



**From:** [Larsen, Thurman](#)  
**To:** [VanHorn, Kristen, NMENV](#)  
**Cc:** [Cobrain, Dave, NMENV](#); [Riege, Ed](#)  
**Subject:** RE: JUNE 2012 BENZENE-MPPE PROGRESS REPORT  
**Date:** Monday, July 23, 2012 3:02:12 PM  
**Attachments:** [20120723143726949.pdf](#)

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Kristen,

I have included an updated table that should be easier for the Agency to follow. The table indicates when we are using the MPPE ONLY, the STRIPPERS ONLY, or BOTH. Also I am responding to several question that were raised that are shown in **RED** as indicated below. Sorry for the confusion.

Regards,

Beck

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**From:** VanHorn, Kristen, NMENV [mailto:[Kristen.VanHorn@state.nm.us](mailto:Kristen.VanHorn@state.nm.us)]  
**Sent:** Monday, July 16, 2012 11:26 AM  
**To:** Riege, Ed  
**Cc:** Larsen, Thurman; Cobrain, Dave, NMENV  
**Subject:** RE: JUNE 2012 BENZENE-MPPE PROGRESS REPORT

Thanks, Ed. That makes things a little more clear.

I have a couple of more questions...

When there are samples taken from both the MPPE outflow and the benzene stripper outflow, how are the samples analyzed -- Are you sampling both flows in-house? **Samples that are taken from both the MPPE Outflow and the Benzene strippers are analyzed both in-house and by Hall Laboratories.** For example, on June 6<sup>th</sup> samples were taken from both the benzene strippers and from the MPPE unit. The Hall lab report shows benzene to be ND<5.0 ug/L for the duplicate benzene sample and 8.6 ug/L for the duplicate MPPE sample, the in-house results (shown in the Benzene Stripper Outlet table) show benzene 0.00 ppm (AM). Was the in-house sample taken from the benzene outflow or the MPPE outflow? **Samples are collected both after the benzene stripper and after the MPPE Outlet. In-house analysis are run on each, MPPE and stripper outlets.**

Another example is data from June 24<sup>th</sup>, the Hall laboratory results for MPPE outflow (there was no benzene stripper sample), shows benzene at 40 ug/L, the Benzene Stripper Outlet table shows the in-house lab results as 0.01 ppm (AM) – are the in-house results for the MPPE outflow or for the benzene outflow? **On June 24<sup>th</sup>, flow was going through the MPPE Unit and not the Benzene Strippers are indicated from the enclosed table.**

Beck, when you are updating the tables, can you make it more clear where the in-house lab sample is taken from? And in the benzene table, times like the 24<sup>th</sup> where there isn't a benzene stripper sample collected, indicate that in the table instead of having 0.00 in the Hall Environmental Lab Data results column? Thanks.

**Kristen Van Horn**

*NMED Hazardous Waste Bureau  
2905 Rodeo Park Drive East Building 1  
Santa Fe, NM 87505  
Phone: 505-476-6046*

**From:** Riege, Ed [<mailto:Ed.Riege@wnr.com>]  
**Sent:** Monday, July 16, 2012 8:05 AM  
**To:** VanHorn, Kristen, NMENV  
**Cc:** Larsen, Thurman  
**Subject:** FW: JUNE 2012 BENZENE-MPPE PROGRESS REPORT

Kristen,  
See my responses below in red.

Thanks,  
Ed

Ed Riege  
Environmental Manager

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Gallup Refinery  
Route 3 Box 7  
Gallup, NM 87301  
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**From:** VanHorn, Kristen, NMENV [<mailto:Kristen.VanHorn@state.nm.us>]  
**Sent:** Tuesday, July 10, 2012 3:11 PM  
**To:** Larsen, Thurman  
**Cc:** Cobrain, Dave, NMENV; Riege, Ed  
**Subject:** RE: JUNE 2012 BENZENE-MPPE PROGRESS REPORT

Beck,  
I have some questions about the benzene data.

There are two lab reports for June 4<sup>th</sup>-June 6<sup>th</sup> one is labeled as MPPE-TEST and the other as MPPE, both sample sets were taken at the same time (8AM). June 7<sup>th</sup> – June 10<sup>th</sup> also has two sets of lab reports one labeled as MPPE-out and one labeled as MPPE. June 11-12/13 also with MPPE-out and MPPE.

For the above dates the MPPE lab reports are for the MPPE outlet. The MPPE-out and MPPE Test reports are actually for the benzene stripper outlet.

I understand that there were days where only the MPPE unit was used, a combination of the MPPE and the benzene strippers, or just the benzene strippers and that there is some overlap (there are three Hall lab reports for June 11<sup>th</sup>-14<sup>th</sup>, there are two sets of MPPE results and one set of benzene stripper results) -- What is the difference between the sample sets for the same day/time?

For these dates the MPPE lab reports are for the MPPE outlet. The Benzene stripper and the MPPE outlet reports are both for the benzene stripper outlet. It appears there were two samples taken on

6/12/12 at the outlet of the benzene strippers, one labeled BZ strippers and one labeled MPPE-Out.

Also, the Benzene Stripper Outlets table seems like there are results from the MPPE sampling in the table? Are the Western Lab results for samples that have been taken from the benzene strippers outflow or from the MPPE outflow? They are from the benzene stripper outflow as explained above. I apologize for the confusion. Can you make a table showing the Hall MPPE outflow results compared to Western Lab MPPE outflow results similar to what you have for the benzene stripper results? Beck will work on this table today as he has been sick the last couple of days.

If this is easier to explain by talking rather than email, let's set up a time for a call.

Thanks,  
Kristen

Thanks,  
Ed

**Kristen Van Horn**

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**From:** Larsen, Thurman [<mailto:Thurman.Larsen@wnr.com>]  
**Sent:** Monday, July 02, 2012 3:28 PM  
**To:** VanHorn, Kristen, NMENV; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD  
**Cc:** Riege, Ed; Johnson, Cheryl; Dorsey, Alvin; Morgan, Loretta; Tso, Janice  
**Subject:** JUNE 2012 BENZENE-MPPE PROGRESS REPORT

Dear Kristen,

The following is the monthly Progress Report for June 2012. Attached are all laboratory results from Hall laboratories for June 2012 sampling events and the benzene stripper / MPPE charts for your review. Please note that the data for June 26<sup>th</sup> to June 30<sup>th</sup> is still pending.

The monthly flow data for June 2012 through the **(N-S) Benzene Strippers to AL-1** is summarized as follows:

	<b>N-Stripper (gpm)</b>	<b>S-Stripper (gpm)</b>	<b>Total</b>
<b>Flow (gpm)</b>			
<b>Average (gpm)</b>	61.42		
64.48	125.89		
<b>Maximum (gpm)</b>	101.18		
102.51	203.68		
<b>Minimum (gpm)</b>	65.97		
38.31	104.27		

The monthly flow data for June 2012 from **AL-2 to EP-1** is summarized as follows:

<b>Volume (gpd)</b>	<b>Weir Height (in)</b>	<b>Flow Rate (gpm)</b>	<b>Flow</b>
<b>Average</b>	8.7		
303.2	174628		
<b>Maximum</b>	9.8		
412.0	593288		
<b>Minimum</b>	6.7		
151.8	218552		

The monthly flow data for June 2012 of the **API Influent and MPPE Effluent** is summarized as follows:

	<b>API Influent (gpm)</b>	<b>MPPE Effluent (gpm)</b>
Average (gpm)	209.84	94.64
Maximum (gpm)	265.58	188.05
Minimum (gpm)	157.44	12.88

**NOTE: Benzene Stripper #3**

Benzene Stripper #3 (Process Unit Stripper) was taken out of service and blinded off between the blower fan and the benzene tower on May 14, 2012. A Management of Change (MOC) was written for a piping change in order to bypass the benzene stripper. The piping change and modifications are expected to be completed by July 4, 2012.

**MPPE UNIT and SAMPLING:**

The initial startup of the MPPE Unit began on May 8, 2012 at 1500 hrs. Flow data indicates that the north-south benzene strippers were operating in conjunction with MPPE Unit through June 20, 2012. Sampling was conducted in accordance with NMED letter of May 24, 2010 (Comment 17). This Agency letter prescribes the methodology and sample requirements necessary to fulfill this obligation. The MPPE Unit flow is partially directed to STP-1 while the additional flow is directed through the benzene strippers to Aeration Lagoon (AL-1).

Samples were collected during the month of June 2012 for either wastewater that was diverted through the benzene strippers (only), through the MPPE (only), or a combination of MPPE and benzene strippers. There was no benzene exceedence for the month of June as indicated in the enclosed table. Sample analysis have been divided in to distinct tables. The "MPPE Unit Sampling-Section 17" table provides benzene data for wastewater routed through the MPPE Unit. The table indicated as "Benzene Stripper Outlet" provides analysis of wastewater going through the benzene strippers. Benzene samples for June 2012 that were going through the MPPE Unit indicated Non-detect ("ND") for June 2012. Likewise, benzene samples collected at the outlet of the benzene strippers also indicated a less than the Regulatory Limit of 0.5 ppm (<0.5) during the June 2012 sampling periods. Please note that there will be dates that overlap by duplicate sampling events due to the flow diversion through both the MPPE Unit and the Benzene Stripper Units. The MPPE Unit was taken out of service on June 20, 2012 for maintenance issues. Flow was diverted through the Benzene Strippers. Please note that the MPPE Unit was offline from June 19<sup>th</sup> through June 21<sup>st</sup> and again from June 26<sup>th</sup> through June 27<sup>th</sup>. Waste was diverted through the benzene strippers. Data is

still pending from Hall Laboratories for June 26<sup>th</sup> through June 30<sup>th</sup>.

Two ATM Carbon Canister air samples were also collected in summa canisters and shipped to Hall Laboratories for analysis in accordance as per Comment 17.e using EPA Method TO-15. The VOC content for the first canister was 2.17 ppm which is less than the 500 ppm allowable limit for Voc breakthrough utilized by LDAR personnel as a breakthrough point. The benzene concentration of this initial sample was 27 ppbv (0.027 ppmv). Analysis for the second ATM canister is still pending.

If you should have any questions or concerns, please contact me via my office phone at (505) 722-0258 or via my cell at (505) 862-1749.

Sincerely,  
Beck Larsen  
Environmental Engineer  
Western Refining (Gallup Refinery)

## LABORATORY COMPARISON

DATE	Benzene Strippers (ppm)			MPPE Unit (ppm)					
	WNR (Am)	WNR (Pm)	Hall (Am)	WNR (Am)	WNR (Pm)	Hall (Am)			
5/8/2012	0	0	0.069	MPPE STARTUP		0.00			
5/9/2012	0	0	No Sample	NO SAMPLE COLLECTED FOR DATE					
5/10/2012	<b>FLOW TO MPPE</b>			0.01	0.02	0.00			
5/11/2012				0	0	0.00			
5/12/2012				0	0.02	0.00			
5/13/2012				0	0.01	0.00			
5/14/2012				0.01	0.01	0.00			
5/15/2012				0	0.06	0.00			
5/16/2012	0	0	0.05	<b>DIVERTED TO STRIPPERS</b>					
5/17/2012	0	0.05	0.06						
5/18/2012	0.12	0.05	0.10						
5/19/2012	0.1	0.07	0.14						
5/20/2012	0.08	0.06	0.06						
5/21/2012	0.14	0.06	0.12						
5/22/2012	0	0.16	0.05						
5/23/2012	0	0	0.07						
5/24/2012	No Sample	0	0.97				0	0	0.00
5/25/2012	0	0	0.00				0	0	0.00
5/26/2012	0	0	0.00	0	0	0.00			
5/27/2012	0	0	0.00	0	0	0.00			
5/28/2012	<b>FLOW TO MPPE</b>			0	0	0.00			
5/29/2012				0	0	0.00			
5/30/2012				0	0	0.00			
5/31/2012				0	0	0.03			
6/1/2012				0	0.87	0.00			
6/2/2012				0	0	0.00			
6/3/2012	0	0.53	0.00						
6/4/2012	0	0	0.00	0	0	0.00			
6/5/2012	0	0	0.00	0	0	0.00			
6/6/2012	0	0	0.00	0	0	0.01			
6/7/2012	0	0	0.00	0	0	0.00			
6/8/2012	0	0	0.01	0	0	0.00			
6/9/2012	0	0	0.00	0	0	0.00			
6/10/2012	0	0	0.00	0	0	0.00			
6/11/2012	0	0	0.00	0	0	0.00			
6/12/2012	0	0	0.00	0	0	0.00			
6/13/2012	0.05	0	0.03	0	0	0.00			
6/14/2012	0	0	0.40	0	0	0.00			
6/15/2012	0	0	0.01	0	0	0.00			
6/16/2012	0	0	0.02	0	0	0.00			
6/17/2012	0	0	0.00	0	0	0.00			
6/18/2012	0	0	0.00	0	0	0.00			
6/19/2012	0	0	0.01	<b>DIVERTED TO STRIPPERS</b>					
6/20/2012	0	0	0.01						
6/21/2012	0	0	0.02						
6/22/2012	<b>FLOW TO MPPE</b>			0.14	0	0.00			
6/23/2012				0	0	0.00			
6/24/2012				0.01	0.15	0.04			
6/25/2012	0	0	0.02	0	0	0.00			
6/26/2012	0	0	0.02	<b>DIVERTED TO STRIPPERS</b>					
6/27/2012	0	0	0.03						
6/28/2012	0	0	0.01	0	0	0.00			
6/29/2012	<b>FLOW TO MPPE</b>			0	0	0.00			
6/30/2012	0	0	0.00	0	0	0.00			

7/1/2012	0	0	0.00		<b>DIVERTED TO STRIPPERS</b>		
7/2/2012	0	0	0.00		0	0	0.00
7/3/2012	0	0	0.00		0	0	0.00
7/4/2012	0	0	0.00		0	0	0.00
7/5/2012	0	0	0.00		0	0	0.00
7/6/2012	0	0	0.01		<b>DIVERTED TO STRIPPERS</b>		
7/7/2012	<b>FLOW TO MPPE</b>				0	0	0.02
7/8/2012					0	0	0.00
7/9/2012					0	0	0.00
7/10/2012					0	0	0.00
7/11/2012	0	0	0.00		0	0	0.00
7/12/2012	0	0	0.01		<b>DIVERTED TO STRIPPERS</b>		
7/13/2012	0	0	0.00		0	0	0.00
7/14/2012	0	0	0.01		0	0	0.00
7/15/2012	0	0	0.01		0	0.04	0.00
7/16/2012	0	0	0.02		0	0	0.00
7/17/2012	0	0	0.00		0	0	0.00
7/18/2012	Inst Down	0.02	0.00		Inst Down	0	0.00