Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

AUG 22 2008

Mr. James Bearzi, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Subject: Notification of Completion of an Evaluation of the Impact of the Loss of Two Hydrogen and Methane Monitoring Sampling Lines

Dear Mr. Bearzi:

As required under Permit Condition IV.F.5.e, the Permittees are hereby notifying the New Mexico Environment Department (NMED) of the results of the evaluation of the loss of two hydrogen and methane monitoring sampling lines.

The sampling lines involved were in Rooms 1 and 7 in Panel 3. These lines are identified as inlet lines 1I and 7I. The line loss was discovered on July 14, 2008.

The evaluation was performed per the specifications in Section N1-5b of the Hazardous Waste Facility Permit. The results of the evaluation indicate that the lost lines can be grouped with adjacent lines and there is no impact on the hydrogen and methane monitoring program as a result of the loss of these two sampling lines. The complete evaluation is attached.

We certify under penalty of law that this document was prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief true, accurate and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Please feel free to contact Jody Plum at (575) 234-7462, if you have any questions regarding this notification.

Sincerely,

David C. Moody, Manager
Carlsbad Field Office

M. F. Sharif, General Manager
Washington TRU Solutions LLC

Enclosure

CBFO:AMO:HLP:KJB:08-0478:UFC5486

080832

cc: w/enclosure
S. Zappe, NMED *ED
C. Walker, Trinity Engineering ED
T. Peake, EPA ED
N. Stone, EPA ED

cc: w/o enclosure
J. Kieling, NMED ED
*ED denotes electronic distribution

Evaluation of Inability to Purge a Sample Line

Panel 3 Lines 7I (Inlet Side) and 1I (Inlet Side)

Line 7I

Can Panel 3 line 7I be purged? No, the sample line on the inlet side of room seven (Line 7I) was determined to be unusable on July 14th, 2008.

Is the line a Bulkhead Line? No, the line is not a Bulkhead line.

Are adjacent lines working? Yes, adjacent lines 7E (the sample line on the exhaust side of Room 7) and line 6I are working.

Can this line be grouped with another line?

Hydrogen: Yes. The information obtained from the statistical evaluation using the Student's "t" test to evaluate differences (Attachment 1) indicates that the sampling results for hydrogen from adjacent sample lines 7E and 6I are statistically similar.

Methane: Yes. All the methane results are non-detectable (Attachment 2). The adjacent monitoring lines had identical results with the failed line, yielding good confidence that the lines are similar but the Student's "t" cannot be performed because of the zero measurement variability between lines.

Was the most recent sample above the first action level (4,000 ppm for hydrogen and 5,000 ppm for methane)? No. For hydrogen and methane the most recent sample results from Line 7I were non detectable (Attachment 2).

Line 1I

Can Panel 3 line 1I be purged? No, the sample line on the inlet side of room one (Line 1I) was determined to be unusable on July 14th, 2008

Is the line a Bulkhead Line? No, the line is not a Bulkhead line.

Are adjacent lines working? Yes, adjacent lines 1E (the sample line on the exhaust side of Room 1) and line 2I are working.

Can this line be grouped with another line?

Hydrogen: Yes. All hydrogen results are non-detectable (Attachment 3). The adjacent monitoring lines had identical results with the failed line, yielding good confidence that the lines are similar but the Student's "t" cannot be performed because of the zero measurement variability between lines.

Methane: Yes. All the methane results are non-detectable (Attachment 3). The adjacent monitoring lines had identical results with the failed line, yielding good confidence that the lines are similar but the Student's "t" cannot be performed because of the zero measurement variability between lines.

Was the most recent sample above the first action level (4,000 ppm for hydrogen and 5,000 ppm for methane)? No. For hydrogen and methane the most recent sample results were non detectable (Attachment 3).

Attachment 1

Obs. Nr.	Time Frame	Target Monitor 7I H2	Flag	Adjacent Monitors 7E H2	Flag	6I H2	Flag	Two Lines Adjacent Average	7E & 6I diff,d	7E Only diff,d	6I Only diff,d
1	8/29-30/2007	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
2	9/11-12/2007	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
3	9/26-27/2007	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
4	10/9-10/2007	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
5	10/23-25/2007	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
6	11/6-7/2007	11.15	J	5.395	ND	21.1	J	13.2475	2.0975	-5.755	9.95
7	11/20-21/2007	5.395	ND	5.395	ND	14.74	J	10.0675	4.6725	0	9.345
8	12/4-5/2007	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
9	12/19-20/2007	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
10	1/3-4/2008	35.2	J	5.395	ND	5.395	ND	5.395	-29.805	-29.805	-29.805
11	1/16-17/2008	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
12	1/30-31/2008	28.65	J	5.395	ND	5.395	ND	5.395	-23.255	-23.255	-23.255
13	2/12-13/2008	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
14	2/26-27/2008	31.72	J	5.395	ND	5.395	ND	5.395	-26.325	-26.325	-26.325
15	3/11-12/2008	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
16	3/25-26/2008	5.395	ND	5.395	ND	5.395	ND	5.395	0	0	0
17	4/24/2008	5.395	ND	59.74	J	21.8	J	40.77	35.375	54.345	16.405
18	5/14-19/2008	10.4	U	86.52	J	23.28	J	54.9	44.5	76.12	12.88
								d-bar (Avg) =	0.4033	2.5181	-1.7114
								StErr(d) =	4.1919	7.8117	1.3526
								t =	0.0962	0.3223	1.2653
								Tcrit(α=0.05) =	1.7396	pass	1.7396 pass	1.7396 pass
								Tcrit(α=0.10) =	1.3334	pass	1.3334 pass	1.3334 pass

ND Values = 1/2 MDL and the MDL is 10.79.
"U" values = observed value less than 10.79.

$$t_{(7E\&6I)} = \frac{|\bar{d}|}{s/\sqrt{n}} = \frac{0.4033}{4.1919/\sqrt{18}} = 0.0962$$

$$t_{(7E)} = \frac{|\bar{d}|}{s/\sqrt{n}} = \frac{2.5181}{7.8117/\sqrt{18}} = 0.3223$$

$$t_{(6I)} = \frac{|\bar{d}|}{s/\sqrt{n}} = \frac{1.7114}{1.2653/\sqrt{18}} = 1.2653$$

$T_{crit(\alpha=0.05)} = 1.7396$ (all pass)

$T_{crit(\alpha=0.10)} = 1.3334$ (all pass)

Attachment 2

Room 7 Inlet

Sample #	Result H2	Result CH4	Sample Date
2674	ND	ND	8/29/2007
2702	ND	ND	9/11/2007
2730	ND	ND	9/26/2007
2760	ND	ND	10/9/2007
2786	ND	ND	10/23/2007
2821	11.15 "J"	ND	11/6/2007
2848	ND	ND	11/20/2007
2878	ND	ND	12/4/2007
2906	ND	ND	12/19/2007
2936	35.2 "J"	ND	1/3/2008
2966	ND	ND	1/16/2008
2996	28.65 "J"	ND	1/30/2008
3026	ND	ND	2/12/2008
3058	31.72 "J"	ND	2/26/2008
3088	ND	ND	3/11/2008
3118	ND	ND	3/25/2008
3175	ND	ND	4/24/2008
3222	10.40 "UJ"	ND	5/19/2008
3290	NA	NA	6/19/2008

Room 7 Outlet

Sample #	Result H2	Result CH4	Sample Date
2675	ND	ND	8/29/2007
2703	ND	ND	9/11/2007
2731	ND	ND	9/26/2007
2761	ND	ND	10/9/2007
2787	ND	ND	10/25/2007
2819	ND	ND	11/6/2007
2850	ND	ND	11/20/2007
2877	ND	ND	12/4/2007
2907	ND	ND	12/19/2007
2935	ND	ND	1/3/2008
2965	ND	ND	1/16/2008
2997	ND	ND	1/30/2008
3027	ND	ND	2/12/2008
3057	ND	ND	2/26/2008
3087	ND	ND	3/11/2008
3119	ND	ND	3/25/2008
3176	59.74 "J"	ND	4/24/2008
3213	86.52 "J"	ND	5/15/2008
3281	103.78 "J"	ND	6/19/2008

Room 6 Inlet

Sample #	Result H2	Result CH4	Sample Date
2682	ND	ND	8/30/2007
2710	ND	ND	9/12/2007
2738	ND	ND	9/27/2007
2766	ND	ND	10/10/2007
2792	ND	ND	10/24/2007
2824	21.1 "J"	ND	11/7/2007
2853	14.74 "J"	ND	11/21/2007
2882	ND	ND	12/5/2007
2912	ND	ND	12/20/2007
2939	ND	ND	1/4/2008
2970	ND	ND	1/17/2008
3000	ND	ND	1/31/2008
3030	ND	ND	2/13/2008
3062	ND	ND	2/27/2008
3092	ND	ND	3/12/2008
3122	ND	ND	3/26/2008
3166	21.80 "J"	ND	4/24/2008
3221	23.28 "J"	ND	5/15/2008
3289	78.90 "J"	ND	6/19/2008

ND = non detects (U)
NA = no data available
J = estimated value

Attachment 3

Room 1 Inlet

Sample #	Result H2	Result CH4	Sample Date
Room 1 Inlet sampling initiated in April 2008 per the March 25, 2008 WIPP Hazardous Waste Facility Permit			
3169	ND	ND	4/24/2008
3216	ND	ND	5/14/2008
3284	ND	ND	6/17/2008

Room 1 Outlet

Sample #	Result H2	Result CH4	Sample Date
2664	ND	ND	8/21/2007
2692	ND	ND	9/5/2007
2720	8.29 "UJ"	ND	9/18/2007
2748	ND	ND	10/2/2007
2774	ND	ND	10/17/2007
2806	ND	ND	10/30/2007
2837	ND	ND	11/13/2007
2866	ND	ND	11/27/2007
2893	ND	ND	12/11/2007
2926	ND	ND	12/26/2007
2953	ND	ND	1/8/2008
2983	ND	ND	1/22/2008
3014	ND	ND	2/5/2008
3043	ND	ND	2/19/2008
3074	ND	ND	3/4/2008
3105	ND	ND	3/18/2008
3163	ND	ND	4/24/2008
3207	ND	ND	5/14/2008
3293	ND	ND	6/17/2008

Room 2 Inlet

Sample #	Result H2	Result CH4	Sample Date
2684	ND	ND	8/30/2007
2712	ND	ND	9/12/2007
2740	ND	ND	9/27/2007
2768	ND	ND	10/10/2007
2794	ND	ND	10/24/2007
2826	ND	ND	11/7/2007
2855	ND	ND	11/21/2007
2884	ND	ND	12/5/2007
2914	ND	ND	12/20/2007
2942	ND	ND	1/4/2008
2972	ND	ND	1/17/2008
3002	ND	ND	1/31/2008
3032	ND	ND	2/13/2008
3064	ND	ND	2/27/2008
3094	ND	ND	3/12/2008
3124	ND	ND	3/26/2008
3162	ND	ND	4/24/2008
3217	ND	ND	5/14/2008
3285	ND	ND	6/17/2008