ND	ND
LBRP-SP-01	Seepage Surface Water	5 ^b	ND	Not Required

ND = Not Detected

J = Estimated Quantity

Bold values exceed the MCL

a = MZCL b = MCL

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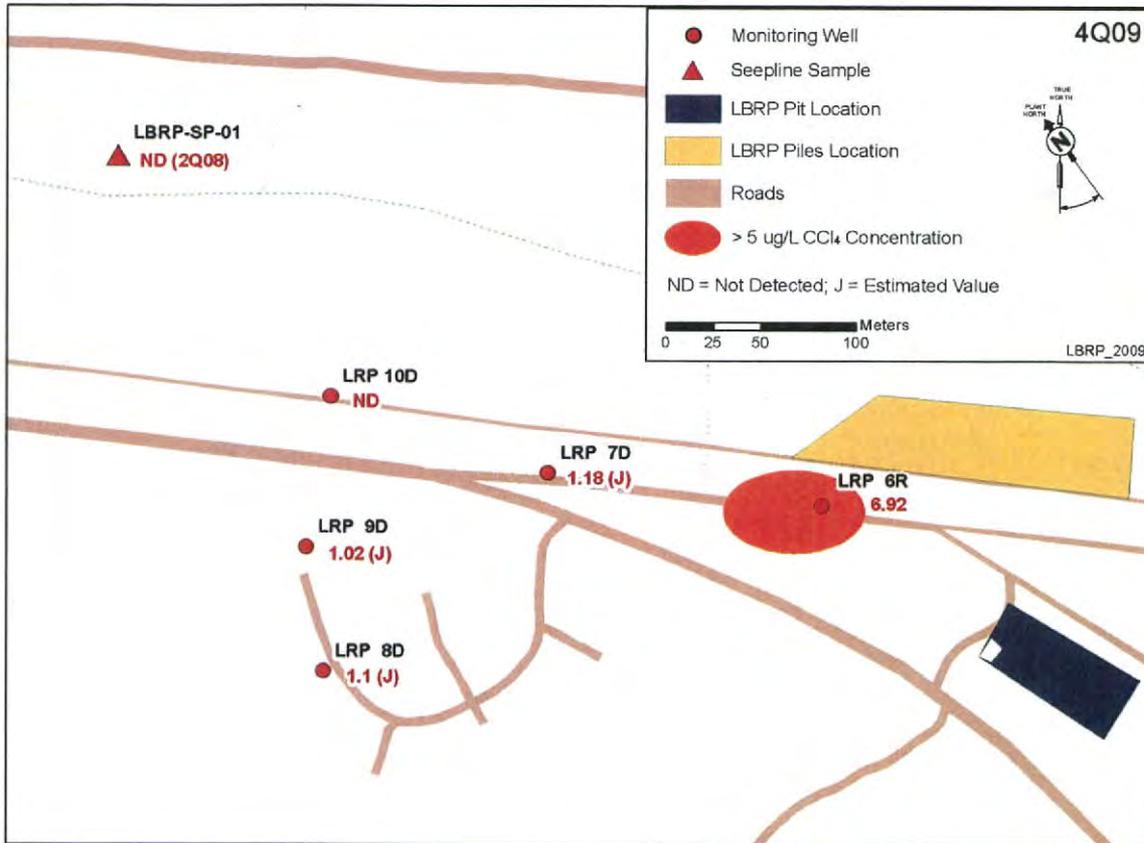


Figure 2: LBRP CCl₄ Plume and Monitoring Well Network during 4Q09

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P-Area Burning/Rubble Pit OU (PBRP OU)

The three wells at PBRP were sampled once in calendar year 2009 during the fourth quarter. All contaminant values either remained the same or slightly decreased in 2009 from 2008 values. All six analytes at PRP 5 remained non-detect. The 1,1-Dichloroethylene in well PRP 6 still exceeds its MCL, however, the level has decreased slightly from the 2008 value. Table 3 shows all the results for the three wells. Figure 3 shows the monitoring network and the PCE distribution for the fourth quarter.

Table 3: PBRP Groundwater Data for 2009

Analyte	MCL (µg/L)	4Q		
		PRP 5	PRP 6	PRP 7
1,1,1-Trichloroethane (1,1,1- TCA)	200	ND	ND	ND
1,1-Dichloroethylene (1,1-DCE)	7	ND	20.4	2.71
Cis-1,2-Dichloroethylene (c-DCE)	70	ND	2.39 J	2.24 J
Tetrachloroethylene (PCE)	5	ND	2.99	3.28
Trichloroethylene (TCE)	5	ND	3.98	3.68
Chloroethene (Vinyl Chloride) (VC)	2	ND	ND	ND

ND = Not Detected

J = Estimated Value

Bold values exceed the MCL

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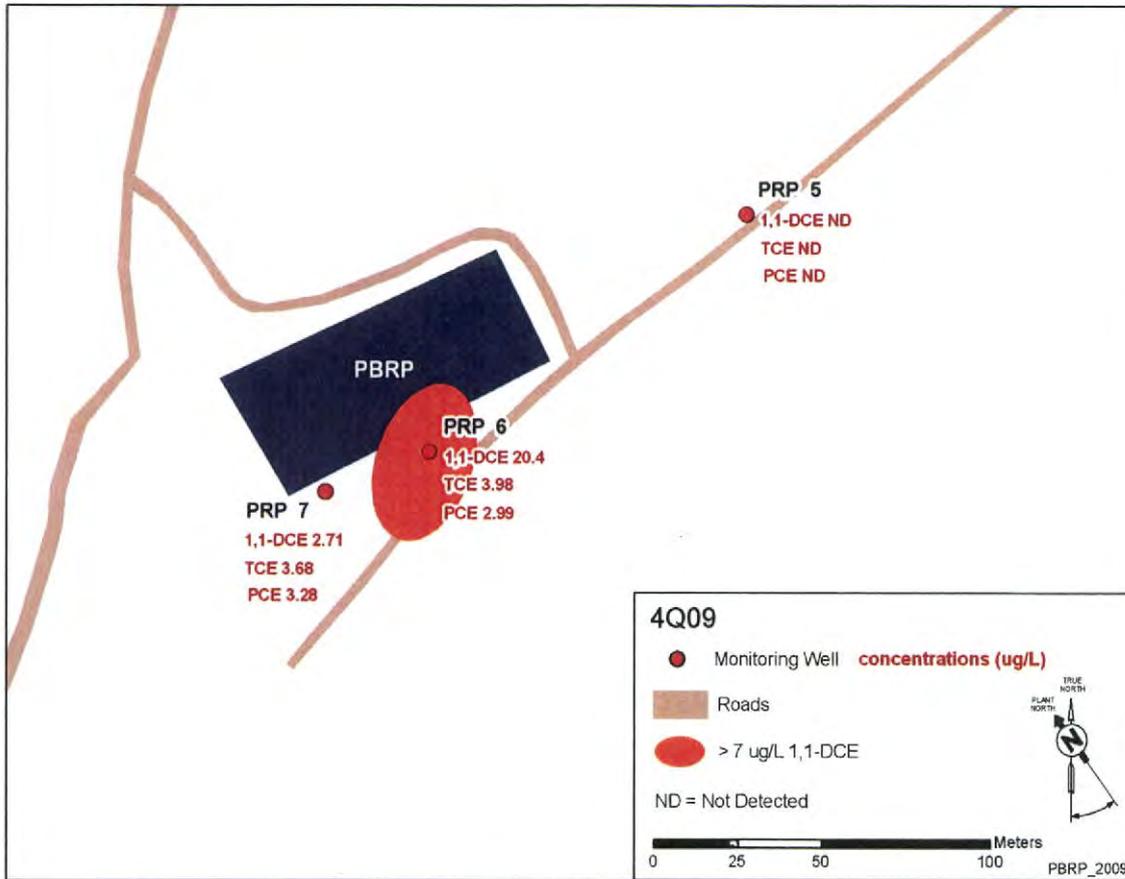


Figure 3: PBRP – 1,1-DCE, TCE, and PCE Values and 1,1-DCE Plume during 4Q09

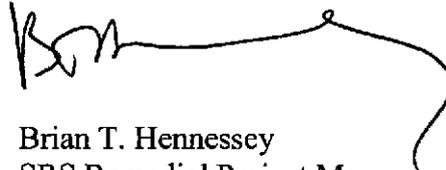
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Questions from you or your staff may be directed to me at (803) 952-8365, or the DOE Project Manager, Philip Prater at (803) 952-9333.

Sincerely,

A handwritten signature in black ink, appearing to read 'BTH', with a long horizontal line extending to the right and a curved line at the end.

Brian T. Hennessey
SRS Remedial Project Manager
Area Completion Project

ACP-10-229

cc:

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