Sewer Acct.#: **1003803000**

Company: **BRIDGETON LANDFILL LLC**

Address: **13570 St. Charles Rock Road**

City: **Bridgeton**

State and Zip: **MO 63044**

Industry ID	File Code	File Description
17931	31	INDUSTRY OVERFLOW

MAY 2015

07-08-15 - Overflow contains March 1

Bridgeton Landfill

Doug Mendoza

From: Rob G Daly
Sent: Friday, May 29, 2015 9:04 PM
To: 'LaFata, Natalie'; Art Middleton; Bob Meppiel; bpower@republicservices.com; Bret A. Berthold; Catherine Politte; Doug Mendoza; Dean Sentman; Graves, Stephen; Jay Kniker; Jeff Jones; John Lodderhose; John Welch; Jonathon Sprague; Kamp, Kevin; Kevin George; Kohrt, Mark; Kim Osterloh; Lance LeComb; Mark Bright; Mike Waxman; O'Leary, Kevin; Sean Hadley; Wright, Leon
Subject: Bridgeton Landfill Plant Update- Status Review 29MAy2015

Natalie

We appreciate the efforts to date.

At this time- we feel the situation is resolved, i.e. the current dosing scheme currently enacted is providing the impact we desired.

Any dosing at PS 2 and 3 can be placed on 'hold' until or unless the situation changes- at which point we reserve the right to bring it back up again.

We still need that MSDS on your dosing chemicals. Please forward to Mark Bright and myself immediately-not necessary to submit to larger group.

We intend to continue to monitor our sites at PS 2 and 3, and the discharge manhole and ARV's at the end of the force main for at least 4-6 more weeks as an additional data collection tool. This is only H2S monitoring. If we see any changes on our end- we will contact you and will work together to resolve the situation-promptly.

We expect your bi-weekly updates to continue until we collectively agree that they are no longer necessary. Once you hit what you consider your 'steady state' we have referred to- where flow is at 'normal' capacity and the leachate has reached a more consistent state- with less odor causing potential. The sooner you identify to us that you have achieved that state- the sooner we can cease and desist on routine updates- and shift it to a smaller group.

We will now start the review of the submitted SOP –now that what you are doing appears to be having the desired effect- and will attempt to get any comments back on it before the end of next week.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Thursday, May 28, 2015 3:01 PM
To: Art Middleton; Bob Meppiel; bpower@republicservices.com; Bret A. Berthold; Catherine Politte; Doug Mendoza; Dean Sentman; Graves, Stephen; Jay Kniker; Jeff Jones; John Lodderhose; John Welch; Jonathon Sprague; Kamp, Kevin; Kevin George; Kohrt, Mark; Kim Osterloh; LaFata, Natalie; Lance LeComb; Mark Bright; Mike Waxman; O'Leary, Kevin; Rob G

Daly; Sean Hadley; Wright, Leon
Subject: Plant Update 5-28-2015

- The plant has discharged throughout the week and has been introducing fresh water along with the flow from the plant
- Odors were checked at the force main over the course of this week. There were no odors detected and there were minimal H2S readings when tested (0.0 -2.0ppm over the course of the week).
- Samples were taken Wednesday and will also be taken Friday for more sulfide analysis from all 3 pump stations and the final Manhole – I have contacted Jeff Jones and coordinated the timeframe for this sample schedule.
- Sodium Nitrate is being introduced to the discharge from the plant at 900gpd and Ferric Chloride is being introduced to the discharge manhole 013 at 0.6-1.5gph at this time.

Any questions, please feel free to contact me!

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
Mobile: (314) 341-3375 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

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Doug Mendoza Bridgeton Landfill

From:	Rob G Daly
Sent:	Friday, May 29, 2015 8:53 PM
To:	Jonathon Sprague
Cc:	John Welch; Mark Bright; Mike Waxman; Jay Kniker; Lance LeComb; Bret A. Berthold; John Lodderhose; Doug Mendoza
Subject:	Bridgeton Force Main/Collection System- Odor Control Issues Status Update No. 11-29MAY2015 (FINAL UPDATE)
Attachments:	BRIDGETON ARV 25 D1_02203581_01_Session 1.jpg; BRIDGETON ARV 27 D1_10103350_01_Session 1.jpg; BRIDGETON PS2 D1_02203578_01_Session 1.jpg; BRIDGETON PS3 D1_10103352_01_Session 1.jpg

Jon

Last update this week- and intended to be the final update for this group.

1. The plant has discharged throughout the week and has been introducing fresh water along with the flow from the plant. Pushing around 300K GPD.
2. Sodium Nitrate is being introduced to the discharge from the plant at 900gpd and Ferric Chloride is being introduced to the discharge manhole 013 at 0.6-1.5gph at this time. Sodium nitrate has been substituted for bioxide (Calcium Nitrate).
3. Dosing at PS 2 and 3 now on long term hold- until or unless situation changes.
4. Odalogger results attached. They reveal that H2S issue, i.e. odor control issue, has abated- for now. Per a verbal discussion with John Welch Thursday- no customer service complaints registered on his end.
5. We are still experiencing issues at our 4 sampling sites, i.e. 4 gas meters are continuing to activate routinely at all of these sites-which is not normal or usual practice. We have eliminated odor- but concerns still exist on our end that require some more investigation. I will start process of looking into his next week but these are issues that I am confident we can address.

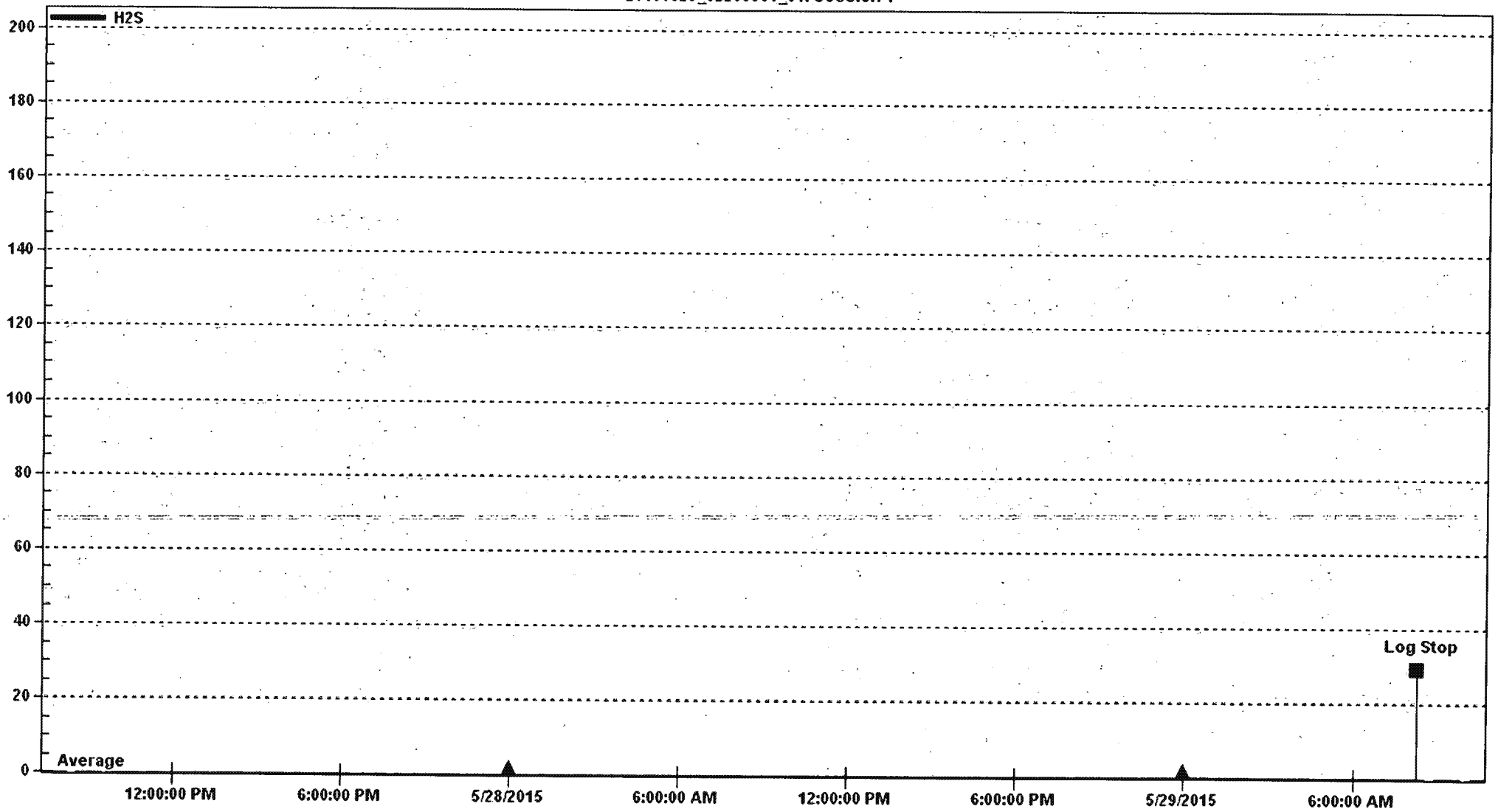
I believe that we have- for now- addressed the odor control issue and intend to de-activate this internal only update group at this time. This will be the last update issued –UNLESS SOMETHING CHANGES. Bridgeton will continue to issue periodic, bi-weekly status updates to this larger group –so information will continue to be circulated- and I will do any clarifications or provide additional information as required. I do feel that the landfill has worked well with us to date- which has been appreciated- but this is a dynamic system at their end. This issue could re-activate. If so- I will start this group update back up as we work to resolve the issue. We will continue to collect our H2S data at 5 separate sites for the next 4-6 weeks until we get to what the landfill personnel have called their 'steady –state'- and until we feel that they have provided and maintained a steady, continuous result.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

ARV 25 C OdaLog s/n 02203581

20150529_02203581_01: Session 1



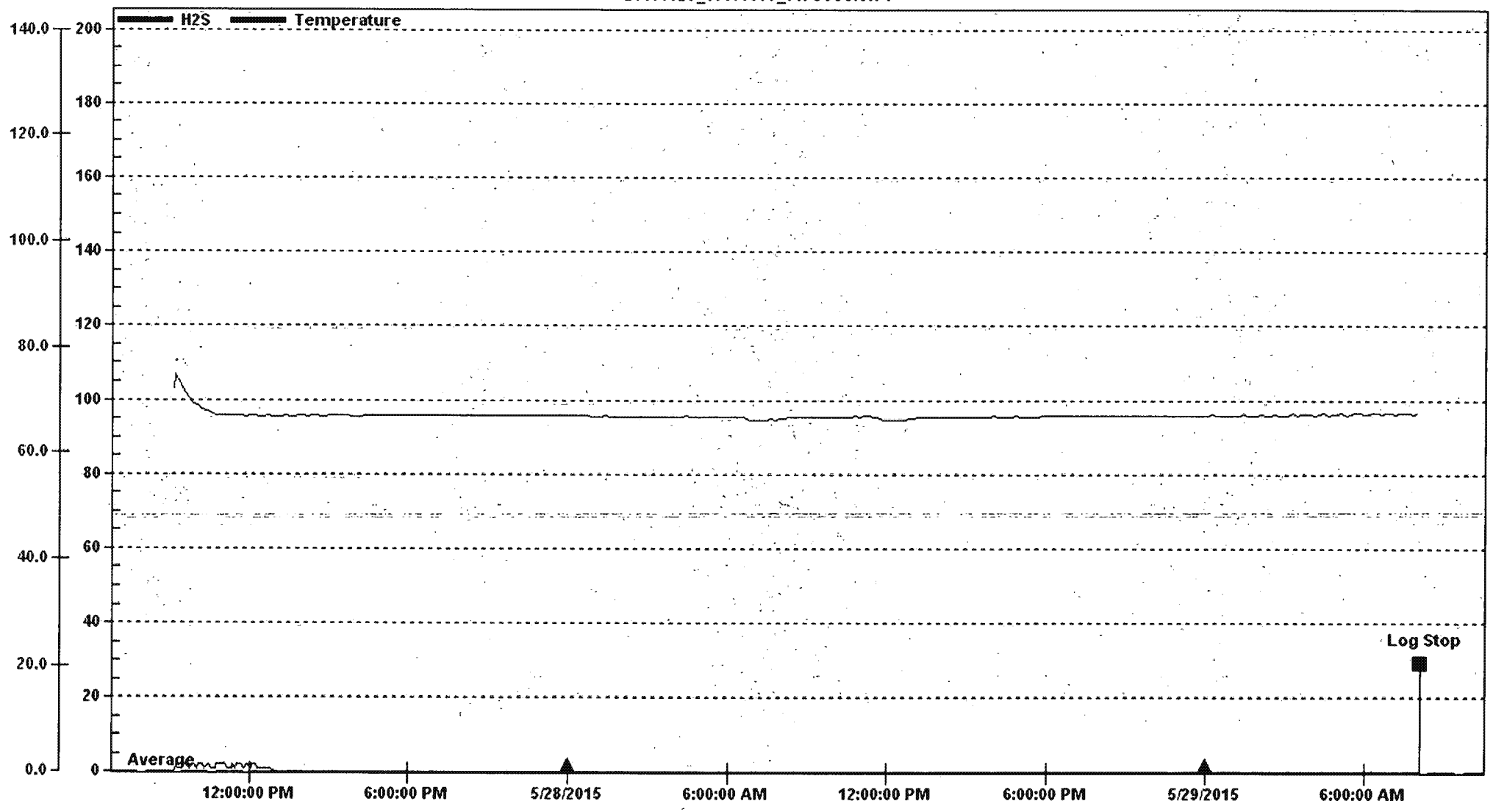
Period Displayed: 5/27/2015 - 5/29/2015 (Oda File: 20150529_02203581_01.oda -- Serial Number: Odalog Type L2-RTx 02203581 Instrument Range 0-200PPM)

Average 0 | Month Transition Min 0 Max 0 (Use Screen Data Only)

MSD 031814

BRIDGETON ARV 27 C OdaLog s/n 10103350

20150529_10103350_01: Session 1



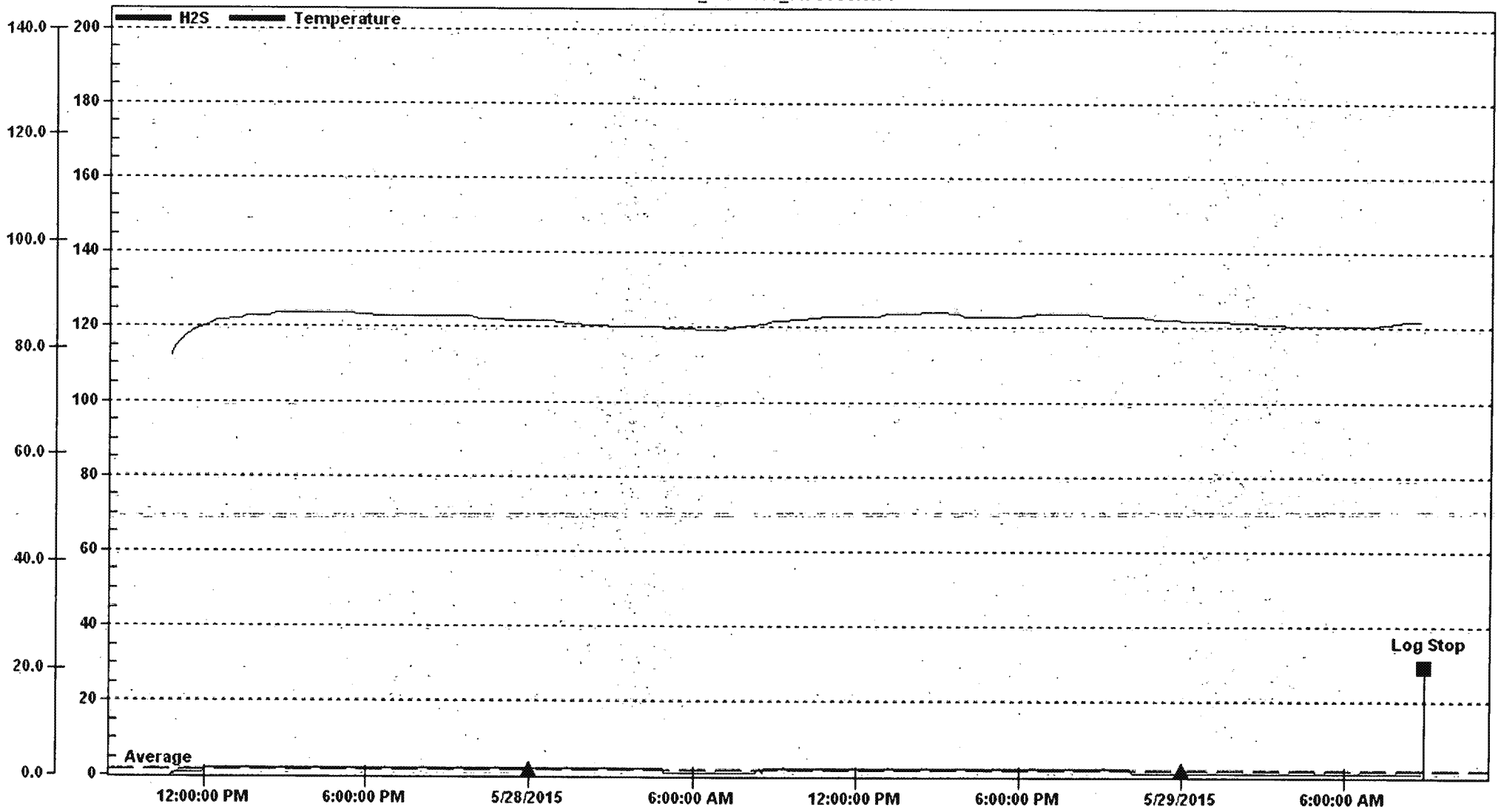
Period Displayed: 5/27/2015 - 5/29/2015 (Oda File: 20150529_10103350_01.oda -- Serial Number: Odalog Type L2-RTx 10103350 Instrument Range 0-200PPM)

Average 0 | Month Transition Min 0 Max 2 (Use Screen Data Only)

MSD 031815

PS2 C OdaLog s/n 02203578

20150529_02203578_01: Session 1



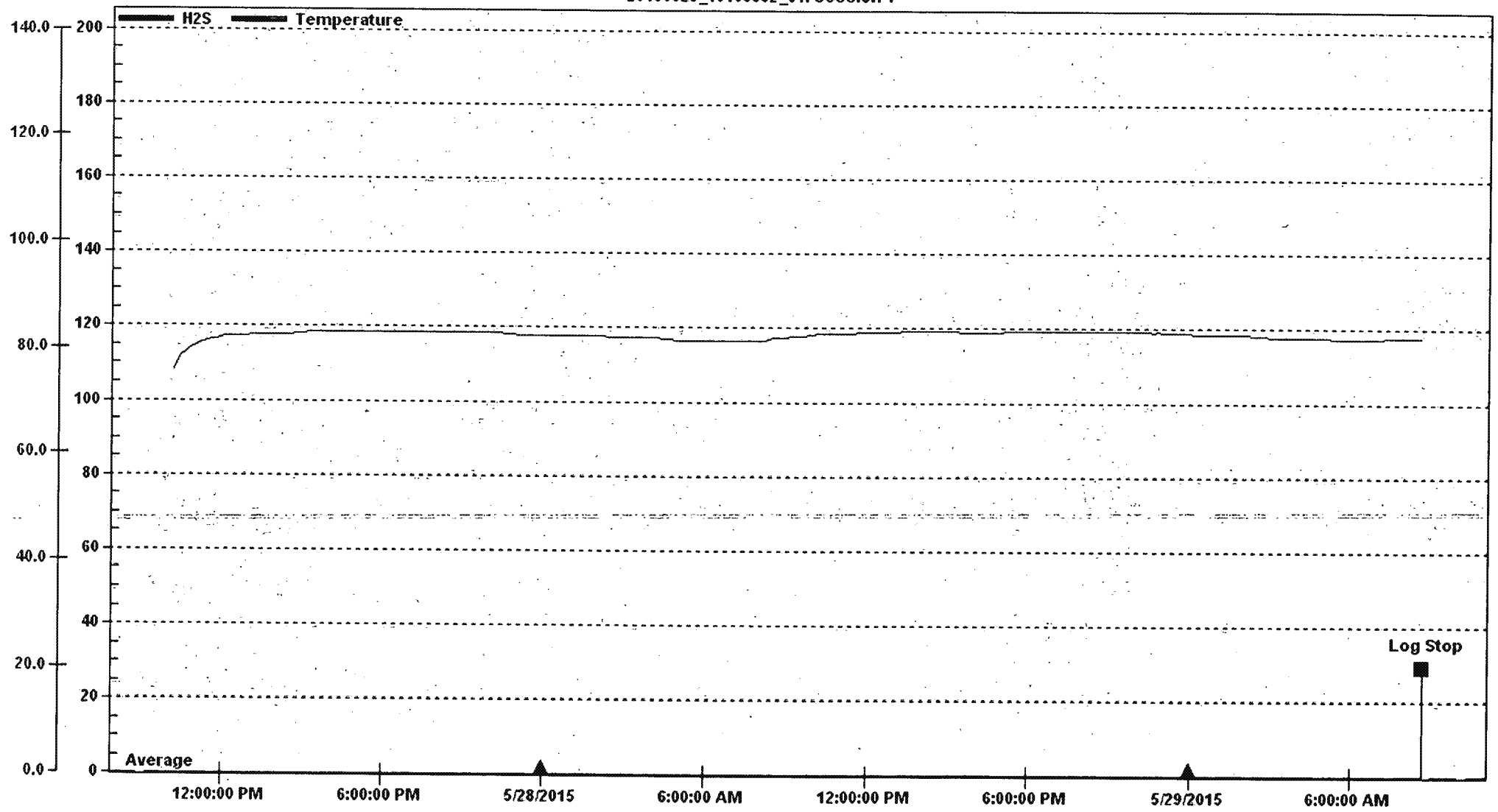
Period Displayed: 5/27/2015 - 5/29/2015 (Oda File: 20150529_02203578_01.oda -- Serial Number: Odalog Type L2-RTx 02203578 Instrument Range 0-200PPM)

Average 2 | Day Transition Min 0 Max 2 (Use Screen Data Only)

MSD 031816

BRIDGETON PS3 VALVE VAULT C OdaLog s/n 10103352

20150529_10103352_01: Session 1



Period Displayed: 5/27/2015 - 5/29/2015 (Oda File: 20150529_10103352_01.oda -- Serial Number: Odalog Type L2-RTx 10103352 Instrument Range 0-200PPM)

Average 0 | Month Transition Min 0 Max 0 (Use Screen Data Only)

MSD 031817

Doug Mendoza

Bridgeton Landfill

From: Doug Mendoza
Sent: Friday, May 29, 2015 10:44 AM
To: Rob G Daly; Jonathon Sprague
Cc: John Welch; Mark Bright; Mike Waxman; Jay Kniker; Lance LeComb; Bret A. Berthold; John Lodderhose
Subject: RE: Bridgeton Force Main/Collection System- Odor Control Issues Status Update No. 9- 22MAY2015

My main thoughts/comments on the draft SOP:

2.1 "At the current operating efficiency" is overly vague. I would suspect that they mean at the current BOD/COD levels. Regardless, they need to either specify this or specify what is actually meant. Otherwise they could simply interpret it to mean whatever they like if they want to decrease the flush water volume. Or...we may want to require it to continue until MSD gives approval for it to be reduced or to stop.

2.5 "informal atmospheric screening periodically" also seems overly vague. Do you want to have a specified minimum frequency and/or duration? Note that they are already committed to liquid phase sampling.

2.6 Same vague "At the current operating efficiency" wording.

2.6 If exceedances of the iron discharge limit are a concern, we could probably give a temporary, situation-specific variance for iron.

You may or may not consider this significant enough to include in your comments back to the landfill.

Doug

From: Rob G Daly
Sent: Friday, May 22, 2015 12:33 PM
To: Jonathon Sprague
Cc: John Welch; Mark Bright; Mike Waxman; Jay Kniker; Lance LeComb; Bret A. Berthold; John Lodderhose; Doug Mendoza
Subject: Bridgeton Force Main/Collection System- Odor Control Issues Status Update No. 9- 22MAY2015

Jon

Flow has resumed at landfill side as of this morning. I spoke to Bret about it yesterday and updated him on situation as it then stood (basically- all week with no product flowing through system except potable water) prior to his meeting with municipality. Odor should not have been a problem from Monday through this morning in other words.

Landfill has (today) proposed a different dosing chemical versus previously proposed and utilized calcium nitrate- and they reviewed this with DEC is my understanding. This is as a result of their sampling and testing that they have been doing and is I am sure based on the chemistry of their effluent. We expect that shift to occur starting today- at similar rates as with bioxide.

Draft SOP in hand on Odor Control side- received in accordance with NOV. I am sitting on this draft until middle of next week and will ask for input from DEC prior to finalizing with landfill by end of next week. Reason for delay: this situation

Doug Mendoza

Bridgeton Landfill

From: LaFata, Natalie <nlafata@cecinc.com>
Sent: Thursday, May 28, 2015 3:01 PM
To: Art Middleton; Bob Meppiel; bpower@republicservices.com; Bret A. Berthold; Catherine Politte; Doug Mendoza; Dean Sentman; Graves, Stephen; Jay Kniker; Jeff Jones; John Lodderhose; John Welch; Jonathon Sprague; Kamp, Kevin; Kevin George; Kohrt, Mark; Kim Osterloh; LaFata, Natalie; Lance LeComb; Mark Bright; Mike Waxman; O'Leary, Kevin; Rob G Daly; Sean Hadley; Wright, Leon
Subject: Plant Update 5-28-2015

- The plant has discharged throughout the week and has been introducing fresh water along with the flow from the plant
- Odors were checked at the force main over the course of this week. There were no odors detected and there were minimal H2S readings when tested (0.0 -2.0ppm over the course of the week).
- Samples were taken Wednesday and will also be taken Friday for more sulfide analysis from all 3 pump stations and the final Manhole – I have contacted Jeff Jones and coordinated the timeframe for this sample schedule.
- Sodium Nitrate is being introduced to the discharge from the plant at 900gpd and Ferric Chloride is being introduced to the discharge manhole 013 at 0.6-1.5gph at this time.

Any questions, please feel free to contact me!

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
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Doug Mendoza

From: Doug Mendoza
Sent: Wednesday, May 27, 2015 1:45 PM
To: 'Ed Galbraith'; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

In the 5/21/15 email, it was specified that the once/calendar month sampling would begin with June 2015:

> 2. As we discussed and you confirmed in a separate email, the sample that Bridgeton Landfill will collect for the week of Sun 5/17/15 - Sat 5/23/15 will be the last required once/week sample, barring any discharge limit exceedances. Required sampling by Bridgeton Landfill then will change to once/calendar month for the next six consecutive months (i.e. June 2015 – November 2015), again barring any discharge limit exceedances, per permit special condition B.3.

In addition, if the Week 13 sample from 5/21/15 may not be representative, then the Week 14 sample from 5/27/15 needs to be considered the final weekly sample. Please inform the Bridgeton Landfill staff or contractors that the once/calendar month sampling will be June, July, August, September, October, November, and December, barring any missed samples or violations.

Sincerely,
Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, May 27, 2015 11:55 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for this week is posted to Barr's ftp site.

- As reported last week, Pace Report for MH013 (60192476, 4/21/2015), reported Total Phenolics at 0.35 mg/l and Phenol at 2380 ug/l. The lab has agreed to rerun the analyses using existing sample material. We are still awaiting those results. From here forward, we will include two columns for Total Phenolics, one by Method 420.1 and one by the sum of Method 625 phenolic compounds.

- In last week's spreadsheet the haul data from 05/14, 05/15, and 05/18 was off a day. In this week's spreadsheet, those operational results have been corrected to better represent the actual day sampled.

Doug Mendoza

Bridgeton Landfill

From: Rob G Daly
Sent: Wednesday, May 27, 2015 12:30 PM
To: Jonathon Sprague
Cc: John Welch; Mark Bright; Mike Waxman; Jay Kniker; Lance LeComb; Bret A. Berthold; John Lodderhose; Doug Mendoza
Subject: Bridgeton Force Main/Collection System- Odor Control Issues Status Update No. 10-27MAY2015
Attachments: ARV 25C1_10103353_01_Session 1.jpg; ARV SITE 27C1_10103354_01_Session 2.jpg; BRIDGETON PS2B1_02203579_01_Session 1.jpg; BRIDGETON PS3B1_02203582_01 _Session 2.jpg

Jon

Interim internal only status update. Next (internal only) status update to follow on Friday- and will include datalogger information.

1. See attached graphs- taken at 4 sites. Pretty intuitive and easy to understand results but please feel free to ask questions if anyone has issues understanding the results. We elected to pull data today due to long holiday weekend- just seemed like a good idea. Flow was started back up by landfill on morning of Friday, May 22. Prior to that- Monday, May 18th through Friday, May 22d- they were discharging only potable water through the force main and the pump stations. This was due to maintenance issues they were experiencing inside their plant facility.
2. The graphs point out a clear spike in H2S concentrations on the resumption of flow, that lasts for a chunk of the day, but then immediately drop off. This gives me some (cautious) optimism that the dosing upstream at the plant site is having its intended effect.
3. I have been unable to review severity, frequency, and volume of any customer service odor complaints that occurred over the period of Friday, May 22d through today with John Welch as of yet but will get this information prior to the status next update on Friday. I see John W. tomorrow morning and will get this information verbally for incorporation into next update.
4. At this time- we are in a 'hold' position on additional dosing at PS 2 and 3 and will hold in place- until the situation clarifies itself more clearly and reveals it as necessary. I will have Mark Bright follow up with landfill personnel on the plans to undertake this step no later than Monday of next week however- IF it is required.

In continued monitoring mode at this time.

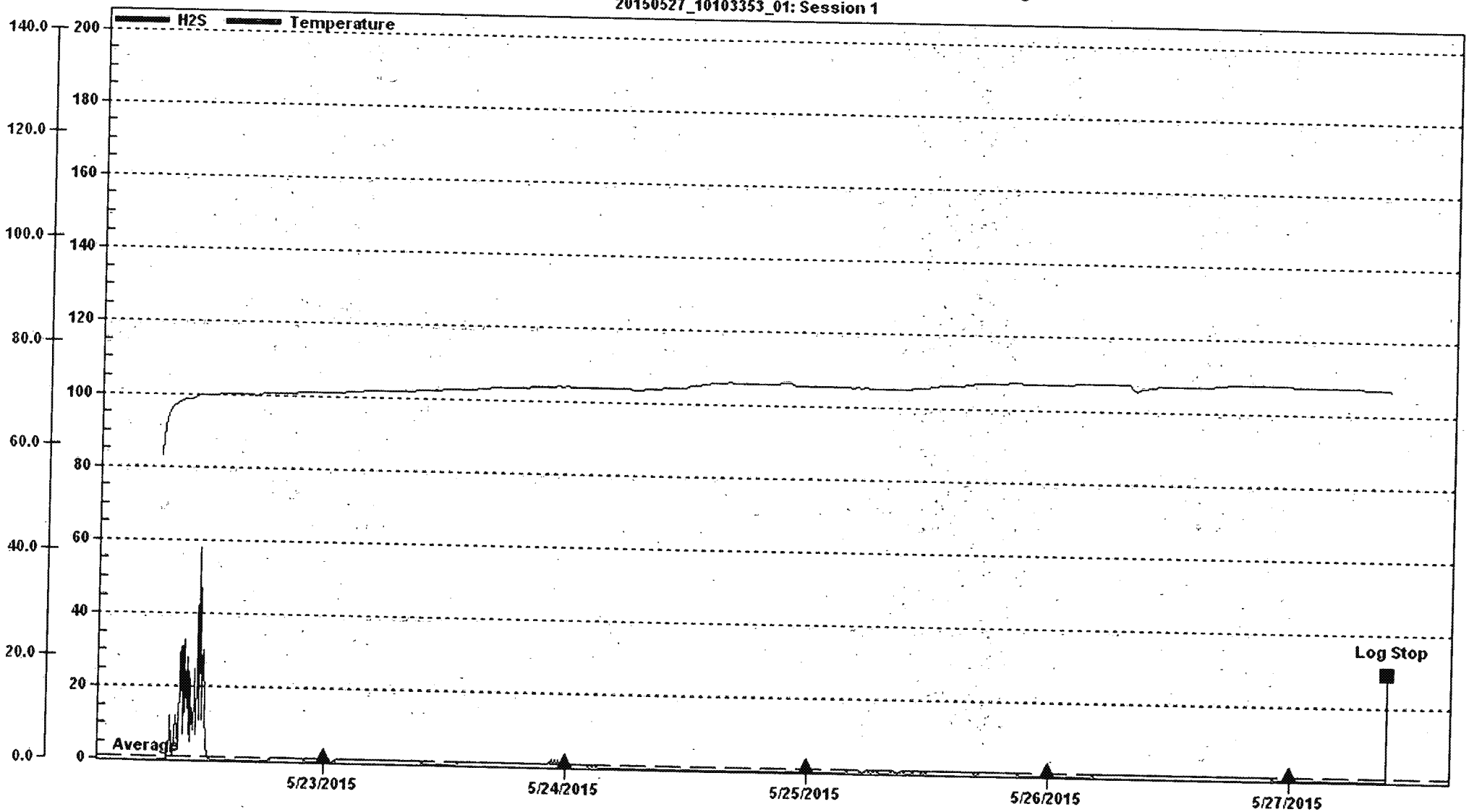
Any questions- please let me know.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

ARV SITE 25 ST CHARLES ROCK ROAD/ CHURCH OdaLog s/n 10103353

20150527_10103353_01: Session 1



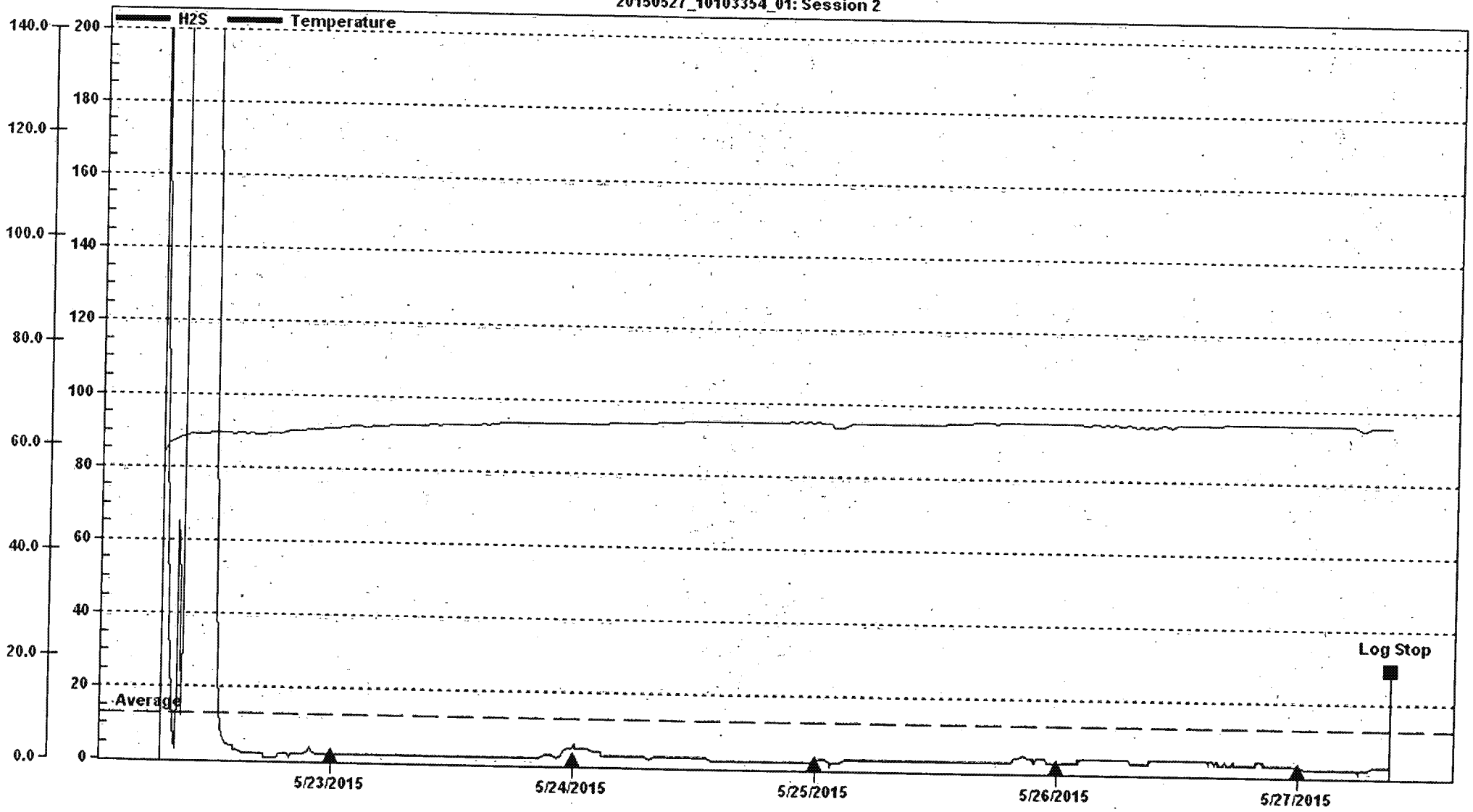
Period Displayed: 5/22/2015 - 5/27/2015 (Oda File: 20150527_10103353_01.oda -- Serial Number: Odalog Type L2-RTx 10103353 Instrument Range 0-200PPM)

Average 1 | Day Transition Min 0 Max 58 (Use Screen Data Only)

MSD 031822

ARV SITE 27 I170 OFF RAMP - OdaLog s/n 10103354

20150527_10103354_01: Session 2



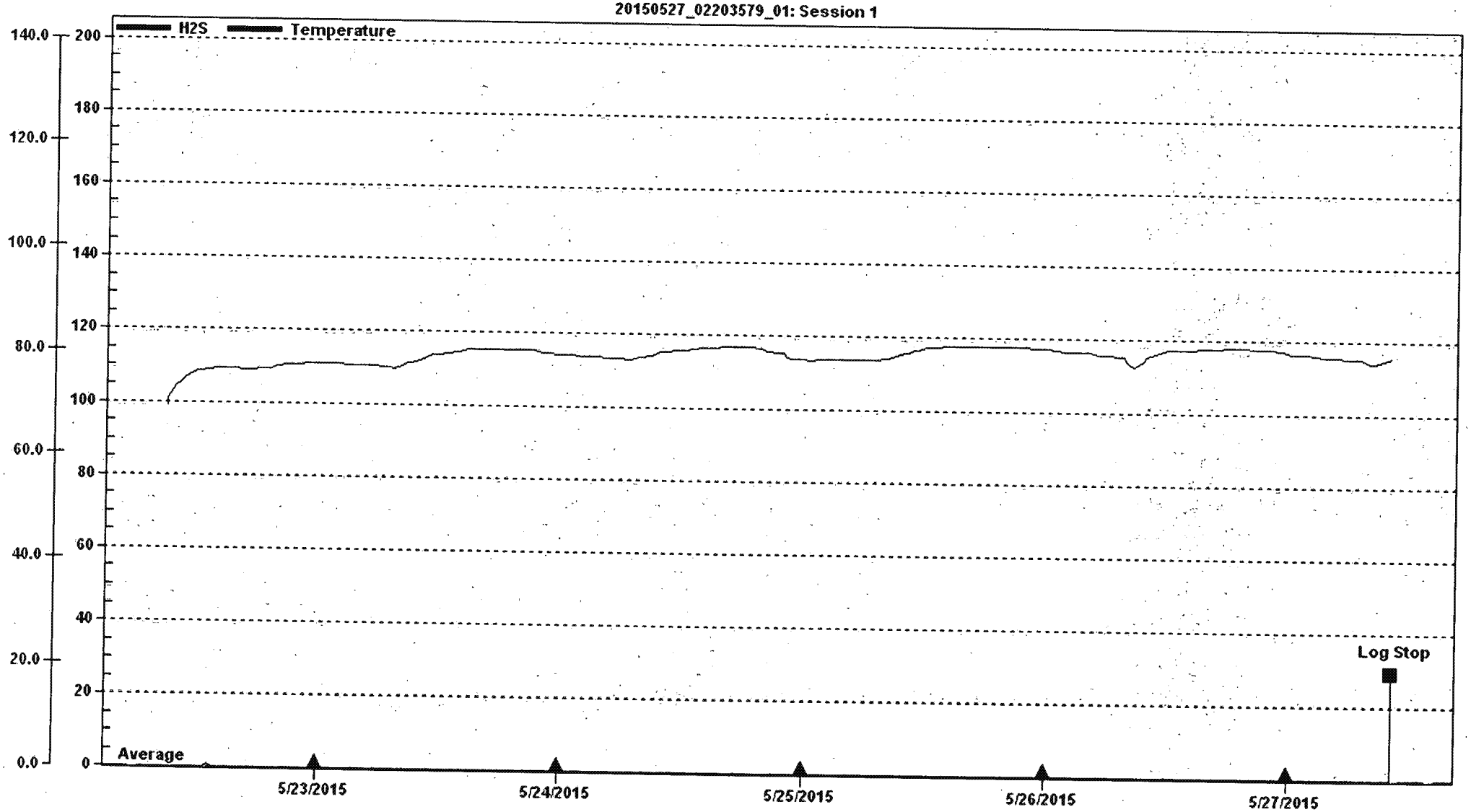
Period Displayed: 5/22/2015 - 5/27/2015 (Oda File: 20150527_10103354_01.oda -- Serial Number: Odalog Type L2-RTx 10103354 Instrument Range 0-200PPM)

Average 13 | Day Transition Min 0 Max 363 (Use Screen Data Only)

MSD 031823

BRIDGETON PS2 ID3579

20150527_02203579_01: Session 1



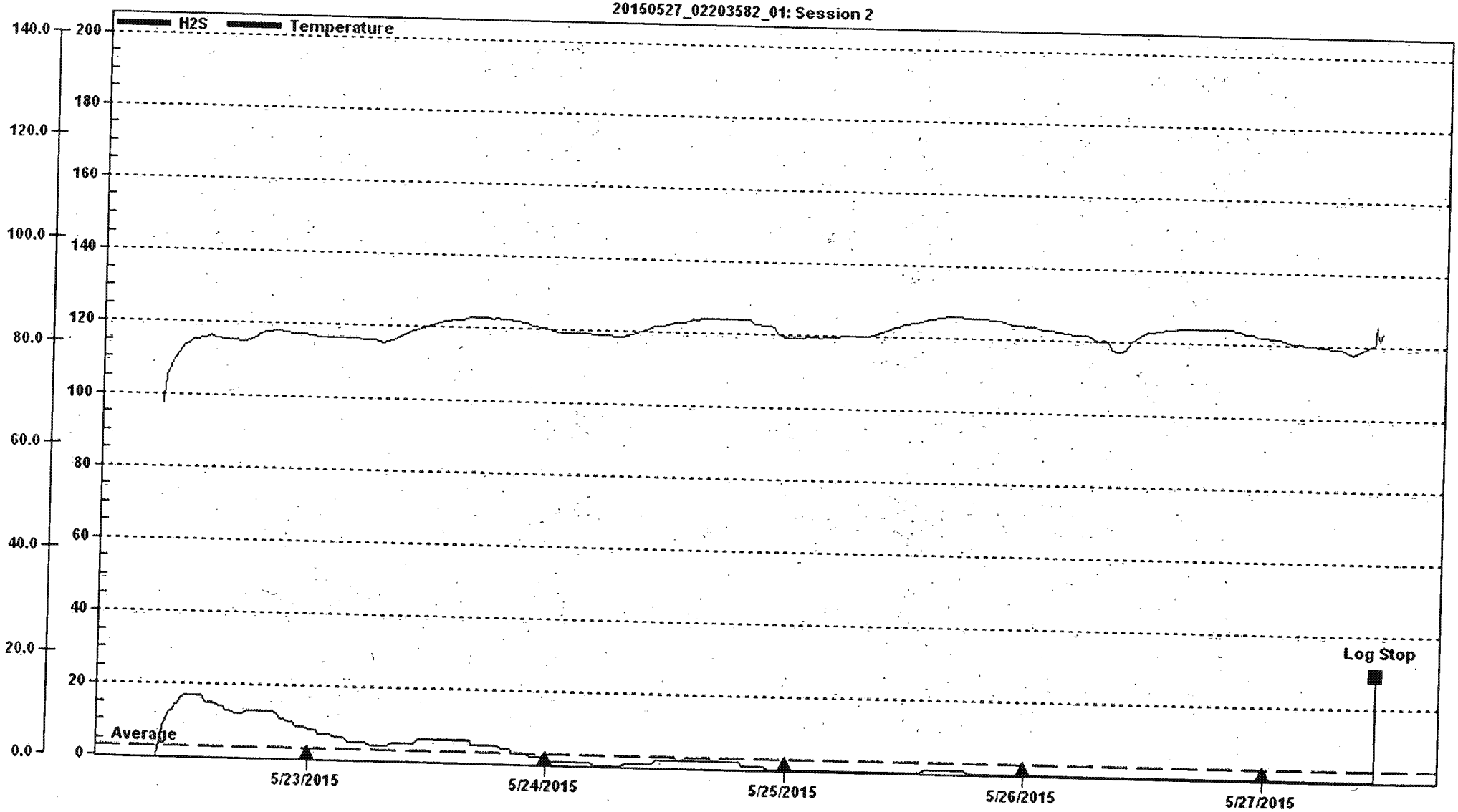
Period Displayed: 5/22/2015 - 5/27/2015 (Oda File: 20150527_02203579_01.oda -- Serial Number: Odalog Type L2-RTx 02203579 Instrument Range 0-200PPM)

Average 0 | Day Transition Min 0 Max 1 (Use Screen Data Only)

MSD 031824

BRIDGETON PS3 ID 3582

20150527_02203582_01: Session 2



Period Displayed: 5/22/2015 - 5/27/2015 (Oda File: 20150527_02203582_01.oda -- Serial Number: Odalog Type L2-RTx 02203582 Instrument Range 0-200PPM)

Average 3 | Month Transition Min 0 Max 17 (Use Screen Data Only)

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, May 27, 2015 11:55 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for this week is posted to Barr's ftp site.

- As reported last week, Pace Report for MH013 (60192476, 4/21/2015), reported Total Phenolics at 0.35 mg/l and Phenol at 2380 ug/l. The lab has agreed to rerun the analyses using existing sample material. We are still awaiting those results. From here forward, we will include two columns for Total Phenolics, one by Method 420.1 and one by the sum of Method 625 phenolic compounds.

- In last week's spreadsheet the haul data from 05/14, 05/15, and 05/18 was off a day. In this week's spreadsheet, those operational results have been corrected to better represent the actual day sampled.

- There is a new column in Tab 013 in the spreadsheet entitled "Calculated Discharge." Because of scaling in the 013 meter, landfill staff performed a calibration check and determined that the metered flow was about 61% of actual flow; therefore the "Calculated Discharge" is the "Metered Discharge" divided by 61%. The calibration check was performed again last Friday, 5/22 and a new adjustment factor is being derived that will be applied to the daily flows for this week. This check will continue weekly until this problem is resolved.

- According to our schedule, the weekly sampling for MH013 is completed - see the table below. Because the Week 13 sample may not have been representative of normal discharge, a Week 14 sample was collected today. If this is correct, then this starts the monthly sampling for 013, assuming that the results from the three outstanding reports do not demonstrate any exceedances.

Completed Weekly Sampling				
1	MH013	12/22/2014	Pace	60185298
2	MH013	12/29/2014	Pace	60185491
3	MH013	2/10/2015	Pace	60187901
4	MH013	3/9/2015	Pace	60189389
5	MH013	3/18/2015	Pace	60190002
6	MH013	3/25/2015	Pace	60190520
7	MH013	4/7/2015	Pace	60191467
8	MH013	4/16/2015	Pace	60192191
9	MH013	4/21/2015	Pace	60192476
10	MH013	4/29/2015	Pace	60193070
11	MH013	5/5/2044	Pace	60193438
12	MH013	5/12/2014	Pace	60194005

13	MH013	5/21/2014	Pace	60194802
14	MH013	5/27/2015	Pace	

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
5/25/2015	T1-106-AS	24	180,000	330,000
	HW	20	150,000	
5/24/2015	HW	19	142,500	330,000
	HW	25	187,500	
5/23/2015	HW	18	135,000	150,000
	HW	2	15,000	
5/22/2015	HW	6	45,000	232,500
	T1-105-AS	25	187,500	
5/21/2015	T1-105-AS	20	150,000	330,000
	HW	24	180,000	
5/20/2015	HW	19	142,500	255,000
	HW	15	112,500	
5/19/2015	HW	12	90,000	187,500
	T1-104-AS	13	97,500	

Table 1

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-107-AS	5/25/2015		UNk	No QC	WASTE_2015	--	5150	--	--	--	8.13	--
HW	5/24/2015		UNk	No QC	WASTE_2015	--	6040	--	--	--	7.98	--
HW	5/23/2015		UNk	No QC	WASTE_2015	--	5180	--	--	--	8.18	--
HW	5/22/2015		UNk	No QC	WASTE_2015	--	5220	--	--	--	7.93	--
T1-106-AS	5/21/2015		UNk	No QC	WASTE_2015	--	8270	--	--	--	7.84	--
HW	5/20/2015		UNk	No QC	WASTE_2015	--	14300	--	--	--	7.78	--
HW	5/19/2015		UNk	No QC	WASTE_2015	--	10200	--	--	--	7.68	--
T1-105-AS	5/18/2015		UNk	No QC	WASTE_2015	--	8270	--	--	--	8.22	--
HW	5/15/2015		UNk	No QC	WASTE_2015	--	7180	--	--	--	8.78	--
T1-104-AS	5/14/2015	6:10 AM	PDC	Validated	5052082	1800	7500	--	--	--	--	--
T1-104-AS	5/14/2015		UNk	No QC	WASTE_2015	--	6790	--	--	--	8.74	--
HW	5/13/2015		UNk	No QC	WASTE_2015	--	6200	--	--	--	8.11	--
T1-103-AS	5/07/2015	5:30 AM	PDC	Validated	5050918	4500	14000	--	--	--	--	--
T1-103-AS	5/07/2015		Field	No QC	WASTE_2015	--	10300	--	--	--	8.16	--

MSD 031829

Table 1

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
T1-107-AS	5/25/2015		UNk	No QC	WASTE_2015	17400	41.3	--	--	--	--	--
HW	5/24/2015		UNk	No QC	WASTE_2015	14580	45.8	--	--	--	--	--
HW	5/23/2015		UNk	No QC	WASTE_2015	12600	49.8	--	--	--	--	--
HW	5/22/2015		UNk	No QC	WASTE_2015	15380	45.5	--	--	--	--	--
T1-106-AS	5/21/2015		UNk	No QC	WASTE_2015	13020	42.8	--	--	--	--	--
HW	5/20/2015		UNk	No QC	WASTE_2015	15320	43.9	--	--	--	--	--
HW	5/19/2015		UNk	No QC	WASTE_2015	16680	43.2	--	--	--	--	--
T1-105-AS	5/18/2015		UNk	No QC	WASTE_2015	15580	42.2	--	--	--	--	--
HW	5/15/2015		UNk	No QC	WASTE_2015	16480	39.7	--	--	--	--	--
T1-104-AS	5/14/2015	6:10 AM	PDC	Validated	5052082	9100	--	--	--	--	--	--
T1-104-AS	5/14/2015		UNk	No QC	WASTE_2015	14060	41.4	--	--	--	--	--
HW	5/13/2015		UNk	No QC	WASTE_2015	12800	39.9	--	--	--	--	--
T1-103-AS	5/07/2015	5:30 AM	PDC	Validated	5050918	16000	--	--	--	--	--	--
T1-103-AS	5/07/2015		Field	No QC	WASTE_2015	18200	--	--	--	--	--	--

MSD 031830

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	6640	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	8440	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	10200	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	9430	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	8040	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	8150	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	9360	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	242	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	300	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	11900	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	10900	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	9450	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	6900	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	12000	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	9320	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	14400	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	11000	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	16600	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	9650	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	17700	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	13200	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	12400	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	13000	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	12600	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	14800	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	16400	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	15200	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	17700	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	19900	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	19000	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	16200	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	15400	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	14500	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	17300	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	13700	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	5770	10400 *	0.021	--	--	363

MSD 031831

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	12900	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	15700	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	11100	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	11900	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	17800	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	12200	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	10300	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	11500	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	10600	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	9030	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	12100	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	10100	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	2800	7550	0.046	--	--	141
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	9930	--	--	--	--

MSD 031832

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	Metered Discharge	Calculated Discharge	Total Phenolics by Method 420.1
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l					21 mg/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	gal	gal	mg/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	3.10	259220	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	4.22	--	167502	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	2.99	340350	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	0.273	--	195860	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	2.97	276170	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	178764	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	2.82	291771	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	117875	193238	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	28899	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	0	0	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	26459	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	1.41	--	26951	44182	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	8901	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	1.3	--	63533	104152	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	2.13	64580	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	1.22	--	87203	142956	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	1.40	98410	--		--
MH013	5/17/2015			LPTP	No QC	LPTP	--	1.41	--	97977	160618	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	2.48	152592	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	1.26	--	139835	229238	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	6.93	157294	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	6.52	--	164406	269518	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	3.78	316416	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	2.07	--	209144	342859	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	3.06	337138	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	1.81	--	182423	299054	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	2.8	271180	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	2.76	--	153873	252251	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	1.80	229756	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	1.30	--	104136	170715	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	4.90	166593	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	1.0	--	106071	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	3.2	165944	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	1.0	--	165944	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	2.7	170120	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	0.7	--	80386	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	2.1	183288	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	3.9	--	130462	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	4.30	296146	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	201557	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	2.10	344820	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	37.4	--	--	--	--	6.7

MSD 031833

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	Metered Discharge	Calculated Discharge	Total Phenolics by Method 420.1
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l					21 mg/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	gal	gal	mg/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	1.4	--	217983	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	4.6	165950	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	0.6	--	110979	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	1.96	334442	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	1.41	--	229634	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	2.12	320582	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	1.41	--	219160	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	1.97	318820	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	0.321	--	233937	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	3.0	217062	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	2.3	--	168767	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	5.3	174104	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	34.6	--	--	--	--	1.3
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	1.1	--	132324	--	--

MSD 031834

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Total Phenolics by Method 625	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic	Beryllium
						Total or Dissolved	NA	NA	NA	Total	Total	Total
						Permit Limitation/Surcharge Threshold	21 mg/l	5844 ug/l			770 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	ug/l	cm-1	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	**8.57**	**3830**	--	**18.4**	**413**	ND

MSD 031835

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Total Phenolics by Method 625	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic	Beryllium
						Total or Dissolved	NA	NA	NA	Total	Total	Total
						Permit Limitation/Surcharge Threshold	21 mg/l	5844 ug/l			770 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	ug/l	cm-1	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	6	1688	--	ND	333	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	38.6	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	38.6	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--

MSD 031836

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Mercury
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold	700 ug/l	5000 ug/l	2700 ug/l	150000 ug/l	400 ug/l		10 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	7.8	61.5	ND	1340	7.8	182000	ND

MSD 031837

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Cadmium	Chromium	Copper	Iron	Lead	Magnesium	Mercury
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold	700 ug/l	5000 ug/l	2700 ug/l	150000 ug/l	400 ug/l		10 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	47.5	ND	5060	ND	196000	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031838

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Nickel	Selenium	Silver	Thallium	Zinc	1,2,4-Trichlorobenzene	2,4,6-Trichlorophenol
						Total or Dissolved	Total	Total	Total	Total	Total	NA	NA
						Permit Limitation/Surcharge Threshold	2300 ug/l		500 ug/l		3000 ug/l		
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	38.6	ND	ND	ND	ND	ND	ND

MSD 031839

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Nickel	Selenium	Silver	Thallium	Zinc	1,2,4-Trichlorobenzene	2,4,6-Trichlorophenol
						Total or Dissolved	Total	Total	Total	Total	Total	NA	NA
						Permit Limitation/Surcharge Threshold	2300 ug/l		500 ug/l		3000 ug/l		
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	32.9	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031840

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031841

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031842

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether	4-Nitrophenol
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031843

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether	4-Nitrophenol
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031844

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzidine	Benzo(a)pyrene	Benzo(b)fluoranthene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031845

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzidine	Benzo(a)pyrene	Benzo(b)fluoranthene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031846

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031847

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031848

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031849

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031850

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031851

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031852

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031853

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031854

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Phenol	Pyrene	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	**2820**	ND	ND	ND	ND	ND	ND

MSD 031855

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Phenol	Pyrene	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031856

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis	1,3-Dichloro-1-propene, trans
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031857

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis	1,3-Dichloro-1-propene, trans
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031858

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Benzene	Bromodichloromethane	Bromoform	Bromomethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold				140 ug/l			
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031859

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Benzene	Bromodichloromethane	Bromoform	Bromomethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold				140 ug/l			
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031860

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Ethyl benzene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031861

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Ethyl benzene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	496	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031862

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride	Xylene, total
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	ND	ND	ND	ND	ND	ND	ND

MSD 031863

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride	Xylene, total
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	88.4	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031864

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	4,4'-DDD	4,4'-DDE	4,4'-DDT	a-BHC	Aldrin	Aroclor 1016	Aroclor 1221
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	--	--	--	--	--	--	--

MSD 031865

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	4,4'-DDD	4,4'-DDE	4,4'-DDT	a-BHC	Aldrin	Aroclor 1016	Aroclor 1221
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031866

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	b-BHC	Chlordane, alpha & gamma
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	--	--	--	--	--	--	--

MSD 031867

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	b-BHC	Chlordane, alpha & gamma
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031868

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	d-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	--	--	--	--	--	--	--

MSD 031869

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	d-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031870

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Toxaphene
						Total or Dissolved	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/25/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/25/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/24/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/24/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/23/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/23/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/22/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/22/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/21/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/21/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/20/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/20/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/19/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/19/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/18/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/18/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/05/2015	2:15 PM	10:30 PM	Pace	Validated	60193438	--	--	--	--

MSD 031871

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Toxaphene
						Total or Dissolved	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--

MSD 031872

Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Tuesday, May 26, 2015 4:17 PM
To: 'Power, Brian'; Rob G Daly; 'Koziatek, Dan'; 'Bouchard, Derek'
Cc: 'Kamp, Kevin'; Mark Bright; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Lance LeComb; William C. Selby
Subject: Next Air Sampling at Bridgeton LF PS1

We are planning to conduct air sampling at PS1 this Thursday 05/28, beginning at around 8:00 am.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Doug Mendoza

Bridgeton Landfill

From: Doug Mendoza
Sent: Tuesday, May 26, 2015 8:14 AM
To: 'LaFata, Natalie'
Cc: Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Subject: RE: June Hauling Request

MSD approves the request to haul approved activated sludge/permeate to the MSD hauled waste station through June 30, 2015. The daily approved amount is limited to 330,000 GPD, unless subsequently modified. The approved amount also may be decreased by MSD should operational conditions so warrant. Deliveries must occur during normal hauled waste station operating ours, unless extended hours have been arranged with MSD.

Sincerely,
Doug Mendoza
MSD Industrial Pretreatment Manager

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Tuesday, May 26, 2015 8:00 AM
To: Doug Mendoza
Subject: June Hauling Request

Doug, the Bridgeton Landfill Pretreatment Plant is formally requesting hauling acceptance during the month of June. We would like to request up to 44 loads of approved activated sludge/permeate per day to be approved. If there are any overtime requests through the month, we will provide a weeks' notice for the overtime coverage requests.

Please call me with any questions.

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
Mobile: (314) 341-3375 · http://www.cecinc.com
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Doug Mendoza

Bridgeton Landfill

From: LaFata, Natalie <nlafata@cecinc.com>
Sent: Tuesday, May 26, 2015 8:00 AM
To: Doug Mendoza
Subject: June Hauling Request

Doug, the Bridgeton Landfill Pretreatment Plant is formally requesting hauling acceptance during the month of June. We would like to request up to 44 loads of approved activated sludge/permeate per day to be approved. If there are any overtime requests through the month, we will provide a weeks' notice for the overtime coverage requests.

Please call me with any questions.

Natalie L. La Fata / Plant Manager
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Doug Mendoza

Bridgeton Landfill

From: Rob G Daly
Sent: Friday, May 22, 2015 12:33 PM
To: Jonathon Sprague
Cc: John Welch; Mark Bright; Mike Waxman; Jay Kniker; Lance LeComb; Bret A. Berthold; John Lodderhose; Doug Mendoza
Subject: Bridgeton Force Main/Collection System- Odor Control Issues Status Update No. 9-22MAY2015

Jon

Flow has resumed at landfill side as of this morning. I spoke to Bret about it yesterday and updated him on situation as it then stood (basically- all week with no product flowing through system except potable water) prior to his meeting with municipality. Odor should not have been a problem from Monday through this morning in other words.

Landfill has (today) proposed a different dosing chemical versus previously proposed and utilized calcium nitrate- and they reviewed this with DEC is my understanding. This is as a result of their sampling and testing that they have been doing and is I am sure based on the chemistry of their effluent. We expect that shift to occur starting today- at similar rates as with bioxide.

Draft SOP in hand on Odor Control side- received in accordance with NOV. I am sitting on this draft until middle of next week and will ask for input from DEC prior to finalizing with landfill by end of next week. Reason for delay: this situation is pretty dynamic and is changing on a day to day basis. Until I know that ANY of these things they are proposing or doing is working- there is no point in saying 'this is it'. I will take the lead on getting this response to their proposed SOP together and will then get it back to them- ONCE we know something is working or not working.....

End result for now: we are going into a holiday weekend with no understanding as to whether or not these proposed changes are going to effect the bottom line of significant odor reduction. We could have a lot of nasty grams in the inboxes come Tuesday morning but will have to wait and see.....

Next data collection and assessment point for us: Monday (4 gas meters only). I will also consult with John Welch on customer service complaints that may have occurred over holiday weekend and again ask any and all parties to make sure they funnel copies of, or information on, customer service complaints to me and Mark Bright as well so we can understand the magnitude of the issue, etc. without resort to others. Please do not make us responsible for responding to them- we just need to know the magnitude of the issue.

We will also pull odaloggers next Friday and look at the data side- validate if this series of steps is having desired effect. If we need to do sooner, i.e. **WEDNESDAY** instead- we will. I will make this decision after consulting with John Welch and Mark Bright Tuesday morning/afternoon and we should have at least some ability by then to assess whether needle is moving in the right direction...

ADDED: John Lodderhose and Doug Mendoza to this update group. Also added them to Landfill update group. Again- I strongly suggest we continue to keep our responses centralized through the communications chain we have established, i.e. Natalie at plant side and Mark Bright on Ops side- except for limited cases like NOV, etc. obviously. Otherwise- they have the opportunity to divide and conquer on us and mis-communications will arise.

Have a great Memorial Day weekend.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Friday, May 22, 2015 8:50 AM
To: Art Middleton; Bret A. Berthold; Bob Meppiel; bpower@republicservices.com; Catherine Politte; Doug Mendoza; Dean Sentman; Jay Kniker; John Lodderhose; Jonathon Sprague; Jeff Jones; John Welch; Kevin George; Kim Osterloh; Lance LeComb; Mike Waxman; Rob G Daly; Sean Hadley; Kohrt, Mark; Graves, Stephen; O'Leary, Kevin; Wright, Leon; Kamp, Kevin; Mark Bright; LaFata, Natalie
Subject: MSD Plant Update 5-22-2015

Just a quick update to the group, we have resumed discharge to the force main.

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
Mobile: (314) 341-3375 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Thursday, May 21, 2015 3:37 PM
To: Art Middleton; Bret A. Berthold; Bob Meppiel; bpower@republicservices.com; Catherine Politte; Doug Mendoza; Dean Sentman; Jay Kniker; John Lodderhose; Jonathon Sprague; Jeff Jones; John Welch; Kevin George; Kamp, Kevin; Kim Osterloh; Lance LeComb; Mike Waxman; Rob G Daly; Sean Hadley; LaFata, Natalie; Kohrt, Mark; Graves, Stephen; O'Leary, Kevin; Wright, Leon
Subject: MSD Plant Update 5-21-2015

There has been no discharge effluent, other than fresh water flush, from the site since Monday. On Wednesday, maintenance began on the discharge line and infrastructure from the plant to the discharge tank onsite. Due to this maintenance, no flows can leave the plant until completed. I will have an update on a discharge timeframe tomorrow.

Convenience outlets have been added at all three pump stations.

The sampling of the pump stations will resume when the discharge resumes from the site. I will coordinate with Mark Bright before this happens.

The SOP requested in the NOV has been provided to MSD.

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
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TO: **Chris Verplancke, Finance Department**
Cynthia Chalk, Finance Department

FROM: Angie McDonough amm

DATE: May 21, 2015

RE: **BRIDGETON LANDFILL LLC**
WASTEWATER USER CHARGE BILLING
ACCOUNT NUMBER 0039145-8

Pursuant to the MSD Industrial Wastewater Discharge Permit for the above referenced facility, please bill this facility for the following charges for the indicated billing period:

DISCHARGE PERIOD: **April 2015**

BILLING IS FOR: **On- Site Special Discharge**

SAMPLE POINT: **013 - Commingled landfill leachate and landfill gas collection system condensate.**

Billing Item	Quantity	Units	Rate	Charge
Volume	3,911	CcF	$ 2.82 /CcF	$11,029.02
BOD Extra Strength Surcharge	4,213	mg/L	$ 620.14 /ton	$29,610.25
Total	--	--	--	$40,639.27

If you have any questions, please call me at extension 8762.

bv

ec: Doug Mendoza
Brian Gibson
Bridgeton Republic Services
Laura Joiner
Becca Coyle
Keidra King

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

Pa

Doug Mendoza

Bridgeton Landfill

From: LaFata, Natalie <nlafata@cecinc.com>
Sent: Thursday, May 21, 2015 3:37 PM
To: Art Middleton; Bret A. Berthold; Bob Meppiel; bpower@republicservices.com; Catherine Politte; Doug Mendoza; Dean Sentman; Jay Kniker; John Lodderhose; Jonathon Sprague; Jeff Jones; John Welch; Kevin George; Kamp, Kevin; Kim Osterloh; Lance LeComb; Mike Waxman; Rob G Daly; Sean Hadley; LaFata, Natalie; Kohrt, Mark; Graves, Stephen; O'Leary, Kevin; Wright, Leon
Subject: MSD Plant Update 5-21-2015

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Doug Mendoza

From: Doug Mendoza
Sent: Thursday, May 21, 2015 9:21 AM
To: 'Ed Galbraith'; John Lodderhose; Brian G. Gibson; Michael Grace; Nora C. Estopare; Rob G Daly; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; Andrea A. Nord; Becca Coyle
Subject: RE: Bridgeton Landfill Weekly Report

Ed,

1. Regarding the reporting of results for total phenols, we recognize the options allowed under special condition B.1 of Bridgeton Landfill's permit:

Analysis for Total Phenols is to be performed using EPA Method 625. The result to be reported is the arithmetic sum of the concentrations found for the following individual phenolic compounds:

4-chloro-3-methylphenol	4,6-dinitro-2-methylphenol	pentachlorophenol
2-chlorophenol	2,4-dinitrophenol	phenol
2,4-dichlorophenol	2-nitrophenol	2,4,6-trichlorophenol
2,4-dimethylphenol	4-nitrophenol	

As an option, prior to performing the Method 625 analysis, an initial screening may be performed using EPA Method 420.1. If this option is chosen, two separate samples must be collected, one preserved for the method 420.1 analysis and one unpreserved for a method 625 analysis, if necessary. If the screening produces a result which is less than the permit limitation for Total Phenols, the result should be reported as "less than (numerical result)", and the Method 625 analysis need not be performed. If Method 420.1 produces a result which is greater than the permit limitation, the unpreserved sample must be analyzed using Method 625 and the Method 625 result must be reported. Note: The screening analysis must be completed and a result obtained within sufficient time to ensure the Method 625 analysis, if required, can begin within the 7 day holding time of the unpreserved sample.

While the special condition does not specifically address how to report results if the initial screening method 420.1 is performed with results below the discharge limit, and then method 625 is run anyway, the special condition does state that analysis using method 625 is how total phenols is to be determined. So the method 625 results will always take priority over the method 420.1 results. Should a situation arise where not all eleven of the method 625 phenols are analyzed, but the summation of the analyzed method 625 phenols exceeds the method 420.1 results, then the method 625 results still could potentially result in a violation, with results reported e.g. as >22.054 mg/L.

2. As we discussed and you confirmed in a separate email, the sample that Bridgeton Landfill will collect for the week of Sun 5/17/15 - Sat 5/23/15 will be the last required once/week sample, barring any discharge limit exceedances. Required sampling by Bridgeton Landfill then will change to once/calendar month for the next six consecutive months (i.e. June 2015 – November 2015), again barring any discharge limit exceedances, per permit special condition B.3.

Reporting of results may also change to once/calendar month when the sampling changes to once/month. However, please note that reporting requirements for hauled waste (sample point 014) that has not received full treatment

through the permittee's pretreatment plant (including final ultrafiltration) are subject to separate approvals which may include more frequent reporting requirements.

3. Please remove Steve Grace and Catherine Politte from the email distribution list, and add Becca Coyle to the email distribution list.

Sincerely,
Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, May 20, 2015 6:19 PM
To: Ed Galbraith; Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

The weekly data and spreadsheets have been uploaded to the ftp site.

Thank you.

Sent via the Samsung GALAXY S® 5, an AT&T 4G LTE smartphone

-------- Original message --------
From: Ed Galbraith <EGalbraith@barr.com>
Date: 05/20/2015 2:40 PM (GMT-06:00)
To: "'Doug Mendoza (DMENDOZA@stlmsd.com)'" <DMENDOZA@stlmsd.com>, 'John Lodderhose' <jrlodd@stlmsd.com>, "'Brian G. Gibson (bgibson@stlmsd.com)'" <bgibson@stlmsd.com>, 'Catherine Politte' <cpolitte@stlmsd.com>, 'Michael Grace' <MGRACE@stlmsd.com>, "'Nora C. Estopare (nestopare@stlmsd.com)'" <nestopare@stlmsd.com>, "'Rob G Daly (rdaly@stlmsd.com)'" <rdaly@stlmsd.com>, 'Steve Grace' <sgrace@stlmsd.com>, "'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'" <Leanne.TippettMosby@dnr.mo.gov>, 'Aaron Schmidt' <aaron.schmidt@dnr.mo.gov>, "'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'" <Christopher.Nagel@dnr.mo.gov>, "'bpower@republicservices.com'" <bpower@republicservices.com>, "'Getting, James'" <JGetting@republicservices.com>, "'Bouchard, Derek (DBouchard@republicservices.com)'" <DBouchard@republicservices.com>, "'Kamp, Kevin'" <kkamp@cecinc.com>, "'LaFata, Natalie'" <nlafata@cecinc.com>, "'Cooper, Ivan (icooper@cecinc.com)'" <icooper@cecinc.com>, "'lwright@cecinc.com'" <lwright@cecinc.com>, Kelly Caddy <KCaddy@barr.com>, "Dana B. Pasi" <DPasi@barr.com>, "'Christopher J. Bulmahn (cjbulmahn@stlmsd.com)'" <cjbulmahn@stlmsd.com>, "'Ken Gambaro (kmgamb@stlmsd.com)'" <kmgamb@stlmsd.com>, "'mdtown@stlmsd.com'" <mdtown@stlmsd.com>, "'lwright@cecinc.com'" <lwright@cecinc.com>, "Andrea A. Nord" <ANord@barr.com>
Cc: Ed Galbraith <EGalbraith@barr.com>
Subject: RE: Bridgeton Landfill Weekly Report

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, May 20, 2015 6:19 PM
To: Ed Galbraith; Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

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To: "'Doug Mendoza (DMENDOZA@stlmsd.com)'" <DMENDOZA@stlmsd.com>, 'John Lodderhose' <jrlodd@stlmsd.com>, "'Brian G. Gibson (bgibson@stlmsd.com)'" <bgibson@stlmsd.com>, 'Catherine Politte' <cpolitte@stlmsd.com>, 'Michael Grace' <MGRACE@stlmsd.com>, "'Nora C. Estopare (nestopare@stlmsd.com)'" <nestopare@stlmsd.com>, "'Rob G Daly (rdaly@stlmsd.com)'" <rdaly@stlmsd.com>, 'Steve Grace' <sgrace@stlmsd.com>, "'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'" <Leanne.TippettMosby@dnr.mo.gov>, 'Aaron Schmidt' <aaron.schmidt@dnr.mo.gov>, "'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'" <Christopher.Nagel@dnr.mo.gov>, "'bpower@republicservices.com'" <bpower@republicservices.com>, "'Getting, James'" <JGetting@republicservices.com>, "'Bouchard, Derek (DBouchard@republicservices.com)'" <DBouchard@republicservices.com>, "'Kamp, Kevin'" <kkamp@cecinc.com>, "'LaFata, Natalie'" <nlafata@cecinc.com>, "'Cooper, Ivan (icooper@cecinc.com)'" <icooper@cecinc.com>, "'lwright@cecinc.com'" <lwright@cecinc.com>, Kelly Caddy <KCaddy@barr.com>, "Dana B. Pasi" <DPasi@barr.com>, "'Christopher J. Bulmahn (cjbulmahn@stlmsd.com)'" <cjbulmahn@stlmsd.com>, "'Ken Gambaro (kmgamb@stlmsd.com)'" <kmgamb@stlmsd.com>, "'mdtown@stlmsd.com'" <mdtown@stlmsd.com>, "'lwright@cecinc.com'" <lwright@cecinc.com>, "Andrea A. Nord" <ANord@barr.com>
Cc: Ed Galbraith <EGalbraith@barr.com>
Subject: RE: Bridgeton Landfill Weekly Report

Addendum: I should point out that a split sample of untreated leachate was collected with Missouri DNR on 04/09/2015. MDNR chose the parameters that were analyzed, including a number radiochemistry parameters. This sample is not a substitute for the quarterly sampling required by the MSD permit.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

From: Ed Galbraith
Sent: Wednesday, May 20, 2015 11:59 AM
To: 'Doug Mendoza (DMENDOZA@stlmsd.com)'; 'John Lodderhose'; 'Brian G. Gibson (bgibson@stlmsd.com)'; 'Catherine Politte'; 'Michael Grace'; 'Nora C. Estopare (nestopare@stlmsd.com)'; 'Rob G Daly (rdaly@stlmsd.com)'; 'Steve Grace'; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; 'Christopher J. Bulmahn (cjbulmahn@stlmsd.com)'; 'Ken Gambaro (kmgamb@stlmsd.com)'; 'mdtown@stlmsd.com'; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

We are experiencing problems with Barr's ftp site. We will work to post the material as quickly as possible and will inform you when the site is available.

- Doug, you had indicated in a previous email that because the lab missed the BOD dilution for sample T1-101-AS, MSD will use the BOD value that was obtained for T1-97-AS, which was 6,300 mg/L BOD. We concur with that approach.

- Flash point results have been added to Pace report 60192524, 04/21/2015, for filter cake.

- As reported last week, Pace Report for MH013 (60192476, 4/21/2015), reported Total Phenolics at 0.35 mg/l and Phenol at 2380 ug/l. The lab initially verified both results but upon further inquiry they have now agreed to rerun the analyses using existing sample material. In the meantime, we have amended the spreadsheet to include two columns for Total Phenolics, one by Method 420.1 and one by the sum of Method 625 phenolic compounds. There is a tab showing how the Method 625 results were calculated. Because the lab has not qualified either result, we have not included any qualifiers in our spreadsheet at this point.

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
5/18/2015	T1-104-AS	7	52,500	135,000
	HW	11	82,500	
5/15/2015	HW	6	45,000	60,000
	T1-103-AS	2	15,000	
5/14/2015	T1-103-AS	2	15,000	75,000
	HW	8	60,000	
5/13/2015			-	75,000
	HW	10	75,000	

Table 1

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-105-AS	5/18/2015		UNk	No QC	WASTE_2015	--	7180	--	--	--	8.78	--
HW	5/15/2015		UNk	No QC	WASTE_2015	--	6790	--	--	--	8.74	--
T1-104-AS	5/14/2015		UNk	No QC	WASTE_2015	--	6200	--	--	--	8.11	--
HW	5/13/2015		UNk	No QC	WASTE_2015	--	6200	--	--	--	8.11	--
T1-103-AS	5/07/2015	5:30 AM	PDC	Validated	5050918	4500	14000	--	--	--	--	--
T1-103-AS	5/07/2015		Field	No QC	WASTE_2015	--	10300	--	--	--	8.16	--
HW	5/06/2015		Field	No QC	WASTE_2015	--	10300	--	--	--	8.16	--
HW	5/05/2015		Field	No QC	WASTE_2015	--	6540	--	--	--	8.10	--

MSD 031885

Table 1

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
T1-105-AS	5/18/2015		UNk	No QC	WASTE_2015	16480	--	--	--	--	--	--
HW	5/15/2015		UNk	No QC	WASTE_2015	14060	39.7	--	--	--	--	--
T1-104-AS	5/14/2015		UNk	No QC	WASTE_2015	12800	41.4	--	--	--	--	--
HW	5/13/2015		UNk	No QC	WASTE_2015	12800	39.9	--	--	--	--	--
T1-103-AS	5/07/2015	5:30 AM	PDC	Validated	5050918	16000	--	--	--	--	--	--
T1-103-AS	5/07/2015		Field	No QC	WASTE_2015	18200	--	--	--	--	--	--
HW	5/06/2015		Field	No QC	WASTE_2015	18200	40.4	--	--	--	--	--
HW	5/05/2015		Field	No QC	WASTE_2015	18860	41.5	--	--	--	--	--

MSD 031886

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	9450	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	6900	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	12000	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	9320	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	14400	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	11000	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	16600	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	9650	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	17700	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	13200	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	12400	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	13000	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	12600	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	14800	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	16400	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	15200	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	17700	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	19900	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	19000	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	16200	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	15400	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	14500	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	17300	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	13700	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	12900	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	15700	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	11100	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	11900	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	17800	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	12200	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	10300	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	11500	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	10600	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	9030	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	12100	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	10100	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	2800	7550	0.046	--	--	141
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	9930	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	12900	--	--	--	--

MSD 031887

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	11900	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	15300	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	10700	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	11700	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	14100	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	19700	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	25400	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	16200	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	2340	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	30200	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	5450	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	20100	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	20000	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	19700	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	6550	12500	0.054	--	--	51.9
MH013	4/21/2015			LPTP	No QC	LPTP	--	18100	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	1.40	98410	--	7.62	2.51
MH013	5/17/2015			LPTP	No QC	LPTP	--	1.41	--	--	7.71	1.97
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	2.48	152592	--	7.70	2.69
MH013	5/16/2015			LPTP	No QC	LPTP	--	1.26	--	--	7.67	1.77
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	6.93	157294	--	7.72	2.27
MH013	5/15/2015			LPTP	No QC	LPTP	--	6.52	--	--	7.24	1.67
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	3.78	316416	--	7.83	4.23
MH013	5/14/2015			LPTP	No QC	LPTP	--	2.07	--	--	7.84	1.84
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	3.06	337138	--	7.90	3.07
MH013	5/13/2015			LPTP	No QC	LPTP	--	1.81	--	--	7.75	0.99
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	2.8	271180	--	7.39	3.12
MH013	5/12/2015			LPTP	No QC	LPTP	--	2.76	--	--	7.21	2.92
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	1.80	229756	--	7.40	3.28
MH013	5/11/2015			LPTP	No QC	LPTP	--	1.30	--	--	7.17	36.18
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	4.90	166593	--	7.46	2.51
MH013	5/10/2015			LPTP	No QC	LPTP	--	1.0	--	--	7.20	0.658
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	3.2	165944	--	7.38	2.06
MH013	5/09/2015			LPTP	No QC	LPTP	--	1.0	--	--	7.34	0.813
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	2.7	170120	--	7.41	3.81
MH013	5/08/2015			LPTP	No QC	LPTP	--	0.7	--	--	7.36	0.59
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	2.1	183288	--	7.77	3.22
MH013	5/07/2015			LPTP	No QC	LPTP	--	3.9	--	--	7.91	2.54
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	4.30	296146	--	8.05	3.95
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	2.10	344820	--	7.89	4.07
MH013	5/05/2015			LPTP	No QC	LPTP	--	1.4	--	--	7.72	2.01
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	4.6	165950	--	7.38	3.68
MH013	5/04/2015			LPTP	No QC	LPTP	--	0.6	--	--	7.11	2.11
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	1.96	334442	--	7.49	2.92
MH013	5/03/2015			LPTP	No QC	LPTP	--	1.41	--	--	7.20	1.23
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	2.12	320582	--	7.40	2.14
MH013	5/02/2015			LPTP	No QC	LPTP	--	1.41	--	--	7.21	1.23
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	1.97	318820	--	7.35	2.18
MH013	5/01/2015			LPTP	No QC	LPTP	--	0.321	--	--	--	1.03
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	3.0	217062	--	7.19	3.33
MH013	4/30/2015			LPTP	No QC	LPTP	--	2.3	--	--	7.11	2.2
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	5.3	174104	--	7.21	1.91
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	34.6	--	--	7.3	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	1.1	--	--	7.09	1.12
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	4.3	247754	--	7.27	1.98

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	2.2	--	--	6.98	1.08
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	2.3	223398	--	7.31	3.03
MH013	4/27/2015			LPTP	No QC	LPTP	--	1.9	--	--	6.98	1.58
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	2.42	129477	--	7.21	3.61
MH013	4/26/2015			LPTP	No QC	LPTP	--	1.78	--	--	7.17	2.47
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	6.8	185747	--	7.19	2.84
MH013	4/25/2015			LPTP	No QC	LPTP	--	1.7	--	--	7.01	1.64
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	3.4	94200	--	7.27	1.51
MH013	4/24/2015			LPTP	No QC	LPTP	--	1.1	--	--	6.52	1.03
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	6.2	100654	--	7.21	1.52
MH013	4/23/2015			LPTP	No QC	LPTP	--	2.9	--	--	6.85	1.52
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	1.69	118618	--	7.29	1.38
MH013	4/22/2015			LPTP	No QC	LPTP	--	1.71	--	--	6.85	1.49
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	1.73	134348	--	7.28	2.97
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	36.4	--	--	7.3	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	1.69	--	--	7.17	1.16

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics by Method 420.1	Total Phenolics by Method 625	Total Toxic Organics	Ultraviolet absorbance at 254 nm
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	21 mg/l	5844 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	mg/l	ug/l	cm-1
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	19.0	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	21.5		--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	12.5		--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	28		--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	10.5		--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	257		--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	106		--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	366		--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	92.5		--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	218.5		--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	22.5		--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	58		--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	24.5		--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	69		--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	146.5	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	222.5	106071	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	19.5	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	72	165944	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	20	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	364	80386	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	12	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	1180	130462	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	14	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	201557	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	23	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	308	217983	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	20	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	251	110979	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	77	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	1470	229634	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	20	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	321	219160	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	13	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	229	233937	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	178	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	334	168767	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	95.5	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	171	--	1.3	6	1688	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	38.6
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	38.6
MH013	4/29/2015			LPTP	No QC	LPTP	44	132324	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	41	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics by Method 420.1	Total Phenolics by Method 625	Total Toxic Organics	Ultraviolet absorbance at 254 nm
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	21 mg/l	5844 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	mg/l	ug/l	cm-1
MH013	4/28/2015			LPTP	No QC	LPTP	252	167994	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	22.5	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	284.5	152289	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	20.5	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	41.5	98642	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	27	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	206	135925	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	22	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	31.5	109671	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	26	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	14	131172	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	18	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	253.5	127627	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	25	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	34.0	--	0.35	2.955	3105	--
MH013	4/21/2015			LPTP	No QC	LPTP	148	99884	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold		770 ug/l		700 ug/l	5000 ug/l	2700 ug/l	150000 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	<30 ND	333	<1 ND	<15 ND	47.5	<30 ND	5060
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold		770 ug/l		700 ug/l	5000 ug/l	2700 ug/l	150000 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	337	ND	ND	35.6	ND	1690
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031894

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Lead	Magnesium	Mercury	Nickel	Selenium	Silver	Thallium
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold	400 ug/l		10 ug/l	2300 ug/l		500 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	<15 ND	196000	<0.2 ND	32.9	<45 ND	<21 ND	<40 ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031895

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Lead	Magnesium	Mercury	Nickel	Selenium	Silver	Thallium
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold	400 ug/l		10 ug/l	2300 ug/l		500 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	167000	ND	31.4	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031896

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Zinc	1,2,4-Trichlorobenzene	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene
						Total or Dissolved	Total	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	3000 ug/l						
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	<150 ND	<250 ND	<250 ND	<250 ND	<250 ND	<2500 ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031897

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Zinc	1,2,4-Trichlorobenzene	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene
						Total or Dissolved	Total	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	3000 ug/l						
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	<25 ND	<25 ND	<25 ND	<25 ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031898

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	<250 ND	<1250 ND	<250 ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031899

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	<25 (ND)	<125 (ND)	<25 (ND)	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031900

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	<250 ND	ND	<250 ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031901

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	<25 (ND)	ND	<25 (ND)	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031902

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Benzidine	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031903

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Benzidine	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031904

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031905

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031906

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	ND	<350 ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031907

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031908

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	<250 ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031909

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031910

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	<250 ND	ND	<250 ND	ND	ND	<50 ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031911

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	(25 ND)	ND	(2380)	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031912

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	<50 ND	ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031913

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031914

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis	1,3-Dichloro-1-propene, trans	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Benzene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							140 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	ND	<50 ND	ND	<50 ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031915

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis	1,3-Dichloro-1-propene, trans	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Benzene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							140 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031916

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	<250 ND	ND	<50 ND	ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031917

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031918

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Chloroform	Chloromethane	Ethyl benzene	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	496	ND	<50 ND	88.4	ND	<50 ND	ND
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031919

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Chloroform	Chloromethane	Ethyl benzene	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031920

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Trichlorofluoro methane	Vinyl chloride	Xylene, total	4,4'-DDD	4,4'-DDE	4,4'-DDT	a-BHC
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	ND	ND	ND	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031921

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Trichlorofluoro methane	Vinyl chloride	Xylene, total	4,4'-DDD	4,4'-DDE	4,4'-DDT	a-BHC
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031922

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aldrin	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031923

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aldrin	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031924

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aroclor 1260	b-BHC	Chlordane, alpha & gamma	d-BHC	Dieldrin	Endosulfan I	Endosulfan II
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031925

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aroclor 1260	b-BHC	Chlordane, alpha & gamma	d-BHC	Dieldrin	Endosulfan I	Endosulfan II
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031926

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Endosulfan Sulfate	Endrin	Endrin Aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Toxaphene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015	1:00 PM	11:30 PM	Pace	Validated	60193070	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031927

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Endosulfan Sulfate	Endrin	Endrin Aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Toxaphene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031928

Dr

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, May 20, 2015 2:40 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Cc: Ed Galbraith
Subject: RE: Bridgeton Landfill Weekly Report

Addendum: I should point out that a split sample of untreated leachate was collected with Missouri DNR on 04/09/2015. MDNR chose the parameters that were analyzed, including a number radiochemistry parameters. This sample is not a substitute for the quarterly sampling required by the MSD permit.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

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From: Ed Galbraith
Sent: Wednesday, May 20, 2015 11:59 AM
To: 'Doug Mendoza (DMENDOZA@stlmsd.com)'; 'John Lodderhose'; 'Brian G. Gibson (bgibson@stlmsd.com)'; 'Catherine Politte'; 'Michael Grace'; 'Nora C. Estopare (nestopare@stlmsd.com)'; 'Rob G Daly (rdaly@stlmsd.com)'; 'Steve Grace'; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; 'Christopher J. Bulmahn (cjbulmahn@stlmsd.com)'; 'Ken Gambaro (kmgamb@stlmsd.com)'; 'mdtown@stlmsd.com'; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

We are experiencing problems with Barr's ftp site. We will work to post the material as quickly as possible and will inform you when the site is available.

- Doug, you had indicated in a previous email that because the lab missed the BOD dilution for sample T1-101-AS, MSD will use the BOD value that was obtained for T1-97-AS, which was 6,300 mg/L BOD. We concur with that approach.

- Flash point results have been added to Pace report 60192524, 04/21/2015, for filter cake.

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, May 20, 2015 2:33 PM
To: Doug Mendoza
Cc: bpower@republicservices.com; Bouchard, Derek (DBouchard@republicservices.com); Kamp, Kevin; 'LaFata, Natalie'
Subject: RE: Bridgeton Landfill Weekly Report
Attachments: 014 Volume Summary_05192015.xlsx; BLF LPTP and Leachate Sampling_05192015.xlsx

Doug, attached are the weekly spreadsheets as requested.

Also, this is to confirm that weekly samples for MH013 were collected on 5/5/2015 and 5/12/2014. So this week should be the last of the weekly samples for 013, barring any exceedances.

Thanks.

Ed Galbraith

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cell: 573.418.5562
egalbraith@barr.com
www.barr.com

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From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Wednesday, May 20, 2015 2:28 PM
To: Ed Galbraith
Subject: RE: Bridgeton Landfill Weekly Report

Ed,

Can you just email me the two spreadsheets for this week's report, since the FTP site apparently is still preventing you from uploading to it?

Doug

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, May 20, 2015 11:59 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, May 20, 2015 11:59 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

We are experiencing problems with Barr's ftp site. We will work to post the material as quickly as possible and will inform you when the site is available.

- Doug, you had indicated in a previous email that because the lab missed the BOD dilution for sample T1-101-AS, MSD will use the BOD value that was obtained for T1-97-AS, which was 6,300 mg/L BOD. We concur with that approach.

- Flash point results have been added to Pace report 60192524, 04/21/2015, for filter cake.

- As reported last week, Pace Report for MH013 (60192476, 4/21/2015), reported Total Phenolics at 0.35 mg/l and Phenol at 2380 ug/l. The lab initially verified both results but upon further inquiry they have now agreed to rerun the analyses using existing sample material. In the meantime, we have amended the spreadsheet to include two columns for Total Phenolics, one by Method 420.1 and one by the sum of Method 625 phenolic compounds. There is a tab showing how the Method 625 results were calculated. Because the lab has not qualified either result, we have not included any qualifiers in our spreadsheet at this point.

- Beginning last week, the volume of discharge through MH013 has been increased using city water in an effort to reduce odors. It is our intent to report the permeate and city water volumes separately, however at this time we are not able to report those volumes reliably. We are reviewing the data and will revise the report as soon as possible to include those amounts.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

Doug Mendoza

From: Power, Brian <BPower@republicservices.com>
Sent: Wednesday, May 20, 2015 8:09 PM
To: John Lodderhose; Rob G Daly; Doug Mendoza
Subject: Bridgeton Landfill - MSD - Response to May 13, 2015 NOV
Attachments: Bridgeton Landfill - MSD - Response to NOV.pdf; Force Main Odor Control SOP DRAFT to MSD.pdf

John,

Attached is a copy our response to the Notice of Violation issued to the Bridgeton Landfill from MSD on May 13, 2015.

Please feel free to contact me with any questions.

Sincerely,

Brian J. Power
Environmental Manager

Bridgeton Landfill, LLC.
13570 Saint Charles Rock Road
Bridgeton, MO 63044
Cell: (618) 410-0157

Bridgeton Landfill LLC

May 20, 2015

John R. Lodderhose, P.E
Assistant Director of Engineering
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

Re: Bridgeton Landfill, LLC
Response to Notice of Violations: Hauled & Industrial Wastewater Discharge Permit NO. 1003803000-1.1 (Permit), MSD Sewer Use Ordinance NO. 12599 (Ordinance) and MSD/Bridgeton Landfill Infrastructure Development and Leachate Treatment and Disposal Agreement Dated June 25, 2014 (Agreement)

Mr. Lodderhose:

On May 13, 2015, Bridgeton Landfill, LLC. received a Notice of Violation (NOV) for odorous discharge in violation of Hauled & Industrial Wastewater Discharge Permit No. 1003803000-1, MSD Ordinance No. 12559 and the MSD/Bridgeton Landfill "Infrastructure Development and Leachate Treatment and Disposal Agreement" dated June 25, 2014.

The Bridgeton Landfill takes odor complaints very seriously and has been working diligently to mitigate odors from the force main. Bridgeton Landfill had been working with its technical team and MSD, even in advance of the NOV, to develop solutions for pretreatment plant and force main operation to prevent the occurrence of odor. Consistent with the directive of the NOV, Bridgeton Landfill is submitting the attached Standard Operation Procedure. This procedure builds upon the Waste Water Force Main Mitigation of Odor Potential document which was submitted to MSD on May 12, 2015 and discussed during our meeting on May 12th. The Bridgeton Landfill is confident that the steps list out in the Standard Operation Procedure will be successful in controlling odors observed from the force main.

13570 St. Charles Rock Road • Bridgeton, Missouri • Tel 314-744-8165

The Bridgeton Landfill is committed to maintaining the utmost compliance and continuing our ongoing cooperation with MSD. Please contact me should you have any questions on this response or the proposed SOP.

Sincerely,

Brian J. Power

Brian J. Power

Environmental Manager

Bridgeton Landfill, LLC

DRAFT FOR REVIEW
Interim Force Main Odor Control System

Standard Operation Plan

Bridgeton Landfill, LLC
Bridgeton, Missouri

May 2015

13570 St. Charles Rock Road
Bridgeton, Missouri 63044
Telephone: (314) 656-2114
Facsimile: (314) 739-2588

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1.0 INTRODUCTION

This document serves as the Standard Operations Plan (SOP) for the operations and maintenance of the interim force main odor control system implemented by the Bridgeton Landfill, 13570 St. Charles Rock Road, Bridgeton, Missouri 63044.

Specific elements of the force main odor control system are being implemented and data is being collected at the time of the writing; therefore, this document should be considered dynamic and will be revised as necessary. The purpose of this document is to establish the interim operation, maintenance and monitoring of the force main odor control system.

1.1 Hydrogen Sulfide Generation

Hydrogen sulfide (H2S) in the force main system is generated by the reduction of sulfate to H2S under anaerobic conditions (i.e., in the absence of oxygen) This reaction requires biodegradable organic matter to occur, as measured by biochemical oxygen demand (BOD) or chemical oxygen demand (COD), or more specifically biodegradable COD (BCOD
During the biodegradation of organic matter, the bacteria use an electron acceptor. During aerobic conditions, dissolved oxygen (DO) is the electron acceptor and the oxygen is reduced to water, and H2S is not generated. When the DO is depleted, the bacteria then use combined oxygen in the form of nitrate (NO_3^-) and sulfate (SO_4^{2-}). Bacteria preferentially use nitrate first, and produce nitrogen gas and H2S is not generated. After the nitrate is depleted, bacteria will then utilize sulfate, and produce H2S.

H2S generated from the biological reduction of sulfate dissociates in water and primarily exists as either H2S, hydrosulfide anion (HS^-), or sulfide (S^{2-}), as a function of pH. The lower the pH, the more H2S is present. The higher the pH, the more HS^- and S^{2-} are present. This is important because only the dissolved H2S form can escape from the wastewater and create odor problems.

In this Bridgeton Landfill force main system, the H2S production rate is dependent on the following main factors: force main detention time, nitrate concentration, pH, liquid temperature, and BOD concentration.

1.2 Force Main Odor Control System Objectives

MSD notified the Bridgeton Landfill of a Violation of Ordinance No. 12559; Article V, Section One A. 14., which prohibits, *Any substance in quantities which either alone or in combination with other wastes results in the formation within the wastewater system of any malodor, foam, or other condition which is capable of creating a public nuisance or hazard to life or interferes with operation and maintenance of the system.*

The objective of this interim force main odor control system is to comply with Ordinance No. 12559; Article V, Section One A. 14.

The objective of this SOP is to maintain a dissolved sulfide concentration in the liquid phase at PS-2, PS-3, and at Manhole S2 to less than 0.50 mg/L. At the time of this writing, the reporting limit (RL) and method detection limit (MDL) of dissolved sulfide analyzed by PDC Laboratories Inc. via Standard Methods SM 4500-S F in this wastewater is being evaluated and confirmed. Bridgeton Landfill will update the SOP as additional information is available.

2.0 FORCE MAIN ODOR CONTROL SOP

The SOP was developed based on May 12, 2015 Action Plan letter submitted to MSD and the follow-up email plan of action dated Friday, May 15, 2015. The action items in these two communications are summarized and updated as follows:

2.1 Force Main Residence Time

Minimizing the residence time will minimize the formation of H2S. At the current operating efficiency, a daily average residence time in the pipeline 7 hours or less, by discharging at least 300,000 gallons per day (GPD), or a daily average flow rate of 208 GPM will be maintained. This minimum flow will be adjusted based on the collection of additional data and changes in operational efficiency.

Bridgeton Landfill will add flush water to the discharge from the plant to achieve the minimum flow for shortened residence time.

2.2 Force Main Flow Stoppages

Bridgeton Landfill will minimize to the extent practical, stops or disruptions in flow from the plant. Bridgeton Landfill will flush the force main (approximately 100,000 gallons from the pretreatment plant discharge) after a stoppage of flow greater than one hour from the plant or a significant outage or stoppage in the force main system. MSD will notify Bridgeton Landfill in the event they are planning or can predict an outage. Should this notification be received, Bridgeton Landfill will attempt to get enough flush water transmitted into the main prior to the planned shutdown to help reduce the potential for odors during and after that planned event.

2.3 Nitrate Addition

Nitrate salts are used to prevent and/or minimize the formation of H2S. As long as there is sufficient nitrate in solution, the formation of H2S should be minimized.

The amount of nitrate required to minimize H2S formation in the force main is a function of various factors, primarily the residence time, temperature, and BOD_5. Bridgeton Landfill will collect samples and monitor the plant effluent, PS-2, PS-3, and Manhole S2 one to two times per week for COD, BOD_5 and nitrate. This data will be used to guide and adjust the calcium nitrate dosing rate and sampling efforts will continue until odor mitigation is achieved

Preliminarily, the objective of this SOP is to maintain a nitrate residual greater than 5 mg/L at the discharge at Manhole S2. Of note, at the time of this writing, the PDC Laboratories, Inc. (PDC) nitrate reporting limit for this wastewater was 5.0 mg/L by Method EPA 300.0; however, the analytical result may be impacted by other anions in solution. Bridgeton Landfill will be analyzing the next set of samples collected for nitrate by both EPA Method 300.0 and Standard Methods SM-4500-NO3-F and will update this SOP.

2.4 Liquid Phase Sampling and Performance Monitoring

Bridgeton Landfill proposed to conduct liquid phase sampling one to two times per week at the following locations

- Bridgeton Landfill effluent (prior to combining with domestic sewage), PS-2, PS-3, and Manhole S2
- Samples will be analyzed for COD, BOD_5, total sulfide, dissolved sulfide, nitrate, sulfate, and pH.
- Sample from Manhole S2 will be analyzed for total iron.

This data will be used to guide the calcium nitrate dosing rate, guide the iron salt dosing rate, assist with determination if supplemental chemical dosing is required at PS-2 and/or PS-3, and track the improvement in BOD_5 over time.

This data will be used for performance monitoring to verify the target of less than 0.50 mg/L (or the reporting limit of the analysis if greater than 0.50 mg/L) of dissolved sulfide at Manhole S2 is being achieved. Liquid sampling efforts will continue until odor mitigation is achieved.

2.5 Atmospheric Screening

For purpose of tracking effectiveness of the plan and dosing, Bridgeton Landfill will conduct informal atmospheric screening periodically at the following locations: Manhole S2, ARV/MH A19, PS-2, and PS-3.

2.6 PS-1 Iron Salts Addition

At the current operational efficiency, available information suggests nitrate may not be fully preventive of H2S formation in the force main. Therefore, Bridgeton Landfill is also adding ferric chloride at PS-1 to react with dissolved sulfide that may be formed in the downgradient force main, to supplement the nitrate addition.

Iron salts such as ferrous chloride and ferric chloride precipitate with dissolved sulfide to form insoluble metal sulfides preventing the release of H2S.

Preliminary analytical data from liquid phase sampling conducted on May 14, 2015 indicated dissolved sulfide concentrations ranged from 4.0 mg/L to 8.0 mg/L at PS-2, PS-3, and Manhole S2.

Bridgeton Landfill is using approximately 5 lbs of ferric chloride per 1 sulfide removed ratio, which may be adjusted based on performance monitoring results.

Assuming a discharge flow rate of 300,000 GPD of effluent, and a dissolved sulfide concentration of 16 mg/L (maximum detection from May 14, 2015 sampling event X 2 safety factor), this is equivalent to about 40 pounds per day of sulfide.

Using the 5 lbs of ferric chloride per 1 sulfide removed ratio, this is equivalent to an estimated ferric chloride requirement of about 200 pounds per day. Commercially available 40% ferric chloride has about 4.6 pounds of available ferric chloride per gallons of solution; therefore the estimated dosage is about 43 gallons per day, or about 1.8 gallons per hour (GPH).

The initial PS-1 dosing program is as follows:

- Ferric chloride dosing rate between 1.25 GPH and 2.50 GPH to a landfill effluent flow of about 300,000 GPD.
- Ferric chloride dosing rate between 0.625 GPH and 1.25 GPH to a landfill effluent flow of about 150,000 GPD.

The discharge permit limit for iron is 150 mg/L. At a ferric chloride dosage of 2.50 GPH to a landfill effluent flow of 300,000 GPD, this is approximately equal to 40 mg/L of added iron. Bridgeton Landfill will collect samples and analyze for iron at the Manhole S2 to verify the iron permit limit is not being exceeded.

2.7 PS-3 Iron Salts Addition

Dosing of iron salts could be more effective at PS-3, rather than PS-1. Therefore, Bridgeton Landfill is preparing to install a chemical metering system for dosing iron salts at PS-3, as required. Based on correspondence with MSD this is considering the next step, and Bridgeton Landfill should be ready to execute this portion of the plan, as required. For this task, Bridgeton Landfill has performed the following:

- Ordered a chemical metering pump for iron salt dosing and associated tubing;
- Ordered an exterior drum storage unit with secondary containment;
- Arranged for installation of two exterior convenience outlets at PS-2 and PS-3 for powering the chemical metering pump, interlocked with the operation of the pump station, so that chemical is not being dosed when the pumps are not running.

Based on the atmospheric screening, performance monitoring data, and odor observations, Bridgeton Landfill will implement PS-3 chemical dosing, as necessary.

TO: **Chris Verplancke, Finance Department**
Cynthia Chalk, Finance Department

FROM: **Angie McDonough** amm

DATE: **May 18, 2015**

SUBJECT: **BRIDGETON LANDFILL LLC**
WASTEWATER USER CHARGE BILLING
ACCOUNT NUMBER 0039145-8

Pursuant to the MSD Industrial Wastewater Discharge Permit for the above referenced facility, please bill this facility for the following charges for the indicated billing period:

VOLUME
Hauled Waste Discharge

6,832,500 gallons X $0.021/Gal = $143,964.83

Department of Environmental Compliance (REG) labor fee is $1,314.02 for 32.5 extra hours.
Use Revenue Code "INFO" and utility type Q.
Budget code is 1101-08050-51011 so revenue will be credited back to Department of Environmental Compliance budget.

Department of Environmental Compliance (OT) labor fee is $6,692.75 for 110.5 extra hours.
Use Revenue Code "INFO" and utility type Q.
Budget code is 1101-08050-51020 so revenue will be credited back to Department of Environmental Compliance budget.

Total Bill = $151,971.61

The volume was obtained from the customer's on-site discharge self-monitoring report and hauled waste total truck capacities.

SOURCE OF WASTE: SP014 Commingled landfill leachate and landfill gas collection system condensate

BILLING PERIOD: April 1, 2015 through April 30, 2015.

Other applicable wastewater user charges, as per Ordinance 13758, should be included in this bill. Please call me at 314-436-8762 if you have any questions.

bv

ec: Doug Mendoza
Brian Gibson
Bridgeton Republic Services
Laura Joiner
Becca Coyle
Keidra King

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

Doug Mendoza

From: Doug Mendoza
Sent: Monday, May 18, 2015 1:54 PM
To: 'Ed Galbraith'; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Ed,

Because the lab missed the BOD dilution for the SP014 sample for 4/30/15 (T1-101-AS), we instead will use the BOD value that was obtained for SP014 on 4/16/15 (T1-97-AS). It had a COD of 11,000 mg/L, the same as for T1-101-AS; and it had a BOD of 63,00 mg/L.

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Tuesday, May 12, 2015 3:15 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

- As reported last week, Pace Report for MH013 (60192476, collected on 4/21/2015), reported Total Phenolics (0.35 mg/l) much lower than Phenol (2380 ug/l). We noted that the dilution factors for both analyses are different from previous samples. We have asked Pace to review the lab sheets for any errors related to dilution calculatioins to then if necessary, reanalyze the sample using appropriate dilutions to verify the result.

- The sample end time for sample MH013 on 4/21/2015 has been added to the report.

- The weekly MH013 sample for the week of 04/27/2015 was collected on 04/29/2015 and was not received in time for this update.

- The most recent report for sludge analysis (Pace report 60192524, collected 04/21/2015) did not include flash point. We have asked Pace to run that analysis and revise the report.

- The PDC Report for 014 (5044287, sampled on 04/30/2015) reported BOD of ">6000 mg/l." PDC noted in the report that the correct dilution was not achieved for the sample.

- There was no hauled waste from 05/08/2015 through 05/10/2015. Therefore the hauled waste volume data ends with 05/07/2015.

Doug Mendoza

From: Paceport Auto EDD Notification <carin.ferris@pacelabs.com>
Sent: Friday, May 15, 2015 3:59 PM
To: Doug Mendoza; carin.ferris@pacelabs.com
Subject: Bridgeton Landfill 98301 (Pace Project # 30146535)
Attachments: 30146535_frc.pdf

CB 5-19

Paceport Login

Paceport Auto Edd Notification

This email contains EDDs and Reports generated by Paceport's automated deliverable service. The attached files have been authorized to be sent to you due to the completion of project Bridgeton Landfill 98301 (Pace Project # 30146535). Your Pace project manager has been CC'ed on this email so that you may request any further assistance.

To access this project's page in paceport click on the following link.
http://paceport.pacelabs.com/ClientPortal/mvc/projectDetails/modelAndView?projectID=30146535&systemID=lims30

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

May 15, 2015

Doug Mendoza
Metropolitan St. Louis Sewer District
10 Grand Avenue
Saint Louis, MO 63147

RE: Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Dear Doug Mendoza:
Enclosed are the analytical results for sample(s) received by the laboratory on April 24, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carin A. Ferris

Carin Ferris
carin.ferris@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30146535001	**Bridgeton Landfill 98301**	Water	04/21/15 08:27	04/24/15 09:50

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SAMPLE ANALYTE COUNT

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30146535001	**Bridgeton Landfill 98301**	EPA 900.0	FCC	2
		EPA 901.1	RMK	11
		EPA 903.1	JC2	1
		EPA 904.0	JLW	1
		ASTM D5174.97	RMK	1
		HSL-300	LAL	4

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PROJECT NARRATIVE

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Method: **EPA 900.0**
Description: 900.0 Gross Alpha/Beta
Client: Metropolitan St. Louis Sewer District
Date: May 15, 2015

General Information:
1 sample was analyzed for EPA 900.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Method: **EPA 901.1**
Description: 901.1 Gamma Spec
Client: Metropolitan St. Louis Sewer District
Date: May 15, 2015

General Information:
1 sample was analyzed for EPA 901.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Metropolitan St. Louis Sewer District
Date: May 15, 2015

General Information:
1 sample was analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Metropolitan St. Louis Sewer District
Date: May 15, 2015

General Information:
1 sample was analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Method: **ASTM D5174.97**
Description: D517497 Total Uranium KPA
Client: Metropolitan St. Louis Sewer District
Date: May 15, 2015

General Information:
1 sample was analyzed for ASTM D5174.97. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Method: **HSL-300**
Description: HSL300(AS) Actinides
Client: Metropolitan St. Louis Sewer District
Date: May 15, 2015

General Information:
1 sample was analyzed for HSL-300. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: RADC/24376

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 890242)
  - Thorium-230
  - Uranium-234
  - Uranium-235
  - Uranium-238
- Bridgeton Landfill 98301 (Lab ID: 30146535001)
  - Thorium-230
  - Uranium-234
  - Uranium-235
  - Uranium-238

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

Sample: Bridgeton Landfill 98301 **Lab ID: 30146535001** Collected: 04/21/15 08:27 Received: 04/24/15 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 9 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	**33.3 ± 23.9 (38.8)** C:NA T:NA	pCi/L	05/06/15 19:51	12587-46-1	
Gross Beta	EPA 900.0	**162 ± 35.0 (25.6)** C:NA T:NA	pCi/L	05/06/15 19:51	12587-47-2	
Actinium-228	EPA 901.1	**-5.071 ± 25.333 (27.150)** C:NA T:NA	pCi/L	05/15/15 13:27	14331-83-0	
Bismuth-212	EPA 901.1	**39.730 ± 46.869 (68.550)** C:NA T:NA	pCi/L	05/15/15 13:27	14913-49-6	
Bismuth-214	EPA 901.1	**0.640 ± 15.912 (18.360)** C:NA T:NA	pCi/L	05/15/15 13:27	14733-03-0	
Lead-212	EPA 901.1	**2.115 ± 11.860 (14.910)** C:NA T:NA	pCi/L	05/15/15 13:27	15092-94-1	
Lead-214	EPA 901.1	**3.454 ± 13.498 (16.490)** C:NA T:NA	pCi/L	05/15/15 13:27	15067-28-4	
Potassium-40	EPA 901.1	**255.390 ± 76.507 (64.440)** C:NA T:NA	pCi/L	05/15/15 13:27	13966-00-2	
Radium-226	EPA 901.1	**119.300 ± 95.076 (122.800)** C:NA T:NA	pCi/L	05/15/15 13:27	13982-63-3	
Radium-228	EPA 901.1	**-5.071 ± 25.333 (27.150)** C:NA T:NA	pCi/L	05/15/15 13:27	15262-20-1	
Thallium-208	EPA 901.1	**6.246 ± 3.265 (3.043)** C:NA T:NA	pCi/L	05/15/15 13:27	14913-50-9	
Thorium-234	EPA 901.1	**107.520 ± 197.880 (642.600)** C:NA T:NA	pCi/L	05/15/15 13:27	15065-10-8	
Uranium-235	EPA 901.1	**9.757 ± 41.813 (53.240)** C:NA T:NA	pCi/L	05/15/15 13:27	15117-96-1	
Radium-226	EPA 903.1	**3.89 ± 7.63 (11.7)** C:NA T:77%	pCi/L	05/06/15 12:31	13982-63-3	
Radium-228	EPA 904.0	**1.15 ± 8.62 (19.9)** C:83% T:74%	pCi/L	05/12/15 17:08	15262-20-1	
Total Uranium	ASTM D5174.97	**0.608 ± 0.024 (0.193)** C:NA T:NA	ug/L	05/15/15 16:30	7440-61-1	
Thorium-230	HSL-300	**0.190 ± 0.346 (0.621)** C:NA T:58%	pCi/L	05/11/15 12:55	14269-63-7	N2
Uranium-234	HSL-300	**1.20 ± 0.603 (0.559)** C:NA T:54%	pCi/L	05/11/15 12:53	13966-29-5	N2
Uranium-235	HSL-300	**0.314 ± 0.362 (0.213)** C:NA T:54%	pCi/L	05/11/15 12:53	15117-96-1	N2
Uranium-238	HSL-300	**0.361 ± 0.338 (0.443)** C:NA T:54%	pCi/L	05/11/15 12:53		N2

Gross Gamma 261.636 pCi/L

U-natural 1.514 pCi/L

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

QC Batch: RADC/24233 | Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 | Analysis Description: 903.1 Radium-226
Associated Lab Samples: 30146535001

METHOD BLANK: 885704 | Matrix: Water
Associated Lab Samples: 30146535001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.260 (0.530) C:NA T:96%	pCi/L	05/06/15 11:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

QC Batch: RADC/24277
QC Batch Method: ASTM D5174.97
Analysis Method: ASTM D5174.97
Analysis Description: D5174.97 Total Uranium KPA
Associated Lab Samples: 30146535001

METHOD BLANK: 887368
Matrix: Water
Associated Lab Samples: 30146535001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Total Uranium	0.046 ± 0.002 (0.193) C:NA T:NA	ug/L	05/06/15 11:33	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

QC Batch: RADC/24462 | Analysis Method: EPA 901.1
QC Batch Method: EPA 901.1 | Analysis Description: 901.1 Gamma Spec
Associated Lab Samples: 30146535001

METHOD BLANK: 893280 | Matrix: Water
Associated Lab Samples: 30146535001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Actinium-228	-5.031 ± 25.131 (26.930) C:NA T:NA	pCi/L	05/14/15 15:48	
Bismuth-212	44.853 ± 47.343 (50.600) C:NA T:NA	pCi/L	05/14/15 15:48	
Bismuth-214	5.155 ± 15.399 (17.520) C:NA T:NA	pCi/L	05/14/15 15:48	
Lead-212	2.002 ± 7.269 (9.833) C:NA T:NA	pCi/L	05/14/15 15:48	
Lead-214	1.937 ± 12.116 (15.150) C:NA T:NA	pCi/L	05/14/15 15:48	
Potassium-40	8.515 ± 60.780 (79.810) C:NA T:NA	pCi/L	05/14/15 15:48	
Radium-226	0.000 ± 81.853 (201.400) C:NA T:NA	pCi/L	05/14/15 15:48	
Radium-228	-5.031 ± 25.131 (26.930) C:NA T:NA	pCi/L	05/14/15 15:48	
Thallium-208	0.562 ± 5.264 (6.443) C:NA T:NA	pCi/L	05/14/15 15:48	
Thorium-234	0.000 ± 145.640 (689.200) C:NA T:NA	pCi/L	05/14/15 15:48	
Uranium-235	0.000 ± 12.108 (51.790) C:NA T:NA	pCi/L	05/14/15 15:48	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

QC Batch: RADC/24237
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Associated Lab Samples: 30146535001

METHOD BLANK: 885708
Matrix: Water
Associated Lab Samples: 30146535001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0801 ± 0.250 (0.603) C:90% T:88%	pCi/L	05/12/15 16:36	

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REPORT OF LABORATORY ANALYSIS

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

QC Batch: RADC/24338 | Analysis Method: EPA 900.0
QC Batch Method: EPA 900.0 | Analysis Description: 900.0 Gross Alpha/Beta
Associated Lab Samples: 30146535001

METHOD BLANK: 889077 | Matrix: Water
Associated Lab Samples: 30146535001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.295 ± 0.698 (1.66) C:NA T:NA	pCi/L	05/06/15 13:01	
Gross Beta	-0.258 ± 0.842 (2.13) C:NA T:NA	pCi/L	05/06/15 13:01	

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

QC Batch: RADC/24376 | Analysis Method: HSL-300
QC Batch Method: HSL-300 | Analysis Description: HSL300(AS) Actinides
Associated Lab Samples: 30146535001

METHOD BLANK: 890242 | Matrix: Water
Associated Lab Samples: 30146535001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Thorium-230	0.021 ± 0.037 (0.066) C:NA T:86%	pCi/L	05/11/15 12:55	N2
Uranium-234	0.063 ± 0.063 (0.099) C:NA T:101%	pCi/L	05/11/15 12:53	N2
Uranium-235	0.014 ± 0.033 (0.019) C:NA T:101%	pCi/L	05/11/15 12:53	N2
Uranium-238	0.055 ± 0.035 (0.015) C:NA T:101%	pCi/L	05/11/15 12:53	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Bridgeton Landfill 98301
Pace Project No.: 30146535

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2 The lab does not hold TNI accreditation for this parameter.

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Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1889755

Section A Required Client Information:

Company:	MSD
Address:	10 E. Grand St. Louis, MO 63147
Email To:	dmendoza@stlmsd.com
Phone:	314-436-8717
Fax:	314-436-8753
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Mr. Doug Mendoza
Copy To:	
Purchase Order No.:	
Project Name:	
Project Number:	

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER Wastewater

Site Location STATE:

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Radium-226 (Y/N)	Radium-228 (Y/N)	Gross Alpha (Y/N)	Gross Beta (Y/N)	Gross Gamma (Y/N)	Uranium-Natural (Y/N)	Thorium-230 (Y/N)	Uranium (ug/l) (Y/N)				(*) see attachment	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Bridgeton Landfill 98301	OT	C	4-20-15	8:39	4-21-15	8:27		5			X																			001
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

30146535

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature]	4-21-15	14:30	[signature] Pace	4-24-15	0950	NA	N	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jason Edwards

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 4/21/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

<u>The particular radioactivity/radionuclides MSD needs tested for each set are:</u>

- Radium-226 (pci/L)
- Radium-228 (pci/L)
- Gross Alpha (pci/L)
- Gross Beta (pci/L)
- Gross Gamma (pci/L)
    - **The list below contains radionuclides in addition to Pace's usual Gamma-NORM list**
    - Consisting of
        - Actinium-228 (pci/L)
        - Bismuth-212 (pci/L)
        - Bismuth-214 (pci/L)
        - Lead-212 (pci/L)
        - Lead-214 (pci/L)
        - Potassium-40 (pci/L)
        - Radium-226 (pci/L)
        - Radium-228 (pci/L)
        - Thallium-208 (pci/L)
        - Thorium-234 (pci/L)
        - Uranium-235 (pci/L)
- Uranium-natural (pci/L)
    - Consisting of
        - Uranium-234 (pci/L)
        - Uranium-235 (pci/L)
        - Uranium-238 (pci/L)
    - **We understand that you likely will simply analyze for the three isotopes, and MSD itself will sum them for the U-natural total**
- Thorium-230 (pci/L)
- Uranium, in concentration(ug/L)

Sample Condition Upon Receipt

Pace Analytical

Client Name: MSD

Project # 30146535

Courier: ☐ Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 1Z214R039831 0599

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals Intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags ____ None ____ Other _____

Thermometer Used NA Type of Ice: Wet Blue (None) ☐ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: ____ °C Correction Factor: ____ °C Final Temp: ____ °C

Date and initials of person examining contents: SRA 4-24-15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked:	☒Yes ☐No ☐N/A	13. Added 9 ml HNO3 to all Samples @ 1045 SRA
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☒No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes ☒No	Initial when completed SRA / Lot # of added preservative DL15-0318
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☒No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Carina Serrano Date: 4/24/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30146535

Client Name: MSD

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	wt																		5					

SCURF Back (C016-4 15May2012).xls

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Tuesday, May 12, 2015 3:15 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

CB 5-19

The material for the week is now posted on Barr's ftp site.

- As reported last week, Pace Report for MH013 (60192476, collected on 4/21/2015), reported Total Phenolics (0.35 mg/l) much lower than Phenol (2380 ug/l). We noted that the dilution factors for both analyses are different from previous samples. We have asked Pace to review the lab sheets for any errors related to dilution calculatioins to then if necessary, reanalyze the sample using appropriate dilutions to verify the result.
- The sample end time for sample MH013 on 4/21/2015 has been added to the report.
- The weekly MH013 sample for the week of 04/27/2015 was collected on 04/29/2015 and was not received in time for this update.
- The most recent report for sludge analysis (Pace report 60192524, collected 04/21/2015) did not include flash point. We have asked Pace to run that analysis and revise the report.
- The PDC Report for 014 (5044287, sampled on 04/30/2015) reported BOD of ">6000 mg/l." PDC noted in the report that the correct dilution was not achieved for the sample.
- There was no hauled waste from 05/08/2015 through 05/10/2015. Therefore the hauled waste volume data ends with 05/07/2015.
- For 014, the TSS, COD and pH values are identical for 05/06 and 05/07/2015, because the material hauled on 05/07 was a preload from the previous day's batch.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
5/7/2015			-	30,000
	HW	4	30,000	
5/6/2015	HW	8	60,000	217,500
	HW	21	157,500	
5/5/2015	HW	8	60,000	225,000
	T1-102-AS	22	165,000	

Table 1

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-103-AS	5/07/2015		Field	No QC	WASTE_2015	--	10300	--	--	--	8.16	--
HW	5/06/2015		Field	No QC	WASTE_2015	--	10300	--	--	--	8.16	--
HW	5/05/2015		Field	No QC	WASTE_2015	--	6540	--	--	--	8.10	--
T1-102-AS	5/04/2015	4:45 AM	PDC	Validated	5050145	2000	8700	--	--	--	--	--
T1-102-AS	5/04/2015		Field	No QC	WASTE_2015	--	4250	--	--	--	7.79	--
HW	5/01/2015		Field	No QC	WASTE_2015	--	5890	--	--	--	7.14	--
T1-101-AS	4/30/2015	7:30 AM	PDC	Validated	5044287	> 6000 *	11000	--	--	--	--	--
T1-101-AS	4/30/2015		Field	No QC	WASTE_2015	--	14100	--	--	--	7.64	--

* use 6300 per 5-18-15 email from Doug. CB

MSD 031968

Table 1

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
T1-103-AS	5/07/2015		Field	No QC	WASTE_2015	18200	40.4	--	--	--	--	--
HW	5/06/2015		Field	No QC	WASTE_2015	18200	40.4	--	--	--	--	--
HW	5/05/2015		Field	No QC	WASTE_2015	18860	41.5	--	--	--	--	--
T1-102-AS	5/04/2015	4:45 AM	PDC	Validated	5050145	7600	--	--	--	--	--	--
T1-102-AS	5/04/2015		Field	No QC	WASTE_2015	20300	41.2	--	--	--	--	--
HW	5/01/2015		Field	No QC	WASTE_2015	11080	39.9	--	--	--	--	--
T1-101-AS	4/30/2015	7:30 AM	PDC	Validated	5044287	11000	--	--	--	--	--	--
T1-101-AS	4/30/2015		Field	No QC	WASTE_2015	11760	36.2	--	--	--	--	--

MSD 031969

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	12600	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	--	14800	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	16400	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	--	15200	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	17700	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	--	19900	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	19000	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	--	16200	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	15400	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	--	14500	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	17300	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	13700	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	--	12900	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	15700	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	11100	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	11900	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	17800	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	12200	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	10300	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	11500	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	10600	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	9030	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	12100	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	10100	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	9930	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	12900	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	11900	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	15300	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	10700	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	11700	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	14100	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	19700	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	25400	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	16200	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	2340	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	30200	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	5450	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	20100	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	20000	--	--	--	--

MSD 031970

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	--	1.80	229756	--	7.40	3.28
MH013	5/11/2015			LPTP	No QC	LPTP	--	1.30	--	--	7.17	36.18
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	--	4.90	166593	--	7.46	2.51
MH013	5/10/2015			LPTP	No QC	LPTP	--	1.0	--	--	7.20	0.658
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	--	3.2	165944	--	7.38	2.06
MH013	5/09/2015			LPTP	No QC	LPTP	--	1.0	--	--	7.34	0.81
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	--	2.7	170120	--	7.41	3.81
MH013	5/08/2015			LPTP	No QC	LPTP	--	0.7	--	--	7.36	0.59
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	--	2.1	183288	--	7.77	3.22
MH013	5/07/2015			LPTP	No QC	LPTP	--	3.9	--	--	7.91	2.54
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	--	4.30	296146	--	8.05	3.95
MH013	5/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	--	2.10	344820	--	7.89	4.07
MH013	5/05/2015			LPTP	No QC	LPTP	--	1.4	--	--	7.72	2.01
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	4.6	165950	--	7.38	3.68
MH013	5/04/2015			LPTP	No QC	LPTP	--	0.6	--	--	7.11	2.11
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	1.96	334442	--	7.49	2.92
MH013	5/03/2015			LPTP	No QC	LPTP	--	1.41	--	--	7.20	1.23
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	2.12	320582	--	7.40	2.14
MH013	5/02/2015			LPTP	No QC	LPTP	--	1.41	--	--	7.21	1.23
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	1.97	318820	--	7.35	2.18
MH013	5/01/2015			LPTP	No QC	LPTP	--	0.321	--	--	--	1.03
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	3.0	217062	--	7.19	3.33
MH013	4/30/2015			LPTP	No QC	LPTP	--	2.3	--	--	7.11	2.2
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	5.3	174104	--	7.21	1.91
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	1.1	--	--	7.09	1.12
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	4.3	247754	--	7.27	1.98
MH013	4/28/2015			LPTP	No QC	LPTP	--	2.2	--	--	6.98	1.08
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	2.3	223398	--	7.31	3.03
MH013	4/27/2015			LPTP	No QC	LPTP	--	1.9	--	--	6.98	1.58
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	2.42	129477	--	7.21	3.61
MH013	4/26/2015			LPTP	No QC	LPTP	--	1.78	--	--	7.17	2.47
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	6.8	185747	--	7.19	2.84
MH013	4/25/2015			LPTP	No QC	LPTP	--	1.7	--	--	7.01	1.64
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	3.4	94200	--	7.27	1.51
MH013	4/24/2015			LPTP	No QC	LPTP	--	1.1	--	--	6.52	1.03
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	6.2	100654	--	7.21	1.52
MH013	4/23/2015			LPTP	No QC	LPTP	--	2.9	--	--	6.85	1.52
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	1.69	118618	--	7.29	1.38
MH013	4/22/2015			LPTP	No QC	LPTP	--	1.71	--	--	6.85	1.49

MSD 031971

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	5/11/2015			LPTP	No QC	LPTP	24.5	--	--	--	--	--	--
MH013	5/11/2015			LPTP	No QC	LPTP	69	104136	--	--	--	--	--
LPTP Permeate	5/10/2015			LPTP	No QC	LPTP	146.5	--	--	--	--	--	--
MH013	5/10/2015			LPTP	No QC	LPTP	222.5	106071	--	--	--	--	--
LPTP Permeate	5/09/2015			LPTP	No QC	LPTP	19.5	--	--	--	--	--	--
MH013	5/09/2015			LPTP	No QC	LPTP	72	165944	--	--	--	--	--
LPTP Permeate	5/08/2015			LPTP	No QC	LPTP	20	--	--	--	--	--	--
MH013	5/08/2015			LPTP	No QC	LPTP	364	80386	--	--	--	--	--
LPTP Permeate	5/07/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	5/07/2015			LPTP	No QC	LPTP	1180	130462	--	--	--	--	--
LPTP Permeate	5/06/2015			LPTP	No QC	LPTP	14	--	--	--	--	--	--
MH013	5/06/2015			LPTP	No QC	LPTP	--	201557	--	--	--	--	--
LPTP Permeate	5/05/2015			LPTP	No QC	LPTP	23	--	--	--	--	--	--
MH013	5/05/2015			LPTP	No QC	LPTP	308	217983	--	--	--	--	--
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	20	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	251	110979	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	77	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	1470	229634	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	20	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	321	219160	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	13	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	229	233937	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	178	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	334	168767	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	95.5	--	--	--	--	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	38.6	--	--
MH013	4/29/2015			Pace	Validated	60193006	--	--	--	--	38.6	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	44	132324	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	41	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	252	167994	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	22.5	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	284.5	152289	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	20.5	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	41.5	98642	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	27	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	206	135925	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	22	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	31.5	109671	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	26	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	14	131172	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	18	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	253.5	127627	--	--	--	--	--

MSD 031972

Doug Mendoza

From: Power, Brian <BPower@republicservices.com>
Sent: Tuesday, May 12, 2015 1:00 PM
To: Jonathon Sprague
Cc: Doug Mendoza; John Lodderhose; Rob G Daly; Mark Bright; Koziatek, Dan; Michael Grace; Kamp, Kevin
Subject: Bridgeton Landfill - MSD - Forcemain
Attachments: Bridgeton Landfill - MSD - Forcemain.pdf

Mr. Sprague,

Attached for your reference is a list of the immediate steps that we are going to take in order to remediate the potential of odors being created in the force main. Please be assured that the Bridgeton Landfill are taking this situation of upmost importance and are working diligently until this issue is resolved. We appreciate the continued cooperation of the district.

Please feel free to contact me with any questions.

Sincerely,

Brian Power
Environmental Manager
Bridgeton Landfill
618-410-0157

Bridgeton Landfill LLC

May 12, 2015

Mr. Jonathan Sprague
Director of Operations
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103

Re: Bridgeton Landfill – MSD – Waste Water Force Main
Mitigation of Odor Potential in Force Main

Mr. Sprague:

I wanted to take the opportunity to present the action items we are currently implementing as well as those we wish to pursue to remedy the odor potential on the force main while we continue to improve and start up additional process modifications at the plant. Additionally we would like to meet to discuss these actions items and also update you and the rest of the team on the operations improvements currently under construction at the plant. These steps are as follows:

1. Residence Time - Keep residence time in pipeline at 7 hours or less (discharge at least 300,000 GPD). The decrease in residence time will decrease the rate of formation of odors.
    a. Minimize to the extent practical stops or disruptions in flow from the plant.
    b. Flush line (approximately 100,000 gallons/day in pipeline) after any significant plant shut down (greater than 1 hour).
    c. Add up to 100,000 GPD of flush water to the discharge from the plant to achieve the minimum flow for shortened residence time.
2. Maintain current dosage of 450 to 600 GPD of calcium nitrate, to be adjusted based on EPA guidance document sulfide generation calculations.
3. With approval of MSD, perform liquid phase sampling following locations:
    a. PS-1, PS-2, PS-3, and end of pipeline
    b. Test for COD/BOD, total sulfide, dissolved sulfide, pH, nitrate, sulfate.
4. While awaiting results go ahead and evaluate feeding chemical additive (preliminary chemicals for consideration - ferric chloride or hydrogen peroxide) at either PS-02 or PS-03 as preliminarily it appears these down-gradient locations might be more effective.

13570 St. Charles Rock Road • Bridgeton Missouri • Tel 314-744-8165

5. Follow up to verify effectiveness of interim measures.

We are confident that these step will reduce the odor potential in a short time frame and these measures will not be needed on a long term basis as the pretreatment plant efficiency improves with optimization improvements currently underway.

Please feel free to contact me with any questions.

Sincerely,

Brian J. Power

Brian J. Power

Environmental Manager

Bridgeton Landfill, LLC

13570 St Charles Rock Road • Bridgeton, Missouri • Tel: 314-744-8165

Doug Mendoza

From: John Lodderhose
Sent: Wednesday, May 13, 2015 9:26 AM
To: bpower@republicservices.com; Kamp, Kevin (kkamp@cecinc.com)
Cc: Brian Hoelscher; Rich Unverferth; Jonathon Sprague; Ken Goins; Doug Mendoza; Rob G Daly; Mark Bright; Lance LeComb; Christopher J. Bulmahn
Subject: Notice of Violation
Attachments: Bridgeton Landfill NOV May 13 2015.docx.pdf

Please see the attached Notice of Violation. Hard copy mailed today.

John R. Lodderhose, P.E.
Metropolitan St. Louis Sewer District
Assistant Director of Engineering
Environmental Compliance
314-436-8714

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

May 13, 2015

Bridgeton Landfill, LLC
Attn: Brian Power, Environmental Manager
13570 St. Charles Rock Road
Bridgeton, MO 63044

RE: NOTICE OF VIOLATIONS: HAULED & INDUSTRIAL WASTEWATER DISCHARGE PERMIT NO. 1003803000-1.1 (Permit), MSD SEWER USE ORDINANCE NO. 12599 (Ordinance) AND MSD/BRIDGETON LANDFILL INFRASTRUCTURE DEVELOPMENT AND LEACHATE TREATMENT AND DISPOSAL AGREEMENT DATED JUNE 25, 2014 (Agreement)

For premise at: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Dear Mr. Power:

The Metropolitan St. Louis Sewer District (MSD) has received numerous odor complaints from the public which are related to the treated leachate discharged from Bridgeton Landfill to MSD. The odor complaints are mainly associated with the area around I-170 and St. Charles Rock Road where the treated leachate from the Bridgeton Landfill force main discharges into the MSD gravity sewer system. This odorous discharge is in violation of Hauled & Industrial Wastewater Discharge Permit No. 1003803000-1.1, MSD Ordinance No. 12559 and the MSD/Bridgeton Landfill "Infrastructure Development and Leachate Treatment and Disposal Agreement" dated June 25, 2014.

THE FOLLOWING ORDINANCES, PERMITS AND AGREEMENTS VIOLATED:

- **VIOLATION OF Ordinance No.: 12559: Article V,** Section One, A. 14. which prohibits certain wastes as that term is defined in said ordinance. In particular, said ordinance prohibits discharge of certain wastes that results in any ***malodor***, capable of creating a public nuisance or hazard to life and interferes with operation and maintenance of the system.

- **VIOLATION OF PERMIT NO.** 1003803000-1.1: that requires you to comply with Ordinance 12559

- **VIOLATION (BREACH) OF AGREEMENT:** that requires you to comply with Ordinance 12559

REQUIRED ACTION/RESPONSE:

- Continue any and all interim steps which will help reduce the formation of odorous compounds, as discussed and agreed to on May 12, 2015.
- Bridgeton Landfill must, as quickly as possible, finalize a Standard Operating Procedure (SOP) to eliminate the public nuisance created by their discharge to MSD. This SOP must, in detail, address all of the actions necessary to prevent the formation of odorous compounds which are causing the public nuisance. The response is due by May 20, 2015.

ENFORCEMENT ACTION:

Should Bridgeton Landfill fail to take the above and other necessary steps to eliminate the presence of malodors as required above, MSD may be forced to take Emergency Action under MSD Ordinance 12559, Article IX, Section Three. This action may include requiring or causing the wastewater discharge from Bridgeton Landfill to cease immediately.

Please understand that MSD's Enforcement Response Plan requires MSD to initiate additional enforcement action, if necessary to secure timely and effective compliance. This plan is an integral part of MSD's pretreatment program, and has been approved by the Missouri Department of Natural Resources.

Pursuant to said Ordinance, Permit and the Agreement, MSD can seek reimbursement for any and all costs associated with enforcement and corrective actions including, but not limited to attorney's fees, administrative costs and penalties.

If you have any questions, please contact me at 314.436.8714.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

John R. Lodderhose

John R. Lodderhose, P.E.
Assistant Director of Engineering
Environmental Compliance

PC: Brian Hoelscher
Rich Unverferth
Jon Sprague
Ken Goins
Doug Mendoza
Rob Daly
Mark Bright
Lance LeComb

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

May 13, 2015

Bridgeton Landfill, LLC
Attn: Brian Power, Environmental Manager
13570 St. Charles Rock Road
Bridgeton, MO 63044

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If you have any questions, please contact me at 314.436.8714.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

John R. Lodderhose

John R. Lodderhose, P.E.
Assistant Director of Engineering
Environmental Compliance

PC: Brian Hoelscher
Rich Unverferth
Jon Sprague
Ken Goins
Doug Mendoza
Rob Daly
Mark Bright
Lance LeComb

Doug Mendoza

Bridgeton Landfill

From: John Lodderhose
Sent: Monday, May 11, 2015 12:12 PM
To: Ken Gambaro; LaFata, Natalie; Rob G Daly; Jay Kniker
Cc: Kamp, Kevin; Koziatek, Dan; Doug Mendoza
Subject: RE: Corporate Exchange

I don't have a problem with the flow from Corporate Exchange being diverted to our Missouri River plant but no landfill leachate should be discharged to Missouri River.

From: Ken Gambaro
Sent: Monday, May 11, 2015 12:08 PM
To: LaFata, Natalie; John Lodderhose; Rob G Daly; Jay Kniker
Cc: Kamp, Kevin; Koziatek, Dan
Subject: RE: Corporate Exchange

Any change in flow path will need to be approved by DEC. Also, it is my understanding that the actual gate manipulation is to be done by MSD Pump Station personnel, and not by the landfill.

Ken Gambaro

From: LaFata, Natalie [nlafata@cecinc.com]
Sent: Monday, May 11, 2015 7:53 AM
To: Ken Gambaro
Cc: Kamp, Kevin; Koziatek, Dan
Subject: Corporate Exchange

Ken - we had both pumps fail over the course of the weekend in PS 1. Pump #2 had a relief valve issue on Saturday night and then early Monday morning, pump #1 failed on us. We diverted flow to Tank 1 on site (diverted discharge) and we are waiting for a service tech to come out and repair both pumps.
Can I get the approval to change the valving in the pump station to divert the Corporate Exchange flow to the MoRiver plant? I believe this has previously been discussed between you and CEC already.
I just need to make sure we can, otherwise I have to set up a vac truck at pump station #1.

Please let me know if we can proceed with this valve change.
Thanks!

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
Mobile: (314) 341-3375 · http://www.cecinc.com
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Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, May 06, 2015 4:25 PM
To: 'bpower@republicservices.com'; 'Bouchard, Derek (DBouchard@republicservices.com)'
Cc: 'Bouchard, Derek (DBouchard@republicservices.com)'; Rob G Daly; 'bpower@republicservices.com'; Robert W. Murphy; Rick J. Campbell; Michael Grace; Mark Bright; Jay Kniker; Doug Mendoza; Nora C. Estopare; John Lodderhose; 'Koziatek, Dan'; 'Kamp, Kevin'
Subject: RE: Bridgeton PS No. 1- Air Sampling/Monitoring March 27, 2015
Attachments: PS1 Sampling Memo 2015_0504_REV.pdf; Enthalpy Report 0315-18R2.pdf

Brian and Derek, attached is a revision to the most recent sampling memo for PS1. The memo that was revised to address the benzene levels that were field recorded on 04/11/2015. John Lodderhose brought the oversight to my attention.

Please let me know if you have any questions.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

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CB

1003803000

2015

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

5/6/2015 Filed in 15.4

CB 5-08

DM 5-8

BA

Month	Net Meter Reading	Precipitation Inches	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	10,463,750	1.67	2/1/2015	702,337	22,656	93,895.32	938.95
February	11,485,331	1.74	3/1/2015	1,021,581	36,485	136,575.00	1,365.75
March	13,523,218	3	4/1/2015	2,037,887	65,738	272,444.79	2,724.45
April	16,449,016	5.42	5/1/2015	2,925,798	94,381	391,149.47	3,911.49
May							
June							
July							
August							
September							
October							
November							
December							

Note:

RECEIVED

MAY 06 2015

DIVISION OF
ENVIRONMENTAL COMPLIANCE

MSD 031983

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engineering and environmental consultants

BARR

Technical Memorandum

To: Brian Powers, Bridgeton Landfill
From: Ed Galbraith, Barr Engineering Co.
Subject: March 27, 2015 Air Sampling Results at PS1
Date: May 5, 2015
c: Derek Bouchard, Kevin Kamp, Dan Koziatek

Background

Barr Engineering Co. (Barr) conducted air monitoring for Bridgeton Landfill in the MH013 lift station/bypass valve chamber (PS1) as outlined in the *PS-1 Sampling and Analytical Plan* (April 2015). The canister sampling was conducted on March 27, 2015. Bridgeton Landfill staff has been collecting weekly field monitor data as required by the plan. This memo transmits the results of the most recent monitoring and summarizes all the monitoring under the plan to date.

Changes in Sampling Procedure

There was no substantial variation from the sampling plan. Weekly sampling for benzene and 4-gas parameters began one week later than planned.

Results – Field Meter

Table 1 (attached) includes the data for field meter results obtained from 02/11/2015 to 04/22/2015. Results on 4/11/2015 from the Benzene RAE yielded 1.1 ppm benzene in the Lift Station and 0.85 ppm benzene in the Valve Station. Landfill staff indicated that at the time of the sampling, the meter on the vacuum system indicated a zero negative. This was the result of temporary vacuum interruption to one part of the gas system. This has since been rectified and a redundant tie in with a second portion of the gas system has been completed. They also noted that after the reading, both doors were opened and the wet well was allowed to passively ventilate for a short period of time. Since that event all readings for benzene have been zero beginning with the next subsequent sample, performed on 4/13/2015 to ensure a representative closed door sample. The samples continue to be taken when the doors are closed and have remained so for at least 24 hours prior.

Results – Canister

The full report of the canister analysis from Enthalpy Analytical, Inc. is attached. The results are included in Table 1. All results were below worker protection levels.

Summary of Quality Control

A full Level 4 data review was not performed on this data package. The instrument's initial calibration (ICAL), initial and continuing calibration verification (ICV and CCV), BFB tune, and internal standard results met the laboratory acceptance limits described on pages 21 through 25 of the 248-page report with the following notable exception.

- In sample LS Can 4009, a matrix interference was observed with the bromochloromethane internal response. Due to this interference, which resulted in a high bias internal standard response, the dimethyl sulfide concentration was calculated using the bromochloromethane internal standard response from the associated humid blank.
- The laboratory control sample (LCS) and matrix spike sample (MS) spike recoveries met the applicable acceptance limits. Trace concentrations of methane were present above the method detection limit and below the laboratory reporting limit in the TO-18 method blank sample; however, no methane data was qualified in any of the project samples because the sample concentrations were much higher than the method blank sample concentration.
- The dimethyl sulfide analysis was performed using a tentatively identified compound (TIC) search for that analyte. This analyte is not on the lab's standard TO-15 list of reportable compounds; therefore, the analyte was not calibrated for.

/EG

Attachments

Table 1
PS1 Air Data

				Parameter	Carbon Monoxide	Hydrogen Sulfide	Oxygen	LEL (CH4)	Benzene	Total VOC	Dimethyl Sulfide	Nitrogen, ammonia as N	Methane (CH4)
				Action Level	> 25 ppm	> 10 ppm	< 19.5 %						
				OSHA PEL-TWA (ppm)					1			50	
				OSHA PEL-TWA (ug/m3)					3200			35000	
				ACGIH TLV-TWA (ppm)					0.5		10	25	
				ACGIH TLV-TWA (ug/m3)					1600		25000	17000	
Location	Date	Lab Name	Data Status	Lab Report Number									
LS	4/22/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.0 ppm				
VC	4/22/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.0 ppm				
LS	4/21/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.9%	0.0%	0.0 ppm	--	--	--	--
VC	4/21/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.9%	0.0%	0.0 ppm	--	--	--	--
LS	4/20/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.8%	0.0%	0.0 ppm	--	--	--	--
VC	4/20/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.8%	0.0%	0.0 ppm	--	--	--	--
LS	4/17/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.5%	0.0%	0.0 ppm				
VC	4/17/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.5%	0.0%	0.0 ppm				
LS	4/16/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.7%	0.0%	0.0 ppm				
VC	4/16/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.7%	0.0%	0.0 ppm				
LS	4/15/2015 00:00	Field	No QC	Field	0.0 ppm	0.5 ppm	20.5%	0.0%	0.0 ppm	--	--	--	--
VC	4/15/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.5%	0.0%	0.0 ppm	--	--	--	--
LS	4/14/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.9%	0.0%	0.0 ppm	--	--	--	--
VC	4/14/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.9%	0.0%	0.0 ppm	--	--	--	--
LS	4/11/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	1.1 ppm				
VC	4/11/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.85 ppm				
LS	4/02/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.0 ppm	--	--	--	--
VC	4/02/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.0 ppm	--	--	--	--
LS	2/13/2015 16:00	Field	No QC	Field	--	--	--	--	--	1.25 ppm	--	--	--
VC	2/13/2015 16:00	Field	No QC	Field	--	--	--	--	--	0.65 ppm	--	--	--
LS	2/13/2015 10:30	Field	No QC	Field	--	--	--	--	--	0.82 ppm	--	--	--
VC	2/13/2015 10:30	Field	No QC	Field	--	--	--	--	--	1.1 ppm	--	--	--
LS	2/13/2015 07:45	Field	No QC	Field	--	--	--	--	--	0.0 ppm	--	--	--
VC	2/13/2015 07:45	Field	No QC	Field	--	--	--	--	--	1.45 ppm	--	--	--
LS	2/12/2015 00:00	Field	No QC	Field	--	--	--	--	0.0 ppm	--	--	--	--
LS	2/11/2015 00:00	Field	No QC	Field	--	--	--	--	0.0 ppm	--	--	--	--
LS 5356301856	3/27/2015 15:00	Enthalpy Anal.	Validated	0315-18	--	--	--	--	--	--	--	< 0.235 ug	--
VC 5356301861	3/27/2015 15:00	Enthalpy Anal.	Validated	0315-18	--	--	--	--	--	--	--	< 0.235 ug	--
LS 5356301858	3/27/2015 11:00	Enthalpy Anal.	Validated	0315-18	--	--	--	--	--	--	--	< 0.235 ug	--
VC 5356301857	3/27/2015 11:00	Enthalpy Anal.	Validated	0315-18	--	--	--	--	--	--	--	< 0.235 ug	--
VC 4014	3/27/2015 08:48	Enthalpy Anal.	Validated	0315-18	--	--	--	--	52.2 ug/m3	--	0.770 TIC ug/m3	--	411 ppm
LS 4009	3/27/2015 08:38	Enthalpy Anal.	Validated	0315-18	--	--	--	--	72.9 ug/m3	--	1031 TIC ug/m3	--	202 ppm
LS 1-2'	2/13/2015 09:40	Enthalpy Anal.	Validated	0215-55	--	--	--	--	22.6 ** ug/m3	--	ND ** TIC ppbv	--	--
VC 1-8'	2/13/2015 09:00	Enthalpy Anal.	Validated	0215-55	--	--	--	--	21.2 ug/m3	--	ND TIC ppbv	--	--
										--	--	--	--
										--	--	--	--

MSD 031986

Data Qualifiers/Footnotes	
Qualifier	Definition
--	Not analyzed/not available.
a	Estimated value, calculated using some or all values that are estimates.
b	Potential false positive value based on blank data validation procedures.
c	Coeluting compound.
e	Estimated value, exceeded the instrument calibration range.
f	Sample was collected at a flowrate exceeding the recommended rate of 200 mL/minute.
h	EPA recommended sample preservation, extraction or analysis holding time was exceeded.
i	Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria.
j	Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.
p	Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns.
pp	Small peak in chromatogram below method detection limit.
r	The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms.
s	Potential false positive value based on statistical analysis of blank sample data.
t	Sample positive for total coliforms but negative for *E. coli.*
v	Sample was collected under a vacuum of greater than XX inches of mercury.
*	Estimated value, QA/QC criteria not met.
**	Unusable value, QA/QC criteria not met.
N	Sample Type: Normal
FD	Sample Type: Field Duplicate
AT	Sample chromatogram is noted to be atypical of a petroleum product.
DLND	Not detected, detection limit not determined.
DF	Did not flash
EMPC	Estimated maximum possible concentration.
NA – (Not applicable)	NA indicates that a fractional portion of the sample is not part of the analytical testing or field collection procedures.
ND	Not detected.
TIC	Tentatively identified compound
BQA	Barr-applied project specific qualifier: extraction and/or analyses conducted using an alternative method and/or procedure.
BQC	Barr-applied project specific qualifier: plant shut down.
BQD	Barr-applied project specific qualifier: equipment malfunction.
BQE	Barr-applied project specific qualifier: equipment adjustment.
BQM	Barr-applied project specific qualifier: manual measurement.
BQN	Barr-applied project specific qualifier: unable to be sampled or measured due to various reasons.
BQP	Barr-applied project specific qualifier: atypical chromatographic pattern.
BQQ	Barr-applied project specific qualifier: some aspect of QA/QC was not met.
BQR	Barr-applied project specific qualifier: location was re-sampled.
BQS	Barr-applied project specific qualifier: data is considered suspect.
BQT	Barr-applied project specific qualifier: summed value not displayed due to insufficient field length.
BQU	Barr-applied project specific qualifier: historical qualifier - definition unknown.
BQV	Barr-applied project specific qualifier: estimated value.
BQX	Barr-applied project specific qualifier: see notes for qualifier definition.
BQZ	Barr-applied project specific qualifier: data is considered unusable.
Validated	Laboratory data has been evaluated following Barr QA/QC procedures and/or project-specific data review requirements. Field data has been verified for transcription errors, consistency and completeness. Data transferred from the previous database (9/2009) were categorized as validated, but may be comprised of any one of the following data status categories: Validated, SSource, No QC or Legacy.
No QC	Laboratory data has been excluded from Barr QA/QC procedures.
SSource	Laboratory and/or field data obtained from a secondary source external to Barr. Second source QA/QC evaluation procedures may or may not have been performed beyond the original data generator.
Legacy	Historical laboratory data (internal at Barr). QA/QC evaluation procedures may or may not have been performed beyond the original data generator

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, May 06, 2015 11:41 AM
To: Ed Galbraith; Doug Mendoza
Subject: RE: Bridgeton Landfill Weekly Report

10038030 00

CB 5-18

My folks tell me that the time has been added and the spreadsheet reposted.

Sent via the Samsung GALAXY S® 5, an AT&T 4G LTE smartphone

-------- Original message --------
From: Ed Galbraith <EGalbraith@barr.com>
Date: 05/06/2015 10:24 AM (GMT-06:00)
To: Doug Mendoza <DMENDOZA@stlmsd.com>, Ed Galbraith <EGalbraith@barr.com>
Subject: RE: Bridgeton Landfill Weekly Report

I didn't realize that it was missing until this morning. I reached out to CEC and will provide the time based on their field notes or memory.

Thanks.

Sent via the Samsung GALAXY S® 5, an AT&T 4G LTE smartphone

-------- Original message --------
From: Doug Mendoza <DMENDOZA@stlmsd.com>
Date: 05/06/2015 9:57 AM (GMT-06:00)
To: Ed Galbraith <EGalbraith@barr.com>
Subject: RE: Bridgeton Landfill Weekly Report

Ed,

It's not a complete report without the end time for the 4/21/15 sample. I see that the time is not on the chain-of-custody. So it either was not recorded anywhere or was not transferred to the sheet. We need to know which it is, so that we can respond appropriately. If the time was not recorded anywhere, you should at least give us a best estimated time and reason behind the estimate.

Doug

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, May 06, 2015 9:46 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Cc: Ed Galbraith
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

In Pace Report 60192476 for MH013 collected 4/21/2015, note that the Total Phenolics result (0.35 mg/l) is less than the Phenol result (2380 ug/l). We have asked Pace to revisit those results and it is likely that one of them will be revised. If the lab does not make any correction based on its review, we propose adjusting the Total Phenolics result using the sum of phenolic compounds, per Special Condition B.1. of the permit.

The sample end time for sample MH013 on 4/21/2015 will be included on future reports.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
5/4/2015	T1-102-AS	7	52,500	157,500
	HW	14	105,000	
5/1/2015	HW	16	120,000	217,500
	T1-101-AS	13	97,500	
4/30/2015	T1-101-AS	14	105,000	180,000
	HW	10	75,000	
4/29/2015	HW	9	67,500	165,000
	HW	13	97,500	
4/28/2015	HW	8	60,000	165,000
	T1-100-AS	14	105,000	

Table 1

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-102-AS	5/04/2015		Field	No QC	WASTE_2015	--	4250	--	--	--	7.79	--
HW	5/01/2015		Field	No QC	WASTE_2015	--	5890	--	--	--	7.14	--
T1-101-AS	4/30/2015		Field	No QC	WASTE_2015	--	14100	--	--	--	7.64	--
HW	4/29/2015		Field	No QC	WASTE_2015	--	11600	--	--	--	7.71	--
HW	4/28/2015		Field	No QC	WASTE_2015	--	7200	--	--	--	7.43	--
T1-100-AS	4/27/2015	6:15 AM	PDC	Validated	5043869	2200	9800	--	--	--	--	--
T1-100-AS	4/27/2015		Field	No QC	WASTE_2015	--	9780	--	--	--	7.65	--
HW	4/24/2015		Field	No QC	WASTE_2015	--	19900	--	--	--	7.62	--
T1-99-AS	4/23/2015	5:00 AM	PDC	Validated	5043502	5200	10000	--	--	--	--	--
T1-99-AS	4/23/2015		Field	No QC	WASTE_2015	--	18800	--	--	--	7.59	--

MSD 031991

Table 1

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
T1-102-AS	5/04/2015		Field	No QC	WASTE_2015	20300	41.2	--	--	--	--	--
HW	5/01/2015		Field	No QC	WASTE_2015	11080	39.9	--	--	--	--	--
T1-101-AS	4/30/2015		Field	No QC	WASTE_2015	11760	36.2	--	--	--	--	--
HW	4/29/2015		Field	No QC	WASTE_2015	7440	34.3	--	--	--	--	--
HW	4/28/2015		Field	No QC	WASTE_2015	15140	39.7	--	--	--	--	--
T1-100-AS	4/27/2015	6:15 AM	PDC	Validated	5043869	6800	--	--	--	--	--	--
T1-100-AS	4/27/2015		Field	No QC	WASTE_2015	11060	41.4	--	--	--	--	--
HW	4/24/2015		Field	No QC	WASTE_2015	11940	35.9	--	--	--	--	--
T1-99-AS	4/23/2015	5:00 AM	PDC	Validated	5043502	8400	--	--	--	--	--	--
T1-99-AS	4/23/2015		Field	No QC	WASTE_2015	8780	35.4	--	--	--	--	--

MSD 031992

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	15700	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	11100	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	11900	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	17800	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	12200	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	10300	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	11500	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	10600	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	9030	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	12100	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	10100	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	9930	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	12900	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	11900	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	15300	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	10700	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	11700	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	14100	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	19700	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	25400	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	16200	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	2340	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	30200	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	5450	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	20100	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	20000	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	19700	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	6550	12500	0.054	--	--	51.9
MH013	4/21/2015			LPTP	No QC	LPTP	--	18100	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	23800	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	29400	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	31100	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	45300	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	16160	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	16020	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	4740	6510	0.0062	--	--	31.1
MH013	4/16/2015			LPTP	No QC	LPTP	--	25.90 BQU	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	13180	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	12980	--	--	--	--

MSD 031993

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	4.6	165950	--	7.38	3.68
MH013	5/04/2015			LPTP	No QC	LPTP	--	0.6	--	--	7.11	2.11
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	1.96	334442	--	7.49	2.92
MH013	5/03/2015			LPTP	No QC	LPTP	--	1.41	--	--	7.20	1.23
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	2.12	320582	--	7.40	2.14
MH013	5/02/2015			LPTP	No QC	LPTP	--	1.41	--	--	7.21	1.23
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	1.97	318820	--	7.35	2.18
MH013	5/01/2015			LPTP	No QC	LPTP	--	0.321	--	--	--	1.03
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	3.0	217062	--	7.19	3.33
MH013	4/30/2015			LPTP	No QC	LPTP	--	2.3	--	--	7.11	2.2
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	5.3	174104	--	7.21	1.91
MH013	4/29/2015			LPTP	No QC	LPTP	--	1.1	--	--	7.09	1.12
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	4.3	247754	--	7.27	1.98
MH013	4/28/2015			LPTP	No QC	LPTP	--	2.2	--	--	6.98	1.08
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	2.3	223398	--	7.31	3.03
MH013	4/27/2015			LPTP	No QC	LPTP	--	1.9	--	--	6.98	1.58
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	2.42	129477	--	7.21	3.61
MH013	4/26/2015			LPTP	No QC	LPTP	--	1.78	--	--	7.17	2.47
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	6.8	185747	--	7.19	2.84
MH013	4/25/2015			LPTP	No QC	LPTP	--	1.7	--	--	7.01	1.64
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	3.4	94200	--	7.27	1.51
MH013	4/24/2015			LPTP	No QC	LPTP	--	1.1	--	--	6.52	1.03
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	6.2	100654	--	7.21	1.52
MH013	4/23/2015			LPTP	No QC	LPTP	--	2.9	--	--	6.85	1.52
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	1.69	118618	--	7.29	1.38
MH013	4/22/2015			LPTP	No QC	LPTP	--	1.71	--	--	6.85	1.49
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	1.73	134348	--	7.28	2.97
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	36.4	--	--	7.3	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	1.69	--	--	7.17	1.16
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	1.67	87480	--	--	1.12
MH013	4/20/2015			LPTP	No QC	LPTP	--	1.74	--	--	--	0.87
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	168540	--	--	2.6
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	1.63
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	45091	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	2.08	166878	--	7.24	2.51
MH013	4/17/2015			LPTP	No QC	LPTP	--	1.30	--	--	7.33	2.67
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	89164	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	--	--	7.9	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	1.54	--	--	7.48	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	3.71	149976	--	7.41	2.66
MH013	4/15/2015			LPTP	No QC	LPTP	--	5.22	--	--	7.53	2.71

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	20	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	251	110979	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	77	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	1470	229634	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	20	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	321	219160	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	13	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	229	233937	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	178	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	334	168767	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	95.5	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	44	132324	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	41	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	252	167994	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	22.5	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	284.5	152289	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	20.5	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	41.5	98642	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	27	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	206	135925	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	22	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	31.5	109671	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	26	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	14	131172	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	18	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	253.5	127627	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	25	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	34.0	--	0.35	3105	--	< ~~ND~~ 50	337
MH013	4/21/2015			LPTP	No QC	LPTP	148	99884	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	18.5	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	111	78138	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	19.5	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	68	141834	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	38843	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	3.5	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	32.5	126314	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	27.0	--	1.5	1079	--	ND	195
MH013	4/16/2015			LPTP	No QC	LPTP	15	170749	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	6.5	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	23.5	136918	--	--	--	--	--

MSD 031995

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold		700 ug/l	5000 ug/l	2700 ug/l	150000 ug/l	400 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	< ~~ND~~ 5	< ~~ND~~ 25	35.6	< ~~ND~~ 50	1690	< ~~ND~~ 25	167000
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	20.2	ND	3110	ND	100000
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031996

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	1,2,4-Trichlorobenzene
						Total or Dissolved	Total	Total	Total	Total	Total	Total	NA
						Permit Limitation/Surcharge Threshold	10 ug/l	2300 ug/l		500 ug/l		3000 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	< ~~ND~~ 0.20	31.4	< ~~ND~~ 75	< ~~ND~~ 35	< ~~ND~~ 100	< ~~ND~~ 250	< 25 ~~ND~~
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	16.6	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031997

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status.	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031998

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 031999

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzidine	Benzo(a)pyrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032000

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032001

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Butyl benzyl phthalate	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032002

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	ND	<2.5 ~~ND~~	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032003

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	<25 ~~ND~~	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032004

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Phenanthrene	Phenol	Pyrene	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	2380	ND	~~ND~~	< ~~ND~~ 50	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	279	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032005

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,1-Dichloroethylene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans	1;2-Dichloropropane	1,3-Dichloro-1-propene, cis
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	< ~~ND~~ 50	ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032006

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,3-Dichloro-1-propene, trans	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Benzene	Bromodichloromethane	Bromoform
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold					140 ug/l		
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	ND	< ~~ND~~ 50	ND	<50 ~~ND~~	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032007

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	<50 ND	ND	<50 ND	ND	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032008

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Ethyl benzene	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	<50 ~~ND~~	<50 ~~ND~~	ND	<50 ~~ND~~	ND	ND	ND
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032009

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Xylene, total	4,4'-DDD	4,4'-DDE	4,4'-DDT	a-BHC	Aldrin	Aroclor 1016
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	ND	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	--	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032010

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	b-BHC
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	--	--	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032011

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Chlordane, alpha & gamma	d-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	--	--	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032012

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Endrin Aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Toxaphene
						Total or Dissolved	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold					
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	5/04/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	5/03/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	5/02/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	5/01/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/30/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/29/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/28/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/27/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/21/2015	11:30 AM	11:40 PM	Pace	Validated	60192476	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--

MSD 032013

Doug Mendoza

Bridgeton Landfill

From: Doug Mendoza
Sent: Wednesday, May 06, 2015 7:05 AM
To: 'Ed Galbraith'
Cc: 'bpower@republicservices.com'; 'Kamp, Kevin'; 'LaFata, Natalie'; Bouchard, Derek (DBouchard@republicservices.com)
Subject: RE: Bridgeton LF 013 Sampling Weeks of 03/29/2015 and 04/12/2015

Ed,

That is the same schedule that I was expecting. Please note that after the once/week sampling is complete (assuming no violations occur), then once/month sampling will be required for the next six calendar months (i.e. June through November). Reporting frequency also would reduce to once/month (within three weeks of each sampling event). Again, this is assuming no violations occur.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Tuesday, May 05, 2015 1:41 PM
To: Doug Mendoza
Cc: 'bpower@republicservices.com'; 'Kamp, Kevin'; 'LaFata, Natalie'; Bouchard, Derek (DBouchard@republicservices.com)
Subject: RE: Bridgeton LF 013 Sampling Weeks of 03/29/2015 and 04/12/2015

Doug, I wanted to make sure that we are on the same page with regard to the sampling schedule. Because we missed one week, we need to extend the schedule accordingly. Assuming that we continue weekly discharge, the three months of weekly sampling should be completed during the week of May 18-22. If you have a different schedule, please let us know. Thanks.

Completed				
1	MH013	12/22/2014	Pace	60185298
2	MH013	12/29/2014	Pace	60185491
3	MH013	2/10/2015	Pace	60187901
4	MH013	3/9/2015	Pace	60189389
5	MH013	3/18/2015	Pace	60190002
6	MH013	3/25/2015	Pace	60190520
7	MH013	4/07/2015	Pace	60191467
8	MH013	4/16/2015	Pace	60192191
9	MH013	4/21/2015	Pace	60192476
10	MH013	4/29/2015	Pace	60193070
Scheduled				
11	Week of 5/4/15			
12	Week of 5/11/15			
13	Week of 5/18/15			

Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Tuesday, May 05, 2015 1:41 PM
To: Doug Mendoza
Cc: 'bpower@republicservices.com'; 'Kamp, Kevin'; 'LaFata, Natalie'; Bouchard, Derek (DBouchard@republicservices.com)
Subject: RE: Bridgeton LF 013 Sampling Weeks of 03/29/2015 and 04/12/2015

Doug, I wanted to make sure that we are on the same page with regard to the sampling schedule. Because we missed one week, we need to extend the schedule accordingly. Assuming that we continue weekly discharge, the three months of weekly sampling should be completed during the week of May 18-22. If you have a different schedule, please let us know. Thanks.

Completed				
1	MH013	12/22/2014	Pace	60185298
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6	MH013	3/25/2015	Pace	60190520
7	MH013	4/07/2015	Pace	60191467
8	MH013	4/16/2015	Pace	60192191
9	MH013	4/21/2015	Pace	60192476
10	MH013	4/29/2015	Pace	60193070
Scheduled				
11	Week of 5/4/15			
12	Week of 5/11/15			
13	Week of 5/18/15			

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

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From: Ed Galbraith
Sent: Tuesday, April 28, 2015 3:29 PM
To: Doug Mendoza (DMENDOZA@stlmsd.com)

Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Tuesday, May 05, 2015 12:27 PM
To: bpower@republicservices.com; Bouchard, Derek (DBouchard@republicservices.com)
Cc: 'Bouchard, Derek (DBouchard@republicservices.com)'; Rob G Daly; 'bpower@republicservices.com'; Robert W. Murphy; Rick J. Campbell; Michael Grace; Mark Bright; Jay Kniker; Doug Mendoza; Nora C. Estopare; John Lodderhose; Koziatek, Dan; Kamp, Kevin
Subject: Bridgeton PS No. 1- Air Sampling/Monitoring March 27, 2015
Attachments: PS1 Sampling Memo 2015_0504.pdf; Enthalpy Report 0315-18R2.pdf

Brian,

Attached are the PS1 air sampling results through the March 27, 2015 sampling event. Please let me know if you have any questions.

Ed Galbraith

Senior Environmental Consultant
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cell: 573.418.5562
egalbraith@barr.com
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engineering and environmental consultants

BARR

Technical Memorandum

To: Brian Powers, Bridgeton Landfill
From: Ed Galbraith, Barr Engineering Co.
Subject: March 27, 2015 Air Sampling Results at PS1
Date: May 4, 2015
c: Derek Bouchard, Kevin Kamp, Dan Koziatek

Background

Barr Engineering Co. (Barr) conducted air monitoring for Bridgeton Landfill in the MH013 lift station/bypass valve chamber (PS1) as outlined in the *PS-1 Sampling and Analytical Plan* (April 2015). The canister sampling was conducted on March 27, 2015. Bridgeton Landfill staff has been collecting weekly field monitor data as required by the plan. This memo transmits the results of the most recent monitoring and summarizes all the monitoring under the plan to date.

Changes in Sampling Procedure

There was no substantial variation from the sampling plan. Weekly sampling for benzene and 4-gas parameters began one week later than planned.

Results – Field Meter

Table 1 (attached) includes the data for field meter results obtained since February 11, 2015. None of the results exceeded worker protection levels or triggered action levels.

Results – Canister

The full report of the canister analysis from Enthalpy Analytical, Inc. is attached. The results are included in Table 1. All results were below worker protection levels.

Summary of Quality Control

A full Level 4 data review was not performed on this data package. The instrument's initial calibration (ICAL), initial and continuing calibration verification (ICV and CCV), BFB tune, and internal standard results met the laboratory acceptance limits described on pages 21 through 25 of the 248-page report with the following notable exception.

- In sample LS Can 4009, a matrix interference was observed with the bromochloromethane internal response. Due to this interference, which resulted in a high bias internal standard response, the dimethyl sulfide concentration was calculated using the bromochloromethane internal standard response from the associated humid blank.

- The laboratory control sample (LCS) and matrix spike sample (MS) spike recoveries met the applicable acceptance limits. Trace concentrations of methane were present above the method detection limit and below the laboratory reporting limit in the TO-18 method blank sample; however, no methane data was qualified in any of the project samples because the sample concentrations were much higher than the method blank sample concentration.

- The dimethyl sulfide analysis was performed using a tentatively identified compound (TIC) search for that analyte. This analyte is not on the lab's standard TO-15 list of reportable compounds; therefore, the analyte was not calibrated for.

/EG

Attachments

Table
PS1 Air Data

				Parameter	Carbon Monoxide	Hydrogen Sulfide	Oxygen	LEL (CH4)	Benzene	Total VOC	Dimethyl Sulfide	Nitrogen, ammonia as N	Methane (CH4)
				Action Level	> 25 ppm	> 10 ppm	< 19.5 %						
				OSHA PEL-TWA (ppm)					1			50	
				OSHA PEL-TWA (ug/m3)					3200			35000	
				ACGIH TLV-TWA (ppm)					0.5		10	25	
				ACGIH TLV-TWA (ug/m3)					1600		25000	17000	
Location	Date	Lab Name	Data Status	Lab Report Number									
LS	4/22/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.0 ppm				
VC	4/22/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.0 ppm				
LS	4/21/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.9%	0.0%	0.0 ppm	--	--	--	--
VC	4/21/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.9%	0.0%	0.0 ppm	--	--	--	--
LS	4/20/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.8%	0.0%	0.0 ppm	--	--	--	--
VC	4/20/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.8%	0.0%	0.0 ppm	--	--	--	--
LS	4/17/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.5%	0.0%	0.0 ppm				
VC	4/17/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.5%	0.0%	0.0 ppm				
LS	4/16/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.7%	0.0%	0.0 ppm				
VC	4/16/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.7%	0.0%	0.0 ppm				
LS	4/15/2015 00:00	Field	No QC	Field	0.0 ppm	0.5 ppm	20.5%	0.0%	0.0 ppm	--	--	--	--
VC	4/15/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.5%	0.0%	0.0 ppm	--	--	--	--
LS	4/14/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.9%	0.0%	0.0 ppm	--	--	--	--
VC	4/14/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	20.9%	0.0%	0.0 ppm	--	--	--	--
LS	4/11/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	1.1 ppm				
VC	4/11/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.85 ppm				
LS	4/02/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.0 ppm	--	--	--	--
VC	4/02/2015 00:00	Field	No QC	Field	0.0 ppm	0.0 ppm	21.0%	0.0%	0.0 ppm	--	--	--	--
LS	2/13/2015 16:00	Field	No QC	Field	--	--	--	--	--	1.25 ppm	--	--	--
VC	2/13/2015 16:00	Field	No QC	Field	--	--	--	--	--	0.65 ppm	--	--	--
LS	2/13/2015 10:30	Field	No QC	Field	--	--	--	--	--	0.82 ppm	--	--	--
VC	2/13/2015 10:30	Field	No QC	Field	--	--	--	--	--	1.1 ppm	--	--	--
LS	2/13/2015 07:45	Field	No QC	Field	--	--	--	--	--	0.0 ppm	--	--	--
VC	2/13/2015 07:45	Field	No QC	Field	--	--	--	--	--	1.45 ppm	--	--	--
LS	2/12/2015 00:00	Field	No QC	Field	--	--	--	--	0.0 ppm	--	--	--	--
LS	2/11/2015 00:00	Field	No QC	Field	--	--	--	--	0.0 ppm	--	--	--	--
LS 5356301856	3/27/2015 15:00	Enthalpy Anal.	Validated	0315-18	--	--	--	--	--	--	--	< 0.235 ug	--
VC 5356301861	3/27/2015 15:00	Enthalpy Anal.	Validated	0315-18	--	--	--	--	--	--	--	< 0.235 ug	--
LS 5356301858	3/27/2015 11:00	Enthalpy Anal.	Validated	0315-18	--	--	--	--	--	--	--	< 0.235 ug	--
VC 5356301857	3/27/2015 11:00	Enthalpy Anal.	Validated	0315-18	--	--	--	--	--	--	--	< 0.235 ug	--
VC 4014	3/27/2015 08:48	Enthalpy Anal.	Validated	0315-18	--	--	--	--	52.2 ug/m3	--	0.770 TIC ug/m3	--	411 ppm
LS 4009	3/27/2015 08:38	Enthalpy Anal.	Validated	0315-18	--	--	--	--	72.9 ug/m3	--	1031 TIC ug/m3	--	202 ppm
LS 1-2'	2/13/2015 09:40	Enthalpy Anal.	Validated	0215-55	--	--	--	--	22.6 ** ug/m3	--	ND ** TIC ppbv	--	--
VC 1-8'	2/13/2015 09:00	Enthalpy Anal.	Validated	0215-55	--	--	--	--	21.2 ug/m3	--	ND TIC ppbv	--	--
										--	--	--	--
										--	--	--	--

MSD 032019

Data Qualifiers/Footnotes	
Qualifier	Definition
–	Not analyzed/not available.
a	Estimated value, calculated using some or all values that are estimates.
b	Potential false positive value based on blank data validation procedures.
c	Coeluting compound.
e	Estimated value, exceeded the instrument calibration range.
f	Sample was collected at a flowrate exceeding the recommended rate of 200 mL/minute.
h	EPA recommended sample preservation, extraction or analysis holding time was exceeded.
i	Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria.
j	Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.
p	Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns.
pp	Small peak in chromatogram below method detection limit.
r	The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms.
s	Potential false positive value based on statistical analysis of blank sample data.
t	Sample positive for total coliforms but negative for *E. coli.*
v	Sample was collected under a vacuum of greater than XX inches of mercury.
*	Estimated value, QA/QC criteria not met.
**	Unusable value, QA/QC criteria not met.
N	Sample Type: Normal
FD	Sample Type: Field Duplicate
AT	Sample chromatogram is noted to be atypical of a petroleum product.
DLND	Not detected, detection limit not determined.
DF	Did not flash
EMPC	Estimated maximum possible concentration.
NA – (Not applicable)	NA indicates that a fractional portion of the sample is not part of the analytical testing or field collection procedures.
ND	Not detected.
TIC	Tentatively identified compound
BQA	Barr-applied project specific qualifier: extraction and/or analyses conducted using an alternative method and/or procedure.
BQC	Barr-applied project specific qualifier: plant shut down.
BQD	Barr-applied project specific qualifier: equipment malfunction.
BQE	Barr-applied project specific qualifier: equipment adjustment.
BQM	Barr-applied project specific qualifier: manual measurement.
BQN	Barr-applied project specific qualifier: unable to be sampled or measured due to various reasons.
BQP	Barr-applied project specific qualifier: atypical chromatographic pattern.
BQQ	Barr-applied project specific qualifier: some aspect of QA/QC was not met.
BQR	Barr-applied project specific qualifier: location was re-sampled.
BQS	Barr-applied project specific qualifier: data is considered suspect.
BQT	Barr-applied project specific qualifier: summed value not displayed due to insufficient field length.
BQU	Barr-applied project specific qualifier: historical qualifier - definition unknown.
BQV	Barr-applied project specific qualifier: estimated value.
BQX	Barr-applied project specific qualifier: see notes for qualifier definition.
BQZ	Barr-applied project specific qualifier: data is considered unusable.
Validated	Laboratory data has been evaluated following Barr QA/QC procedures and/or project-specific data review requirements. Field data has been verified for transcription errors, consistency and completeness. Data transferred from the previous database (9/2009) were categorized as validated, but may be comprised of any one of the following data status categories: Validated, SSource, No QC or Legacy.
No QC	Laboratory data has been excluded from Barr QA/QC procedures.
SSource	Laboratory and/or field data obtained from a secondary source external to Barr. Second source QA/QC evaluation procedures may or may not have been performed beyond the original data generator.
Legacy	Historical laboratory data (internal at Barr). QA/QC evaluation procedures may or may not have been performed beyond the original data generator

Barr Engineering Company
Jefferson City

1001 Diamond Ridge, Suite 1100
Jefferson City, MO 65109

Bridgeton Landfill
St. Louis, MO

Analytical Report
(0315-18R2)

NIOSH Method 6016-Type
Ammonia

EPA Method TO-15
Benzene
Dimethyl sulfide as a TIC

EPA Method 18-Type
Methane

Enthalpy Analytical, Inc.
Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
800-1 Capitola Drive Durham, NC 27713-4385

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 248 pages.

Kristen H. Bounds
QA Reviewed by – Kristen H. Bounds

Report Issued: 05/01/2015

MSD 032021

Summary of Results

Enthalpy Analytical

Company:	Barr Engineering Company - Jefferson City	Parameters:	NIOSH Method 6016-Type (two-fraction)
Client No.	Bridgeton Landfill	Samples	4 Runs
Job No.	0315-18	Analyst	Lori Hewitt

Results Summary **Compound: Ammonia**

Sample Name	Catch Weight (ug)	Qualifier
VC 5356301857	0.235	ND
LS 5356301858	0.235	ND
VC 5356301861	0.235	ND
LS 5356301856	0.235	ND

MSD 032022

Enthalpy Analytical

Company: Barr Engineering Company - Jefferson City
Client No: Bridgeton Landfill
Job No: 0315-18

Parameters: EPA Method 18-Type
Samples: 2 Canisters
Analyst: TBO / JKG

Summary Table

Sample Name	*LS-4009*	*VC-4014*
Compound	Conc (ppm)	Conc (ppm)
Methane	202	411

Results

MSD 032023

Enthalpy Analytical

Company: Barr Engineering Company - Jefferson City
Client No. Bridgeton Landfill
Job No. 0315-18

Parameters: NIOSH Method 6016-Type (two-fraction)
Samples 4 Runs
Analyst Lori Hewitt

Compound: Ammonia

Client's Sample Name	Filename #1	Filename #2	Analysis Method	Curve Min	Curve Max	MDL	Ret Time (min)	Ret Time (min)	%diff RT	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	%diff conc	Avg Conc (ug/mL)	DF	Liquid Vol (mL)	Catch Weight (ug)	Flag
VC 5356301857	OnlineEdited55.D	OnlineEdited51.D	Curly pg48.M	0.470	12.3	0.0235	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	10.0	0.235	ND
VC 5356301857	OnlineEdited53.D	OnlineEdited54.D	Curly pg48.M	0.470	12.3	0.0235	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	10.0	0.235	ND
																0.235	ND
LS 5356301858	OnlineEdited59.D	OnlineEdited60.D	Curly pg48.M	0.470	12.3	0.0235	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	10.0	0.235	ND
LS 5356301858	OnlineEdited57.D	OnlineEdited58.D	Curly pg48.M	0.470	12.3	0.0235	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	10.0	0.235	ND
																0.235	ND
VC 5356301861	OnlineEdited62.D	OnlineEdited63.D	Curly pg48.M	0.470	12.3	0.0235	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	10.0	0.235	ND
VC 5356301861	OnlineEdited61.D	OnlineEdited56.D	Curly pg48.M	0.470	12.3	0.0235	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	10.0	0.235	ND
																0.235	ND
LS 5356301856	OnlineEdited65.D	OnlineEdited67.D	Curly pg48.M	0.470	12.3	0.0235	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	10.0	0.235	ND
LS 5356301856	OnlineEdited64.D	OnlineEdited66.D	Curly pg48.M	0.470	12.3	0.0235	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	10.0	0.235	ND
																0.235	ND

Enthalpy Analytical

Company: Barr Engineering Company - Jefferson City
Client No. Bridgeton Landfill
Job No. 0315-18

Parameters: NIOSH Method 6016-Type (two-fraction)
Samples 4 Runs
Analyst Lori Hewitt

Matrix Spike Recovery Compound: Ammonia

Sample ID	Filename #1	Filename #2	Analysis Method	Ret Time (min)	Ret Time (min)	%diff RT	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	%diff conc	Avg Conc (ug/mL)	DF	vol mL	Mass (ug)	Recov %
MS / VC 5356301857.FH	OnlineEdited68.D	OnlineEdited69.D	Curly pg48.M	4.38	4.38	0.0	3.16	3.20	0.7	3.18	1	0.520	1.65	
	OnlineEdited53.D	OnlineEdited54.D	Curly pg48.M	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	0.500	0.00	
											Mass Spiked:		1.89	87.6%
MSD / VC 5356301857.FH	OnlineEdited70.D	OnlineEdited71.D	Curly pg48.M	4.38	4.38	0.0	3.13	3.14	0.1	3.13	1	0.520	1.63	
	OnlineEdited53.D	OnlineEdited54.D	Curly pg48.M	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	0.500	0.00	
											Mass Spiked:		1.89	86.3%
MS / VC 5356301857.BH	OnlineEdited72.D	OnlineEdited73.D	Curly pg48.M	4.38	4.38	0.0	3.25	3.22	0.5	3.23	1	0.520	1.68	
	OnlineEdited55.D	OnlineEdited51.D	Curly pg48.M	NA	NA	NA	0.0235	0.0235	NA	0.0235	1	0.500	0.00	
											Mass Spiked:		1.89	89.1%
MSD / VC 5356301857.BH	OnlineEdited74.D	OnlineEdited75.D	Curly pg48.M	4.38	4.38	0.0	3.11	3.02	1.4	3.06	1	0.520	1.59	
	OnlineEdited55.D	OnlineEdited51.D	Curly pg48.M	4.33	4.34	0.2	0.0235	0.0235	NA	0.0235	1	0.500	0.00	
											Mass Spiked:		1.89	84.4%

MSD 032024

Sample Name	: VC Can4014
Sample Info	: 0315-18, can 4014, 500mL
Data File	: L1501263.D
Dilution	: 1
Pressurization Factor	: 2.281
Acquisition Date	: 2015-03-31 19:22:00
Instrument Method	: MH624-L
Matrix	: AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Benzene	16.3	0.233	0.0798	52.2	0.743	0.255	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
1,4-Difluorobenzene (IS)	3,259,195	14.35	10.52	PASS

(ND) = Not Detected
* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name	: LS Can4009
Sample Info	: 0315-18, can 4009, 50mL=*10
Data File	: L1501265.D
Dilution	: 10
Pressurization Factor	: 1.967
Acquisition Date	: 2015-03-31 20:37:00
Instrument Method	: MH624-L
Matrix	: AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Benzene	22.8	2.01	0.688	72.9	6.41	2.20	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
1,4-Difluorobenzene (IS)	3,306,801	14.34	10.52	PASS

(ND) = Not Detected
* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Company	Barr Engineering Company
Analyst	DBS
Parameters	GC/MS VOA Scan

Client #	Bridgeton Landfill
Job #	0315-18
# Samples	2 (3L) Canisters

Sample ID: **VC Can4014**
Data File: L1501263.D
Tank/Misc ID: 0315-18, can 4014, 500mL

DF: 1.00
Tank DF: 2.281

Compound	CAS#	MW	Ret. Time (min)	Area	Conc. (ppbv)	Sample Conc. (ppbv)	Sample Conc. (ug/m^3)
Dimethyl sulfide	000075-18-3	62.0	8.34	35,281	0.133	0.304	0.770

Company	Barr Engineering Company
Analyst	DBS
Parameters	GC/MS VOA Scan

Client #	Bridgeton Landfill
Job #	0315-18
# Samples	2 (3L) Canisters

Sample ID: **LS Can4009**
Data File: L1501265.D
Tank/Misc ID: 0315-18, can 4009, 50mL=*10

DF: 10.0
Tank DF: 1.967

Compound	CAS#	MW	Ret. Time (min)	Area	Conc. (ppbv)	Sample Conc. (ppbv)	Sample Conc. (ug/m^3)
Dimethyl sulfide	000075-18-3	62.0	8.34	5,007,640	20.7	407	1,031

MSD 032026

Sample Name	: VC Can4014 LD
Sample Info	: 0315-18, can 4014, 500mL
Data File	: L1501264.D
Dilution	: 1
Pressurization Factor	: 2.281
Acquisition Date	: 2015-03-31 20:02:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	% Diff	Flag *
Benzene	16.5	0.233	0.0798	52.7	0.743	0.255	1.1	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
1,4-Difluorobenzene (IS)	3,291,523	14.34	10.52	PASS

(ND) = Not Detected
* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Sample Name	: Humid Blank
Sample Info	: 500mL; Can #10892
Data File	: L1501258.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2015-03-31 14:04:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Benzene	ND	0.102	0.0350	ND	0.326	0.112	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
1,4-Difluorobenzene (IS)	3,246,051	14.32	10.52	PASS

(ND) = Not Detected
* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Company	Barr Engineering Company
Analyst	DBS
Parameters	GC/MS VOA Scan

Client #	Bridgeton Landfill
Job #	0315-18
# Samples	2 (3L) Canisters

Sample ID: **Humid Blank**
Data File: L1501258.D
Tank/Misc ID: 500mL; Can #10892

DF: 1.00
Tank DF: 1.00

Compound	CAS#	MW	Ret. Time (min)	Area	Conc. (ppbv)	Sample Conc. (ppbv)	Sample Conc. (ug/m^3)
Dimethyl sulfide	000075-18-3	62.0	NA	NA	ND	ND	ND

Quantitation Report **Enthalpy Analytical, Inc.**

Sample Name : 5ppbv TO15 LCS
Sample Info : 125mL; Can #C8282
Data File : L1501257.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2015-03-31 12:56:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Concentration (PPBV)	RL (PPBV)	MDL (PPBV)	Concentration (ug/m3)	RL (ug/m3)	MDL (ug/m3)	Flag *
Benzene	4.49	0.102	0.0350	14.3	0.326	0.112	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
1,4-Difluorobenzene (IS)	3,047,355	14.32	10.52	PASS

(ND) = Not Detected
* (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

MSD 032028

QC Summary Report

Enthalpy Analytical, Inc.

Sample Name	: 5ppbv TO15 LCS
Sample Info	: 125mL; Can #C8282
Data File	: L1501257.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2015-03-31 12:56:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
Benzene	930,731	4.49	5.15	87.1	PASS

Enthalpy Analytical

Company: Barr Engineering Company - Jefferson City
Client No: Bridgeton Landfill
Job No: 0315-18

Parameters: EPA Method 18-Type
Samples: 2 Canisters
Analyst: TBO / JKG

Methane

Sample ID	Filename #1	Filename #2	Filename #3	Analysis Method	Curve Min	Curve Max	MDL	Ret Time (min)	Ret Time (min)	Ret Time (min)	%dif RT	DF	Conc #1	Conc #2	Conc #3	%dif conc	Avg Conc ppm	Final Conc ppm	Flag
LS-4009	005F0101.D	005F0102.D	005F0103.D	EDITHP108F_C1-C6_XAS.M	5.01	51,300	0.387	1.55	1.55	1.55	0.0	1.967	103	103	103	0.3	103	202	
VC-4014	007F0901.D	007F0902.D	007F0903.D	EDITHP108F_C1-C7.M	5.01	51,300	0.387	1.58	1.58	1.58	0.0	2.281	181	182	178	1.4	180	411	

MSD 032029

Canister and Controller Data Sheet

Enthalpy Analytical Inc.

Client Name: Barr Engineering Company
Client #: Bridgeton Landfill: St. Louis, MO
Enthalpy Job #: 0315-18

Controller Data

Controller ID	Data File	Initial Flow (cc/min)	Return Flow (cc/min)
SB-1803	T1402673	5.3	5.3
SB-1604	T1402645	5.3	4.6

Canister Data

Canister ID	Data File	Canister Pressure Pre-Sample (mm-Hg)	Canister Pressure Post-Sample (mm-Hg)	Canister Pressure Final (mm-Hg)	Canister Pressurization Factor
4014	L1500335	-773	-51	853	2.281
4009	L1500517	-773	-47	639	1.967

Date Prepared: 03/06/15 By: JAD
Date Received: 3/30/2015 By: SDM

Canister Certification Type: **Individual** **Batch**

Narrative Summary

MSD 032030

Enthalpy Analytical Narrative Summary

Company	Barr Engineering Company
Analyst	LAH
Parameters	NIOSH Method 6016-Type

Client #	Bridgeton Landfill
Job #	0315-18
# Samples	4 Runs

Custody	Summer Mims of Enthalpy Analytical, Inc. received the samples on 3/30/15 at 8.7 °C after being relinquished by Barr Engineering Company of Jefferson City, MO. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	The samples were analyzed for ammonia using the general analytical procedures in NIOSH Method 6016, Ammonia by IC. Each sample run consisted of a single SKC silica gel (Cat# 226-10-06) sample tube. Each tube was divided into front half (FH) and back half (BH) fractions and each fraction was desorbed using 10 mL of DIUF water on 4/9/15. The Agilent Model 1100, High Performance Liquid Chromatograph "Curly" was used for these analyses.
Calibration	The calibration curve is located in the Raw Data section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition method ENV_AMM_18MM_DIUF_new.M is included in the Raw Data section of this report.
QC Notes	The analysis of the laboratory reagent blank contained no ammonia at a concentration greater than the detection limit. Duplicate matrix spikes were prepared using aliquots of samples ***VC 5356301857.FH*** and ***VC 5356301857.BH.*** The matrix spikes exhibited recovery values ranging from 84.4% to 89.1%.
Reporting Notes	The results presented in this report are representative of the samples as provided to the laboratory.

Enthalpy Analytical Narrative Summary

Company	Barr Engineering Company
Analyst	TDD / DBS
Parameters	EPA Method TO-15

Client #	Bridgeton Landfill
Job #	0315-18
# Samples	2 Canisters

Custody	Summer Mims of Enthalpy Analytical, Inc. received the samples on 3/30/15 at ambient temperature after being relinquished by Barr Engineering Company of Jefferson City, MO. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	The samples were analyzed for benzene as a target compound and for dimethyl sulfide as a Tentatively Identified Compound (TIC) using the analytical procedures in EPA Method TO-15, Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters And Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS). Upon receipt, the canister pressures were measured and recorded. The cans were then pressurized and a dilution ratio was calculated for each can (see Canister and Controller Data Sheet). The Hewlett Packard Model 5890, Gas Chromatograph "Lurch" (S/N 2750A15233) was equipped with a 5971A Mass Selective Detector and a Restek Rxi-624 Sil MS, 60 m x 0.32 mm x 1.8 µm (S/N 1035491) capillary column for these analyses. All samples and standards were introduced directly to the analyzer using an Entech 7100A Preconcentrator.
Calibration	The Initial Calibration (***L091114B-TO15***) met 30% RSD criteria. The Initial Calibration Verification met 30% Recovery criteria. The Continuing Calibration Verification met 30% Difference criteria. The calibration data has been included in the Raw Data section of this report.
Chromatographic Conditions	The acquisition method ***MM624-L.M*** has been included in the Raw Data section of this report.
QC Notes	The associated BFB sample met tune criteria for this analysis. All Internal Standard response and retention time criteria were met. The Laboratory Control Sample met 30% Recovery criteria.

Enthalpy Analytical Narrative Summary
(continued)

QC Notes (continued)	No benzene or dimethyl sulfide were identified at a concentration greater than the MDL in the analysis of the laboratory Humid Blank. All samples were analyzed within the 30-day holding time specified in the method.
Reporting Notes	The samples were manually searched for the presence of dimethyl sulfide using the primary and secondary ions, 62 and 47. TIC concentrations are calculated using an assumed response factor of 1 for all compounds. Identification of TICs is based upon visual comparison of the sample spectra and best quality library searches. Relative intensities of major ions in the reference spectrum are compared to those in the sample spectrum. Intensities of the major ions should be within 20% of those in the reference spectrum. In some instances a background subtraction may have been performed on the sample spectrum to remove ions that may be present due to contamination or coeluting peaks. Therefore, due to possible background interferences, ions present in the sample spectrum may not be present in the reference spectrum. This revised report shows the estimated dimethyl sulfide concentrations in both ppbv and ug/m^3 units. In sample ***LS Can 4009*** a matrix interference was observed with the bromochloromethane internal response. Due to this interference which resulted in a high bias internal standard response, the dimethyl sulfide concentration was calculated using the bromochloromethane internal standard response from the associated humid blank. These benzene analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above. The results presented in this report are representative of the samples as provided to the laboratory. The GC/MS analyses associated with this data report were performed at 2202 Ellis Road, Durham, NC 27703.

Enthalpy Analytical Narrative Summary

Company	Barr Engineering Company
Analyst	TBO / JKG
Parameters	EPA Method 18-Type

Client #	Bridgeton Landfill
Job #	0315-18
# Samples	2 Canisters

Custody	Summer Mims of Enthalpy Analytical, Inc. received the samples on 3/30/15 at ambient temperature after being relinquished by Barr Engineering Company of Jefferson City, MO. The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.
Analysis	The samples were analyzed for methane using the general analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A). All samples and standards were introduced directly to the column using an automated multi-port Valco gas sampling valve equipped with a stainless steel loop. Methane was referenced to certified gas phase standards. Upon receipt, the canister pressures were measured and recorded. The cans were then pressurized and a dilution ratio was calculated for each can (see Canister and Controller Data Sheet). The Agilent Technologies Model 7890A, Gas Chromatograph "Edith" (S/N CN10722006) was used for these analyses.
Calibration	The calibration curves are located in the Raw Data section of this report and referenced in the Analysis Method column on the Detailed Results page. For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.
Chromatographic Conditions	The acquisition method GC139P039_HRVOC.M is included in the Raw Data section of this report.

Enthalpy Analytical Narrative Summary
(continued)

QC Notes	The analysis of the laboratory zero air blank showed methane at concentration greater than the detection limit but below the LOQ. No recovery study was conducted to establish the recovery efficiency or adjust the results.
Reporting Notes	These analytical results are reported on a wet basis. The user of this report should determine the percent moisture in the sample and correct the reported value to ppmvd as appropriate. The results presented in this report are representative of the samples as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc. data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as ***"Type"*** represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as "EPA Method 16-Type" because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.
- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.
- The letter ***J*** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter ***E*** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).
- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.

MSD 032033

General Reporting Notes

(continued)

- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection and/or sample transport.
- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits.
- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.

Sample Custody

MSD 032034

ENTHALPY analytical inc.

Chain of Custody Record

Page 1 of 2

Special Handling:
- ☒ Standard Turn Around Time (10 business days)
- ☐ Rush Turn Around Time – Date Needed _____
- All TATs Subject to Approval by Enthalpy Analytical, Inc.
- All Bag/Can Samples Disposed of 1 Month from Receipt.
- All Other Samples Disposed of 4 Months from Receipt.

Client Name: BARR ENG
Project Manager: Ed Galbraith
Report To: Ed Galbraith
Project Number:
Site Name: Bridgeton Landfill
Location: St. Louis
PO#:
Telephone#: 573-638-5000
Email: egalbraith@barr.com

For spiked or duplicate samples, please provide sample volumes for recovery calculations. For Particulates, please provide tare weights and/or condensed water volumes.

Special Instructions:

A=Air 1=H2SO4 2=NaOH W=Water O=Other
X=XAD C=Charcoal SG=Silica Gel
G=Grab C=Composite Q=Quality Control O=Other

Cap	Sample ID	Date	Time	Sample Volume	Type	Matrix	# of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters	# of Tubes	# Other	Benzene	Dichloro Sulfide	Methane	Analyses:	Notes:
4009	LS	3/27	8:38-5:00	6L	G	A					1			X	X	X		TO-15/ [illegible]
4014	VC	3/27	8:48-	6L	G	A					1			X	X	X		

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Condition Upon Receipt:
[signature]	3/27	Federal Express	3/27	6:00	☐ Iced ☐ Ambient ☐ °C
[signature]		[signature]	3-30-15	830	☐ Iced ☒ Ambient ☐ °C
					☐ Iced ☐ Ambient ☐ °C

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ENTHALPY analytical inc.

Chain of Custody Record

Page 2 of 2

Special Handling:
- ☒ Standard Turn Around Time (10 business days)
- ☐ Rush Turn Around Time – Date Needed _____
- All TATs Subject to Approval by Enthalpy Analytical, Inc.
- All Bag/Can Samples Disposed of 1 Month from Receipt.
- All Other Samples Disposed of 4 Months from Receipt.

Client Name: BARR ENG
Project Manager: Ed Galbraith
Report To: Ed Galbraith
Project Number:
Site Name: Bridgeton Landfill
Location: St. Louis
PO#:
Telephone#: 573-638-5000
Email: egalbraith@barr.com

For spiked or duplicate samples, please provide sample volumes for recovery calculations. For Particulates, please provide tare weights and/or condensed water volumes.

Special Instructions:

A=Air 1=H2SO4 2=NaOH W=Water O=Other
X=XAD C=Charcoal SG=Silica Gel
G=Grab C=Composite Q=Quality Control O=Other

Cap	Sample ID	Date	Time	Sample Volume	Type	Matrix	# of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters	# of Tubes	# Other	Ammonia	Analyses:	Notes:
VC	5356301857	3/27	11-12	800 cc	G	SG						1		X		6016
LS	5356301858	3/27	11-12	"	G	SG						1		X		
VC	5356301861	3/27	3-4	"	G	SG						1		X		
LS	5356301856	3/27	3-4	"	G	SG						1		X		

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Condition Upon Receipt:
[signature]	3/27	Federal Express	3/27	6:00	☐ Iced ☐ Ambient ☐ °C
[signature]		[signature]	3-30-15	830	☒ Iced ☐ Ambient ☐ °C 8.7°C AGL by BDT 3-28-15
					☐ Iced ☐ Ambient ☐ °C

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MSD 032035

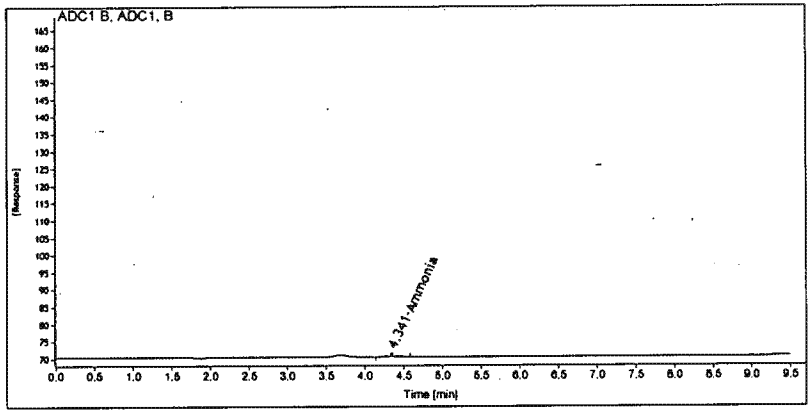
Raw Data

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited53.D
Sample name:	0315-18.VC 5356301857.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 7:42:36 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	1
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



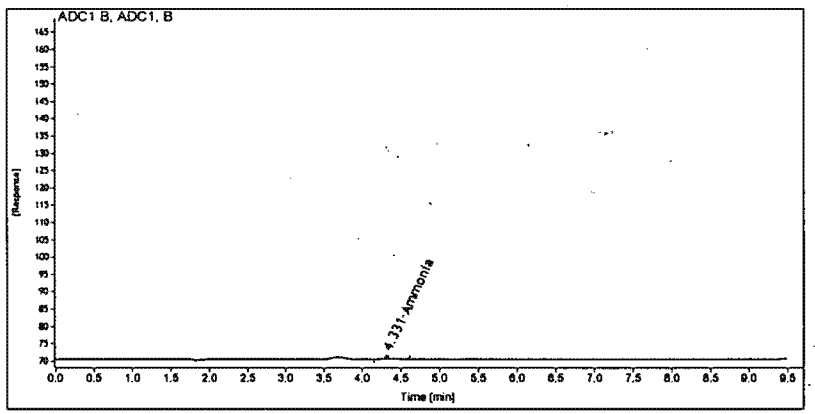
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.34	2.0322	1	0.01	0.007	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited54.D
Sample name:	0315-18.VC 5356301857.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 7:53:57 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	1
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



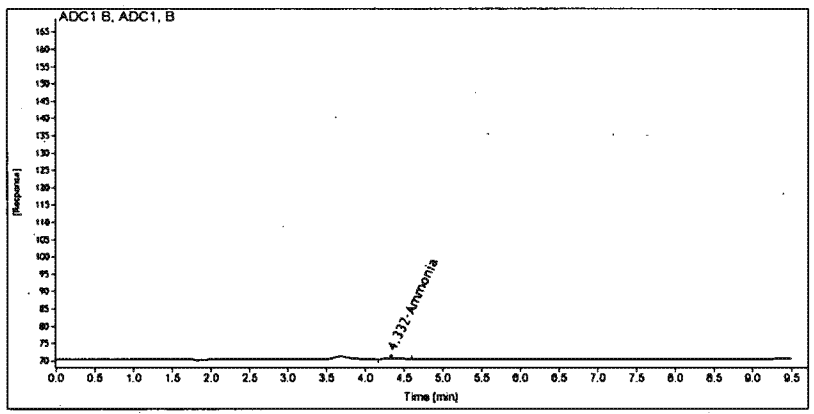
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.33	2.6621	1	0.01	0.009	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited55.D
Sample name:	0315-18.VC 5356301857.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 8:05:07 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	2
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



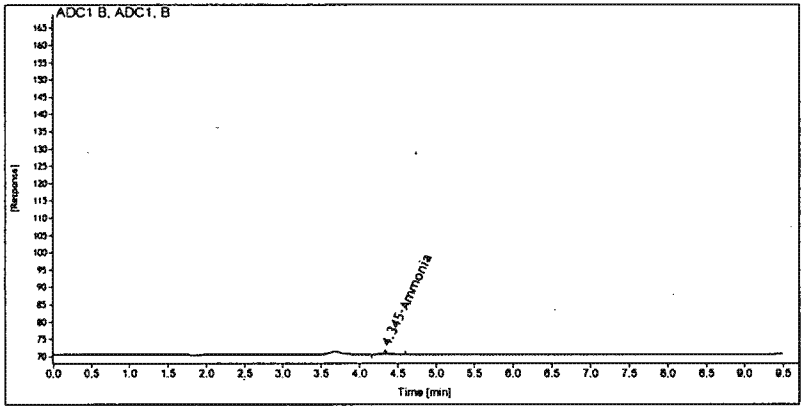
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.33	2.0563	1	0.01	0.007	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited51.D
Sample name:	0315-18.VC 5356301857.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 8:16:21 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	2
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



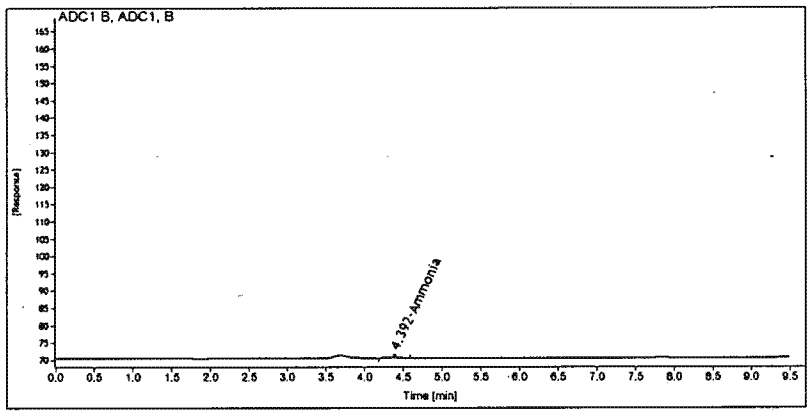
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.34	2.0295	1	0.01	0.007	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited57.D
Sample name:	0315-18.LS 5356301858.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 8:27:36 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	3
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



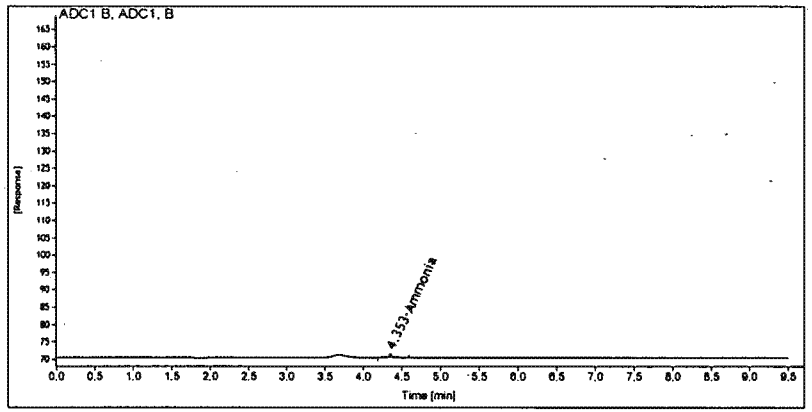
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.39	1.6275	1	0.01	0.005	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited58.D
Sample name:	0315-18.LS 5356301858.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 8:38:50 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	3
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



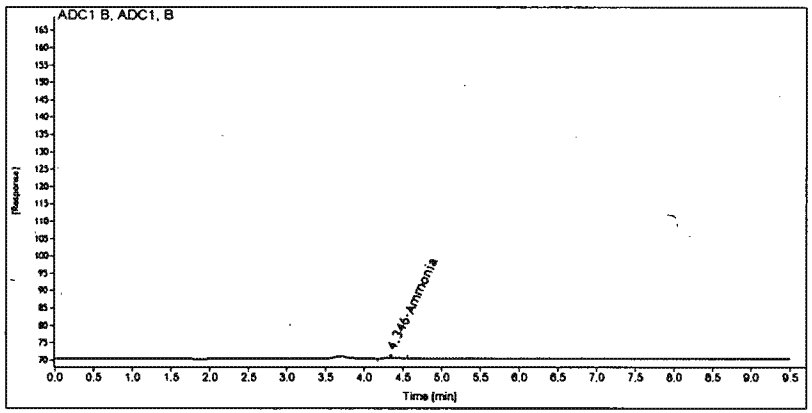
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.35	1.4499	1	0.00	0.005	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited59.D
Sample name:	0315-18.LS 5356301858.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 8:50:05 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	4
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.35	1.7936	1	0.01	0.006	ug/mL

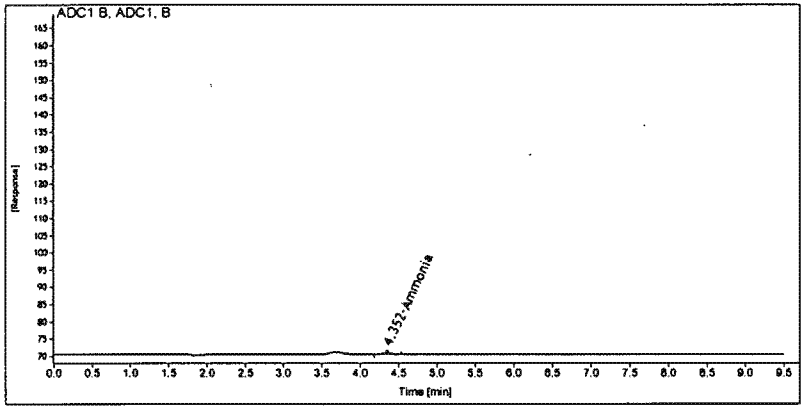
MSD 032039

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited60.D
Sample name:	0315-18.LS 5356301858.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 9:01:19 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	4
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



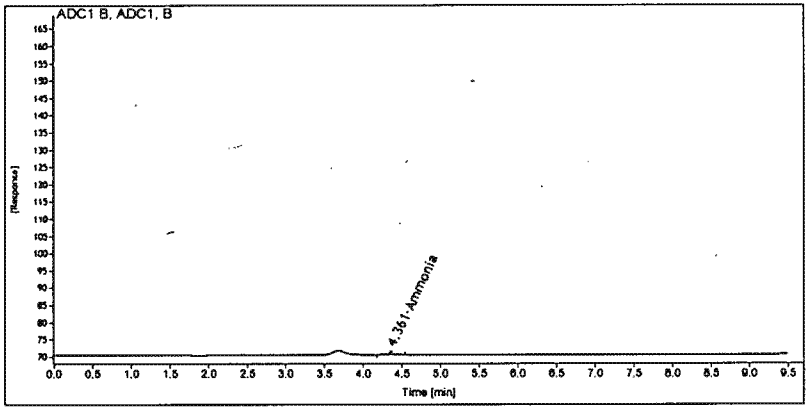
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.35	1.2520	1	0.00	0.004	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited61.D
Sample name:	0315-18.VC 5356301861.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 9:12:33 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	5
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



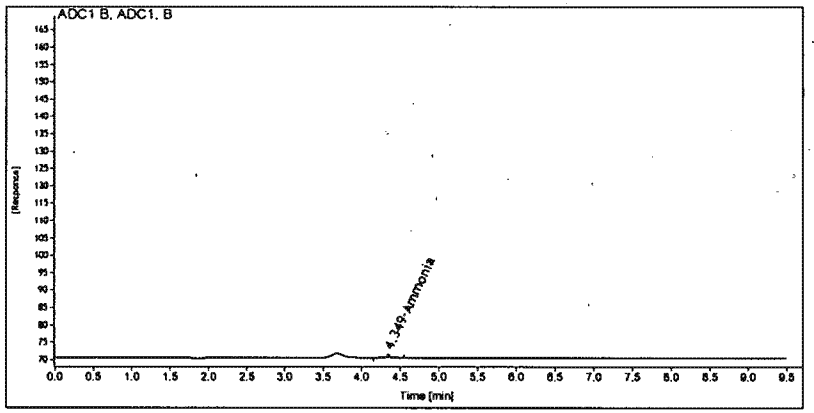
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.36	1.9656	1	0.01	0.007	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited56.D
Sample name:	0315-18.VC 5356301861.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 9:23:47 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	5
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



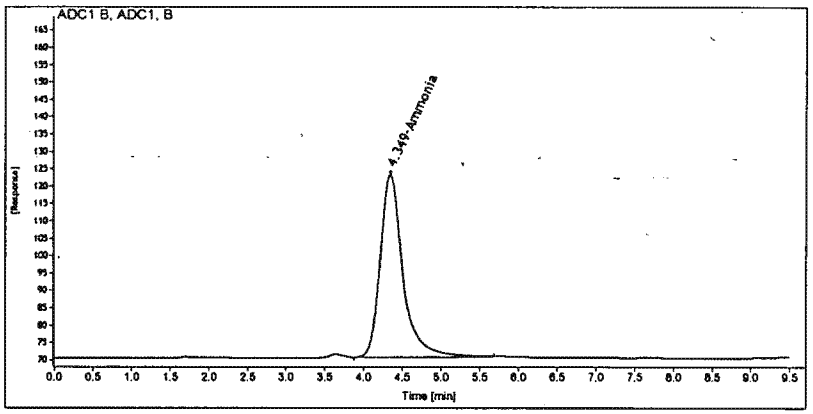
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.35	2.3268	1	0.01	0.008	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\065-1601.D
Sample name:	Curly46 Std. #5
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 9:35:01 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	65
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



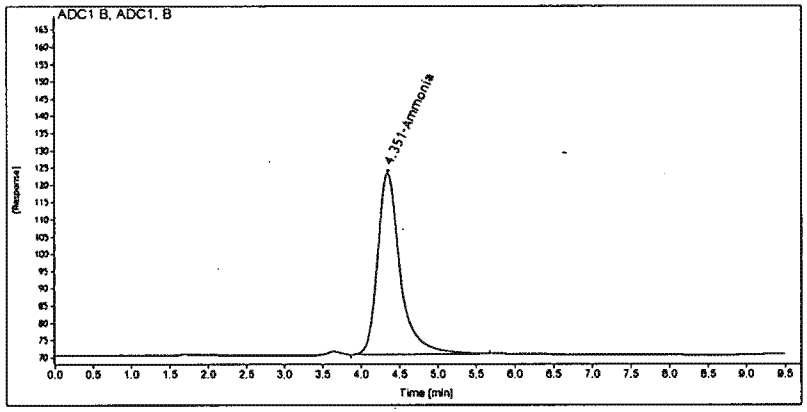
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.35	1087.5450	1	6.46	6.464	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\065-1602.D
Sample name:	Curly46 Std. #5
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 9:46:17 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	65
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



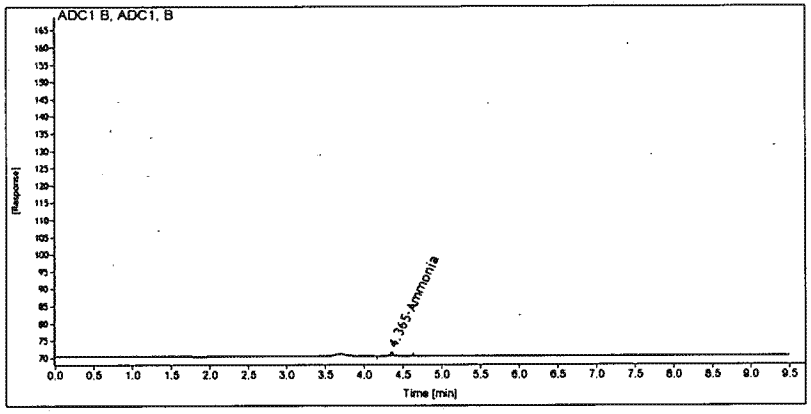
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.35	1092.8420	1	6.50	6.504	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited62.D
Sample name:	0315-18.VC 5356301861.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 9:57:33 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	6
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.36	1.7321	1	0.01	0.006	ug/mL

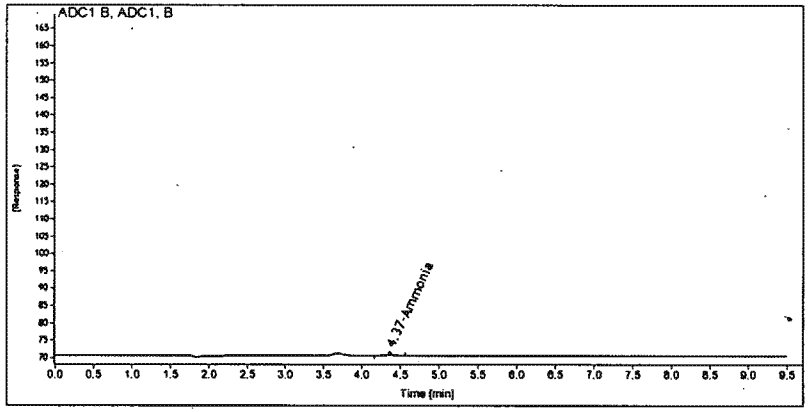
MSD 032042

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited63.D
Sample name:	0315-18.VC 5356301861.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 10:08:48 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	6
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



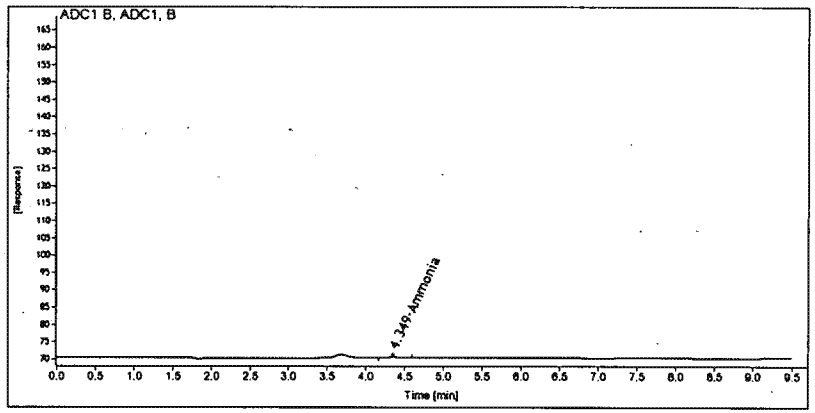
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.37	3.1379	1	0.01	0.010	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited64.D
Sample name:	0315-18.LS 5356301856.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 10:20:02 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	7
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



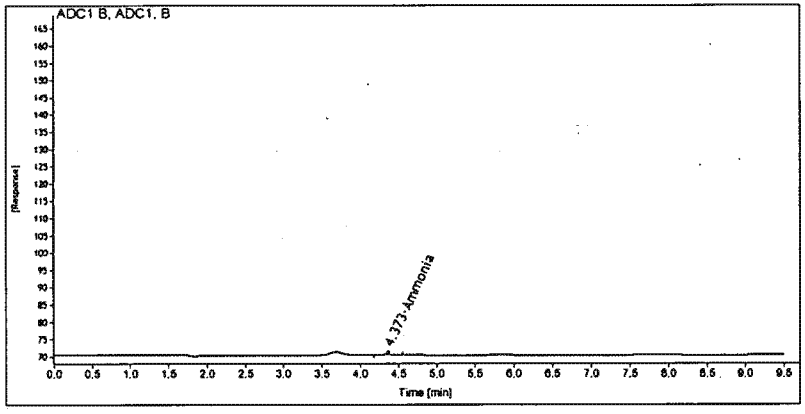
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.35	2.1676	1	0.01	0.007	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited66.D
Sample name:	0315-18.LS 5356301856.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 10:31:16 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	7
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



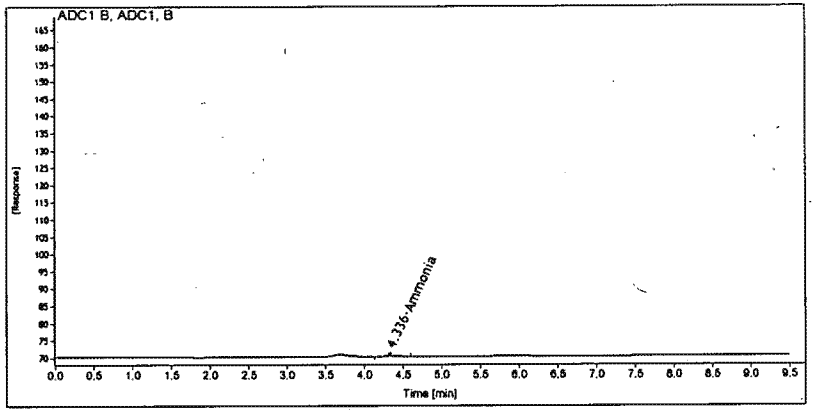
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.37	1.9847	1	0.01	0.007	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited65.D
Sample name:	0315-18.LS 5356301856.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 10:42:30 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	8
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



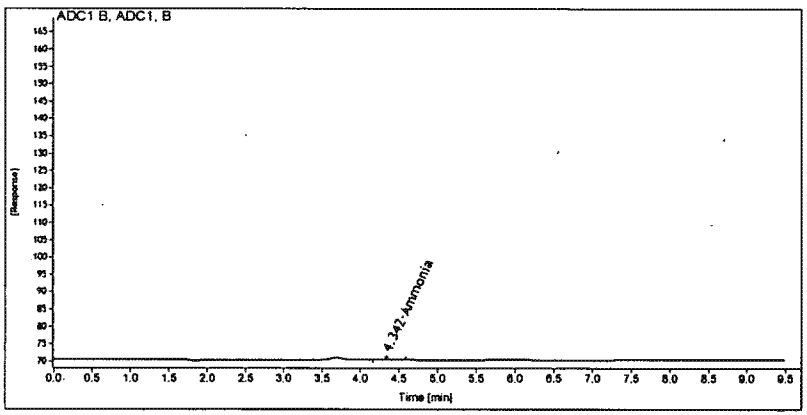
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.34	1.5687	1	0.01	0.005	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited67.D
Sample name:	0315-18.LS 5356301856.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 10:53:45 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	8
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



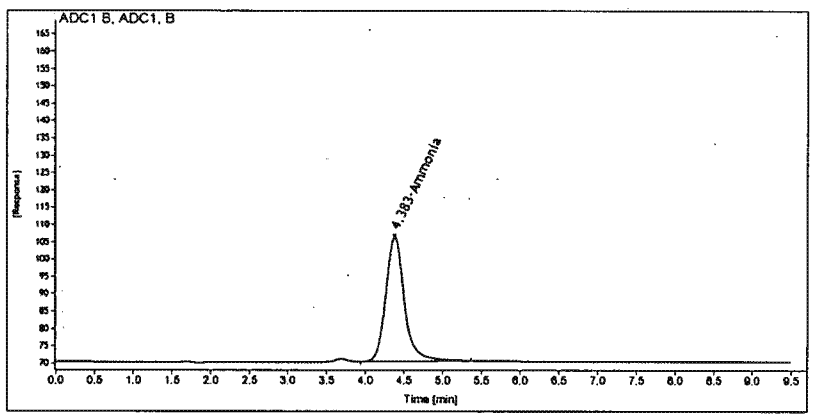
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	MM	4.34	1.6942	1	0.01	0.006	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited68.D
Sample name:	0315-18.MS-VC 5356301857.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 11:04:59 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	9
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



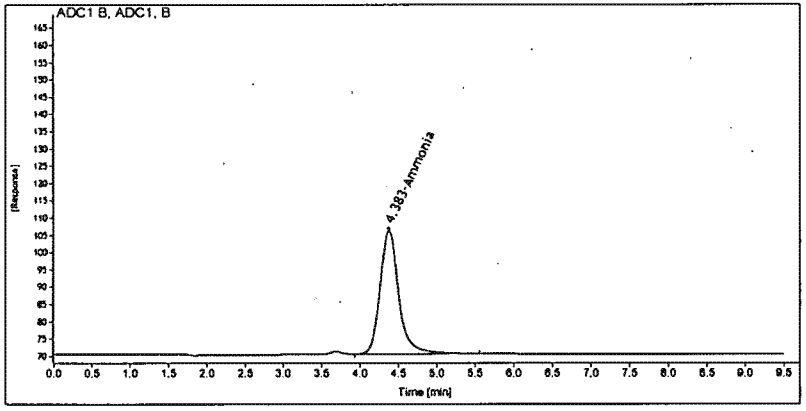
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.38	603.4794	1	3.16	3.159	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited69.D
Sample name:	0315-18.MS-VC 5356301857.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 11:16:14 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	9
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



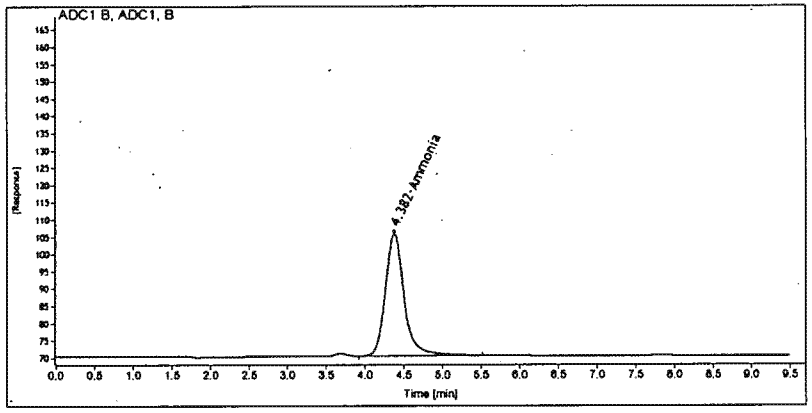
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.38	610.2466	1	3.20	3.202	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited70.D
Sample name:	0315-18.MSD-VC 5356301857.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 11:27:29 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	10
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



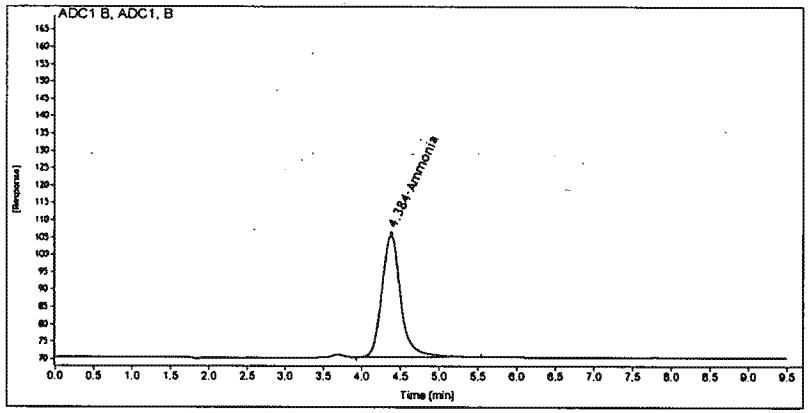
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.38	598.8475	1	3.13	3.131	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited71.D
Sample name:	0315-18.MSD-VC 5356301857.FH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 11:38:44 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	10
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



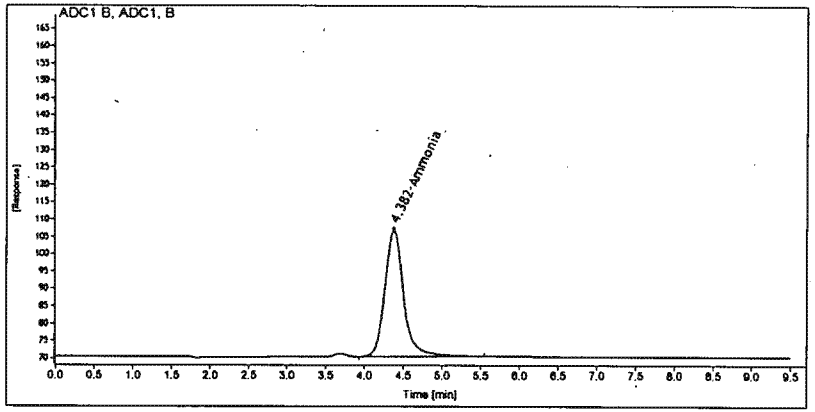
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.38	599.7690	1	3.14	3.136	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited72.D
Sample name:	0315-18.MS-VC 5356301857.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 11:49:59 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	11
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



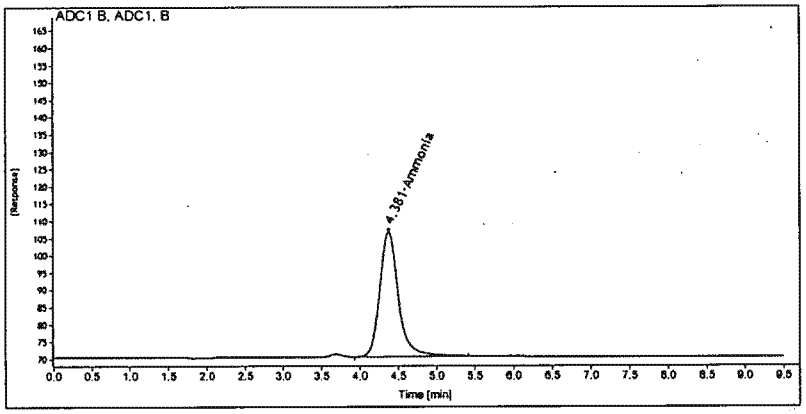
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.38	617.9146	1	3.25	3.249	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited73.D
Sample name:	0315-18.MS-VC 5356301857.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	4/1/2015 12:01:16 AM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	11
Injection volume:	35.000
Injection:	2 of 2
File_Version	8



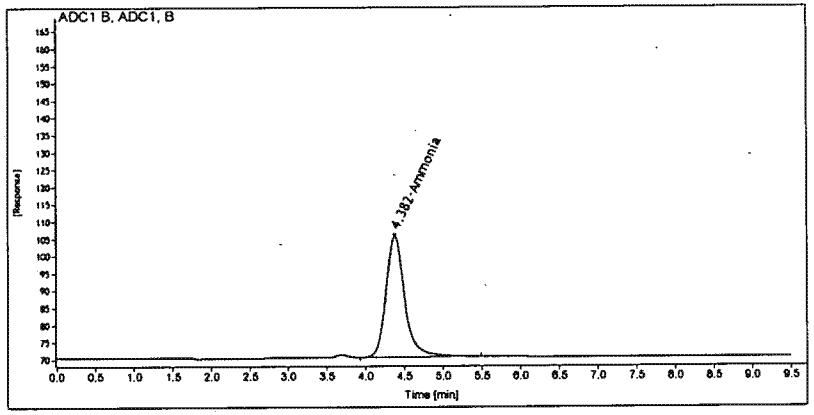
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.38	613.1754	1	3.22	3.220	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited74.D
Sample name:	0315-18.MSD-VC 5356301857.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	4/1/2015 12:12:31 AM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	12
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



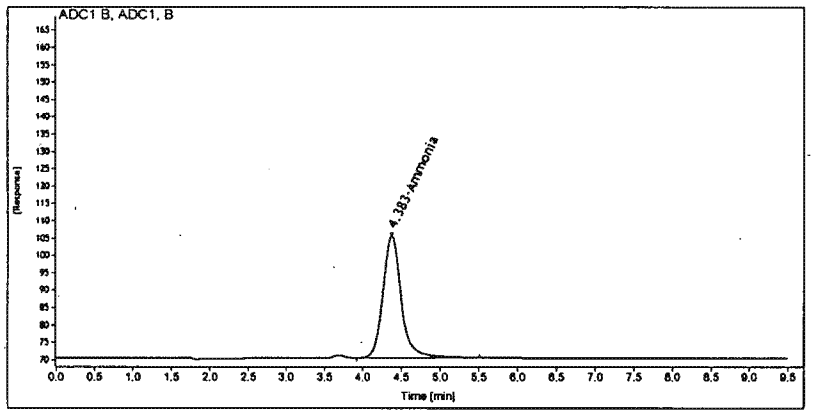
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.38	594.9507	1	3.11	3.106	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited75.D
Sample name:	0315-18.MSD-VC 5356301857.BH
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	4/1/2015 12:23:45 AM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Sample
Location:	12
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



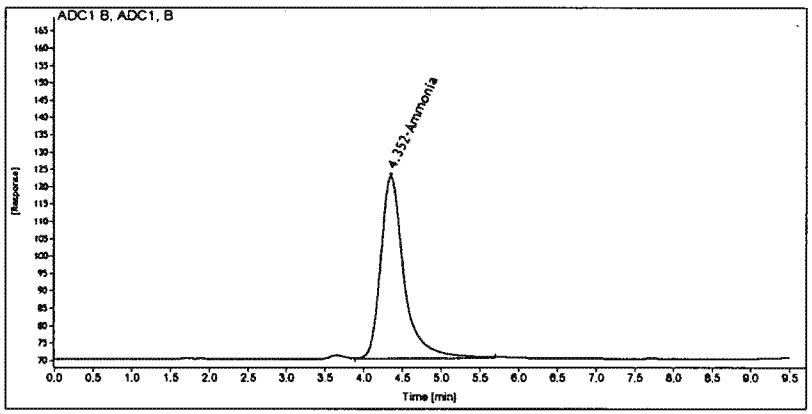
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.38	581.1239	1	3.02	3.021	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\OnlineEdited76.D
Sample name:	Curly46 Std. #5
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	4/1/2015 12:35:00 AM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	65
Injection volume:	35.000
Injection:	1 of 2
File_Version	8



Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.35	1104.6705	1	6.59	6.594	ug/mL

Calibration Table

General Calibration Setting

Calib. Data Modified : Wednesday, April 08, 2015 1:44:54 PM
Signals calculated separately : No

Rel. Reference Window : 10.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 10.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Quadratic
Origin : Connected
Weight : Linear (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal Details

Signal 1: ADC1 A, Dionex ED40
Signal 2: ADC1 B, ADC1, B

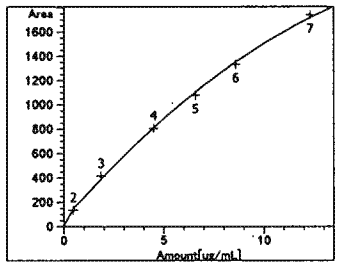
Overview Table

RT	Sig	Lvl	Amount [ug/mL]	Area	Rsp.Factor	Ref	ISTD	#	Compound
4.347	2	2	4.70000e-1	135.83253	3.46014e-3	No	No		Ammonia
		3	1.85100	414.90999	4.46121e-3				
		4	4.49500	806.41779	5.57403e-3				
		5	6.58600	1078.23364	6.10814e-3				
		6	8.58200	1331.36267	6.44603e-3				
		7	12.31300	1739.56897	7.07819e-3				

Peak Sum Table

No Entries in table

Calibration Curves



Ammonia at exp. RT: 4.347
ADC1 B, ADC1, B
Correlation: 0.99931
Residual Std. Dev.: 24.30989
Formula: $y = ax^2 + bx + c$
a: -4.25919
b: 187.48276
c: 53.66544
x: Amount[ug/mL]
y: Area
Calibration Level Weights:
Level 2 : 1
Level 3 : 0.253917
Level 4 : 0.104561
Level 5 : 0.071363
Level 6 : 0.054766
Level 7 : 0.038171

Enthalpy Analytical

Company: Barr Engineering Company - Jefferson City
Client No. Bridgeton Landfill
Job No. 0315-18

Parameters: NIOSH Method 6016-Type (two-fraction)
Samples 4 Runs
Analyst Lori Hewitt

Ammonia -- Calibration Standards, Laboratory Blanks and Controls

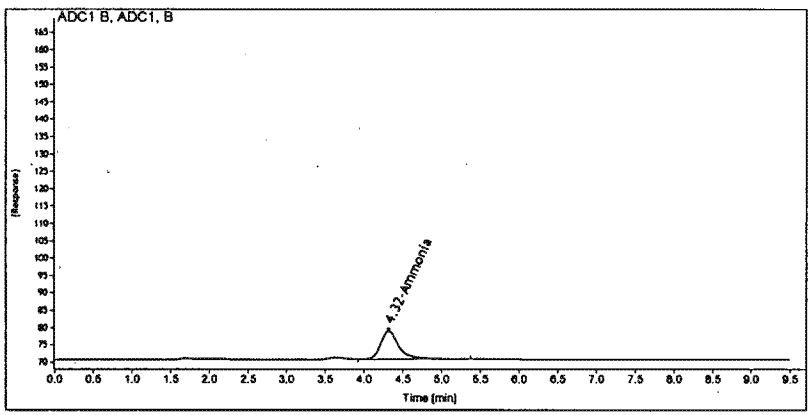
SAMPLE NAME	Level	Filename #1	Filename #2	Analysis Method	Ret Time (min)	Ret Time (min)	%diff RT	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	%diff conc	Avg Conc (ug/mL)	Standard Tag	%Tag
Curly46 Std. #2	#2	062-0301.D	062-0302.D	Curly pg48.M	4.32	4.32	0.0	0.456	0.451	0.6	0.453	0.470	96.4%
Curly46 Std. #3	#3	063-0401.D	063-0402.D	Curly pg48.M	4.33	4.34	0.0	2.01	2.03	0.5	2.02	1.85	109%
Curly46 Std. #4	#4	064-0501.D	064-0502.D	Curly pg48.M	4.33	4.34	0.2	4.47	4.46	0.1	4.47	4.50	99.4%
Curly46 Std. #5	#5	065-0601.D	065-0602.D	Curly pg48.M	4.35	4.34	0.0	6.41	6.37	0.3	6.39	6.59	97.1%
Curly46 Std. #6	#6	066-0701.D	066-0702.D	Curly pg48.M	4.34	4.35	0.0	8.46	8.40	0.4	8.43	8.58	98.2%
Curly46 Std. #7	#7	067-0801.D	067-0802.D	Curly pg48.M	4.35	4.35	0.0	12.6	12.6	0.3	12.6	12.3	102%
Curly46 Std. #SS	#SS	068-0901.D	068-0902.D	Curly pg48.M	4.34	4.34	0.0	6.08	5.98	0.8	6.03	6.18	97.7%
Curly46 Std. #5	#5	065-1601.D	065-1602.D	Curly pg48.M	4.35	4.35	0.0	6.46	6.50	0.3	6.48	6.59	98.4%
Curly46 Std. #5	#5	OnlineEdited76.D	OnlineEdited77.D	Curly pg48.M	4.35	4.39	0.4	6.59	NA	NA	6.59	6.59	100%
RB	RB	069-1001.D	069-1002.D	Curly pg48.M	NA	NA	NA	0.0235	0.0235	0.0	0.0235	NA	NA

Chromatogram Report

Enthalpy Analytical, Inc.

Data file: C:\Chem32\1\Data\Curly48\062-0301.D
Sample name: Curly46 Std. #2
File_Location \HPLC\2015\Curly\Quarter 1
Injection date: 3/31/2015 2:49:39 PM
Acq. method: ENV_AMM_18MM_DIUF_new.M
Analysis method: Curly pg48.M
Last changed: 4/8/2015 1:44:28 PM
Instrument: Curly
Sequence_Name Curly48
Acq. operator: Lori Hewitt

Sample type: Calibration
Location: 62
Injection volume: 35.000
Injection: 1 of 2
File_Version 6



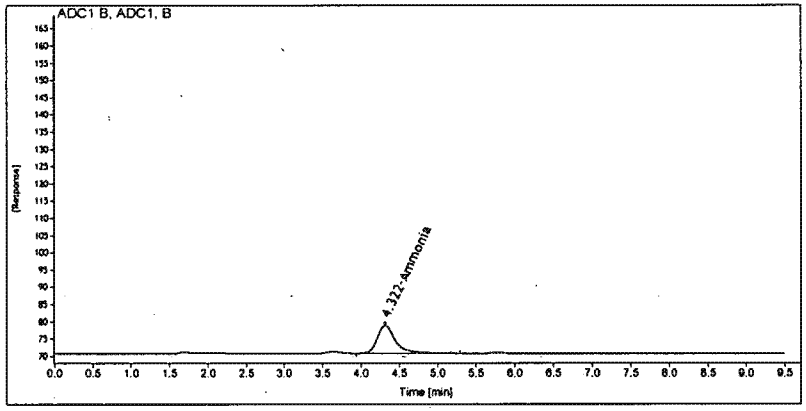
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.32	136.6392	1	0.46	0.456	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\062-0302.D
Sample name:	Curly46 Std. #2
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 3:00:55 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	62
Injection volume:	35.000
Injection:	2 of 2
File_Version	6



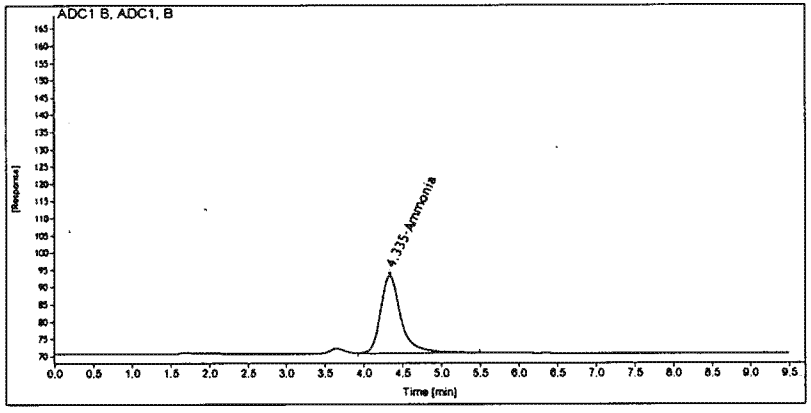
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.32	135.0259	1	0.45	0.451	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\063-0401.D
Sample name:	Curly46 Std. #3
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 3:12:08 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	63
Injection volume:	35.000
Injection:	1 of 2
File_Version	6



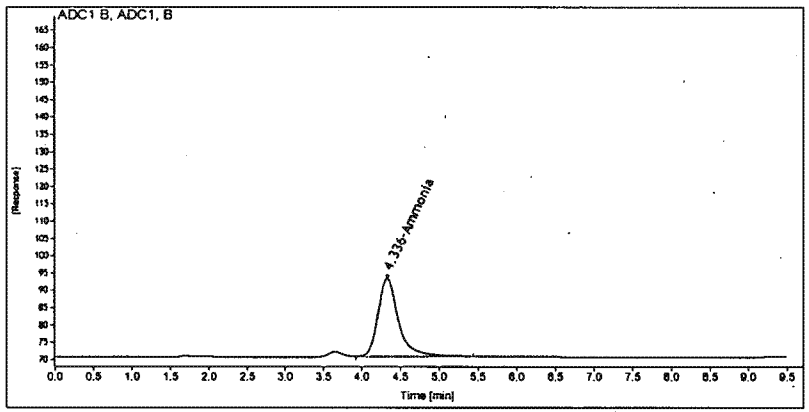
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.33	413.0318	1	2.01	2.008	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\063-0402.D
Sample name:	Curly46 Std. #3
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 3:23:22 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	63
Injection volume:	35.000
Injection:	2 of 2
File_Version	6



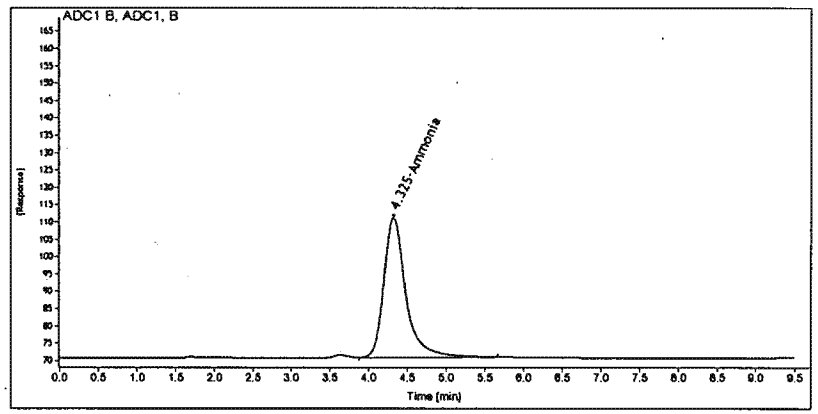
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	FM	4.34	416.7882	1	2.03	2.030	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\064-0501.D
Sample name:	Curly46 Std. #4
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 3:34:37 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	64
Injection volume:	35.000
Injection:	1 of 2
File_Version	6



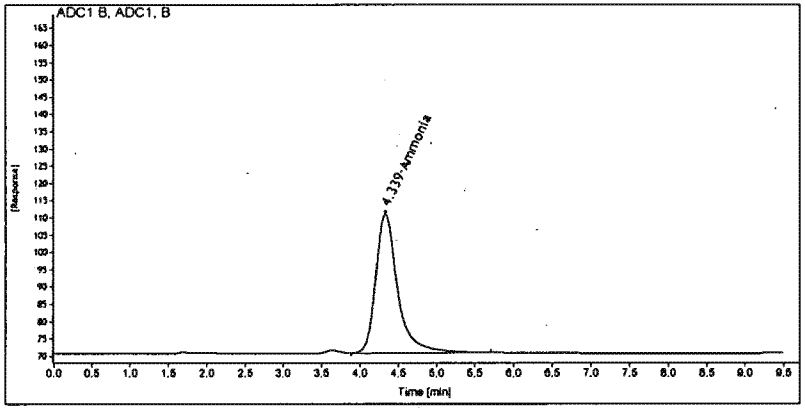
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.33	807.3239	1	4.47	4.475	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\064-0502.D
Sample name:	Curly46 Std. #4
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 3:45:52 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	64
Injection volume:	35.000
Injection:	2 of 2
File_Version	6



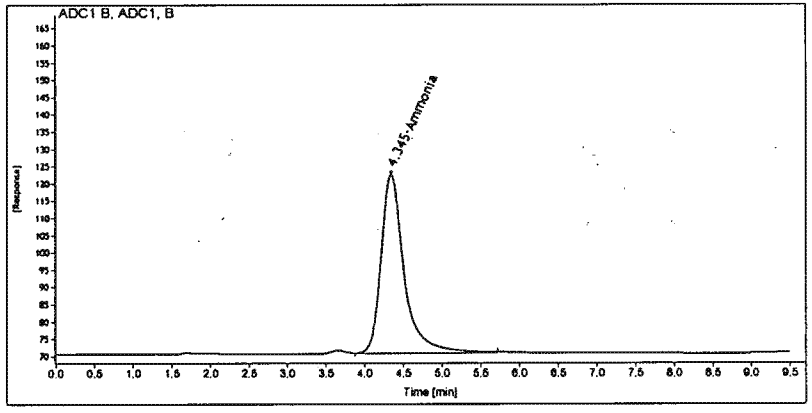
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.34	805.5117	1	4.46	4.463	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\065-0601.D
Sample name:	Curly46 Std. #5
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 3:57:08 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	65
Injection volume:	35.000
Injection:	1 of 2
File_Version	6



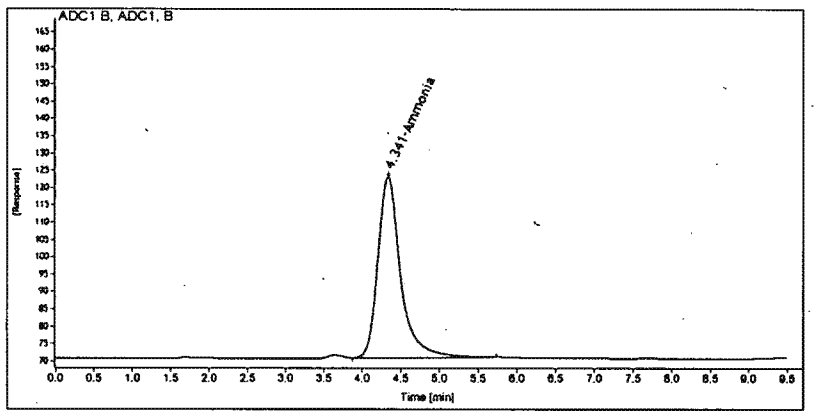
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.35	1080.8950	1	6.41	6.414	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\065-0602.D
Sample name:	Curly46 Std. #5
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 4:08:47 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	65
Injection volume:	35.000
Injection:	2 of 2
File_Version	6



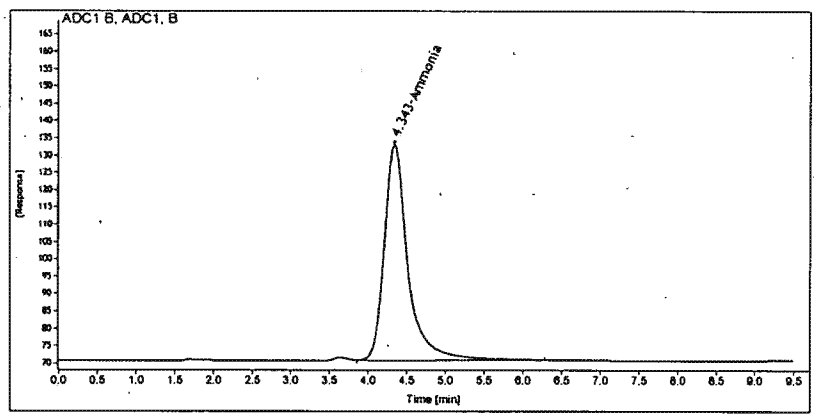
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.34	1075.5723	1	6.37	6.374	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\066-0701.D
Sample name:	Curly46 Std. #6
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 4:20:02 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	66
Injection volume:	35.000
Injection:	1 of 2
File_Version	6



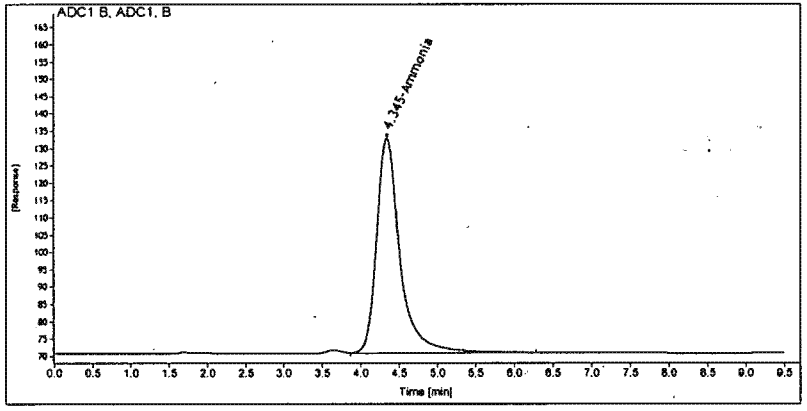
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.34	1334.9373	1	8.46	8.460	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\066-0702.D
Sample name:	Curly46 Std. #6
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 4:31:19 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	66
Injection volume:	35.000
Injection:	2 of 2
File_Version	6



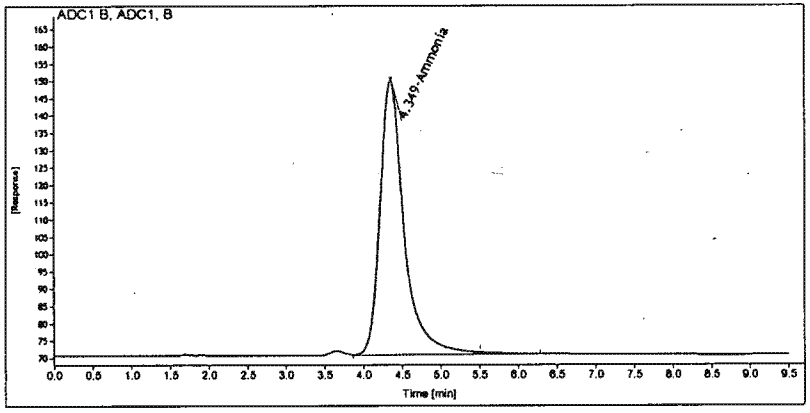
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.35	1327.7881	1	8.40	8.398	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\067-0801.D
Sample name:	Curly46 Std. #7
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 4:42:35 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	67
Injection volume:	35.000
Injection:	1 of 2
File_Version	6



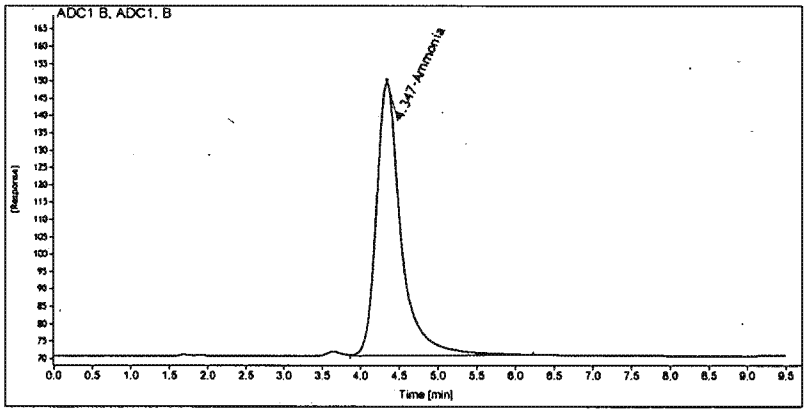
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.35	1736.5115	1	12.56	12.562	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\067-0802.D
Sample name:	Curly46 Std. #7
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 4:53:51 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Calibration
Location:	67
Injection volume:	35.000
Injection:	2 of 2
File_Version	6



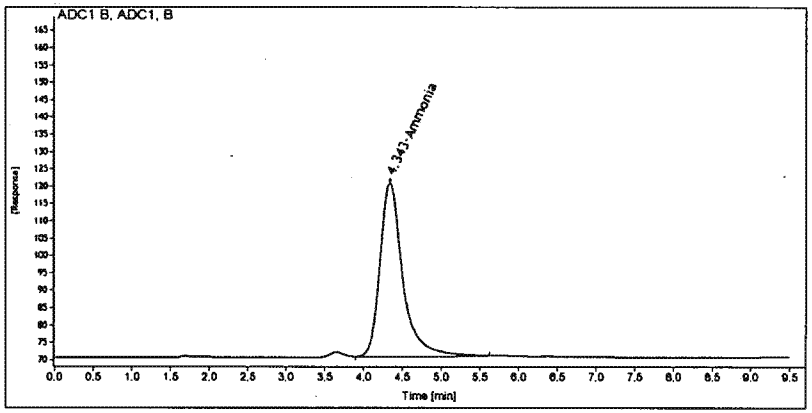
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.35	1742.6265	1	12.64	12.636	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\068-0901.D
Sample name:	Curly46 Std. #SS
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 5:05:06 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Control
Location:	68
Injection volume:	35.000
Injection:	1 of 2
File_Version	6



Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.34	1036.4083	1	6.08	6.082	ug/mL

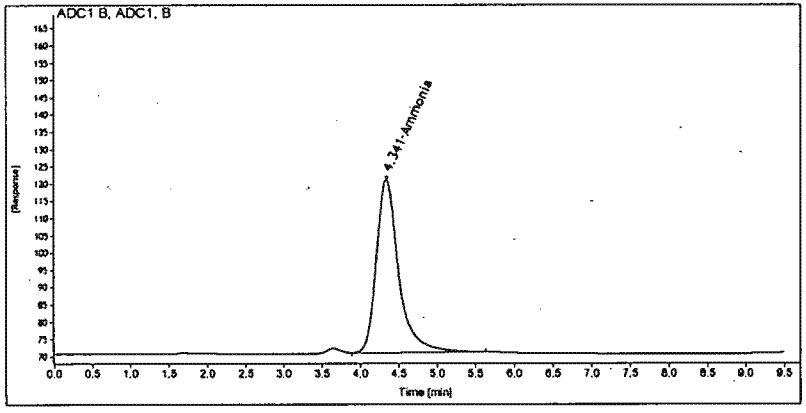
MSD 032057

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\068-0902.D
Sample name:	Curly46 Std. #SS
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 5:16:20 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Control
Location:	68
Injection volume:	35.000
Injection:	2 of 2
File_Version	6



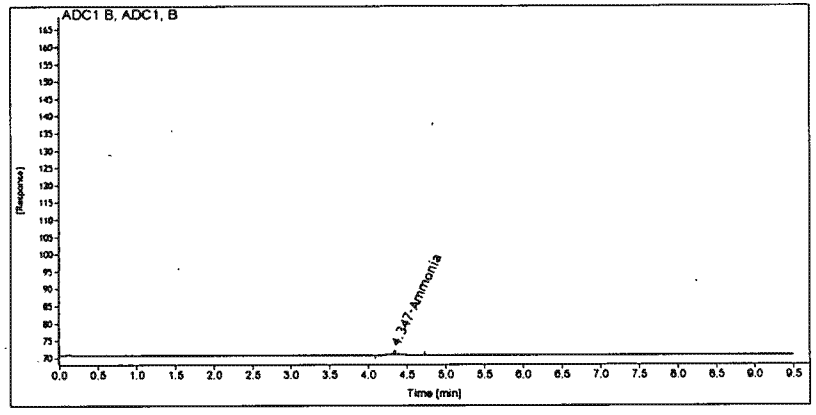
Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	VB	4.34	1023.0878	1	5.98	5.984	ug/mL

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\069-1001.D
Sample name:	RB
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 5:27:35 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument:	Curly
Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Control
Location:	69
Injection volume:	35.000
Injection:	1 of 2
File_Version	6



Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia	BB	4.35	5.1925	1	0.02	0.017	ug/mL

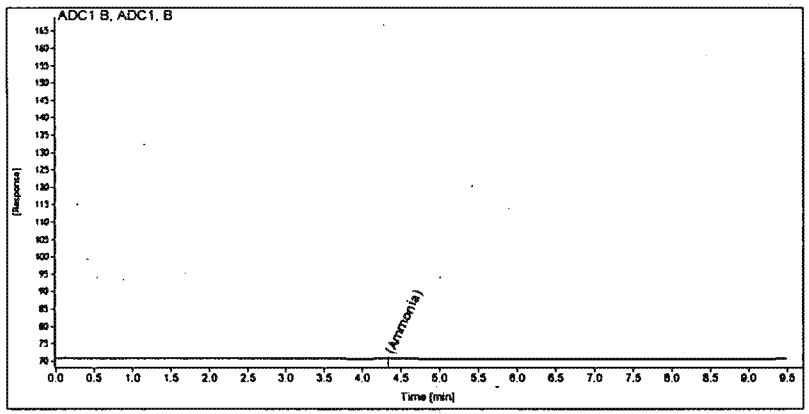
MSD 032058

Chromatogram Report

Enthalpy Analytical, Inc.

Data file:	C:\Chem32\1\Data\Curly48\069-1002.D
Sample name:	RB
File_Location	\HPLC\2015\Curly\Quarter 1
Injection date:	3/31/2015 5:38:52 PM
Acq. method:	ENV_AMM_18MM_DIUF_new.M
Analysis method:	Curly pg48.M
Last changed:	4/8/2015 1:44:28 PM
Instrument: Sequence_Name	Curly48
Acq. operator:	Lori Hewitt

Sample type:	Control
Location:	69
Injection volume:	35.000
Injection:	2 of 2
File_Version	6



Name	Peak_Type	RT [min]	Area	Dil	ug/ml	Sample_Amount	Units
Ammonia				1	0.00	0.000	ug/mL

Method Information

```
Method: C:\CHEM32\1\DATA\HPLC76PG128\ENV_AMM_18MM_DIUF_new.M
Modified: 8/11/2014 at 6:20:17 PM

Column: Dionex IonPac CS12 (250 mm x 4 mm)
Mobile Phase: 10mN Methanesulfonic Acid and 40mN Methanesulfonic Acid
Detection: Suppressed Conductivity
Flow Rate: 1.0 mL/min
Temp: 30C
```

Method Audit Trail

```
Operator    : Amelia Paolantonio
Date        : 8/8/2014 11:49:37 AM
Change Info: This method was created at 8/8/2014 11:49:37 AM and based on
             method C:\HPLC\2014\CURLY\METHODS\AMM_SMOKE_DIUF.M

Operator    : Amelia Paolantonio
Date        : 8/8/2014 11:49:38 AM
Change Info: Method saved. User comment: ""

Operator    : Amelia Paolantonio
Date        : 8/8/2014 11:50:02 AM
Change Info: Method saved. User comment: ""

Operator    : Wendy Gardow
Date        : 8/11/2014 6:20:08 PM
Change Info: Method saved. User comment: ""

Operator    : Wendy Gardow
Date        : 8/11/2014 6:20:17 PM
Change Info: Method C:\HPLC\2014\Curly\Methods\ENV_AMM_18MM_DIUF_new copied
to
             result set
```

Run Time Checklist

```
Pre-Run Cmd/Macro:  off

Data Acquisition:  on

Standard Data Analysis:  off

Customized Data Analysis:  off

Save GLP Data:  off

Post-Run Cmd/Macro:  off
```

Save Method with Data: off

==========

Data File : C:\HPLC\2014\Curly\Quarter 1\HPLC76PG128\004-2002.D
Acq. Method: ENV_AMM_18MM_DIUF_new.M

The Acq. Method's Instrument Parameters for the Run were :

==========
Agilent 1100/1200 Quaternary Pump 1
==========

Control
- Column Flow : 1.000 ml/min
- Stoptime : 10.00 min
- Posttime : Off

Solvents
- Solvent A : 55.0 % (DIUF H2O)
- Solvent B : 45.0 % (40 mN MethaneSulfonic Acid)
- Solvent C : 0.0 % ( )
- Solvent D : 0.0 % ( )

PressureLimits
- Minimum Pressure : 0 bar
- Maximum Pressure : 400 bar

Auxiliary
- Maximal Flow Ramp : 100.00 ml/min^2
- Primary Channel : Auto
- Compressibility : 100*10^-6/bar
- Minimal Stroke : Auto

Store Parameters
- Store Ratio A : Yes
- Store Ratio B : Yes
- Store Ratio C : Yes
- Store Ratio D : Yes
- Store Flow : Yes
- Store Pressure : Yes

Timetable is empty

==========
Agilent 1100/1200 Autosampler 1
==========

Injection
- Injection Mode : Standard

- Injector volume : 35.00 µl
- Optimization : Prefetch Sample Vial 5.00 min. after Injection

Auxiliary
- Store temperature : No
- Drawspeed : 100 µl/min
- Ejectspeed : 100 µl/min
- Draw position : 0.0 mm

Time
- Stoptime : No Limit
- Posttime : Off

==========
Agilent 1100/1200 Column Thermostat 1
==========

Temperature settings
- Left temperature : Not controlled
- Right temperature : Same as left
- Enable analysis : When Temp. is within setpoint +/- 0.8°C
- Store left temperature : Yes
- Store right temperature: No

Time
- Stoptime : As pump
- Posttime : Off

Column Switching Valve : Column 1

Timetable is empty

The Data Analysis Parameters of the used Method are :

==========
Integration Events
==========

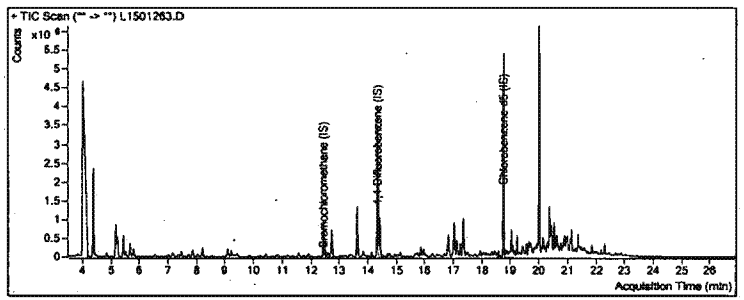
Non signal specific Integration Events

Event	Value
Tangent Skim Mode	Standard
Tail Peak Skim Height Ratio	0.000
Front Peak Skim Height Ratio	0.000

MSD 032060

Raw Data

Sample Name	: VC Can4014
Sample Info	: 0315-18, can 4014, 500mL
Data File	: L1501263.D
Dilution	: 1
Pressurization Factor	: 2.281
Acquisition Date	: 2015-03-31 19:22:00
Instrument Method	: MM624-L
Matrix	: AIR

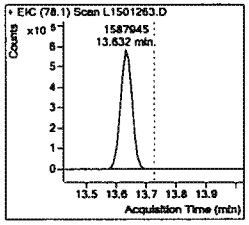


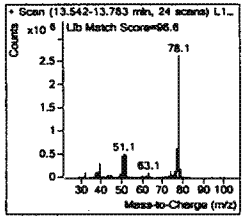
Quantitation Report

Enthalpy Analytical, Inc.

Sample Name	: VC Can4014
Sample Info	: 0315-18, can 4014, 500mL
Data File	: L1501263.D
Dilution	: 1
Pressurization Factor	: 2.281
Acquisition Date	: 2015-03-31 19:22:00
Instrument Method	: MM624-L
Matrix	: AIR

Benzene

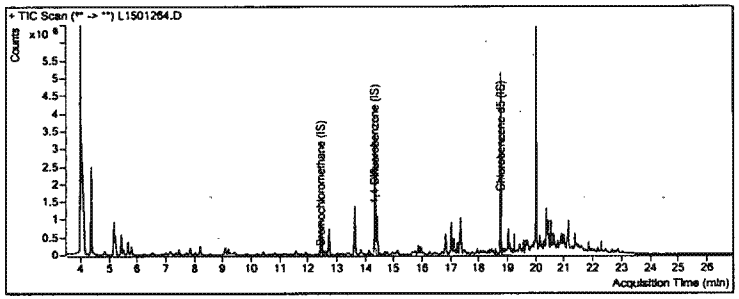




Quantitation Report

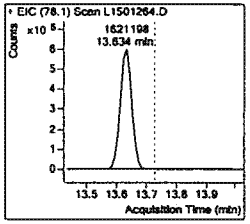
Enthalpy Analytical, Inc.

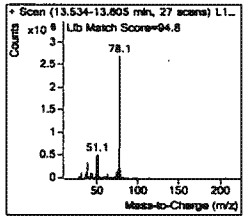
Sample Name	: VC Can4014 LD
Sample Info	: 0315-18, can 4014, 500mL
Data File	: L1501264.D
Dilution	: 1
Pressurization Factor	: 2.281
Acquisition Date	: 2015-03-31 20:02:00
Instrument Method	: MM624-L
Matrix	: AIR



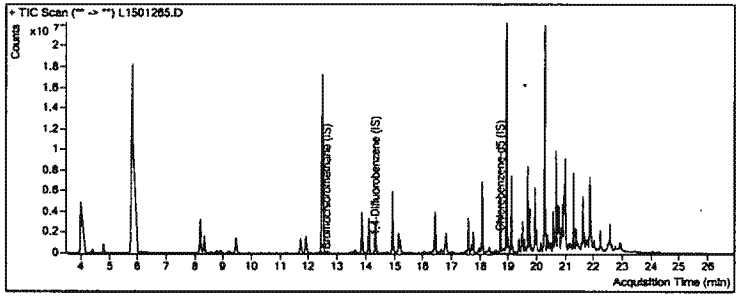
Sample Name	: VC Can4014 LD
Sample Info	: 0315-18, can 4014, 500mL
Data File	: L1501264.D
Dilution	: 1
Pressurization Factor	: 2.281
Acquisition Date	: 2015-03-31 20:02:00
Instrument Method	: MM624-L
Matrix	: AIR

Benzene





Sample Name	: LS Can4009
Sample Info	: 0315-18, can 4009, 50mL=*10
Data File	: L1501265.D
Dilution	: 10
Pressurization Factor	: 1.967
Acquisition Date	: 2015-03-31 20:37:00
Instrument Method	: MM624-L
Matrix	: AIR

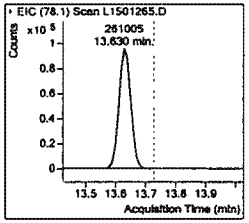


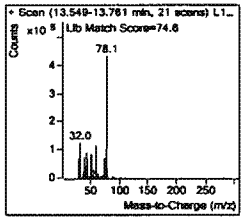
Quantitation Report

Enthalpy Analytical, Inc.

Sample Name	: LS Can4009
Sample Info	: 0315-18, can 4009, 50mL=*10
Data File	: L1501265.D
Dilution	: 10
Pressurization Factor	: 1.967
Acquisition Date	: 2015-03-31 20:37:00
Instrument Method	: MM624-L
Matrix	: AIR

Benzene

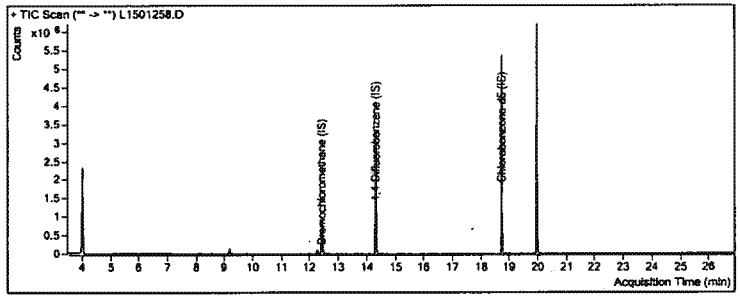




Quantitation Report

Enthalpy Analytical, Inc.

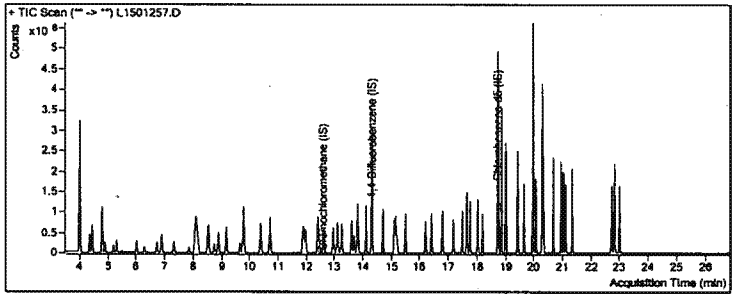
Sample Name	: Humid Blank
Sample Info	: 500mL; Can #10892
Data File	: L1501258.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2015-03-31 14:04:00
Instrument Method	: MM624-L
Matrix	: AIR



Quantitation Report

Enthalpy Analytical, Inc.

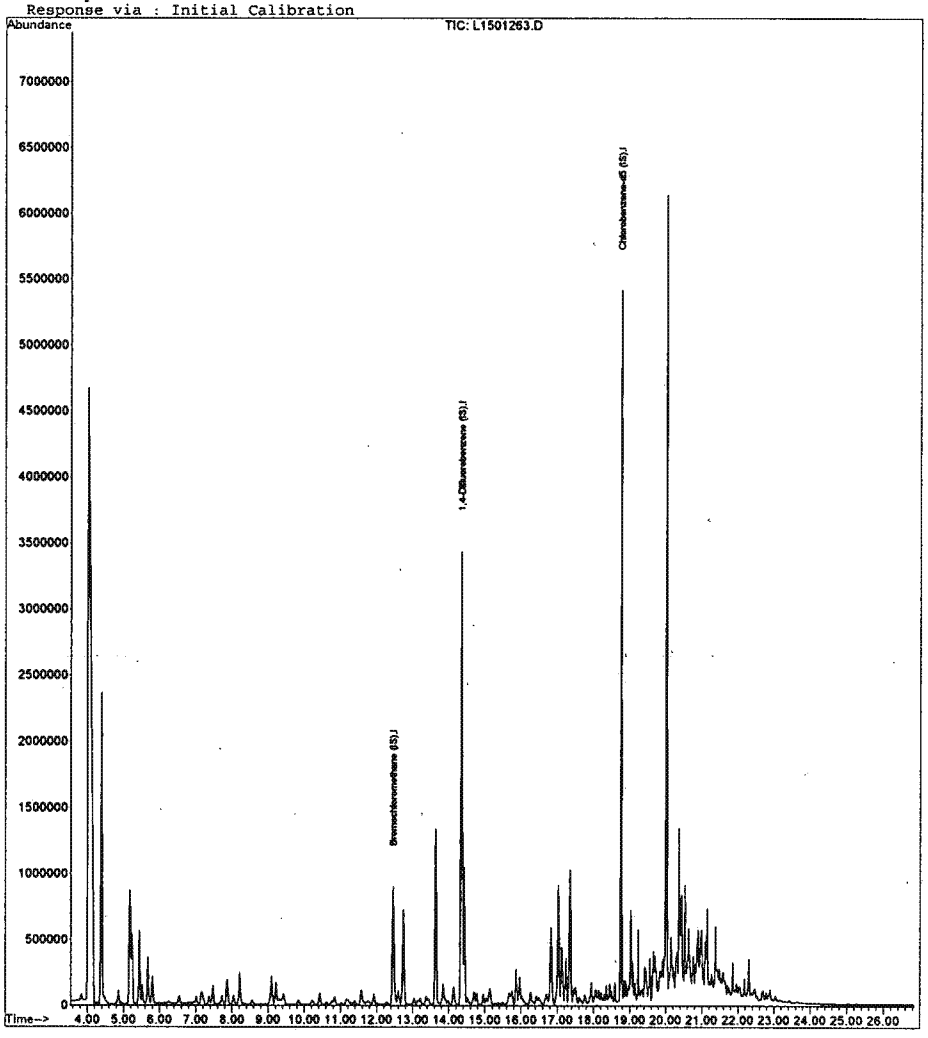
Sample Name	: 5ppbv TO15 LCS
Sample Info	: 125mL; Can #C8282
Data File	: L1501257.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2015-03-31 12:56:00
Instrument Method	: MM624-L
Matrix	: AIR



Quantitation Report

```
Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501263.D Vial: 1
Acq On    : 31 Mar 2015   7:22 pm                    Operator: TDD/PPH
Sample    : VC Can4014                                Inst    : Lurch
Misc      : 0315-18, can 4014, 500mL                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr  1 15:58 2015              Quant Results File: L091114A.RES

Method       : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title        : TO15 - 72 TCL - Primary "A"  w/IS cyl - CC117359
Last Update  : Mon Mar 30 10:01:20 2015
Response via : Initial Calibration
```



Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501263.D Vial: 1
Acq On : 31 Mar 2015 7:22 pm Operator: TDD/PPH
Sample : VC Can4014 Inst : Lurch
Misc : 0315-18, can 4014, 500mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : T015 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Acetic acid, [(aminocarbonyl)a Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.02	59.98 PPBV	15888600	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, [(aminocarbonyl)amino]	132	C3H4N2O4	000585-05-7	5
2	Ethylene oxide	44	C2H4O	000075-21-8	4
3	Ethylene oxide	44	C2H4O	000075-21-8	4
4	Octodrine	129	C8H19N	000543-82-8	4
5	2-Heptanamine, 5-methyl-	129	C8H19N	053907-81-6	4

****

Peak Number 2 Propene Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.39	21.71 PPBV	5752420	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propene	42	C3H6	000115-07-1	90
2	Cyclopropane	42	C3H6	000075-19-4	43
3	Propene	42	C3H6	000115-07-1	42
4	Cyclopropane	42	C3H6	000075-19-4	9
5	Cyclopropene	40	C3H4	1000194-05-8	9

****

Peak Number 3 1-Propene, 2-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.17	9.33 PPBV	2470730	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
2	1-Propene, 2-methyl-	56	C4H8	000115-11-7	80
3	1-Propene, 2-methyl-	56	C4H8	000115-11-7	53
4	1-Butene	56	C4H8	000106-98-9	49
5	Cyclobutane	56	C4H8	000287-23-0	49

Dimethyl sulfide

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.342	0.133 ppbv	35281	Bromochloromethane (IS)	12.46

MW= 62 CAS#=000075-18-3

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501263.D Vial: 1
Acq On : 31 Mar 2015 7:22 pm Operator: TDD/PPH
Sample : VC Can4014 Inst : Lurch
Misc : 0315-18, can 4014, 500mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : T015 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Butane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.23	4.25 PPBV	1125930	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane	58	C4H10	000106-97-8	72
2	Butane	58	C4H10	000106-97-8	40
3	Diazene, dimethyl-	58	C2H6N2	000503-28-6	5
4	Acetone	58	C3H6O	000067-64-1	5
5	Hydrogen azide	43	HN3	007782-79-8	4

****

Peak Number 5 1-Propene, 2-methyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.43	5.27 PPBV	1396300	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	87
2	1-Propene, 2-methyl-	56	C4H8	000115-11-7	87
3	1-Butene	56	C4H8	000106-98-9	87
4	1-Butene	56	C4H8	000106-98-9	87
5	1-Butene	56	C4H8	000106-98-9	86

****

Peak Number 6 1-Propene, 2-methyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.68	3.53 PPBV	935762	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Propene, 2-methyl-	56	C4H8	000115-11-7	90
2	1-Butene	56	C4H8	000106-98-9	87
3	1-Butene	56	C4H8	000106-98-9	86
4	1-Butene	56	C4H8	000106-98-9	86
5	2-Butene, (E)-	56	C4H8	000624-64-6	83

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501263.D Vial: 1
Acq On : 31 Mar 2015 7:22 pm Operator: TDD/PPH
Sample : VC Can4014 Inst : Lurch
Misc : 0315-18, can 4014, 500mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : T015 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 7 Acetone Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.21	2.81 PPBV	744042	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetone	58	C3H6O	000067-64-1	72
2	Acetone	58	C3H6O	000067-64-1	64
3	Acetone	58	C3H6O	000067-64-1	59
4	Acetone	58	C3H6O	000067-64-1	59
5	Acetone	58	C3H6O	000067-64-1	59

****

Peak Number 8 Cyclopentene Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.10	2.89 PPBV	765596	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentene	68	C5H8	000142-29-0	91
2	Cyclopentene	68	C5H8	000142-29-0	91
3	Cyclopentene	68	C5H8	000142-29-0	91
4	Cyclopentene	68	C5H8	000142-29-0	91
5	Cyclopentene	68	C5H8	000142-29-0	70

****

Peak Number 9 Cyclopentene, 4-methyl- Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.74	8.30 PPBV	2199970	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentene, 4-methyl-	82	C6H10	001759-81-5	91
2	Cyclopentene, 3-methyl-	82	C6H10	001120-62-3	91
3	Cyclopentene, 1-methyl-	82	C6H10	000693-89-0	90
4	Cyclopentane, methylene-	82	C6H10	001528-30-9	90
5	Cyclopentene, 3-methyl-	82	C6H10	001120-62-3	87

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501263.D Vial: 1
Acq On : 31 Mar 2015 7:22 pm Operator: TDD/PPH
Sample : VC Can4014 Inst : Lurch
Misc : 0315-18, can 4014, 500mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : T015 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 10 Benzene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.63	3.93 PPBV	3667810	1,4-Difluorobenzene (IS)	14.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene	78	C6H6	000071-43-2	95
2	Benzene	78	C6H6	000071-43-2	94
3	Benzene	78	C6H6	000071-43-2	91
4	Benzene	78	C6H6	000071-43-2	91
5	1,3-Hexadien-5-yne	78	C6H6	010420-90-3	91

****

Peak Number 11 Cyclohexene, 4-methyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.43	2.64 PPBV	2464960	1,4-Difluorobenzene (IS)	14.35

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexene, 4-methyl-	96	C7H12	000591-47-9	80
2	Cyclohexene, 3-methyl-	96	C7H12	000591-48-0	80
3	Cyclopropane, trimethylmethylene-	96	C7H12	034462-28-7	80
4	Cyclopentene, 1,5-dimethyl-	96	C7H12	016491-15-9	78
5	Furan, 2-ethyl-	96	C6H8O	003208-16-0	74

****

Peak Number 12 3-Heptene, 3-methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.03	3.12 PPBV	2743370	Chlorobenzene-d5 (IS)	18.76

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Heptene, 3-methyl-	112	C8H16	007300-03-0	72
2	3-Ethyl-3-hexene	112	C8H16	016789-51-8	68
3	3-Hexene, 2,3-dimethyl-	112	C8H16	007145-23-5	64
4	5-Methyl-3-heptene	112	C8H16	050422-80-5	64
5	Cyclohexanecarboxaldehyde	112	C7H12O	002043-61-0	64

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501263.D Vial: 1
Acq On : 31 Mar 2015 7:22 pm Operator: TDD/PPH
Sample : VC Can4014 Inst : Lurch
Misc : 0315-18, can 4014, 500mL Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : T015 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 13 2-Heptene, 3-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.35	3.51 PPBV	3091750	Chlorobenzene-d5 (IS)	18.76

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Heptene, 3-methyl-	112	C8H16	003404-75-9	46
2	Hexane, 2-methyl-4-methylene-	112	C8H16	003404-80-6	46
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38
4	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	38
5	cis-1-Butyl-2-methylcyclopropane	112	C8H16	038851-69-3	38

****

Peak Number 14 Benzene, 1-bromo-3-fluoro- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.02	13.67 PPBV	12035700	Chlorobenzene-d5 (IS)	18.76

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-bromo-3-fluoro-	174	C6H4BrF	001073-06-9	98
2	Benzene, 1-bromo-2-fluoro-	174	C6H4BrF	001072-85-1	97
3	Benzene, 1-bromo-3-fluoro-	174	C6H4BrF	001073-06-9	94
4	p-Bromofluorobenzene	174	C6H4BrF	000460-00-4	94
5	Benzene, 1-bromo-2-fluoro-	174	C6H4BrF	001072-85-1	94

****

Peak Number 15 Decane Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.37	3.08 PPBV	2709440	Chlorobenzene-d5 (IS)	18.76

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane	142	C10H22	000124-18-5	94
2	Decane	142	C10H22	000124-18-5	74
3	Decane	142	C10H22	000124-18-5	64
4	Nonane	128	C9H20	000111-84-2	53
5	Undecane, 2,7-dimethyl-	184	C13H28	017301-24-5	53

Tentatively Identified Compound (LSC) summary

Operator ID: TDD/PPH Date Acquired: 31 Mar 2015 7:22 pm
Data File: M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501263.D
Name: VC Can4014
Misc: 0315-18, can 4014, 500mL
Method: C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title: T015 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Acetic acid, [(amino	4.02	60.0	PPBV	15888600	ISTD01	12.46	2921920	11.0
Propene	4.39	21.7	PPBV	5752420	ISTD01	12.46	2921920	11.0
1-Propene, 2-methyl-	5.17	9.3	PPBV	2470730	ISTD01	12.46	2921920	11.0
Butane	5.23	4.3	PPBV	1125930	ISTD01	12.46	2921920	11.0
1-Propene, 2-methyl-	5.43	5.3	PPBV	1396300	ISTD01	12.46	2921920	11.0
1-Propene, 2-methyl-	5.68	3.5	PPBV	935762	ISTD01	12.46	2921920	11.0
Acetone	8.21	2.8	PPBV	744042	ISTD01	12.46	2921920	11.0
Cyclopentene	9.10	2.9	PPBV	765596	ISTD01	12.46	2921920	11.0
Cyclopentene, 4-meth	12.74	8.3	PPBV	2199970	ISTD01	12.46	2921920	11.0
Benzene	13.63	3.9	PPBV	3667810	ISTD02	14.35	9829950	10.5
Cyclohexene, 4-methy	14.43	2.6	PPBV	2464960	ISTD02	14.35	9829950	10.5
3-Heptene, 3-methyl-	17.03	3.1	PPBV	2743370	ISTD03	18.76	9858420	11.2
2-Heptene, 3-methyl-	17.35	3.5	PPBV	3091750	ISTD03	18.76	9858420	11.2
Benzene, 1-bromo-3-f	20.02	13.7	PPBV	12035700	ISTD03	18.76	9858420	11.2
Decane	20.37	3.1	PPBV	2709440	ISTD03	18.76	9858420	11.2

L1501263.D L091114A.M Wed Apr 01 15:59:06 2015

MSD 032068

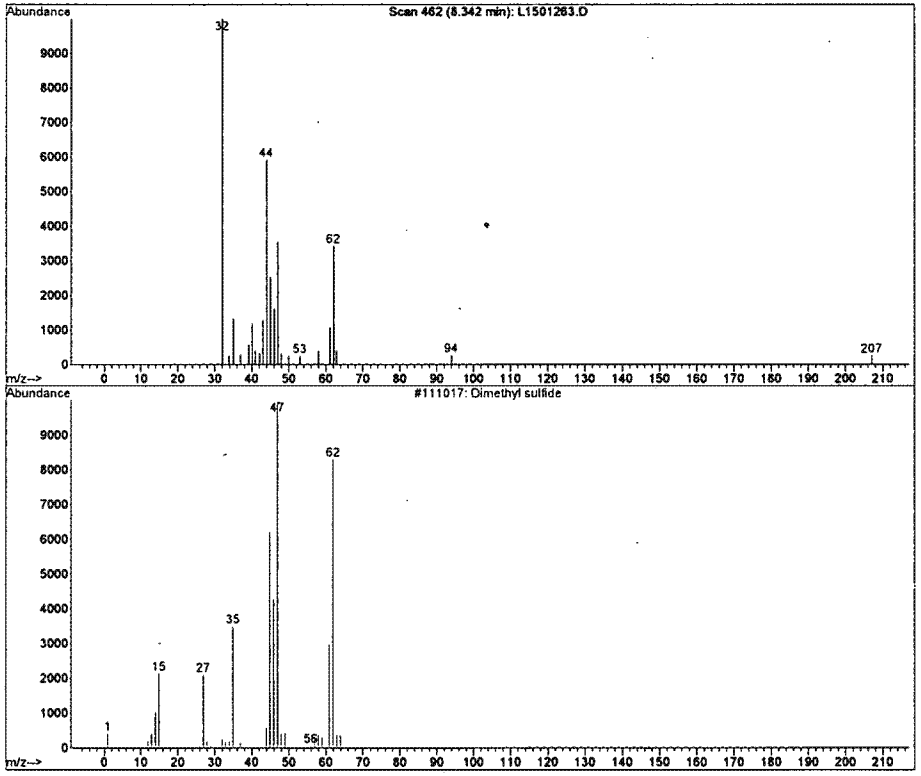
TIC: L1501263.D
VC Can4014

Peak#	Ret Time	Type	Width	Area	Start Time	End Time
1	8.342	rm	0.111	35281	8.301	8.412

Dimethyl sulfide

Match Quality : 81
Entry Number : 111017
CAS Number : 000075-18-3
Molecular Weight : 62.02
Molecular Formula: C2H6S
Retention Index : 0
Company ID : NIST 1998.
Melting Point :
Boiling Point :
Misc Information :
NIST MS# 19013, Seq# R3131

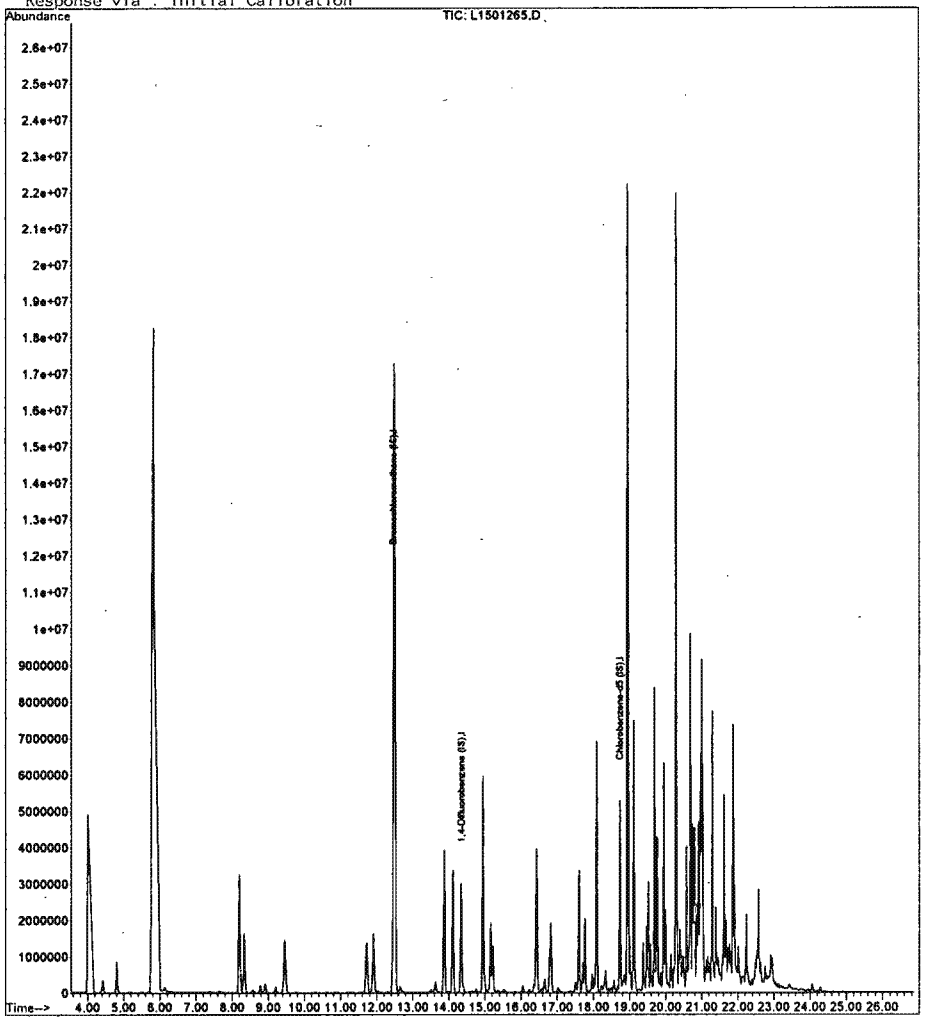
Library Searched : c:\DATABASE\NIST98.L
Quality : 81
ID : Dimethyl sulfide



Quantitation Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501265.D Vial: 1
Acq On : 31 Mar 2015 8:37 pm Operator: TDD/PPH
Sample : LS Can4009 Inst : Lurch
Misc : 0315-18, can 4009, 50mL=*10 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 1 16:00 2015 Quant Results File: L091114A.RES

Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Last Update : Mon Mar 30 10:01:20 2015
Response via : Initial Calibration



Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501265.D Vial: 1
Acq On : 31 Mar 2015 8:37 pm Operator: TDD/PPH
Sample : LS Can4009 Inst : Lurch
Misc : 0315-18, can 4009, 50mL=*10 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : T015 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Hydrazine Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.82	17.04 PPBV	97858300	Bromochloromethane (IS)	12.46

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydrazine	32	H4N2	000302-01-2	4
2	Hydrazine	32	H4N2	000302-01-2	4
3	Methyl Alcohol	32	CH4O	000067-56-1	2
4	Methyl Alcohol	32	CH4O	000067-56-1	2
5	Methyl Alcohol	32	CH4O	000067-56-1	2

****

Peak Number 2 Furan, tetrahydro-2-methyl- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.87	14.03 PPBV	10687600	1,4-Difluorobenzene (IS)	14.34

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	94
2	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	91
3	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	90
4	Pentane, 2-methyl-	86	C6H14	000107-83-5	59
5	Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	58

****

Peak Number 3 2-Pentanone Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.95	20.18 PPBV	15372700	1,4-Difluorobenzene (IS)	14.34

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone	86	C5H10O	000107-87-9	78
2	2-Pentanone	86	C5H10O	000107-87-9	72
3	2-Pentanone	86	C5H10O	000107-87-9	64
4	2-Butanone, 3-methyl-	86	C5H10O	000563-80-4	64
5	2-Butanone, 3-methyl-	86	C5H10O	000563-80-4	59

Dimethyl sulfide

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.339	20.7 ppbv	5007640	Bromochloromethane (IS)	12.43

MW= 62 CAS#=000075-18-3

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501265.D Vial: 1
Acq On : 31 Mar 2015 8:37 pm Operator: TDD/PPH
Sample : LS Can4009 Inst : Lurch
Misc : 0315-18, can 4009, 50mL=*10 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : T015 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

****

Peak Number 4 Methyl Isobutyl Ketone Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.43	13.98 PPBV	10655700	1,4-Difluorobenzene (IS)	14.34

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl Isobutyl Ketone	100	C6H12O	000108-10-1	86
2	2-Hexanone	100	C6H12O	000591-78-6	78
3	Oxirane, 2-methyl-2-(1-methylethyl)	100	C6H12O	072221-03-5	78
4	Methyl Isobutyl Ketone	100	C6H12O	000108-10-1	74
5	Methyl Isobutyl Ketone	100	C6H12O	000108-10-1	72

****

Peak Number 5 Cyclopentanone Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.09	17.21 PPBV	14877900	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanone	84	C5H8O	000120-92-3	91
2	Cyclopentanone	84	C5H8O	000120-92-3	90
3	2-Hexene	84	C6H12	000592-43-8	72
4	2-Hexene, (E)-	84	C6H12	004050-45-7	64
5	2-Hexene, (Z)-	84	C6H12	007688-21-3	45

****

Peak Number 6 Cyclopentanone, 2-methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.94	64.82 PPBV	56050300	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanone, 2-methyl-	98	C6H10O	001120-72-5	95
2	Cyclopentanone, 2-methyl-	98	C6H10O	001120-72-5	93
3	Cyclohexanone	98	C6H10O	000108-94-1	86
4	Cyclopentanone, 2-methyl-	98	C6H10O	001120-72-5	86
5	Cyclohexanone	98	C6H10O	000108-94-1	72

MSD 032071

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501265.D Vial: 1
Acq On : 31 Mar 2015 8:37 pm Operator: TDD/PPH
Sample : LS Can4009 Inst : Lurch
Misc : 0315-18, can 4009, 50mL=*10 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 7 (R)-(+)-3-Methylcyclopentanone Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.11	15.18 PPBV	13129100	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	(R)-(+)-3-Methylcyclopentanone	98	C6H10O	006672-30-6	94
2	Cyclopentanone, 3-methyl-	98	C6H10O	001757-42-2	91
3	(R)-(+)-3-Methylcyclopentanone	98	C6H10O	006672-30-6	87
4	Cyclopentanone, 3-methyl-	98	C6H10O	001757-42-2	87
5	Cyclopentanone, 3-methyl-	98	C6H10O	001757-42-2	87

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Peak Number 8 Cyclopentanone, 2,4-dimethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.68	16.98 PPBV	14683700	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanone, 2,4-dimethyl-	112	C7H12O	001121-33-1	81
2	Cyclopentanone, 2,5-dimethyl-	112	C7H12O	004041-09-2	72
3	trans-3,4-Dimethylcyclopentanone	112	C7H12O	019550-73-3	58
4	1H-Pyrazole, 4,5-dihydro-5-propyl-	112	C6H12N2	075011-90-4	53
5	1-Pentene	70	C5H10	000109-67-1	43

****

Peak Number 9 Benzene, 1-bromo-3-fluoro- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.95	12.85 PPBV	11109900	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-bromo-3-fluoro-	174	C6H4BrF	001073-06-9	97
2	Benzene, 1-bromo-2-fluoro-	174	C6H4BrF	001072-85-1	95
3	Benzene, 1-bromo-3-fluoro-	174	C6H4BrF	001073-06-9	95
4	Benzene, 1-bromo-2-fluoro-	174	C6H4BrF	001072-85-1	94
5	p-Bromofluorobenzene	174	C6H4BrF	000460-00-4	94

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501265.D Vial: 1
Acq On : 31 Mar 2015 8:37 pm Operator: TDD/PPH
Sample : LS Can4009 Inst : Lurch
Misc : 0315-18, can 4009, 50mL=*10 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 10 Cyclopentanone, 2-ethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.29	58.80 PPBV	50839200	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanone, 2-ethyl-	112	C7H12O	004971-18-0	91
2	Cyclopentanone, 2-ethyl-	112	C7H12O	004971-18-0	76
3	Cyclooctane	112	C8H16	000292-64-8	52
4	2,3,4,5-Tetrahydropyridazine	84	C4H8N2	000694-06-4	50
5	Furan, 2,3-dihydro-4-methyl-	84	C5H8O	034314-83-5	49

****

Peak Number 11 Cyclopentane, 1,2-dimethyl-, t Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.68	18.28 PPBV	15805400	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentane, 1,2-dimethyl-, trans-	98	C7H14	000822-50-4	64
2	Cyclohexanone, 2-ethyl-	126	C8H14O	004423-94-3	62
3	Cyclohexanone, 2-ethyl-	126	C8H14O	004423-94-3	58
4	Cyclopentane, 1,2-dimethyl-, trans-	98	C7H14	000822-50-4	53
5	1-Hexene, 4-methyl-	98	C7H14	003769-23-1	50

****

Peak Number 12 Imidazole, 2-acetoxy- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.00	20.89 PPBV	18062400	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Imidazole, 2-acetoxy-	126	C5H6N2O2	1000127-84-2	52
2	2-Hexene	84	C6H12	000592-43-8	47
3	2,3,4,5-Tetrahydropyridazine	84	C4H8N2	000694-06-4	42
4	Cyclopentanone, 2-ethyl-	112	C7H12O	004971-18-0	38
5	Cyclopentanone, 2-ethyl-	112	C7H12O	004971-18-0	38

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501265.D Vial: 1
Acq On : 31 Mar 2015 8:37 pm Operator: TDD/PPH
Sample : LS Can4009 Inst : Lurch
Misc : 0315-18, can 4009, 50mL=*10 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 13 1-Pyrrolidineethanamine Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.29	14.61 PPBV	12628500	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Pyrrolidineethanamine	114	C6H14N2	007154-73-6	58
2	N-.beta.-Hydroxyethylpyrrolidine	115	C6H13NO	002955-88-6	53
3	2,3,4,5-Tetrahydropyridazine	84	C4H8N2	000694-06-4	53
4	Pyrrolidine, N-(4-methyl-3-pentenyl	153	C10H19N	1000161-63-8	45
5	2H-1,2-Oxazine, 3,6-dihydro-3-methy	99	C5H9NO	107468-64-4	38

****

Peak Number 14 Cycloheptanone, 2-ethyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.62	12.10 PPBV	10462900	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cycloheptanone, 2-ethyl-	140	C9H16O	003183-41-3	86
2	Cyclohexanone, 4-methyl-	112	C7H12O	000589-92-4	76
3	Cyclohexanone, 4-methyl-	112	C7H12O	000589-92-4	74
4	1-Decene	140	C10H20	000872-05-9	64
5	1-Decene	140	C10H20	000872-05-9	52

****

Peak Number 15 L-Fenchone Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
21.87	21.92 PPBV	18952100	Chlorobenzene-d5 (IS)	18.73

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	L-Fenchone	152	C10H16O	000126-21-6	83
2	Bicyclo[2.2.1]heptan-2-one, 1,3,3-t	152	C10H16O	001195-79-5	83
3	Bicyclo[2.2.1]heptan-2-one, 1,3,3-t	152	C10H16O	001195-79-5	46
4	Bicyclo[2.2.1]heptan-2-one, 1,3,3-t	152	C10H16O	001195-79-5	46
5	Bicyclo[2.2.1]heptan-2-one, 1,3,3-t	152	C10H16O	001195-79-5	46

Tentatively Identified Compound (LSC) summary

Operator ID: TDD Date Acquired: 31 Mar 2015 2:04 pm
Data File: M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501258.D
Name: Humid Blank
Misc: 500mL; Can #10892
Method: C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title: TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	4.02	26.1	PPBV	6325090	ISTD01	12.43	2671710	11.0
Dichlorodifluorometh	4.45	0.1	PPBV	17545	ISTD01	12.43	2671710	11.0
Silane, difluorodime	4.79	0.2	PPBV	40328	ISTD01	12.43	2671710	11.0
Acetamide, 2,2,2-tri	5.06	0.1	PPBV	22246	ISTD01	12.43	2671710	11.0
Acetaldehyde	5.50	0.1	PPBV	21472	ISTD01	12.43	2671710	11.0
2-Methyl-pyrroline	5.78	0.1	PPBV	23782	ISTD01	12.43	2671710	11.0
Ethane, 1,1,2-trichl	8.11	0.1	PPBV	13943	ISTD01	12.43	2671710	11.0
Ethene, 1,2-dichloro	9.80	0.1	PPBV	16797	ISTD01	12.43	2671710	11.0
Hexane	10.40	0.1	PPBV	17352	ISTD01	12.43	2671710	11.0
Propane, 2-chloro-	10.74	0.1	PPBV	13199	ISTD01	12.43	2671710	11.0
4-Penten-2-one, 4-me	11.92	0.1	PPBV	13196	ISTD01	12.43	2671710	11.0
Cyclopentyl acetylen	12.26	1.5	PPBV	355592	ISTD01	12.43	2671710	11.0
Methane, oxybis[dich	12.64	0.1	PPBV	17331	ISTD01	12.43	2671710	11.0
Cyclohexane	13.11	0.1	PPBV	13004	ISTD01	12.43	2671710	11.0
Benzene, 1-bromo-3-f	19.97	12.2	PPBV	10442600	ISTD03	18.74	9587440	11.2

L1501258.D L091114A.M Wed Apr 01 16:04:39 2015

MSD 032073

TIC: LI501265.D
LS Can4009

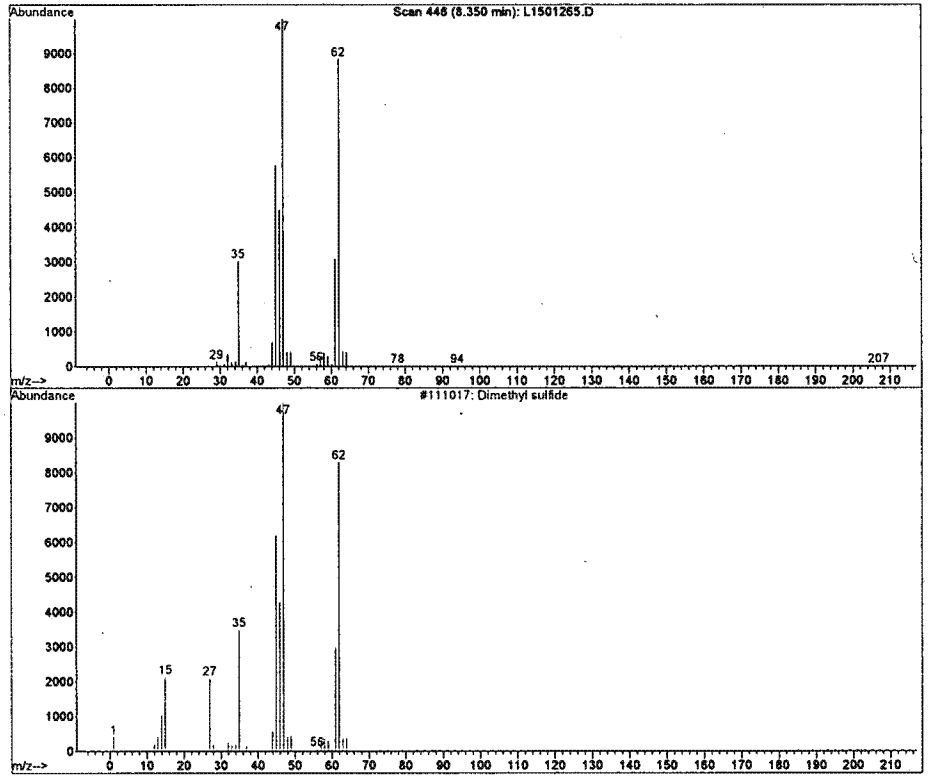
Peak#	Ret Time	Type	Width	Area	Start Time	End Time
1	8.339	rm	0.151	5007640	8.279	8.430

Dimethyl sulfide

Match Quality	:	98
Entry Number	:	111017
CAS Number	:	000075-18-3
Molecular Weight	:	62.02
Molecular Formula	:	C2H6S
Retention Index	:	0
Company ID	:	NIST 1998
Melting Point	:	
Boiling Point	:	
Misc Information	:	

NIST MS# 19013, Seq# R3131

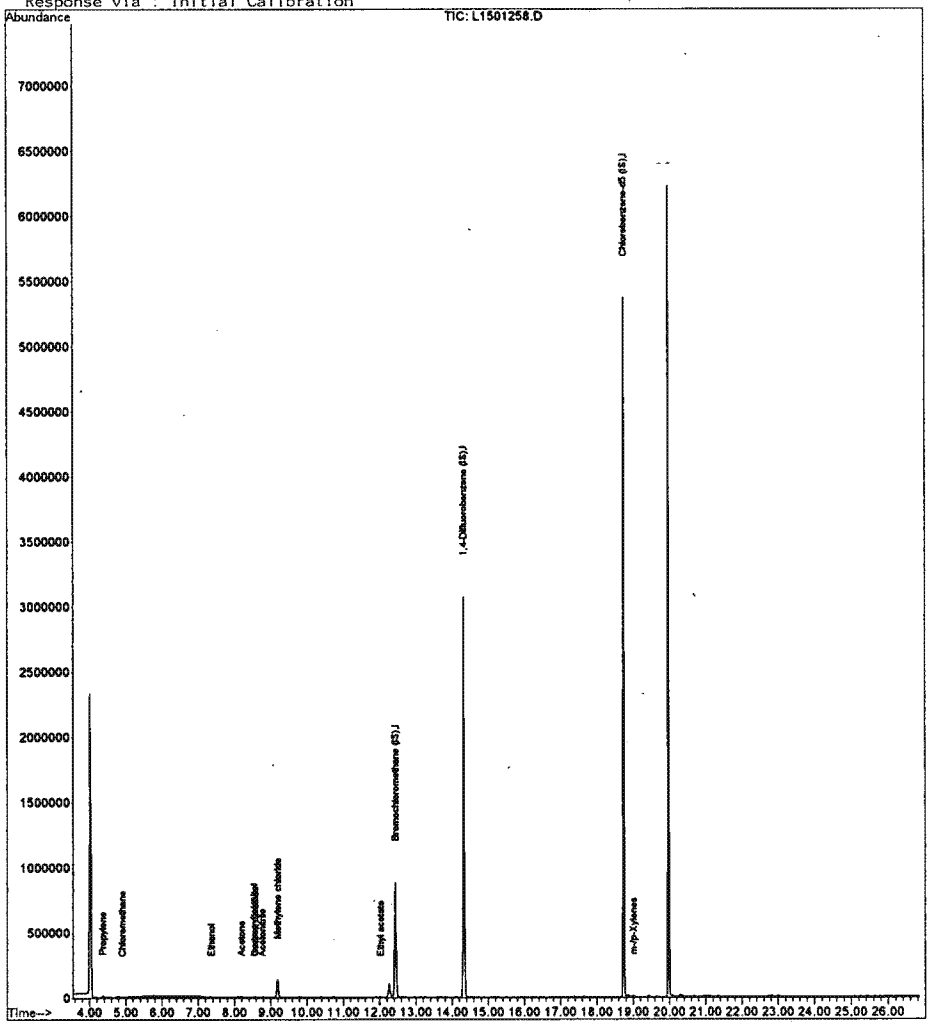
Library Searched : c:\DATABASE\NIST98.L
Quality : 98
ID : Dimethyl sulfide



Quantitation Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501258.D Vial: 1
Acq On : 31 Mar 2015 2:04 pm Operator: TDD
Sample : Humid Blank Inst : Lurch
Misc : 500mL; Can #10892 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 1 16:03 2015 Quant Results File: L091114A.RES

Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Last Update : Mon Mar 30 10:01:20 2015
Response via : Initial Calibration



Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501258.D Vial: 1
Acq On : 31 Mar 2015 2:04 pm Operator: TDD
Sample : Humid Blank Inst : Lurch
Misc : 500mL; Can #10892 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Carbon dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.02	26.11 PPBV	6325090	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Carbon dioxide	44	CO2	000124-38-9	4
2	Carbon dioxide	44	CO2	000124-38-9	4
3	Nitrous Oxide	44	N2O	010024-97-2	3
4	Nitrous Oxide	44	N2O	010024-97-2	3
5	Nitrous Oxide	44	N2O	010024-97-2	3

****

Peak Number 2 Dichlorodifluoromethane Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.45	0.07 PPBV	17545	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dichlorodifluoromethane	120	CCl2F2	000075-71-8	50
2	Dichlorodifluoromethane	120	CCl2F2	000075-71-8	39
3	2-Butyne-1,4-diol, diformate	142	C6H6O4	036677-73-3	9
4	Dichlorodifluoromethane	120	CCl2F2	000075-71-8	9
5	Morpholine	87	C4H9NO	000110-91-8	7

****

Peak Number 3 Silane, difluorodimethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.79	0.17 PPBV	40328	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silane, difluorodimethyl-	96	C2H6F2Si	000353-66-2	87
2	Silane, difluorodimethyl-	96	C2H6F2Si	000353-66-2	64
3	3,5-Dimethylcyclopentene	96	C7H12	007459-71-4	40
4	1,4-Pentadiene, 3,3-dimethyl-	96	C7H12	001112-35-2	38
5	2,3-Dimethyl-1,4-pentadiene	96	C7H12	000758-86-1	33

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501258.D Vial: 1
Acq On : 31 Mar 2015 2:04 pm Operator: TDD
Sample : Humid Blank Inst : Lurch
Misc : 500mL; Can #10892 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 4 Acetamide, 2,2,2-trifluoro- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.06	0.09 PPBV	22246	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetamide, 2,2,2-trifluoro-	113	C2H2F3NO	000354-38-1	17
2	4-(2)(Methylamino)ethyl)pyridine	136	C8H12N2	055496-55-4	17
3	Cyclopropyl carbinol	72	C4H8O	002516-33-8	9
4	Cyclopropyl carbinol	72	C4H8O	002516-33-8	9
5	L-Alanine, 1,1-dimethylethyl ester,	181	C7H16ClNO2	013404-22-3	9

****

Peak Number 5 Acetaldehyde Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.50	0.09 PPBV	21472	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	32
2	Acetaldehyde	44	C2H4O	000075-07-0	9
3	Ethylene oxide	44	C2H4O	000075-21-8	7
4	Acetaldehyde	44	C2H4O	000075-07-0	7
5	Ethylene oxide	44	C2H4O	000075-21-8	7

****

Peak Number 6 2-Methyl-pyrroline Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.78	0.10 PPBV	23782	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Methyl-pyrroline	83	C5H9N	1000143-24-0	4
2	Formic acid, ethyl ester	74	C3H6O2	000109-94-4	4
3	N-Carboethoxyimidazole	140	C6H8N2O2	019213-72-0	4
4	Formic acid, ethyl ester	74	C3H6O2	000109-94-4	4
5	Pentanedioic acid, 3-thioxo-, dieth	218	C9H14O4S	018457-67-5	4

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501258.D Vial: 1
Acq On : 31 Mar 2015 2:04 pm Operator: TDD
Sample : Humid Blank Inst : Lurch
Misc : 500mL; Can #10892 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

****

Peak Number 7 Ethane, 1,1,2-trichloro-1,2,2- Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.11	0.06 PPBV	13943	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1,1,2-trichloro-1,2,2-trifl	186	C2Cl3F3	000076-13-1	12
2	1,2-Dichloroethylene	96	C2H2Cl2	000540-59-0	12
3	Trichloromonofluoromethane	136	CCl3F	000075-69-4	12
4	Ethene, 1,2-dichloro-, (E)-	96	C2H2Cl2	000156-60-5	10
5	Ethene, 1,2-dichloro-, (Z)-	96	C2H2Cl2	000156-59-2	10

****

Peak Number 8 Ethene, 1,2-dichloro-, (E)- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.80	0.07 PPBV	16797	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethene, 1,2-dichloro-, (E)-	96	C2H2Cl2	000156-60-5	68
2	Ethene, 1,2-dichloro-, (Z)-	96	C2H2Cl2	000156-59-2	64
3	Ethene, 1,2-dichloro-, (E)-	96	C2H2Cl2	000156-60-5	64
4	Ethene, 1,1-dichloro-	96	C2H2Cl2	000075-35-4	49
5	Ethene, 1,2-dichloro-, (E)-	96	C2H2Cl2	000156-60-5	49

****

Peak Number 9 Hexane Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.40	0.07 PPBV	17352	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexane	86	C6H14	000110-54-3	53
2	Hexane	86	C6H14	000110-54-3	42
3	3-Buten-1-ol, 3-methyl-	86	C5H10O	000763-32-6	33
4	1-Propene, 2-methyl-	56	C4H8	000115-11-7	9
5	Propene	42	C3H6	000115-07-1	9

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501258.D Vial: 1
Acq On : 31 Mar 2015 2:04 pm Operator: TDD
Sample : Humid Blank Inst : Lurch
Misc : 500mL; Can #10892 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 10 Propane, 2-chloro- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.74	0.05 PPBV	13199	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 2-chloro-	78	C3H7Cl	000075-29-6	2
2	1-[3-(4-Bromophenyl)-2-thioureido]-	560	C21H25BrN209S	1000223-13-5	1
3	Propane, 2-chloro-	78	C3H7Cl	000075-29-6	1
4	Isobutyl chloroformate	136	C5H9ClO2	000543-27-1	1
5	Propane, 2-chloro-	78	C3H7Cl	000075-29-6	1

****

Peak Number 11 4-Penten-2-one, 4-methyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.92	0.05 PPBV	13196	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Penten-2-one, 4-methyl-	98	C6H10O	003744-02-3	12
2	Butanal	72	C4H8O	000123-72-8	7
3	Formic acid, ethenyl ester	72	C3H4O2	000692-45-5	5
4	Oxirane, 2,3-dimethyl-	72	C4H8O	003266-23-7	5
5	Pentane	72	C5H12	000109-66-0	5

****

Peak Number 12 Cyclopentyl acetylene Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.26	1.47 PPBV	355592	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentyl acetylene	94	C7H10	054140-30-6	9
2	Dimethyl sulfone	94	C2H6O2S	000067-71-0	4
3	2-Cyclopentene-1-propanal	124	C8H12O	064504-73-0	4
4	Methanesulfonyl chloride	114	CH3ClO2S	000124-63-0	4
5	Bicyclo[3.1.0]hexane, 6-methylene-	94	C7H10	054211-16-4	3

Library Search Compound Report

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501258.D Vial: 1
Acq On : 31 Mar 2015 2:04 pm Operator: TDD
Sample : Humid Blank Inst : Lurch
Misc : 500mL; Can #10892 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library : C:\DATABASE\NIST98.L

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Peak Number 13 Methane, oxybis[dichloro- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.64	0.07 PPBV	17331	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methane, oxybis[dichloro-	182	C2H2Cl4O	020524-86-1	38
2	Chloroform	118	CHCl3	000067-66-3	23
3	Ethane, 1,2,2-trichloro-1,1-difluor	168	C2HCl3F2	000354-21-2	12
4	Chloroform	118	CHCl3	000067-66-3	4
5	Chloroform	118	CHCl3	000067-66-3	4

****

Peak Number 14 Cyclohexane Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.11	0.05 PPBV	13004	Bromochloromethane (IS)	12.43

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane	84	C6H12	000110-82-7	58
2	Cyclohexane	84	C6H12	000110-82-7	58
3	Cyclohexane	84	C6H12	000110-82-7	58
4	Cyclohexane	84	C6H12	000110-82-7	42
5	1-Pentene, 2-methyl-	84	C6H12	000763-29-1	42

****

Peak Number 15 Benzene, 1-bromo-3-fluoro- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.97	12.20 PPBV	10442600	Chlorobenzene-d5 (IS)	18.74

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-bromo-3-fluoro-	174	C6H4BrF	001073-06-9	98
2	Benzene, 1-bromo-2-fluoro-	174	C6H4BrF	001072-85-1	97
3	p-Bromofluorobenzene	174	C6H4BrF	000460-00-4	94
4	Benzene, 1-bromo-2-fluoro-	174	C6H4BrF	001072-85-1	94
5	Benzene, 1-bromo-3-fluoro-	174	C6H4BrF	001073-06-9	94

Tentatively Identified Compound (LSC) summary

Operator ID: TDD Date Acquired: 31 Mar 2015 2:04 pm
Data File: M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501258.D
Name: Humid Blank
Misc: 500mL; Can #10892
Method: C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title: TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	4.02	26.1	PPBV	6325090	ISTD01	12.43	2671710	11.0
Dichlorodifluorometh	4.45	0.1	PPBV	17545	ISTD01	12.43	2671710	11.0
Silane, difluorodime	4.79	0.2	PPBV	40328	ISTD01	12.43	2671710	11.0
Acetamide, 2,2,2-tri	5.06	0.1	PPBV	22246	ISTD01	12.43	2671710	11.0
Acetaldehyde	5.50	0.1	PPBV	21472	ISTD01	12.43	2671710	11.0
2-Methyl-pyrroline	5.78	0.1	PPBV	23782	ISTD01	12.43	2671710	11.0
Ethane, 1,1,2-trichl	8.11	0.1	PPBV	13943	ISTD01	12.43	2671710	11.0
Ethene, 1,2-dichloro	9.80	0.1	PPBV	16797	ISTD01	12.43	2671710	11.0
Hexane	10.40	0.1	PPBV	17352	ISTD01	12.43	2671710	11.0
Propane, 2-chloro-	10.74	0.1	PPBV	13199	ISTD01	12.43	2671710	11.0
4-Penten-2-one, 4-me	11.92	0.1	PPBV	13196	ISTD01	12.43	2671710	11.0
Cyclopentyl acetylen	12.26	1.5	PPBV	355592	ISTD01	12.43	2671710	11.0
Methane, oxybis[dich	12.64	0.1	PPBV	17331	ISTD01	12.43	2671710	11.0
Cyclohexane	13.11	0.1	PPBV	13004	ISTD01	12.43	2671710	11.0
Benzene, 1-bromo-3-f	19.97	12.2	PPBV	10442600	ISTD03	18.74	9587440	11.2

L1501258.D L091114A.M Wed Apr 01 16:04:39 2015

MSD 032078

Calibration Sequence L091114A
Calibration Date 9/11/2014

Compound	Type	RT	Average RRT	Average RF	%RSD	Flag
Bromochloromethane (IS)	ISTD	12.56				
Propylene	Target	4.43	0.352	1.47	7.64	PASS
Freon 12 (CCl2F2)	Target	4.52	0.360	4.51	7.64	PASS
Freon 114 (C2Cl2F4)	Target	4.88	0.388	5.31	8.08	PASS
Chloromethane	Target	4.99	0.397	1.71	7.73	PASS
Chloroethene (Vinyl chloride)	Target	5.29	0.421	1.44	7.00	PASS
1,3-Butadiene	Target	5.40	0.430	1.24	6.03	PASS
Bromomethane	Target	6.11	0.487	1.70	6.22	PASS
Chloroethane	Target	6.39	0.509	0.813	7.85	PASS
Bromoethene (Vinyl bromide)	Target	6.84	0.544	1.41	11.1	PASS
Freon 11 (CCl3F)	Target	7.01	0.558	3.30	7.72	PASS
Ethanol	Target	7.44	0.593	0.733	12.0	PASS
Acrolein	Target	7.98	0.636	0.767	6.64	PASS
Freon 113 (C2Cl3F3)	Target	8.25	0.656	2.23	7.07	PASS
1,1-Dichloroethene	Target	8.19	0.653	2.80	7.79	PASS
Acetone	Target	8.30	0.661	3.30	10.5	PASS
Carbon disulfide	Target	8.69	0.691	4.94	7.08	PASS
Isopropyl alcohol	Target	8.64	0.688	3.40	11.2	PASS
Allyl chloride (3-chloropropene)	Target	9.03	0.718	0.636	9.99	PASS
Acetonitrile	Target	8.88	0.707	1.65	17.3	PASS
Methylene chloride	Target	9.30	0.741	3.13	27.6	PASS
trans-1,2-Dichloroethene	Target	9.91	0.789	2.51	7.79	PASS
Methyl tert-butyl ether	Target	9.91	0.790	4.25	7.26	PASS
Acrylonitrile	Target	9.78	0.779	1.29	11.8	PASS
Hexane	Target	10.53	0.838	2.38	7.92	PASS
1,1-Dichloroethane	Target	10.85	0.864	3.04	6.76	PASS
Vinyl acetate	Target	10.86	0.864	5.36	8.37	PASS
cis-1,2-Dichloroethylene	Target	12.07	0.960	2.51	6.45	PASS
Methyl ethyl ketone (2-Butanone)	Target	12.03	0.958	0.775	7.26	PASS
Ethyl acetate	Target	12.13	0.966	0.690	14.2	PASS
Chloroform	Target	12.75	1.02	3.38	7.56	PASS
Tetrahydrofuran	Target	12.60	1.00	0.762	6.77	PASS
1,1,1-Trichloroethane	Target	13.09	1.04	3.23	8.52	PASS
Cyclohexane	Target	13.23	1.05	2.48	7.39	PASS
Carbon tetrachloride	Target	13.38	1.07	3.20	8.61	PASS
1,4-Difluorobenzene (IS)	ISTD	14.43				
Benzene	Target	13.73	0.951	0.716	6.37	PASS
2,2,4-trimethylpentane	Target	13.94	0.966	1.12	12.4	PASS
1,2-Dichloroethane	Target	13.81	0.957	0.361	6.49	PASS
Heptane	Target	14.22	0.986	0.236	8.30	PASS
Trichloroethene	Target	14.81	1.03	0.340	7.44	PASS
1,2-Dichloropropane	Target	15.22	1.05	0.287	7.12	PASS
Methyl methacrylate	Target	15.27	1.06	0.275	8.48	PASS
1,4-Dioxane	Target	15.31	1.06	0.179	10.7	PASS
	Target	15.61	1.08	0.624	7.96	PASS

2202 Ellis Road
Durham, NC 27703

Calibration Sequence L091114A
Calibration Date 9/11/2014

Compound	Type	RT	Average RRT	Average RF	%RSD	Flag
cis-1,3-Dichloropropene	Target	16.32	1.13	0.425	8.93	PASS
Methyl isobutyl ketone	Target	16.53	1.15	0.764	9.03	PASS
Chlorobenzene-d5 (IS)	ISTD	18.83				
Toluene	Target	16.92	0.898	0.845	7.70	PASS
trans-1,3-Dichloropropene	Target	17.29	0.918	0.459	8.35	PASS
1,1,2-Trichloroethane	Target	17.59	0.934	0.363	6.51	PASS
Tetrachloroethene	Target	17.74	0.942	0.500	7.74	PASS
2-Hexanone (Methyl butyl ketone)	Target	17.85	0.948	0.815	7.18	PASS
Dibromochloromethane	Target	18.12	0.962	0.670	8.49	PASS
1,2-Dibromoethane	Target	18.28	0.971	0.621	7.54	PASS
Chlorobenzene	Target	18.87	1.00	0.739	7.52	PASS
Ethylbenzene	Target	18.96	1.01	1.11	10.3	PASS
1,1,1,2-Tetrachloroethane	Target	18.96	1.01	0.363	14.6	PASS
m-/p-Xylenes	Target	19.10	1.01	0.866	8.69	PASS
o-Xylene	Target	19.51	1.04	0.872	8.27	PASS
Styrene	Target	19.53	1.04	0.724	8.25	PASS
Bromoform	Target	19.75	1.05	0.728	7.92	PASS
1,1,2,2-Tetrachloroethane	Target	20.16	1.07	0.834	8.56	PASS
4-Ethyltoluene	Target	20.39	1.08	1.26	10.6	PASS
2-Chlorotoluene	Target	20.38	1.08	0.890	15.3	PASS
1,3,5-Trimethylbenzene	Target	20.44	1.09	0.968	9.43	PASS
1,2,4-Trimethylbenzene	Target	20.78	1.11	1.05	7.69	PASS
1,3-Dichlorobenzene	Target	21.05	1.12	0.791	8.66	PASS
1,4-Dichlorobenzene	Target	21.14	1.12	0.828	9.42	PASS
Benzyl chloride	Target	21.22	1.13	1.05	9.67	PASS
1,2-Dichlorobenzene	Target	21.45	1.14	0.770	8.00	PASS
1,2,4-Trichlorobenzene	Target	22.86	1.22	0.697	15.1	PASS
Hexachlorobutadiene	Target	22.96	1.22	0.461	12.9	PASS
Naphthalene	Target	23.13	1.23	1.58	24.7	PASS

2202 Ellis Road
Durham, NC 27703

MSD 032079

Sample Name : 0.1ppbv TO15 ICAL
Sample Info : can 10899, 25mL load
Data File : L1403036.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2014-09-11 07:40:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	7,877	0.105	0.114	0.197	
Freon 12 (CCl2F2)	19,007	0.0960	0.0901	0.446	
Freon 114 (C2Cl2F4)	22,782	0.0960	0.0918	0.642	
Chloromethane	7,860	0.0960	0.0984	0.203	
Chloroethene (Vinyl chloride)	6,456	0.0970	0.0957	0.245	
1,3-Butadiene	5,765	0.102	0.0993	0.220	
Bromomethane	7,815	0.0970	0.0983	0.382	
Chloroethane	4,113	0.0960	0.108	0.286	
Bromoethene (Vinyl bromide)	6,658	0.103	0.101	0.441	
Freon 11 (CCl3F)	14,236	0.100	0.0924	0.519	
Ethanol	3,858	0.105	0.113	0.212	
Acrolein	3,840	0.0980	0.107	0.246	
Freon 113 (C2Cl3F3)	10,491	0.104	0.101	0.771	
1,1-Dichloroethene	13,589	0.105	0.104	0.411	
Acetone	20,046	0.106	0.130	0.308	
Carbon disulfide	25,616	0.105	0.111	0.346	
Isopropyl alcohol	19,388	0.111	0.122	0.300	
Allyl chloride (3-chloropropene)	3,121	0.107	0.105	0.328	
Acetonitrile	8,612	0.0940	0.112	0.188	
Methylene chloride	116,291	0.103	0.796	2.76	
trans-1,2-Dichloroethene	11,997	0.103	0.102	0.405	
Methyl tert-butyl ether	21,249	0.103	0.107	0.385	
Acrylonitrile	6,227	0.100	0.104	0.225	
Hexane	11,706	0.104	0.105	0.372	
1,1-Dichloroethane	14,056	0.102	0.0991	0.401	
Vinyl acetate	26,092	0.105	0.104	0.367	
cis-1,2-Dichloroethylene	11,956	0.104	0.102	0.405	
Methyl ethyl ketone (2-Butanone)	3,634	0.104	0.100	0.296	
Ethyl acetate	4,383	0.104	0.136	0.490	
Chloroform	15,774	0.104	0.100	0.488	
Tetrahydrofuran	3,702	0.102	0.104	0.307	
1,1,1-Trichloroethane	13,995	0.100	0.0928	0.506	
Cyclohexane	11,408	0.103	0.0986	0.339	
Carbon tetrachloride	14,751	0.102	0.0987	0.621	
Benzene	21,299	0.102	0.104	0.331	
2,2,4-trimethylpentane	31,845	0.104	0.0988	0.461	
1,2-Dichloroethane	10,582	0.102	0.102	0.414	
Heptane	6,915	0.104	0.102	0.419	
Trichloroethene	10,173	0.102	0.104	0.561	
1,2-Dichloropropane	8,789	0.102	0.107	0.493	
Methyl methacrylate	7,679	0.101	0.0972	0.398	
1,4-Dioxane	5,298	0.102	0.103	0.371	m

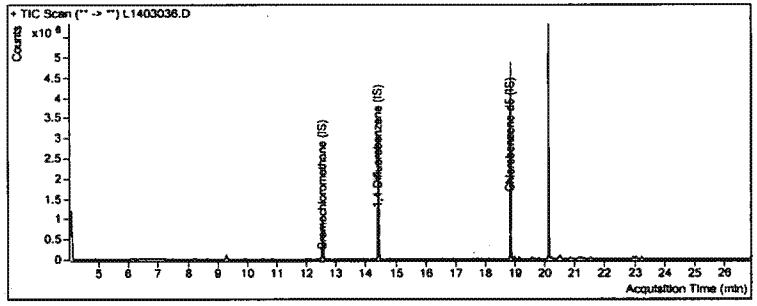
Sample Name : 0.1ppbv TO15 ICAL
Sample Info : can 10899, 25mL load
Data File : L1403036.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2014-09-11 07:40:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	17,809	0.102	0.0994	0.666	
cis-1,3-Dichloropropene	13,270	0.106	0.109	0.494	
Methyl isobutyl ketone	21,838	0.100	0.0996	0.408	
Toluene	22,974	0.103	0.104	0.394	
trans-1,3-Dichloropropene	13,251	0.108	0.111	0.503	
1,1,2-Trichloroethane	9,865	0.102	0.104	0.570	
Tetrachloroethene	12,537	0.100	0.0964	0.654	
2-Hexanone (Methyl butyl ketone)	24,625	0.107	0.116	0.476	
Dibromochloromethane	17,150	0.102	0.0983	0.838	
1,2-Dibromoethane	17,210	0.101	0.106	0.818	
Chlorobenzene	19,711	0.103	0.102	0.472	
Ethylbenzene	31,014	0.102	0.107	0.466	
1,1,1,2-Tetrachloroethane	9,288	0.105	0.0982	0.674	
m-/p-Xylenes	45,438	0.198	0.202	0.875	
o-Xylene	23,700	0.103	0.104	0.454	
Styrene	19,155	0.102	0.102	0.433	
Bromoform	17,890	0.0990	0.0945	0.976	
1,1,2,2-Tetrachloroethane	23,226	0.103	0.107	0.735	
4-Ethyltoluene	33,467	0.101	0.102	0.503	
2-Chlorotoluene	22,847	0.103	0.0987	0.511	
1,3,5-Trimethylbenzene	25,904	0.100	0.103	0.506	m
1,2,4-Trimethylbenzene	29,683	0.100	0.108	0.533	
1,3-Dichlorobenzene	23,335	0.102	0.113	0.681	
1,4-Dichlorobenzene	25,006	0.0990	0.116	0.698	m
Benzyl chloride	31,094	0.102	0.113	0.587	
1,2-Dichlorobenzene	21,845	0.100	0.109	0.656	
1,2,4-Trichlorobenzene	21,769	0.0910	0.120	0.891	
Hexachlorobutadiene	14,284	0.0930	0.119	1.27	
Naphthalene	63,541	0.0970	0.155	0.811	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	515,466	12.56	11.03	PASS
1,4-Difluorobenzene (IS)	3,019,241	14.42	10.52	PASS
Chlorobenzene-d5 (IS)	2,914,817	18.85	11.20	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

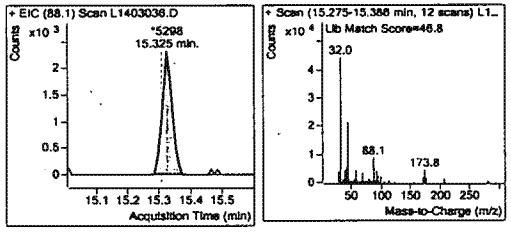
Sample Name	: 0.1ppbv TO15 ICAL
Sample Info	: can 10899, 25mL load
Data File	: L1403036.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 07:40:00
Instrument Method	: MM624-L
Matrix	: AIR



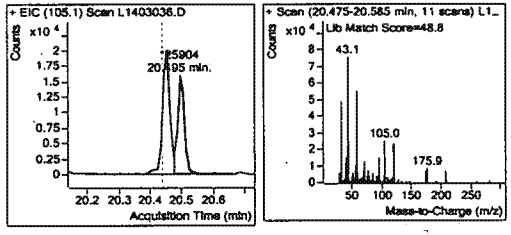
Quantitation Report Enthalpy Analytical, Inc.

Sample Name	: 0.1ppbv TO15 ICAL
Sample Info	: can 10899, 25mL load
Data File	: L1403036.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 07:40:00
Instrument Method	: MM624-L
Matrix	: AIR

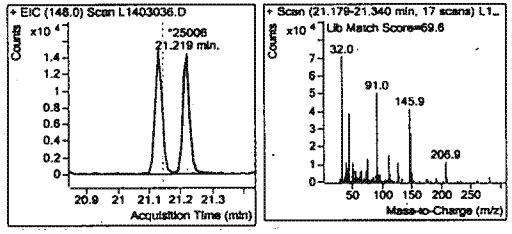
1,4-Dioxane



1,3,5-Trimethylbenzene



1,4-Dichlorobenzene



Sample Name	: 0.2ppbv TO15 ICAL
Sample Info	: can 10899, 50mL load
Data File	: L1403037.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 08:19:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	14,682	0.210	0.215	0.370	
Freon 12 (CCl2F2)	38,146	0.192	0.182	0.901	
Freon 114 (C2Cl2F4)	45,497	0.192	0.185	1.29	
Chloromethane	14,984	0.192	0.189	0.391	
Chloroethene (Vinyl chloride)	12,520	0.194	0.187	0.478	
1,3-Butadiene	12,278	0.204	0.213	0.472	m
Bromomethane	14,794	0.194	0.187	0.728	
Chloroethane	7,048	0.192	0.187	0.493	
Bromoethene (Vinyl bromide)	12,100	0.206	0.185	0.807	
Freon 11 (CCl3F)	29,405	0.200	0.192	1.08	
Ethanol	7,407	0.210	0.218	0.411	
Acrolein	7,373	0.196	0.207	0.475	
Freon 113 (C2Cl3F3)	20,697	0.208	0.200	1.53	
1,1-Dichloroethene	25,751	0.210	0.198	0.785	
Acetone	32,105	0.212	0.210	0.498	
Carbon disulfide	46,865	0.210	0.205	0.638	
Isopropyl alcohol	34,273	0.222	0.217	0.534	
Allyl chloride (3-chloropropene)	5,646	0.214	0.191	0.599	
Acetonitrile	11,813	0.188	0.155	0.260	
Methylene chloride	125,646	0.206	0.866	3.01	
trans-1,2-Dichloroethene	23,066	0.206	0.198	0.785	
Methyl tert-butyl ether	38,988	0.206	0.198	0.713	
Acrylonitrile	10,874	0.200	0.182	0.395	
Hexane	21,627	0.208	0.196	0.692	
1,1-Dichloroethane	27,863	0.204	0.198	0.801	
Vinyl acetate	47,659	0.210	0.192	0.675	
cis-1,2-Dichloroethylene	22,529	0.208	0.194	0.769	
Methyl ethyl ketone (2-Butanone)	6,908	0.208	0.192	0.567	
Ethyl acetate	6,938	0.208	0.217	0.782	
Chloroform	30,384	0.208	0.194	0.948	
Tetrahydrofuran	7,000	0.204	0.198	0.584	
1,1,1-Trichloroethane	27,676	0.200	0.185	1.01	
Cyclohexane	22,445	0.206	0.195	0.673	
Carbon tetrachloride	27,611	0.204	0.186	1.17	
Benzene	41,113	0.204	0.199	0.635	
2,2,4-trimethylpentane	60,327	0.208	0.186	0.869	
1,2-Dichloroethane	20,029	0.204	0.192	0.778	
Heptane	13,527	0.208	0.199	0.814	
Trichloroethene	18,992	0.204	0.194	1.04	
1,2-Dichloropropane	16,931	0.204	0.204	0.943	
Methyl methacrylate	15,285	0.202	0.192	0.787	
1,4-Dioxane	10,065	0.204	0.195	0.701	

Quantitation Report Enthalpy Analytical, Inc.

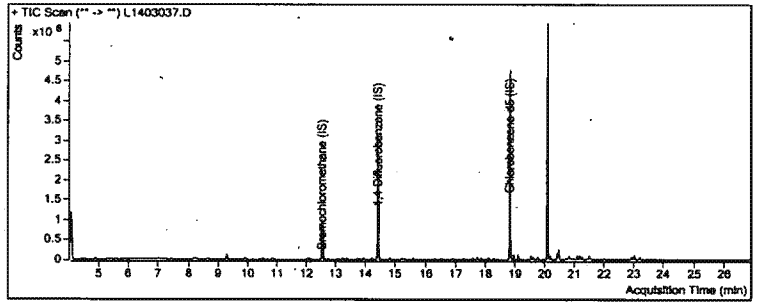
Sample Name	: 0.2ppbv TO15 ICAL
Sample Info	: can 10899, 50mL load
Data File	: L1403037.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 08:19:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	33,956	0.204	0.188	1.26	
cis-1,3-Dichloropropene	22,770	0.212	0.186	0.843	
Methyl isobutyl ketone	41,188	0.200	0.187	0.765	
Toluene	43,612	0.206	0.195	0.735	
trans-1,3-Dichloropropene	23,611	0.216	0.194	0.882	
1,1,2-Trichloroethane	18,782	0.204	0.196	1.07	
Tetrachloroethene	25,331	0.200	0.192	1.30	
2-Hexanone (Methyl butyl ketone)	45,338	0.214	0.210	0.861	
Dibromochloromethane	32,770	0.204	0.185	1.57	
1,2-Dibromoethane	31,015	0.202	0.189	1.45	
Chlorobenzene	38,386	0.206	0.196	0.904	
Ethylbenzene	58,071	0.204	0.197	0.857	
1,1,1,2-Tetrachloroethane	17,812	0.210	0.185	1.27	
m-/p-Xylenes	87,207	0.396	0.381	1.65	
o-Xylene	45,555	0.206	0.198	0.858	
Styrene	37,073	0.204	0.193	0.824	
Bromoform	35,601	0.198	0.185	1.91	
1,1,2,2-Tetrachloroethane	44,310	0.206	0.201	1.38	
4-Ethyltoluene	66,300	0.202	0.199	0.979	
2-Chlorotoluene	44,685	0.206	0.190	0.983	
1,3,5-Trimethylbenzene	49,233	0.200	0.192	0.945	m
1,2,4-Trimethylbenzene	54,420	0.200	0.195	0.961	
1,3-Dichlorobenzene	38,637	0.204	0.185	1.11	
1,4-Dichlorobenzene	41,267	0.198	0.188	1.13	m
Benzyl chloride	52,676	0.204	0.189	0.977	
1,2-Dichlorobenzene	38,831	0.200	0.191	1.15	
1,2,4-Trichlorobenzene	27,260	0.182	0.148	1.10	
Hexachlorobutadiene	21,541	0.186	0.177	1.88	
Naphthalene	68,931	0.194	0.165	0.866	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	511,400	12.56	11.03	PASS
1,4-Difluorobenzene (IS)	3,037,201	14.43	10.52	PASS
Chlorobenzene-d5 (IS)	2,963,646	18.84	11.20	PASS

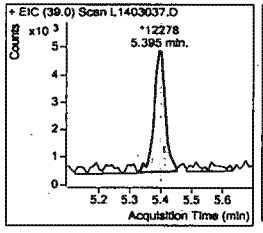
(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

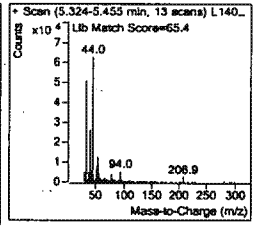
Sample Name	: 0.2ppbv TO15 ICAL
Sample Info	: can 10899, 50mL load
Data File	: L1403037.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 08:19:00
Instrument Method	: MM624-L
Matrix	: AIR



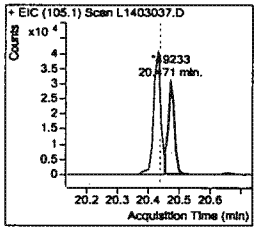
Sample Name	: 0.2ppbv TO15 ICAL
Sample Info	: can 10899, 50mL load
Data File	: L1403037.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 08:19:00
Instrument Method	: MM624-L
Matrix	: AIR

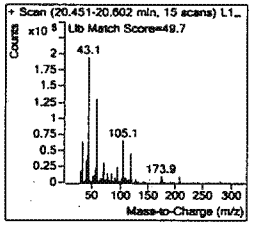
1,3-Butadiene



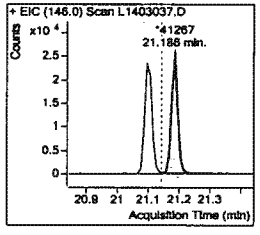


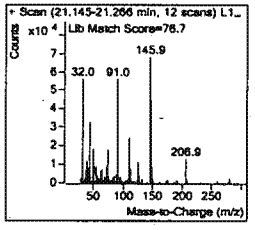
1,3,5-Trimethylbenzene





1,4-Dichlorobenzene





Sample Name : 0.4ppbv TO15 ICAL
Sample Info : can 10899, 100mL load
Data File : L1403038.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2014-09-11 08:57:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	27,557	0.420	0.410	0.706	
Freon 12 (CCl2F2)	74,541	0.384	0.363	1.79	
Freon 114 (C2Cl2F4)	89,178	0.384	0.369	2.58	
Chloromethane	27,745	0.384	0.357	0.736	
Chloroethene (Vinyl chloride)	24,249	0.388	0.369	0.943	
1,3-Butadiene	22,181	0.408	0.392	0.868	
Bromomethane	29,179	0.388	0.376	1.46	
Chloroethane	13,718	0.384	0.370	0.978	
Bromoethene (Vinyl bromide)	23,435	0.412	0.364	1.59	
Freon 11 (CCl3F)	57,658	0.400	0.384	2.16	
Ethanol	13,198	0.420	0.395	0.745	
Acrolein	13,198	0.392	0.378	0.866	
Freon 113 (C2Cl3F3)	40,054	0.416	0.394	3.02	
1,1-Dichloroethene	50,412	0.420	0.395	1.57	
Acetone	61,052	0.424	0.406	0.964	
Carbon disulfide	89,783	0.420	0.399	1.24	
Isopropyl alcohol	67,604	0.444	0.436	1.07	
Allyl chloride (3-chloropropene)	11,500	0.428	0.397	1.24	
Acetonitrile	22,422	0.376	0.299	0.502	
Methylene chloride	144,078	0.412	1.01	3.51	
trans-1,2-Dichloroethene	44,568	0.412	0.390	1.54	
Methyl tert-butyl ether	74,369	0.412	0.384	1.38	
Acrylonitrile	20,166	0.400	0.344	0.746	
Hexane	41,674	0.416	0.385	1.36	
1,1-Dichloroethane	53,094	0.408	0.384	1.55	
Vinyl acetate	95,389	0.420	0.390	1.37	
cis-1,2-Dichloroethylene	45,536	0.416	0.399	1.58	
Methyl ethyl ketone (2-Butanone)	13,759	0.416	0.390	1.15	
Ethyl acetate	11,772	0.416	0.375	1.35	
Chloroform	60,459	0.416	0.393	1.92	
Tetrahydrofuran	13,147	0.408	0.379	1.12	
1,1,1-Trichloroethane	55,279	0.400	0.376	2.05	
Cyclohexane	45,026	0.412	0.399	1.37	
Carbon tetrachloride	55,335	0.408	0.380	2.39	
Benzene	78,054	0.408	0.386	1.23	
2,2,4-trimethylpentane	119,117	0.416	0.376	1.76	
1,2-Dichloroethane	40,518	0.408	0.398	1.61	
Heptane	26,083	0.416	0.392	1.61	
Trichloroethene	36,983	0.408	0.386	2.07	
1,2-Dichloropropane	31,154	0.408	0.384	1.78	
Methyl methacrylate	29,058	0.404	0.374	1.53	
1,4-Dioxane	20,099	0.408	0.398	1.43	

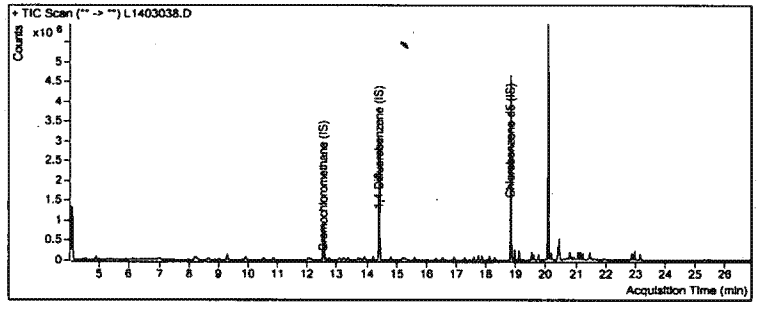
Sample Name : 0.4ppbv TO15 ICAL
Sample Info : can 10899, 100mL load
Data File : L1403038.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2014-09-11 08:57:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	67,767	0.408	0.385	2.58	
cis-1,3-Dichloropropene	47,319	0.424	0.395	1.79	
Methyl isobutyl ketone	78,658	0.400	0.365	1.50	
Toluene	84,905	0.412	0.387	1.46	
trans-1,3-Dichloropropene	47,139	0.432	0.395	1.79	
1,1,2-Trichloroethane	36,710	0.408	0.389	2.12	
Tetrachloroethene	48,344	0.400	0.372	2.53	
2-Hexanone (Methyl butyl ketone)	92,421	0.428	0.437	1.79	
Dibromochloromethane	66,286	0.408	0.381	3.24	
1,2-Dibromoethane	60,602	0.404	0.376	2.89	
Chlorobenzene	75,267	0.412	0.392	1.80	
Ethylbenzene	113,189	0.408	0.392	1.70	
1,1,1,2-Tetrachloroethane	34,573	0.420	0.366	2.51	
m-/p-Xylenes	170,222	0.792	0.757	3.29	
o-Xylene	91,931	0.412	0.406	1.76	
Styrene	73,354	0.408	0.390	1.66	
Bromoform	70,167	0.396	0.371	3.84	
1,1,2,2-Tetrachloroethane	87,412	0.412	0.404	2.77	
4-Ethyltoluene	134,419	0.404	0.411	2.02	
2-Chlorotoluene	83,859	0.412	0.363	1.88	
1,3,5-Trimethylbenzene	93,260	0.400	0.371	1.82	m
1,2,4-Trimethylbenzene	111,243	0.400	0.407	2.00	
1,3-Dichlorobenzene	80,824	0.408	0.393	2.36	
1,4-Dichlorobenzene	82,488	0.396	0.383	2.31	
Benzyl chloride	105,714	0.408	0.386	2.00	
1,2-Dichlorobenzene	77,892	0.400	0.390	2.34	
1,2,4-Trichlorobenzene	58,581	0.364	0.324	2.40	
Hexachlorobutadiene	44,098	0.372	0.368	3.93	
Naphthalene	138,937	0.388	0.339	1.78	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	502,387	12.56	11.03	PASS
1,4-Difluorobenzene (IS)	2,967,552	14.42	10.52	PASS
Chlorobenzene-d5 (IS)	2,909,611	18.83	11.20	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

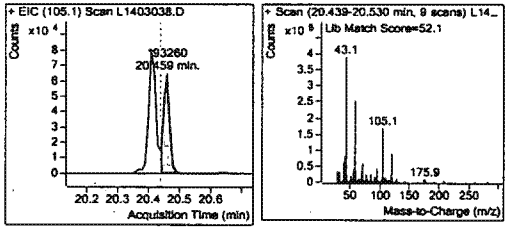
Sample Name	: 0.4ppbv TO15 ICAL
Sample Info	: can 10899, 100mL load
Data File	: L1403038.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 08:57:00
Instrument Method	: MM624-L
Matrix	: AIR



Quantitation Report Enthalpy Analytical, Inc.

Sample Name	: 0.4ppbv TO15 ICAL
Sample Info	: can 10899, 100mL load
Data File	: L1403038.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 08:57:00
Instrument Method	: MM624-L
Matrix	: AIR

1,3,5-Trimethylbenzene



Sample Name	: 1ppbv TO-15 ICAL
Sample Info	: Can 10899, 250mL load
Data File	: L1403041.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 10:56:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	63,853	1.05	0.950	1.64	
Freon 12 (CCl2F2)	188,585	0.960	0.917	4.54	
Freon 114 (C2Cl2F4)	219,442	0.960	0.907	6.34	
Chloromethane	69,115	0.960	0.888	1.83	
Chloroethene (Vinyl chloride)	59,797	0.970	0.909	2.32	
1,3-Butadiene	52,922	1.02	0.936	2.07	
Bromomethane	71,079	0.970	0.917	3.56	
Chloroethane	31,882	0.960	0.861	2.27	
Bromoethene (Vinyl bromide)	59,477	1.03	0.923	4.04	
Freon 11 (CCl3F)	142,048	1.00	0.946	5.31	
Ethanol	29,341	1.05	0.879	1.66	
Acrolein	31,397	0.980	0.899	2.06	
Freon 113 (C2Cl3F3)	98,139	1.04	0.966	7.40	
1,1-Dichloroethene	123,800	1.05	0.969	3.84	
Acetone	151,865	1.06	1.01	2.40	
Carbon disulfide	216,508	1.05	0.963	3.00	
Isopropyl alcohol	150,065	1.11	0.968	2.38	
Allyl chloride (3-chloropropene)	27,735	1.07	0.957	2.99	
Acetonitrile	55,831	0.940	0.745	1.25	
Methylene chloride	202,775	1.03	1.42	4.94	
trans-1,2-Dichloroethene	109,703	1.03	0.959	3.80	
Methyl tert-butyl ether	186,155	1.03	0.961	3.46	
Acrylonitrile	49,572	1.00	0.845	1.83	
Hexane	103,661	1.04	0.958	3.38	
1,1-Dichloroethane	134,297	1.02	0.971	3.93	
Vinyl acetate	241,957	1.05	0.990	3.49	
cis-1,2-Dichloroethylene	112,774	1.04	0.988	3.92	
Methyl ethyl ketone (2-Butanone)	35,288	1.04	1.00	2.95	
Ethyl acetate	28,311	1.04	0.901	3.25	
Chloroform	149,530	1.04	0.973	4.75	
Tetrahydrofuran	32,054	1.02	0.924	2.72	
1,1,1-Trichloroethane	136,539	1.00	0.929	5.07	
Cyclohexane	110,306	1.03	0.978	3.37	
Carbon tetrachloride	136,819	1.02	0.939	5.91	
Benzene	192,231	1.02	0.953	3.05	
2,2,4-trimethylpentane	293,737	1.04	0.928	4.34	
1,2-Dichloroethane	96,823	1.02	0.953	3.86	
Heptane	66,186	1.04	0.996	4.08	
Trichloroethene	87,956	1.02	0.920	4.94	
1,2-Dichloropropane	77,621	1.02	0.960	4.43	
Methyl methacrylate	72,278	1.01	0.932	3.82	
1,4-Dioxane	47,288	1.02	0.937	3.38	

Quantitation Report Enthalpy Analytical, Inc.

Sample Name	: 1ppbv TO-15 ICAL
Sample Info	: Can 10899, 250mL load
Data File	: L1403041.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 10:56:00
Instrument Method	: MM624-L
Matrix	: AIR

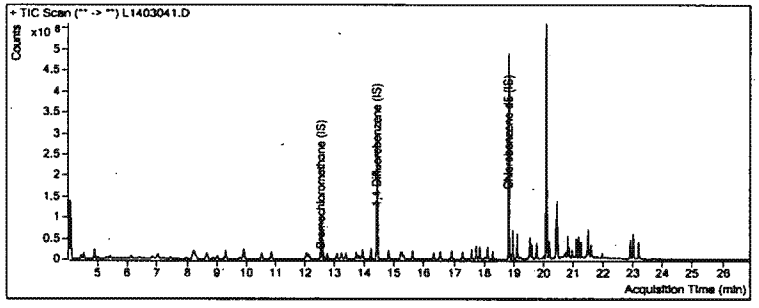
Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	166,496	1.02	0.947	6.35	
cis-1,3-Dichloropropene	117,729	1.06	0.984	4.47	
Methyl isobutyl ketone	201,171	1.00	0.935	3.83	
Toluene	208,054	1.03	0.940	3.54	
trans-1,3-Dichloropropene	117,773	1.08	0.980	4.45	
1,1,2-Trichloroethane	91,137	1.02	0.959	5.23	
Tetrachloroethene	122,066	1.00	0.933	6.33	
2-Hexanone (Methyl butyl ketone)	233,153	1.07	1.09	4.48	
Dibromochloromethane	168,205	1.02	0.959	8.17	
1,2-Dibromoethane	153,541	1.01	0.944	7.25	
Chlorobenzene	186,318	1.03	0.963	4.43	
Ethylbenzene	281,090	1.02	0.966	4.20	
1,1,1,2-Tetrachloroethane	86,505	1.05	0.909	6.24	
m-/p-Xylenes	428,135	1.98	1.89	8.20	
o-Xylene	219,296	1.03	0.961	4.17	
Styrene	180,510	1.02	0.952	4.05	
Bromoform	179,133	0.990	0.940	9.72	
1,1,2,2-Tetrachloroethane	215,262	1.03	0.986	6.77	
4-Ethyltoluene	322,086	1.01	0.978	4.81	
2-Chlorotoluene	210,617	1.03	0.904	4.68	
1,3,5-Trimethylbenzene	243,989	1.00	0.963	4.73	m
1,2,4-Trimethylbenzene	276,839	1.00	1.00	4.94	
1,3-Dichlorobenzene	202,021	1.02	0.975	5.86	
1,4-Dichlorobenzene	198,703	0.990	0.917	5.51	m
Benzyl chloride	259,501	1.02	0.940	4.87	
1,2-Dichlorobenzene	194,346	1.00	0.965	5.80	
1,2,4-Trichlorobenzene	164,787	0.910	0.904	6.71	
Hexachlorobutadiene	115,973	0.930	0.961	10.3	
Naphthalene	379,087	0.970	0.918	4.81	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	502,408	12.56	11.03	PASS
1,4-Difluorobenzene (IS)	2,962,415	14.43	10.52	PASS
Chlorobenzene-d5 (IS)	2,931,919	18.84	11.20	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

MSD 032086

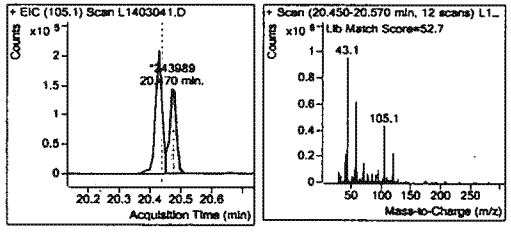
Sample Name	: 1ppbv TO-15 ICAL
Sample Info	: Can 10899, 250mL load
Data File	: L1403041.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 10:56:00
Instrument Method	: MM624-L
Matrix	: AIR



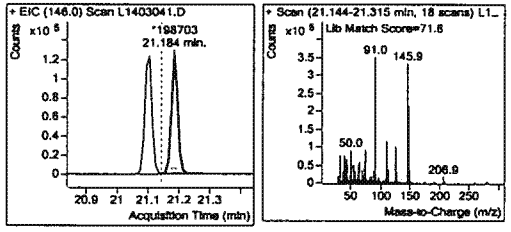
Quantitation Report Enthalpy Analytical, Inc.

Sample Name	: 1ppbv TO-15 ICAL
Sample Info	: Can 10899, 250mL load
Data File	: L1403041.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 10:56:00
Instrument Method	: MM624-L
Matrix	: AIR

1,3,5-Trimethylbenzene



1,4-Dichlorobenzene



Sample Name	: 2ppbv TO15 ICAL
Sample Info	: can 10894, 50mL load
Data File	: L1403033.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 05:36:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	151,793	2.10	2.33	4.02	
Freon 12 (CCl2F2)	435,312	1.92	2.19	10.8	
Freon 114 (C2Cl2F4)	523,682	1.92	2.24	15.6	
Chloromethane	164,452	1.92	2.18	4.51	
Chloroethene (Vinyl chloride)	141,156	1.94	2.22	5.67	
1,3-Butadiene	122,905	2.04	2.25	4.97	
Bromomethane	163,845	1.94	2.18	8.48	
Chloroethane	75,774	1.92	2.11	5.58	
Bromoethene (Vinyl bromide)	153,358	2.06	2.46	10.8	
Freon 11 (CCl3F)	332,966	2.00	2.29	12.9	
Ethanol	82,420	2.10	2.55	4.81	
Acrolein	70,794	1.96	2.09	4.80	
Freon 113 (C2Cl3F3)	234,090	2.08	2.38	18.2	
1,1-Dichloroethene	298,815	2.10	2.42	9.59	
Acetone	330,575	2.12	2.27	5.39	m
Carbon disulfide	515,908	2.10	2.37	7.38	
Isopropyl alcohol	389,166	2.22	2.59	6.38	
Allyl chloride (3-chloropropene)	70,720	2.14	2.52	7.89	
Acetonitrile	162,161	1.88	2.24	3.75	
Methylene chloride	335,448	2.06	2.43	8.45	
trans-1,2-Dichloroethene	264,719	2.06	2.39	9.48	
Methyl tert-butyl ether	440,965	2.06	2.35	8.48	
Acrylonitrile	134,418	2.00	2.37	5.14	
Hexane	250,684	2.08	2.39	8.44	
1,1-Dichloroethane	309,280	2.04	2.31	9.36	
Vinyl acetate	569,772	2.10	2.41	8.49	
cis-1,2-Dichloroethylene	255,546	2.08	2.31	9.17	m
Methyl ethyl ketone (2-Butanone)	80,362	2.08	2.35	6.94	
Ethyl acetate	66,633	2.08	2.19	7.90	
Chloroform	354,184	2.08	2.38	11.6	
Tetrahydrofuran	76,653	2.04	2.28	6.73	
1,1,1-Trichloroethane	326,577	2.00	2.30	12.5	
Cyclohexane	258,700	2.06	2.37	8.16	
Carbon tetrachloride	332,598	2.04	2.36	14.8	
Benzene	453,322	2.04	2.31	7.39	
2,2,4-trimethylpentane	797,803	2.08	2.59	12.1	
1,2-Dichloroethane	230,465	2.04	2.33	9.45	
Heptane	158,871	2.08	2.46	10.1	
Trichloroethene	217,594	2.04	2.34	12.6	
1,2-Dichloropropane	183,026	2.04	2.33	10.8	
Methyl methacrylate	178,502	2.02	2.37	9.70	
1,4-Dioxane	121,680	2.04	2.48	8.94	

Quantitation Report Enthalpy Analytical, Inc.

Sample Name	: 2ppbv TO15 ICAL
Sample Info	: can 10894, 50mL load
Data File	: L1403033.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 05:36:00
Instrument Method	: MM624-L
Matrix	: AIR

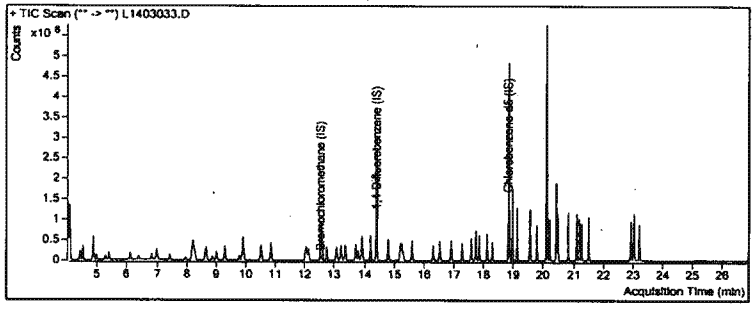
Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	404,560	2.04	2.37	15.9	
cis-1,3-Dichloropropene	285,920	2.12	2.46	11.2	
Methyl isobutyl ketone	495,463	2.00	2.37	9.71	
Toluene	511,709	2.06	2.37	8.93	
trans-1,3-Dichloropropene	281,392	2.16	2.40	10.9	
1,1,2-Trichloroethane	213,801	2.04	2.31	12.6	
Tetrachloroethene	294,758	2.00	2.31	15.7	
2-Hexanone (Methyl butyl ketone)	477,288	2.14	2.29	9.39	
Dibromochloromethane	401,527	2.04	2.34	20.0	
1,2-Dibromoethane	363,316	2.02	2.29	17.6	
Chlorobenzene	448,037	2.06	2.37	10.9	
Ethylbenzene	682,826	2.04	2.40	10.4	
1,1,1,2-Tetrachloroethane	244,453	2.10	2.63	18.1	
m-/p-Xylenes	1,012,686	3.96	4.58	19.9	
o-Xylene	531,575	2.06	2.39	10.4	
Styrene	440,320	2.04	2.38	10.1	
Bromoform	423,120	1.98	2.28	23.5	
1,1,2,2-Tetrachloroethane	505,060	2.06	2.37	16.3	
4-Ethyltoluene	763,913	2.02	2.38	11.7	
2-Chlorotoluene	598,839	2.06	2.63	13.6	
1,3,5-Trimethylbenzene	573,125	2.00	2.32	11.4	m
1,2,4-Trimethylbenzene	588,091	2.00	2.19	10.8	
1,3-Dichlorobenzene	467,013	2.04	2.31	13.9	
1,4-Dichlorobenzene	463,313	1.98	2.19	13.2	m
Benzyl chloride	639,611	2.04	2.37	12.3	
1,2-Dichlorobenzene	448,486	2.00	2.28	13.7	
1,2,4-Trichlorobenzene	348,556	1.82	1.96	14.5	
Hexachlorobutadiene	228,759	1.86	1.94	20.7	m
Naphthalene	806,740	1.94	2.00	10.5	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	486,189	12.55	11.03	PASS
1,4-Difluorobenzene (IS)	2,880,060	14.43	10.52	PASS
Chlorobenzene-d5 (IS)	2,861,704	18.84	11.20	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

MSD 032088

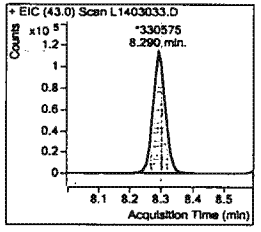
Sample Name	: 2ppbv TO15 ICAL
Sample Info	: can 10894, 50mL load
Data File	: L1403033.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 05:36:00
Instrument Method	: MM624-L
Matrix	: AIR

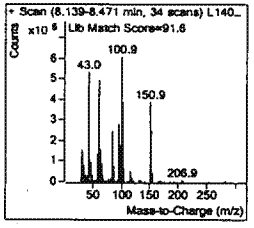


Quantitation Report Enthalpy Analytical, Inc.

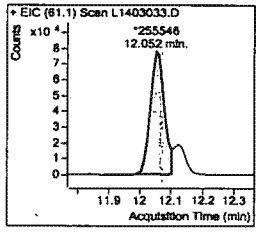
Sample Name	: 2ppbv TO15 ICAL
Sample Info	: can 10894, 50mL load
Data File	: L1403033.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 05:36:00
Instrument Method	: MM624-L
Matrix	: AIR

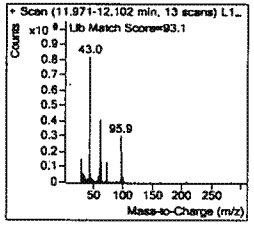
Acetone



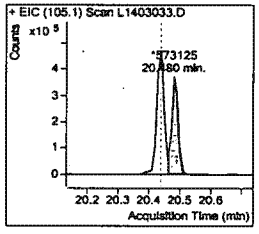


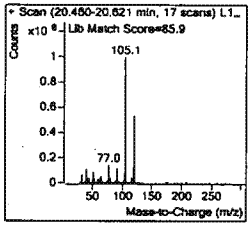
cis-1,2-Dichloroethylene





1,3,5-Trimethylbenzene

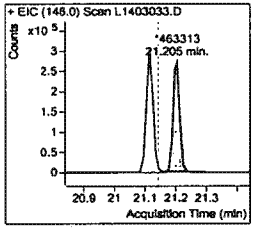


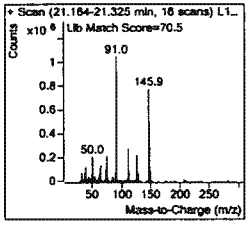


MSD 032089

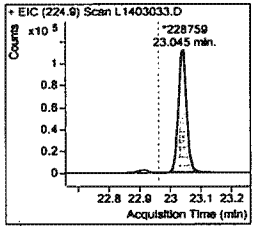
Sample Name	: 2ppbv TO15 ICAL
Sample Info	: can 10894, 50mL load
Data File	: L1403033.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 05:36:00
Instrument Method	: MM624-L
Matrix	: AIR

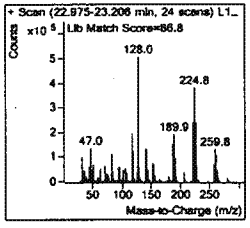
1,4-Dichlorobenzene





Hexachlorobutadiene





Sample Name	: 5ppbv TO15 ICAL
Sample Info	: can 10894, 125mL load
Data File	: L1403031.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 04:18:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	336,875	5.25	5.37	9.24	
Freon 12 (CCl2F2)	1,000,984	4.80	5.21	25.8	
Freon 114 (C2Cl2F4)	1,154,542	4.80	5.11	35.7	
Chloromethane	374,889	4.80	5.16	10.7	
Chloroethene (Vinyl chloride)	316,564	4.85	5.16	13.2	
1,3-Butadiene	283,186	5.10	5.36	11.9	
Bromomethane	366,684	4.85	5.07	19.7	
Chloroethane	168,614	4.80	4.88	12.9	
Bromoethene (Vinyl bromide)	340,056	5.15	5.66	24.7	
Freon 11 (CCl3F)	761,943	5.00	5.43	30.5	
Ethanol	173,174	5.25	5.56	10.5	
Acrolein	160,822	4.90	4.93	11.3	
Freon 113 (C2Cl3F3)	516,130	5.20	5.44	41.7	
1,1-Dichloroethene	668,395	5.25	5.61	22.2	
Acetone	737,139	5.30	5.25	12.5	
Carbon disulfide	1,140,857	5.25	5.44	16.9	
Isopropyl alcohol	878,765	5.55	6.07	14.9	
Allyl chloride (3-chloropropene)	158,480	5.35	5.86	18.3	
Acetonitrile	372,773	4.70	5.33	8.95	
Methylene chloride	628,494	5.15	4.73	16.4	
trans-1,2-Dichloroethene	584,576	5.15	5.47	21.7	
Methyl tert-butyl ether	976,274	5.15	5.40	19.5	
Acrylonitrile	297,257	5.00	5.43	11.8	
Hexane	561,610	5.20	5.56	19.6	
1,1-Dichloroethane	702,442	5.10	5.44	22.0	
Vinyl acetate	1,308,851	5.25	5.74	20.2	
cis-1,2-Dichloroethylene	590,700	5.20	5.54	22.0	m
Methyl ethyl ketone (2-Butanone)	185,276	5.20	5.62	16.6	
Ethyl acetate	150,817	5.20	5.14	18.5	
Chloroform	797,731	5.20	5.56	27.1	
Tetrahydrofuran	172,780	5.10	5.33	15.7	
1,1,1-Trichloroethane	745,160	5.00	5.43	29.6	
Cyclohexane	580,967	5.15	5.52	19.0	
Carbon tetrachloride	750,312	5.10	5.52	34.7	
Benzene	1,041,623	5.10	5.25	16.8	
2,2,4-trimethylpentane	1,736,692	5.20	5.58	26.1	
1,2-Dichloroethane	517,247	5.10	5.17	20.9	
Heptane	355,264	5.20	5.44	22.3	
Trichloroethene	495,125	5.10	5.26	28.3	
1,2-Dichloropropane	411,232	5.10	5.17	23.9	
Methyl methacrylate	407,972	5.05	5.35	21.9	
1,4-Dioxane	273,994	5.10	5.52	19.9	

MSD 032090

Sample Name	: 5ppbv TO15 ICAL
Sample Info	: can 10894, 125mL load
Data File	: L1403031.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 04:18:00
Instrument Method	: MM624-L
Matrix	: AIR

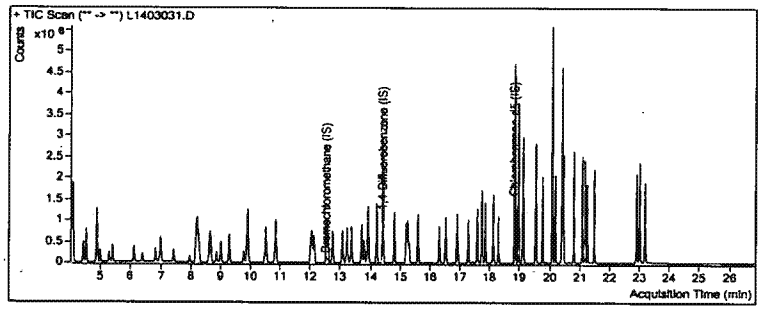
Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	927,005	5.10	5.36	35.9	
cis-1,3-Dichloropropene	646,541	5.30	5.49	24.9	
Methyl isobutyl ketone	1,118,187	5.00	5.28	21.6	
Toluene	1,157,134	5.15	5.43	20.5	
trans-1,3-Dichloropropene	672,180	5.40	5.80	26.3	
1,1,2-Trichloroethane	481,129	5.10	5.26	28.7	
Tetrachloroethene	665,777	5.00	5.28	35.8	
2-Hexanone (Methyl butyl ketone)	1,101,299	5.35	5.36	21.9	
Dibromochloromethane	924,646	5.10	5.47	46.6	
1,2-Dibromoethane	822,663	5.05	5.25	40.3	
Chlorobenzene	1,010,419	5.15	5.42	25.0	
Ethylbenzene	1,522,199	5.10	5.43	23.6	
1,1,1,2-Tetrachloroethane	550,693	5.25	6.01	41.2	
m-/p-Xylenes	2,305,165	9.90	10.6	45.8	
o-Xylene	1,186,573	5.15	5.40	23.4	
Styrene	988,267	5.10	5.41	23.0	
Bromoform	966,483	4.95	5.27	54.4	
1,1,2,2-Tetrachloroethane	1,142,286	5.15	5.43	37.3	
4-Ethyltoluene	1,661,808	5.05	5.24	25.8	
2-Chlorotoluene	1,310,368	5.15	5.84	30.2	
1,3,5-Trimethylbenzene	1,332,811	5.00	5.46	26.8	m
1,2,4-Trimethylbenzene	1,344,986	5.00	5.07	24.9	
1,3-Dichlorobenzene	1,053,944	5.10	5.28	31.7	
1,4-Dichlorobenzene	1,038,820	4.95	4.97	29.9	
Benzyl chloride	1,407,026	5.10	5.29	27.4	
1,2-Dichlorobenzene	976,660	5.00	5.03	30.3	
1,2,4-Trichlorobenzene	775,206	4.55	4.41	32.7	
Hexachlorobutadiene	496,380	4.65	4.27	45.6	
Naphthalene	1,754,264	4.85	4.41	23.1	

Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	468,978	12.55	11.03	PASS
1,4-Difluorobenzene (IS)	2,914,968	14.43	10.52	PASS
Chlorobenzene-d5 (IS)	2,824,682	18.83	11.20	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Quantitation Report Enthalpy Analytical, Inc.

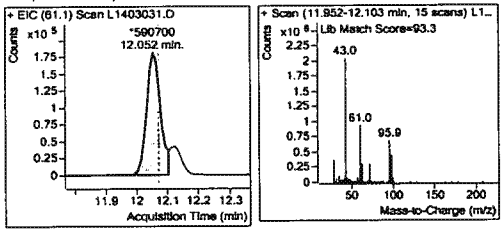
Sample Name	: 5ppbv TO15 ICAL
Sample Info	: can 10894, 125mL load
Data File	: L1403031.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 04:18:00
Instrument Method	: MM624-L
Matrix	: AIR



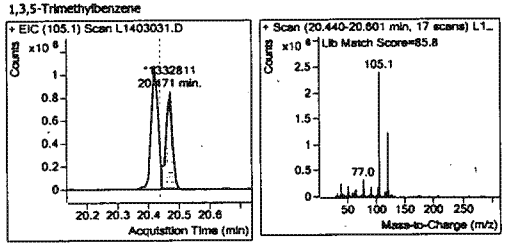
MSD 032091

Sample Name	: 5ppbv TO15 ICAL
Sample Info	: can 10894, 125mL load
Data File	: L1403031.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 04:18:00
Instrument Method	: MM624-L
Matrix	: AIR

cis-1,2-Dichloroethylene



1,3,5-Trimethylbenzene



Sample Name	: 10ppbv.TO15 ICAL
Sample Info	: can 10894, 250mL load
Data File	: L1403034.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 06:14:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	661,698	10.5	10.1	17.5	
Freon 12 (CCl2F2)	1,969,830	9.60	9.87	48.8	
Freon 114 (C2Cl2F4)	2,302,126	9.60	9.81	68.6	
Chloromethane	724,485	9.60	9.59	19.8	
Chloroethene (Vinyl chloride)	618,314	9.70	9.69	24.8	
1,3-Butadiene	551,901	10.2	10.1	22.2	
Bromomethane	728,873	9.70	9.69	37.6	
Chloroethane	336,220	9.60	9.36	24.7	
Bromoethene (Vinyl bromide)	683,039	10.3	10.9	47.8	
Freon 11 (CCl3F)	1,474,455	10.0	10.1	56.8	
Ethanol	317,181	10.5	9.79	18.4	
Acrolein	311,856	9.80	9.20	21.1	
Freon 113 (C2Cl3F3)	1,056,484	10.4	10.7	82.1	
1,1-Dichloroethene	1,333,981	10.5	10.8	42.7	
Acetone	1,431,467	10.6	9.80	23.3	
Carbon disulfide	2,289,192	10.5	10.5	32.7	
Isopropyl alcohol	1,588,841	11.1	10.6	26.0	
Allyl chloride (3-chloropropene)	311,022	10.7	11.1	34.6	
Acetonitrile	716,795	9.40	9.85	16.5	
Methylene chloride	1,137,347	10.3	8.23	28.6	
trans-1,2-Dichloroethene	1,148,333	10.3	10.3	41.0	
Methyl tert-butyl ether	1,925,453	10.3	10.2	36.9	
Acrylonitrile	596,836	10.0	10.5	22.8	
Hexane	1,103,753	10.4	10.5	37.0	
1,1-Dichloroethane	1,383,428	10.2	10.3	41.7	
Vinyl acetate	2,556,817	10.5	10.8	38.0	
cis-1,2-Dichloroethylene	1,197,438	10.4	10.8	42.8	m
Methyl ethyl ketone (2-Butanone)	362,753	10.4	10.6	31.2	
Ethyl acetate	300,953	10.4	9.87	35.6	
Chloroform	1,598,026	10.4	10.7	52.3	
Tetrahydrofuran	351,037	10.2	10.4	30.7	
1,1,1-Trichloroethane	1,489,892	10.0	10.4	57.0	
Cyclohexane	1,133,667	10.3	10.4	35.6	
Carbon tetrachloride	1,486,227	10.2	10.5	66.1	
Benzene	2,036,296	10.2	10.3	32.7	
2,2,4-trimethylpentane	3,476,836	10.4	11.2	52.1	
1,2-Dichloroethane	1,025,619	10.2	10.2	41.5	
Heptane	685,816	10.4	10.5	42.9	
Trichloroethene	976,294	10.2	10.4	55.7	
1,2-Dichloropropane	811,938	10.2	10.2	47.1	
Methyl methacrylate	797,489	10.1	10.4	42.8	
1,4-Dioxane	490,507	10.2	9.87	35.6	

MSD 032092

Quantitation Report

Enthalpy Analytical, Inc.

Sample Name	: 10ppbv TO15 ICAL
Sample Info	: can 10894, 250mL load
Data File	: L1403034.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 06:14:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	1,822,783	10.2	10.5	70.5	
cis-1,3-Dichloropropene	1,316,767	10.6	11.2	50.7	
Methyl isobutyl ketone	2,184,620	10.0	10.3	42.2	
Toluene	2,262,267	10.3	10.5	39.6	
trans-1,3-Dichloropropene	1,346,624	10.8	11.5	52.2	
1,1,2-Trichloroethane	961,658	10.2	10.4	56.7	
Tetrachloroethene	1,319,937	10.0	10.4	70.3	
2-Hexanone (Methyl butyl ketone)	2,144,629	10.7	10.3	42.3	
Dibromochloromethane	1,850,365	10.2	10.8	92.3	
1,2-Dibromoethane	1,646,990	10.1	10.4	80.0	
Chlorobenzene	1,991,937	10.3	10.6	48.7	
Ethylbenzene	2,900,033	10.2	10.2	44.5	
1,1,1,2-Tetrachloroethane	1,067,381	10.5	11.5	79.1	
m-/p-Xylenes	4,467,471	19.8	20.2	87.9	
o-Xylene	2,327,859	10.3	10.5	45.5	
Styrene	1,925,730	10.2	10.4	44.4	
Bromoform	1,935,014	9.90	10.4	108	
1,1,2,2-Tetrachloroethane	2,162,825	10.3	10.2	69.9	
4-Ethyltoluene	3,272,353	10.1	10.2	50.2	
2-Chlorotoluene	2,563,547	10.3	11.3	58.5	
1,3,5-Trimethylbenzene	2,489,234	10.0	10.1	49.6	m
1,2,4-Trimethylbenzene	2,577,187	10.0	9.61	47.3	
1,3-Dichlorobenzene	2,042,016	10.2	10.1	60.9	
1,4-Dichlorobenzene	2,052,694	9.90	9.73	58.5	m
Benzyl chloride	2,729,600	10.2	10.2	52.6	m
1,2-Dichlorobenzene	1,924,360	10.0	9.81	59.0	
1,2,4-Trichlorobenzene	1,598,040	9.10	9.00	66.8	
Hexachlorobutadiene	1,002,098	9.30	8.54	91.0	m
Naphthalene	3,610,673	9.70	8.98	47.1	

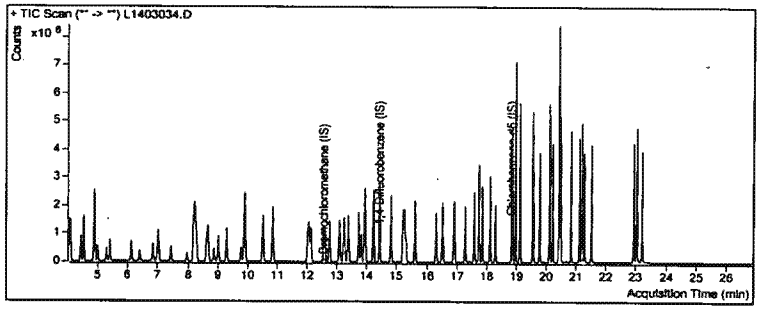
Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	487,592	12.55	11.03	PASS
1,4-Difluorobenzene (IS)	2,918,864	14.42	10.52	PASS
Chlorobenzene-d5 (IS)	2,853,697	18.84	11.20	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Quantitation Report

Enthalpy Analytical, Inc.

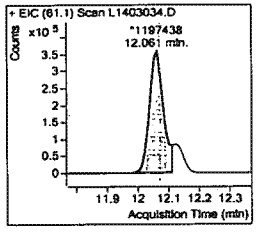
Sample Name	: 10ppbv TO15 ICAL
Sample Info	: can 10894, 250mL load
Data File	: L1403034.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 06:14:00
Instrument Method	: MM624-L
Matrix	: AIR

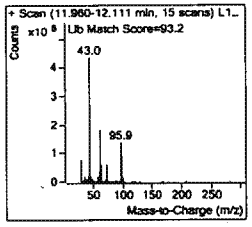


MSD 032093

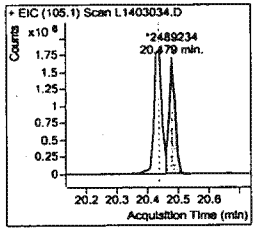
Sample Name	: 10ppbv TO15 ICAL
Sample Info	: can 10894, 250mL load
Data File	: L1403034.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 06:14:00
Instrument Method	: MM624-L
Matrix	: AIR

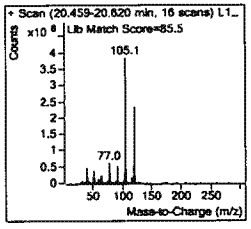
cis-1,2-Dichloroethylene



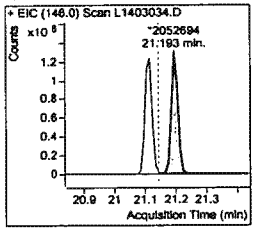


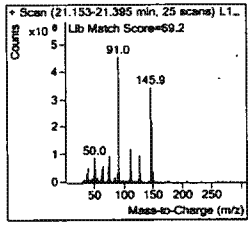
1,3,5-Trimethylbenzene





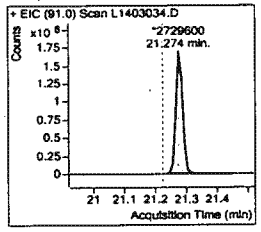
1,4-Dichlorobenzene

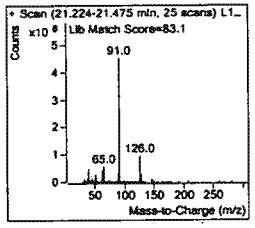




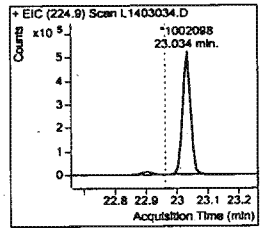
Sample Name	: 10ppbv TO15 ICAL
Sample Info	: can 10894, 250mL load
Data File	: L1403034.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 06:14:00
Instrument Method	: MM624-L
Matrix	: AIR

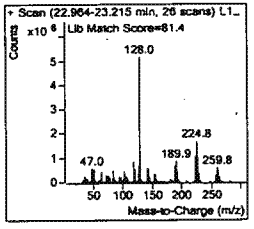
Benzyl chloride





Hexachlorobutadiene





MSD 032094

Sample Name : 30ppbv TO15 ICAL
Sample Info : can 10894, 750mL load
Data File : L1403035.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2014-09-11 07:01:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	1,889,186	31.5	28.5	49.1	
Freon 12 (CCl2F2)	5,597,287	28.8	27.6	137	
Freon 114 (C2Cl2F4)	6,342,044	28.8	26.6	186	
Chloromethane	2,040,524	28.8	26.6	54.9	
Chloroethene (Vinyl chloride)	1,804,334	29.1	27.8	71.2	
1,3-Butadiene	1,643,174	30.6	29.5	65.2	
Bromomethane	2,080,908	29.1	27.2	106	
Chloroethane	992,738	28.8	27.2	71.8	
Bromoethene (Vinyl bromide)	1,945,570	30.9	30.7	134	
Freon 11 (CCl3F)	4,292,190	30.0	29.0	163	
Ethanol	936,676	31.5	28.5	53.7	
Acrolein	965,602	29.4	28.1	64.3	
Freon 113 (C2Cl3F3)	3,037,807	31.2	30.3	233	
1,1-Dichloroethene	3,812,634	31.5	30.3	120	
Acetone	4,205,137	31.8	28.4	67.4	
Carbon disulfide	6,538,840	31.5	29.5	91.9	
Isopropyl alcohol	4,342,996	33.3	28.4	69.9	
Allyl chloride (3-chloropropene)	914,777	32.1	32.0	100	
Acetonitrile	2,135,783	28.2	28.9	48.6	
Methylene chloride	3,125,338	30.9	22.3	77.3	
trans-1,2-Dichloroethene	3,279,795	30.9	29.1	115	
Methyl tert-butyl ether	5,623,411	30.9	29.5	106	
Acrylonitrile	1,784,228	30.0	30.9	67.0	
Hexane	3,211,174	31.2	30.1	106	
1,1-Dichloroethane	3,970,539	30.6	29.1	118	
Vinyl acetate	7,246,388	31.5	30.1	106	
cis-1,2-Dichloroethylene	3,372,249	31.2	30.0	119	m
Methyl ethyl ketone (2-Butanone)	1,065,570	31.2	30.6	90.4	
Ethyl acetate	859,204	31.2	27.8	100	
Chloroform	4,634,192	31.2	30.6	149	
Tetrahydrofuran	1,034,665	30.6	30.3	89.2	
1,1,1-Trichloroethane	4,331,405	30.0	29.9	163	
Cyclohexane	3,261,772	30.9	29.3	101	
Carbon tetrachloride	4,386,329	30.6	30.6	192	
Benzene	5,910,345	30.6	29.3	93.7	
2,2,4-trimethylpentane	9,538,678	31.2	30.2	141	
1,2-Dichloroethane	3,047,568	30.6	30.0	122	
Heptane	1,919,556	31.2	28.9	119	
Trichloroethene	2,880,169	30.6	30.1	162	
1,2-Dichloropropane	2,271,845	30.6	28.1	130	
Methyl methacrylate	2,278,518	30.3	29.4	120	
1,4-Dioxane	1,349,731	30.6	26.8	96.5	

Quantitation Report Enthalpy Analytical, Inc.

Sample Name : 30ppbv TO15 ICAL
Sample Info : can 10894, 750mL load
Data File : L1403035.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2014-09-11 07:01:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	5,292,191	30.6	30.1	202	
cis-1,3-Dichloropropene	3,756,524	31.8	31.4	143	
Methyl isobutyl ketone	6,114,459	30.0	28.5	117	
Toluene	6,577,461	30.9	29.8	112	
trans-1,3-Dichloropropene	3,883,150	32.4	32.4	147	
1,1,2-Trichloroethane	2,726,335	30.6	28.8	157	
Tetrachloroethene	3,773,952	30.0	29.0	196	
2-Hexanone (Methyl butyl ketone)	5,824,147	32.1	27.4	112	
Dibromochloromethane	5,207,476	30.6	29.8	254	
1,2-Dibromoethane	4,636,963	30.3	28.6	220	
Chlorobenzene	5,568,813	30.9	28.9	133	
Ethylbenzene	7,317,195	30.6	25.2	110	
1,1,1,2-Tetrachloroethane	2,838,080	31.5	29.9	205	
m-/p-Xylenes	11,632,650	59.4	51.5	224	
o-Xylene	6,210,578	30.9	27.3	119	
Styrene	5,308,791	30.6	28.1	120	
Bromoform	5,405,027	29.7	28.5	294	
1,1,2,2-Tetrachloroethane	5,746,080	30.9	26.4	181	
4-Ethyltoluene	7,852,770	30.3	23.9	118	
2-Chlorotoluene	6,108,880	30.9	26.3	136	
1,3,5-Trimethylbenzene	6,516,660	30.0	25.8	127	m
1,2,4-Trimethylbenzene	6,985,178	30.0	25.4	125	
1,3-Dichlorobenzene	5,714,465	30.6	27.7	166	
1,4-Dichlorobenzene	5,707,859	29.7	26.4	159	m
Benzyl chloride	7,562,669	30.6	27.5	142	
1,2-Dichlorobenzene	5,351,936	30.0	26.7	160	
1,2,4-Trichlorobenzene	4,714,673	27.3	25.9	193	
Hexachlorobutadiene	2,897,441	27.9	24.1	257	m
Naphthalene	10,376,250	29.1	25.2	132	

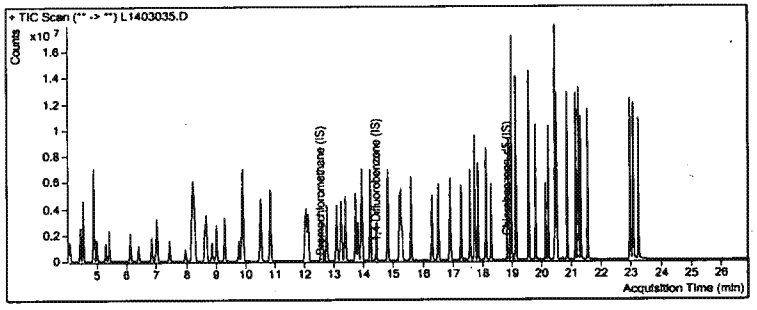
Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	495,044	12.55	11.03	PASS
1,4-Difluorobenzene (IS)	2,959,418	14.43	10.52	m PASS
Chlorobenzene-d5 (IS)	2,921,511	18.85	11.20	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Quantitation Report

Enthalpy Analytical, Inc.

Sample Name	: 30ppbv TO15 ICAL
Sample Info	: can 10894, 750mL load
Data File	: L1403035.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 07:01:00
Instrument Method	: MM624-L
Matrix	: AIR

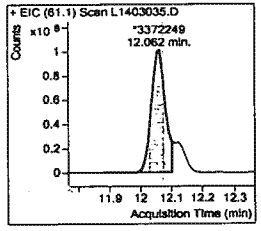


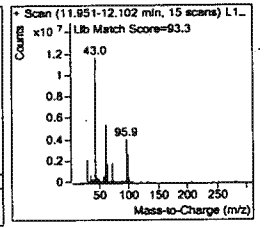
Quantitation Report

Enthalpy Analytical, Inc.

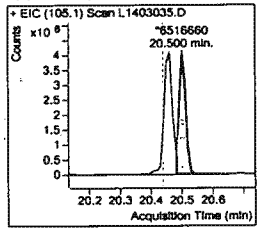
Sample Name	: 30ppbv TO15 ICAL
Sample Info	: can 10894, 750mL load
Data File	: L1403035.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 07:01:00
Instrument Method	: MM624-L
Matrix	: AIR

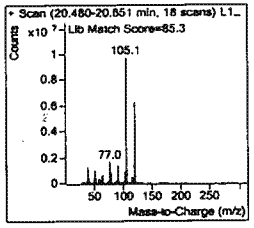
cis-1,2-Dichloroethylene



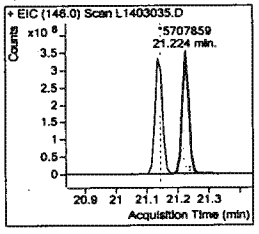


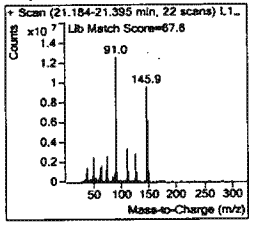
1,3,5-Trimethylbenzene





1,4-Dichlorobenzene



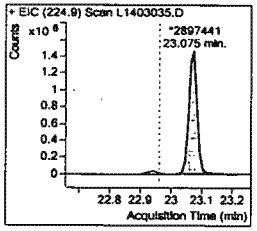


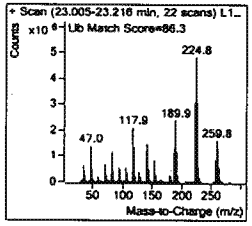
Quantitation Report

Enthalpy Analytical, Inc.

Sample Name	: 30ppbv TO15 ICAL
Sample Info	: can 10894, 750mL load
Data File	: L1403035.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 07:01:00
Instrument Method	: MM624-L
Matrix	: AIR

Hexachlorobutadiene





ICV Summary Report

Enthalpy Analytical, Inc.

Sample Name	: 5ppbv TO15 ICV
Sample Info	: Can 10894, 125mL load
Data File	: L1403042.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 15:35:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
Propylene	320,599	4.93	5.25	93.9	PASS
Freon 12 (CCl2F2)	927,766	4.66	4.80	97.1	PASS
Freon 114 (C2Cl2F4)	1,113,100	4.75	4.80	99.0	PASS
Chloromethane	349,667	4.64	4.80	96.7	PASS
Chloroethene (Vinyl chloride)	297,602	4.67	4.85	96.4	PASS
1,3-Butadiene	269,816	4.93	5.10	96.6	PASS
Bromomethane	347,335	4.63	4.85	95.4	PASS
Chloroethane	163,480	4.56	4.80	95.0	PASS
Bromoethene (Vinyl bromide)	320,396	5.14	5.15	99.8	PASS
Freon 11 (CCl3F)	713,143	4.90	5.00	98.1	PASS
Ethanol	181,336	5.61	5.25	106.9	PASS
Acrolein	157,005	4.64	4.90	94.7	PASS
Freon 113 (C2Cl3F3)	496,289	5.05	5.20	97.0	PASS
1,1-Dichloroethene	629,144	5.09	5.25	96.9	PASS
Acetone	723,582	4.97	5.30	93.7	PASS
Carbon disulfide	1,171,736	5.38	5.25	102.5	PASS
Isopropyl alcohol	853,168	5.69	5.55	102.4	PASS
Allyl chloride (3-chloropropene)	155,596	5.54	5.35	103.6	PASS
Acetonitrile	313,395	4.32	4.70	91.9	PASS
Methylene chloride	596,126	4.32	5.15	83.9	PASS
trans-1,2-Dichloroethene	559,599	5.05	5.15	98.1	PASS
Methyl tert-butyl ether	931,257	4.97	5.15	96.4	PASS
Acrylonitrile	278,572	4.91	5.00	98.2	PASS
Hexane	531,105	5.07	5.20	97.5	PASS
1,1-Dichloroethane	664,594	4.97	5.10	97.4	PASS
Vinyl acetate	1,240,421	5.24	5.25	99.9	PASS
cis-1,2-Dichloroethylene	550,544	4.98	5.20	95.8	PASS
Methyl ethyl ketone (2-Butanone)	177,392	5.19	5.20	99.8	PASS
Ethyl acetate	145,814	4.79	5.20	92.2	PASS
Chloroform	762,217	5.12	5.20	98.5	PASS
Tetrahydrofuran	167,158	4.98	5.10	97.6	PASS
1,1,1-Trichloroethane	694,642	4.88	5.00	97.7	PASS
Cyclohexane	554,685	5.08	5.15	98.6	PASS
Carbon tetrachloride	700,964	4.97	5.10	97.5	PASS
Benzene	984,136	5.01	5.10	98.3	PASS
2,2,4-trimethylpentane	1,664,830	5.40	5.20	103.9	PASS
1,2-Dichloroethane	491,746	4.97	5.10	97.5	PASS
Heptane	323,975	5.01	5.20	96.3	PASS
Trichloroethene	453,883	4.87	5.10	95.6	PASS
1,2-Dichloropropane	388,419	4.93	5.10	96.7	PASS
Methyl methacrylate	382,714	5.07	5.05	100.4	PASS
1,4-Dioxane	265,730	5.41	5.10	106.1	PASS

ICV Summary Report

Enthalpy Analytical, Inc.

Sample Name : 5ppbv TO15 ICV
Sample Info : Can 10894, 125mL load
Data File : L1403042.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2014-09-11 15:35:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Response	Concentration (PPBV)	Tag Value (PPBV)	% Recovery	Flag
Bromodichloromethane	861,943	5.04	5.10	98.8	PASS
cis-1,3-Dichloropropene	614,767	5.28	5.30	99.6	PASS
Methyl isobutyl ketone	1,099,605	5.25	5.00	105.0	PASS
Toluene	1,083,992	5.05	5.15	98.1	PASS
trans-1,3-Dichloropropene	634,157	5.44	5.40	100.7	PASS
1,1,2-Trichloroethane	457,151	4.96	5.10	97.3	PASS
Tetrachloroethene	624,494	4.92	5.00	98.5	PASS
2-Hexanone (Methyl butyl ketone)	1,080,439	5.22	5.35	97.6	PASS
Dibromochloromethane	859,114	5.05	5.10	99.0	PASS
1,2-Dibromoethane	783,837	4.97	5.05	98.4	PASS
Chlorobenzene	930,336	4.96	5.15	96.3	PASS
Ethylbenzene	1,420,955	5.04	5.10	98.7	PASS
1,1,1,2-Tetrachloroethane	522,069	5.66	5.25	107.7	PASS
m-/p-Xylenes	2,148,781	9.77	9.90	98.7	PASS
o-Xylene	1,101,575	4.98	5.15	96.6	PASS
Styrene	882,078	4.80	5.10	94.0	PASS
Bromoform	905,055	4.90	4.95	98.9	PASS
1,1,2,2-Tetrachloroethane	1,061,548	5.01	5.15	97.4	PASS
4-Ethyltoluene	1,616,495	5.06	5.05	100.2	PASS
2-Chlorotoluene	1,262,888	5.59	5.15	108.5	PASS
1,3,5-Trimethylbenzene	1,147,119	4.67	5.00	93.3	PASS
1,2,4-Trimethylbenzene	1,255,143	4.70	5.00	93.9	PASS
1,3-Dichlorobenzene	969,032	4.82	5.10	94.6	PASS
1,4-Dichlorobenzene	972,799	4.63	4.95	93.5	PASS
Benzyl chloride	1,281,040	4.78	5.10	93.8	PASS
1,2-Dichlorobenzene	894,143	4.58	5.00	91.5	PASS
1,2,4-Trichlorobenzene	680,228	3.85	4.55	84.5	PASS
Hexachlorobutadiene	450,840	3.85	4.65	82.9	PASS
Naphthalene	1,557,303	3.89	4.85	80.2	PASS

Quantitation Report

Enthalpy Analytical, Inc.

Sample Name : 5ppbv TO15 ICV
Sample Info : Can 10894, 125mL load
Data File : L1403042.D
Dilution : 1
Pressurization Factor : 1.000
Acquisition Date : 2014-09-11 11:35:00
Instrument Method : MM624-L
Matrix : AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Propylene	320,599	5.25	4.93	8.48	
Freon 12 (CCl2F2)	927,766	4.80	4.66	23.0	
Freon 114 (C2Cl2F4)	1,113,100	4.80	4.75	33.2	
Chloromethane	349,667	4.80	4.64	9.58	
Chloroethene (Vinyl chloride)	297,602	4.85	4.67	11.9	
1,3-Butadiene	269,816	5.10	4.93	10.9	
Bromomethane	347,335	4.85	4.63	18.0	
Chloroethane	163,480	4.80	4.56	12.0	
Bromoethene (Vinyl bromide)	320,396	5.15	5.14	22.5	
Freon 11 (CCl3F)	713,143	5.00	4.90	27.6	
Ethanol	181,336	5.25	5.61	10.6	
Acrolein	157,005	4.90	4.64	10.6	
Freon 113 (C2Cl3F3)	496,289	5.20	5.05	38.7	
1,1-Dichloroethene	629,144	5.25	5.09	20.2	
Acetone	723,582	5.30	4.97	11.8	
Carbon disulfide	1,171,736	5.25	5.38	16.8	
Isopropyl alcohol	853,168	5.55	5.69	14.0	
Allyl chloride (3-chloropropene)	155,596	5.35	5.54	17.4	
Acetonitrile	313,395	4.70	4.32	7.25	
Methylene chloride	596,126	5.15	4.32	15.0	
trans-1,2-Dichloroethene	559,599	5.15	5.05	20.0	
Methyl tert-butyl ether	931,257	5.15	4.97	17.9	
Acrylonitrile	278,572	5.00	4.91	10.7	
Hexane	531,105	5.20	5.07	17.9	
1,1-Dichloroethane	664,594	5.10	4.97	20.1	
Vinyl acetate	1,240,421	5.25	5.24	18.5	
cis-1,2-Dichloroethylene	550,544	5.20	4.98	19.8	m
Methyl ethyl ketone (2-Butanone)	177,392	5.20	5.19	15.3	
Ethyl acetate	145,814	5.20	4.79	17.3	
Chloroform	762,217	5.20	5.12	25.0	
Tetrahydrofuran	167,158	5.10	4.98	14.7	
1,1,1-Trichloroethane	694,642	5.00	4.88	26.6	
Cyclohexane	554,685	5.15	5.08	17.5	
Carbon tetrachloride	700,964	5.10	4.97	31.3	
Benzene	984,136	5.10	5.01	16.0	
2,2,4-trimethylpentane	1,664,830	5.20	5.40	25.2	
1,2-Dichloroethane	491,746	5.10	4.97	20.1	
Heptane	323,975	5.20	5.01	20.5	
Trichloroethene	453,883	5.10	4.87	26.2	
1,2-Dichloropropane	388,419	5.10	4.93	22.8	
Methyl methacrylate	382,714	5.05	5.07	20.8	
1,4-Dioxane	265,730	5.10	5.41	19.5	

MSD 032098

Quantitation Report

Enthalpy Analytical, Inc.

Sample Name	: 5ppbv TO15 ICV
Sample Info	: Can 10894, 125mL load
Data File	: L1403042.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 11:35:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Bromodichloromethane	861,943	5.10	5.04	33.8	
cis-1,3-Dichloropropene	614,767	5.30	5.28	24.0	
Methyl isobutyl ketone	1,099,605	5.00	5.25	21.5	
Toluene	1,083,992	5.15	5.05	19.0	
trans-1,3-Dichloropropene	634,157	5.40	5.44	24.7	
1,1,2-Trichloroethane	457,151	5.10	4.96	27.1	
Tetrachloroethene	624,494	5.00	4.92	33.4	
2-Hexanone (Methyl butyl ketone)	1,080,439	5.35	5.22	21.4	
Dibromochloromethane	859,114	5.10	5.05	43.0	
1,2-Dibromoethane	783,837	5.05	4.97	38.2	
Chlorobenzene	930,336	5.15	4.96	22.8	
Ethylbenzene	1,420,955	5.10	5.04	21.9	
1,1,1,2-Tetrachloroethane	522,069	5.25	5.66	38.8	
m-/p-Xylenes	2,148,781	9.90	9.77	42.4	
o-Xylene	1,101,575	5.15	4.98	21.6	
Styrene	882,078	5.10	4.80	20.4	
Bromoform	905,055	4.95	4.90	50.6	
1,1,2,2-Tetrachloroethane	1,061,548	5.15	5.01	34.4	
4-Ethyltoluene	1,616,495	5.05	5.06	24.9	
2-Chlorotoluene	1,262,888	5.15	5.59	28.9	
1,3,5-Trimethylbenzene	1,147,119	5.00	4.67	22.9	m
1,2,4-Trimethylbenzene	1,255,143	5.00	4.70	23.1	
1,3-Dichlorobenzene	969,032	5.10	4.82	29.0	
1,4-Dichlorobenzene	972,799	4.95	4.63	27.8	m
Benzyl chloride	1,281,040	5.10	4.78	24.8	
1,2-Dichlorobenzene	894,143	5.00	4.58	27.5	
1,2,4-Trichlorobenzene	680,228	4.55	3.85	28.5	
Hexachlorobutadiene	450,840	4.65	3.85	41.1	m
Naphthalene	1,557,303	4.85	3.89	20.4	

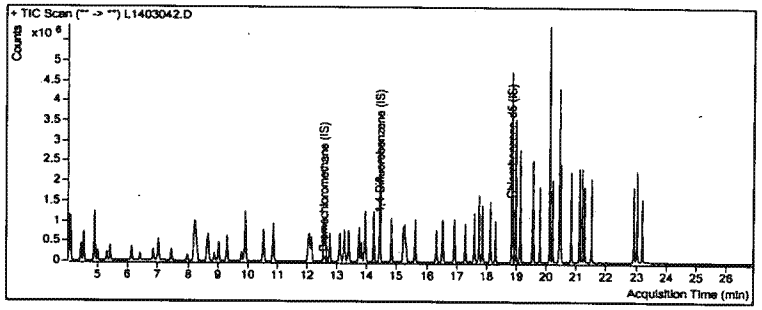
Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
Bromochloromethane (IS)	486,368	12.57	11.03	PASS
1,4-Difluorobenzene (IS)	2,884,489	14.44	10.52	PASS
Chlorobenzene-d5 (IS)	2,843,895	18.84	11.20	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Quantitation Report

Enthalpy Analytical, Inc.

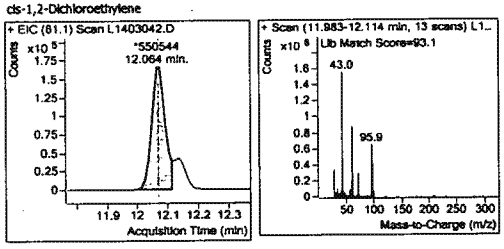
Sample Name	: 5ppbv TO15 ICV
Sample Info	: Can 10894, 125mL load
Data File	: L1403042.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 11:35:00
Instrument Method	: MM624-L
Matrix	: AIR



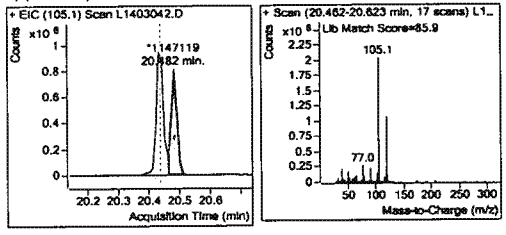
MSD 032099

Sample Name	: 5ppbv TO15 ICV
Sample Info	: Can 10894, 125mL load
Data File	: L1403042.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 11:35:00
Instrument Method	: MM624-L
Matrix	: AIR

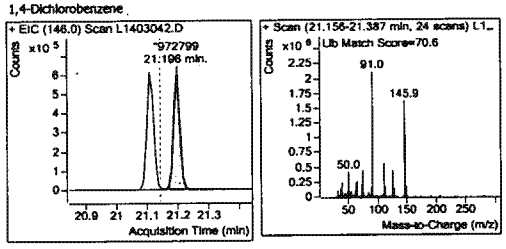
cis-1,2-Dichloroethylene



1,3,5-Trimethylbenzene

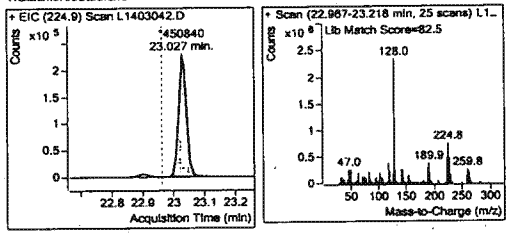


1,4-Dichlorobenzene



Sample Name	: 5ppbv TO15 ICV
Sample Info	: Can 10894, 125mL load
Data File	: L1403042.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2014-09-11 11:35:00
Instrument Method	: MM624-L
Matrix	: AIR

Hexachlorobutadiene



ConCal Summary Report

Enthalpy Analytical, Inc.

Sample Name	: 5ppbv TO15 CCV
Sample Info	: 125mL; Can #10891
Data File	: L1501256.D
Dilution	: N/A
Pressurization Factor	: N/A
Acquisition Date	: 2015-03-31 12:14:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	RF	Average RF	% Difference	Flag
Benzene	1,019,141	0.710	0.716	-0.8	PASS

Quantitation Report

Enthalpy Analytical, Inc.

Sample Name	: 5ppbv TO15 CCV
Sample Info	: 125mL; Can #10891
Data File	: L1501256.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2015-03-31 12:14:00
Instrument Method	: MM624-L
Matrix	: AIR

Target Compound	Response	Tag Value (PPBV)	Concentration (PPBV)	Concentration (ug/m3)	Flag *
Benzene	1,019,141		5.11	16.3	

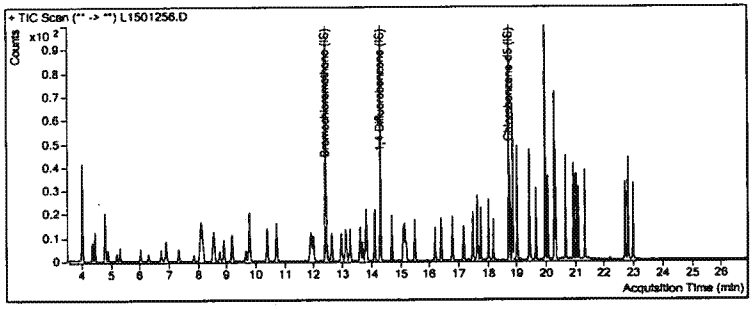
Internal Standards	Response	Retention Time (min)	Concentration (PPBV)	Flag *
1,4-Difluorobenzene (IS)	2,931,569	14.31	10.52	PASS

(ND) = Not Detected
*** (J) = Below Calibration Range, (E) = Above Calibration Range, (m) = Manual Integration**
IS Acceptance Criteria: RT +/- 20 sec, Response +/- 40%

Quantitation Report

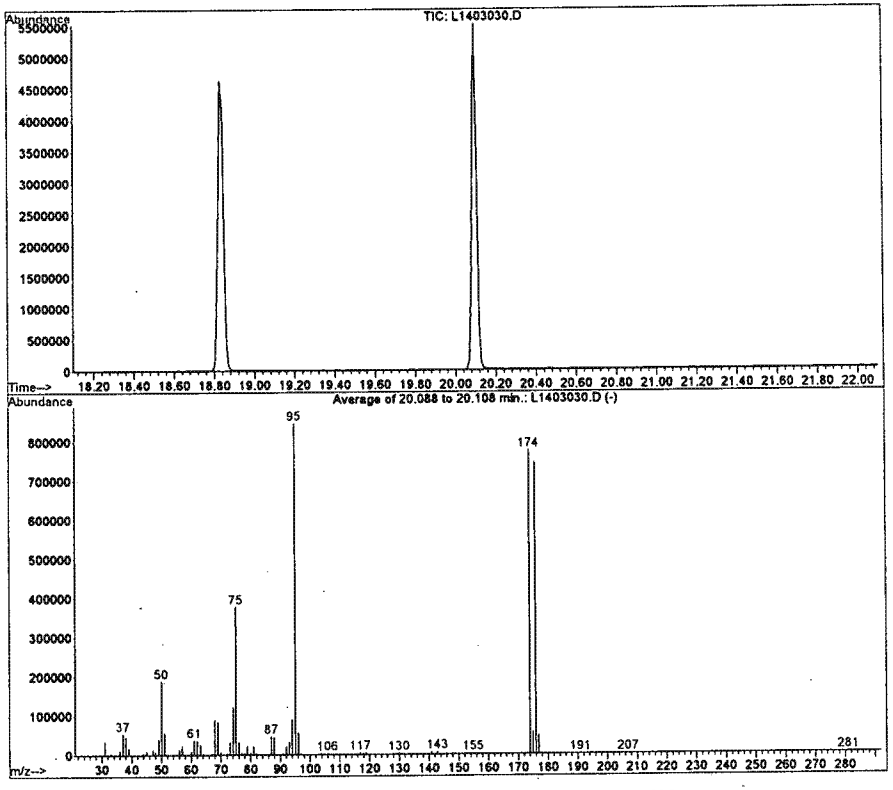
Enthalpy Analytical, Inc.

Sample Name	: 5ppbv TO15 CCV
Sample Info	: 125mL; Can #10891
Data File	: L1501256.D
Dilution	: 1
Pressurization Factor	: 1.000
Acquisition Date	: 2015-03-31 12:14:00
Instrument Method	: MM624-L
Matrix	: AIR



BFB

Data File : M:\MS2014Q3\LURCH\DATA\SEP14\L091114A\L1403030.D Vial: 4
Acq On : 11 Sep 2014 7:40 am Operator: TDD
Sample : BFB Inst : Lurch
Misc : 50mL load Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MS2014\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359



AutoFind: Scans 1596, 1597, 1598; Background Corrected with Scan 1590

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	22.2	187846	PASS
75	95	30	66	44.6	377749	PASS
95	95	100	100	100.0	847083	PASS
96	95	5	9	6.6	56184	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.5	775339	PASS
175	174	4	9	7.2	55557	PASS
176	174	93	101	96.1	744747	PASS
177	176	5	9	6.4	47768	PASS

L1403030.D L091114A.M Fri Nov 21 [illegible]

Average of 20.088 to 20.108 min.: L1403030.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
31.00	34465	44.00	4515	56.00	12819	66.05	204
32.00	285	45.05	8806	57.00	22954	67.10	2729
33.05	3782	46.15	567	58.00	798	68.00	88645
34.00	84	47.05	13160	58.65	273	69.00	84053
36.05	10893	48.00	6054	60.00	7853	70.00	6427
37.05	54520	49.05	39347	61.05	37315	71.00	423
38.05	45099	50.00	187846	62.05	35728	72.00	4209
39.05	17196	51.05	56269	63.05	25729	73.05	32243
40.05	453	52.05	2285	64.05	2258	74.05	121651
41.90	57	53.00	93	64.95	256	75.05	377749
43.00	355	55.00	2321	65.80	39	76.05	31856

Average of 20.088 to 20.108 min.: L1403030.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
77.00	5608	86.95	46752	103.90	3268	116.90	4589
77.95	4501	87.95	44443	104.90	1212	117.90	2485
78.90	22424	89.70	104	105.90	3347	118.85	3591
79.90	5420	90.90	2733	106.85	973	119.85	107
80.90	21778	92.00	20327	109.90	327	121.90	251
81.95	4043	93.00	32237	110.95	544	122.80	231
82.95	413	94.00	90365	111.90	382	123.90	486
83.85	47	95.05	847083	112.80	467	124.90	296
84.25	33	96.05	56184	113.90	38	125.85	255
84.55	34	97.00	1570	114.90	830	126.90	308
86.05	758	102.85	425	115.90	2501	127.90	2765

Average of 20.088 to 20.108 min.: L1403030.D
BFB
Modified:subtracted

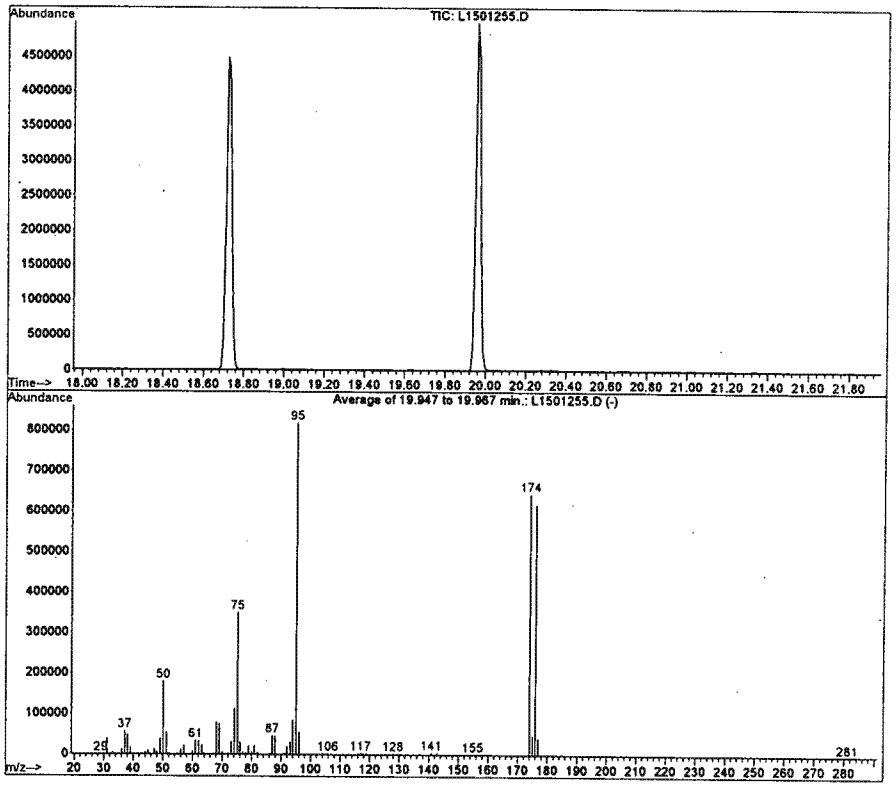
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.90	1290	139.00	103	149.90	721	161.60	35
129.90	2852	140.00	785	150.90	36	169.90	90
130.85	1144	140.90	6074	151.90	411	171.95	337
131.85	167	141.85	674	152.90	650	173.90	775339
133.00	118	142.85	6248	153.90	476	174.90	55557
133.95	225	143.90	531	154.85	2012	175.90	744747
134.90	1201	144.90	518	155.85	341	176.90	47768
135.90	287	145.90	1310	156.90	1362	177.90	1368
136.90	1151	146.90	565	157.95	143	190.40	34
138.10	65	147.90	1895	158.85	872	190.85	40
138.75	410	148.85	626	160.80	795	206.95	134

Average of 20.088 to 20.108 min.: L1403030.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
281.00	122						
282.00	47						

BFB

Data File : M:\MS2015Q1\LURCH\DATA\MAR15\L033115A\L1501255.D Vial: 1
Acq On : 31 Mar 2015 11:21 am Operator: TDD
Sample : BFB Inst : Lurch
Misc : 50mL; Can #10892 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MS2015\METHODS\L091114A.M (RTE Integrator)
Title : TO15 - 72 TCL - Primary "A" w/IS cyl - CC117359



AutoFind: Scans 1631, 1632, 1633; Background Corrected with Scan 1625

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	22.0	180099	PASS
75	95	30	66	42.8	350229	PASS
95	95	100	100	100.0	818368	PASS
96	95	5	9	6.8	55480	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	78.7	644437	PASS
175	174	4	9	7.4	47533	PASS
176	174	93	101	95.8	617579	PASS
177	176	5	9	6.7	41293	PASS

L1501255.D L091114A.M Wed Apr 01 10:05:27 2015

Average of 19.947 to 19.967 min.: L1501255.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
29.05	2	44.05	4508	55.00	1945	66.10	227
31.05	38672	45.00	9196	56.05	12195	67.10	1523
32.05	966	46.15	214	57.05	21928	68.05	80051
33.05	4535	47.05	13025	58.00	980	69.05	76561
34.05	35	48.00	6156	59.00	115	70.00	5510
36.05	11558	49.10	38131	60.00	7483	71.05	192
37.10	57053	50.10	180099	61.00	34085	72.00	3956
38.10	47285	51.10	54067	62.10	32376	73.05	30773
39.05	17446	52.05	2263	63.10	23341	74.10	113963
40.00	527	53.00	82	64.05	2227	75.10	350229
43.05	422	54.15	51	65.00	237	76.05	30032

Average of 19.947 to 19.967 min.: L1501255.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
77.05	5247	87.95	45280	105.90	3256	120.00	102
78.00	4209	90.95	2923	106.90	886	121.85	147
78.95	21874	92.05	19707	109.95	375	122.90	237
80.00	6084	93.05	30195	110.95	510	123.90	426
80.95	22502	94.00	84744	111.85	365	124.95	263
81.90	4503	95.05	818368	112.85	480	125.90	336
83.00	354	96.10	55480	114.90	859	126.95	270
84.70	36	97.05	1589	115.95	2521	127.95	2960
85.10	43	102.90	439	116.95	4144	128.90	1316
86.05	1235	103.95	3191	117.90	2675	129.90	2770
87.00	46659	104.95	1202	118.90	3620	130.95	1127

Average of 19.947 to 19.967 min.: L1501255.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.90	118	140.90	5753	152.90	527	170.35	42
133.00	57	141.95	962	153.90	393	171.05	153
133.80	56	142.90	5675	154.90	1562	171.95	120
134.00	84	143.85	440	155.80	54	173.95	644437
134.90	1051	144.90	458	156.00	199	174.95	47533
135.90	281	145.95	1082	156.95	1190	175.90	617579
136.95	1126	146.85	440	158.00	138	176.90	41293
137.90	111	147.95	1631	158.90	714	177.95	1192
138.75	58	148.90	448	159.85	44	281.05	63
139.00	308	149.95	654	160.90	630		
139.95	293	151.95	312	170.00	57		

TOPLEVEL PARAMETERS

Method Information For: C:\MS2013\METHODS\MM624-L.M

Method Sections To Run:

( ) Save Copy of Method With Data
(X) Pre-Run Cmd/Macro = MPVGotoVialDDE
(X) Data Acquisition
( ) Data Analysis
( ) Post-Run Cmd/Macro = MACRO "POSTMSD" .GO

Method Comments:
This is the acquisition method for Method TO-14 with Toluene-d8 as the internal standard being used to quantitate analytes.

END OF TOPLEVEL PARAMETERS

INSTRUMENT CONTROL PARAMETERS

Sample Inlet: CC
Injection Source: External Device
Injection Location: Rear
Mass Spectrometer: Enabled

HP5890 Temperature Parameters

Zone Temperatures:	State	Setpoint
Inlet A:	On	250 C
Inlet B:	Off	50 C
Detector A:	Off	50 C
Detector B:	On	200 C
Auxiliary:	Off	50 C

Oven Parameters:
Oven Equib Time: 0.20 minutes
Oven Max: 325 C
Oven State: On
Cryo State: On
Cryo Blast: On
Ambient: 25 C

Oven Program:
Initial Temperature: 30 C
Initial Time: 3.00 minutes

Level	Rate (C/minute)	Final Temperature (C)	Final Time (minutes)
1	5.0	75	0.00
2(A)	15.0	120	2.00
3(B)	70.0	240	8.00

Next Run Time: 26.71 minutes

HP5890 Inlet Temperature Programs

Inlet A:
Oven Tracking: Off
Inlet Zone: On
Initial Temperature: 250 C
Initial Time: 480.00 minutes

Level	Rate (C/minute)	Final Temperature (C)	Final Time (minutes)

MSD 032104

1	0	50	0.00
2(A)	0	50	0.00
3(B)	0	50	0.00

Total Program Time: 480.00 minutes

Inlet B:

Oven Tracking: Off
Inlet Zone: Off
Initial Temperature: 50 C
Initial Time: 650.00 minutes

Level	Rate (C/minute)	Final Temperature (C)	Final Time (minutes)
1	0	50	0.00
2(A)	0	50	0.00
3(B)	0	50	0.00

Total Program Time: 650.00 minutes

HP5890 Inlet Pressure Programs

GC Pressure Units: psi

Inlet A:

Constant Flow: On
Constant Flow Pressure: 8.7 psi
Constant Flow Temperature: 35 C
Initial Pressure: 0.0 psi
Initial Time: 650.00 minutes

Level	Rate (psi/minute)	Final Pressure (psi)	Final Time (minutes)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00 minutes

Column Length: 60.00 m
Column Diameter: 0.320 mm
Gas: He
Vacuum Compensation: On

Inlet B:

Constant Flow: Off
Constant Flow Pressure: 0.0 psi
Constant Flow Temperature: 50 C
Initial Pressure: 0.0 psi
Initial Time: 650.00 minutes

Level	Rate (psi/minute)	Final Pressure (psi)	Final Time (minutes)
1	0.00	0.0	0.00
2(A)	0.00	0.0	0.00
3(B)	0.00	0.0	0.00

Total Program Time: 650.00 minutes

Column Length: 30.00 m
Column Diameter: 0.530 mm
Gas: He
Vacuum Compensation: Off

HP5890 Packed Column Flow Control

Inlet A not used to control packed column flow.

Inlet B not used to control packed column flow.

HP5890 Purge Valve Settings

Inlet Purge	Init Value	On Time	Off Time	Splitless Injection
A	Off	0.00	0.00	Yes

B	Off	0.00	0.00	Yes

HP5890 Valve and Relay Information

Initial Setpoints:

5890 Valves:
Valve 1: Off Valve 2: Off Valve 3: Off Valve 4: Off
19405 Valves:
Valve 5: Off Valve 6: Off Valve 7: Off Valve 8: Off
19405 Relays:
Relay 1: Off Relay 2: Off Relay 3: Off Relay 4: Off

HP5890 Detector Information

Detector	Type	State
A	---	Off
B	---	Off

HP5890 Signal Information

Not saving signal data.

Signal	Source	Peak Width	Data Rate	Start Data	Stop Data
1	Testplot	0.053	5.000	0.00	1.00
2	Testplot	0.053	5.000	0.00	1.00

MS ACQUISITION PARAMETERS

General Information
------- -----------

Tune File : bfb.u
Acquistion Mode : Scan

MS Information
-- -----------

Solvent Delay : 4.12 min

EM Absolute : False
EM Offset : 0
Resulting EM Voltage : 1752.9

[Scan Parameters]

Low Mass : 29
High Mass : 300
Threshold : 100
Sample # : 3 A/D Samples 8

END OF MS ACQUISITION PARAMETERS

END OF INSTRUMENT CONTROL PARAMETERS

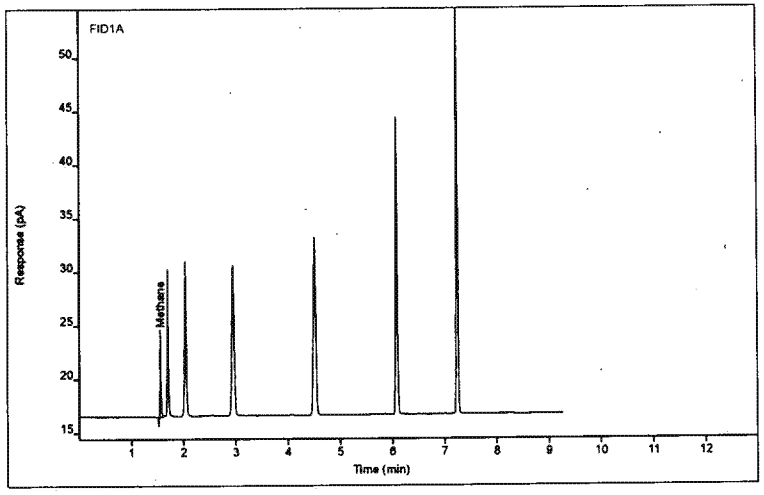
MSD 032105

Raw Data

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)	Sample Type	Calibration
Sequence Name	EDITHP233B ver.3	Vial Number	Vial 2
Data File	002F0401.D	Injection Volume	250
File Location	GC/2015/Edith/Quarter 1	Injection	1 of 3
Injection Date	4/3/2015 1:39 AM	Acquisition Method	GC139P039_HRVOC.M
File Modified	4/6/2015 11:27 AM	Analysis Method	EDITHP108F_C1-C7.M
Instrument		Method Modified	2/10/2015 7:21 AM
Operator	Justin Guenzler	Printed	4/7/2015 1:05 PM



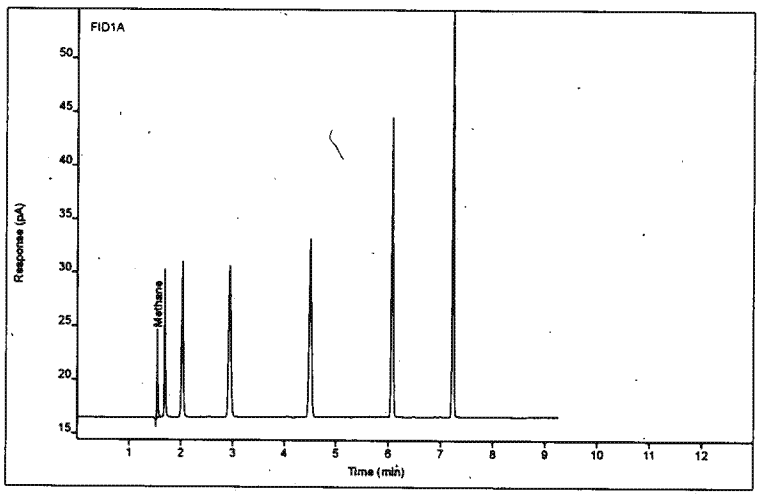
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.55	10.9349	8.09934	40.4003	1	40.4003	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)
Sequence Name	EDITHP233B ver.3
Data File	002F0402.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 1:54 AM
File Modified	4/6/2015 11:27 AM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC139P039_HRVOC.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



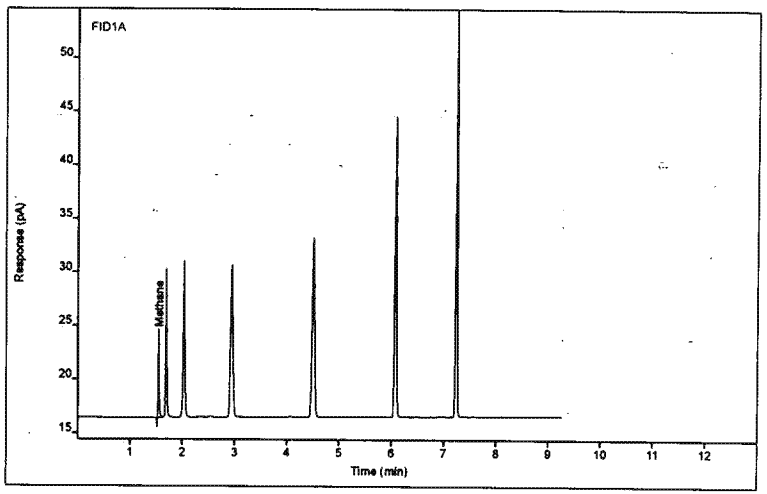
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.55	11.0761	8.17471	40.9173	1	40.9173	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)
Sequence Name	EDITHP233B ver.3
Data File	002F0403.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 2:09 AM
File Modified	4/6/2015 11:28 AM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC139P039_HRVOC.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM

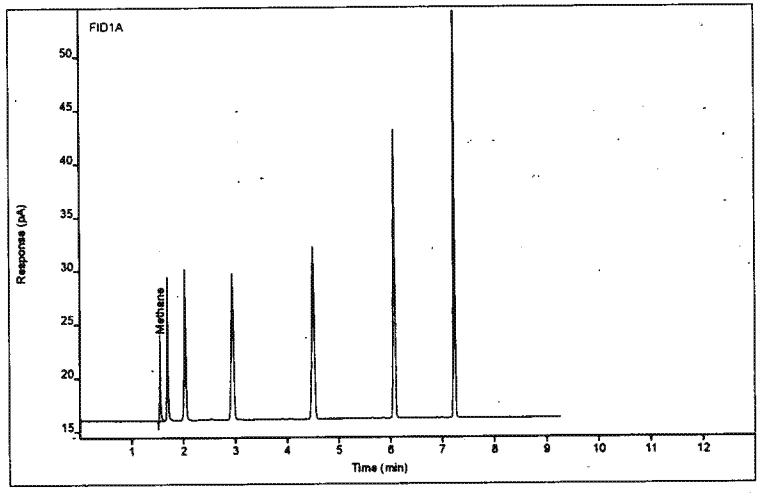


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	11.1994	8.19077	41.3689	1	41.3689	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)	Sample Type	Calibration
Sequence Name	EDITHP233B ver.3	Vial Number	Vial 2
Data File	002F1901.D	Injection Volume	250
File Location	GC/2015/Edith/Quarter 1	Injection	1 of 3
Injection Date	4/3/2015 6:02 PM	Acquisition Method	GC139P039_HRVOC.M
File Modified	4/8/2015 11:28 AM	Analysis Method	EDITHP108F_C1-C7.M
Instrument		Method Modified	2/10/2015 7:21 AM
Operator	Turner Oppy	Printed	4/7/2015 1:05 PM

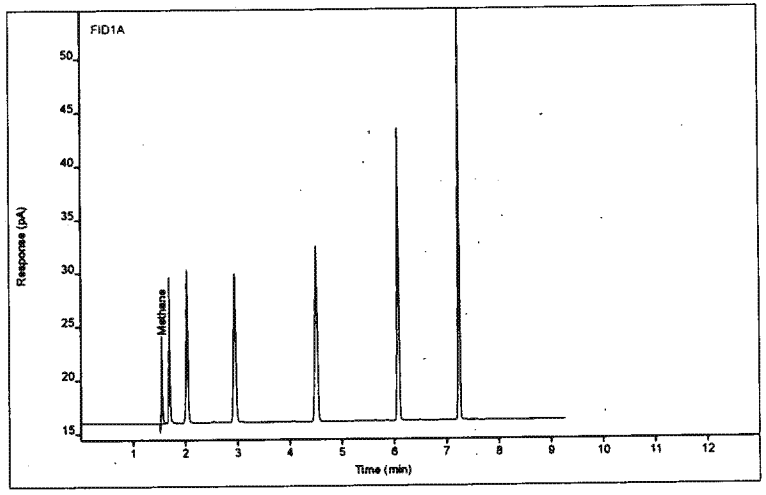


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	10.8385	7.89831	40.0471	1	40.0471	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)	Sample Type	Calibration
Sequence Name	EDITHP233B ver.3	Vial Number	Vial 2
Data File	002F1902.D	Injection Volume	250
File Location	GC/2015/Edith/Quarter 1	Injection	2 of 3
Injection Date	4/3/2015 6:17 PM	Acquisition Method	GC139P039_HRVOC.M
File Modified	4/8/2015 11:28 AM	Analysis Method	EDITHP108F_C1-C7.M
Instrument		Method Modified	2/10/2015 7:21 AM
Operator	Turner Oppy	Printed	4/7/2015 1:05 PM



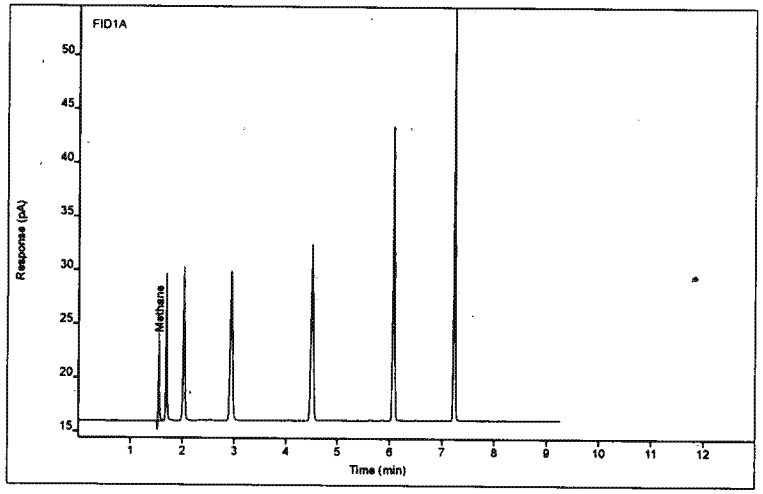
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.55	11.0265	8.00765	40.7356	1	40.7356	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)
Sequence Name	EDITHP233B ver.3
Data File	002F1903.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 6:33 PM
File Modified	4/6/2015 11:28 AM
Instrument	
Operator	Turner Oppy

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC139P039_HRVOC.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



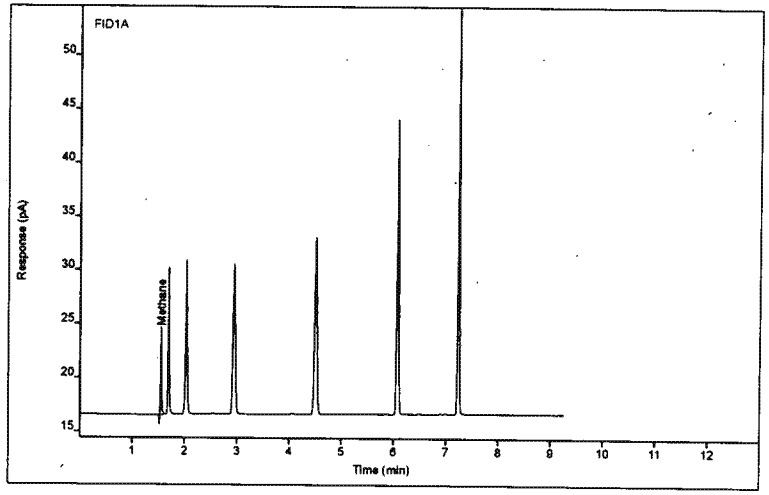
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.55	11.0483	8.03481	40.8156	1	40.8156	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)
Sequence Name	EDITHP233B ver.3
Data File	002F2401.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/6/2015 8:28 AM
File Modified	4/6/2015 11:29 AM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC139P039_HRVOC.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



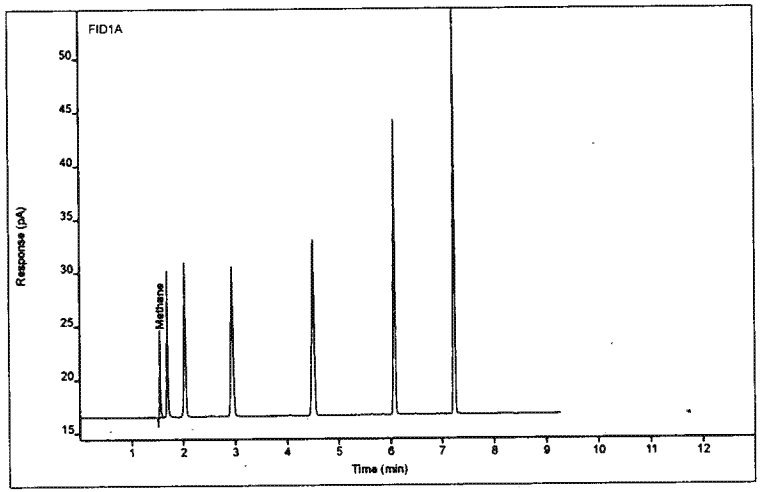
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.55	11.0685	8.02157	40.8897	1	40.8897	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)
Sequence Name	EDITHP233B ver.3
Data File	002F2402.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/6/2015 8:44 AM
File Modified	4/6/2015 11:29 AM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC139P039_HRVOC.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



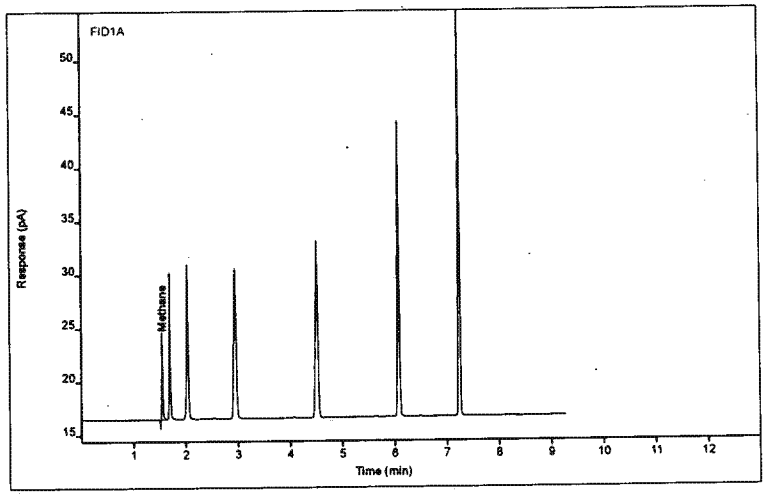
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.55	11.0450	8.03284	40.8036	1	40.8036	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)
Sequence Name	EDITHP233B ver.3
Data File	002F2403.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/6/2015 8:59 AM
File Modified	4/6/2015 11:29 AM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC139P039_HRVOC.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.55	11.0836	8.05228	40.9448	1	40.9448	ppm

method: C:\GC\2013\EDITH\METHODS\GC139P039_HRVOC.M
Modified on: 1/14/2014 at 3:15:15 PM
2.2 mL/min for 0 min

Run Time	9.27 min	
Front Detector FID		
Heater	On	300 °C
H2 Flow	On	50 mL/min
Air Flow	On	450 mL/min
Makeup Flow	On	35 mL/min
Const Col + Makeup	Off	
Flame	On	
Electrometer	On	
Back Detector FID		
Heater	On	200 °C
H2 Flow	On	50 mL/min
Air Flow	On	450 mL/min
Makeup Flow	On	35 mL/min
Const Col + Makeup	Off	
Flame	On	
Electrometer	On	
Valve 1		
Gas Sampling Valve	Off	
GSV Loop Volume	0.25 mL	
Load Time	1.5 min	
Inject Time	0.5 min	
Valve 2		
Gas Sampling Valve	Off	
GSV Loop Volume	0.25 mL	
Load Time	1.5 min	
Inject Time	0.5 min	
Valve Box		
Heater	On	150 °C
Signals		
Signal #1: Front Signal	Save On 20 Hz	
Signal #2: Test Plot	Save Off 50 Hz	
Signal #3: Back Signal	Save On 20 Hz	
Signal #4: Test Plot	Save Off 50 Hz	

This Is The Last Page Of This Report.

MSD 032111

CUSTOMGAS SOLUTIONS

1750 East Club Boulevard
Durham, NC 27704
Phone: (919) 220-2570
Fax: (919) 220-4540

Certificate of Analysis

Customer:

Enthalpy Analytical, Inc.
800-1 Capitola Drive
Durham, NC 27713

Tel: (919) 595-1377

Cylinder Number: SX25635
Cylinder Size/CGA: 150/350
Fill Pressure: 2015 PSIA
Gas Volume: 3700 liters
Date of Mfg: 02/04/14
Expiration Date: 02/04/16

Customer Number	Ship VIA	Job No.	Customer PO	Mixture Type
00127703NC	Pick up	011714-003	01171401	Gravimetric

Component	Nominal Concentration	Actual Concentration*	Mixture Type
Heptane	100 ppm	99.82 ppm +/- 2 ppm	Gravimetric Master Gas
Hexane	100 ppm	100.1 ppm +/- 2 ppm	
Pentane	100 ppm	100.0 ppm +/- 2 ppm	
Methane	100 ppm	100.2 ppm +/- 2 ppm	
Ethane	100 ppm	100.1 ppm +/- 2 ppm	
Propane	100 ppm	100.4 ppm +/- 2 ppm	
Butane	100 ppm	100.2 ppm +/- 2 ppm	
Nitrogen	balance		

NOTES:
Blend Tolerance: +/- 2 %
Analytical Tolerance: +/- 2 %
Traceability: NIST by weight set. NIST Traceability No MT5061.
Internal Standards by analysis
Reactive Mixtures: Analyzed twice with required agreement between analyses of 2%.
Required wait time between analyses of >7 days.
Caution: Do not use below 150 PSIG.

Authorized Signature:

Joseph A. Ernst

*Every effort has been made to establish the actual concentration of the components using master gas blending technology however, Custom Gas Solutions shall have no liability in excess of the established charge for this material.

method: C:\GC\2013\EDITH\METHODS\GC139P039_HRVOC.M
Modified on: 1/14/2014 at 3:15:15 PM

Agilent 7890A

Oven	
Equilibration Time	0.3 min
Max Temperature	200 degrees C
Slow Fan	Disabled
Oven Program	On
35 °C for 2.2 min	
#1 then 15 °C/min to 70 °C for 0.07 min	
#2 then 30 °C/min to 180 °C for 1 min	
Run Time	9.27 min
Sample Overlap	
Sample overlap is not enabled	
Front SS Inlet H2	
Mode	Split
Heater	On 200 °C
Pressure	On 5.1931 psi
Total Flow	On 15.6 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	Off
Split Ratio	5 :1
Split Flow	10.5 mL/min
Back SS Inlet H2	
Mode	Split
Heater	On 200 °C
Pressure	On 4.9511 psi
Total Flow	On 9.6 mL/min
Septum Purge Flow	On 3 mL/min
Gas Saver	Off
Split Ratio	2 :1
Split Flow	0 mL/min
Column #1	
Restek 10198Rtx-1 S/N 806941	
280 °C: 30 m x 320 µm x 4 µm	
In: Front SS Inlet H2	
Out: Front Detector FID	
(Initial)	35 °C
Pressure	5.1931 psi
Flow	2.1 mL/min
Average Velocity	39.91 cm/sec
Holdup Time	1.2528 min
Flow Program	On
2.1 mL/min for 0 min	
Run Time	9.27 min
Column #2	
Restek 19701Alumina S/N 156109	
280 °C: 30 m x 320 µm x 10 µm	
In: Front SS Inlet H2	
Out: Back Detector FID	
(Initial)	35 °C
Pressure	6.1868 psi
Flow	2.2 mL/min
Average Velocity	43.848 cm/sec
Holdup Time	1.1403 min
Flow Program	On

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1303.D
Sample Name: EdithP108 #C1 ENV(1=1900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.514	BP N	1.11667	1.26492	1.41250	?	

Uncalib. totals : 1.41250

==========
Summed Peaks Report
==========

Signal 1: FID1 A, Front Signal

1 Warnings or Errors :

Warning : Reference compound(s) not found

==========
Final Summed Peaks Report
==========

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Methane	1.24353	4.8929
Ethane	2.66340	4.9743
Propane	3.98818	5.0449
Butane	5.23108	4.9545
Pentane	6.86699	5.0054
Hexane	7.79197	4.9336
Heptane	9.05862	4.9837
Totals :		34.7893

*** End of Report ***

ISO 9001:2008 Linde SPECTRA Environmental Gases, 80 Industrial Drive, Alpha, NJ 08865

THE LINDE GROUP Linde

SHIPPED TO: Enthalpy Analytical Inc.
800 Capitola Dr. Ste 1
Durham, NC 27713-4385

PAGE: 1 of 1

CERTIFICATE OF ANALYSIS

Sales#:	111957073	**Cylinder Size:**	2 (9" X 51")
Production#:	1308627	**Cylinder #:**	9819192
Certification Date:	Aug-28-2014	**Cylinder Pressure:**	525 psig
P.O.#:	08111418	**Cylinder Valve:**	CGA 350 / Brass
Blend Type:	CERTIFIED	**Cylinder Volume:**	44 Liter
Material#:	24094007	**Cylinder Material:**	Steel
Traceability:	NIST by weight	**Gas Volume:**	1572 Liters
Expiration Date:	Aug-28-2015	**Blend Tolerance:**	5% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	2% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Methane	74-82-8	5.00 %	5.13 %
Ethane	74-84-0	5.00 %	5.13 %
Propane	74-98-6	5.00 %	5.13 %
Butane	106-97-8	1.00 %	1.03 %
Pentane	109-66-0	0.50 %	0.52 %
Hexane	110-54-3	0.40 %	0.41 %
Heptane	142-82-5	500 ppm	519 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

DATE: Aug-28-2014

Linde Gas North America LLC

(908) 329 0700 Main (908) 329-0740 Fax
www.Lindeus.com

MSD 032113

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1302.D
Sample Name: EdithP108 #C1 ENV(1=1900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
0.045	BB	2.29596	1.26492	2.90421	?	

Uncalib. totals : 2.90421

Summed Peaks Report

Signal 1: FID1 A, Front Signal

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Methane	1.28336	5.0469
Ethane	2.69641	5.0363
Propane	3.98421	5.0399
Butane	5.27217	4.9934
Pentane	6.72683	4.9029
Hexane	7.75067	4.9075
Heptane	9.07698	4.9937
Totals :		34.9206

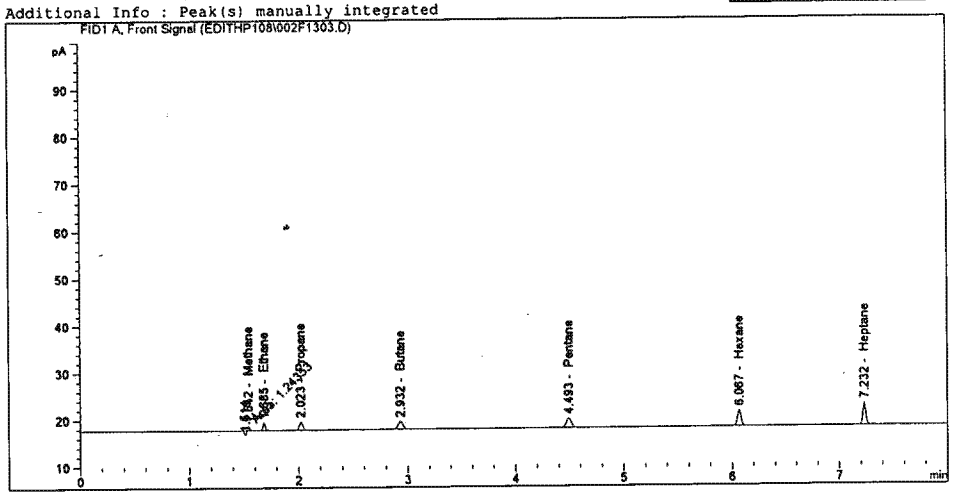
*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1303.D
Sample Name: EdithP108 #C1 ENV(1=1900,2=100)

Acq. Operator : disconnected Seq. Line : 13
Acq. Instrument : Edith Location : Vial 2
Injection Date : 9/19/2014 5:32:35 PM Inj : 3
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)
Additional Info : Peak(s) manually integrated

Manual Int. "II" (JKG)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	MM	1.24353	3.93469	4.89291		Methane
1.685	BB	2.66340	1.86764	4.97426		Ethane
2.023	BB	3.98818	1.26497	5.04492		Propane
2.932	BB	5.23108	9.47119e-1	4.95446		Butane
4.493	BB	6.86699	7.28910e-1	5.00542		Pentane
6.067	BB	7.79197	6.33169e-1	4.93364		Hexane
7.232	BB	9.05862	5.50157e-1	4.98366		Heptane
Totals :				34.78928		

Uncalibrated Peaks : using compound Propane

MSD 032114

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1301.D
Sample Name: EdithP108 #C1 ENV(1=1900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.514	PP N	1.17246	1.26492	1.48307	?	

Uncalib. totals : 1.48307

==========
Summed Peaks Report
==========

Signal 1: FID1 A, Front Signal

1 Warnings or Errors :

Warning : Reference compound(s) not found

==========
Final Summed Peaks Report
==========

Signal 1: FID1 A, Front Signal

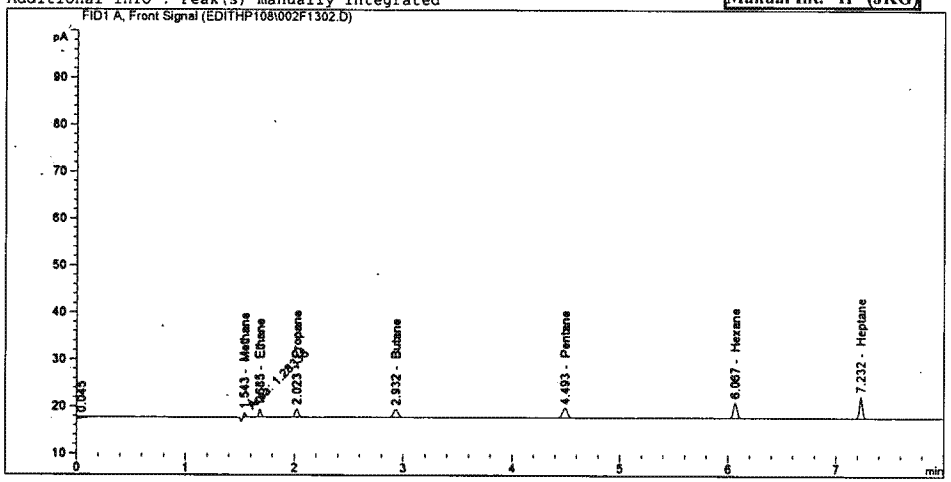
Name	Total Area [pA*s]	Amount [ppm]
Methane	1.21230	4.7700
Ethane	2.56303	4.7868
Propane	3.83415	4.8499
Butane	5.30351	5.0233
Pentane	6.80569	4.9604
Hexane	7.81790	4.9501
Heptane	9.08140	4.9962
Totals :		34.3366

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1302.D
Sample Name: EdithP108 #C1 ENV(1=1900,2=100)

==========
Acq. Operator : disconnected Seq. Line : 13
Acq. Instrument : Edith Location : Vial 2
Injection Date : 9/19/2014 5:16:17 PM Inj : 2
Inj Volume : 250 µl
Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)
Additional Info : Peak(s) manually integrated

Manual Int. "II" (JKG)



==========
External Standard Report
==========

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.543	MM	1.28336	3.93256	5.04688		Methane
1.685	BB	2.69641	1.86780	5.03635		Ethane
2.023	BB	3.98421	1.26496	5.03986		Propane
2.932	BB	5.27217	9.47119e-1	4.99337		Butane
4.493	BB	6.72683	7.28854e-1	4.90288		Pentane
6.067	BB	7.75067	6.33169e-1	4.90749		Hexane
7.232	BB	9.07698	5.50155e-1	4.99375		Heptane
Totals :				34.92058		

Uncalibrated Peaks : using compound Propane

MSD 032115

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1203.D
Sample Name: EdithP108 #C2 ENV(1=900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.514	BP N	1.06684	1.26492	1.34946	?	

Uncalib. totals : 1.34946

==========
Summed Peaks Report
==========

Signal 1: FID1 A, Front Signal

1 Warnings or Errors :

Warning : Reference compound(s) not found

==========
Final Summed Peaks Report
==========

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Methane	2.76054	10.4577
Ethane	5.57597	10.4889
Propane	8.01652	10.1801
Butane	10.51357	10.0383
Pentane	13.38227	10.1181
Hexane	15.58333	10.1398
Heptane	18.17815	9.9589

Totals : 71.3818

*** End of Report ***

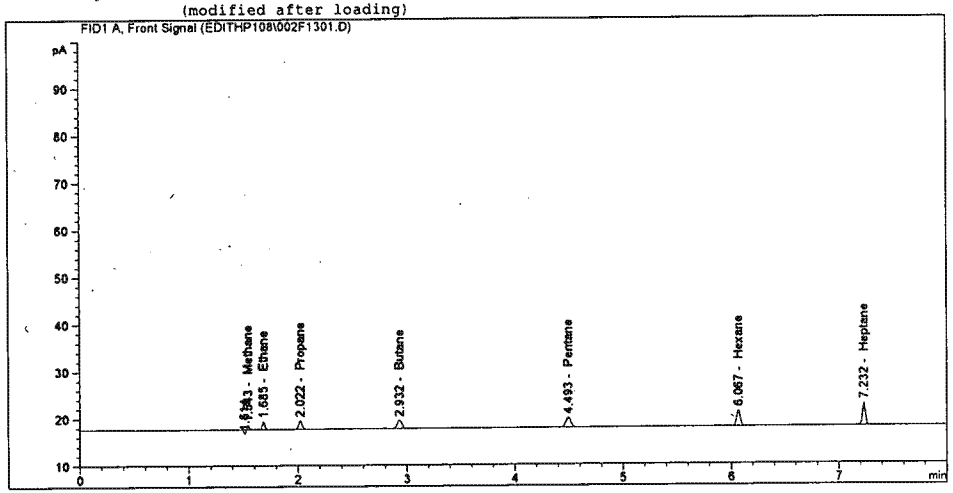
Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1301.D
Sample Name: EdithP108 #C1 ENV(1=1900,2=100)

==========

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 5:00:11 PM

Seq. Line : 13
Location : Vial 2
Inj : 1
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.543	PB	1.21230	3.93469	4.77003		Methane
1.685	BP	2.56303	1.86764	4.78680		Ethane
2.022	VB	3.83415	1.26492	4.84989		Propane
2.932	BB	5.30351	9.47159e-1	5.02327		Butane
4.493	BB	6.80569	7.28854e-1	4.96035		Pentane
6.067	BB	7.81790	6.33169e-1	4.95005		Hexane
7.232	BB	9.08140	5.50152e-1	4.99616		Heptane

Totals : 34.33655

Uncalibrated Peaks : using compound Propane

MSD 032116

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1201.D
Sample Name: EdithP108 #C2 ENV(1=900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
0.077	BB	2.96837	1.26492	3.75475	?	
1.514	BP N	1.06279	1.26492	1.34435	?	

Uncalib. totals : 5.09910

Summed Peaks Report

Signal 1: FID1 A, Front Signal

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

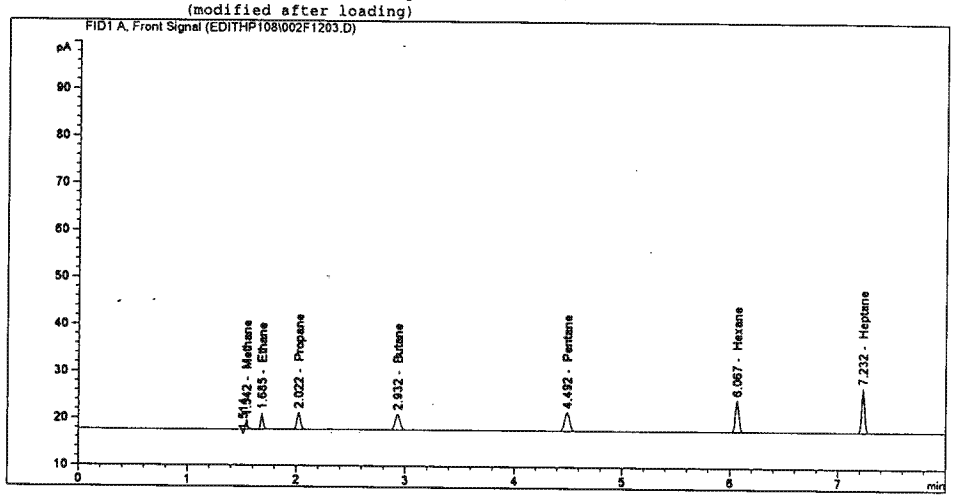
Name	Total Area [pA*s]	Amount [ppm]
Methane	2.73122	10.3503
Ethane	5.38953	10.1359
Propane	7.97306	10.1247
Butane	10.55341	10.0766
Pentane	13.33021	10.0773
Hexane	15.62524	10.1678
Heptane	18.17946	9.9596
Totals :		70.8922

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1203.D
Sample Name: EdithP108 #C2 ENV(1=900,2=100)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 4:44:08 PM
Seq. Line : 12
Location : Vial 2
Inj : 3
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PB	2.76054	3.78830	10.45775		Methane
1.685	PB	5.57597	1.88109	10.48888		Ethane
2.022	PB	8.01652	1.26989	10.18009		Propane
2.932	BB	10.51357	9.54791e-1	10.03826		Butane
4.492	BB	13.38227	7.56083e-1	10.11811		Pentane
6.067	BB	15.58333	6.50682e-1	10.13980		Hexane
7.232	BB	18.17815	5.47851e-1	9.95892		Heptane

Totals : 71.38182

Uncalibrated Peaks : using compound Propane

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1202.D
Sample Name: EdithP108 #C2 ENV(1=900,2=100)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.514	BP N	1.10081	1.26492	1.39244	?	

Uncalib. totals : 1.39244

Summed Peaks Report

Signal 1: FID1 A, Front Signal

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Methane	2.72163	10.3152
Ethane	5.34763	10.0565
Propane	7.96017	10.1083
Butane	10.48665	10.0124
Pentane	13.31481	10.0652
Hexane	15.69162	10.2122
Heptane	18.25233	9.9994
Totals :		70.7691

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1201.D
Sample Name: EdithP108 #C2 ENV(1=900,2=100)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 4:11:37 PM
Seq. Line : 12
Location : Vial 2
Inj : 1
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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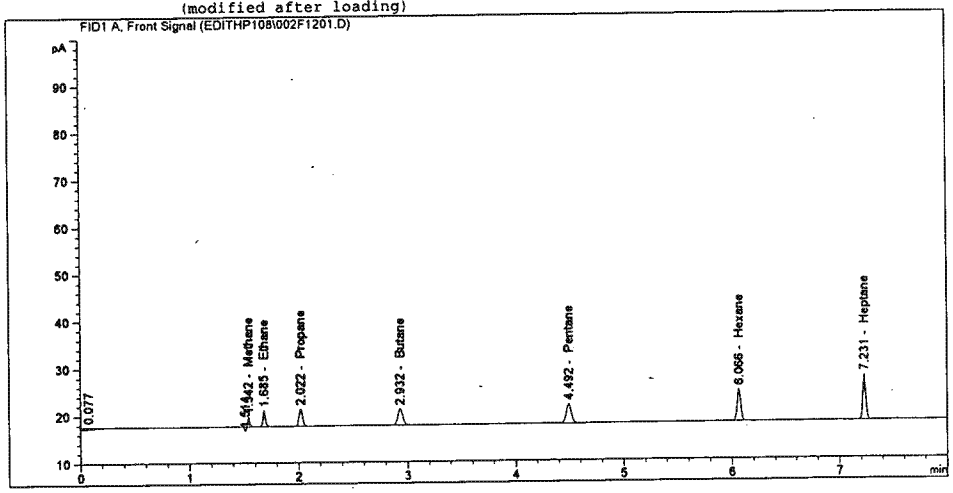

External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PB	2.73122	3.78965	10.35035		Methane
1.685	BB	5.38953	1.88066	10.13586		Ethane
2.022	BB	7.97306	1.26986	10.12468		Propane
2.932	BB	10.55341	9.54821e-1	10.07662		Butane
4.492	BB	13.33021	7.55972e-1	10.07726		Pentane
6.066	BB	15.62524	6.50731e-1	10.16783		Hexane
7.231	BB	18.17946	5.47851e-1	9.95964		Heptane
Totals :				70.89222		

Uncalibrated Peaks : using compound Propane

MSD 032118

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1103.D
Sample Name: EdithP108 #C3 ENV(1=600,2=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.514	BP N	1.00316	1.26492	1.26892	?	
1.634	VV	2.18718e-1	1.26492	2.76660e-1	?	
2.532	BB	4.07677e-1	1.26492	5.15678e-1	?	

Uncalib. totals : 2.06126

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Ethane	1.550	1.850	2.18718e-1	0.4472
as Butane	2.400	3.700	4.07677e-1	0.4161

Totals : 8.6331e-1

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Ethane	2.18718e-1	0.4472
as Butane	4.07677e-1	0.4161
Methane	11.00070	40.6412
Ethane	21.52324	40.6856
Propane	32.06316	40.8337
Butane	42.35880	40.6912
Pentane	53.31446	41.4539
Hexane	63.17406	41.9643
Heptane	73.57939	40.1833

Totals : 287.3165

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1202.D
Sample Name: EdithP108 #C2 ENV(1=900,2=100)

Acq. Operator : disconnected Seq. Line : 12
Acq. Instrument : Edith Location : Vial 2
Injection Date : 9/19/2014 4:27:54 PM Inj : 2
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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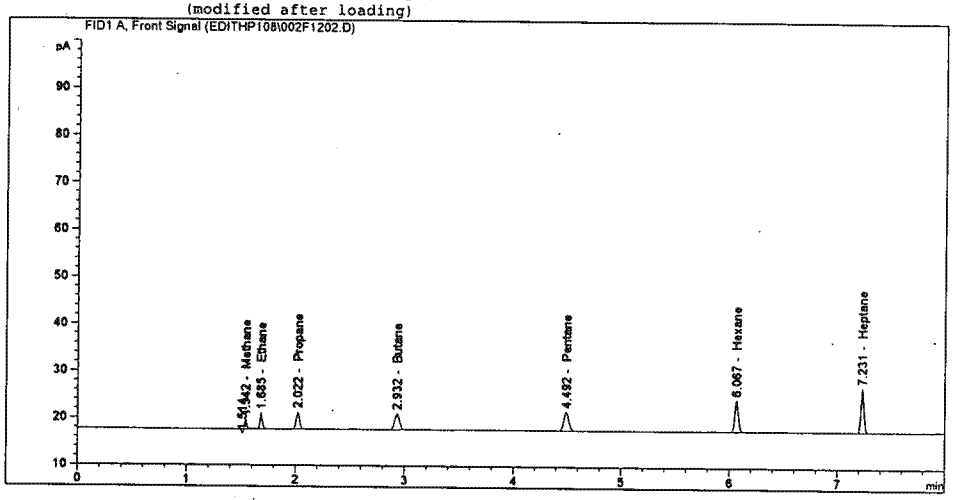

External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PB	2.72163	3.79009	10.31524		Methane
1.685	BB	5.34763	1.88056	10.05652		Ethane
2.022	BB	7.96017	1.26985	10.10825		Propane
2.932	BB	10.48665	9.54771e-1	10.01235		Butane
4.492	BB	13.31481	7.55938e-1	10.06518		Pentane
6.067	BB	15.69162	6.50807e-1	10.21221		Hexane
7.231	BB	18.25233	5.47842e-1	9.99939		Heptane

Totals : 70.76913

Uncalibrated Peaks : using compound Propane

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1102.D
Sample Name: EdithP108 #C3 ENV(1=600,2=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.514	BP N	9.94072e-1	1.26492	1.25742	?	
1.634	VV	2.72370e-1	1.26492	3.44526e-1	?	
2.533	BB	4.36528e-1	1.26492	5.52172e-1	?	

Uncalib. totals : 2.15412

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Ethane	1.550	1.850	2.72370e-1	0.5569
as Butane	2.400	3.700	4.36528e-1	0.4455
Totals :				1.0025

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Ethane	2.72370e-1	0.5569
as Butane	4.36528e-1	0.4455
Methane	11.02327	40.7239
Ethane	21.73584	41.0881
Propane	32.31124	41.1500
Butane	42.66705	40.9879
Pentane	53.34929	41.4812
Hexane	63.19386	41.9775
Heptane	73.63406	40.2131
Totals :		288.6242

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1103.D
Sample Name: EdithP108 #C3 ENV(1=600,2=400)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 3:55:26 PM
Seq. Line : 11
Location : Vial 2
Inj : 3
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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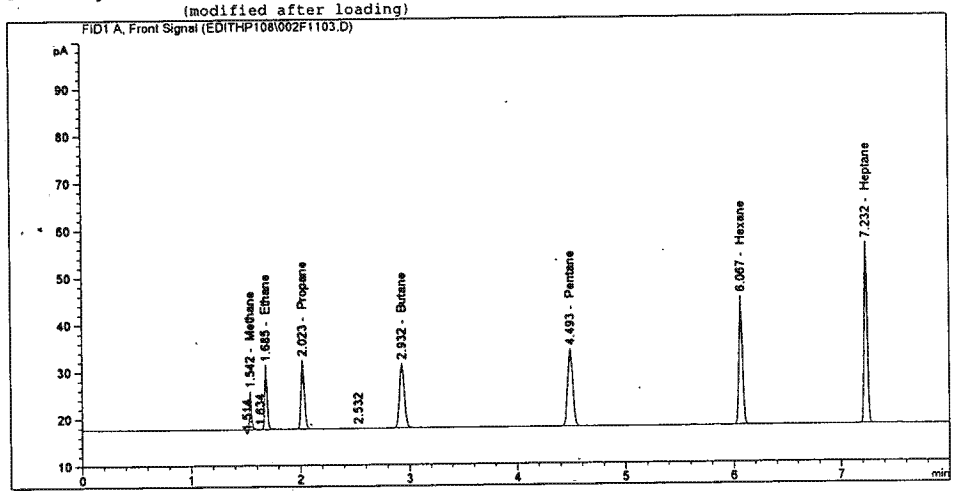

External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PV	11.00070	3.69442	40.64121		Methane
1.685	VB	21.52324	1.89031	40.68559		Ethane
2.023	BB	32.06316	1.27354	40.83375		Propane
2.932	BB	42.35880	9.60632e-1	40.69123		Butane
4.493	BV	53.31446	7.77535e-1	41.45386		Pentane
6.067	BB	63.17406	6.64264e-1	41.96425		Hexane
7.232	BB	73.57939	5.46121e-1	40.18327		Heptane
Totals :				286.45316		

Uncalibrated Peaks : using compound Propane

MSD 032120

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1101.D
Sample Name: EdithP108 #C3 ENV(1=600,2=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.513	BP N	9.78457e-1	1.26492	1.23767		?
1.633	VV	2.68972e-1	1.26492	3.40228e-1		?
2.534	BB	4.14086e-1	1.26492	5.23786e-1		?

Uncalib. totals : 2.10168

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Ethane	1.550	1.850	2.68972e-1	0.5500
as Butane	2.400	3.700	4.14086e-1	0.4226

Totals : 9.7261e-1

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Ethane	2.68972e-1	0.5500
as Butane	4.14086e-1	0.4226
Methane	11.00137	40.6437
Ethane	21.75508	41.1246
Propane	32.24148	41.0611
Butane	42.46952	40.7978
Pentane	53.24072	41.3960
Hexane	63.01467	41.8577
Heptane	73.48394	40.1312

Totals : 287.9846

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1102.D
Sample Name: EdithP108 #C3 ENV(1=600,2=400)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 3:39:01 PM
Seq. Line : 11
Location : Vial 2
Inj : 2
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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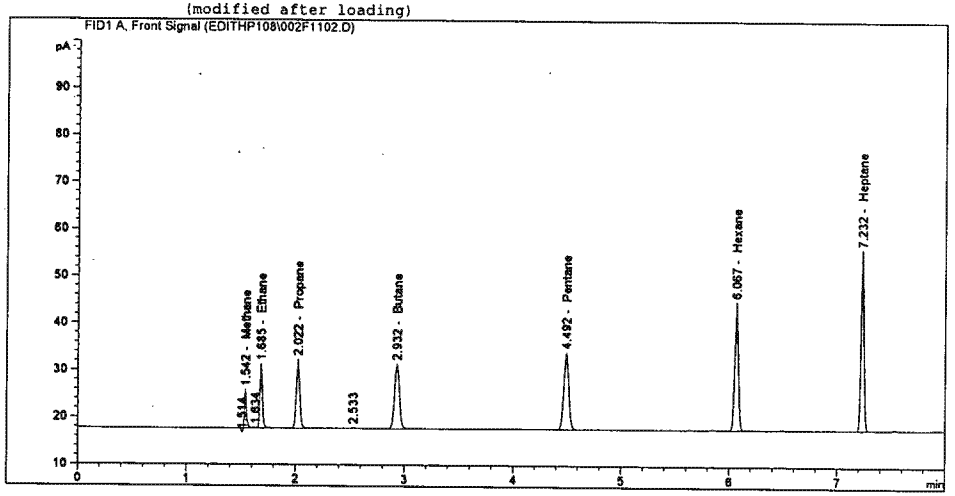

External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PV	11.02327	3.69436	40.72390		Methane
1.685	VB	21.73584	1.89034	41.08815		Ethane
2.022	PB	32.31124	1.27355	41.14999		Propane
2.932	BV	42.66705	9.60646e-1	40.98794		Butane
4.492	BV	53.34929	7.77540e-1	41.48120		Pentane
6.067	BB	63.19386	6.64265e-1	41.97749		Hexane
7.232	BB	73.63406	5.46121e-1	40.21309		Heptane

Totals : 287.62175

Uncalibrated Peaks : using compound Propane

MSD 032121

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1004.D
Sample Name: EdithP108 #C4 ENV(1=0,2=450)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
0.033	BB	1.72203	1.26492	2.17823	?	
1.514	BP N	9.34361e-1	1.26492	1.18189	?	
1.635	VV	5.10190e-1	1.26492	6.45349e-1	?	
2.535	BB	1.03156	1.26492	1.30484	?	
3.103	VB	6.35190e-1	1.26492	8.03464e-1	?	
4.055	BB	3.93774e-1	1.26492	4.98092e-1	?	
5.851	BB	5.56474e-1	1.26492	7.03894e-1	?	
7.538	BB	9.77187e-1	1.26492	1.23606	?	

Uncalib. totals : 8.55182

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Ethane	1.550	1.850	5.10190e-1	1.0432
as Butane	2.400	3.700	1.66675	1.7011
as Pentane	3.700	5.300	3.93774e-1	0.3177
as Hexane	5.300	6.600	5.56474e-1	0.3843
as Heptane	6.600	13.000	9.77187e-1	0.5745

Totals : 4.0208

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Ethane	5.10190e-1	1.0432
as Butane	1.66675	1.7011
as Pentane	3.93774e-1	0.3177
as Hexane	5.56474e-1	0.3843
as Heptane	9.77187e-1	0.5745
Methane	27.33177	100.4615
Ethane	53.30490	100.8652
Propane	79.51855	101.3279
Butane	105.18516	101.1654
Pentane	131.54813	102.8457
Hexane	156.02853	104.0571
Heptane	181.77887	99.2119

Totals : 713.9555

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1101.D
Sample Name: EdithP108 #C3 ENV(1=600,2=400)

Acq. Operator : disconnected Seq. Line : 11
Acq. Instrument : Edith Location : Vial 2
Injection Date : 9/19/2014 3:22:56 PM Inj : 1
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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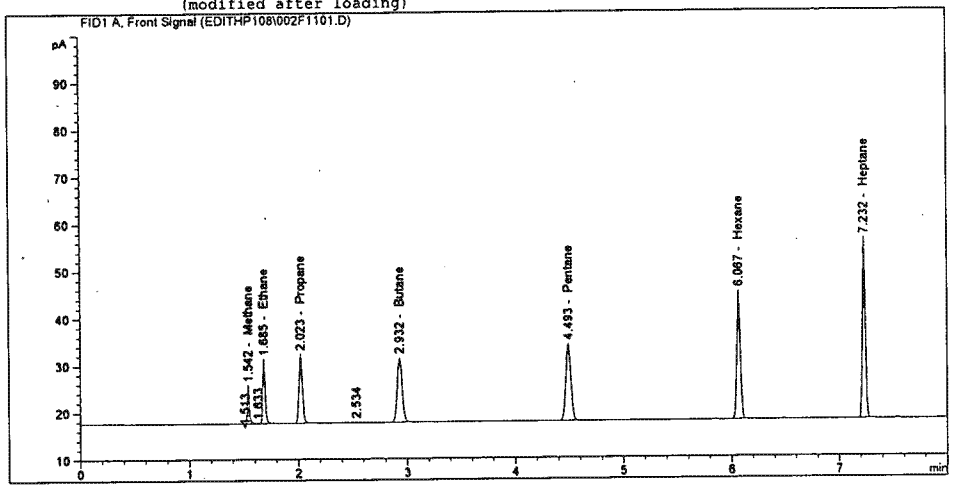

External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PV	11.00137	3.69442	40.64369		Methane
1.685	VB	21.75508	1.89034	41.12459		Ethane
2.023	PB	32.24148	1.27355	41.06107		Propane
2.932	BB	42.46952	9.60637e-1	40.79780		Butane
4.493	BB	53.24072	7.77525e-1	41.39600		Pentane
6.067	BB	63.01467	6.64253e-1	41.85766		Hexane
7.232	BB	73.48394	5.46122e-1	40.13119		Heptane

Totals : 287.01200

Uncalibrated Peaks : using compound Propane

MSD 032122

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1003.D
Sample Name: EdithP108 #C4 ENV(1=0,2=450)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.514	BP N	9.42002e-1	1.26492	1.19156	?	
1.634	VV	4.76327e-1	1.26492	6.02516e-1	?	
2.533	BB	1.05936	1.26492	1.34000	?	
3.110	VB	7.18170e-1	1.26492	9.08427e-1	?	
5.850	BB	5.55074e-1	1.26492	7.02123e-1	?	
7.537	BB	9.72606e-1	1.26492	1.23027	?	

Uncalib. totals : 5.97489

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Ethane	1.550	1.850	4.76327e-1	0.9740
as Butane	2.400	3.700	1.77753	1.8141
as Hexane	5.300	6.600	5.55074e-1	0.3833
as Heptane	6.600	13.000	9.72606e-1	0.5718

Totals : 3.7433

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Ethane	4.76327e-1	0.9740
as Butane	1.77753	1.8141
as Hexane	5.55074e-1	0.3833
as Heptane	9.72606e-1	0.5718
Methane	27.37074	100.6042
Ethane	53.33620	100.9245
Propane	79.96803	101.9009
Butane	105.60441	101.5689
Pentane	131.71680	102.9781
Hexane	156.46011	104.3457
Heptane	182.34998	99.5235

Totals : 715.5891

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1004.D
Sample Name: EdithP108 #C4 ENV(1=0,2=450)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 3:06:36 PM
Seq. Line : 10
Location : Vial 2
Inj : 4
Inj Volume : 250 µl
Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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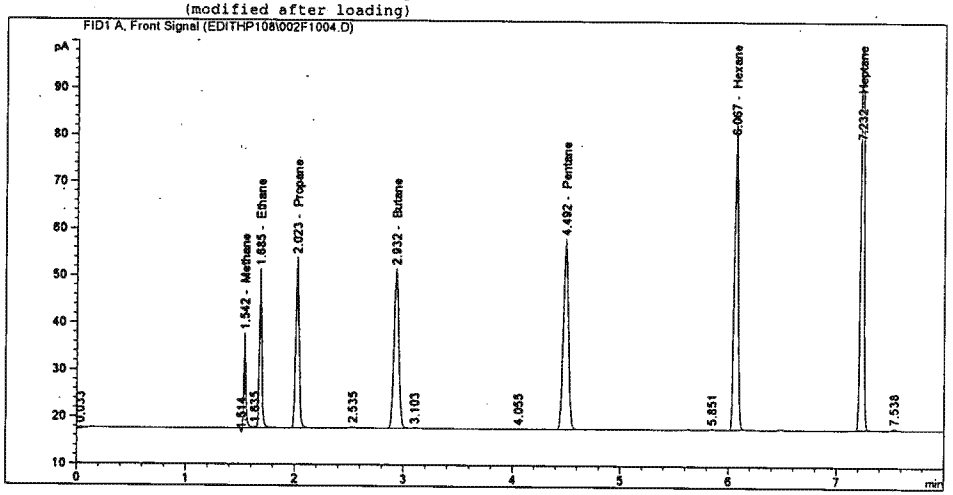


External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PV	27.33177	3.67563	100.46148		Methane
1.685	VB	53.30490	1.89223	100.86524		Ethane
2.023	PB	79.51855	1.27427	101.32795		Propane
2.932	BV	105.18516	9.61784e-1	101.16539		Butane
4.492	BB	131.54813	7.81810e-1	102.84571		Pentane
6.067	BB	156.02853	6.66911e-1	104.05707		Hexane
7.232	BB	181.77887	5.45783e-1	99.21189		Heptane

Totals : 709.93472

Uncalibrated Peaks : using compound Propane

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1002.D
Sample Name: EdithP108 #C4 ENV(1=0,2=450)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.514	BP N	9.40663e-1	1.26492	1.18986	?	
1.634	VV	4.80986e-1	1.26492	6.08408e-1	?	
2.533	BB	1.08576	1.26492	1.37339	?	
3.113	VB	7.46504e-1	1.26492	9.44267e-1	?	
4.053	BB	4.56221e-1	1.26492	5.77082e-1	?	
5.848	BB	5.27333e-1	1.26492	6.67033e-1	?	
7.538	BB	9.92297e-1	1.26492	1.25518	?	

Uncalib. totals : 6.61522

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Ethane	1.550	1.850	4.80986e-1	0.9835
as Butane	2.400	3.700	1.83226	1.8700
as Pentane	3.700	5.300	4.56221e-1	0.3681
as Hexane	5.300	6.600	5.27333e-1	0.3641
as Heptane	6.600	13.000	9.92297e-1	0.5834

Totals : 4.1691

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Ethane	4.80986e-1	0.9835
as Butane	1.83226	1.8700
as Pentane	4.56221e-1	0.3681
as Hexane	5.27333e-1	0.3641
as Heptane	9.92297e-1	0.5834
Methane	27.44783	100.8866
Ethane	53.68153	101.5784
Propane	80.46478	102.5342
Butane	105.75439	101.7133
Pentane	131.92094	103.1383
Hexane	156.57463	104.4223
Heptane	182.24956	99.4687

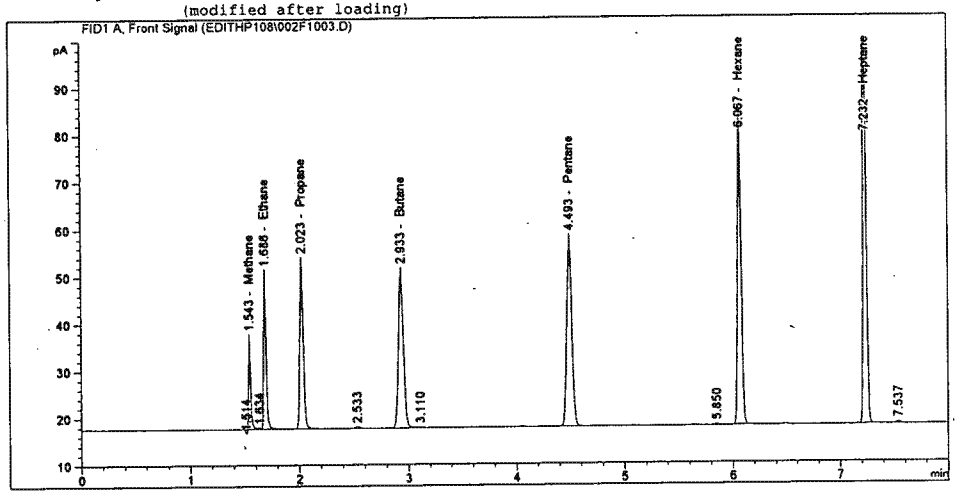
Totals : 717.9108

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1003.D
Sample Name: EdithP108 #C4 ENV(1=0,2=450)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 2:50:31 PM
Seq. Line : 10
Location : Vial 2
Inj : 3
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.543	PV	27.37074	3.67561	100.60423		Methane
1.686	VB	53.33620	1.89223	100.92452		Ethane
2.023	BB	79.96803	1.27427	101.90093		Propane
2.933	VV	105.60441	9.61787e-1	101.56894		Butane
4.493	BB	131.71680	7.81814e-1	102.97807		Pentane
6.067	BB	156.46011	6.66915e-1	104.34567		Hexane
7.232	BB	182.34998	5.45783e-1	99.52346		Heptane

Totals : 711.84581

Uncalibrated Peaks : using compound Propane

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0303.D
Sample Name: EdithP108 #C5 ENV(1=4900,6=121.67)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
0.016	BB	8.67494e-1	1.26492	1.09731		?
1.511	BP N	7.72846e-1	1.26492	9.77588e-1		?
2.532	BB	5.35825	1.26747	6.79143		?
4.055	BB	7.85258e-1	1.26492	9.93288e-1		?
5.849	BB	7.89094e-1	1.26492	9.98140e-1		?

Uncalib. totals : 10.85776

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	5.35825	5.4686
as Pentane	3.700	5.300	7.85258e-1	0.6335
as Hexane	5.300	6.600	7.89094e-1	0.5449

Totals : 6.6470

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Butane	5.35825	5.4686
as Pentane	7.85258e-1	0.6335
as Hexane	7.89094e-1	0.5449
Methane	279.05463	1.023e3
Ethane	539.09637	1.021e3
Propane	800.72247	1.021e3
Butane	213.89888	205.8089
Pentane	131.06555	102.4670
Hexane	119.81548	79.8410
Heptane	16.59894	9.0974

Totals : 3467.7937

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F1002.D
Sample Name: EdithP108 #C4 ENV(1=0,2=450)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 2:34:27 PM
Seq. Line : 10
Location : Vial 2
Inj : 2
Inj Volume : 250 µl
Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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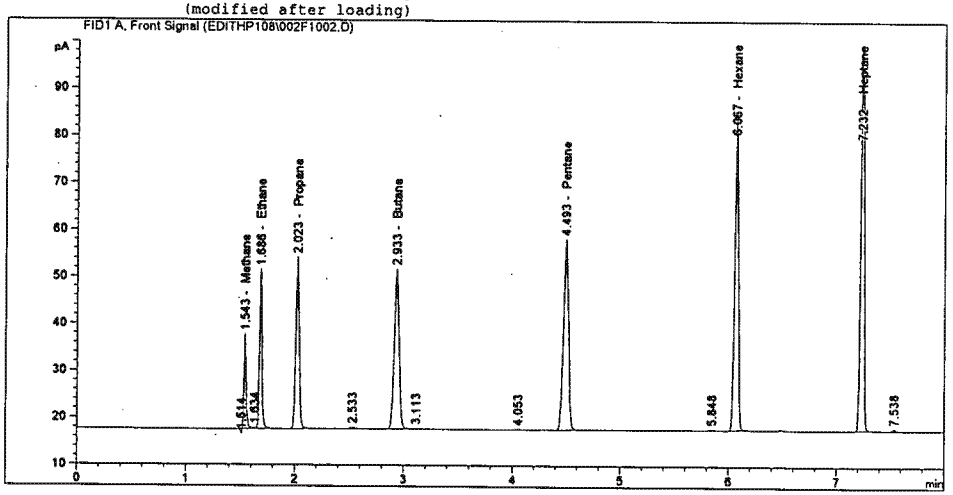

External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.543	PV	27.44783	3.67558	100.88661		Methane
1.686	VB	53.68153	1.89224	101.57839		Ethane
2.023	BB	80.46478	1.27427	102.53415		Propane
2.933	BV	105.75439	9.61788e-1	101.71331		Butane
4.493	BB	131.92094	7.81819e-1	103.13826		Pentane
6.067	BB	156.57463	6.66917e-1	104.42225		Hexane
7.232	BB	182.24956	5.45783e-1	99.46867		Heptane

Totals : 713.74165

Uncalibrated Peaks : using compound Propane

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0302.D
Sample Name: EdithP108 #C5 ENV(1=4900,6=121.67)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.511	BP N	7.70508e-1	1.26492	9.74630e-1		?
2.532	BB	5.38442	1.26751	6.82479		?
4.060	BB	8.02487e-1	1.26492	1.01508		?
5.850	BB	8.78099e-1	1.26492	1.11072		?
6.486	BB	6.96806e-1	1.26492	8.81403e-1		?

Uncalib. totals : 10.80663

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	5.38442	5.4953
as Pentane	3.700	5.300	8.02487e-1	0.6474
as Hexane	5.300	6.600	1.57491	1.0875
Totals :				7.2302

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Butane	5.38442	5.4953
as Pentane	8.02487e-1	0.6474
as Hexane	1.57491	1.0875
Methane	279.70560	1.025e3
Ethane	540.25098	1.023e3
Propane	802.57178	1.023e3
Butane	213.83063	205.7432
Pentane	131.31786	102.6650
Hexane	119.85897	79.8701
Heptane	16.56271	9.0776
Totals :		3475.4467

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0303.D
Sample Name: EdithP108 #C5 ENV(1=4900,6=121.67)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 12:22:56 PM
Seq. Line : 3
Location : Vial 2
Inj : 3
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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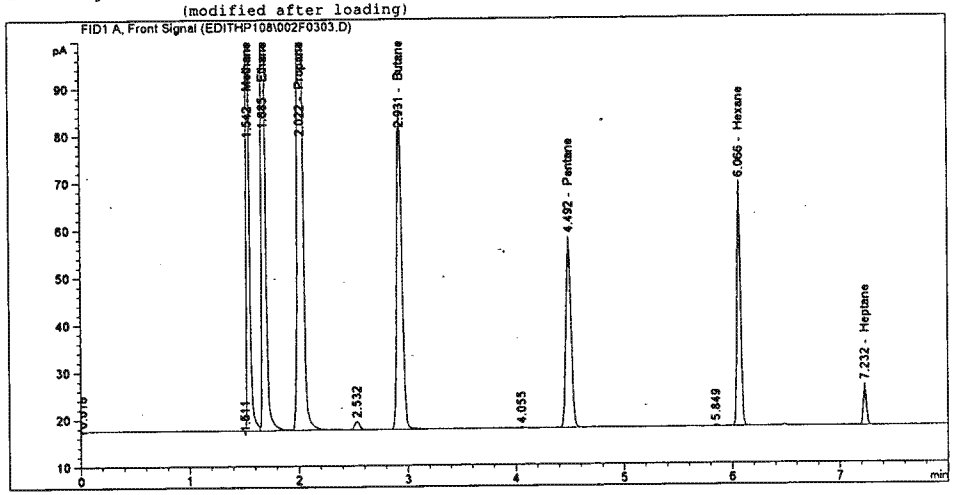

External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PV	279.05463	3.66421	1022.51526		Methane
1.685	VB	539.09637	1.89341	1020.72791		Ethane
2.022	BB	800.72247	1.27471	1020.68919		Propane
2.931	BB	213.89888	9.62179e-1	205.80891		Butane
4.492	BV	131.06555	7.81800e-1	102.46702		Pentane
6.066	BB	119.81548	6.66366e-1	79.84099		Hexane
7.232	BB	16.59894	5.48070e-1	9.09738		Heptane
Totals :				3461.14665		

Uncalibrated Peaks : using compound Propane

MSD 032126

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0301.D
Sample Name: EdithP108 #C5 ENV(1=4900,6=121.67)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.512	BP N	7.72924e-1	1.26492	9.77687e-1		?
2.532	BB	5.37431	1.26749	6.81190		?
4.058	VB	9.06267e-1	1.26492	1.14635		?
5.849	BB	7.83291e-1	1.26492	9.90800e-1		?
6.485	BB	6.78864e-1	1.26492	8.58709e-1		?

Uncalib. totals : 10.78545

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	5.37431	5.4850
as Pentane	3.700	5.300	9.06267e-1	0.7312
as Hexane	5.300	6.600	1.46216	1.0097

Totals : 7.2258

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Butane	5.37431	5.4850
as Pentane	9.06267e-1	0.7312
as Hexane	1.46216	1.0097
Methane	279.65533	1.025e3
Ethane	540.20013	1.023e3
Propane	802.41431	1.023e3
Butane	214.20848	206.1069
Pentane	130.77841	102.2417
Hexane	119.46789	79.6086
Heptane	16.45404	9.0183

Totals : 3474.5807

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0302.D
Sample Name: EdithP108 #C5 ENV(1=4900,6=121.67)

Acq. Operator : disconnected — Seq. Line : 3
Acq. Instrument : Edith — Location : Vial 2
Injection Date : 9/19/2014 12:05:46 PM — Inj : 2
Inj Volume : 250 µl
Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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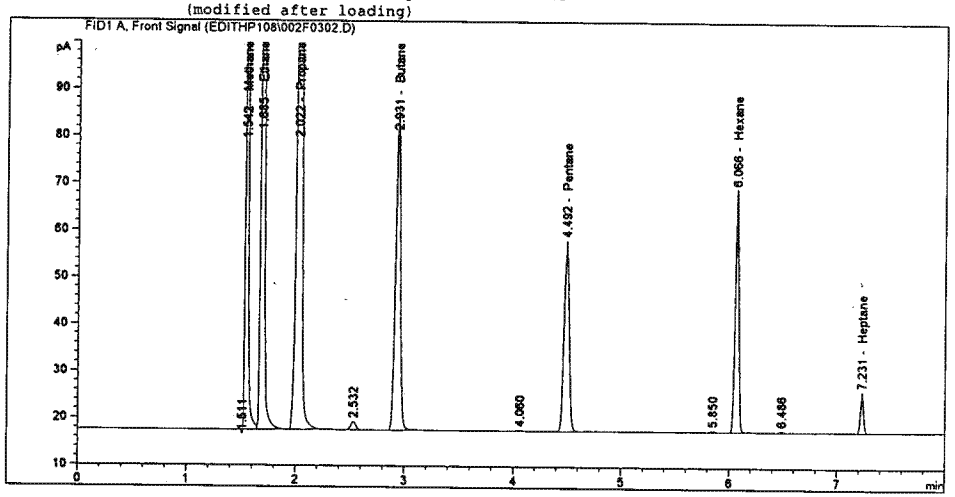

External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PV	279.70560	3.66421	1024.89974		Methane
1.685	VB	540.25098	1.89341	1022.91419		Ethane
2.022	BB	802.57178	1.27471	1023.04660		Propane
2.931	BB	213.83063	9.62178e-1	205.74321		Butane
4.492	BB	131.31786	7.81805e-1	102.66501		Pentane
6.066	BB	119.85897	6.66367e-1	79.87008		Hexane
7.231	BB	16.56271	5.48075e-1	9.07761		Heptane

Totals : 3468.21645

Uncalibrated Peaks : using compound Propane

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0203.D
Sample Name: EdithP108 #C7 ENV(1=800,6=243.33)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
0.068	BB	2.98571	1.26492	3.77668	?	
1.509	BP N	5.60743e-1	1.26492	7.09295e-1	?	
2.533	MM T	54.95855	1.27405	70.01985	?	
3.259	VB T	6.22596e-1	1.26492	7.87533e-1	?	
4.054	BV	7.35849	1.26945	9.34125	?	
4.857	VB	1.16596	1.26492	1.47484	?	
5.628	BB	1.61657	1.26492	2.04483	?	
5.850	BB	8.00895	1.26988	10.17043	?	
6.486	BB	6.94798	1.26914	8.81795	?	

Uncalib. totals : 107.14267

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	55.58114	56.7257
as Pentane	3.700	5.300	8.52444	6.8773
as Hexane	5.300	6.600	16.57350	11.4444
Totals :				75.0474

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Butane	55.58114	56.7257
as Pentane	8.52444	6.8773
as Hexane	16.57350	11.4444
Methane	2826.00024	1.035e4
Ethane	5449.19531	1.032e4
Propane	8111.08789	1.034e4
Butane	2166.25928	2.085e3
Pentane	1330.02405	1.043e3
Hexane	1210.53564	809.2177
Heptane	166.79295	91.0363
Totals :		3.5113e4

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0301.D
Sample Name: EdithP108 #C5 ENV(1=4900,6=121.67)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 11:49:30 AM
Seq. Line : 3
Location : Vial 2
Inj : 1
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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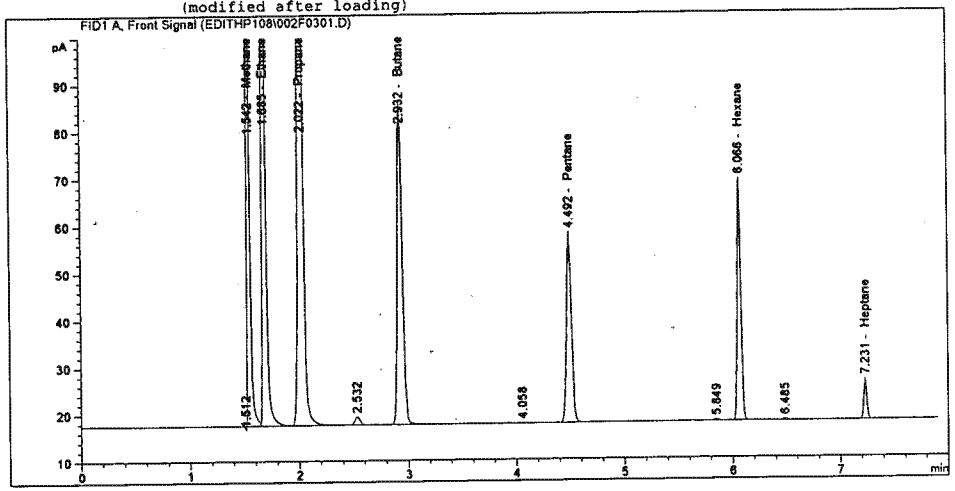


External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PV	279.65533	3.66421	1024.71563		Methane
1.685	VV	540.20013	1.89341	1022.81792		Ethane
2.022	VB	802.41431	1.27471	1022.84587		Propane
2.932	BB	214.20848	9.62179e-1	206.10692		Butane
4.492	BB	130.77841	7.81793e-1	102.24169		Pentane
6.066	BB	119.46789	6.66359e-1	79.60856		Hexane
7.231	BB	16.45404	5.48092e-1	9.01832		Heptane

Totals : 3467.35491

Uncalibrated Peaks : using compound Propane

MSD 032128

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0202.D
Sample Name: EdithP108 #C7 ENV(1=800,6=243.33)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
2.533	MM T	55.07153	1.27405	70.16388	?	
3.254	VB T	1.46397	1.26492	1.85180	?	
4.055	BB	7.19456	1.26933	9.13228	?	
4.846	BB	1.24461	1.26492	1.57433	?	
5.627	BB	1.63600	1.26492	2.06940	?	
5.850	BB	7.97587	1.26986	10.12826	?	
6.486	BB	6.90483	1.26910	8.76294	?	

Uncalib. totals : 103.68290

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	56.53550	57.6997
as Pentane	3.700	5.300	8.43917	6.8085
as Hexane	5.300	6.600	16.51669	11.4052
Totals :				75.9134

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

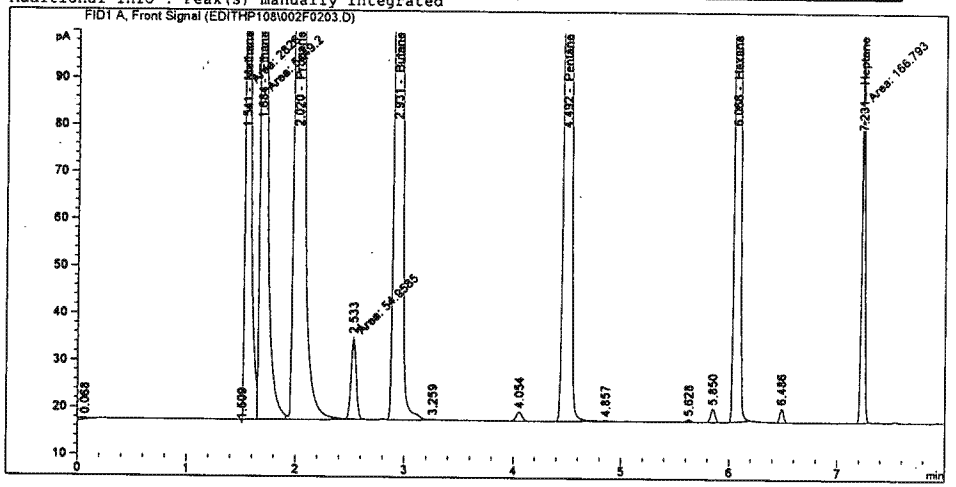
Name	Total Area [pA*s]	Amount [ppm]
as Butane	56.53550	57.6997
as Pentane	8.43917	6.8085
as Hexane	16.51669	11.4052
Methane	2831.83716	1.037e4
Ethane	5462.61475	1.034e4
Propane	8128.95898	1.036e4
Butane	2171.11353	2.090e3
Pentane	1331.40698	1.044e3
Hexane	1209.52686	808.5431
Heptane	166.37857	90.8102
Totals :		3.5189e4

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0203.D
Sample Name: EdithP108 #C7 ENV(1=800,6=243.33)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 11:33:11 AM
Seq. Line : 2
Location : Vial 2
Inj : 3
Inj Volume : 250 µl
Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)
Additional Info : Peak(s) manually integrated

Manual Int. "II" (JKG)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.541	MF	2826.00024	3.66309	1.03519e4		Methane
1.684	MF	5449.19531	1.89352	1.03182e4		Ethane
2.020	FM R	8111.08789	1.27475	1.03396e4		Propane
2.931	VV T	2166.25928	9.62523e-1	2085.07368		Butane
4.492	BV	1330.02405	7.84436e-1	1043.31861		Pentane
6.066	BB	1210.53564	6.68479e-1	809.21771		Hexane
7.231	MM	166.79295	5.45804e-1	91.03627		Heptane
Totals :				3.50384e4		

Uncalibrated Peaks : using compound Propane

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0201.D
Sample Name: EdithP108 #C7 ENV(1=800,6=243.33)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.257	FM	6.32473e-1	1.26492	8.00028e-1	?	
4.055	BB	7.19889	1.26933	9.13780	?	
4.851	BB	1.12338	1.26492	1.42098	?	
5.628	BB	1.65493	1.26492	2.09335	?	
5.850	BB	7.91996	1.26983	10.05700	?	
6.486	BB	6.91590	1.26911	8.77706	?	

Uncalib. totals : 32.28620

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	6.32473e-1	0.6455
as Pentane	3.700	5.300	8.32226	6.7142
as Hexane	5.300	6.600	16.49079	11.3873
Totals :				18.7470

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Butane	6.32473e-1	0.6455
as Pentane	8.32226	6.7142
as Hexane	16.49079	11.3873
Methane	2837.89941	1.040e4
Ethane	5473.52734	1.036e4
Propane	8198.47168	1.045e4
Butane	2174.47192	2.093e3
Pentane	1333.55444	1.046e3
Hexane	1210.79712	809.3926
Heptane	166.38818	90.8154
Totals :		3.5269e4

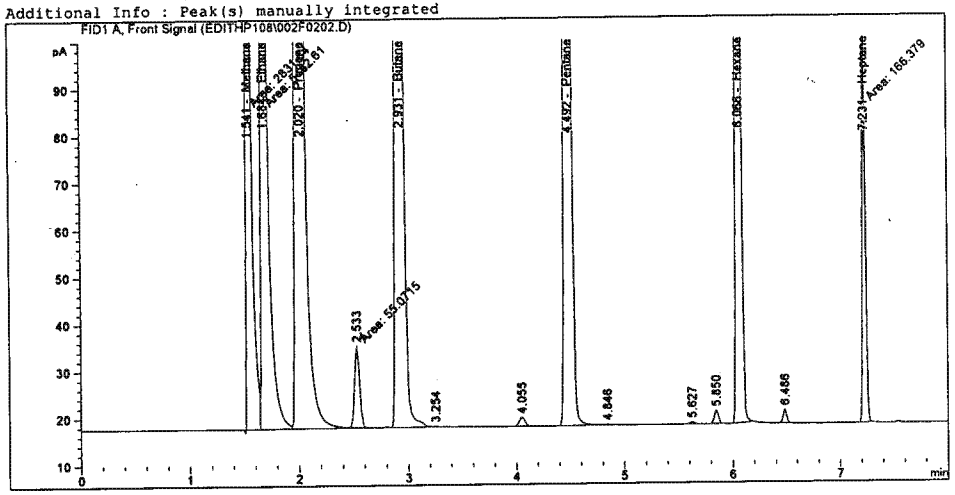
*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0202.D
Sample Name: EdithP108 #C7 ENV(1=800,6=243.33)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 11:16:47 AM
Seq. Line : 2
Location : Vial 2
Inj : 2
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)
Additional Info : Peak(s) manually integrated

Manual Int. "II" (JKG)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.541	MF	2831.83716	3.66309	1.03733e4		Methane
1.684	MF	5462.61475	1.89352	1.03436e4		Ethane
2.020	FM R	8128.95898	1.27475	1.03624e4		Propane
2.931	VV X	2171.11353	9.62523e-1	2089.74619		Butane
4.492	BB	1331.40698	7.84436e-1	1044.40383		Pentane
6.066	BB	1209.52686	6.68479e-1	808.54312		Hexane
7.231	MM	166.37857	5.45805e-1	90.81020		Heptane

Totals : 3.51128e4

Uncalibrated Peaks : using compound Propane

MSD 032130

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0104.D
Sample Name: EdithP108 #C9 ENV(1=0,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.507	BP N	3.68159e-1	1.26492	4.65692e-1		?
2.533	BB X	261.63516	1.27461	333.48275		?
2.806	BV X	2.16156	1.26492	2.73420		?
3.259	VV X	6.30059	1.26856	7.99269		?
4.055	VB T	34.12494	1.27361	43.46203		?
4.849	VB	4.99038	1.26693	6.32248		?
5.628	BB	7.64277	1.26965	9.70365		?
5.850	BV	37.59710	1.27372	47.88820		?
6.486	BB	32.65027	1.27356	41.58218		?
7.538	BB	3.15404	1.26492	3.98961		?

Uncalib. totals : 497.62347

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	270.09732	275.6592
as Pentane	3.700	5.300	39.11532	31.5572
as Hexane	5.300	6.600	77.89015	53.7851
as Heptane	6.600	13.000	3.15404	1.8544
Totals :				362.8559

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Butane	270.09732	275.6592
as Pentane	39.11532	31.5572
as Hexane	77.89015	53.7851
as Heptane	3.15404	1.8544
Methane	1.33497e4	4.890e4
Ethane	2.56982e4	4.866e4
Propane	3.82397e4	4.875e4
Butane	1.02236e4	9.841e3
Pentane	6264.18408	4.915e3
Hexane	5683.81885	3.801e3
Heptane	774.91528	422.7996
Totals :	1.6565e5	

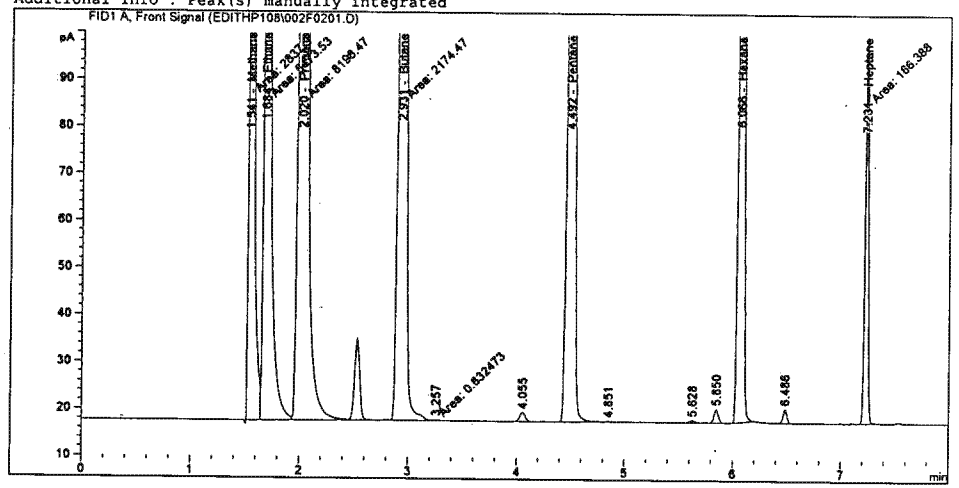
*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0201.D
Sample Name: EdithP108 #C7 ENV(1=800,6=243.33)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 11:00:20 AM
Seq. Line : 2
Location : Vial 2
Inj : 1
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)
Additional Info : Peak(s) manually integrated

Manual Int. "II" (JKG)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.541	MF	2837.89941	3.66309	1.03955e4		Methane
1.684	FM	5473.52734	1.89352	1.03642e4		Ethane
2.020	FM	8198.47168	1.27475	1.04510e4		Propane
2.931	MF	2174.47192	9.62523e-1	2092.97885		Butane
4.492	BB	1333.55444	7.84437e-1	1046.08900		Pentane
6.066	BB	1210.79712	6.68479e-1	809.39256		Hexane
7.231	MM	166.38818	5.45805e-1	90.81544		Heptane

Totals : 3.52500e4

Uncalibrated Peaks : using compound Propane

MSD 032131

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0103.D
Sample Name: EdithP108 #C9 ENV(1=0,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.508	BP N	3.70898e-1	1.26492	4.69157e-1		?
2.534	BB X	260.52020	1.27461	332.06144		?
2.807	BV X	2.15459	1.26492	2.72539		?
3.260	VB T	5.46515	1.26761	6.92770		?
4.056	BB	33.59258	1.27360	42.78340		?
4.850	VB	4.94411	1.26686	6.26350		?
5.628	BB	7.50741	1.26956	9.53109		?
5.851	BB	37.18023	1.27371	47.35678		?
6.487	BB	32.33476	1.27355	41.17998		?
7.538	BB	3.21634	1.26492	4.06841		?

Uncalib. totals : 493.36685

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	268.13994	273.6615
as Pentane	3.700	5.300	38.53670	31.0904
as Hexane	5.300	6.600	77.02240	53.1859
as Heptane	6.600	13.000	3.21634	1.8910

Totals : 359.8288

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Butane	268.13994	273.6615
as Pentane	38.53670	31.0904
as Hexane	77.02240	53.1859
as Heptane	3.21634	1.8910
Methane	1.32962e4	4.870e4
Ethane	2.55747e4	4.843e4
Propane	3.80294e4	4.848e4
Butane	1.01608e4	9.780e3
Pentane	6221.71289	4.882e3
Hexane	5630.36670	3.765e3
Heptane	764.27332	416.9938

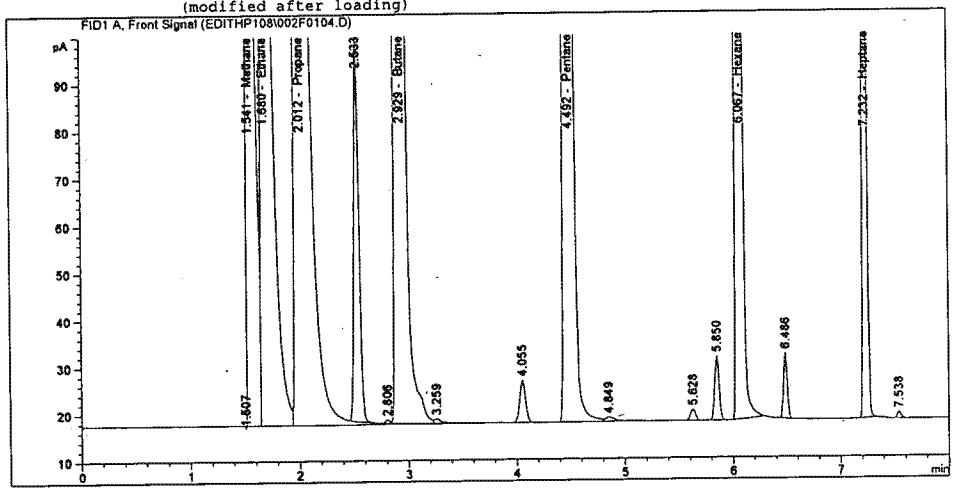
Totals : 1.6481e5

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0104.D
Sample Name: EdithP108 #C9 ENV(1=0,6=400)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 10:43:55 AM
Seq. Line : 1
Location : Vial 2
Inj : 4
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.541	PV	1.33497e4	3.66300	4.89001e4		Methane
1.680	VV	2.56982e4	1.89353	4.86603e4		Ethane
2.012	VB S	3.82397e4	1.27476	4.87463e4		Propane
2.929	VV X	1.02236e4	9.62552e-1	9840.78036		Butane
4.492	BV	6264.18408	7.84663e-1	4915.27277		Pentane
6.067	VB	5683.81885	6.68662e-1	3800.55195		Hexane
7.232	BB	774.91528	5.45608e-1	422.79961		Heptane

Totals : 1.65286e5

Uncalibrated Peaks : using compound Propane

MSD 032132

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0102.D
Sample Name: EdithP108 #C9 ENV(1=0,6=400)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.508	PP N	4.18803e-1	1.26492	5.29752e-1		?
2.535	BB X	265.56903	1.27461	338.49748		?
2.806	BV T	2.11725	1.26492	2.67815		?
3.261	VB T	3.10334	1.26492	3.92547		?
4.057	BB	34.32124	1.27362	43.71227		?
4.852	VB	5.78772	1.26801	7.33890		?
5.629	BB	7.69984	1.26969	9.77639		?
5.851	BB	37.88299	1.27373	48.25263		?
6.487	BB	32.84457	1.27357	41.82986		?
7.538	BB	3.14729	1.26492	3.98107		?

Uncalib. totals : 500.52198

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Start Time [min]	End Time [min]	Total Area [pA*s]	Amount [ppm]
as Butane	2.400	3.700	270.78962	276.3657
as Pentane	3.700	5.300	40.10896	32.3588
as Hexane	5.300	6.600	78.42740	54.1561
as Heptane	6.600	13.000	3.14729	1.8504

Totals : 364.7311

1 Warnings or Errors :

Warning : Reference compound(s) not found

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
as Butane	270.78962	276.3657
as Pentane	40.10896	32.3588
as Hexane	78.42740	54.1561
as Heptane	3.14729	1.8504
Methane	1.35438e4	4.961e4
Ethane	2.60609e4	4.935e4
Propane	3.87471e4	4.939e4
Butane	1.03501e4	9.963e3
Pentane	6329.58447	4.967e3
Hexane	5713.65137	3.821e3
Heptane	769.60168	419.9008

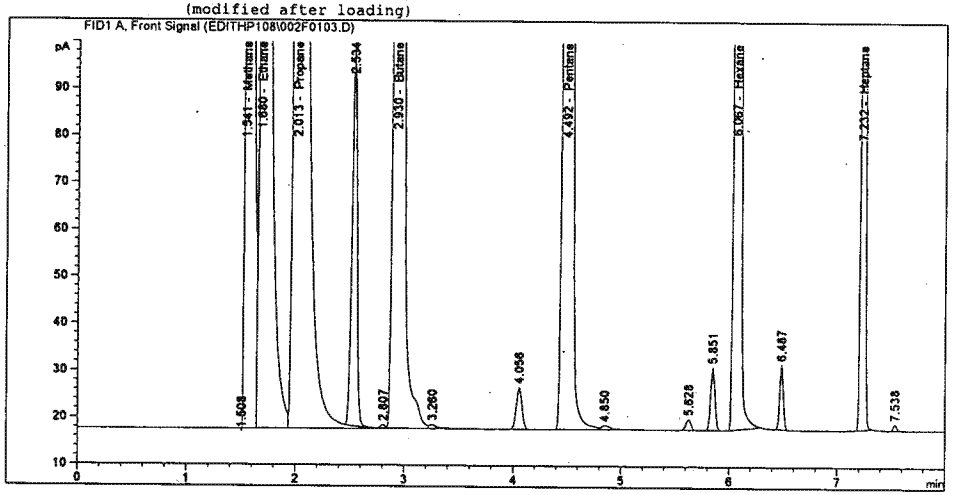
Totals : 1.6789e5

*** End of Report ***

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0103.D
Sample Name: EdithP108 #C9 ENV(1=0,6=400)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 10:27:35 AM
Seq. Line : 1
Location : Vial 2
Inj : 3
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
(modified after loading)



External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

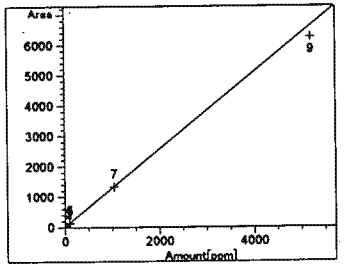
Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.541	PV	1.32962e4	3.66300	4.87040e4		Methane
1.680	VV	2.55747e4	1.89353	4.84265e4		Ethane
2.013	VB S	3.80294e4	1.27476	4.84783e4		Propane
2.930	VV X	1.01608e4	9.62552e-1	9780.26314		Butane
4.492	BV	6221.71289	7.84662e-1	4881.94461		Pentane
6.067	BB	5630.36670	6.68661e-1	3764.80790		Hexane
7.232	BB	764.27332	5.45608e-1	416.99385		Heptane

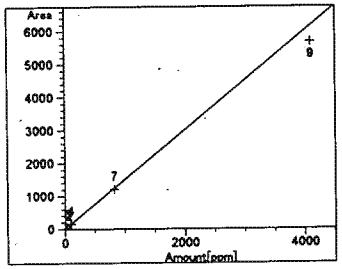
Totals : 1.64453e5

Uncalibrated Peaks : using compound Propane

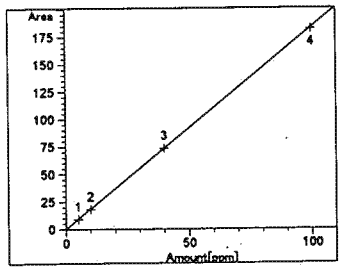
Method C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M



Pentane at exp. RT: 4.493
FID1 A, Front Signal
Correlation: 0.99942
Residual Std. Dev.: 158.88295
Formula: y = mx + b
m: 1.27433
b: 4.88422e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.002311
Level 7 : 0.000023
Level 9 : 9.24556e-007



Hexane at exp. RT: 6.067
FID1 A, Front Signal
Correlation: 0.99867
Residual Std. Dev.: 228.00851
Formula: y = mx + b
m: 1.49541
b: 4.20132e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 7 : 0.000037
Level 9 : 1.49019e-006



Heptane at exp. RT: 7.232
FID1 A, Front Signal
Correlation: 0.99999
Residual Std. Dev.: 0.60330
Formula: y = mx + b
m: 1.83300
b: -7.65536e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025

Data File C:\GC\2014\EDITH\QUARTER 3\EDITHP108\002F0102.D
Sample Name: EdithP108 #C9 ENV(1=0,6=400)

Acq. Operator : disconnected
Acq. Instrument : Edith
Injection Date : 9/19/2014 10:11:23 AM
Seq. Line : 1
Location : Vial 2
Inj : 2
Inj Volume : 250 µl

Acq. Method : C:\GC\2014\EDITH\QUARTER 3\EDITHP108\GC139P039_HRVOC.M
Last changed : 5/5/2014 7:30:03 AM by Todd Huml
Analysis Method : C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M
Last changed : 9/22/2014 10:21:52 AM by Justin Guenzler
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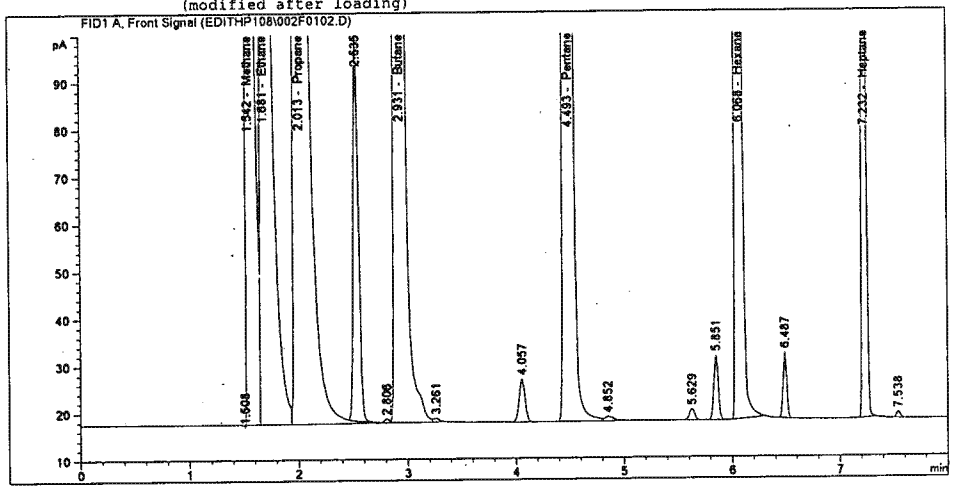


External Standard Report

Sorted By : Signal
Calib. Data Modified : 9/22/2014 10:21:52 AM
Multiplier : 1.0000
Dilution : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.542	PV	1.35438e4	3.66300	4.96110e4		Methane
1.681	VV	2.60609e4	1.89353	4.93471e4		Ethane
2.013	VB S	3.87471e4	1.27476	4.93932e4		Propane
2.931	VV T	1.03501e4	9.62552e-1	9962.51135		Butane
4.493	BV	6329.58447	7.84664e-1	4966.59403		Pentane
6.068	BB	5713.65137	6.68662e-1	3820.50129		Hexane
7.232	BB	769.60168	5.45608e-1	419.90076		Heptane

Totals : 1.67521e5

Uncalibrated Peaks : using compound Propane

MSD 032134

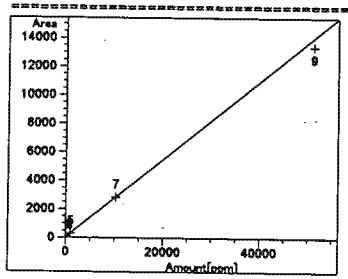
Method C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M

RetTime [min]	Sig	Lvl	Amount [ppm]	Area	Amt/Area	Ref	Grp	Name
		5	206.00000	213.97933	9.62710e-1			
		7	2060.00000	2170.61491	9.49040e-1			
		9	1.03000e4	1.02448e4	1.00539			
4.493	1	1	5.00000	6.79984	7.35311e-1			Pentane
		2	10.00000	13.34243	7.49489e-1			
		3	40.00000	53.24072	7.51305e-1			
		4	100.00000	131.72862	7.59136e-1			
		5	104.00000	131.05394	7.93566e-1			
		7	1040.00000	1331.66182	7.80979e-1			
		9	5200.00000	6271.82715	8.29104e-1			
6.067	1	1	5.00500	7.78685	6.42751e-1			Hexane
		2	10.01000	15.63340	6.40296e-1			
		3	40.04000	63.01467	6.35408e-1			
		4	100.10000	156.35443	6.40212e-1			
		7	820.00000	1210.28654	6.77526e-1			
		9	4100.00000	5675.94564	7.22347e-1			
7.232	1	1	4.99100	9.07234	5.50134e-1			Heptane
		2	9.98200	18.20331	5.48362e-1			
		3	39.92800	73.48394	5.43357e-1			
		4	99.82000	182.12613	5.48082e-1			

Peak Sum Table

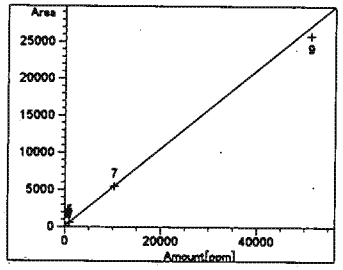
Name	StartTime [min]	EndTime [min]	Use Reference	Response factor	Multiplier	ISTD Peak
as Ethane	1.550	1.855	None	1.8884	1.8884	None
as Propane	1.855	2.479	None	1.2730	1.2730	None
as Butane	2.479	3.714	None	9.5915e-1	0.9591	None
as Pentane	3.714	5.209	None	7.7127e-1	0.7713	None
as Hexane	5.209	6.650	None	6.5976e-1	0.6598	None
as Heptane	6.650	13.000	None	5.4785e-1	0.5475	None

Calibration Curves

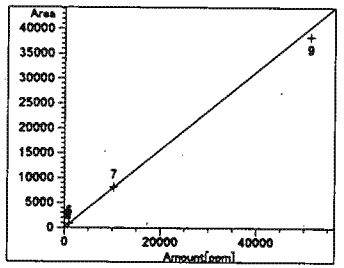


Methane at exp. RT: 1.543
FID1 A, Front Signal
Correlation: 0.99959
Residual Std. Dev.: 272.40560
Formula: y = mx + b
m: 2.73002e-1
b: -9.44523e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000024
Level 7 : 2.38441e-007
Level 9 : 9.53764e-009

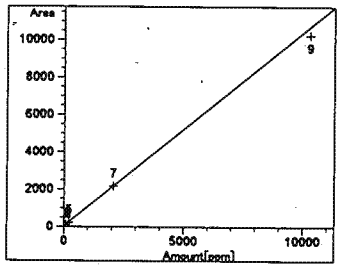
Method C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M



Ethane at exp. RT: 1.685
FID1 A, Front Signal
Correlation: 0.99959
Residual Std. Dev.: 588.10314
Formula: y = mx + b
m: 5.28113e-1
b: 3.66515e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000024
Level 7 : 2.37965e-007
Level 9 : 9.51861e-009

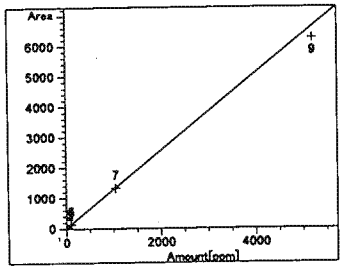


Propane at exp. RT: 2.023
FID1 A, Front Signal
Correlation: 0.99965
Residual Std. Dev.: 852.69660
Formula: y = mx + b
m: 7.84462e-1
b: 3.06331e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000024
Level 7 : 2.39394e-007
Level 9 : 9.57575e-009

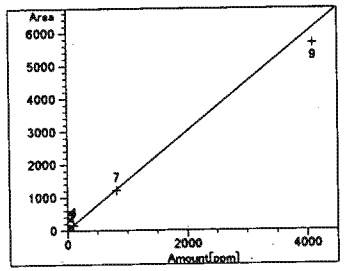


Butane at exp. RT: 2.932
FID1 A, Front Signal
Correlation: 0.99973
Residual Std. Dev.: 204.33121
Formula: y = mx + b
m: 1.03890
b: 8.48570e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000591
Level 7 : 5.91481e-006
Level 9 : 2.36593e-007

Method C:\GC\2015\EDITH\METHODS\EDITHP108F_C1-C6_XAS.M



Pentane at exp. RT: 4.519
FID1 A, Front Signal
Correlation: 0.99942
Residual Std. Dev.: 158.88295
Formula: y = mx + b
m: 1.27433
b: 4.88422e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.002311
Level 7 : 0.000023
Level 9 : 9.24556e-007



Hexane at exp. RT: 6.067
FID1 A, Front Signal
Correlation: 0.99867
Residual Std. Dev.: 228.00851
Formula: y = mx + b
m: 1.49541
b: 4.20132e-1
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 7 : 0.000037
Level 9 : 1.49019e-006

Method C:\GC\2014\EDITH\METHODS\EDITHP108F_C1-C7.M

Calibration Table

Calib. Data Modified : 9/23/2014 7:13:51 AM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.050 min
Uncalibrated Peaks : Separately calculated (see below)
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A, Front Signal
Uncalibrated Peaks : using compound Propane
Signal 2: FID3 B, Back Signal
Uncalibrated Peaks : not reported

RetTime [min]	Sig	Lvl	Amount [ppm]	Area	Amt/Area	Ref	Grp	Name
1.543	1	1	5.01000	1.24640	4.01958			Methane
		2	10.02000	2.73780	3.65988			
		3	40.08000	11.00137	3.64318			
		4	100.20000	27.38345	3.65914			
		5	1026.00000	279.47185	3.67121			
		7	1.02600e4	2831.91227	3.62299			
		9	5.13000e4	1.33966e4	3.82933			
1.685	1	1	5.00500	2.64095	1.89515			Ethane
		2	10.01000	5.43771	1.84085			
		3	40.04000	21.75508	1.84049			
		4	100.10000	53.44088	1.87310			
		5	1026.00000	539.84916	1.90053			
		7	1.02600e4	5461.77913	1.87851			
		9	5.13000e4	2.57779e4	1.99008			
2.023	1	1	5.02000	3.93552	1.27556			Propane
		2	10.04000	7.98325	1.25763			
		3	40.16000	32.24148	1.24560			
		4	100.40000	79.98379	1.25525			
		5	1026.00000	801.90285	1.27946			
		7	1.02600e4	8146.17285	1.25949			
		9	5.13000e4	3.83387e4	1.33807			
2.932	1	1	5.01000	5.26892	9.50859e-1			Butane
		2	10.02000	10.51788	9.52664e-1			
		3	40.08000	42.46952	9.43736e-1			
		4	100.20000	105.51465	9.49631e-1			

MSD 032136

Method C:\GC\2015\EDITH\METHODS\EDITHP108F_C1-C6_XAS.M

RetTime [min]	Sig	Lvl	Amount [ppm]	Area	Amt/Area	Ref	Grp	Name
		5	206.00000	213.97933	9.62710e-1			
		7	2060.00000	2170.61491	9.49040e-1			
		9	1.03000e4	1.02448e4	1.00539			
4.519	1	1	5.00000	6.79984	7.35311e-1			Pentane
		2	10.00000	13.34243	7.49489e-1			
		3	40.00000	53.24072	7.51305e-1			
		4	100.00000	131.72862	7.59136e-1			
		5	104.00000	131.05394	7.93566e-1			
		7	1040.00000	1331.66182	7.80979e-1			
		9	5200.00000	6271.82715	8.29104e-1			
6.067	1	1	5.00500	7.78685	6.42751e-1			Hexane
		2	10.01000	15.63340	6.40296e-1			
		3	40.04000	63.01467	6.35408e-1			
		4	100.10000	156.35443	6.40212e-1			
		7	820.00000	1210.28654	6.77526e-1			
		9	4100.00000	5675.94564	7.22347e-1			

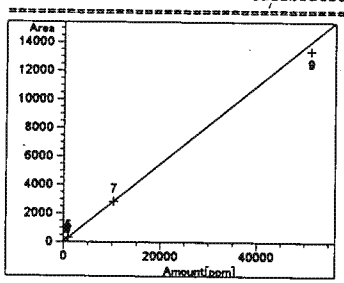
1 Warnings or Errors :

Warning : Cal. table open and changed while report was generated.

Peak Sum Table

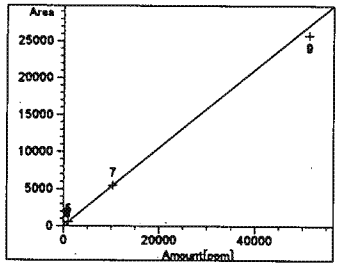
Name	StartTime [min]	EndTime [min]	Use Reference	Response factor	Multiplier	ISTD Peak
as Ethane	1.550	1.855	None	1.8884	1.8884	None
as Propane	1.855	2.479	None	1.2730	1.2730	None
as Butane	2.479	3.714	None	9.5915e-1	0.9591	None
as Pentane	3.714	5.209	None	7.7127e-1	0.7713	None
as Hexane	5.209	9.250	None	6.5976e-1	0.6598	None

Calibration Curves

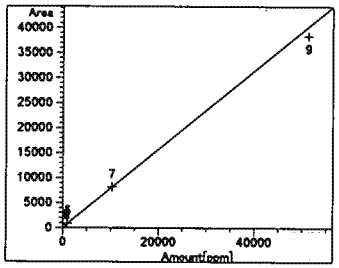


Methane at exp. RT: 1.543
FID1 A, Front Signal
Correlation: 0.99959
Residual Std. Dev.: 272.40560
Formula: y = mx + b
m: 2.73002e-1
b: -9.44523e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000024
Level 7 : 2.38441e-007
Level 9 : 9.53764e-009

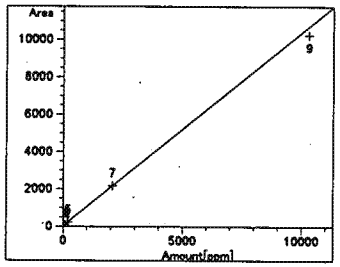
Method C:\GC\2015\EDITH\METHODS\EDITHP108F_C1-C6_XAS.M



Ethane at exp. RT: 1.685
FID1 A, Front Signal
Correlation: 0.99959
Residual Std. Dev.: 588.10314
Formula: y = mx + b
m: 5.28113e-1
b: 3.66515e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000024
Level 7 : 2.37965e-007
Level 9 : 9.51861e-009



Propane at exp. RT: 2.036
FID1 A, Front Signal
Correlation: 0.99965
Residual Std. Dev.: 852.69660
Formula: y = mx + b
m: 7.84462e-1
b: 3.06331e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000024
Level 7 : 2.39394e-007
Level 9 : 9.57575e-009



Butane at exp. RT: 2.957
FID1 A, Front Signal
Correlation: 0.99973
Residual Std. Dev.: 204.33121
Formula: y = mx + b
m: 1.03890
b: 8.48570e-2
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.25
Level 3 : 0.015625
Level 4 : 0.0025
Level 5 : 0.000591
Level 7 : 5.91481e-006
Level 9 : 2.36593e-007

Enthalpy Analytical

Company: Burr Engineering Company - Jefferson City
Client No: Bridgeton Landfill
Job No: 0315-18

Parameters: EPA Method 18-Type
Samples: 2 Canisters
Analyst: TBO / JKG

Methane -- Calibration Standards, Laboratory Blanks and Controls

Sample ID	Sequence	Filename #1	Filename #2	Filename #3	Analysis Method	Ret Time (min)	Ret Time (min)	Ret Time (min)	%diff RT	Conc # 1	Conc # 2	Conc # 3	%diff conc	Avg Conc ppm	Standard Tag	% Tag
EdithP220 #C3 ENV(1=600,2=400)	EDITHP233B.v3	002F0401.D	002F0402.D	002F0403.D	EDITHP108F_C1-C7.M	1.55	1.55	1.55	0.0	40.4	40.9	41.4	1.2	40.9	41.2	99.3
zero air blank 6L8	EDITHP233B.v3	014F0602.D	014F0603.D	014F0604.D	EDITHP108F_C1-C7.M	1.55	1.56	1.56	0.0	1.20	1.06	1.09	7.8	1.12	NA	NA
EdithP220 #C3 ENV(1=600,2=400)	EDITHP233B.v3	002F1901.D	002F1902.D	002F1903.D	EDITHP108F_C1-C7.M	1.55	1.55	1.55	0.0	40.9	40.7	40.8	1.2	40.5	41.2	98.4
EdithP220 #C3 ENV(1=600,2=400)	EDITHP233B.v3	002F2401.D	002F2402.D	002F2403.D	EDITHP108F_C1-C7.M	1.55	1.55	1.55	0.0	40.9	40.8	40.9	0.2	40.9	41.2	99.2
EdithP220 #C3 ENV(1=600,2=400)	EDITHP234.v3	002F0901.D	002F0902.D	002F0903.D	EDITHP108F_C1-C6_XAS.M	1.55	1.55	1.55	0.0	41.2	40.9	41.0	0.4	41.0	41.2	99.5

Method C:\GC\2015\EDITH\METHODS\EDITHP108F_C1-C6_XAS.M

Calibration Table

Calib. Data Modified : 3/9/2015 3:24:18 PM

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.050 min
Uncalibrated Peaks : Separately calculated (see below)
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Connected
Weight : Quadratic (Amnt)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Signal 1: FID1 A, Front Signal
Uncalibrated Peaks : using compound Propane
Signal 2: FID3 B, Back Signal
Uncalibrated Peaks : not reported

RetTime [min]	Sig	Lvl	Amount [ppm]	Area	Amt/Area	Ref	Grp	Name
1.543	1	1	5.01000	1.24640	4.01958			Methane
		2	10.02000	2.73780	3.65988			
		3	40.08000	11.00137	3.64318			
		4	100.20000	27.38345	3.65914			
		5	1026.00000	279.47185	3.67121			
		7	1.02600e4	2831.91227	3.62299			
		9	5.13000e4	1.33966e4	3.82933			
1.685	1	1	5.00500	2.64095	1.89515			Ethane
		2	10.01000	5.43771	1.84085			
		3	40.04000	21.75508	1.84049			
		4	100.10000	53.44088	1.87310			
		5	1026.00000	539.84916	1.90053			
		7	1.02600e4	5461.77913	1.87851			
		9	5.13000e4	2.57779e4	1.99008			
2.036	1	1	5.02000	3.93552	1.27556			Propane
		2	10.04000	7.98325	1.25763			
		3	40.16000	32.24148	1.24560			
		4	100.40000	79.98379	1.25525			
		5	1026.00000	801.90285	1.27946			
		7	1.02600e4	8146.17285	1.25949			
		9	5.13000e4	3.83387e4	1.33807			
2.957	1	1	5.01000	5.26892	9.50859e-1			Butane
		2	10.02000	10.51788	9.52664e-1			
		3	40.08000	42.46952	9.43736e-1			
		4	100.20000	105.51465	9.49631e-1			

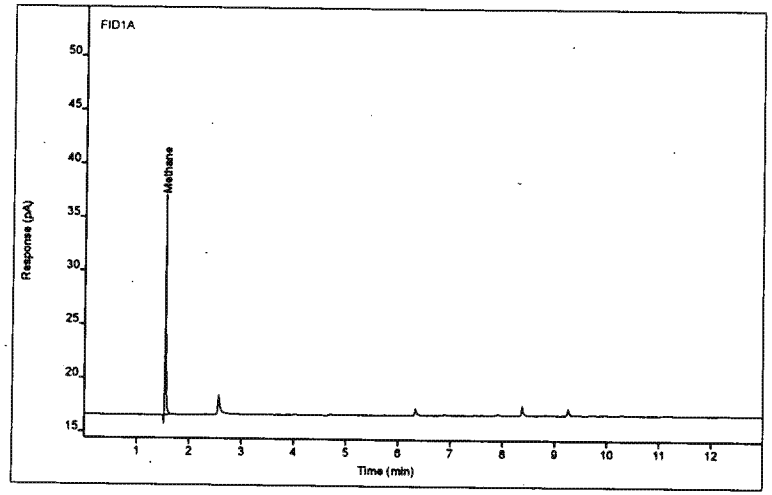
MSD 032138

Chromatogram Report

Sample Name	0315-18.LS-4009.Can
Sequence Name	EDITHP234 ver.3
Data File	005F0102.D
File Location	GC/2015/Edith/Quarter 2
Injection Date	4/6/2015 12:01 PM
File Modified	4/7/2015 12:48 PM
Instrument	
Operator	Justin Guenzler

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 5
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C6_XAS.M
Method Modified	3/26/2015 11:28 AM
Printed	4/7/2015 1:05 PM



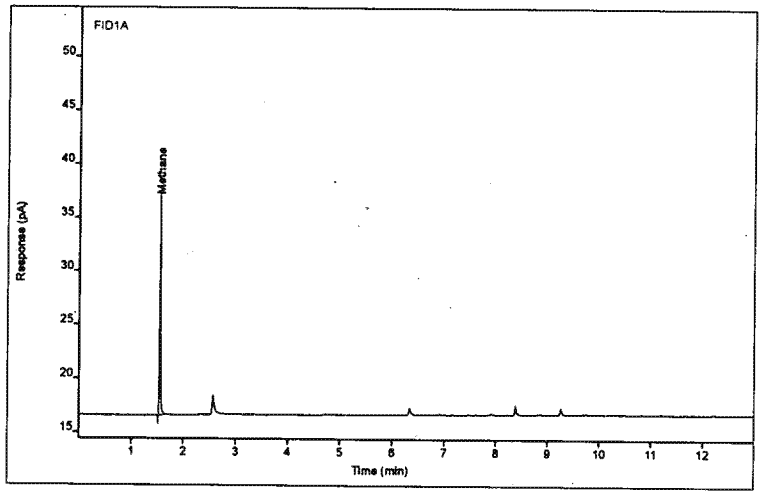
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	28.0029	20.3821	102.920	1	102.920	ppm

Chromatogram Report

Sample Name	0315-18.LS-4009.Can
Sequence Name	EDITHP234 ver.3
Data File	005F0103.D
File Location	GC/2015/Edith/Quarter 2
Injection Date	4/6/2015 12:20 PM
File Modified	4/7/2015 12:48 PM
Instrument	
Operator	Justin Guenzler

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 5
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C6_XAS.M
Method Modified	3/26/2015 11:28 AM
Printed	4/7/2015 1:05 PM



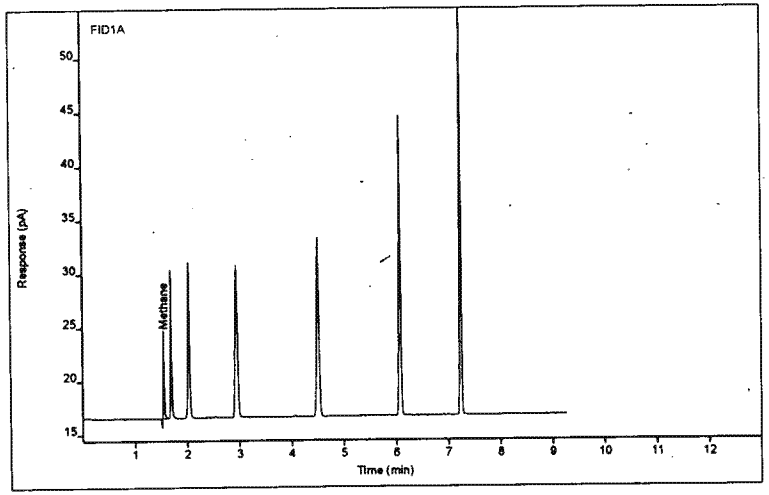
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	27.9091	20.3323	102.576	1	102.576	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)
Sequence Name	EDITHP234 ver.3
Data File	002F0903.D
File Location	GC/2015/Edith/Quarter 2
Injection Date	4/7/2015 2:28 AM
File Modified	4/7/2015 12:49 PM
Instrument	
Operator	Justin Guenzler

Sample Type	Calibration
Vial Number	Vial 2
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC139P039_HRVOC.M
Analysis Method	EDITHP108F_C1-C6_XAS.M
Method Modified	3/26/2015 11:28 AM
Printed	4/7/2015 1:05 PM



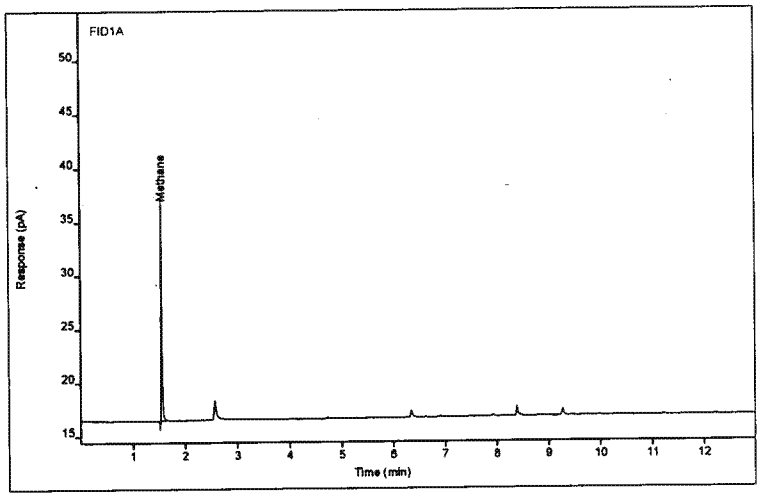
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	11.0916	8.15760	40.9742	1	40.9742	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0315-18.LS-4009.Can
Sequence Name	EDITHP234 ver.3
Data File	005F0101.D
File Location	GC/2015/Edith/Quarter 2
Injection Date	4/8/2015 11:42 AM
File Modified	4/7/2015 12:48 PM
Instrument	
Operator	Justin Guenzler

Sample Type	Sample
Vial Number	Vial 5
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C6_XAS.M
Method Modified	3/26/2015 11:28 AM
Printed	4/7/2015 1:05 PM

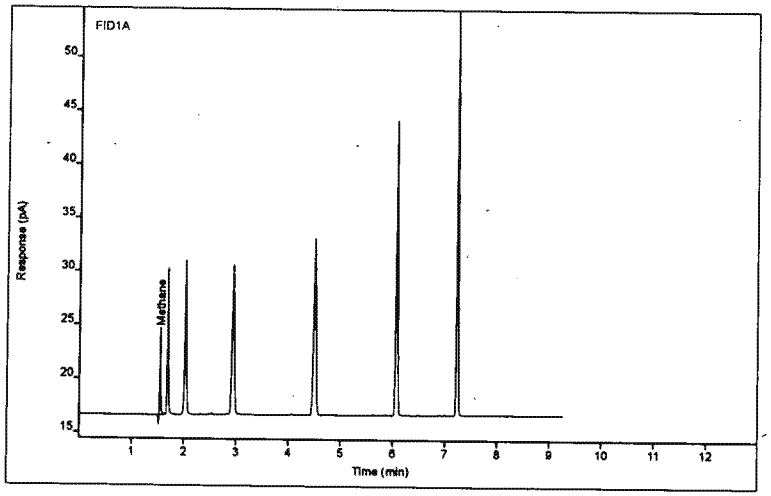


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	28.0438	20.2533	103.069	1	103.069	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)	Sample Type	Calibration
Sequence Name	EDITHP234 ver.3	Vial Number	Vial 2
Data File	002F0901.D	Injection Volume	250
File Location	GC/2015/Edith/Quarter 2	Injection	1 of 3
Injection Date	4/7/2015 1:57 AM	Acquisition Method	GC139P039_HRVOC.M
File Modified	4/7/2015 12:49 PM	Analysis Method	EDITHP108F_C1-C6_XAS.M
Instrument		Method Modified	3/26/2015 11:28 AM
Operator	Justin Guenzler	Printed	4/7/2015 1:05 PM

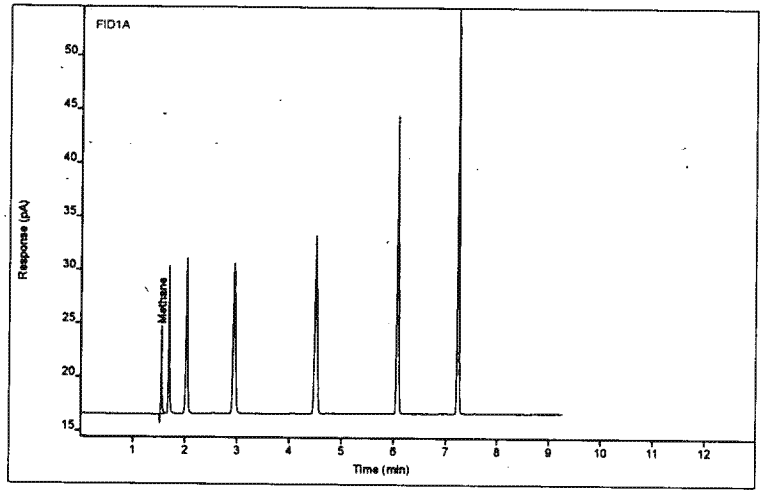


Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PV	1.55	11.1533	8.06093	41.2002	1	41.2002	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	EdithP220 #C3 ENV(1=600,2=400)	Sample Type	Calibration
Sequence Name	EDITHP234 ver.3	Vial Number	Vial 2
Data File	002F0902.D	Injection Volume	250
File Location	GC/2015/Edith/Quarter 2	Injection	2 of 3
Injection Date	4/7/2015 2:13 AM	Acquisition Method	GC139P039_HRVOC.M
File Modified	4/7/2015 12:49 PM	Analysis Method	EDITHP108F_C1-C6_XAS.M
Instrument		Method Modified	3/26/2015 11:28 AM
Operator	Justin Guenzler	Printed	4/7/2015 1:05 PM



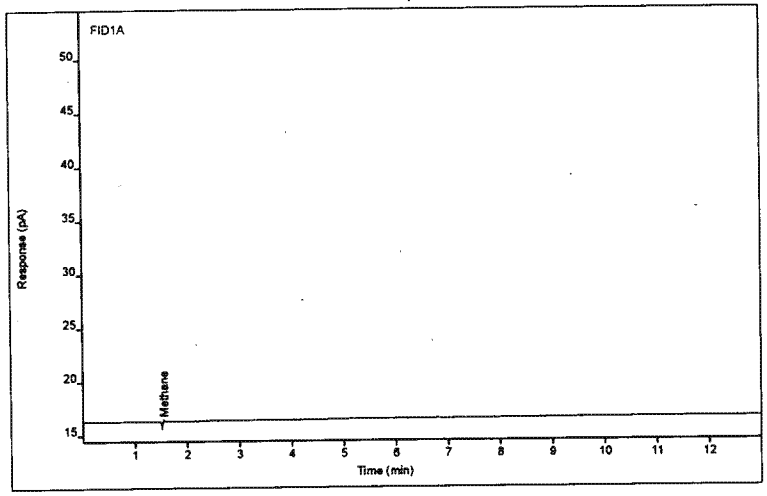
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	11.0722	8.14964	40.9032	1	40.9032	ppm

Chromatogram Report

Sample Name	zero air blank #LB
Sequence Name	EDITHP233B ver.3
Data File	014F0603.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 4:01 AM
File Modified	4/8/2015 11:28 AM
Instrument	
Operator	Justin Guenzler

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 14
Injection Volume	250
Injection	3 of 4
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



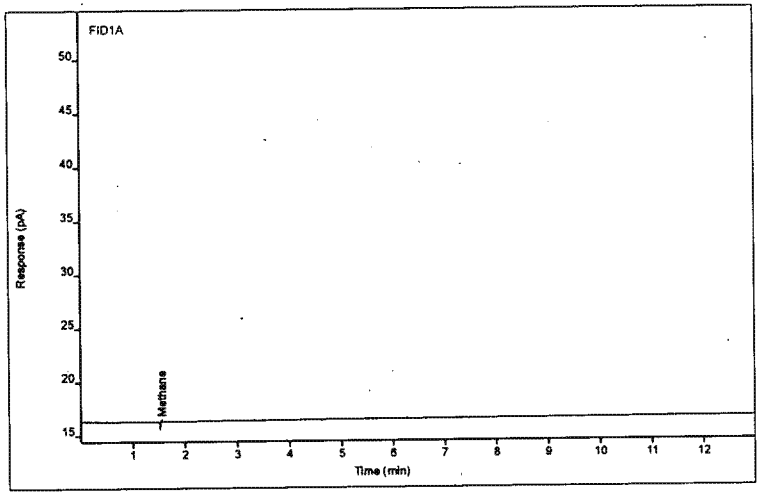
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.56	0.27011	0.21564	1.06280	1	1.06280	ppm

Chromatogram Report

Sample Name	zero air blank #LB
Sequence Name	EDITHP233B ver.3
Data File	014F0604.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 4:20 AM
File Modified	4/8/2015 11:28 AM
Instrument	
Operator	Justin Guenzler

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 14
Injection Volume	250
Injection	4 of 4
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



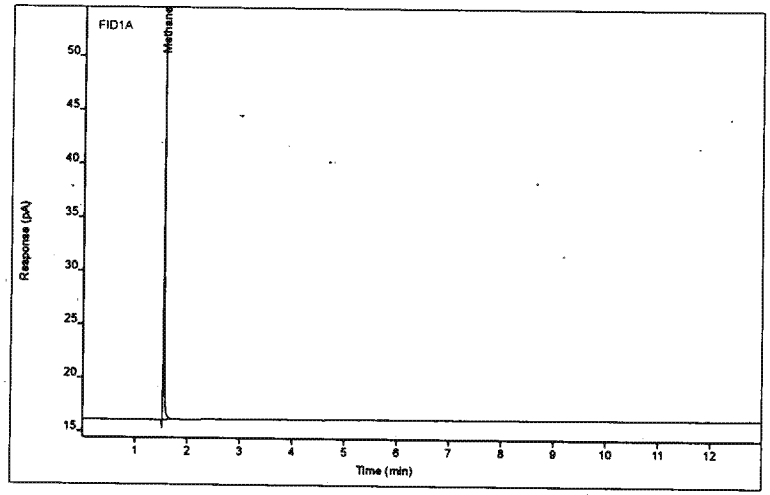
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.56	0.27595	0.22653	1.08580	1	1.08580	ppm

Chromatogram Report

Sample Name	0315-18.VC-4014.Can
Sequence Name	EDITHP233B ver.3
Data File	007F0903.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 2:46 PM
File Modified	4/6/2015 11:28 AM
Instrument	
Operator	Turner Oppy

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 7
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



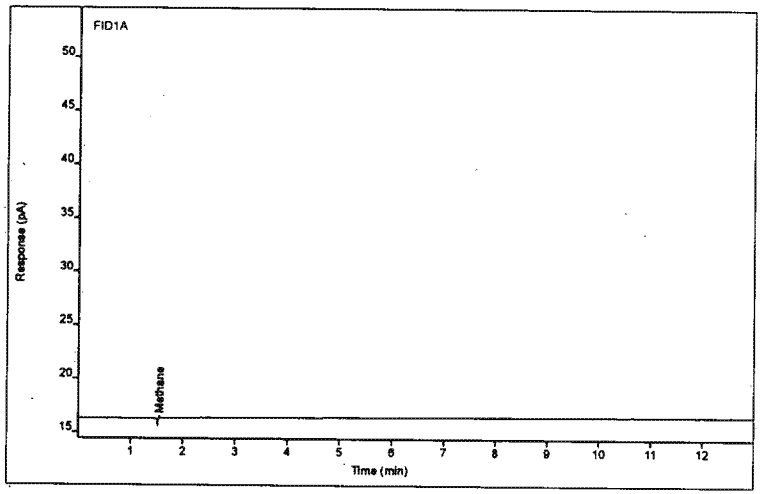
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	48.4354	34.9612	177.783	1	177.783	ppm

Chromatogram Report

Sample Name	zero air blank #LB
Sequence Name	EDITHP233B ver.3
Data File	014F0602.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 3:43 AM
File Modified	4/6/2015 11:28 AM
Instrument	
Operator	Justin Guenzler

Enthalpy Analytical

Sample Type	Sample
Vial Number	Vial 14
Injection Volume	250
Injection	2 of 4
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



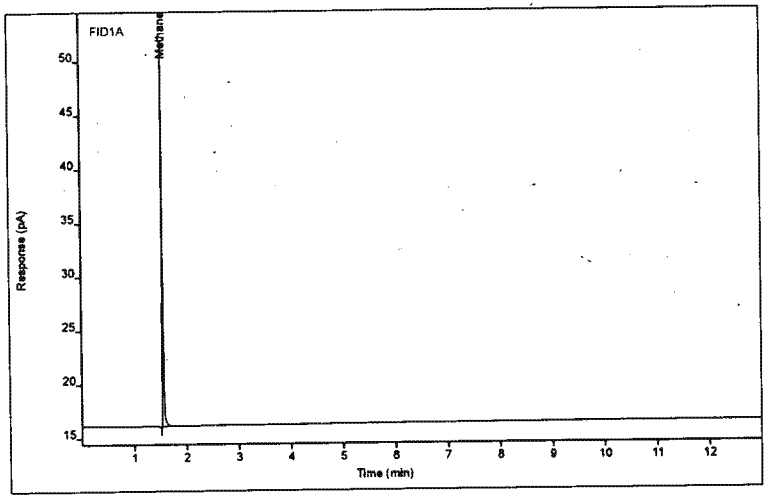
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	0.30528	0.21797	1.20117	1	1.20117	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0315-18.VC-4014.Can
Sequence Name	EDITHP233B ver.3
Data File	007F0901.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 2:09 PM
File Modified	4/6/2015 11:28 AM
Instrument	
Operator	Turner Oppy

Sample Type	Sample
Vial Number	Vial 7
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



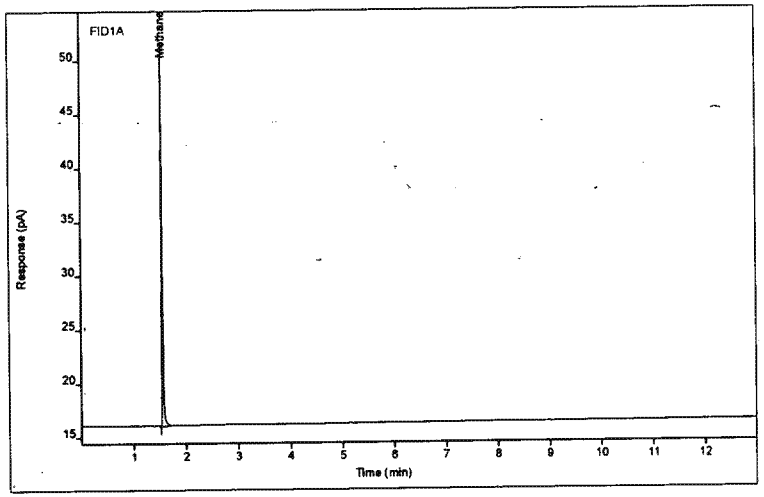
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	49.3995	35.5579	181.295	1	181.295	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0315-18.VC-4014.Can
Sequence Name	EDITHP233B ver.3
Data File	007F0902.D
File Location	GC/2015/Edith/Quarter 1
Injection Date	4/3/2015 2:27 PM
File Modified	4/6/2015 11:28 AM
Instrument	
Operator	Turner Oppy

Sample Type	Sample
Vial Number	Vial 7
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC139P039_HRVOC_LONG.M
Analysis Method	EDITHP108F_C1-C7.M
Method Modified	2/10/2015 7:21 AM
Printed	4/7/2015 1:05 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	1.55	49.5885	35.2665	181.987	1	181.987	ppm

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

May 4, 2015

Brian Power
Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

RE: NOTICE OF VIOLATIONS – WASTEWATER DISCHARGE PERMIT NO. 1003803000 – 1.2
For premise at: 13570 St. Charles Rock Road

Dear Mr. Power:

We have reviewed the April 28, 2015 correspondence that your consultant submitted to MSD. He informed us that sampling was not performed during the week of March 29. Unfortunately, this constitutes a violation of Bridgeton Landfill's permit.

VIOLATIONS OF PERMIT TERMS/CONDITIONS:

- Permit Special Condition II.B.3 – requires the following sampling frequencies:

  Following the District's declaration of plant acceptance, the permittee's discharge will be sampled for the parameters listed under sampling point 013 as follows:
  1. Once/day for the first 30 calendar days. This sample of fully treated leachate may be collected from an internal sampling point prior to entry into the approved storage tank; however at least the final three samples must be collected from an approved tank.
  2. At the end of the 30 day period, if analytical results are obtained for at least the final 7 consecutive days at or below the limits contained in the permit for on-site discharge, or in District Ordinance 12559 if not contained in the permit, sampling will continue on a once/week schedule for the next three months.
  3. Should analytical results from once/week sampling meet the discharge limits for three consecutive months, sampling will continue at a once/month frequency for the following six months.
  4. Should analytical results from once/month sampling meet the discharge limits for six consecutive months, sampling will continue at the frequencies defined in the permit.

  Sample type and reporting frequency shall be as follows:

Sampling Frequency	Sample Type	Reporting Frequency
Once/day (12:00 am to 12:00 am)	Grab or 24-hr composite	Once/week. Reports shall be submitted by noon on each Wednesday and include all operational and laboratory reports received for activity through the previous Saturday.
Once/week (Sunday to Saturday)	24-hr composite	Once/week. Reports shall be submitted within2 weeks (14 calendar days) of sampling.

Once/calendar month	24-hr composite	Once/month. Reports shall be submitted within 3 weeks (21 calendar days) of sampling.

- Bridgeton Landfill is currently under the once/week sampling requirements.
    - **Bridgeton Landfill did not collect and analyze a sample for the week of March 29, 2015 through April 4, 2015.**

REQUIRED ACTION/RESPONSE:

Your consultant has provided the reasons no sample was collected and analyzed. He also included corrective actions as follows:

> We are making adjustments to better anticipate events so as not to miss a weekly sample in the future. These may include sampling earlier in the week, or arranging for Saturday set-up for short-hold parameters. During the week of April 19, for example, the sample was collected on Tuesday.

Therefore, no further action is required on your part for this particular violation.

Thank you for helping us comply with federal and state regulations. If you have any questions, please contact me at 314.436.8717.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Douglas M. Mendoza, P.E.
Manager of Industrial Pretreatment

cc: Chris Bulmahn
Tom Boehm

APRIL 2015

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, April 29, 2015 11:05 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

CB 5-06

The material for the week is now posted on Barr's ftp site.

- The first quarter radiochemistry data for 013 and 014 data are all included. See last week's update for additional explanation regarding the 014 sample.
- On4/9/2015, Bridgeton Landfill co-sampled untreated leachate with MDNR. Those results are included under the "Internal Sampling" tab.
- There was no internal permeate or 013 analysis for 04/18/2015.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
4/27/2015	T1-100-AS	9	67,500	165,000
	HW	13	97,500	
4/24/2015	HW	18	135,000	322,500
	T1-099-AS	25	187,500	
4/23/2015	T1-099-AS	26	195,000	330,000
	HW	18	135,000	
4/22/2015	HW	24	180,000	330,000
	HW	20	150,000	
4/21/2015	HW	19	142,500	330,000
	T1-098-AS	25	187,500	

Table 1

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-100-AS	4/27/2015		Field	No QC	WASTE_2015	--	9780	--	--	--	7.65	--
HW	4/24/2015		Field	No QC	WASTE_2015	--	19900	--	--	--	7.62	--
T1-99-AS	4/23/2015		Field	No QC	WASTE_2015	--	18800	--	--	--	7.59	--
HW	4/22/2015		Field	No QC	WASTE_2015	--	18800	--	--	--	7.29	--
HW	4/21/2015		Field	No QC	WASTE_2015	--	15100	--	--	--	7.29	--
T1-98-AS	4/20/2015	6:15 AM	PDC	Validated	5042969	6000	13000	--	--	--	--	--
T1-98-AS	4/20/2015		Field	No QC	WASTE_2015	--	16600	--	--	--	7.40	--
HW	4/17/2015		Field	No QC	WASTE_2015	--	10830	--	--	--	7.78	--
T1-97-AS	4/16/2015	7:00 AM	PDC	Validated	5042520	6300	11000	--	--	--	--	--
T1-97-AS	4/16/2015		Field	No QC	WASTE_2015	--	11110	--	--	--	7.38	--
HW	4/15/2015		Field	No QC	WASTE_2015	--	12760	--	--	--	7.73	--
HW	4/14/2015		Field	No QC	WASTE_2015	--	15050	--	--	--	7.78	--

Table 1

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
T1-100-AS	4/27/2015		Field	No QC	WASTE_2015	11060	41.5	--	--	--	--	--
HW	4/24/2015		Field	No QC	WASTE_2015	11940	35.9	--	--	--	--	--
T1-99-AS	4/23/2015		Field	No QC	WASTE_2015	8780	35.4	--	--	--	--	--
HW	4/22/2015		Field	No QC	WASTE_2015	9300	40.4	--	--	--	--	--
HW	4/21/2015		Field	No QC	WASTE_2015	9220	42.9	--	--	--	--	--
T1-98-AS	4/20/2015	6:15 AM	PDC	Validated	5042969	6800	--	--	--	--	--	--
T1-98-AS	4/20/2015		Field	No QC	WASTE_2015	8740	43.4	--	--	--	--	--
HW	4/17/2015		Field	No QC	WASTE_2015	9200	44.1	--	--	--	--	--
T1-97-AS	4/16/2015	7:00 AM	PDC	Validated	5042520	6600 h	--	--	--	--	--	--
T1-97-AS	4/16/2015		Field	No QC	WASTE_2015	9300	43.5	--	--	--	--	--
HW	4/15/2015		Field	No QC	WASTE_2015	8080	38.8	--	--	--	--	--
HW	4/14/2015		Field	No QC	WASTE_2015	8960	36.2	--	--	--	--	--

MSD 032151

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	11700	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	14100	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	19700	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	25400	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	16200	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	2340	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	30200	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	5450	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	20100	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	20000	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	19700	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	18100	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	23800	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	29400	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	31100	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	45300	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	16160	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	16020	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	4740	6510	0.0062	--	--	31.1
MH013	4/16/2015			LPTP	No QC	LPTP	--	25.90 BQU	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	13180	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	12980	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	15070	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	13230	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	12320	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	12700	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	12220	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	13710	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	14590	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	13660	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	11250	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	10050	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	12650	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	8460	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	9580	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	8460	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	8680	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	2760	7360	0.016	--	--	28.1
MH013	4/07/2015			LPTP	No QC	LPTP	--	4010	--	--	--	--

MSD 032152

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	2.42	129477	--	7.21	3.61
MH013	4/26/2015			LPTP	No QC	LPTP	--	1.78	--	--	7.17	2.47
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	6.8	185747	--	7.19	2.84
MH013	4/25/2015			LPTP	No QC	LPTP	--	1.7	--	--	7.01	1.64
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	3.4	94200	--	7.27	1.51
MH013	4/24/2015			LPTP	No QC	LPTP	--	1.1	--	--	6.52	1.03
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	6.2	100654	--	7.21	1.52
MH013	4/23/2015			LPTP	No QC	LPTP	--	2.9	--	--	6.85	1.52
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	1.69	118618	--	7.29	1.38
MH013	4/22/2015			LPTP	No QC	LPTP	--	1.71	--	--	6.85	1.49
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	1.73	134348	--	7.28	2.97
MH013	4/21/2015			LPTP	No QC	LPTP	--	1.69	--	--	7.17	1.16
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	1.67	87480	--	--	1.12
MH013	4/20/2015			LPTP	No QC	LPTP	--	1.74	--	--	--	0.87
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	168540	--	--	2.6
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	1.63
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	45091	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	2.08	166878	--	7.24	2.51
MH013	4/17/2015			LPTP	No QC	LPTP	--	1.30	--	--	7.33	2.67
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	89164	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	< ND 5.0	--	--	7.9	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	1.54	--	--	7.48	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	3.71	149976	--	7.41	2.66
MH013	4/15/2015			LPTP	No QC	LPTP	--	5.22	--	--	7.53	2.71
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	1.46	141480	--	7.06	2.98
MH013	4/14/2015			LPTP	No QC	LPTP	--	3.66	--	--	7.09	5.45
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	3.58	33450	--	7.04	4.64
MH013	4/13/2015			LPTP	No QC	LPTP	--	4.23	--	--	7.14	4.78
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	4.55	159406	--	7.04	3.82
MH013	4/12/2015			LPTP	No QC	LPTP	--	4.62	--	--	7.12	3.21
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	10.5	162852	--	7.33	2.26
MH013	4/11/2015			LPTP	No QC	LPTP	--	10.7	--	--	7.31	1.52
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	84992	--	7.35	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	7.21	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	4	127930	--	7.75	2.05
MH013	4/09/2015			LPTP	No QC	LPTP	--	3.67	--	--	7.12	1.65
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	3.98	198550	--	7.24	3.69
MH013	4/08/2015			LPTP	No QC	LPTP	--	3.55	--	--	7.36	3.31
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	3.60	170284	--	7.58	3.92
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	25.8	--	--	7.6	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	1.70	--	--	7.54	2.81

MSD 032153

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	20.5	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	41.5	98642	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	27	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	206	135925	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	22	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	31.5	109671	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	26	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	14	131172	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	18	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	253.5	127627	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	25	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	148	99884	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	18.5	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	111	78138	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	19.5	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	68	141834	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	38843	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	3.5	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	32.5	126314	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	27.0	--	1.5	1079	--	< ND 10.0	195
MH013	4/16/2015			LPTP	No QC	LPTP	15	170749	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	6.5	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	23.5	136918	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	11	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	27	117426	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	20	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	29.5	29821	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	48	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	62	117549	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	30	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	58	123090	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	35	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	43	72853	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	163	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	177	85772	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	117	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	153	162453	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	103	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	150	--	3.4	857	--	13.2	350
MH013	4/07/2015			LPTP	No QC	LPTP	140	158381	--	--	--	--	--

MSD 032154

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold		700 ug/l	5000 ug/l	2700 ug/l	150000 ug/l	400 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	< ND 1.0	< ND 5.0	20.2	< ND 10.0	3110	< ND 5.0	100000
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	< ND 1.0	< ND 5.0	32.3	< ND 10.0	8700	< ND 5.0	159000
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032155

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	1,2,4-Trichlorobenzene
						Total or Dissolved	Total	Total	Total	Total	Total	Total	NA
						Permit Limitation/Surcharge Threshold	10 ug/l	2300 ug/l		500 ug/l		3000 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	< ND 0.20	16.6	< ND 15.0	< ND 7.0	< ND 20.0	< ND 50.0	< ND 50.0
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	< ND 0.20	30.4	< ND 15.0	< ND 7.0	< ND 20.0	< ND 50.0	< ND 25.5
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032156

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	ND	ND	ND	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032157

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	ND	ND	ND	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032158

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzidine	Benzo(a)pyrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	ND	ND	ND	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032159

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	ND	ND	ND	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032160

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Butyl benzyl phthalate	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	ND	ND	ND	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032161

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	ND	< ND 50.0	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	ND	ND	< ND 25.5	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032162

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	< ND 50.0	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	< ND 25.5	ND	ND	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032163

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Phenanthrene	Phenol	Pyrene	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	279	ND	ND	< ND 50.0	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	130	ND	ND	< ND 50.0	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032164

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,1-Dichloroethylene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	< ND 50.0	ND	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	< ND 50.0	ND	ND	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032165

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,3-Dichloro-1-propene, trans	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Benzene	Bromodichloromethane	Bromoform
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold					140 ug/l		
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	ND	< ND 50.0	ND	< ND 50.0	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	ND	< ND 50.0	ND	< ND 50.0	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032166

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	< ND 250.0	ND	< ND 50.0	ND	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	< ND 250.0	ND	< ND 50.0	ND	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032167

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Ethyl benzene	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	< ND 50.0	< ND 50.0	ND	< ND 50.0	ND	ND	ND
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	< ND 50.0	< ND 50.0	ND	< ND 50.0	ND	ND	ND
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032168

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Xylene, total	4,4'-DDD	4,4'-DDE	4,4'-DDT	a-BHC	Aldrin	Aroclor 1016
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	ND	--	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	ND	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032169

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	b-BHC
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	--	--	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032170

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Chlordane, alpha & gamma	d-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	--	--	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032171

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Endrin Aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Toxaphene
						Total or Dissolved	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold					
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/26/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/25/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/24/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/23/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/22/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/21/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/20/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/16/2015	1:00 PM	10:30 PM	Pace	Validated	60192191	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/07/2015	12:30 PM	11:00 PM	Pace	Validated	60191467	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--

MSD 032172

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CB 5-06

DM 5-7

Mr. Chris Bulmahn
Associate Engineer
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

April 24, 2015

Dear Mr. Bulmahn:

First Quarter 2015 Self-Monitoring Report,
Bridgeton Landfill, LLC. Discharge Permit No. 1003803000 - 1

Bridgeton Landfill, LLC. is submitting the First Quarter 2015 leachate sampling and analysis report for the Bridgeton Landfill. On January 20 and January 21, 2015 a composite sample of treated leachate was collected from sampling point 014 for analysis of radioactive constituents, as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Wastewater Discharge Permit No. 1003803000 - 1. Per a March 21, 2014 phone conversation between Ed Galbraith of Barr Engineering and Missouri Department of Natural Resources, a composite sample of treated leachate was collected for Total Dissolved Solids (TDS) and Total Suspended Solids (TSS) concurrent with the composite sample for radioactive constituents. The samples collected for analysis of radioactive constituents, TDS, and TSS were analyzed by Eberline Services located in Oak Ridge, Tennessee.

On March 19, 2015 a composite sample of treated leachate was collected from sampling point 013 for analysis of radioactive constituents, as required by the MSD Wastewater Discharge Permit No. 1003803000-1. Per a March 21, 2014 phone conversation between Ed Galbraith of Barr Engineering and Missouri Department of Natural Resources, a composite sample of treated leachate was collected for Total Dissolved Solids (TDS) and Total Suspended Solids (TSS) concurrent with the composite sample for radioactive constituents. The samples collected for analysis of radioactive constituents, TDS, and TSS were analyzed by Eberline Services located in Oak Ridge, Tennessee.

The results indicate that the analyzed parameters are within permitted limits.

The Eberline laboratory analytical reports associated with this quarterly report have been provided previously to MSD via the Barr ftp site. The locations for these reports are as follows:

ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/2015 0422/

For all other permit parameters, which were collected by Civil and Environmental Consultants, Inc. (CEC), the data reports and spreadsheets can be found at:

ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/2015 0107
through
ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/2015 0429

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Attachment 1 presents discussion on permit required sampling at MH013. The MSD Self-Monitoring Report Forms are provided as Attachment 2. Attachment 3 presents methodology used to calculate the amount of radionuclide activity discharged during the First Quarter 2015 monitoring period. Attachment 4 presents methodology used to calculate the amount of radionuclide activity hauled during the First Quarter 2015 monitoring period. Attachment 5 presents monthly leachate volume records for the Bridgeton Landfill for January, February, and March 2015.

Please contact Derek Bouchard, Environmental Specialist at 314-302-3634 if you have any questions or comments.

Sincerely,

HERST & ASSOCIATES, INC.

Matt Stewart
Project Geologist

Ward E. Herst
Managing Partner

cc: *Derek Bouchard, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health

Attachments:
Attachment 1 – MH013 Sampling Discussion
Attachment 2 – MSD Industrial User Self-Monitoring Reports
Attachment 3 – Calculations of Discharged Activity
Attachment 4 – Calculations of Hauled Activity
Attachment 5 – Monthly Leachate Volume Records at Bridgeton Landfill

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: **1003803000 – 1** Effective Date: **September 1, 2014** Expiration Date: **August 31, 2019**
Premise Address: 13570 St. Charles Rock Road

Monitoring Period: ☑ (JAN-MAR) ☐(APR-JUNE) ☐ (JULY-SEPT) ☐ (OCT-DEC)

Samples Collected By: **Matt Stewart, Herst & Associates, Inc.**

Analyses Performed By: **Eberline Services**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨		014		013				
DATES ON WHICH SAMPLES WERE COLLECTED ⇨		1/20-21/2015		3/19/2015				
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨		1225, 1629, 0839, 1219		0900, 1000, 1055, 1155				
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW			N/A		100,648 ✓			GPD
pH Acidic (≤7)	5.5	G		G				SU
pH Basic(≥7)	11.5	G	7.75 ✓	G	7.59 ✓			SU
Temperature	60	G	12.7 ✓	G	33.5 ✓			°C
Total Dissolved Solids	***	C	8,820	C	13,700			mg/L
Total Suspended Solids	***	C	2,370 ✓	C	590 ✓			mg/L
Gross Alpha	***	C	< MDA < 109	C	< MDA <	570		pCi/L
Gross Beta	***	C	295 ± 74.6	C	312 ± 58.5			pCi/L
Gross Gamma	***	C	313 ± 61.8	C	297 ± 73.2			pCi/L
Radium – 226	600	C	< MDA < 0.864	C	< MDA <	0.571		pCi/L
Radium – 228	600	C	< MDA < 4.25	C	< MDA <	2.23		pCi/L
Uranium (Total)		C	< MDA < 1.03	C	< MDA <	1.00		µg/L
Uranium (Total)	3000	C	0.786		< MDA <	0.402		pCi/L
		Already entered on 4-22-15 report. CB						

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You must complete and sign the certification statements on the second page.

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS.**

O	NO DISCHARGE OF HAZARDOUS HAULED WASTE For permit special conditions that prohibit discharge of hazardous waste to the District, you are required to make the following certification: DPB I certify, since the last discharge monitoring report, there has been no discharge of hazardous waste to the District.

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION **All permittees must sign and complete the information below:** I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my 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 my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Print or type name of signing official: **Derek Bouchard** Title: **Environmental Specialist** Telephone: **314-302-3634** Signature: Derek Bouchard Date: 4/23/15

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

CB

Part I: **Identifying Information**

Company Name: Bridgeton Landfill, LLC

Permit No.: 1003803000 - 1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [X] (Jan-Mar) [ ] (Apr-Jun) [ ] (July-Sept) [ ] (Oct-Dec)

Part II: **Record of Disposal of Radioactive Materials to the Sewer System**

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	N/A
Gross Beta	2.87×10^{10}
Gross Gamma	3.00×10^{10}
Radium - 226	N/A
Radium - 228	N/A
Total Uranium (Uranium – 234 plus Uranium – 235 plus Uranium – 238)	6.48×10^{7}
Total Activity Discharged :	5.88×10^{10}

Notes:
N/A: Not applicable. Constituent below Minimum Detectable Activity.

Part III: **Certification Statements**

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. **Certification of Compliance with Federal regulations**

[X] I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. **Radioactive Materials Discharge Report Certification**

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

Print or type name of signing official: Derek Bouchard

Title: Environmental Specialist

Telephone: 314-302-3634

Signature: Derek Bouchard

Date: 4/23/15

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Attachment 3

Calculation of Discharged Activity

In accordance with Special Condition II.C.3 of the Bridgeton Landfill MSD Permit (Permit 1003803000 - 1), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. A separate calculation was made of activity by radionuclide hauled to MSD facilities during the reporting period (Attachment 4). The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the First Quarter 2015 monitoring period.

To determine the discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided on the Barr Engineering ftp site, the following radionuclide activity concentrations were reported from samples collected from leachate sampling point 013 during the First Quarter 2015 monitoring period.

Constituent	Result	Units
Gross Alpha	< MDA	pCi/L
Gross Beta	312 ± 58.5	pCi/L
Gross Gamma	297 ± 73.2	pCi/L
Radium – 226	< MDA	pCi/L
Radium – 228	< MDA	pCi/L
Uranium – 234	< MDA	pCi/L
Uranium – 235	< MDA	pCi/L
Uranium - 238	< MDA	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
< MDA = Less than Minimum Detectable Activity

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 013 during the First Quarter 2015 monitoring period:

- January 2015: 702,337 gallons
- February 2015: 1,021,581 gallons
- March 2015: 2,037,887 gallons

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Summation of the monthly volumes provides the total volume discharged during the First Quarter 2015 period:

$$702{,}337\ gal + 1{,}021{,}581\ gal + 2{,}037{,}887\ gal = 3{,}761{,}805\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

$$3{,}761{,}805\ gal \times \frac{3.785\ L}{gal} = 14{,}238{,}432\ \text{L}$$

Therefore, to determine the discharge activity attributable to Gross Beta, multiply the activity concentration by the hauled volume:

$$\frac{312\ pCi}{L} \times 14{,}238{,}432\ L = 4.44 \times 10^9\ pCi$$

Similarly, for Gross Gamma:

$$\frac{297\ pCi}{L} \times 14{,}238{,}432\ L = 4.23 \times 10^9\ pCi$$

No calculation was performed for Gross Alpha, Radium - 226, Radium - 228, or Total Uranium (the total activity concentration of Uranium – 234 plus Uranium – 235 plus Uranium – 238) since the reported values were less than the Minimum Detectable Activity.

Summation of the two (2) results yields the total discharged activity for the First Quarter 2015 reporting period:

$$4.44 \times 10^9\ pCi + 4.23 \times 10^9\ pCi = 8.67 \times 10^9\ pCi$$

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Attachment 4

Calculation of Hauled Activity

In accordance with Special Condition II.C.3 of the Bridgeton Landfill MSD Permit (Permit 1003803000 - 1), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. A calculation was made of activity by radionuclide hauled to MSD facilities during the reporting period. A separate calculation was made of activity by radionuclide discharged to the sewer system during the reporting period (Attachment 3). The following methodology was used to calculate the activity hauled from Bridgeton Landfill during the First Quarter 2015 monitoring period.

To determine the activity hauled for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume hauled during the reporting period:

$$\begin{matrix}\textit{Hauled}\\ \textit{Activity}\end{matrix} = \begin{matrix}\textit{Activity}\\ \textit{Concentration}\end{matrix} \times \begin{matrix}\textit{Hauled}\\ \textit{Volume}\end{matrix}$$

As provided on the Barr Engineering ftp site,, the following radionuclide activity concentrations were reported from samples collected from leachate sampling point 014 during the First Quarter 2015 monitoring period.

Constituent	Result	Units
Gross Alpha	< MDA	pCi/L
Gross Beta	295 ± 74.6	pCi/L
Gross Gamma	313 ± 61.8	pCi/L
Radium – 226	< MDA	pCi/L
Radium – 228	< MDA	pCi/L
Uranium - 234	0.786 ± 0.554	pCi/L
Uranium – 235	< MDA	pCi/L
Uranium - 238	< MDA	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
< MDA = Less than Minimum Detectable Activity

As provided in Attachment 5, the following monthly volumes were hauled from the Bridgeton Landfill to MSD facilities during the First Quarter 2015 monitoring period:

- January 2015: 8,370,000 gallons
- February 2015: 6,420,000 gallons
- March 2015: 7,005,000 gallons

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Summation of the monthly volumes provides the total volume hauled from the Bridgeton Landfill to MSD facilities during the First Quarter 2015 period:

$$8{,}370{,}000\ gal + 6{,}420{,}000\ gal + 7{,}005{,}000\ gal = 21{,}795{,}000\ gal$$

Because activity concentration results are presented in pCi/L, the hauled volume is converted from units of gallons to liters prior to calculation of hauled activity:

$$21{,}795{,}000\ gal \times \frac{3.785\ L}{gal} = 82{,}494{,}075\ \text{L}$$

Therefore, to determine the hauled activity attributable to Gross Beta, multiply the activity concentration by the hauled volume:

$$\frac{295\ pCi}{L} \times 82{,}494{,}075\ L = 2.43 \times 10^{10}\ pCi$$

Similarly, for Gross Gamma:

$$\frac{313 pCi}{L} \times 82{,}494{,}075\ L = 2.58 \times 10^{10}\ pCi$$

Similarly, for Total Uranium: (During the First Quarter 2015 monitoring period, Uranium – 235 and Uranium – 238 were less than the Minimum Detectable Activity, therefore Total Uranium is the activity concentration of Uranium – 234)

$$\frac{0.786 pCi}{L} \times 82{,}494{,}075\ L = 6.48 \times 10^{7}\ pCi$$

No calculation was performed for Gross Alpha, Radium-226, or Radium-228 since the reported values were less than the Minimum Detectable Activity.

Summation of the three (3) results yields the total hauled activity for the First Quarter 2015 reporting period:

$$2.43 \times 10^{10}\ pCi + 2.58 \times 10^{10}\ pCi + 6.48 \times 10^{7}\ pCi = 5.02 \times 10^{10}\ pCi$$

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Hauled Disposal to MSD – Bissell Point

Date	Waste	Source	Transporter	Quantity
1/1/2015	LPTP Activated Sludge/ Permeate	Tank 1 (T1)	MBI	0
1/2/2015				165,000
1/3/2015				270,000
1/4/2/015				270,000
1/5/2015				300,000
1/6/2015				300,000
1/7/2015				300,000
1/8/2015				300,000
1/9/2015				300,000
1/10/2015				300,000
1/11/2015				300,000
1/12/2015				300,000
1/13/2015				300,000
1/14/2015				300,000
1/15/2015				300,000
1/16/2015				300,000
1/17/2015				300,000
1/18/2015				300,000
1/19/2015				300,000
1/20/2015				300,000
1/21/2015				300,000
1/22/2015				300,000
1/23/2015				300,000
1/24/2015				225,000
1/25/2015				0
1/26/2015				240,000
1/27/2015				300,000
1/28/2015				300,000
1/29/2015				300,000
1/30/2015				300,000
1/31/2015				300,000

Total = 8,370,000

Direct Discharge to MSD – Missouri River Plant

Date	Waste	Source	Quantity (gal)
1/1/2015	LPTP Permeate	Through Tank AST 97k (MSD Sampling Point 013)	171,886
1/2/2015			164,725
1/3/2015			180,086
1/4/2/015			83,079
1/5/2015			0
1/6/2015			0
1/7/2015			0
1/8/2015			0
1/9/2015			0
1/10/2015			0
1/11/2015			0
1/12/2015			0
1/13/2015			0
1/14/2015			102,561
1/15/2015			0
1/16/2015			0
1/17/2015			0
1/18/2015			0
1/19/2015			0
1/20/2015			0
1/21/2015			0
1/22/2015			0
1/23/2015			0
1/24/2015			0
1/25/2015			0
1/26/2015			0
1/27/2015			0
1/28/2015			0
1/29/2015			0
1/30/2015			0
1/31/2015			0

Total = 702,337

Hauled Disposal to MSD – Bissell Point

Date	Waste	Source	Transporter	Quantity
2/1/2015	LPTP Activated Sludge/ Permeate	Tank 1 (T1)	MBI	300,000
2/2/2015				300,000
2/3/2015				300,000
2/4/2015				300,000
2/5/2015				300,000
2/6/2015				300,000
2/7/2015				300,000
2/8/2015				300,000
2/9/2015				120,000
2/10/2015				0
2/11/2015				120,000
2/12/2015				240,000
2/13/2015				240,000
2/14/2015				0
2/15/2015				0
2/16/2015				232,500
2/17/2015				300,000
2/18/2015				270,000
2/19/2015				270,000
2/20/2015				255,000
2/21/2015				240,000
2/22/2015				240,000
2/23/2015				240,000
2/24/2015				255,000
2/25/2015				255,000
2/26/2015				232,500
2/27/2015				255,000
2/28/2015				255,000

Total = 6,420,000

Direct Discharge to MSD – Missouri River Plant

Date	Waste	Source	Quantity (gal)
2/1/2015	LPTP Permeate	Through Tank AST 97k (MSD Sampling Point 013)	0
2/2/2015			0
2/3/2015			0
2/4/2015			0
2/5/2015			0
2/6/2015			82,218
2/7/2015			137,709
2/8/2015			74,418
2/9/2015			99,379
2/10/2015			99,555
2/11/2015			102,643
2/12/2015			105,549
2/13/2015			152,379
2/14/2015			69,010
2/15/2015			98,721
2/16/2015			0
2/17/2015			0
2/18/2015			0
2/19/2015			0
2/20/2015			0
2/21/2015			0
2/22/2015			0
2/23/2015			0
2/24/2015			0
2/25/2015			0
2/26/2015			0
2/27/2015			0
2/28/2015			0

Total = 1,021,581

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Hauled Disposal to MSD – Bissell Point

Date	Waste	Source	Transporter	Quantity
3/1/2015	LPTP Activated Sludge/ Permeate	Tank 1 (T1)	MBI	255,000
3/2/2015				255,000
3/3/2015				255,000
3/4/2015				255,000
3/5/2015				255,000
3/6/2015				255,000
3/7/2015				255,000
3/8/2015				255,000
3/9/2015				255,000
3/10/2015				180,000
3/11/2015				180,000
3/12/2015				180,000
3/13/2015				255,000
3/14/2015				0
3/15/2015				0
3/16/2015				300,000
3/17/2015				300,000
3/18/2015				300,000
3/19/2015				300,000
3/20/2015				240,000
3/21/2015				240,000
3/22/2015				240,000
3/23/2015				292,500
3/24/2015				300,000
3/25/2015				300,000
3/26/2015				165,000
3/27/2015				172,500
3/28/2015				172,500
3/29/2015				255,000
3/30/2015				172,500
3/31/2015				165,000

Total = 7,005,000

Direct Discharge to MSD – Missouri River Plant

Date	Waste	Source	Quantity (gal)
3/1/2015	LPTP Permeate	Through Tank AST 97k (MSD Sampling Point 013)	0
3/2/2015			0
3/3/2015			0
3/4/2015			0
3/5/2015			0
3/6/2015			0
3/7/2015			0
3/8/2015			0
3/9/2015			97,094
3/10/2015			93,506
3/11/2015			60,295
3/12/2015			98,801
3/13/2015			94,752
3/14/2015			76,214
3/15/2015			99,815
3/16/2015			99,972
3/17/2015			99,358
3/18/2015			100,643
3/19/2015			100,648
3/20/2015			99,704
3/21/2015			101,282
3/22/2015			94,310
3/23/2015			102,612
3/24/2015			99,836
3/25/2015			110,348
3/26/2015			74,495
3/27/2015			70,148
3/28/2015			101,704
3/29/2015			81,430
3/30/2015			40,049
3/31/2015			40,871

Total =2,037,887

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TO: **Chris Verplancke, Finance Department**
Cynthia Chalk, Finance Department

FROM: Angie McDonough amm

DATE: April 28, 2015

RE: **BRIDGETON LANDFILL LLC**
WASTEWATER USER CHARGE BILLING
ACCOUNT NUMBER 0039145-8

Pursuant to the MSD Industrial Wastewater Discharge Permit for the above referenced facility, please bill this facility for the following charges for the indicated billing period:

DISCHARGE PERIOD: **March 2015**

BILLING IS FOR: **On- Site Special Discharge**

SAMPLE POINT: **013 - Commingled landfill leachate and landfill gas collection system condensate.**

Billing Item	Quantity	Units	Rate	Charge
Volume	2,731	CcF	$ 2.82 /CcF	$7,701.42
BOD Extra-Strength Surcharge	2,673	mg/L	$ 620.14 /ton	$12,539.03
Total	–	–	–	$20,240.45

If you have any questions, please call me at extension 8762.

bv

ec: Doug Mendoza
Brian Gibson
Bridgeton Republic Services
Laura Joiner
Cathy Politte
Keidra King

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

Table 1
15-03108-OR RadChem Data

Location	013			
Date	3/19/2015			
lab_name_code	Eberline	Eberline - MDA	Eberline	Eberline - MDA
Sample Type	DO	DO	DUP	DUP
Data Status	Validated	Validated	Validated	Validated
lab_sdg	15-03108	15-03108	15-03108	15-03108
Parameter				
General Parameters				
Solids, total dissolved	13700 mg/l		--	
Solids, total suspended	590 mg/l		--	
Radiochemical Parameters				
Actinium-228	-2.34 +/- 12.3 pCi/l	18.8 pCi/l	15.4 +/- 12.3 pCi/l	23.1 pCi/l
Bismuth 212	8.03 +/- 23.9 pCi/l	39.9 pCi/l	-3.34 +/- 24.2 pCi/l	37.1 pCi/l
Bismuth 214	1.88 +/- 6.05 pCi/l	9.81 pCi/l	7.09 +/- 5.65 pCi/l	8.93 pCi/l
Gross Alpha (radiation)	10.3 +/- 24.8 pCi/l	57.0 pCi/l	-10.4 +/- 32.4 pCi/l	88.6 pCi/l
Gross Beta (radiation)	312 +/- 72.7 pCi/l	92.6 pCi/l	284 +/- 72.3 pCi/l	101 pCi/l
Gross Gamma	297 +/- 74.8 pCi/l	98.3 pCi/l	353 +/- 73.0 pCi/l	36.3 pCi/l
Lead 212	0.812 +/- 5.12 pCi/l	7.51 pCi/l	0.353 +/- 4.75 pCi/l	7.17 pCi/l
Lead 214	2.43 +/- 5.43 pCi/l	8.71 pCi/l	-0.154 +/- 5.77 pCi/l	9.45 pCi/l
Potassium 40	297 +/- 74.8 pCi/l	98.3 pCi/l	353 +/- 73.0 pCi/l	36.3 pCi/l
Radium 226	0.271 +/- 0.358 pCi/l	0.571 pCi/l	0.267 +/- 0.338 pCi/l	0.534 pCi/l
Radium 228	1.51 +/- 1.18 pCi/l	2.23 pCi/l	1.17 +/- 1.24 pCi/l	2.46 pCi/l
Thallium 208	2.35 +/- 8.66 pCi/l	14.0 pCi/l	1.15 +/- 9.19 pCi/l	13.7 pCi/l
Thorium 234	68.6 +/- 65.6 pCi/l	89.8 pCi/l	79.0 +/- 64.9 pCi/l	90.5 pCi/l
Uranium 234	0.0376 +/- 0.157 pCi/l	0.402 pCi/l	0.394 +/- 0.573 pCi/l	0.972 pCi/l
Uranium 235	0.173 +/- 0.265 pCi/l	0.395 pCi/l	0.0733 +/- 0.336 pCi/l	0.785 pCi/l
Uranium 235 (gamma spec)	-1.67 +/- 13.2 pCi/l	21.4 pCi/l	6.18 +/- 12.1 pCi/l	20.4 pCi/l
Uranium 238	0.292 +/- 0.303 pCi/l	0.319 pCi/l	0.276 +/- 0.373 pCi/l	0.582 pCi/l
Uranium Natural	no detectable activity		no detectable activity	
Uranium Total	-0.560 +/- 0.0641 ug/l	1.00 ug/l	0.307 +/- 0.0353 ug/l	1.00 ug/l

Bridgeton Landfill
1003803000

CB
4-28

Chain of Custody Record

№ 5307

Eberline Services
601 Scarboro Road
Oak Ridge, TN 37830
(865) 481-0683 Phone • (865) 483-4621 Fax

EBERLINE SERVICES

Page 1 of 1

15-03108

Purchase Order #:

Project Name: Bridgeton 1015 Leachate	Project Number:
Send Report To: Matt Stewart	Sampler (Print Name): Matt Stewart
Address: 4631 N. St. Peters Pkwy	Sampler (Print Name):
St. Charles, MO 63304	Shipment Method: Fed Ex
email: labdata@herstassociates.com	Airbill Number: 7731 6987 3854
Phone: (636) 939-9111	Laboratory Receiving:
Fax: (636) 939-9757	

Field Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Containers	Gross Alpha	Gross Beta	Gross Gamma	Radium-226	Radium-228	Uranium-234,235-238	Total Uranium by KPA (µg/L)	TDS, TSS				Comments, Special Instructions, etc.	Lab Sample ID (to be completed by lab)
4 013	3/19/15	0900 1000 1055 1155	Aqueous	4	X	X	X	X	X	X	X					*All Rads run as Total. *Include Bi-212 and U-235 in Gross Gamma scan.	

REC'D MAR 20 2015

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Matt Stewart	Fed Ex # 7731 6987 3854	3/19/15	1800
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Fed Ex	Kristen Carlston	3/20/15	1400
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Sample Custodian Remarks (Completed By Laboratory):

QA/QC Level	Turnaround	Sample Receipt	
Level I ☐	Routine ☐	Total # Containers Received?	
Level II ☐	24 Hour ☐	COC Seals Present?	
Level III ☐	1 Week ☐	COC Seals Intact?	
Other ☐	Other _____	Received Containers Intact?	
		Temperature?	

58000

MSD 032186

Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Tuesday, April 28, 2015 3:29 PM
To: Doug Mendoza
Cc: bpower@republicservices.com; Kamp, Kevin; 'LaFata, Natalie'
Subject: FW: Bridgeton LF 013 Sampling Weeks of 03/29/2015 and 04/12/2015

Doug,

This email is to notify you that a weekly sample from sample point 013 was not collected during the week of 03/29/2015.

Prior to 03/29/2015, permeate production had dropped off to less than a third of normal production and as a result, discharge had dropped accordingly. On Wednesday and Friday of that week, the discharge consisted almost entirely of cooling water; on Thursday there was no discharge at all. Thursday is the normal sampling day for reasons such as plant operations and holding times. By that time during the week there was no longer an opportunity to get a representative sample of the discharge.

Previously, I notified you by telephone that there was no sample for the week of 04/13/2015, however that is incorrect. A sample was collected on April 16 (Pace Sample 60192191), after the system flushing was complete and permeate discharge resumed. For some reason, Pace did not send an email sample notification, which resulted in a misunderstanding.

We are making adjustments to better anticipate events so as not to miss a weekly sample in the future. These may include sampling earlier in the week, or arranging for Saturday set-up for short-hold parameters. During the week of 04/19, for example, the sample was collected on Tuesday.

We would propose to extend the weekly sampling period by one week to compensate for the miss. We are continuing to work diligently to meet our permit goals so that MSD can meet their obligations as well. Please let me know if there is any additional information that you need to address this. Thank you.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Doug Mendoza

From: Doug Mendoza
Sent: Monday, April 27, 2015 8:48 AM
To: 'Kamp, Kevin'; Brian G. Gibson; Martin Blecha
Cc: LaFata, Natalie; nathan.winton@mrbults.com; Ed Galbraith (EGalbraith@barr.com) (EGalbraith@barr.com); Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Subject: RE: Hauling for Bridgeton Landfill

Kevin,

MSD grants approval to continue hauling the currently approved material, as allowed under Bridgeton Landfill's industrial wastewater discharge permit no. 1003803000-1.2 special condition A.2. This approval will expire on May 31, 2015. Analytical requirements for the approved material also shall continue as currently required.

As we had discussed earlier, and as you have requested, the time period between commencement of each truck's discharge shall be not less than 10 minutes. This is based on current treatment plant operations and hauled material profile. Should any conditions change, the time period between discharges may be modified by MSD.

Please be aware that hauled waste station operating hours are Monday – Friday, 7:00 am – 3:00 pm. However, the last load for discharge must arrive by 2:30 pm. With Bridgeton Landfill's approved daily hauled volume of up to 330,000 gallons (or 44 trucks of 7,500 gallons each), the entire volume should be able to be delivered within these hours.

Sincerely,
Doug Mendoza
MSD Industrial Pretreatment Manager

From: Kamp, Kevin [mailto:kkamp@cecinc.com]
Sent: Monday, April 27, 2015 6:39 AM
To: Doug Mendoza
Cc: LaFata, Natalie; nathan.winton@mrbults.com
Subject: Hauling

Doug,
We would like to request that the hauling be approved to continue through the month of May. Please advise if this is acceptable and if the duration between trucks be allowed to decrease to 10 minutes between loads. Thanks so much.

Sincerely,

Kevin T. Kamp, P.E. / Principal
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4570 · Fax: 314-656-4595 ·
Mobile: 314-397-0414 · http://www.cecinc.com
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B

Doug Mendoza

Bridgeton Landfill

From: Kamp, Kevin <kkamp@cecinc.com>
Sent: Monday, April 27, 2015 6:39 AM
To: Doug Mendoza
Cc: LaFata, Natalie; nathan.winton@mrbults.com
Subject: Hauling

Doug,
We would like to request that the hauling be approved to continue through the month of May. Please advise if this is acceptable and if the duration between trucks be allowed to decrease to 10 minutes between loads. Thanks so much.

Sincerely,

Kevin T. Kamp, P.E. / Principal
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Doug Mendoza

From: Doug Mendoza
Sent: Friday, April 24, 2015 7:56 AM
To: 'Ed Galbraith'; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Ed,

Thank you for the reports. Regarding the radionuclide results, for future reports there will need to be two separate lines in your tables for Uranium. One line for Total Uranium concentration (ug/L), and a second line for Uranium-natural (pCi/L). For the Uranium-natural result, please report the calculated result in addition to reporting the three individual constituent radionuclide's results – similar to the reporting method that is used for the Gross Gamma result.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Thursday, April 23, 2015 7:00 AM
To: Ed Galbraith; Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Also, I need to point out that the COD value for MH013 04/16/2015 is 25.90 mg/l. That value has been qualified as suspect. Because it is an in house sample, there is no QC to reference so we have no explanation for the result. It should be considered unusable.

Ed Galbraith

Sent via the Samsung GALAXY S® 5, an AT&T 4G LTE smartphone

-------- Original message --------
From: Ed Galbraith <EGalbraith@barr.com>
Date:04/22/2015 1:28 PM (GMT-06:00)
To: "'Doug Mendoza (DMENDOZA@stlmsd.com)'" <DMENDOZA@stlmsd.com>, 'John Lodderhose' <jrlodd@stlmsd.com>, "'Brian G. Gibson (bgibson@stlmsd.com)'" <bgibson@stlmsd.com>, 'Catherine Politte' <cpolitte@stlmsd.com>, 'Michael Grace' <MGRACE@stlmsd.com>, "'Nora C. Estopare (nestopare@stlmsd.com)'" <nestopare@stlmsd.com>, "'Rob G Daly (rdaly@stlmsd.com)'" <rdaly@stlmsd.com>, 'Steve Grace' <sgrace@stlmsd.com>, "'Tippett Mosby, Leanne

Doug Mendoza

From: Doug Mendoza
Sent: Thursday, April 23, 2015 1:27 PM
To: John Lodderhose
Subject: Comments on April 2015 report "Radiological Data Evaluation of the Bridgeton Landfill Effluent" (report by Professional Environmental Engineers, Inc.)

John,

The outside consultant's radiological evaluation of Bridgeton Landfill effluent appears to validate our approach thus far. It essentially concludes: 1) some of the screening criteria may actually be too strict, 2) Thorium-230 should be added to the sampling regimen [which MSD had already started doing before the report was sent], 3) it may be appropriate to implement a screening level for TSS given that high TSS appears to correlate with some radionuclide levels [which is a natural correlation], and 4) even the highest of a very conservative maximum potential exposure to an individual during the historical data review period was only about 13% of what would be expected from all naturally occurring sources of radioactive material, and Potassium-40, a naturally occurring radionuclide that is ubiquitous in nature, was a significant contributor to the calculated dose.

Regarding the report's discussion of screening levels and its other recommendations:

1. Rather than changing our screening levels for gross alpha and gross beta, I believe MSD should keep the more conservative, current levels. MSD currently uses drinking water criteria for these screening levels. This is a defined regulatory level, albeit one that is not for wastewater. However, it allows MSD to state that even with no mixing effects from other wastewater sources or from the treatment plant's receiving stream, the radioactivity levels in the discharge would not be unsafe for drinking water. The report's proposed levels of 10% of the wastewater discharge limits is an arbitrary percentage that does not improve MSD's position.

2. MSD had already added Thorium-230 to its sampling regimen, so that is a moot point. Bridgeton Landfill is currently operating under a wastewater discharge permit that defines the landfill's sampling regimen. To revise that would require reopening the permit. Since MSD is regularly sampling for Thorium-230, it may be better to consider adding it to Bridgeton Landfill's permit when the permit comes up for renewal.

3. Bridgeton Landfill's TSS levels were quite high during the period when its underground "fire" was impacting the leachate and the leachate was not yet treated. The leachate is now fully pretreated, with the final step being an ultrafilter that controls the TSS levels. However, the suggested TSS screening level of 100 mg/L could provide an additional tracking mechanism for the landfill's discharge. I will add it to the screening parameters for Bridgeton Landfill's onsite discharges. For the hauled leachate, it currently has higher levels TSS, since it does not go through the ultrafilters. However, radiological testing results for the hauled waste have been the same as for the onsite discharges.

--Doug Mendoza

<u>Pertinent excerpts from the report:</u>

Regarding the very conservative approach to radiation dose calculation:

- If a value was reported as less than the minimum detectable activity (MDA), it was assigned a value of half its MDA.
- If a value was reported as greater than or equal to the MDA, it was assigned a value equal to the result plus its reported error.
- The highest calculated result for a given year was then used to calculate a radiation dose in millirem (mrem) to a hypothetical individual. This is a conservative approach.

- Reference Manual annual water ingestion of 7.3E+05 milliliters/year x factor of 10 was assumed (10 CFR 20, Appendix B default assumption).

Summary of results, with emphasis added:

- Ra-226, Ra-228, and K-40 were the top three contributors to the calculated ingestion dose in any given year, with a clear upward trend in both Ra-226 and Ra-228 beginning in 2012. There appears to be a strong correlation between the measured TSS level in the leachate and the radium results. ***A maximum ingestion dose to a hypotheticalindividual drinking leachate as his only source of water*** was calculated to be approximately 48 mrem for the year 2013. In comparison, the average dose to a member of the public from naturally occurring sources of radioactive material is approximately 360 mrem per year....Also, ***potassium-40, a naturally occurring radionuclide that is ubiquitous in nature, was a significant contributor to the calculated dose.***

Note also that the supposed TSS correlation was comparing events where TSS was in the 10's of mg/L to where TSS was in the 1,000's of mg/L.

Discussion of screening levels:

- Regarding the use of gross alpha and gross beta activity for screening purposes, application of EPA's maximum contaminant levels (MCLs) for drinking water for this purpose may be too restrictive. One suggestion is to instead use 10% of the limit of 600 pCi/L for the alpha emitter Ra-226 from 10 CFR 20, Appendix B, which would be 60 pCi/L. Similarly, for gross beta, a value of 60 pCi/L could be applied based on 10% of the Part 20, Appendix B limit for Ra-228.

Other recommendations:

- It is also recommended that routine Th-230 sampling be added to the sampling regimen for the Bridgeton Landfill effluent based on the usual mixture of radionuclides present in the uranium decay series.

Doug Mendoza

From: Bill Pietroburgo <bpietroburgo@pe-engrs.com>
Sent: Wednesday, April 22, 2015 3:23 PM
To: Doug Mendoza
Cc: John Lodderhose
Subject: RE: Information from analysis/review of Bridgeton Landfill radioactivity data
Attachments: Radiological Data Evaluation, Summary Report, MSD, April 2015.pdf

Doug,

Enclosed is the Radiological Data Evaluation of the Bridgeton Landfill Effluent. Please review and if you have any questions, do not hesitate to call and we will respond promptly.

I apologize for the delays in getting you this evaluation completed – should have brought Elizabeth into the original meeting to expedite the evaluation process.

Please let me know if we can be of further assistance.

Thanks.....Bill

William Pietroburgo, MS, CHMM
Professional Environmental Engineers, Inc.
Office: 314-531-0060
Fax: 314-531-0068

PROFESSIONAL ENVIRONMENTAL ENGINEERS, INC.
Providing cost-effective solutions
500 S. Ewing Avenue
Suite E
St. Louis, MO 63103
pe-engrs.com

From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Wednesday, April 15, 2015 8:42 AM
To: Bill Pietroburgo
Cc: John Lodderhose
Subject: Information from analysis/review of Bridgeton Landfill radioactivity data

Bill,

Just checking in to see when we can expect to get a response back on the analysis/review of Bridgeton Landfill radioactivity data. We first met on March 2, 2015, and had hoped to receive the information within two to three weeks. However, it is now more than six weeks later. Would you please provide us with an estimate of when your company will be providing the requested review, and any details that may already be available?

Thanks,
Doug Mendoza
MSD

SUMMARY REPORT

Radiological Data Evaluation of the Bridgeton Landfill Effluent

Prepared for:

Metropolitan St. Louis Sewer District
2350 Market St #400
St. Louis, MO 63103

April 2015

Prepared by:

Elizabeth Algutifan, MS, CHP
Professional Environmental Engineers, Inc.
500 S. Ewing, Suite E
St. Louis, Missouri 63103

OVERVIEW

Professional Environmental Engineers, Inc. (PE) has performed this evaluation to assist the Metropolitan St. Louis Sewer District (MSD) in interpreting radiological data associated with releases to sewerage from the Bridgeton Landfill. Recent concerns include an increase in total suspended solids (TSS) in the Bridgeton Landfill effluents (since about 2012) as a result of the ongoing underground fire at the landfill, with corresponding increases in detectable radiological constituents (especially Ra-226, Ra-228, and gross alpha/beta/gamma activity). This Summary Report provides an overview of the trends in radiological sampling results from 2006 through the present with conservatively calculated annual ingestion doses to a hypothetical individual, as well as recommendations for possible additional sampling and alternative screening levels for the wastewater received from Bridgeton Landfill.

APPROACH

This evaluation contains two parts:

1) Calculation of annual radiological doses to a hypothetical individual based on radiological sampling data that covers the period from January 19, 2006 through March 12, 2015; and

2) Recommendations for possible additional sampling and alternative screening levels for radiological constituents and TSS in the Bridgeton Landfill effluents that may be more practicable than those currently being utilized.

RADIATION DOSE CALCULATION

Radiological sampling data were provided to PE by MSD for the period January 19, 2006 through the March 12, 2015. Over this period, samples were analyzed for a combination of the following radiological constituents, with only Ra-226, Ra-228, uranium, and gross alpha/beta/gamma results provided for all years from 2006 through 2015:

Long-Lived Alpha Emitters

- Ra-226
- Th-230
- Th-232
- Total and isotopic uranium

Radon/Thoron Daughters

- Ac-228
- Bi-212

- Bi-214
- Pb-210
- Pb-212
- Pb-214
- Tl-208
- Po-210

Others

- Ra-228
- Th-228
- Th-234
- K-40
- Gross alpha, beta, and gamma

PE used the following approach to analyze the data:

- Only isotopic sampling results were included in the dose calculation. Gross alpha, beta, and gamma results were excluded.
- For uranium results, isotopic results (U-234, U-235, and U-238) were summed to give a total uranium result in picoCuries per liter (pCi/L). Mass-based total uranium results were compared to results based on isotopic data with the higher of the two values used in the dose estimate. Natural uranium (specific activity of 0.677 pCi/µg) was assumed.
- If a value was reported as less than the minimum detectable activity (MDA), it was assigned a value of half its MDA.
- If a value was reported as greater than or equal to the MDA, it was assigned a value equal to the result plus its reported error.
- The highest calculated result for a given year was then used to calculate a radiation dose in millirem (mrem) to a hypothetical individual. This is a conservative approach.
- Reference Manual annual water ingestion of 7.3E+05 milliliters/year x factor of 10 was assumed (10 CFR 20, Appendix B default assumption).
- For each radioisotope, the ratio of its maximum annual result to the Nuclear Regulatory Commission (NRC) limit was calculated. These ratios were summed over all isotopes for a given year to give a sum of ratios. This sum was then multiplied by 500 mrem (the limit on committed effective dose equivalent [CEDE] given in 10 CFR 20, Appendix B) to result in an annual CEDE to a hypothetical individual.
- Although two results were provided for Pb-210 (both less than MDA), Pb-210 was not included in the dose calculation because the MDAs were more than three times the Part 20 sewer discharge limit for this constituent.

SUMMARY OF RESULTS

The calculated annual doses are provided in Table 1 below. This table shows the contribution of each individual radionuclide to the overall dose for a given year.

Table 1. Calculated Annual Dose to a Hypothetical Individual From Ingestion of Contaminated Leachate

Dose Contribution from Each Measured Radionuclide (mrem)										
Isotope	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Ra-226	4.283	5.950	4.925	4.050	4.225	4.942	14.325	11.367	8.750	2.817
Ra-228	4.000	2.258	2.017	1.700	2.067	3.000	11.667	13.992	5.625	2.950
Th-228	--	--	--	--	--	--	--	0.463	--	--
Th-230	--	--	--	--	--	--	--	1.600	--	0.253
Th-232	--	--	--	--	--	--	--	1.942	--	--
Th-234	--	--	--	--	--	--	--	2.186	0.746	--
Total U	0.873	0.141	0.899	0.781	2.054	2.155	1.128	5.642	1.047	0.500
Ac-228	--	--	--	--	--	--	--	0.050	0.044	--
Bi-214	--	--	--	--	--	--	--	0.004	0.001	--
Pb-212	--	--	--	--	--	--	--	0.248	0.304	--
Pb-214	--	--	--	--	--	--	--	0.008	0.010	--
Po-210	--	--	--	--	--	--	--	1.444	--	--
K-40	2.738	--	--	--	--	--	--	8.985	7.521	
Annual Dose (mrem)	**11.894**	**8.349**	**7.841**	**6.531**	**8.345**	**10.097**	**27.120**	**47.929**	**24.049**	**6.519**

As can be seen from the above table, Ra-226, Ra-228, and K-40 were the top three contributors to the calculated ingestion dose in any given year, with a clear upward trend in both Ra-226 and Ra-228 beginning in 2012. There appears to be a strong correlation between the measured TSS level in the leachate and the radium results. A maximum ingestion dose to a hypothetical individual drinking leachate as his only source of water was calculated to be approximately **48 mrem** for the year 2013. In comparison, the average dose to a member of the public from naturally occurring sources of radioactive material is approximately 360 mrem per year. As can be seen in the table, the short-lived radon daughters are minor contributors to the overall dose. Also, potassium-40, a naturally occurring radionuclide that is ubiquitous in nature, was a significant contributor to the calculated dose.

DISCUSSION OF SCREENING LEVELS

Given the correlation between increased radium levels and TSS, it may be appropriate to implement a screening level for TSS in an effort to control the level of radium in the leachate.

On April 19, 2013, the EPA proposed Best Available Technology (BAT) effluent limitations for combustion residual leachate. Although this proposed rule is geared toward the control of emissions from coal-fired power plants, it could be used as a screening guideline for TSS given that the source of increased TSS is likely the fire at the landfill. The proposed EPA limits are listed in Table 2.

Table 2. EPA Proposed Rule for TSS Limitations in Combustion Residual Leachate

Measurement Parameter	Allowable TSS Concentration (mg/L)
Maximum for any given day	100
Average of daily values (over 30 consecutive days)	30

Clearly, TSS results for Bridgeton Landfill leachate over the past few years have been far higher than the above proposed values.

Regarding the use of gross alpha and gross beta activity for screening purposes, application of EPA's maximum contaminant levels (MCLs) for drinking water for this purpose may be too restrictive. One suggestion is to instead use 10% of the limit of 600 pCi/L for the alpha emitter Ra-226 from 10 CFR 20, Appendix B, which would be 60 pCi/L. Similarly, for gross beta, a value of 60 pCi/L could be applied based on 10% of the Part 20, Appendix B limit for Ra-228.

OTHER RECOMMENDATIONS

It is also recommended that routine Th-230 sampling be added to the sampling regimen for the Bridgeton Landfill effluent based on the usual mixture of radionuclides present in the uranium decay series.

DATE	SAMPLER	*	Gross Alpha (pCi/L)	<	*	Ra-226 (pCi/L)	*	Ra-228 (pCi/L)	*	TSS (mg/L)	*	Th-228 (pCi/L)	*	Th-230 (pCi/L)	*	Th-232 (pCi/L)	*
01/19/06																	
06/15/06																	
07/26/06																	
12/21/06			30														
12/21/06						5.14		4.8									
03/08/07			31			7.14		2.71									
05/21/07			31			4.98		1.94									
05/22/07			37			6.43		2.47									
08/20/07			24			5.46		2.4									
11/29/07			20.97			4.62		2.68									
03/13/08			36			5.91		2.4									
05/06/08			13			5.58		2.42									
07/16/08			15.1			3.75		1.8									
11/04/08			32			4.73		2.19									
02/12/09						4.82		2.04									
05/07/09			20.9			4.86		1.7									
08/06/09			28			3.93		1.96									
11/04/09			18			4.21		1.77									
02/25/10	Industry		20			4.13		1.72		21							
05/25/10	Industry		7.21			3.58		2.44									
05/25/10	Industry		2.45			3.71		2.48		62							
09/08/10	Industry		22			3.31		2.14		22							
11/17/10	Industry		25			5.07		1.49		22							
03/16/11	Industry		16			5.7		3.2		33							
05/11/11	Industry		26			3.6		2.47		23							
08/18/11	Industry		50			4.3		3.6		46							
11/29/11	Industry		36			5.93		1.64		61							
03/06/12	Industry		68			12.8		11.9		170							
03/06/12	Industry		62			14.7		14									
05/15/12	Industry		59			11.2		7									
05/15/12	Industry					16.5		9		660							
09/19/12	Industry		84														
09/19/12	Industry					15.8		10		1300							
12/13/12	Industry					17.19		13.5		340							
04/05/13			208.3			13.64		16.79									
04/05/13		*	76				*	6.15									*
04/05/13								9.34									*
06/18/13		*	56.5		*	0.1605		3.544									*
06/18/13	Industry	*	50		*	0.1525		0.615		2800							*
09/13/13			322		*	0.204	*	1.295			*	0.955		3.2	*	0.615	
09/13/13	Industry	*	123			1.13	*	1.285		14000	*	1.85			*	1.165	
12/30/13		*	67.5		*	0.395	*	1.13									
12/30/13	Industry	*	65.5		*	0.4175	*	1.045		2300							
03/18/14		*	31		*	3.915		3.33									*
03/18/14	Industry	*	58.5		*	2.165	*	1.015		2320							*
05/29/14		*	72.5		*	0.04025	*	0.4695									*

DATE	SAMPLER	*	Gross Alpha (pCi/L)	<	*	Ra-226 (pCi/L)	*	Ra-228 (pCi/L)	*	TSS (mg/L)	*	Th-228 (pCi/L)	*	Th-230 (pCi/L)	*	Th-232 (pCi/L)	*
05/29/14	Industry	*	81		*	0.058	*	0.42									*
09/15/14	Industry	*	65		*	0.6	*	1.73		1620							*
09/15/14		*	83.5		*	0.55		**6.69**									
11/21/14		*	36.4		*	10.5	*	3.325									*
11/21/14	Industry	*	41	<	*	10.3	*	3.015		9940							*
12/16/14	Industry	*	27.75			**1.785**	*	1.495		280							*
12/16/14	Industry	*	26.9			**1.407**		**6.75**									*
12/16/14	MSD	*	23.4		*	2.15	*	2.53		45							
03/12/15		*	17.6		*	3.38	*	3.54					*	0.505			

Notes:

1. Only isotopic sampling results were evaluated in the dose calculation.
2. An asterisk indicates value was less than MDA, in which case it is assigned a value of 1/2 the MDA.
3. If a sampling result is greater than its MDA, the value plus its error is used in the dose evaluation (value is in boldface).
4. Highest sampling result for a given year (plus error, if > MDA) was used to determine an annual committed effective dose equivalent for that year.
5, Pb-210 has a concentration limit of 100 pCi/L, which is less than the MDA

DATE	SAMPLER	Th-234 (pCi/L)	*	Total Uranium (ug/L)	Converted to nat U (pCi/L)	*	U-234 (pCi/L)	*	U-235 (pCi/L)	*	U-238 (pCi/L)	Sum Isotopic U (pCi/L)	*
01/19/06													
06/15/06													
07/26/06													
12/21/06													
12/21/06				7.74	5.24								
03/08/07				0.489	0.33								
05/21/07				<LOD									
05/22/07				<LOD									
08/20/07				<LOD									
11/29/07				1.25	0.85								
03/13/08				0.78	0.53								
05/06/08				0.631	0.43								
07/16/08													
11/04/08				7.97	5.40								
02/12/09				<LOD									
05/07/09				6.92	4.68								
08/06/09				2.97	2.01								
11/04/09				3.4	2.30								
02/25/10	Industry			11.1	7.51								
05/25/10	Industry			0.746	0.51								
05/25/10	Industry			0.96	0.65								
09/08/10	Industry			18.2	12.32								
11/17/10	Industry			15.8	10.70								
03/16/11	Industry			19.1	12.93								
05/11/11	Industry		*	0.5	0.34								
08/18/11	Industry		*	0.5	0.34								
11/29/11	Industry		*	2.5	1.69								
03/06/12	Industry		*	2	1.35								
03/06/12	Industry												
05/15/12	Industry												
05/15/12	Industry												
09/19/12	Industry		*	1	0.68								
09/19/12	Industry												
12/13/12	Industry		*	10	6.77								
04/05/13			*	50	33.85								*
04/05/13		156.5											*
04/05/13		168											
06/18/13		25.1					1.487	*	0.199		0.708	2.394	*
06/18/13	Industry	23.75		2.08	1.41		1.637	*	0.226		1.456	3.319	*
09/13/13		135.6		11.22	7.60		2.81		1.764		3.62	8.194	*
09/13/13	Industry	97		10.33	6.99		4.48		0.55		3.35	8.38	
12/30/13		218.6		17.59	11.91		6.73		1.926		5.75	14.406	*
12/30/13	Industry	190.7		26.08	17.66		7.4		2.059		8.6	18.059	*
03/18/14		29.5		3.71	2.51		3.54		1.662		1.081	6.283	*
03/18/14	Industry	31.15		4.69	3.18		2.739	*	0.259		1.53	4.528	
05/29/14		38.8	*	0.5	0.34								

DATE	SAMPLER	Th-234 (pCi/L)	*	Total Uranium (ug/L)	Converted to nat U (pCi/L)	*	U-234 (pCi/L)	*	U-235 (pCi/L)	*	U-238 (pCi/L)	Sum Isotopic U (pCi/L)	*
05/29/14	Industry	37.95	*	0.5	**0.34**								
09/15/14	Industry	23.6	*	0.5	**0.34**								
09/15/14		**74.6**	*	0.5	**0.34**								
11/21/14		45.8	*	0.5	**0.34**								
11/21/14	Industry	46	*	0.5	**0.34**								
12/16/14	Industry	45.9	*	0.5	**0.34**								
12/16/14	Industry	44.2	*	0.5	**0.34**								
12/16/14	MSD												
03/12/15				4.43	**3.00**								

Notes:

1. Only isotopic sampling results were evaluated in the dose calculation.
2. An asterisk indicates value was less than MDA, in which case it is assigned a value of 1/2 the MDA.
3. If a sampling result is greater than its MDA, the value plus its error is used in the dose evaluation (value is in boldface).
4. Highest sampling result for a given year (plus error, if > MDA) was used to determine an annual committed effective dose equivalent for that year.
5, Pb-210 has a concentration limit of 100 pCi/L, which is less than the MDA

DATE	SAMPLER	Ac-228 (pCi/L)	*	Bi-214 (pCi/L)	*	Pb-210 (pCi/L)	*	Pb-212 (pCi/L)	*	Pb-214 (pCi/L)	*	Po-210 (pCi/L)	*	K-40 (pCi/L)
01/19/06														
06/15/06														
07/26/06														
12/21/06														**219**
12/21/06														**150**
03/08/07														
05/21/07														
05/22/07														
08/20/07														
11/29/07														
03/13/08														
05/06/08														
07/16/08														
11/04/08														
02/12/09														
05/07/09														
08/06/09														
11/04/09														
02/25/10	Industry													
05/25/10	Industry													
05/25/10	Industry													
09/08/10	Industry													
11/17/10	Industry													
03/16/11	Industry													
05/11/11	Industry													
08/18/11	Industry													
11/29/11	Industry													
03/06/12	Industry													
03/06/12	Industry													
05/15/12	Industry													
05/15/12	Industry													
09/19/12	Industry													
09/19/12	Industry													
12/13/12	Industry													
04/05/13		29.85	*	23	*	**165**			*	15.1				**501.6**
04/05/13		28.85	*	19.6	*	**177**			*	16.55				**465**
04/05/13														
06/18/13		6.85	*	3.54			*	2.36	*	2.965				**446**
06/18/13	Industry	7.1	*	3.045				**7.45**	*	3.06				**461.4**
09/13/13		6.55	*	13.38				**6.84**	*	3.23		**1.155**		**668.2**
09/13/13	Industry	**21.7**	*	3.495			*	2.4	*	3.02	*	0.1645		**718.8**
12/30/13		8.6	*	4.335			*	4.015	*	4.835				**662.1**
12/30/13	Industry	8.75	*	4.09			*	2.94	*	3.555				**619.5**
03/18/14		8.4	*	4.615				**9.92**	*	3.555				**585.5**
03/18/14	Industry	**26.34**	*	4.04			*	3.19	*	3.885				**555.9**
05/29/14		11.3	*	6.5			*	**12.16**	*	5.45				**601.7**

DATE	SAMPLER	Ac-228 (pCi/L)	*	Bi-214 (pCi/L)	*	Pb-210 (pCi/L)	*	Pb-212 (pCi/L)	*	Pb-214 (pCi/L)	*	Po-210 (pCi/L)	*	K-40 (pCi/L)
05/29/14	Industry	10.55	*	5.5			*	3.93		**20.98**				**522.5**
09/15/14	Industry	8.2	*	4.775				**10.37**		**14.43**				**544.9**
09/15/14		9.05	*	4.84			*	3.105	*	4.11				**487.1**
11/21/14		11.15	*	6.15			*	3.865	*	5.4				**471.4**
11/21/14	Industry	9.9	*	5.65			*	3.965	*	5.55				**382.5**
12/16/14	Industry	9.4	*	4.77			*	3.32	*	4.755				**371.8**
12/16/14	Industry	9.7	*	4.755			*	3.495	*	4.89				**339.5**
12/16/14	MSD													
03/12/15														

Notes:

1. Only isotopic sampling results were evaluated in the dose calculation.
2. An asterisk indicates value was less than MDA, in which case it is assigned a value of 1/2 the MDA.
3. If a sampling result is greater than its MDA, the value plus its error is used in the dose evaluation (value is in boldface).
4. Highest sampling result for a given year (plus error, if > MDA) was used to determine an annual committed effective dose equivalent for that year.
5, Pb-210 has a concentration limit of 100 pCi/L, which is less than the MDA

Isotope	10 CFR 20 App. B Limit (pCi/L)	Yearly Maximum Measured Concentration (pCi/L) 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ra-226	600	5.14	7.14	5.91	4.86	5.07	5.93	17.19	13.64	10.5	3.38
Ra-228	600	4.8	2.71	2.42	2.04	2.48	3.6	14.00	16.79	6.75	3.54
Th-228	2000	--	--	--	--	--	--	--	1.85	--	--
Th-230	1000	--	--	--	--	--	--	--	3.2	--	0.51
Th-232	300	--	--	--	--	--	--	--	1.165	--	--
Th-234	50000	--	--	--	--	--	--	--	218.6	74.6	--
Total U[a]	3000	5.24	0.85	5.40	4.68	12.32	12.93	6.77	33.85	6.28	3.00
Ac-228	300000	--	--	--	--	--	--	--	29.85	26.34	--
Bi-214	3.00E+06	--	--	--	--	--	--	--	23	6.5	--
Pb-212	20000	--	--	--	--	--	--	--	9.92	12.16	--
Pb-214	1.00E+06	--	--	--	--	--	--	--	16.55	20.98	--
Po-210	400	--	--	--	--	--	--	--	1.155	--	--
K-40	40000	219	--	--	--	--	--	--	718.8	601.7	
	Sum of Ratios	0.023788	0.016699	0.015682	0.013062	0.01669	0.020194	0.05424	0.095858	0.048098	0.013038

(a) Total U and sum of isotopic U results were compared

Yearly Dose to Reference (mrem) assuming an ingestion of 7.3E6 ml/y at these levels	**11.9**	**8.3**	**7.8**	**6.5**	**8.3**	**10.1**	**27.1**	**47.9**	**24.0**	**6.5**

Isotope	10 CFR 20 App. B Limit (pCi/L)	Ratio of maximum concentration to Limit 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ra-226	600	0.009	0.012	0.010	0.008	0.008	0.010	0.029	0.023	0.018	0.006
Ra-228	600	0.008	0.005	0.004	0.003	0.004	0.006	0.023	0.028	0.011	0.006
Th-228	2000	--	--	--	--	--	--	--	0.001	--	--
Th-230	1000	--	--	--	--	--	--	--	0.003	--	0.001
Th-232	300	--	--	--	--	--	--	--	0.004	--	--
Th-234	50000	--	--	--	--	--	--	--	0.004	0.001	--
Total U	3000	0.002	0.000	0.002	0.002	0.004	0.004	0.002	0.011	0.002	0.001
Ac-228	300000	--	--	--	--	--	--	--	0.000	0.000	--
Bi-214	3.00E+06	--	--	--	--	--	--	--	0.000	0.000	--
Pb-212	20000	--	--	--	--	--	--	--	0.000	0.001	--
Pb-214	1.00E+06	--	--	--	--	--	--	--	0.000	0.000	--
Po-210	400	--	--	--	--	--	--	--	0.003	--	--
K-40	40000	0.005	--	--	--	--	--	--	0.018	0.015	
	Sum of Ratios	0.024	0.017	0.016	0.013	0.017	0.020	0.054	0.096	0.048	0.013

Isotope	10 CFR 20 App. B Limit (pCi/L)	Dose Contribution from Individual Radionuclides									
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ra-226	600	4.283	5.950	4.925	4.050	4.225	4.942	14.325	11.367	8.750	2.817
Ra-228	600	4.000	2.258	2.017	1.700	2.067	3.000	11.667	13.992	5.625	2.950
Th-228	2000	--	--	--	--	--	--	--	0.463	--	--
Th-230	1000	--	--	--	--	--	--	--	1.600	--	0.253
Th-232	300	--	--	--	--	--	--	--	1.942	--	--
Th-234	50000	--	--	--	--	--	--	--	2.186	0.746	--
Total U	3000	0.873	0.141	0.899	0.781	2.054	2.155	1.128	5.642	1.047	0.500
Ac-228	300000	--	--	--	--	--	--	--	0.050	0.044	--
Bi-214	3.00E+06	--	--	--	--	--	--	--	0.004	0.001	--
Pb-212	20000	--	--	--	--	--	--	--	0.248	0.304	--
Pb-214	1.00E+06	--	--	--	--	--	--	--	0.008	0.010	--
Po-210	400	--	--	--	--	--	--	--	1.444	--	--
K-40	40000	2.738	--	--	--	--	--	--	8.985	7.521	
	Annual Dose	11.894	8.349	7.841	6.531	8.345	10.097	27.120	47.929	24.049	6.519

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Thursday, April 23, 2015 7:00 AM
To: Ed Galbraith; Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Also, I need to point out that the COD value for MH013 04/16/2015 is 25.90 mg/l. That value has been qualified as suspect. Because it is an in house sample, there is no QC to reference so we have no explanation for the result. It should be considered unusable.

Ed Galbraith

Sent via the Samsung GALAXY S® 5, an AT&T 4G LTE smartphone

-------- Original message --------
From: Ed Galbraith <EGalbraith@barr.com>
Date:04/22/2015 1:28 PM (GMT-06:00)
To: "'Doug Mendoza (DMENDOZA@stlmsd.com)'" <DMENDOZA@stlmsd.com>, 'John Lodderhose' <jrlodd@stlmsd.com>, "'Brian G. Gibson (bgibson@stlmsd.com)'" <bgibson@stlmsd.com>, 'Catherine Politte' <cpolitte@stlmsd.com>, 'Michael Grace' <MGRACE@stlmsd.com>, "'Nora C. Estopare (nestopare@stlmsd.com)'" <nestopare@stlmsd.com>, "'Rob G Daly (rdaly@stlmsd.com)'" <rdaly@stlmsd.com>, 'Steve Grace' <sgrace@stlmsd.com>, "'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'" <Leanne.TippettMosby@dnr.mo.gov>, 'Aaron Schmidt' <aaron.schmidt@dnr.mo.gov>, "'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'" <Christopher.Nagel@dnr.mo.gov>, "'bpower@republicservices.com'" <bpower@republicservices.com>, "'Getting, James'" <JGetting@republicservices.com>, "'Bouchard, Derek (DBouchard@republicservices.com)'" <DBouchard@republicservices.com>, "'Kamp, Kevin'" <kkamp@cecinc.com>, "'LaFata, Natalie'" <nlafata@cecinc.com>, "'Cooper, Ivan (icooper@cecinc.com)'" <icooper@cecinc.com>, "'lwright@cecinc.com'" <lwright@cecinc.com>, Kelly Caddy <kcaddy@barr.com>, "Dana B. Pasi" <DPasi@barr.com>, "'Christopher J. Bulmahn (cjbulmahn@stlmsd.com)'" <cjbulmahn@stlmsd.com>, "'Ken Gambaro (kmgamb@stlmsd.com)'" <kmgamb@stlmsd.com>, "'mdtown@stlmsd.com'" <mdtown@stlmsd.com>, "'lwright@cecinc.com'" <lwright@cecinc.com>, "Andrea A. Nord" <anord@barr.com>
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

Doug Mendoza Bridgeton Landfill

From: Koziatek, Dan <dkoziatek@cecinc.com>
Sent: Wednesday, April 22, 2015 5:20 PM
To: Rob G Daly
Cc: Kamp, Kevin; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; 'Power, Brian (BPower@republicservices.com)'; Lance LeComb
Subject: RE: Bridgeton Force Main-Odor Control Issues
Attachments: Pump Station 1 OM SOP 4-22-15.pdf

Rob,

PS1 SOP is attached. Please review and let me know if you have any comments.

Sincerely,

Dan Koziatek, P.E. / Senior Project Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4588 · Fax: 314-656-4595 ·
Mobile: 314-330-9805 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

---

From: Rob G Daly [mailto:rdaly@stlmsd.com]
Sent: Wednesday, April 22, 2015 9:36 AM
To: Koziatek, Dan
Cc: Kamp, Kevin; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; 'Power, Brian (BPower@republicservices.com)'; Lance LeComb
Subject: Bridgeton Force Main-Odor Control Issues

Dan

We consider the odor control issue as resolved at this time. It appears that dosing rate increases and the line flushing are having the intended effect and odor appears to have significantly reduced in severity.

We still need the SOP completed and forwarded our way (MSD Operations, i.e. Pump Stations) that was referenced in previous emails and conversations and I am hopeful that we can see that today or tomorrow. That is a document that should be part of our mutually complementary standard operating procedures that I keep referencing in our conversations. Sooner we wrap up the SOP for how we will effectively communicate operations and maintenance response issues between our respective groups- and this flushing item should just be a constituent component of that overall SOP, and identify how we will effectively collaborate where necessary- the sooner we can move into the long term part of the life cycle management of these facilities.

Thank you.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District

MSD Pump Station 1

Standard Operation Plan

Bridgeton Landfill, LLC
Bridgeton, Missouri

March 2015

13570 St. Charles Rock Road
Bridgeton, Missouri 63044
Telephone: (314) 656-2114
Facsimile: (314) 739-2588

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1.1 Pump Station Engineering Controls Background and Goal 1
1.2 List of Pump Station Engineering Control Operations & Procedures 1
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1-2 Pump Station Engineering Controls Operational Personnel

1.0 INTRODUCTION

This document serves as the Standard Operations Plan (SOP) for the operations and maintenance of Pump Station 1, installed by the Bridgeton Landfill, 13570 St. Charles Rock Road, Bridgeton, Missouri 63044. Pump Station 1 is to be transferred to MSD ownership following acceptance by MSD. This plan has been developed to provide guidance to the construction team for temporary operations and preventative maintenance until this acceptance. The purpose of this document is to establish a set timeframe for inspection, operation, and maintenance of the installed Pump Station 1 until acceptance by MSD.

1.1 Pump Station Engineering Controls Background and Goal

Pump Station 1 is comprised of concrete control structures (wet well, valve vault, bypass pump connection), pumps and electrical equipment controls to transmit pretreated sanitary wastewater through an 8" diameter HDPE force main to the MSD Bissell Point Treatment Plant. Wastewater flows involve discharges from the tributary watershed including the Corporate Exchange industrial park and the Bridgeton Landfill. The goal of this Standard Operations Plan is to ensure continued operation of the pump station and to provide a point of contact in the event of any concerns regarding the operation of Pump Station 1.

1.2 List of Pump Station Engineering Control Operations & Procedures

Pump Station 1 is comprised of a control panel that is connected to the other two downstream pump stations (#2 and #3) to ensure a coordinated system for successful discharge of the wastewater to the Bissell Point outfall. In the event of system issues, alarms are activated in the PLC process control resulting in notifications to the governing MSD SCADA system. In addition, the Bridgeton Landfill telemetry is interfaced to the SCADA system to provide notifications to the Landfill Pretreatment Plant personnel for handling of the discharged wastewater from the landfill. The notifications are summarized as follows:

A01: PS1 Wet Well High Level
A02: PS1 AC Failure
A03: Comm. Failure Any Station
A04: SSO Overflow
A05: Pump Station Inhibit by MSD

If an alarm occurs, the following procedure shall be followed:

1. Landfill Pretreatment Facility (LPF) receives notification of PS1 alarm via text and email messages. LPF discharge is interrupted with alarm.
2. LPF personnel to contact MSD Lemay Board to review alarm and coordinate with MSD personnel to determine outage duration estimate, if any.
3. LPF personnel (local) to visit PS1 to investigate PS1 alarm.
4. LPF personnel shall assess the alarm and depending on the situation,
    a. Perform routine or preliminary maintenance, or
    b. Contact additional Pump Station Engineering Controls personnel as needed to resolve the alarm (see table below), or
    c. Contact MSD Lemay Board, if involving the force main or other two stations, or as needed to resolve control panel programming.

5. Ameren provides redundant electric power to PS1. However, if the alarm is a total power grid failure at PS1, LPF personnel shall coordinate placing a generator at PS1 for temporary electric power.
6. Note: If maintenance or repairs are needed resulting in an extended system outage, LPF personnel will coordinate with MSD to temporarily redirect flows from Corporate Exchange to the West Lake pump station. This temporary redirection will occur at Valve Junction Box #101 (located inside the West Lake pump station fencing) using electrical actuators controlled at the PS1 panel board. ***At no time during this procedure shall wastewater from the landfill be directed to the West Lake pump station – only domestic flows from Corporate Exchange unless directed or approved by MSD and wastewater meets discharge requirements of the MSD Missouri River Treatment Plant.***

Table 1-1 MSD Lemay Board Contact Data

Title	Personnel	Phone numbers	
		Work	Mobile
MSD Lemay Board	**24-Hour Dispatch**	**(314) 638-5877**	**(314) 267-2168**

The following table represents the construction team responsible for the pump station system operation and maintenance. The table below details each individual's company, position and their individual contact information. Until acceptance by MSD, the primary contact for daily flow controls, alarms and system shut off, contact **CEC Pretreatment Plant Manager, Natalie LaFata**. For all construction related issues regarding the pump station, contact **Kuesel Excavating Supervisor, Joe Hodges**.

Note: A key to the pump station equipment cabinet resides at the pretreatment plant for the use of the LPF personnel. The primary contact numbers for all pump station engineering controls personnel shall be the mobile numbers. Contact Natalie LaFata for site access.

Table 1-2 Pump Station Engineering Controls Operational Personnel

Title	Personnel	Phone numbers	
		Mobile (Primary)	Work/Office
CEC – Pretreatment Plant Manager	**Natalie LaFata**	**(314) 341-3375**	**(314) 447-3626**
CEC – Pretreatment Plant Operations Manager	**Mark Kohrt**	**(630) 955-5541**	**(314) 447-3626**
CEC – Pretreatment Plant Senior Operator	**Paul McElyea**	**(314) 365-2853**	**(314) 447-3626**
CEC – Pretreatment Plant Senior Operator	**Josh Boedeker**	**(314) 348-4567**	**(314) 447-3626**
CEC – Pretreatment Plant Designer/Engineer	**Kevin Kamp**	**(314) 397-0414**	**(314) 656-4570**
CEC – Pump Station Designer/ Engineer	**Dan Koziatek**	**(314) 330-9805**	**(314) 656-4588**
Kuesel Excavating – Primary Contact	**Joe Hodges**	**(314) 568-3430**	**(636) 978-3478**

Municipal Equipment Company (MEC)	**Chris Beer**	**(314) 609-2782**	**(314) 645-2400 Ext. 2933**
Electrical Controls Company (ECC)	**Franklin Chott**	**(314) 608-6939**	**(314) 645-2400**
Bridgeton Landfill, LLC – Environmental Specialist	**Derek Bouchard**	**(314) 302-3634**	**(314) 656-2114**
Bridgeton Landfill, LLC – Environmental Manager	**Brian Power**	**(618)410-0157**	**(314) 744-8165**

1.3 Vapor Migration Controls

Bridgeton Landfill, LLC has installed a vapor trench between PS1 and the landfill. The purpose of this trench is to intercept and prevent the migration of landfill gasses into the vaults that comprise the pump station. This vacuum trench is equipped with a monitoring system consisting of a vacuum gauge displaying vacuum on the trench in inches of water column and with green and red lighting to indicate operational and adequate vacuum (green) or not operational/potentially inadequate vacuum (red). This is inspected as part of Bridgeton Landfill daily site checks and is readily visible from PS1.

In addition, if at any point there is concern related to volatile organic compounds within the PS1 vaults Bridgeton Landfill staff maintain an on-site handheld meter (UltraRAE 3000) and will perform headspace readings on request.

2.0 FORCE MAIN ODOR CONTROL OPERATIONS

2.1 Hydrogen Sulfide Generation

CEC has analyzed the potential for hydrogen sulfide (H2S) generation in the force main. H2S is a material of concern due to its offensive odor at low concentrations and for its health and safety concerns at high concentrations. It is generated when the biological degradation of organic material occurs in the presence of sulfate and the absence of more favorable electron acceptors such as oxygen. This environment is common in force mains.

To prevent the generation of H2S, the LPF personnel are dosing the landfill permeate with Calcium Nitrate. This dosing occurs after the pretreatment process inside the plant building directly before discharging from the plant to the 97k storage tank near PS1. The rate of dosing is based on the rate and concentration of permeate discharged from the plant. A typical dosing rate is 25-50 gallons per day per 100,000 gallons discharged.

2.2 Fresh Water Flushing

If the force main system is inhibited for an extended period of time due to repair or maintenance, the wastewater in the force main may experience long residence. This extended residence could potentially develop offensive odor. In this event, fresh water can be induced into the system from several locations including the following:

- Pump stations #1, 2 and 3 all have 1" domestic water line services. A hose can be attached to fill each wet well with domestic potable water.
- If additional fresh water capacity is needed, the LPF can add potable water to the landfill permeate at the plant using a private water supply hydrant.

3.0 PUMP STATION SYSTEM OPERATION

3.1 Scope of work

Until Pump Station 1 is accepted and dedicated to MSD, the following labor, equipment and materials will be performed:

Operation:

- Emergency generator at Pump Station 1 in the event of a total Ameren electric power grid failure.
- Fresh (potable) water flushing at PS1 and LPF as needed.
- Operational oversight of Pump Station 1 controls, structures and piping. This assumes cooperation from MSD Lemay Board as it relates to the force main and Pump Stations 2 and 3.
- Bi-Weekly Inspection of Pump Station 1.
- Provide Regular Updated Maintenance per MSD Standard Operating Procedure.
- Provide Owner Support to MSD for Operations.
- Provide maintenance records to Jay Kniker via email at jkniker@stlmsd.com

Maintenance:

- Coordination of Necessary Maintenance and Repairs of Pump Station 1. Note that MSD Lemay Board and Jay Kniker shall be made aware of all maintenance or repairs to the system.
- Provide maintenance records to Jay Kniker via email at jkniker@stlmsd.com

Doug Mendoza Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, April 22, 2015 2:01 PM
To: 'Power, Brian'; Rob G Daly; 'Koziatek, Dan'; Bouchard, Derek
Cc: 'Kamp, Kevin'; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; Lance LeComb
Subject: Bridgeton Force Main-Odor Control Issues
Attachments: Lift Station Sampling Plan_rev 2015_0420.pdf

All, attached is the revised air sampling plan for lift station PS-1. The plan incorporates the changes requested by John Lodderhose.

Please let me know if you have any questions.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

From: Power, Brian [mailto:BPower@republicservices.com]
Sent: Wednesday, April 22, 2015 10:45 AM
To: Rob G Daly; 'Koziatek, Dan'; Bouchard, Derek; Ed Galbraith
Cc: 'Kamp, Kevin'; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; Lance LeComb
Subject: RE: Bridgeton Force Main-Odor Control Issues

Rob,

We are finalizing the SOP as we speak. We should have it out to you by end of day.

Sincerely,

Brian J. Power
Environmental Manager
Bridgeton Landfill, LLC.
13570 Saint Charles Rock Road
Bridgeton, MO 63044

Phone: (618) 410-0157
Email: bpower@republicservices.com

From: Rob G Daly [mailto:rdaly@stlmsd.com]
Sent: Wednesday, April 22, 2015 9:36 AM

BARR

Air Sampling and Analytical Plan

Lift Station PS1

Prepared for
Bridgeton Landfill, LLC.

PS-1 Head Space Sampling and Analytical Plan
Discharge to Metropolitan St. Louis Sewer District

April 2015

Contents

1.0 Background 1

2.0 Sampling 2

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Figure 1 LFG Collection at Lift Station, Feezor Engineering

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Appendix A Enthalpy Analytical Sample Chain of Custody

MSD 032218

1.0 Background

Background

Bridgeton Landfill has constructed a new Lift Station/Bypass Valve Chamber (PS1) for discharge to Metropolitan St. Louis Sewer District (MSD) Treatment Plants. As part of the construction, the landfill installed a vacuum trench to prevent accumulation of vapors in PS1 (See Figure 1). This vacuum trench was installed following the observation of volatile organic compounds (VOCs) within PS1 when left sealed for extended periods of time.

The purpose of this plan is to confirm that the vacuum trench is providing adequate mitigation of VOC migration into PS1. As vapor migration is susceptible to seasonal variation, we recommend sampling under various atmospheric conditions throughout one season as opposed to a tightly clustered group of samples with comparable atmospheric conditions. This plan suggests a two tiered approach utilizing monthly summa canister sampling coupled with weekly to bi-weekly instant read technology to confirm the continued effectiveness of the vacuum trench.

A sampling event conducted in February demonstrated the effectiveness of the vacuum trench with reported levels of benzene well below any concern threshold. The additional six month sampling in this plan is designed to measure the effectiveness under a variety of conditions. Because the local climate typically exhibits high variability through the spring months, the timing in this plan is ideally positioned to capture a wide spectrum of meteorological conditions.

2.0 Sampling

2.1 Canister Sampling

Two ambient samples will be taken using 6-liter summa canisters with 8-hour regulators. One sample will be collected in the lift station portion (about 2' below ground surface) and one sample will be taken in the bypass valve chamber (about 10' below ground surface). Sampling personnel will collect the canisters approximately 8 hours after deploying them. The doors to each chamber will remain closed during sampling.

This sampling has already been conducted for the month of February and will occur once per calendar month for six months beginning in March 2015. After the first three months, canister sampling may be discontinued provided that worker protection levels have been met for all samples. Worker protection levels means Occupational Safety and Health Administration Permissible Exposure Limits (OSHA-PEL) and American Conference of Government Industrial Hygienists Threshold Limit Values (ACGIH-TLV).

Bridgeton Landfill will notify MSD of the date and time of planned sampling events.

2.2 Silica Gel Tube Sampling (Ammonia)

Four silica gel (SiGel) tube samples will be taken for ammonia analysis. Each tube is a one-hour test. Two samples will be taken at each location. The first set of samples will be taken approximately 3-4 hours after the air canisters are set and the doors are closed. The second set will be collected about one hour prior to collecting the air canisters, before the doors are opened.

At each station, the SiGel tubes and a pump will be placed on top of the door and a flexible hose made of Teflon or other suitable material will be connected to the SiGel tube and placed through an aperture in the door to draw air from inside the chambers. The draw will be approximately 300 cc per minute for about one hour.

It should be noted that previous air sampling conducted on 4/25/2013 and 4/30/2013 in the Westlake Lift station resulted in ammonia levels of 0.14 and 0.13 mg/m^3 respectively. The ACGIH-TLV TWA for Ammonia is 17 mg/m^3.

SiGel tube sampling will be conducted for up to six months. After the first three months, this sampling may be discontinued provided that NIOSH REL-TWA levels have been met for all samples.

2.3 Field Meter Sampling

Bridgeton Landfill staff will take readings through openings in the doors of the lift station and bypass valve chamber. Personnel will use two meters:

1. UltraRae 3000 field sampler with a RAE-Sep™ benzene tube and compound specific mode to determine benzene concentrations.

2. 4-Gas Monitor (O, CO, LEL and HS) with a sampling tube that can be inserted through an aperture while the doors are closed.

The schedule will be as follows:

- Once per week for the period beginning March 23, 2015 and ending June 26, 2015.
- Once every two weeks for the period beginning June 29, 2015 and ending September 30, 2015.

After the first three months, the sampling may be discontinued provided that an adequate demonstration of engineering controls has been achieved. This will be based on gas concentrations being consistently below the agreed upon action levels.

Table 2-1 4-Gas Monitor Action Levels

Parameter	Action Level
O_2	< 19.5%
LEL	> 10%
CO	> 25 parts per million
H_2S	> 10 parts per million

2.4 Field Records

A field book will be used to record information including time and date of deployment and collection of the canisters, canister pressure before and after the sample period, names of sampling personnel, meteorological information (temperature, cloud cover; rainfall, wind, atmospheric pressure), times, locations, depths and readings for samples taken from hand-held devices, and other relevant information. This data will be transmitted each month following receipt of the laboratory analytical results.

3.0 Laboratory Analysis

3.1 Analytical

The canisters will be shipped to Enthalpy Analytical Inc., 800 Capitola Dr, Durham, NC 27713. Each canister will be analyzed for the compounds in Table 3-1.

Table 3-1: Air Sampling Analytes

Analyte	Typical Method
Benzene	TO-15, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).
Dimethyl sulfide	TO-15, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).
Ammonia	NIOSH 6016
Methane	GC/FID: EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).

Note: Laboratory may substitute alternate analytical methods.

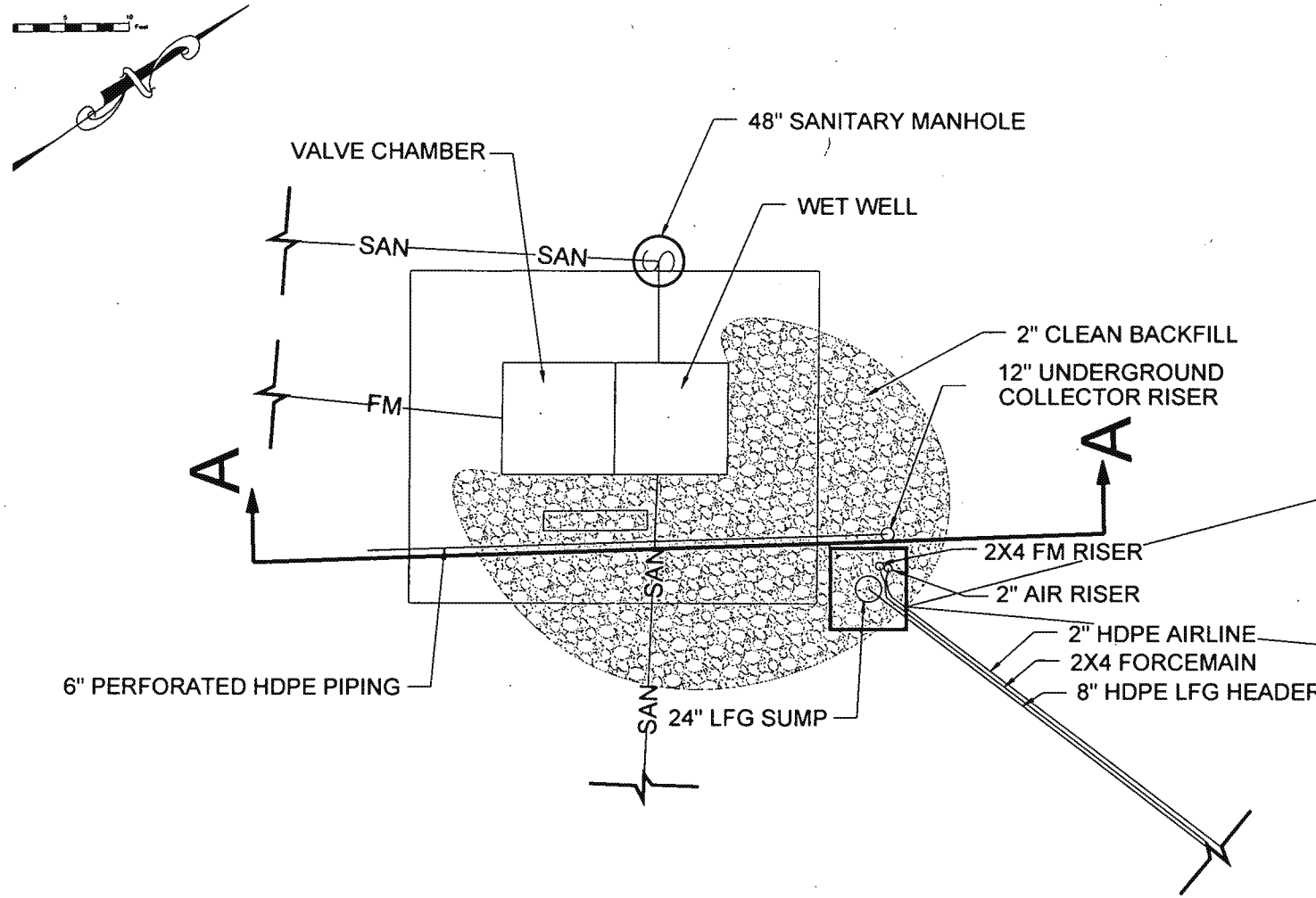
MSD 032222

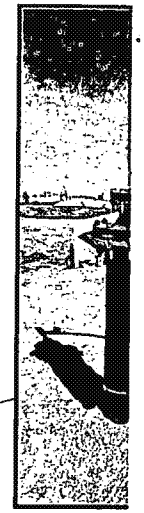
4.0 Data Management

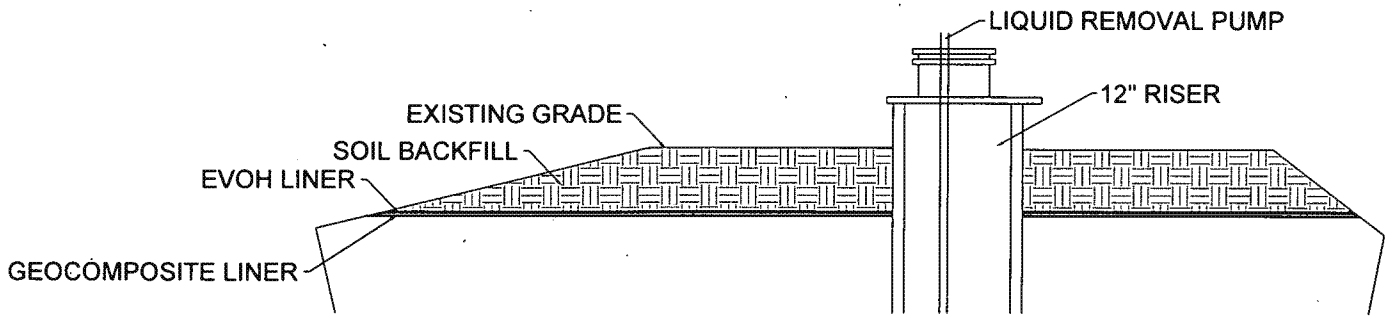
Analytical reports will be submitted electronically to Bridgeton Landfill, normally within ten days following a sampling event.

Barr Engineering will check quality control data including laboratory acceptance limits, duplicate analysis, measurement or calculation errors, and any omissions. Suspect data will be flagged and/or excluded from use. Unusual data will be rechecked to verify accuracy. Barr will prepare a Technical Memo summarizing the data and any quality control issues. The memo and complete analytical report will be provided to MSD in the next weekly reporting cycle after the data is reviewed and verified.

Figure


48" SANITARY MANHOLE
VALVE CHAMBER
WET WELL
SAN
SAN
FM
2" CLEAN BACKFILL
12" UNDERGROUND
COLLECTOR RISER
A
A
2X4 FM RISER
2" AIR RISER
2" HDPE AIRLINE
2X4 FORCEMAIN
8" HDPE LFG HEADER
6" PERFORATED HDPE PIPING
SAN
SAN
24" LFG SUMP




LIQUID REMOVAL PUMP
12" RISER
EXISTING GRADE
SOIL BACKFILL
EVOH LINER
GEOCOMPOSITE LINER

MSD 032225

Appendix A

Sample Enthalpy Chain of Custody

ENTHALPY analytical, inc.

Chain of Custody Record

Page_____of_____

Special Handling:

☐ Standard Turn Around Time (10 business days)

☐ Rush Turn Around Time -- Date Needed_____

- All TATs Subject to Approval by Enthalpy Analytical, Inc.
- All Bag/Can Samples Disposed of 1 Month from Receipt.
- All Other Samples Disposed of 4 Months from Receipt.

Client Name:_____

Project Manager:_____

Report To:_____

Project Number:_____

Site Name:_____

Location:_____

PO#:_____

Telephone#:_____

Email:_____

For spiked or duplicate samples: please provide sample volumes for recovery calculations. For Particulates: please provide tare weights and/or condensed water volumes.

Special Instructions:

A=Air 1=H2SO4 2=NaOH W=Water O=Other
X=XAD C=Charcoal SG=Silica Gel

G=Grab C=Composite Q=Quality Control O=Other

Sample ID	Date	Time	Sample Volume	Type	Matrix	# of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters	# of Tubes	# Other	Analyses:								Notes:

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Condition Upon Receipt:
					☐ Iced ☐ Ambient ☐ °C_____
					☐ Iced ☐ Ambient ☐ °C_____
					☐ Iced ☐ Ambient ☐ °C_____

800-1 Capitola Drive • Durham, NC 27713 • (919) 850-4392 • FAX (919) 850-9012 • www.enthalpy.com

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, April 22, 2015 1:29 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

CB 4-24

The material for the week is now posted on Barr's ftp site.

- The quarterly radiochemistry sample for 014 data is included. The four data reports that were produced are posted along with a technical memorandum with a discussion of the results.
- We forgot to note last week that internal analytical data was not collected for 013 for the days 4/2 through 4/6. Three of the days had no permeate production. During the other days, no analysis was conducted because the UF was down during lab hours.
- The onsite discharge (013) for 4/16/2015 is footnoted as follows: "Discharge began around midnight with a flush of the MSD forcemain with potable water. Potable water used = 81585 gallons, which is included in the total volume of 170,749 gallons."

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Table 1

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-98-AS	4/20/2015		Field	No QC	WASTE_2015	--	16600	--	--	--	7.40	--
HW	4/17/2015		Field	No QC	WASTE_2015	--	10830	--	--	--	7.78	--
T1-97-AS	4/16/2015		Field	No QC	WASTE_2015	--	11110	--	--	--	7.38	--
HW	4/15/2015		Field	No QC	WASTE_2015	--	12760	--	--	--	7.73	--
HW	4/14/2015		Field	No QC	WASTE_2015	--	15050	--	--	--	7.78	--
T1-96-AS	4/13/2015	4:45 AM	PDC	Validated	5041864	2400	11000	--	--	--	--	--
T1-96-AS	4/13/2015		Field	No QC	WASTE_2015	--	10810	--	--	--	7.77	--
HW	4/11/2015		Field	No QC	WASTE_2015	--	10600	--	--	--	7.51	--
HW	4/10/2015		Field	No QC	WASTE_2015	--	10350	--	--	--	7.31	--
T1-95-AS	4/09/2015	4:45 AM	PDC	Validated	5041732	3000	11000	--	--	--	--	--
T1-95-AS	4/09/2015		Field	No QC	WASTE_2015	--	10850	--	--	--	7.75	--
T1-94-AS	4/08/2015	4:50 AM	PDC	Validated	5041014	3200	8200	--	--	--	--	--
T1-94-AS	4/08/2015		Field	No QC	WASTE_2015	--	10250	--	--	--	7.75	--
T1-93-AS	4/07/2015	5:00 AM	PDC	Validated	5041013	2300	7400	--	--	--	--	--
T1-93-AS	4/07/2015		Field	No QC	WASTE_2015	--	10780	--	--	--	7.76	--

Table 1

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
T1-98-AS	4/20/2015		Field	No QC	WASTE_2015	8740	43.4	--	--	--	--	--
HW	4/17/2015		Field	No QC	WASTE_2015	9200	44.1	--	--	--	--	--
T1-97-AS	4/16/2015		Field	No QC	WASTE_2015	9300	43.5	--	--	--	--	--
HW	4/15/2015		Field	No QC	WASTE_2015	8080	38.8	--	--	--	--	--
HW	4/14/2015		Field	No QC	WASTE_2015	8960	36.2	--	--	--	--	--
T1-96-AS	4/13/2015	4:45 AM	PDC	Validated	5041864	6400	--	--	--	--	--	--
T1-96-AS	4/13/2015		Field	No QC	WASTE_2015	7160	36.6	--	--	--	--	--
HW	4/11/2015		Field	No QC	WASTE_2015	7660	39.5	--	--	--	--	--
HW	4/10/2015		Field	No QC	WASTE_2015	11360	39.8	--	--	--	--	--
T1-95-AS	4/09/2015	4:45 AM	PDC	Validated	5041732	13000	--	--	--	--	--	--
T1-95-AS	4/09/2015		Field	No QC	WASTE_2015	11140	36.6	--	--	--	--	--
T1-94-AS	4/08/2015	4:50 AM	PDC	Validated	5041014	8800	--	--	--	--	--	--
T1-94-AS	4/08/2015		Field	No QC	WASTE_2015	11980	36.1	--	--	--	--	--
T1-93-AS	4/07/2015	5:00 AM	PDC	Validated	5041013	10000	--	--	--	--	--	--
T1-93-AS	4/07/2015		Field	No QC	WASTE_2015	15400	36.9	--	--	--	--	--

MSD 032230

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
4/20/2015	T1-98-AS	22	165,000	322,500
	HW	21	157,500	
4/17/2015	HW	19	142,500	330,000
	T1-97-AS	25	187,500	
4/16/2015	T1-97-AS	21	157,500	330,000
	HW	23	172,500	
4/15/2015	HW	24	180,000	330,000
	HW	20	150,000	
4/14/2015	HW	25	187,500	330,000
	T1-096-AS	19	142,500	

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	31100	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	--	45300	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	16160	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	--	16020	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	25.90 BQU	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	13180	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	--	12980	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	15070	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	--	13230	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	12320	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	12700	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	12220	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	13710	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	14590	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	13660	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	11250	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	10050	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	12650	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	8460	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	9580	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	8460	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	8680	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	4010	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	8210	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	7000	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	7630	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	7770	--	--	--	--

BQU: Data is considered suspect.

MSD 032232

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	--	--	168540	--	--	2.6
MH013	4/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	1.63
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	45091	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	--	2.08	166878	--	7.24	2.51
MH013	4/17/2015			LPTP	No QC	LPTP	--	1.30	--	--	7.33	2.67
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	89164	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	--	1.54	--	--	7.48	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	--	3.71	149976	--	7.41	2.66
MH013	4/15/2015			LPTP	No QC	LPTP	--	5.22	--	--	7.53	2.71
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	--	1.46	141480	--	7.06	2.98
MH013	4/14/2015			LPTP	No QC	LPTP	--	3.66	--	--	7.09	5.45
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	3.58	33450	--	7.04	4.64
MH013	4/13/2015			LPTP	No QC	LPTP	--	4.23	--	--	7.14	4.78
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	4.55	159406	--	7.04	3.82
MH013	4/12/2015			LPTP	No QC	LPTP	--	4.62	--	--	7.12	3.21
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	10.5	162852	--	7.33	2.26
MH013	4/11/2015			LPTP	No QC	LPTP	--	10.7	--	--	7.31	1.52
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	84992	--	7.35	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	7.21	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	4	127930	--	7.75	2.05
MH013	4/09/2015			LPTP	No QC	LPTP	--	3.67	--	--	7.12	1.65
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	3.98	198550	--	7.24	3.69
MH013	4/08/2015			LPTP	No QC	LPTP	--	3.55	--	--	7.36	3.31
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	3.60	170284	--	7.58	3.92
MH013	4/07/2015			LPTP	No QC	LPTP	--	1.70	--	--	7.54	2.81
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	3168	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	10220	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	1.69	60023	--	7.27	3.04
MH013	4/01/2015			LPTP	No QC	LPTP	--	1.06	--	--	7.26	3.04
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	2.96	35560	--	7.23	3.12
MH013	3/31/2015			LPTP	No QC	LPTP	--	3.12	--	--	7.26	3.36

BQU: Data is considered suspect.

MSD 032233

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	4/19/2015			LPTP	No QC	LPTP	19.5	--	--	--	--	--	--
MH013	4/19/2015			LPTP	No QC	LPTP	68	141834	--	--	--	--	--
LPTP Permeate	4/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/18/2015			LPTP	No QC	LPTP	--	38843	--	--	--	--	--
LPTP Permeate	4/17/2015			LPTP	No QC	LPTP	3.5	--	--	--	--	--	--
MH013	4/17/2015			LPTP	No QC	LPTP	32.5	126314	--	--	--	--	--
LPTP Permeate	4/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/16/2015			LPTP	No QC	LPTP	15	170749	--	--	--	--	--
LPTP Permeate	4/15/2015			LPTP	No QC	LPTP	6.5	--	--	--	--	--	--
MH013	4/15/2015			LPTP	No QC	LPTP	23.5	136918	--	--	--	--	--
LPTP Permeate	4/14/2015			LPTP	No QC	LPTP	11	--	--	--	--	--	--
MH013	4/14/2015			LPTP	No QC	LPTP	27	117426	--	--	--	--	--
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	20	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	29.5	29821	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	48	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	62	117549	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	30	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	58	123090	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	35	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	43	72853	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	163	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	177	85772	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	117	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	153	162453	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	103	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	140	158381	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	3976	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	1573	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	9727	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	11724	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	9.5	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	92.5	14362	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	5.5	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	37.5	40049	--	--	--	--	--

BQU: Data is considered suspect.

MSD 032234

Table 1
RadChem Data

Location	014				014			
Date	1/21/2015				1/21/2015			
lab_name_code	Eberline	Eberline - MDA	Eberline	Eberline - MDA	Eberline	Eberline - MDA	Eberline	Eberline - MDA
Sample Type	DO	DO	DUP	DUP	DO	DO	DUP	DUP
Data Status	Validated	Validated	Validated	Validated	Validated	Validated	Validated	Validated
lab_sdg	15-01136	15-01136	15-01136	15-01136	15-03095	15-03095	15-03095	15-03095
Parameter								
General Parameters								
Solids, total dissolved	8820 mg/l		--		--		--	
Solids, total suspended	2370 mg/l		--		--		--	
Radiochemical Parameters								
Actinium-228	7.27 +/- 8.19 pCi/l	14.9 pCi/l	7.63 +/- 9.34 pCi/l	16.3 pCi/l	--		--	
Bismuth 212	-8.33 +/- 20.3 pCi/l	28.7 pCi/l	15.3 +/- 17.7 pCi/l	30.8 pCi/l	--		--	
Bismuth 214	-0.577 +/- 4.79 pCi/l	7.22 pCi/l	0.0543 +/- 4.66 pCi/l	7.22 pCi/l	--		--	
Gross Alpha (radiation)	-0.312 +/- 0.637 ** pCi/l	1.61 pCi/l	0.0632 +/- 0.372 ** pCi/l	0.910 pCi/l	-11.4 +/- 41.7 ** pCi/l	109 pCi/l	19.8 +/- 33.7 ** pCi/l	71.2 pCi/l
Gross Beta (radiation)	-2.10 +/- 1.38 * pCi/l	3.11 pCi/l	-0.848 +/- 1.41 * pCi/l	3.09 pCi/l	295 +/- 85.1 * pCi/l	128 pCi/l	251 +/- 86.8 * pCi/l	146 pCi/l
Gross Gamma	313 +/- 61.8 pCi/l	52.4 pCi/l	361 +/- 71.3 pCi/l	69.7 pCi/l	--		--	
Lead 212	1.64 +/- 3.31 pCi/l	5.59 pCi/l	2.12 +/- 3.39 pCi/l	5.81 pCi/l	--		--	
Lead 214	-0.166 +/- 4.11 pCi/l	6.86 pCi/l	2.42 +/- 4.20 pCi/l	7.35 pCi/l	--		--	
Potassium 40	313 +/- 63.8 pCi/l	52.4 pCi/l	361 +/- 73.7 pCi/l	69.7 pCi/l	--		--	
Radium 226	0.355 +/- 0.535 pCi/l	0.864 pCi/l	1.12 +/- 0.886 pCi/l	0.685 pCi/l	--		--	
Radium 228	1.56 +/- 2.10 * pCi/l	4.25 pCi/l	0.338 +/- 1.92 * pCi/l	4.07 pCi/l	--		--	
Thallium 208	2.23 +/- 6.69 pCi/l	10.9 pCi/l	4.53 +/- 6.47 pCi/l	11.0 pCi/l	--		--	
Thorium 234	162 +/- 57.2 pCi/l	86.3 pCi/l	185 +/- 58.9 pCi/l	89.8 pCi/l	--		--	
Uranium	0.182 +/- 0.0208 ug/l	1.03 ug/l	-0.268 +/- 0.0308 ug/l	1.03 ug/l	0.786 +/- 0.557 * pCi/l	0.559 pCi/l	0.808 +/- 0.654 * pCi/l	0.726 pCi/l
Uranium 234	--		--		0.786 +/- 0.557 * pCi/l	0.559 pCi/l	0.808 +/- 0.654 * pCi/l	0.726 pCi/l
Uranium 235	19.1 +/- 14.9 pCi/l[1]	21.6 pCi/l	-1.28 +/- 15.7 pCi/l[1]	20.4 pCi/l	0.0644 +/- 0.295 * pCi/l[2]	0.690 pCi/l	0.172 +/- 0.374 * pCi/l[2]	0.736 pCi/l
Uranium 238	--		--		0.539 +/- 0.469 * pCi/l	0.557 pCi/l	0.278 +/- 0.429 * pCi/l	0.722 pCi/l

[1]Uranium 235 by gamma spectroscopy Method EPA 901.1
[2]Uranium 235 by isotopic analysis EML U-02

"<"

U(tot) - concentration

U-natural rad

"<"

MSD 032235

Chain of Custody Record

№ 6256

15-03095

Eberline Services
601 Scarboro Road
Oak Ridge, TN 37830
(865) 481-0683 Phone · (865) 483-4621 Fax

EBERLINE SERVICES

Page 1 of 1

~~15-01136~~
KC 3/19/15

Purchase Order #:

Project Name: Bridgeton LQ15 Leachate
Send Report To: Matt Stewart
Address: 4631 N. St. Peters Pkwy, St. Charles, Mo 63304
Phone: (636) 939-9111
Fax: (636) 939-9757

Project Number:
Sampler (Print Name): Matt Stewart
Sampler (Print Name):
Shipment Method: Fed Ex
Airbill Number: 7726 6184 3940
Laboratory Receiving:

Field Sample ID	Sample Date	Sample Time	Sample Matrix	Number of Containers	Gross Alpha, Gross Beta	Gross Gamma	Radium-226	Radium-228	Total Uranium	TDS	TSS					Comments, Special Instructions, etc.	Lab Sample ID (to be completed by lab)
014 4	1/20-21/15	1225 0839 1629 1219	Aqueous	4	X	X	X	X	X	X	X					*All Rads run as total	

REC'D JAN 22 2015

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Matt Stewart	Fed Ex	1/21/14	1800
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Fed Ex	Kristen Carlston	1/22/15	1100
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Sample Custodian Remarks (Completed By Laboratory):

QA/QC Level	Turnaround	Sample Receipt	
Level I ☐	Routine ☐	Total # Containers Received?	
Level II ☐	24 Hour ☐	COC Seals Present?	
Level III ☐	1 Week ☐	COC Seals Intact?	
Other ☐	Other _____	Received Containers Intact?	
		Temperature?	

S00089

MSD 032236

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engineering and environmental consultants

BARR

Technical Memorandum

To: File - Bridgeton Landfill, LLC
From: Ed Galbraith, Barr Engineering Co.
Subject: Summary of Results for First Quarter Radiological Chemistry Sampling for SP014
Date: April 21, 2015
c: Brian Power; Derek Bouchard; Matt Stewart, Ed Galbraith

Background

On January 20, 2015, SP014 was sampled for radiological parameters required by Bridgeton Landfill's Metropolitan St. Louis Sewer District (MSD) discharge permit. The sample was collected by Matt Stewart of Herst & Associates and sent to Eberline Analytical Corporation in Oak Ridge Tennessee for analysis. For reasons that will be explained below, Eberline produced four separate reports. The purpose of this memo is to summarize the results and identify those results to be used in reporting to MSD.

Summary of Reports

The four reports are:

Eberline Report No.	Date	Description of Revision
15-01136	03/02/2015	
15-01136-Revised	03/18/2015	Added Bi-212 and U-235 by gamma spectroscopy; added uranium activity by ASTM D5174.
15-01136-Revision 2	03/30/2015	Removed uranium radioactivity results by ASTM D5174; added uranium by EPA 901.1
15-03095	04/06/2015	Sample reanalyzed for gross beta and isotopic uranium

Discussion of Results

Gross Alpha

The sample was analyzed for gross alpha twice, and reported in 15-01136 and 15-03095. According to the narrative in 15-03095, the results for gross alpha were deemed not usable. Therefore the data are qualified ** (unusable) for that sample. Presumably this qualitative determination applies to both sample results, however that was not specifically stated in the narrative for 15-00136. All results were below Minimal Detected Activity (MDA); therefore neither result represents positive activity.

Gross Beta

Gross beta in Report 15-00136 was uncharacteristically low and Eberline recommended reanalysis to insure proper re-suspension of the sample. (email correspondence between Ed Galbraith and Mike McDougal, March 25 and 26, 2015). The second analysis is in Report 15-03095. According to that report narrative, the gross beta results may be usable but should be considered an estimated concentration. The result in Report 12-03095 will be used in reporting activity to MSD.

Radium 226 and 228

There were no changes to Radium 226 or 228. All results were below the MDA.

Uranium Radioactivity (Uranium – Natural)

Report 15-01136 did not include a measure of uranium radioactivity, (i.e., uranium-natural in the MSD permit.) Report 15-01136-Revised included uranium radioactivity from Method ASTM D5174. Report 15-01136-Revision 2 included uranium radioactivity from gamma spectroscopy, Method 901.1. The narrative indicates that the uranium result from gamma spectroscopy is not positive and should be qualified as non-detect. We have clarified with Eberline that total uranium radioactivity from methods other than isotopic is not necessary in the future. The uranium radioactivity results from 15-01136-Revised and 15-01136-Revision 2 will not be considered in reporting total activity to MSD.

Eberline was requested to reanalyze the sample for uranium isotopes 234, 235 and 238. (email correspondence between Ed Galbraith and Mike McDougal, March 25 and 26, 2015.) Isotopic uranium results are included in 15-03095. Based on correspondence from Mike McDougal (email from Mike McDougal to Ed Galbraith 04/16/2015), isotopic uranium is the best method for quantification of total uranium activity and the results from Report 15-03095 will be used for reporting total activity to MSD.

Total Uranium

Total uranium as a metal concentration was analyzed by Method ASTM D5174 and included in Report 15-01136. This result is deemed valid.

Uranium-235

There are two results for Uranium-235, one in Report 15-01136-Revised by gamma spectroscopy and another in Report 15-03095 by isotopic analysis. Because of MSD's request to include Uranium-235 as part of the gamma spectrum, both values will be reported. Isotopic Uranium-235 will be used for the calculation of total uranium radioactivity.

/eg

From: Mike McDougall
To: Ed Galbraith
Subject: RE: 15-01136-OR and 15-03095-OR
Date: Thursday, April 16, 2015 11:10:22 AM
Attachments: image001.png
image002.jpg

Ed:

To summarize, there appears to be three results as a result of three different methods used.

The first methods results, ASTM D5147 is by KPA. Not having the data readily available makes it somewhat problematic; however, I can generalize. This method is kinetic phosphorescence. This method is used for measurements of Uranium in clean water. In many instances, clients want this method because it is less costly than Isotopic Uranium. However, if the sample contains a high level of elemental chlorides, this method is subject to quenching and may derive bias low results. In this case, I believe these samples are very problematic and are subject this this problem. It would still appear that results are statistically equivalent with the alpha spectroscopy results.

Regarding the second method, EPA 901.1 modified. This is gamma spectroscopy. Uranium should not be reported from gamma spectroscopy. It is non-quantifiable unless very positive. The energy of the gamma ray that is emitted is ~59 keV, (Thorium-234) and the emission rate is very low. I have no doubt that the Uranium result below is not a positive; however, is reported from the Canberra MDA report and in fact if we had a choice, we would not have reported it. It is not a valid result.

Regarding the ENL-U02 method. This is the MOST VALID RESULTS for Uranium. This method will provide accurate results for difficult matrices and results are quantifiable due to the use of a Uranium-232 tracer that is added at initial preparation.

Regarding providing a Uranium-235 laboratory control sample value for EPA 901.1. Uranium-235 is not present in the gamma spec laboratory control sample, therefore, it cannot be provided. If they are inferring the alpha spectroscopy Uranium-235 laboratory control sample, which I think that is what they mean, we use a Natural Uranium laboratory control sample with very deminimus activity which makes the Uranium-235 non-definable. Therefore, we do not provide a Uranium-235 laboratory control sample activity level.

I hope this answers your questions. I did not cc the others.

Best Regards,

Michael R. McDougall
Eberline Analytical| Oak Ridge, TN | Laboratory Manager | 865-481-0683 x128 | 865-776-0874 (cell) | www.EberlineServices.com

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From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Thursday, April 16, 2015 11:50 AM
To: Mike McDougall
Cc: Andrea A. Nord; Kelly Caddy
Subject: 15-01136-OR and 15-03095-OR

Mike we need your help with a couple of clarifications.

1. There are three values for Total U for this sample. The result for Uranium from Method 901 is significantly different can you help us make sense of that?

Location		014	014	014	014
Date		1/21/2015	1/21/2015	1/21/2015	1/21/2015
lab_name_code		Eberline	Eberline	Eberline	Eberline
Sample/Type		N	FD	N	FD
Data/Status		Validated	Validated	QC Pending	QC Pending
lab_sdg		15-01136	15-01136	15-03095	15-03095
analytic_method	Parameter				
ASTM D5174_RAD	Uranium	0.182 +/- 0.0208 ug/l 0.274 +/- 0.00779 pCi/l	-0.268 +/- 0.0308 ug/l -0.401 +/- 0.0126 pCi/l	--	--
E901.1_M_RAD	Uranium	**343 +/- 128 pCi/l**	**369 +/- 132 pCi/l**		
EML_U-02_M_RAD	Uranium 234	--	--	0.786 +/- 0.557 pCi/l	0.808 +/- 0.654 pCi/l
EML_U-02_M_RAD	Uranium 235	--	--	0.0644 +/- 0.295 pCi/l	0.172 +/- 0.374 pCi/l
EML_U-02_M_RAD	Uranium 238	--	--	0.539 +/- 0.469 pCi/l	0.278 +/- 0.429 pCi/l

2. The LCS result for U-235 seems to be missing from the reports. Can you please provide that? Either a revised report or a copy of the result under a cover letter with an explanation for why it was not included would be sufficient. Thanks.

Location		014	014
Date		1/21/2015	1/21/2015
lab_name_code		Eberline	Eberline
Sample/Type		N	FD
Data/Status		Validated	Validated
lab_sdg		15-01136	15-01136
analytic_method	Parameter		
E901.1_M_RAD	Uranium 235	19.1 +/- 14.9 pCi/l	-1.28 +/- 15.7 pCi/l

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

From: Andrea A. Nord
Sent: Monday, April 13, 2015 4:40 PM
To: Ed Galbraith
Cc: Kelly Caddy
Subject: Eberline questions for meeting

Ed,
If it's easier over e-mail, here are the questions and observations Kelly and I have for the Q1 2015 radchem data:

1. What is the parameter list needed for the Q1 data set? We think the TDS, TSS and gamma spec is missing from rev 2 issued on April 6 for lab report 15-01136-OR but we aren't sure if something changed.
2. Why was the alpha, beta and isotopic uranium re-analyzed and new results reissued in lab report 15-03095 dated April 6?
3. The lab case narrative says the alpha results are unusable and beta results are qualified estimated. Is this qualified data better than (i.e. more useful than) the previously reported data in 15-01136-OR? If so, why? Is further analysis warranted?
4. We now have multiple results for alpha, beta and total and isotopic uranium. How do you want to show this data on this week's tables?
5. Is it ok to request another revision from Eberline? For the following items:
    a. 15-01136-OR: LCS results for Uranium 235 is missing from pages 26 and 30
    b. Correct the parameter list and select one set of "final" data for the Q1 sampling event. Each revision of 15-01136-OR has different parameter lists. The second revision for 15-01136-OR and the "re-run" lab report 15-030905-OR are both missing the gross gamma result. Is it needed?

P:\Jeff City\25 MO\87\25871014 Bridgeton Landfill Regulatory\WorkFiles\Analytical Data\Lab Data\2015

Andrea A. Nord

Senior Data Quality Specialist
Barr Engineering Co.
4700 West 77th Street
Minneapolis, MN 55435

office: 952.832.2893
toll-free: 800.632.2277

anord@barr.com
www.barr.com

From: Mike McDougall
To: Ed Galbraith
Cc: Kathy Shaulis; Cheryl Conner; Elizabeth Towery
Subject: RE: Additional questions on 15-01136
Date: Thursday, March 26, 2015 8:27:27 AM
Attachments: image001.png
Importance: High

Ed:

Questions are fine, do not hesitate to ask. We have a lot of experience with radiological analyses and are happy to assist. Regarding your question, I have the following responses:

1. *In Bridgeton LF's most recent report (15-01136), the Gross Beta was essentially non-detect, which we have never before seen in this material. In a past report (almost two years ago), you did some additional study to link the high Beta readings at that time with K40. K40 is still present at levels similar to then, however it does not seem to be producing detectable Beta now. Any thoughts on this?*

You have a valid point with these results. However, K-40 can be somewhat problematic in an acid medium. Seems to become an insoluble compound and if the laboratory technician is not contentious about resuspending the sample, it will not be present in the aliquot analyzed or we commonly see differential Gross Beta activities. If you want we can reanalyze with special instructions to shake the sample prior to analyses. FYI, this is standard procedure.

2. The total uranium activity was derived using the same method as the total uranium concentration. In my limited experience total uranium is usually derived from the evaluation of individual U isotopes. Is it preferred or better to do one or the other? Does the difficulty of this matrix factor in to this.

Your correct, the best method for quantification of Total Uranium in the radiochemistry realm of thing is Isotopic Uranium by alpha spectroscopy. I quite frankly think that attempting to do Total Uranium by gamma spectroscopy is non-quantifiable unless the sample has <1,000 pCi/l of Thorium-234 in it. Total Uranium by KPA can also be problematic in high Cl^- or high total solids water. Also looking at our data, it would appear that we may have incorrectly reported the MDA's for Total Uranium by gamma. Below are correct Total Uranium derived from gamma results, CU's and MDA's

Correct Gamma Results:

ClientID	ReportUnits	Result	Uncertainty	MDA
BLANK	pCi/l	107.9661955	76.84605727	122.8309325
014	pCi/l	369.1027632	131.8587538	199.9854748
014	pCi/l	343.1229883	128.0230824	194.1734619

We will revise our report and resubmit. Now that being the case, it would appear that our LIMS may have over ridden the gamma Total Uranium data when we re-entered the KPA data for some reason. Lastly, these Total Uranium numbers by gamma spectroscopy are "NOT POSITIVE" and are

derived from the Canberra "MDA Report" which generates results for non-identified nuclides. In the case of these results, the result should most likely have a < symbol in front of it. Notice the blank

3. I note that the result for U235 was higher than that for Total Uranium, although neither is relevant because of the high MDA's. Again, is there matrix issue that explains this?

See the above response to 2

I apologize for this error, we seem to have multiple issues LIMS wise when we try and report results for the same analyte by different methods. We will revise the report and resubmit

Best Regards,

Michael R. McDougall
Eberline Analytical| Oak Ridge, TN | Laboratory Manager | 865-481-0683 x128 | 865-776-0874 (cell) | www.EberlineServices.com

Eberline Analytical is a Small Business

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From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, March 25, 2015 7:18 PM
To: Mike McDougall
Cc: Andrea A. Nord; Matt Stewart (mstewart@herstassociates.com)
Subject: Additional questions on 15-01136

Mike, sorry to keep peppering you with questions, but I'm afraid you are the source...

1. In Bridgeton LF's most recent report (15-01136), the Gross Beta was essentially non-detect, which we have never before seen in this material. In a past report (almost two years ago), you did some additional study to link the high Beta readings at that time with K40. K40 is still present at levels similar to then, however it does not seem to be producing detectable Beta now. Any thoughts on this?

2. The total uranium activity was derived using the same method as the total uranium concentration. In my limited experience total uranium is usually derived from the evaluation of individual U isotopes. Is it preferred or better to do one or the other? Does the difficulty of this matrix factor in to this.

3. I note that the result for U235 was higher than that for Total Uranium, although neither is relevant because of the high MDA's. Again, is there matrix issue that explains this?

I appreciate any insights you can provide.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

Doug Mendoza

Bridgeton Landfill

From: Power, Brian <BPower@republicservices.com>
Sent: Wednesday, April 22, 2015 10:45 AM
To: Rob G Daly; 'Koziatek, Dan'; Bouchard, Derek; Ed Galbraith (EGalbraith@barr.com) (EGalbraith@barr.com)
Cc: 'Kamp, Kevin'; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; Lance LeComb
Subject: RE: Bridgeton Force Main-Odor Control Issues

Rob,

We are finalizing the SOP as we speak. We should have it out to you by end of day.

Sincerely,

Brian J. Power
Environmental Manager
Bridgeton Landfill, LLC.
13570 Saint Charles Rock Road
Bridgeton, MO 63044

Phone: (618) 410-0157
Email: bpower@republicservices.com

From: Rob G Daly [mailto:rdaly@stlmsd.com]
Sent: Wednesday, April 22, 2015 9:36 AM
To: 'Koziatek, Dan'
Cc: 'Kamp, Kevin'; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; Power, Brian; Lance LeComb
Subject: Bridgeton Force Main-Odor Control Issues

Dan

We consider the odor control issue as resolved at this time. It appears that dosing rate increases and the line flushing are having the intended effect and odor appears to have significantly reduced in severity.

We still need the SOP completed and forwarded our way (MSD Operations, i.e. Pump Stations) that was referenced in previous emails and conversations and I am hopeful that we can see that today or tomorrow. That is a document that should be part of our mutually complementary standard operating procedures that I keep referencing in our conversations. Sooner we wrap up the SOP for how we will effectively communicate operations and maintenance response issues between our respective groups- and this flushing item should just be a constituent component of that overall SOP, and identify how we will effectively collaborate where necessary- the sooner we can move into the long term part of the life cycle management of these facilities.

Thank you.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District

Doug Mendoza

Bridgeton Landfill

From: Rob G Daly
Sent: Wednesday, April 22, 2015 9:36 AM
To: 'Koziatek, Dan'
Cc: 'Kamp, Kevin'; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; 'Power, Brian (BPower@republicservices.com)'; Lance LeComb
Subject: Bridgeton Force Main-Odor Control Issues

Dan

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Thank you.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Rob G Daly
Sent: Sunday, April 19, 2015 7:11 PM
To: 'Koziatek, Dan'
Cc: Kamp, Kevin; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; Power, Brian (BPower@republicservices.com); Lance LeComb
Subject: Bridgeton Force Main-Odor Control Issues

Dan

Thanks for update.

We will be assessing on our end (Operations) as well on Monday and coordinating with our internal partners on the next step- which we hope is ... nothing- because the flush and the dosing are getting the job done. We appreciate the efforts on your end to resolve this issue.

Please keep the group in this email distribution list copied on any additional communications involving this specific issue.

Doug Mendoza Bridgeton Landfill

From:	Jonathon Sprague
Sent:	Tuesday, April 21, 2015 3:57 PM
To:	Rob G Daly
Cc:	John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch; Scott D Kappelmann
Subject:	RE: Bridgeton Leachate force main - status of odor problem

I was at the St. John's board meeting last night. They were very complimentary of our response and have not noticed odors since last Wednesday. We just need to have a protocol in place in case there is an extended shutdown. I would suspect that just moving some water through the system during a long shutdown would stop the sewage from going septic and eliminate any odor issues.

Jonathon Sprague
Director of Operations
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103
314 768-6261

From: Rob G Daly
Sent: Tuesday, April 21, 2015 2:00 PM
To: Jonathon Sprague
Cc: John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch; Scott D Kappelmann
Subject: RE: Bridgeton Leachate force main - status of odor problem

Jon

FYI.

We have done field 'smell' tests in the field (did one personally myself yesterday afternoon at all PS sites and discharge manhole) for multiple days running now and consider this issues as resolved. **If any party disagrees- please say to this group so before Wednesday morning** so I can pass the word back officially to landfill folks that afternoon that we consider this 'resolved' and that a meeting is no longer necessary. This will be an email -copying this group as well as all landfill personnel- Brian Power and Dan/Kevin from consultant side.

The dosing, changes in pumping rates, and the line flush have definitely improved the situation.

We are still awaiting an SOP from landfill operations side that will define how we go about dealing with issues like this in the future. We expect it in the next few days at most per our verbal check in today. If they had talked to us when they ceased flow- we could have predicted this, planned around it, and mitigated the worst of this and not been surprised by it. We are trying hard to make them understand that we, by virtue of the design and operations requirements of these facilities now, essentially, partners in this enterprise. If we collaborate and communicate effectively- which is what this set of SOP's we are developing and implementing with these folks is all about- we can avoid some of these inevitable 'start up and commissioning' issues. This has been a hard nut to crack (this does not come naturally to them after the long controversy on this site and we have had to overcome some internal resistance eon their end) and still needs some work- but we are working on it diligently and we will get there soon.

Doug Mendoza

Bridgeton Landfill

From: John Lodderhose
Sent: Tuesday, April 21, 2015 2:59 PM
To: Scott D Kappelmann; Rob G Daly; Jonathon Sprague
Cc: John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch
Subject: RE: Bridgeton Leachate force main - status of odor problem

The wastewater is still much stronger than they want it to be. They are having trouble with their pretreatment system and they are in the process of installing additional treatment units to address the issue. I believe they are working with the Bioxide distributor on the dosing to account for their high strength wastewater.

From: Scott D Kappelmann
Sent: Tuesday, April 21, 2015 2:45 PM
To: Rob G Daly; Jonathon Sprague
Cc: John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch
Subject: RE: Bridgeton Leachate force main - status of odor problem

Rob and Jon,
Do we know when the BOD in this pretreated leachate will be down around 300 parts per million (ppm) or below? This is the strength that it is supposed to have when it enters the pumping system, at least to my understanding.
The last that I heard the BOD was in the 2500 – 3000 ppm range. That is far too high, and will remain problematic (producing excessive odors and H2S) in a system with 7.2 miles of force main and three pump stations in series. Not to mention that it is WARM wastewater, which is worse still.
Naturally, they can dilute with potable water, but that still won't get this wastewater down to 300 ppm of BOD.

Thanks,

Scott Kappelmann, PE
Civil Engineer

MSD Plan Review

From: Rob G Daly
Sent: Tuesday, April 21, 2015 2:00 PM
To: Jonathon Sprague
Cc: John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch; Scott D Kappelmann
Subject: RE: Bridgeton Leachate force main - status of odor problem

Jon

FYI.

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Doug Mendoza Bridgeton Landfill

From:	Rob G Daly
Sent:	Tuesday, April 21, 2015 2:47 PM
To:	Scott D Kappelmann; Jonathon Sprague
Cc:	John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch
Subject:	RE: Bridgeton Leachate force main - status of odor problem

Scott

This is a DEC question- since we are not doing any of that sampling.

John Lodderhose?

However- we will and should incorporate that into our procedure and Mark Bright will cover down on that with landfill folks.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Scott D Kappelmann
Sent: Tuesday, April 21, 2015 2:45 PM
To: Rob G Daly; Jonathon Sprague
Cc: John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch
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Civil Engineer

MSD Plan Review

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Civil Engineer

MSD Plan Review

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The dosing, changes in pumping rates, and the line flush have definitely improved the situation.

We are still awaiting an SOP from landfill operations side that will define how we go about dealing with issues like this in the future. We expect it in the next few days at most per our verbal check in today. If they had talked to us when they ceased flow- we could have predicted this, planned around it, and mitigated the worst of this and not been surprised by it. We are trying hard to make them understand that we, by virtue of the design and operations requirements of these facilities now, essentially, partners in this enterprise. If we collaborate and communicate effectively- which is what this set of SOP's we are developing and implementing with these folks is all about- we can avoid some of these inevitable 'start up and commissioning' issues. This has been a hard nut to crack (this does not come naturally to them after the

Bridgeton Landfill

Doug Mendoza

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Sent:	Tuesday, April 21, 2015 2:00 PM
To:	Jonathon Sprague
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I highly recommend that we continue to share information on landfill issues as a collective email distribution list/group. I sense a bit of 'divide and conquer' mentality, i.e. talk to different folks on different issues- and pick the answer that best suits their agenda, currently occurring in landfill folks and urge us to stay collectively informed on issues for the near term in order to mitigate any negative consequences of that.

Any questions- please let me know. Thank you.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Rob G Daly
Sent: Thursday, April 16, 2015 11:22 AM
To: Scott D Kappelmann
Cc: Jonathon Sprague; John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch
Subject: RE: Bridgeton Leachate force main - status of odor problem

Scott- please see other email strings below for reference.

I think we need to all agree to hit this entire distribution group on any updates as we progress through this issue since we have so many folks involved in this one.

My apologies- should have copied Plan Review folks as well. As always- thanks for jumping in on these issues. We had myself, Jay, all our County pump folks on site yesterday for about 4 hours and we met with Dan K. and Kevin Camp and Brian Power while we were on site. Mark Bright and Jay Kniker are meeting with plant operators (Natalie) tomorrow to continue this assessment process.

We are monitoring the PS sites (meaning we are doing a nose test primarily. Nothing fancy going on here- but we will also be opening wet wells and valve pits hatches and dropping 4 gas meters in to check conditions- which yesterday set off all our 4 gas meter LEL alarms when staff were inspecting station on an orientation tour) and discharge manhole location on a daily basis and we are already planning on a 'final assessment' on Monday morning to assess results of flushing and dosing rate increase.

If it is not considered effective at that time- we (myself and Jay) will take lead on contacting all parties to discuss next step.

John Lodderhose and Jon Sprague: I continue to recommend that we keep (or get) a meeting on the books for late next week as soon as possible with our folks and Republic- just to reserve a 'place holder' for all parties (us and Republic, etc.) to review issue if any further steps ARE required. We can always cancel the session if required. We recommended should occur late in week.

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Valley Park, MO 63088-1952
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rdaly@stlmsd.com

From: Scott D Kappelmann
Sent: Thursday, April 16, 2015 11:09 AM
To: Jay Kniker; Rob G Daly; Doug Mendoza
Cc: Jonathon Sprague; John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright
Subject: Bridgeton Leachate force main - status of odor problem

Jay, Rob, and Doug, FYI
I just returned from a odor check of the force main (at the discharge manhole to the Bissell system, and also along the last half mile or so of the force main).
Odors are definitely less than yesterday. There is mild odor in the area of the discharge manhole, but none or very little along St. Charles Rock Rd.

Doug Mendoza Bridgeton Landfill

From: Rob G Daly
Sent: Sunday, April 19, 2015 7:11 PM
To: 'Koziatek, Dan'
Cc: Kamp, Kevin; John Grimm; Mike Shelton; Scott D Kappelmann; John Lodderhose; Jay Kniker; Jonathon Sprague; John Welch; Doug Mendoza; Mark Bright; Power, Brian (BPower@republicservices.com); Lance LeComb
Subject: Bridgeton Force Main-Odor Control Issues

Dan

Thanks for update.

We will be assessing on our end (Operations) as well on Monday and coordinating with our internal partners on the next step- which we hope is ... nothing- because the flush and the dosing are getting the job done. We appreciate the efforts on your end to resolve this issue.

Please keep the group in this email distribution list copied on any additional communications involving this specific issue.

Lastly- we need to be the key party that this written procedure is addressed to and communicated to- as we will be the key parties involved in the long term with this issue and have the most need to know.

Thank you.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Koziatek, Dan [mailto:dkoziatek@cecinc.com]
Sent: Friday, April 17, 2015 11:22 AM
To: Scott D Kappelmann; Jay Kniker; John Lodderhose; Rob G Daly
Cc: Kamp, Kevin; John Grimm; Mike Shelton
Subject: RE: Bridgeton Force Main

Update for everyone,

A written procedure on the odor control, dosing of calcium nitrate and use of fresh water for flushing is being developed and will be forwarded to you as soon as it is put together. However, several steps have been taken in the last few days to reduce the odor as follows:

Wednesday night at about 10:15pm we induced fresh water into the system through a tank at the landfill treatment plant. The water was shut off at about 9am Thursday morning. The total discharge leaving the plant to PS1 was between 175-220 gpm during this timeframe. The peak flow in the force main including the domestic wastewater from

Doug Mendoza Bridgeton Landfill

From: John Lodderhose
Sent: Friday, April 17, 2015 11:34 AM
To: Doug Mendoza; Jonathon Sprague; Rich Unverferth; Lance LeComb; Sean Hadley
Subject: FW: Bridgeton Force Main

Here is the latest update on the Bridgeton FM odor problem. Looks like the problem has been corrected.

From: Koziatek, Dan [mailto:dkoziatek@cecinc.com]
Sent: Friday, April 17, 2015 11:22 AM
To: Scott D Kappelmann; Jay Kniker; John Lodderhose; Rob G Daly
Cc: Kamp, Kevin; John Grimm; Mike Shelton
Subject: RE: Bridgeton Force Main

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A written procedure on the odor control, dosing of calcium nitrate and use of fresh water for flushing is being developed and will be forwarded to you as soon as it is put together. However, several steps have been taken in the last few days to reduce the odor as follows:

Wednesday night at about 10:15pm we induced fresh water into the system through a tank at the landfill treatment plant. The water was shut off at about 9am Thursday morning. The total discharge leaving the plant to PS1 was between 175-220 gpm during this timeframe. The peak flow in the force main including the domestic wastewater from Corporate Exchange was estimated to be near 250 gpm. This peak flow is estimated as we do not have access to the flow meter data from Corporate Exchange.

The length of the force main was inspected at various times Wed, Thurs and Friday to check for odors. After the flushing Wednesday night, inspections on Thursday occurred at 5:30am (very little odor), at 8:00am (no odor) and again at 2:00pm (no odor). Locations specifically checked were PS2, PS3, the Bissell connection manhole and ARV just upstream of the Bissell connection. A handheld 5-gas meter was also used to check for H2S with no hits registered.

We also attempted to induce more fresh water Thursday afternoon – this time directly into the PS2 wet well. Unfortunately, no water ended up being added as the nearby hydrant (adjacent to the dentist office at 12800 Boenker Lane) was found broken. Upon connecting our hose and opening the hydrant, the hydrant began leaking from the flange at the base causing water to discharge onto Boenker Lane. It looks like a vehicle must have hit the hydrant as it is leaning badly. I am following up with MAWC to see about their repair schedule.

That said, we are currently only discharging permeate from the treatment plant at rates +/- 120 gpm (170,000 GPD). Calcium nitrate is being dosed at the plant based on the discharged flow. We are continuing to monitor the length of the force main for odor today and will check throughout the weekend.

Sincerely,

Dan Koziatek, P.E. / Senior Project Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4588 · Fax: 314-656-4595 ·
Mobile: 314-330-9805 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

From: Koziatek, Dan
Sent: Wednesday, April 15, 2015 8:56 PM
To: 'Scott D Kappelmann'; Jay Kniker
Cc: Kamp, Kevin; John Grimm; Mike Shelton
Subject: RE: Bridgeton Force Main

Scott/Jay,

As we discussed, we are planning to flush the entire length of the force main with potable water tonight. We will continue to discharge permeate from the landfill and supplement with fresh water to about 300 gpm. We will likely start around 10p and continue through the night.

I'll contact you all in the morning after driving the route to check for odor.

Sincerely,

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---

From: Scott D Kappelmann [mailto:skappelmann@stlmsd.com]
Sent: Wednesday, April 15, 2015 7:00 AM
To: Koziatek, Dan; Jay Kniker
Cc: Kamp, Kevin; John Grimm; Mike Shelton
Subject: RE: Bridgeton Force Main

Dan,
Thank you for the info.
It is time to flush the pump stations and force main. If we can maintain a flow of at least 300 gpm for 4 to 5 hours, with a high Bioxide dose, it should really reduce odors throughout the system.
The catch is that flushing needs to take place from around midnight to 5 AM, in order to hold odor complaints down.
Can the treatment plant put this much flow into pump station #1?
What has Ameren said about the potential for future power outages at PS#2?
Yes, please let me know what you see and smell out there this morning.

Thanks again!

Scott

From: Koziatek, Dan [mailto:dkoziatek@cecinc.com]
Sent: Tuesday, April 14, 2015 4:41 PM
To: Scott D Kappelmann; Jay Kniker
Cc: Kamp, Kevin
Subject: Bridgeton Force Main

Scott/Jay,

Below is a list of the recent outages of the force main. This information is based on the alarm data I have for the last couple of weeks:

3/27 (Friday) – PS2 comm fail: MSD responded and pump station was inhibited by MSD and flow diverted from landfill for about 2.0 hours.
3/28 (Saturday) – SSO overflow event: Pump station inhibit by MSD and flow diverted from landfill for about 2.0 hours.
4/8 (Wednesday) – PS1 transducer replacement: Transducer failed, PLC went into float mode and transducer was replaced. Flow was diverted from landfill for about 2.0 hours.
4/9 (Thursday) – SSO overflow event: Pump station inhibit by MSD and flow diverted from landfill for about 2.5 hours.
4/10 (Friday) – PS2 AC Fail: PS1 was shut down and flow diverted for about 2.0 hours due to Ameren power failure at PS2.
4/13 (Monday) – PS2 AC Fail: PS1 was shut down and flow diverted for about 2.0 hours due to Ameren power failure at PS2.

The good news is that we have been discharging to CWC for over a month and to BP for almost two weeks and this is the first odor issue that has occurred. I believe that the outages could have caused or at least contributed to some extended residence of effluent in the main. We will continue to monitor the force main to gauge any change in odor. I plan to drive the length of the main this evening and first thing in the morning to see how the system is functioning.

Sincerely,

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Doug Mendoza

Bridgeton Landfill

From: John Lodderhose
Sent: Friday, April 17, 2015 9:20 AM
To: 'Power, Brian'
Cc: Doug Mendoza; Kamp, Kevin (kkamp@cecinc.com); Jonathon Sprague; Rob G Daly; Sean Hadley
Subject: RE: Odor

Brian, after you determine a solution, we would like to see a written procedure on how these septic/odor situations are handled in the future.
Thanks

From: Power, Brian [mailto:BPower@republicservices.com]
Sent: Wednesday, April 15, 2015 11:53 AM
To: John Lodderhose
Cc: Doug Mendoza; Kamp, Kevin (kkamp@cecinc.com)
Subject: RE: Odor

John,

We met with MSD team earlier this morning (Rob and Jay). We actually ran into them at pump station number 1. We discussed what we feel the issue is and thought it would be a good idea if we postpone a meeting with the group until early next week. I will call you shortly to discuss what we believe the issue was and the remedy to it.

Thanks,

Brian J. Power
Environmental Manager
Bridgeton Landfill, LLC.
13570 Saint Charles Rock Road
Bridgeton, MO 63044

Phone: (618) 410-0157
Email: bpower@republicservices.com

From: John Lodderhose [mailto:JRLODD@stlmsd.com]
Sent: Wednesday, April 15, 2015 11:30 AM
To: Power, Brian
Cc: Doug Mendoza; Kamp, Kevin (kkamp@cecinc.com)
Subject: FW: Odor

Brian, we are still receiving odor complaints. Any progress in determining a solution?

From: John Welch
Sent: Wednesday, April 15, 2015 11:14 AM
To: Jonathon Sprague; Sean Hadley; John Lodderhose
Cc: Brian Hoelscher; Jay Hoskins
Subject: RE: Odor

We received another odor complaint this morning via s/r 127911. I personally drove the area and noted a definite odor from around Mckibbon where I crowned the hill to Hwy 170.

Bridgeton Landfill

Doug Mendoza

From:	John Lodderhose
Sent:	Thursday, April 16, 2015 12:58 PM
To:	Doug Mendoza; Rob G Daly; Michael Grace
Subject:	FW: Bridgeton PS No. 1- Air Sampling/Monitoring Plan Status Update
Attachments:	RE: Bridgeton Bissell Force Main - Gas Collection System at PS1

Here are the responses from Bridgeton Landfill's consultant.

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Thursday, April 16, 2015 11:21 AM
To: John Lodderhose
Cc: bpower@republicservices.com; Bouchard, Derek (DBouchard@republicservices.com); Kamp, Kevin; Koziatek, Dan; Rick J. Campbell
Subject: FW: Bridgeton PS No. 1- Air Sampling/Monitoring Plan Status Update

John,

John, here is our response which I trust you will forward with any additions or request more information as you see fit:

- Bridgeton Landfill is revising the plan and incorporating all of your suggestions. We will have a revision back to you shortly.
- Sampling has been conducted in February and March. The March was sampling took place on 3/27. An email notification was sent to you and Doug Mendoza on the 3/26 but we did not copy Rob on that email. We can amend the procedure in the future to include a wider group for notification.
- The plan calls for six consecutive months of sampling with a review after month three to consider reducing or eliminating sampling. Month three would be after the April sampling, Month six would after July's.
- The report on the February sampling was forwarded to MSD on 2/19/2015 and is attached. The March data report was just received and is being processed. Unfortunately, we cannot agree to provide direct submittal of data to MSD.
- We will continue to notify MSD in advance of sampling. Generally we are aiming for the last week of each month. The notice may be only a day or two in advance because of scheduling and coordination with everyone involved.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Thursday, April 16, 2015 12:56 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Cc: Ed Galbraith
Subject: RE: Bridgeton Landfill Weekly Report
Attachments: MH013 and 014 Volume SummaryREV_04162015.xlsx

Doug, please see the revised spreadsheet. We are making changes to our internal communications to avoid this in the future. Thank you.

(*) NOTE ALSO THAT 4/5/15 DELIVERIES WERE INCORRECT ON LAST WEEK'S SPREADSHEET. THEY SHOULD HAVE BEEN FOR 4/6/15. —DMM

Ed Galbraith

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resourceful. naturally. BARR

From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Thursday, April 16, 2015 8:55 AM
To: Ed Galbraith; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Ed,

There are some problems with the spreadsheet for the MH014 (hauled) summary:

1. The spreadsheet does not show any deliveries for either 4/6/2015 or 4/11/2015. Our records show that loads were delivered on those days.
2. The total batch volume table ends with batch T1-092AS. However, the batch IDs continue through T1-095AS for the daily summaries.
3. The batch IDs after 4/5/2015 likely are incorrect for the daily summaries, because the numbers continue consecutively despite 4/6/2015 and 4/11/2015 deliveries missing from the list.

Please have these issues corrected ASAP and the spreadsheet resubmitted.

A

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
4/13/2015	T1-096-AS	24	180,000	330,000
	HW	20	150,000	
4/11/2015	HW	9	67,500	247,500
	HW	24	180,000	
4/10/2015	HW	11	82,500	300,000
	T1-095-AS	29	217,500	
4/9/2015	T1-095-AS	15	112,500	322,500
	T1-094-AS	28	210,000	
4/8/2015	T1-094-AS	23	172,500	330,000
	T1-093-AS	21	157,500	
4/7/2015	T1-093-AS	20	150,000	300,000
	T1-092-AS	20	150,000	
4/6/2015	T1-092-AS	19	142,500	300,000
	T1-091-AS	21	157,500	
4/4/2015	T1-091-AS	21	157,500	300,000
	T1-090-AS	19	142,500	

Doug Mendoza

Bridgeton Landfill

From: Jonathon Sprague
Sent: Thursday, April 16, 2015 11:45 AM
To: John Lodderhose; Doug Mendoza
Cc: Rich Unverferth
Subject: RE: Odor

I was out there at about 4:00 last night, no sewer odors were present. There does seem to be a natural gas leak right over the line at that intersection.

Jonathon Sprague
Director of Operations
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103
314 768-6261

From: John Lodderhose
Sent: Thursday, April 16, 2015 8:08 AM
To: Doug Mendoza
Cc: Jonathon Sprague; Rich Unverferth
Subject: FW: Odor

Doug, I surveyed the Bridgeton PS and FM yesterday and only detected a slight odor were the FM discharges into the gravity system at SCRR and I-170. Bridgeton Landfill was going to flush the FM last night; hopefully that will end the current odor problem.

From: John Lodderhose
Sent: Thursday, April 16, 2015 8:01 AM
To: Jay Hoskins; Joe Twellman; Alverda Oppermann
Cc: Susan R Taylor
Subject: RE: Odor

We know that the odor is coming from the pump stations and force main from Bridgeton Landfill so there is no need to do any more odor investigation in this area.
Thanks

From: Jay Hoskins
Sent: Thursday, April 16, 2015 7:37 AM
To: Joe Twellman; Alverda Oppermann
Cc: Susan R Taylor; John Lodderhose
Subject: RE: Odor

John Lodderhose visited the SR 127911 address yesterday. Feedback was that the odor was "not bad".

From: Joe Twellman
Sent: Wednesday, April 15, 2015 3:32 PM
To: Alverda Oppermann; Jay Hoskins
Cc: Susan R Taylor
Subject: RE: Odor

Doug Mendoza Bridgeton Landfill

From: Rob G Daly
Sent: Thursday, April 16, 2015 11:22 AM
To: Scott D Kappelmann
Cc: Jonathon Sprague; John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright; Jay Kniker; Doug Mendoza; John Welch
Subject: RE: Bridgeton Leachate force main - status of odor problem

Scott- please see other email strings below for reference.

I think we need to all agree to hit this entire distribution group on any updates as we progress through this issue since we have so many folks involved in this one.

My apologies- should have copied Plan Review folks as well. As always- thanks for jumping in on these issues. We had myself, Jay, all our County pump folks on site yesterday for about 4 hours and we met with Dan K. and Kevin Camp and Brian Power while we were on site. Mark Bright and Jay Kniker are meeting with plant operators (Natalie) tomorrow to continue this assessment process.

We are monitoring the PS sites (meaning we are doing a nose test primarily. Nothing fancy going on here- but we will also be opening wet wells and valve pits hatches and dropping 4 gas meters in to check conditions- which yesterday set off all our 4 gas meter LEL alarms when staff were inspecting station on an orientation tour) and discharge manhole location on a daily basis and we are already planning on a 'final assessment' on Monday morning to assess results of flushing and dosing rate increase.

If it is not considered effective at that time- we (myself and Jay) will take lead on contacting all parties to discuss next step.

John Lodderhose and Jon Sprague: I continue to recommend that we keep (or get) a meeting on the books for late next week as soon as possible with our folks and Republic- just to reserve a 'place holder' for all parties (us and Republic, etc.) to review issue if any further steps ARE required. We can always cancel the session if required. We recommended should occur late in week.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Scott D Kappelmann
Sent: Thursday, April 16, 2015 11:09 AM
To: Jay Kniker; Rob G Daly; Doug Mendoza
Cc: Jonathon Sprague; John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright
Subject: Bridgeton Leachate force main - status of odor problem

Jay, Rob, and Doug, FYI

Doug Mendoza

Bridgeton Landfill

From: Scott D Kappelmann
Sent: Thursday, April 16, 2015 11:09 AM
To: Jay Kniker; Rob G Daly; Doug Mendoza
Cc: Jonathon Sprague; John Lodderhose; John Grimm; Ken Goins; Lance LeComb; Mike Shelton; Bret A. Berthold; Jason Peterein; Mark Bright
Subject: Bridgeton Leachate force main - status of odor problem

Jay, Rob, and Doug, FYI
I just returned from a odor check of the force main (at the discharge manhole to the Bissell system, and also along the last half mile or so of the force main).
Odors are definitely less than yesterday. There is mild odor in the area of the discharge manhole, but none or very little along St. Charles Rock Rd.
The consultant has been flushing the force main last night at 10:15 PM with a mixture of treated landfill leachate, bioxode and potable water, achieving a flow rate of about 220 gpm (not quite enough for 2 fps velocity in the force main).

They want to achieve a flow rate of 300 gpm through the system starting at noon today and do this until about 4 PM. This will flush the force main pipe, resulting in a velocity of about 2.3 fps. Any settled solids in the pipe will be flushed out. My understanding is that this flow will be mostly potable water. Is that a problem?

I am told that they can't achieve full flow from the leachate pretreatment plant now due to a technical issue, though these issues will be corrected very soon. There have been a number of flow stoppages and low flow periods during the last week or so, which is the reason for the odors.

This is all is based on a conversation that I had this morning with Dan Koziatek.

It goes without saying that we really need a control philosophy for this system.

Thank You,

Scott Kappelmann, PE
Civil Engineer

MSD Plan Review

Doug Mendoza

From: Doug Mendoza
Sent: Thursday, April 16, 2015 8:55 AM
To: 'Ed Galbraith'; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Ed,

There are some problems with the spreadsheet for the MH014 (hauled) summary:

1. The spreadsheet does not show any deliveries for either 4/6/2015 or 4/11/2015. Our records show that loads were delivered on those days.
2. The total batch volume table ends with batch T1-092AS. However, the batch IDs continue through T1-095AS for the daily summaries.
3. The batch IDs after 4/5/2015 likely are incorrect for the daily summaries, because the numbers continue consecutively despite 4/6/2015 and 4/11/2015 deliveries missing from the list.

Please have these issues corrected ASAP and the spreadsheet resubmitted.

Regarding the rad chemistry report, please remember that all self-monitoring data and all reports for the first calendar quarter 2015 are due no later than 4/28/2015.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, April 15, 2015 9:00 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

To recap last week's issues:

1. Regarding sample T1-87-AS, there was a dilution factor error for the COD. The correct value should be 10,000 mg/l. The revised report is included.
2. Regarding other QC issues noted, see the table below for explanations of recent BOD qualifiers. Note that the two samples T1-85-AS and T1-86-AS were analyzed on the same day, and the LCS sample is the same for both. The results may be biased low, but do not appear to be outside of the range of expected results for the past several weeks. The results should have no bearing on disposal costs under the current Agreement.

Doug Mendoza

Bridgeton Landfill

From: John Lodderhose
Sent: Thursday, April 16, 2015 8:08 AM
To: Doug Mendoza
Cc: Jonathon Sprague; Rich Unverferth
Subject: FW: Odor

Doug, I surveyed the Bridgeton PS and FM yesterday and only detected a slight odor were the FM discharges into the gravity system at SCRR and I-170. Bridgeton Landfill was going to flush the FM last night; hopefully that will end the current odor problem.

From: John Lodderhose
Sent: Thursday, April 16, 2015 8:01 AM
To: Jay Hoskins; Joe Twellman; Alverda Oppermann
Cc: Susan R Taylor
Subject: RE: Odor

We know that the odor is coming from the pump stations and force main from Bridgeton Landfill so there is no need to do any more odor investigation in this area.
Thanks

From: Jay Hoskins
Sent: Thursday, April 16, 2015 7:37 AM
To: Joe Twellman; Alverda Oppermann
Cc: Susan R Taylor; John Lodderhose
Subject: RE: Odor

John Lodderhose visited the SR 127911 address yesterday. Feedback was that the odor was "not bad".

From: Joe Twellman
Sent: Wednesday, April 15, 2015 3:32 PM
To: Alverda Oppermann; Jay Hoskins
Cc: Susan R Taylor
Subject: RE: Odor

Just a bit of info-
River Maps shows the pump/booster station located at approx. 11520 St Chas Rock Rd as "Bridgeton Pump Station 3", Maximo asset E75685; the office building at that address was the location of the odor compliant today under SR 127911. I think it is safe to assume that asset is the one referenced in Jonathon Sprague's email below.

Joe Twellman
Metropolitan St. Louis Sewer District
Division of Environmental Compliance

From: Joe Twellman
Sent: Wednesday, April 15, 2015 11:50 AM
To: Alverda Oppermann
Subject: RE: Odor

I have been made aware of the attached odor SR near the force main area in question below. If you would like me to investigate please let me know.

Joe Twellman
Metropolitan St. Louis Sewer District
Division of Environmental Compliance

From: Jay Hoskins
Sent: Wednesday, April 15, 2015 9:07 AM
To: Alverda Oppermann; Joe Twellman; Joseph J Grib; Sheila Michael; Susan R Taylor
Subject: FW: Odor

FYI.

From: Jonathon Sprague
Sent: Wednesday, April 15, 2015 8:52 AM
To: Sean Hadley; John Lodderhose
Cc: Brian Hoelscher; John Welch; Jay Hoskins
Subject: RE: Odor

Update.

The odor is coming from the third pump station from Bridgeton landfill. We spoke with landfill yesterday and warned them that if odors are a source of complaints we would shut them down. Plan of Action:

- Landfill has a chemical feed system for odors. They increased dosing yesterday. We will monitor results
- We have a skid mount chemical feed system that we could move to second pump station to reduce odors at third. We might move this out in the next day or so just in case. We could start it by next week.
- We have a odor scrubber at the old landfill pump station that could be moved to pump station 3. This would take a few weeks.

Jonathon Sprague
Director of Operations
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103
314 768-6261

From: Sean Hadley
Sent: Tuesday, April 14, 2015 4:09 PM
To: John Lodderhose
Cc: Brian Hoelscher; John Welch; Jonathon Sprague; Jay Hoskins
Subject: FW: Odor

Here is the odor call on St. Charles Rock Road and the results.

Sean

From: Latoya Adams
Sent: Tuesday, April 14, 2015 3:55 PM
To: Sean Hadley
Subject: Odor

Doug Mendoza

Bridgeton Landfill

From: Power, Brian <BPower@republicservices.com>
Sent: Wednesday, April 15, 2015 11:53 AM
To: John Lodderhose
Cc: Doug Mendoza; Kamp, Kevin (kkamp@cecinc.com)
Subject: RE: Odor

John,

We met with MSD team earlier this morning (Rob and Jay). We actually ran into them at pump station number 1. We discussed what we feel the issue is and thought it would be a good idea if we postpone a meeting with the group until early next week. I will call you shortly to discuss what we believe the issue was and the remedy to it.

Thanks,

Brian J. Power
Environmental Manager
Bridgeton Landfill, LLC.
13570 Saint Charles Rock Road
Bridgeton, MO 63044

Phone: (618) 410-0157
Email: bpower@republicservices.com

From: John Lodderhose [mailto:JRLODD@stlmsd.com]
Sent: Wednesday, April 15, 2015 11:30 AM
To: Power, Brian
Cc: Doug Mendoza; Kamp, Kevin (kkamp@cecinc.com)
Subject: FW: Odor

Brian, we are still receiving odor complaints. Any progress in determining a solution?

From: John Welch
Sent: Wednesday, April 15, 2015 11:14 AM
To: Jonathon Sprague; Sean Hadley; John Lodderhose
Cc: Brian Hoelscher; Jay Hoskins
Subject: RE: Odor

We received another odor complaint this morning via s/r 127911. I personally drove the area and noted a definite odor from around Mckibbon where I crowned the hill to Hwy 170.

From: Jonathon Sprague
Sent: Wednesday, April 15, 2015 8:52 AM
To: Sean Hadley; John Lodderhose
Cc: Brian Hoelscher; John Welch; Jay Hoskins
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Doug Mendoza

Bridgeton Landfill

From: John Lodderhose
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To: bpower@republicservices.com
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Jonathon Sprague
Director of Operations
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103
314 768-6261

From: Sean Hadley
Sent: Tuesday, April 14, 2015 4:09 PM
To: John Lodderhose
Cc: Brian Hoelscher; John Welch; Jonathon Sprague; Jay Hoskins
Subject: FW: Odor

Here is the odor call on St. Charles Rock Road and the results.

Bridgeton Landfill

Doug Mendoza

From: John Lodderhose
Sent: Wednesday, April 15, 2015 9:01 AM
To: Doug Mendoza
Subject: FW: Odor

fyi

From: Jonathon Sprague
Sent: Wednesday, April 15, 2015 8:52 AM
To: Sean Hadley; John Lodderhose
Cc: Brian Hoelscher; John Welch; Jay Hoskins
Subject: RE: Odor

Update.

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Jonathon Sprague
Director of Operations
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103
314 768-6261

From: Sean Hadley
Sent: Tuesday, April 14, 2015 4:09 PM
To: John Lodderhose
Cc: Brian Hoelscher; John Welch; Jonathon Sprague; Jay Hoskins
Subject: FW: Odor

Here is the odor call on St. Charles Rock Road and the results.

Sean

From: Latoya Adams
Sent: Tuesday, April 14, 2015 3:55 PM
To: Sean Hadley
Subject: Odor

Service Request 127686 — On Behalf Of: NO — Status: RESOLVED

Customer Information

Customer First Name: JIM
Customer Last Name: PHILLIPS
Business Name: CITY OF ST JOHN
Tenant? ☐
Landlord? ☐
Primary Phone: 314-427-4280
Ext:
Secondary Phone:
Email:
Contact by Email? ☐
No Response / No Funding? ☐
1 Year Rain Event? ☐

Service Address

Service Address: 1639518
Full Address: 8552 ST CHARLES ROCK RD
House #: 8552
Direction:
Street Name: ST CHARLES ROCK
Street Type: RD
Apartment/Unit/Suite:
City: OVERLAND
State/Province: MO — Missouri
Zip/Postal Code: 63114
MSD added Address Comment:
Direction:
Service Area: 4
MSD Safety Plan ID:

ESP Details

Property Owner Released ESP? ☐
Date Owner Denied ESP:
Property Owner Has ESP? ☐
ESP Asset Number:
Status of ESP Asset:
Date ESP Installed:

Mailing Address

Address: 8644 ST CHARLES ROCK RD
City: ST LOUIS
State: MO
Zip Code: 63114

Service Request Details

Reported By: 8129
Name: BERRY, CINDY J.
Phone: 314-335-2169
E-mail: CBERRY@STLMSD.COM
Summary: ODOR PROBLEM
Classification: ODR
Class Description: ODOR PROBLEM
Internal Priority: 9
Museum One #:
Site: CS
Create WO Options: MULTI

Service Request 127686 — Site: CS — Status: RESOLVED

Work Log

Record	Class	Created By	Date	Type	Summary	Viewable?
3048387	WORKORDER	NJOHNSON	4/14/15 3:11 PM	CLEANTHOTE	WAS UNABLE TO DETERMINE CAUSE OF ODOR IN AREA	

Details

Record: 3048387
Class: WORKORDER
Created By: NJOHNSON
Date: 4/14/15 3:11 PM
Type: CLEANTHOTE
Viewable? ☐
Summary: WAS UNABLE TO DETERMINE CAUSE OF ODOR IN AREA
Details: DID ROPEX COVERS THAT I THOUGHT WAS NEEDED

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, April 15, 2015 9:00 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

To recap last week's issues:

1. Regarding sample T1-87-AS, there was a dilution factor error for the COD. The correct value should be 10,000 mg/l. The revised report is included.
2. Regarding other QC issues noted, see the table below for explanations of recent BOD qualifiers. Note that the two samples T1-85-AS and T1-86-AS were analyzed on the same day, and the LCS sample is the same for both. The results may be biased low, but do not appear to be outside of the range of expected results for the past several weeks. The results should have no bearing on disposal costs under the current Agreement.
3. Regarding the hold times on the other two samples, the Chains of Custody note that this was coordinated with MSD. Since then, MSD has clarified that routine out-of-hold sampling is not approved. As a practical matter this should not be an issue in the future because of MSD's recently approved reduction to 2x per week sampling on the hauled waste.
4. Regarding the rad chemistry, the most recent report from Eberline is still incomplete. We are working with them to produce a final single report that resolves all of the issues regarding uranium and Gross Beta. We appreciate your patience as we work to produce a single complete report for your review.

					Parameter Total or Dissolved	Biochemical Oxygen Demand (5-day) NA	
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	Comment
T1-86-AS	3/30/2015	4:50 AM	PDC	Validated	5033729	2200 *	The LCS was below acceptance criteria
T1-85-AS	3/29/2015	4:40 AM	PDC	Validated	5033727	2000 *	The LCS was below acceptance criteria
T1-84-AS	3/28/2015	4:20 AM	PDC	Validated	5033720	2200 h	Saturday sample that was not set up within 48 hours. This is noted on the chain of custody.
T1-77-AS	3/21/2015	4:56 AM	PDC	Validated	5032954	2400 h	Saturday sample that was not set up within 48 hours. This is noted on the chain of custody.

Regarding this week's data, the following sample was out of hold for BOD. Again, there was a misunderstanding regarding blanket approval for hold time exceedances for Saturday sampling, which MSD has since clarified. As noted above, MSD has now approved reduced sampling frequency, which eliminates the need for Saturday sampling.

Parameter Total or Dissolved	Biochemical Oxygen Demand (5-day) NA

Location	Date	Lab Report	mg/l
T1-91-AS	4/04/2015	5040581	2700 h

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
4/13/2015		24	180,000	330,000
	HW	20	150,000	
4/10/2015	HW	11	82,500	300,000
	T1-095-AS	29	217,500	
4/9/2015	T1-095-AS	15	112,500	322,500
	T1-094-AS	28	210,000	
4/8/2015	T1-094-AS	23	172,500	330,000
	T1-093-AS	21	157,500	
4/7/2015	T1-093-AS	20	150,000	300,000
	T1-092-AS	20	150,000	

- 4/6/2015 & 4/11/2015 are missing
- Batch IDs may also be incorrect

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Biochemical Oxygen Demand (5 day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-96-AS	4/13/2015		Field	No QC	WASTE_2015	--	10810	--	--	--	7.77	--
HW	4/11/2015		Field	No QC	WASTE_2015	--	10600	--	--	--	7.51	--
HW	4/10/2015		Field	No QC	WASTE_2015	--	10350	--	--	--	7.31	--
T1-95-AS	4/09/2015		Field	No QC	WASTE_2015	--	10850	--	--	--	7.75	--
T1-94-AS	4/08/2015		Field	No QC	WASTE_2015	--	10250	--	--	--	7.75	--
T1-93-AS	4/07/2015		Field	No QC	WASTE_2015	--	10780	--	--	--	7.76	--
T1-92-AS	4/06/2015	4:30 AM	PDC	Validated	5040582	2900	8800	--	--	--	--	--
T1-92-AS	4/06/2015		Field	No QC	WASTE_2015	--	10350	--	--	--	7.70	--
T1-91-AS	4/04/2015	5:05 AM	PDC	Validated	5040581	2700 h	9300	--	--	--	--	--
T1-91-AS	4/04/2015		Field	No QC	WASTE_2015	--	10620	--	--	--	7.81	--
T1-90-AS	4/03/2015	4:30 AM	PDC	Validated	5040476	2600	10000	--	--	--	--	--
T1-90-AS	4/03/2015		Field	No QC	WASTE_2015	--	10340	--	--	--	7.52	--
T1-89-AS	4/02/2015	4:20 AM	PDC	Validated	5040434	4000	8900	--	--	--	--	--
T1-89-AS	4/02/2015		Field	No QC	WASTE_2015	--	11510	--	--	--	7.60	--

MSD 032273

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
T1-96-AS	4/13/2015		Field	No QC	WASTE_2015	7160	36.6	--	--	--	--	--
HW	4/11/2015		Field	No QC	WASTE_2015	7660	39.5	--	--	--	--	--
HW	4/10/2015		Field	No QC	WASTE_2015	11360	39.8	--	--	--	--	--
T1-95-AS	4/09/2015		Field	No QC	WASTE_2015	11140	36.6	--	--	--	--	--
T1-94-AS	4/08/2015		Field	No QC	WASTE_2015	11980	36.1	--	--	--	--	--
T1-93-AS	4/07/2015		Field	No QC	WASTE_2015	15400	36.9	--	--	--	--	--
T1-92-AS	4/06/2015	4:30 AM	PDC	Validated	5040582	8700	--	--	--	--	--	--
T1-92-AS	4/06/2015		Field	No QC	WASTE_2015	9060	38.9	--	--	--	--	--
T1-91-AS	4/04/2015	5:05 AM	PDC	Validated	5040581	12000	--	--	--	--	--	--
T1-91-AS	4/04/2015		Field	No QC	WASTE_2015	13460	35	--	--	--	--	--
T1-90-AS	4/03/2015	4:30 AM	PDC	Validated	5040476	9400	--	--	--	--	--	--
T1-90-AS	4/03/2015		Field	No QC	WASTE_2015	11860	38.1	--	--	--	--	--
T1-89-AS	4/02/2015	4:20 AM	PDC	Validated	5040434	9400	--	--	--	--	--	--
T1-89-AS	4/02/2015		Field	No QC	WASTE_2015	10560	37.6	--	--	--	--	--

MSD 032274

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	12320	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	12700	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	12220	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	13710	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	14590	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	13660	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	11250	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	10050	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	12650	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	8460	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	9580	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	8460	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	8680	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	4010	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	8210	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	7000	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	7630	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	7770	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	8680	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	7910	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	8360	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	7760	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	8700	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	7500	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	8390	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	7750	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	9470	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	10890	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	3290	9500	0.013	--	--	147
MH013	3/25/2015			LPTP	No QC	LPTP	--	9990	--	--	--	--

MSD 032275

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	3.58	33450	--	7.04	4.64
MH013	4/13/2015			LPTP	No QC	LPTP	--	4.23	--	--	7.14	4.78
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	4.55	159406	--	7.04	3.82
MH013	4/12/2015			LPTP	No QC	LPTP	--	4.62	--	--	7.12	3.21
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	10.5	162852	--	7.33	2.26
MH013	4/11/2015			LPTP	No QC	LPTP	--	10.7	--	--	7.31	1.52
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	84992	--	7.35	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	7.21	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	4	127930	--	7.75	2.05
MH013	4/09/2015			LPTP	No QC	LPTP	--	3.67	--	--	7.12	1.65
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	3.98	198550	--	7.24	3.69
MH013	4/08/2015			LPTP	No QC	LPTP	--	3.55	--	--	7.36	3.31
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	3.60	170284	--	7.58	3.92
MH013	4/07/2015			LPTP	No QC	LPTP	--	1.70	--	--	7.54	2.81
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	3168	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	10220	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	1.69	60023	--	7.27	3.04
MH013	4/01/2015			LPTP	No QC	LPTP	--	1.06	--	--	7.26	3.04
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	2.96	35560	--	7.23	3.12
MH013	3/31/2015			LPTP	No QC	LPTP	--	3.12	--	--	7.26	3.36
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	2.78	79530	--	7.26	3.26
MH013	3/30/2015			LPTP	No QC	LPTP	--	3.06	--	--	7.25	3.48
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	3.21	95010	--	7.32	3.74
MH013	3/29/2015			LPTP	No QC	LPTP	--	3.72	--	--	7.28	3.72
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	2.50	64620	--	7.22	3.36
MH013	3/28/2015			LPTP	No QC	LPTP	--	2.24	--	--	--	2.57
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	1.92	68550	--	7.22	1.68
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	7.29	1.43
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	2.28	59504	--	7.75	1.65
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	2.24	145396	--	7.8	2.49
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	56.7	--	--	7.5	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	2.13	--	--	7.49	1.88

MSD 032276

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	20	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	29.5	29821	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	48	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	62	117549	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	30	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	58	123090	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	35	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	43	72853	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	163	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	177	85772	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	117	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	153	162453	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	103	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	140	158381	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	3976	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	1573	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	9727	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	11724	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	9.5	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	92.5	14362	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	5.5	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	37.5	40049	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	21	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	32	81430	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	17.5	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	40.5	101704	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	42	70148	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	74491	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	36825	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	15.5	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	88.0	--	2.9	1611	--	ND	431
MH013	3/25/2015			LPTP	No QC	LPTP	38.5	110348	--	--	--	--	--

MSD 032277

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold		700 ug/l	5000 ug/l	2700 ug/l	150000 ug/l	400 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	**40.7**	ND	**3600**	ND	**202000**
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032278

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	1,2,4-Trichlorobenzene
						Total or Dissolved	Total	Total	Total	Total	Total	Total	NA
						Permit Limitation/Surcharge Threshold	10 ug/l	2300 ug/l		500 ug/l		3000 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	37.2	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzidine	Benzo(a)pyrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032283

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Butyl benzyl phthalate	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032284

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032285

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	-						
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032286

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Phenanthrene	Phenol	Pyrene	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	661	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032287

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,1-Dichloroethylene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032288

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,3-Dichloro-1-propene, trans	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Benzene	Bromodichloromethane	Bromoform
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold					140 ug/l		
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032289

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Ethyl benzene	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	ND	ND	ND	ND	ND	ND
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Xylene, total	4,4'-DDD	4,4'-DDE	4,4'-DDT	a-BHC	Aldrin	Aroclor 1016
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	ND	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	b-BHC
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032293

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Chlordane, alpha & gamma	d-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--

MSD 032294

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Endrin Aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Toxaphene
						Total or Dissolved	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold					
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/13/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/12/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/11/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/10/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/09/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/08/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/07/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/25/2015	1:00 AM	9:30 AM	Pace	Validated	60190520	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--

MSD 032295

MEMO TO: Chris Verplancke
Cynthia Chalk

FROM: Angie McDonough amm

DATE: April 15, 2015

SUBJECT: **RETURN FACTOR UPDATE REVIEW**

RE: **Bridgeton Landfill LLC.**
13570 St. Charles Rock Rd., Bridgeton, MO 63044

MSD Sewer Account No: 39145-8

Recommended Return Factor (RF) for future billing: Zero

Previous Return Factor: 1.00

In February of 2013, Bridgeton Landfill was prohibited from discharging wastewater on site to the District's sewer system. Since then, they have again been granted approval for discharging, but with an independent metering system. They are being charged for volume and strength discharge in individual memos based on monthly reports submitted to MSD from this independent metering system. Thus, they should not be billed based on the Missouri American Water records.

We recommend this account be noted as a non-billed account. We recommend that the credits be applied back to the date of change in discharging procedures, February 13, 2013.

If you have any questions, please call me at 436-8762.

bv

pc: Doug Mendoza
Brian Gibson

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

Doug Mendoza

From: Doug Mendoza
Sent: Wednesday, April 15, 2015 8:00 AM
To: 'Ed Galbraith'
Cc: John Lodderhose; bpower@republicservices.com; 'Mason-coyle, Mary'; Bouchard, Derek (DBouchard@republicservices.com); Brian G. Gibson; Laura Joiner; Cynthia Chalk
Subject: RE: Bridgeton Landfill - Review of MSD Invoices
Attachments: MSD_Charges 205_0410_rev_signed by BP_04.10.15.pdf

Mr. Galbraith et al,

We have reviewed the attached letter from Mr. Power, and had discussed the matter both before and after receipt of the letter. From our knowledge of operations at Bridgeton Landfill, through inspections and document records, we agree that Bridgeton Landfill has been submitting metered volume readings of its total onsite discharges as well as truck volumes associated with wastewater hauled to the District. Bridgeton Landfill has been billed for the totality of the onsite metered volumes and hauled truck volumes.

On February 13, 2013, Bridgeton Landfill was prohibited from continuing its then current method of discharging wastewater to the District's sewer system. All discharges to the District were ceased. On April 24, 2013 Bridgeton Landfill was granted approval for limited discharge onsite to the District's sewer system, and for hauling of leachate directly to the District's treatment plants. This procedure has continued since then, with all onsite discharges metered and billed for that volume and hauled loads billed for the trucks' volumes.

Bridgeton Landfill continued to be billed by the District for its incoming water reading volumes, which is standard District policy. However, this same volume (less any water losses via evaporation, dust control, etc. – all of which were not to sewer) was also metered and billed as part of the wastewater discharge or as part of the hauled loads.

Therefore, the District will set the "return factor" for Bridgeton Landfill's incoming water volume to 0 (zero), and bill solely for volumes metered through the onsite discharge or hauled to District treatment plants, with appropriate high strength surcharges and other applicable fees. The District also will credit the volumes of metered incoming water that were billed, starting with when Bridgeton Landfill was prohibited from continuing its then current method of discharging wastewater to the District's sewer system, February 13, 2013.

Brian Gibson of the District will verify Bridgeton Landfill's sewer account information (acct #39145-8), and instruct the District's Finance/Accounts Receivable department to make the appropriate changes. If you have additional questions regarding this matter, you may contact Brian at 314-436-8784.

Sincerely,
Douglas M. Mendoza, P.E.
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Friday, April 10, 2015 1:53 PM
To: Doug Mendoza
Cc: John Lodderhose; bpower@republicservices.com; 'Mason-coyle, Mary'; Bouchard, Derek (DBouchard@republicservices.com)
Subject: Bridgeton Landfill - Review of MSD Invoices

Doug, please see the attached letter from Brian Power regarding our review of 2014-2015 invoices from MSD. We were not able to complete our review for 2013 because of a lack of records; we will need MSD's assistance to complete

Doug Mendoza

From: Doug Mendoza
Sent: Tuesday, April 14, 2015 1:26 PM
To: LaFata, Natalie (nlafata@cecinc.com)
Cc: Brian G. Gibson
Subject: Hauled waste station coverage for Bridgeton Landfill

Natalie,

Good news in that we now have hauled waste station coverage for Thursday evening until up to 7 pm. So this week is covered from 4am to 7 pm each day through Friday 4/17/15.

Just to verify, you also are approved for up to 330,000 GPD hauled (or 44 loads). This will be good until the current approval expires on April 30, 2015 – subject to a reduction if the waste strength increases or we experience operational issues at our plant.

Doug Mendoza
MSD Industrial Pretreatment Manager

Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Friday, April 10, 2015 1:53 PM
To: Doug Mendoza
Cc: John Lodderhose; bpower@republicservices.com; 'Mason-coyle, Mary'; Bouchard, Derek (DBouchard@republicservices.com)
Subject: Bridgeton Landfill - Review of MSD Invoices
Attachments: MSD_Charges 205_0410_rev_signed by BP_04.10.15.pdf

Doug, please see the attached letter from Brian Power regarding our review of 2014-2015 invoices from MSD. We were not able to complete our review for 2013 because of a lack of records; we will need MSD's assistance to complete that. However we wanted to formally notify MSD as soon as possible so that the district can amend any procedures as needed.

Please let us know if you have any questions. Thank you.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Bridgeton Landfill, LLC

April 10, 2015

Mr. Doug Mendoza
Industrial Pretreatment Manager
Metropolitan St. Louis Sewer District
10 East Grand Avenue
St. Louis, MO 63147

RE: Review of 2014-2015 Invoices for Discharge to Metropolitan St. Louis Sewer District (MSD)

Dear Mr. Mendoza:

Bridgeton Landfill has reviewed invoices for discharge to MSD for the time period of January 2014 through January 2015; a spreadsheet of the detailed charges is attached. We note that all of the invoices include an itemized charge for "Commercial/Industrial" that is a volume in hundred cubic feet (CCF) multiplied by the per-CCF charge for Non-Residential Property in MSD Ordinance 13758. The total for those charges for all months is $57,898.81. The invoices also include itemized charges for hauled waste for all months as well as onsite discharges that occurred November 2014 through January 2015. For those months that we have emails from MSD-DEC to MSD-Finance Department, we were able to confirm that these charges correspond to the ones calculated by DEC.

As you know, the Bridgeton Landfill has had Approved Meters, as defined by MSD Ordinance 13758 for both onsite sewer discharge and hauled waste. All discharges to MSD from the landfill are metered through one of the Approved Meters. It appears that the per-CCF charges under "Commercial/Industrial" are from a meter other than approved sewer/hauled waste meters, possibly from the landfill's Missouri American Water intake.

Our conclusion is that MSD may be charging Bridgeton Landfill for intake water from Missouri American in addition to metered discharges. If this is the case, we believe that there is a basis for a refund or credit from MSD for the time period in question. We request that MSD review this information and confirm whether this conclusion is correct.

We have also reviewed some of the 2013 records in our possession and have reason to believe that the same circumstance occurred during that year. Unfortunately our records are incomplete for that time period and so our analysis is not complete. We will need MSD's assistance in obtaining those records so that we can complete that review; any assistance that you can provide in obtaining those would be greatly appreciated.

13570 St. Charles Rock Road, Bridgeton, Missouri 63044

Please let me know if you have any questions. Please feel free to contact me at (618) 410-0157 or bpower@republicservices.com. You may also contact Ed Galbraith with Barr Engineering Co. at (573) 418-5562 or egalbraith@barr.com

Sincerely,

Brian J Power

Brian Power
Environmental Manager

c: John Lodderhose

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Bridgeton Landfill Itemized Charges from MSD

Begin Reading Date	12/31/13	2/1/14	2/28/14	3/31/14	4/30/14	5/31/14
End Reading Date	1/31/14	2/27/14	3/31/14	4/30/14	5/31/14	6/30/14
CCF	426.00		807.00	938.00	1,127.00	884.00
Per-CCF Charge	2.50	2.50	2.50	2.50	2.50	2.50
Commercial/Industrial	14.85	14.85	14.85	14.85	14.85	14.85
Commercial/Industrial	1,065.00	2,732.21	2,018.00	2,345.00	2,817.50	2,210.00
STORM USER CHG	0.24	0.24	0.24	0.24	0.24	0.24
Storrm Service						
MSD Compliance Charge-Tier 4	130.70	130.70	130.70	130.70	130.70	130.70
WW-Com Volume Adj	14,232.94			413,920.00	487,200.00	
Waste Hauler	346,960.00	403,200.00	435,000.00			480,000.00
DEC Regular Labor	1,712.62	1,349.69	unk	1,919.75	1,786.32	1,630.80
DEC O.T. Labor	13,218.38	13,301.21	unk	11,315.87	15,413.88	13,509.73
Pre-Treat Discharge Permit						

02/27/2014 Commercial/Industrial estimated from MSD ledger entry for 03/31/2014 of $2878.15 less standard charges

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ıvoices for January 2014 through January 2015

6/30/14 7/31/14	7/31/14 8/31/14	8/31/14 9/30/14	9/30/14 10/31/14	10/31/14 11/30/14	11/30/14 12/31/14	12/31/14 1/31/15	Totals
790.00	738.00	897.00	1,185.00	3,363.00	4,029.00	4,853.00	**20,037.00**
2.82	2.82	2.82	2.82	2.82	2.82	2.82	
16.25	16.25	13.15	13.15	13.15	16.25	16.25	**193.55**
2,227.80	2,081.16	2,529.54	3,341.70	9,483.66	11,361.78	13,685.46	**57,898.81**
0.24	0.24	0.24	0.24	0.24	0.24	0.24	**3.12**
136.00	136.00	179.25	179.25	179.25	136.00	136.00	**1,865.95**
					27,092.58	2,667.72	**945,113.24**
522,400.00	358,164.74	267,190.47	237,151.82	186,728.76	67,599.49	165,150.00	**3,469,545.28**
1,444.12	1,690.95	1,524.07	1,762.78	1,670.25	177.93	1,868.30	**18,537.58**
15,233.51	15,877.87	15,116.82	14,510.30	13,457.17	1,334.46	14,219.77	**156,508.97**
					557.62		**557.62**

Doug Mendoza Bridgeton Landfill

From: John Lodderhose
Sent: Friday, April 10, 2015 8:08 AM
To: 'Ed Galbraith'; Doug Mendoza
Cc: 'Bouchard, Derek (DBouchard@republicservices.com)'; 'bpower@republicservices.com'; Robert W. Murphy; Rick J. Campbell; Rob G Daly; Michael Grace
Subject: RE: Air sampling

Ed, I have a few comments on the revised air sampling plan:

Section 1.0 should indicate that this will be a six month sampling program in the last paragraph.

Section 2.1 should reference worker protection levels specified in OSHA and ACGIH as required by MSD Ordinance No. 12559.

Section 2.3 should list the Action Level for CO as 25 ppm (ACGIH TLV-TWA).

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Thursday, March 26, 2015 12:03 PM
To: Doug Mendoza; John Lodderhose
Cc: 'Bouchard, Derek (DBouchard@republicservices.com)'; 'bpower@republicservices.com'; Robert W. Murphy; Rick J. Campbell
Subject: RE: Air sampling

Doug and John,

Attached is the revised air sampling plan.

Please note that the sampling procedure for ammonia is a one-hour test; our plan is to take two samples at each location, for a total of four samples per event. The sampling equipment for ammonia has arrived so we plan to acquire those samples tomorrow.

Please let us know if you have any comments or questions.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

TO: **Chris Verplancke, Finance Department**
Cynthia Chalk, Finance Department

FROM: **Angie McDonough** amm

DATE: **April 9, 2015**

SUBJECT: **BRIDGETON LANDFILL LLC**
WASTEWATER USER CHARGE BILLING
ACCOUNT NUMBER 0039145-8

Pursuant to the MSD Industrial Wastewater Discharge Permit for the above referenced facility, please bill this facility for the following charges for the indicated billing period:

VOLUME
Hauled Waste Discharge

6,892,500 gallons X $0.020/Gal = $137,850.00

Department of Environmental Compliance (REG) labor fee is $1,425.59 for 35 extra hours.
Use Revenue Code "INFO" and utility type Q.
Budget code is 1101-08050-51011 so revenue will be credited back to Department of Environmental Compliance budget.

Department of Environmental Compliance (OT) labor fee is $10,341.36 for 167.5 extra hours.
Use Revenue Code "INFO" and utility type Q.
Budget code is 1101-08050-51020 so revenue will be credited back to Department of Environmental Compliance budget.

Total Bill = $149,616.94

The volume was obtained from the customer's on-site discharge self-monitoring report and hauled waste total truck capacities.

SOURCE OF WASTE: SP014 Commingled landfill leachate and landfill gas collection system condensate

BILLING PERIOD: March 1, 2015 through March 31, 2015.

Other applicable wastewater user charges, as per Ordinance 13758, should be included in this bill. Please call me at 314-436-8762 if you have any questions.

bv

ec: Doug Mendoza
Brian Gibson
Bridgeton Republic Services
Laura Joiner
Cathy Politte
Keidra King

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Thursday, April 09, 2015 8:29 AM
To: Kelly Caddy; Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report - follow up from 04/08/2015
Attachments: 5040038_6 PDC_1cert_Revised 04 08 15 1338.pdf

1. Regarding sample T1-87-AS, there was a dilution factor error for the COD. The correct value should be 10,000 mg/l. The revised report is attached.
2. Regarding other QC issues noted, see the table below for explanations of recent BOD qualifiers. Note that the two samples T1-85-AS and T1-86-AS were analyzed on the same day, and the LCS sample is the same for both. The results may be biased low, but do not appear to be outside of the range of expected results for the past several weeks. The results should have no bearing on disposal costs under the current Agreement.
3. Regarding the hold times on the other two samples, the Chains of Custody note that this was coordinated with MSD. As a practical matter this should not be an issue in the future because of the recently approved reduction to 2x per week sampling on the hauled waste.

					Parameter	Biochemical Oxygen Demand (5-day)	
					Total or Dissolved	NA	
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	Comment
T1-86-AS	3/30/2015	4:50 AM	PDC	Validated	5033729	2200 *	The LCS was below acceptance criteria
T1-85-AS	3/29/2015	4:40 AM	PDC	Validated	5033727	2000 *	The LCS was below acceptance criteria
T1-84-AS	3/28/2015	4:20 AM	PDC	Validated	5033720	2200 h	Saturday sample that was not set up within 48 hours. This is noted on the chain of custody.
T1-77-AS	3/21/2015	4:56 AM	PDC	Validated	5032954	2400 h	Saturday sample that was not set up within 48 hours. This is noted on the chain of custody.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Doug Mendoza

From: Doug Mendoza
Sent: Thursday, April 09, 2015 8:43 AM
To: 'Ed Galbraith'; Kelly Caddy; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report - follow up from 04/08/2015

Ed et al,

Please be aware that the hold time coordination was intended to be for only the first sample taken on 3/21/15. Apparently there was a misunderstanding regarding one time vs. ongoing.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Thursday, April 09, 2015 8:29 AM
To: Kelly Caddy; Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report - follow up from 04/08/2015

1. Regarding sample T1-87-AS, there was a dilution factor error for the COD. The correct value should be 10,000 mg/l. The revised report is attached.
2. Regarding other QC issues noted, see the table below for explanations of recent BOD qualifiers. Note that the two samples T1-85-AS and T1-86-AS were analyzed on the same day, and the LCS sample is the same for both. The results may be biased low, but do not appear to be outside of the range of expected results for the past several weeks. The results should have no bearing on disposal costs under the current Agreement.
3. Regarding the hold times on the other two samples, the Chains of Custody note that this was coordinated with MSD. As a practical matter this should not be an issue in the future because of the recently approved reduction to 2x per week sampling on the hauled waste.

					Parameter	Biochemical Oxygen Demand (5-day)	
					Total or Dissolved	NA	
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	Comment
T1-86-AS	3/30/2015	4:50 AM	PDC	Validated	5033729	2200 *	The LCS was below acceptance criteria
T1-85-AS	3/29/2015	4:40 AM	PDC	Validated	5033727	2000 *	The LCS was below acceptance criteria
T1-84-AS	3/28/2015	4:20 AM	PDC	Validated	5033720	2200 h	Saturday sample that was not set up within 48 hours. This is noted on the chain of custody.

1003 8030 00

2015

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

4/7/2015 Filed in 15.4

MSD 032308

CB
4-08

Month	Net Meter Reading	Precipitation Inches	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	10,463,750	1.67	2/1/2015	702,337	22,656	93,895.32	938.95
February	11,485,331	1.74	3/1/2015	1,021,581	36,485	136,575.00	1,365.75
March	13,523,218	3	4/1/2015	2,037,887	65,738	272,444.79	2,724.45
April							
May							
June							
July							
August							
September							
October							
November							
December							

Note:

RECEIVED

APR 08 2015

DIVISION OF
ENVIRONMENTAL COMPLIANCE

Bridgeton Landfill

Doug Mendoza

From: Brian G. Gibson
Sent: Wednesday, April 08, 2015 1:11 PM
To: Doug Mendoza
Subject: FW: Bridgeton Discharge

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Tuesday, April 07, 2015 7:39 AM
To: Brian G. Gibson
Subject: Bridgeton Discharge

Just to let you know, we were able to start up and ultrafilter and we are discharging right now. We are keeping a close eye on pressures and gallons per minute being produced. I will let you know if anything changes.

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
Mobile: (314) 341-3375 · http://www.cecinc.com
Sent from my iPhone

Doug Mendoza

From: Kelly Caddy <KCaddy@barr.com>
Sent: Wednesday, April 08, 2015 1:06 PM
To: Ed Galbraith; Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

To follow up on Ed's email, there was a hold time issue for BOD with sample T1-84-AS, and also QA/QC criteria issues for BOD with samples T1-85-AS and T1-86-AS and therefore qualified accordingly. We will be checking in with PDC for these.

Kelly Caddy

Data Management Specialist
Minneapolis office: 952.832.2776
kcaddy@barr.com
www.barr.com

resourceful. naturally. BARR

From: Ed Galbraith
Sent: Wednesday, April 08, 2015 11:47 AM
To: 'Doug Mendoza (DMENDOZA@stlmsd.com)'; 'John Lodderhose'; 'Brian G. Gibson (bgibson@stlmsd.com)'; 'Catherine Politte'; 'Michael Grace'; 'Nora C. Estopare (nestopare@stlmsd.com)'; 'Rob G Daly (rdaly@stlmsd.com)'; 'Steve Grace'; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; 'Christopher J. Bulmahn (cjbulmahn@stlmsd.com)'; 'Ken Gambaro (kmgamb@stlmsd.com)'; 'mdtown@stlmsd.com'; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

We have received the revised Eberline report that includes isotopic uranium, a corrected Uranium Total value and a reanalysis of the Gross Beta. The report was received on Monday April 6, however because of its complexity, we were not able to get it reviewed and QC'd in time for inclusion with this week's report. It will be included next week.

For sample T1-87-AS, we note what appears to be an invalid BOD/COD result. We are following up with PDC to determine the cause.

Doug Mendoza

Bridgeton Landfill

From: Doug Mendoza
Sent: Wednesday, April 08, 2015 12:52 PM
To: 'Ed Galbraith'
Cc: bpower@republicservices.com; Kamp, Kevin; Bouchard, Derek (DBouchard@republicservices.com); 'LaFata, Natalie'
Subject: RE: Request to reduce sampling for hauled waste

Ed,

MSD will grant your request below for Bridgeton Landfill for the currently approved hauled waste discharges, that will end by April 30, 2015. Your proposed stipulation also is included as part of the request. In addition, should the internal COD results show a large variation for days in which COD and BOD are not analyzed at a certified lab, MSD reserves the right to assess hauling charges for those days using a BOD/COD ratio analogous to the loads before and/or after.

Sincerely,
Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, April 08, 2015 8:43 AM
To: Doug Mendoza
Cc: bpower@republicservices.com; Kamp, Kevin; Bouchard, Derek (DBouchard@republicservices.com); 'LaFata, Natalie'
Subject: Request to reduce sampling for hauled waste

Doug,

As we discussed, looking at the data for hauled waste, the BOD average are consistently at or below the $.02/gallon surcharge rates and it would seem that daily sampling is not needed to verify the long-term average. We would like to ask MSD to consider amending the sampling to the following:

- Daily sampling for COD and pH using LPTP internal lab;
- 2x per week sampling for BOD, COD and TSS at a certified lab, probably PDC.

We could stipulate that, if there is a process change that could significantly alter the concentrations, we would notify MSD and increase sampling frequency accordingly.

We appreciate MSD's consideration of this request.

Thank you.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

Doug Mendoza

From: Doug Mendoza
Sent: Wednesday, April 08, 2015 12:46 PM
To: 'LaFata, Natalie'
Cc: Kamp, Kevin; Brian G. Gibson; Dave Kupke; Scott Rehmer; Martin Blecha
Subject: RE: Hauling increase for Bridgeton Landfill

Natalie,

With the current strength of Bridgeton Landfill's hauled waste, you may have up to 44 loads hauled to Bissell Point through Friday. Please be aware that the last load's discharge must be finished by 7:00 pm, and you must continue the 20 minute separation between all loads.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Wednesday, April 08, 2015 12:41 PM
To: Doug Mendoza
Cc: Kamp, Kevin
Subject: Hauling increase

This is a formal request to increase hauling from 40 loads up to 44 loads per day through Friday.
If there is a problem with this, please let me know.

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
Mobile: (314) 341-3375 · http://www.cecinc.com
Sent from my iPhone

Doug Mendoza

Bridgeton Landfill

From: LaFata, Natalie <nlafata@cecinc.com>
Sent: Wednesday, April 08, 2015 12:41 PM
To: Doug Mendoza
Cc: Kamp, Kevin
Subject: Hauling increase

This is a formal request to increase hauling from 40 loads up to 44 loads per day through Friday.
If there is a problem with this, please let me know.

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
Mobile: (314) 341-3375 · http://www.cecinc.com
Sent from my iPhone

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, April 08, 2015 11:47 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

CB 4-15

The material for the week is now posted on Barr's ftp site.

We have received the revised Eberline report that includes isotopic uranium, a corrected Uranium Total value and a reanalysis of the Gross Beta. The report was received on Monday April 6, however because of its complexity, we were not able to get it reviewed and QC'd in time for inclusion with this week's report. It will be included next week.

For sample T1-87-AS, we note what appears to be an invalid BOD/COD result. We are following up with PDC to determine the cause.

			Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand
			Total or Dissolved	NA	NA
Location	Date	Lab Name	Lab Report	mg/l	mg/l
T1-87-AS	3/31/2015	PDC	5040038	2700	1000

The weekly sample for 014 taken on March 25 was to have been completed by April 6, however it was not received until late yesterday, too late to be included with this report. It will be included next week.

Please let me know if you have any questions.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
4/5/2015	T1-092-AS	19	142,500	300,000
	T1-091-AS	21	157,500	
4/4/2015	T1-091-AS	21	157,500	300,000
	T1-090-AS	19	142,500	
4/3/2015	T1-090-AS	20	150,000	300,000
	T1-089-AS	20	150,000	
4/2/2015	T1-089-AS	17	127,500	300,000
	T1-088-AS	23	172,500	
4/1/2015	T1-088-AS	18	135,000	172,500
	T1-087-AS	5	37,500	
3/31/2015	T1-087-AS	13	97,500	165,000
	T1-086-AS	9	67,500	

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-92-AS	4/06/2015		Field	No QC	WASTE_2015	--	10350	--	--	--	7.70	--
T1-91-AS	4/04/2015		Field	No QC	WASTE_2015	--	10620	--	--	--	7.81	--
T1-90-AS	4/03/2015		Field	No QC	WASTE_2015	--	10340	--	--	--	7.52	--
T1-89-AS	4/02/2015		Field	No QC	WASTE_2015	--	11510	--	--	--	7.60	--
T1-88-AS	4/01/2015	4:15 AM	PDC	Validated	5040039	2600	9900	--	--	--	--	--
T1-88-AS	4/01/2015		Field	No QC	WASTE_2015	--	9850	--	--	--	7.76	--
T1-87-AS	3/31/2015	5:00 AM	PDC	Validated	5040038	2700	1000 10,000	--	--	--	--	--
T1-87-AS	3/31/2015		Field	No QC	WASTE_2015	--	10320	--	--	--	7.65	--
T1-86-AS	3/30/2015	4:50 AM	PDC	Validated	5033729	2200 *	9600	--	--	--	--	--
T1-86-AS	3/30/2015		Field	No QC	WASTE_2015	--	11010	--	--	--	7.71	--
T1-85-AS	3/29/2015	4:40 AM	PDC	Validated	5033727	2000 *	8800	--	--	--	--	--
T1-85-AS	3/29/2015		Field	No QC	WASTE_2015	--	10480	--	--	--	7.77	--
T1-84-AS	3/28/2015	4:20 AM	PDC	Validated	5033720	2200 h	9300	--	--	--	--	--
T1-84-AS	3/28/2015		Field	No QC	WASTE_2015	--	12560	--	--	--	7.71	--
T1-83-AS	3/27/2015	4:23 AM	PDC	Validated	5033578	1700	8400	--	--	--	--	--
T1-83-AS	3/27/2015		Field	No QC	WASTE_2015	--	9300	--	--	--	7.85	--
T1-82-AS	3/26/2015	4:12 AM	PDC	Validated	5033577	4600	13000	--	--	--	--	--
T1-82-AS	3/26/2015		Field	No QC	WASTE_2015	--	10840	--	--	--	7.70	--
T1-81-AS	3/25/2015	3:58 AM	PDC	Validated	5033187	4200	9600	--	--	--	--	--
T1-81-AS	3/25/2015		Field	No QC	WASTE_2015	--	11750	--	--	--	7.87	--
T1-80-AS	3/24/2015	4:20 AM	PDC	Validated	5033181	3300	11000	--	--	--	--	--
T1-80-AS	3/24/2015		Field	No QC	WASTE_2015	--	10280	--	--	--	7.65	--

MSD 032316

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
T1-92-AS	4/06/2015		Field	No QC	WASTE_2015	9060	38.9	--	--	--	--	--
T1-91-AS	4/04/2015		Field	No QC	WASTE_2015	13460	35	--	--	--	--	--
T1-90-AS	4/03/2015		Field	No QC	WASTE_2015	11860	38.1	--	--	--	--	--
T1-89-AS	4/02/2015		Field	No QC	WASTE_2015	10560	37.6	--	--	--	--	--
T1-88-AS	4/01/2015	4:15 AM	PDC	Validated	5040039	10000	--	--	--	--	--	--
T1-88-AS	4/01/2015		Field	No QC	WASTE_2015	10360	38.7	--	--	--	--	--
T1-87-AS	3/31/2015	5:00 AM	PDC	Validated	5040038	9400	--	--	--	--	--	--
T1-87-AS	3/31/2015		Field	No QC	WASTE_2015	11800	38.1	--	--	--	--	--
T1-86-AS	3/30/2015	4:50 AM	PDC	Validated	5033729	6900	--	--	--	--	--	--
T1-86-AS	3/30/2015		Field	No QC	WASTE_2015	11400	36.8	--	--	--	--	--
T1-85-AS	3/29/2015	4:40 AM	PDC	Validated	5033727	9000	--	--	--	--	--	--
T1-85-AS	3/29/2015		Field	No QC	WASTE_2015	12020	34.5	--	--	--	--	--
T1-84-AS	3/28/2015	4:20 AM	PDC	Validated	5033720	8000	--	--	--	--	--	--
T1-84-AS	3/28/2015		Field	No QC	WASTE_2015	15300	35	--	--	--	--	--
T1-83-AS	3/27/2015	4:23 AM	PDC	Validated	5033578	9300	--	--	--	--	--	--
T1-83-AS	3/27/2015		Field	No QC	WASTE_2015	6020	43.2	--	--	--	--	--
T1-82-AS	3/26/2015	4:12 AM	PDC	Validated	5033577	8600	--	--	--	--	--	--
T1-82-AS	3/26/2015		Field	No QC	WASTE_2015	9020	42.6	--	--	--	--	--
T1-81-AS	3/25/2015	3:58 AM	PDC	Validated	5033187	9000	--	--	--	--	--	--
T1-81-AS	3/25/2015		Field	No QC	WASTE_2015	10260	36.5	--	--	--	--	--
T1-80-AS	3/24/2015	4:20 AM	PDC	Validated	5033181	10000	--	--	--	--	--	--
T1-80-AS	3/24/2015		Field	No QC	WASTE_2015	9140	34.9	--	--	--	--	--

MSD 032317

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	8210	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	--	7000	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	7630	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	--	7770	--	--	--	--

MSD 032318

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	3168	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	10220	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	--	1.69	60023	--	7.27	3.04
MH013	4/01/2015			LPTP	No QC	LPTP	--	1.06	--	--	7.26	3.04
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	--	2.96	35560	--	7.23	3.12
MH013	3/31/2015			LPTP	No QC	LPTP	--	3.12	--	--	7.26	3.36

MSD 032319

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	4/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/06/2015			LPTP	No QC	LPTP	--	3976	--	--	--	--	--
LPTP Permeate	4/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/05/2015			LPTP	No QC	LPTP	--	1573	--	--	--	--	--
LPTP Permeate	4/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/04/2015			LPTP	No QC	LPTP	--	9727	--	--	--	--	--
LPTP Permeate	4/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/03/2015			LPTP	No QC	LPTP	--	11724	--	--	--	--	--
LPTP Permeate	4/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	4/02/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	4/01/2015			LPTP	No QC	LPTP	9.5	--	--	--	--	--	--
MH013	4/01/2015			LPTP	No QC	LPTP	92.5	14362	--	--	--	--	--
LPTP Permeate	3/31/2015			LPTP	No QC	LPTP	5.5	--	--	--	--	--	--
MH013	3/31/2015			LPTP	No QC	LPTP	37.5	40049	--	--	--	--	--

MSD 032320

Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, April 08, 2015 8:43 AM
To: Doug Mendoza
Cc: bpower@republicservices.com; Kamp, Kevin; Bouchard, Derek (DBouchard@republicservices.com); 'LaFata, Natalie'
Subject: Request to reduce sampling for hauled waste

Doug,

As we discussed, looking at the data for hauled waste, the BOD average are consistently at or below the $.02/gallon surcharge rates and it would seem that daily sampling is not needed to verify the long-term average. We would like to ask MSD to consider amending the sampling to the following:

- Daily sampling for COD and pH using LPTP internal lab;
- 2x per week sampling for BOD, COD and TSS at a certified lab, probably PDC.

We could stipulate that, if there is a process change that could significantly alter the concentrations, we would notify MSD and increase sampling frequency accordingly.

We appreciate MSD's consideration of this request.

Thank you.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

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Doug Mendoza

From: Doug Mendoza
Sent: Monday, April 06, 2015 1:09 PM
To: Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Cc: Kamp, Kevin (kkamp@cecinc.com)
Subject: Proposed Additional Step to Pretreatment System at Bridgeton Landfill

Dear Mr. Power:

Thank you for your consultant's March 27, 2015 submittal regarding your proposed additional pretreatment system step for removal of calcium in Bridgeton Landfill's leachate. This additional treatment step is designed to remove calcium that is causing scaling/fouling, excess solids generation, and loss of biological nutrients.

We have completed our review of the information you provided. Based on this information, MSD grants approval of this system, in principle, for use at your facility. This approval is made under MSD ordinance 12559, Article VII, Section Two. We recognize that initial implementation will consist of certain temporary tanks and equipment. Once the decision is made to install permanent tanks and equipment, Bridgeton Landfill must submit details of those plans to MSD.

There are a number of factors that can affect discharge compliance with federal and MSD standards. The user has responsibility to maintain the facility in compliance with those limits. This letter does not allow discharge of any material that would cause a violation of federal standards or the ordinance.

Thank you for your assistance in helping us to comply with state and federal regulations. If you have any questions, please contact me at 314.436.8717.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT
Douglas M. Mendoza, P.E.
Industrial Pretreatment Manager

Doug Mendoza

From: Doug Mendoza
Sent: Monday, April 06, 2015 7:21 AM
To: Ed Galbraith (EGalbraith@barr.com) (EGalbraith@barr.com); Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Subject: FW: Bridgeton Landfill final permit revision cover letter 3-2015.docx
Attachments: Bridgeton Landfill 3-25-2015 permit.pdf

Hard copy is in the mail, along with signed version of permit. (Unsigned copy of permit is attached.)

---Doug Mendoza, MSD Industrial Pretreatment Manager

From: Margie Irvin
Sent: Monday, April 06, 2015 7:13 AM
To: Christopher J. Bulmahn; Tom Boehm; Cynthia Chalk
Cc: Doug Mendoza
Subject: Bridgeton Landfill final permit revision cover letter 3-2015.docx

April 6, 2015

Brian Power
Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

Re: Discharge Permit No: 1003803000 - 1.1
For premise at: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Dear Brian Power:

Your Metropolitan St. Louis Sewer District Industrial Wastewater Discharge Permit issued on February 6, 2015, for the above premise, is hereby revised as per the attached revised permit.

The following revisions were made to the permit:

- The description for sampling point 013 has been updated to provide a more specific location, now that construction is complete at the landfill.
- The permit special condition "Special Biochemical Oxygen Demand Limitation" has been amended to provide a mass limit for biochemical oxygen demand specific to when discharge is directed to the Bissell Point Wastewater Treatment Plant.

We have reissued the entire permit for your convenience. Please replace your prior permit with this letter and the revised permit. The terms of the revised permit supersede your prior permit.

You must submit monitoring reports on a quarterly basis, as required by the conditions of this permit. The necessary report form is appended to the permit. It includes the specific certifications required by your permit. Please use this form for your report submittals.

This revision does not affect any monitoring or analysis of your discharge that may be necessary to comply with other requirements of your permit and in no way relieves you of your obligations to achieve the discharge limitations as provided in the permit.

We appreciate your cooperation and support in helping us to comply with federal regulations. Please contact me at 314.436.8717, if you have any questions.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Douglas M. Mendoza, P.E.
Manager of Industrial Pretreatment

Enclosures: Industrial Wastewater Discharge Permit, Self-monitoring Report Form

cc: Chris Bulmahn
Tom Boehm
Cynthia Chalk

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Friday, April 03, 2015 9:13 AM
To: Doug Mendoza
Cc: bpower@republicservices.com; Kamp, Kevin; Bouchard, Derek (DBouchard@republicservices.com)
Subject: FW: Bridgeton Landfill draft permit revision cover letter 3-2015.docx
Attachments: Bridgeton Landfill draft revised permit 3-25-2015.pdf; Comments on Draft Revised Permit MSD 4 3 2015_signed.pdf

Doug,

Attached are our comments on the draft permit. Our only substantive comment is on Special Condition C.2., where the language regarding handling of stormwater appears to have reverted to an earlier version.

Please let us know if you have any questions. Thanks.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

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From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Friday, March 27, 2015 7:41 AM
To: Ed Galbraith; Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Subject: FW: Bridgeton Landfill draft permit revision cover letter 3-2015.docx

Gentlemen,

Below is the cover letter for Bridgeton Landfill's draft revised 3/25/2015 permit. A copy of the draft revised permit also is attached. Note that "Draft" is only written on the first page of the attached draft revised permit copy. The actual draft revised permit has "Draft" written on all pages. The actual cover letter and draft revised permit are being mailed today. Please let us know when you have reviewed it, and if you agree with the draft revised permit or have concerns. We will then either issue the final revised permit or discuss further your concerns.

Sincerely,
Douglas M. Mendoza, P.E.
MSD Industrial Pretreatment Manager

March 27, 2015

Bridgeton Landfill, LLC

April 3, 2015

Mr. Doug Mendoza
Industrial Pretreatment Manager
Metropolitan St. Louis Sewer District
10 East Grand Ave.
St. Louis, MO 63147

RE: COMMENTS ON DRAFT REVISED PERMIT (Permit No. 1003803000 – 1.2)

Thank you for the opportunity to review the draft permit, provided electronically by Email on March 27, 2015. We offer the following comments.

Page 2: The description of sampling point SP013 has been amended to: "MH 15' NW, 27' SW of the N corner of concrete containment wall for effluent tank along Boenker Lane." We concur with the change.

Page 11: At Special Condition "A.3. Special Biochemical Oxygen Demand Limitation," we note the change to include a mass loading limit of Biochemical Oxygen Demand appropriate to the Bissell Point plant. We appreciate the change and agree with the wording.

Page 14: At Condition "C.2., NPDES Discharge Point," the wording does not match the "current" permit (version 1.1), but appears to have defaulted to that of the first version. We would ask that the wording of version 1.1 be restored:

> C.2. NPDES Discharge Point
>
> This permit does not regulate discharges at MSD sampling points 004 (NPDES 003), 009 (NPDES 004), 010 (NPDES 005), 011 (NPDES 006), or 012 (NPDES 007). These discharges are subject to State regulation under NPDES permit number MO-0112771. Permittee is authorized to discharge storm water contaminated with leachate to the District's sanitary sewer system, subject to special condition B.4. For storm water that is contaminated with material other than leachate, permittee is authorized to route it to the permittee's pretreatment plant, however should the permittee plan to route it directly to District sewers, the permittee shall notify the District's Division of Environmental Compliance at least ten (10) days prior to the date of the planned change.

Thank you for the opportunity to comment on the permit. If you have any questions, feel free to contact me at (314) 744-8165.

Sincerely,

Brian J Power

Brian Power
Environmental Manager

13570 St. Charles Rock Road, Bridgeton, Missouri 63044

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Thursday, April 02, 2015 3:59 PM
To: Doug Mendoza
Subject: RE: Bridgeton Landfill Weekly Report - SP014/hauled waste collection times missing

An updated spreadsheet has been posted with the sample times for hauled waste. We apologize for the oversight.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

CB 4-15

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From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Thursday, April 02, 2015 1:49 PM
To: Ed Galbraith
Subject: RE: Bridgeton Landfill Weekly Report - SP014/hauled waste collection times missing

Ed,

The sample collection times for the hauled waste samples were not added to the new results on the spreadsheet. Please have them added and let us know when complete, so that we may enter the results in our database.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, April 01, 2015 11:13 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

Eberline has analyzed the sample for Uranium isotopes and will be reissuing the report. In reviewing the data with them, it was discovered that there was an error in the gamma-derived total uranium. That will also be amended in the revised report. Also in discussing the Gross Beta result, which was unusually low, it was decided that they would reanalyze the sample for Gross Beta using sample preparation measures to account for solids in the matrix. The Total

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
03/302015	T1-086-AS	11	82,500	172,500
	T1-085-AS	12	90,000	
3/29/2015	T1-085-AS	16	120,000	165,000
	T1-084-AS	6	45,000	
3/28/2015	T1-084-AS	17	127,500	172,500
	T1-083-AS	6	45,000	
3/27/2015	T1-083-AS	24	180,000	300,000
	T1-082-AS	16	120,000	
3/26/2015	T1-082-AS	16	120,000	165,000
	T1-081-AS	6	45,000	
3/25/2015	T1-081-AS	28	210,000	300,000
	T1-080-AS	12	90,000	
3/24/2015	T1-080-AS	28	210,000	300,000
	T1-079-AS	12	90,000	

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
Location	Date		lab_name_code	Data Status	lab_sdg							
T1-86-AS	3/30/2015		Field	No QC	WASTE_2015	--	11010	--	--	--	7.71	--
T1-85-AS	3/29/2015		Field	No QC	WASTE_2015	--	10480	--	--	--	7.77	--
T1-84-AS	3/28/2015		Field	No QC	WASTE_2015	--	12560	--	--	--	7.71	--
T1-83-AS	3/27/2015		Field	No QC	WASTE_2015	--	9300	--	--	--	7.85	--
T1-82-AS	3/26/2015		Field	No QC	WASTE_2015	--	10840	--	--	--	7.70	--
T1-81-AS	3/25/2015		Field	No QC	WASTE_2015	--	11750	--	--	--	7.87	--
T1-80-AS	3/24/2015		Field	No QC	WASTE_2015	--	10280	--	--	--	7.65	--
T1-79-AS	3/23/2015	4:30 AM	PDC	Validated	5032958	2300	8100	--	--	--	--	--
T1-79-AS	3/23/2015		Field	No QC	WASTE_2015	--	6360	--	--	--	7.73	--
T1-78-AS	3/22/2015	4:45 AM	PDC	Validated	5032955	2900	9000	--	--	--	--	--
T1-78-AS	3/22/2015		Field	No QC	WASTE_2015	--	11080	--	--	--	7.69	--
T1-77-AS	3/21/2015	4:56 AM	PDC	Validated	5032954	2400 h	8100	--	--	--	--	--
T1-77-AS	3/21/2015		Field	No QC	WASTE_2015	--	10220	--	--	--	7.82	--
T1-76-AS	3/20/2015	4:01 AM	PDC	Validated	5032801	3000	9300	--	--	--	--	--
T1-76-AS	3/20/2015		Field	No QC	WASTE_2015	--	10160	--	--	--	7.55	--
T1-75-AS	3/19/2015	5:00 AM	PDC	Validated	5032797	3300	9700	--	--	--	--	--
T1-75-AS	3/19/2015		Field	No QC	WASTE_2015	--	9220	--	--	--	7.65	--
T1-74-AS	3/18/2015	5:00 AM	PDC	Validated	5032394	2900	8700	--	--	--	--	--
T1-74-AS	3/18/2015		Field	No QC	WASTE_2015	--	12590	--	--	--	7.59	--
T1-73-AS	3/17/2015	4:45 AM	PDC	Validated	5032380	2300	8900	--	--	--	--	--
T1-73-AS	3/17/2015		Field	No QC	WASTE_2015	--	8700	--	--	--	7.65	--

MSD 032329

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Solids, total suspended	Temperature, °C	Total Toxic Organics	Antimony	Arsenic	Beryllium	Cadmium
					Total or Dissolved	NA	NA	NA	Total	Total	Total	Total
					Analysis Location	mg/l	deg C	ug/l	mg/l	mg/l	mg/l	mg/l
Location	Date		lab_name_code	Data Status	lab_sdg							
T1-86-AS	3/30/2015		Field	No QC	WASTE_2015	11400	36.8	--	--	--	--	--
T1-85-AS	3/29/2015		Field	No QC	WASTE_2015	12020	34.5	--	--	--	--	--
T1-84-AS	3/28/2015		Field	No QC	WASTE_2015	15300	35	--	--	--	--	--
T1-83-AS	3/27/2015		Field	No QC	WASTE_2015	6020	43.2	--	--	--	--	--
T1-82-AS	3/26/2015		Field	No QC	WASTE_2015	9020	42.6	--	--	--	--	--
T1-81-AS	3/25/2015		Field	No QC	WASTE_2015	10260	36.5	--	--	--	--	--
T1-80-AS	3/24/2015		Field	No QC	WASTE_2015	9140	34.9	--	--	--	--	--
T1-79-AS	3/23/2015	4:30 AM	PDC	Validated	5032958	5800	--	--	--	--	--	--
T1-79-AS	3/23/2015		Field	No QC	WASTE_2015	8300	38.4	--	--	--	--	--
T1-78-AS	3/22/2015	4:45 AM	PDC	Validated	5032955	9800	--	--	--	--	--	--
T1-78-AS	3/22/2015		Field	No QC	WASTE_2015	18240	31.2	--	--	--	--	--
T1-77-AS	3/21/2015	4:56 AM	PDC	Validated	5032954	7800	--	--	--	--	--	--
T1-77-AS	3/21/2015		Field	No QC	WASTE_2015	9040	37.5	--	--	--	--	--
T1-76-AS	3/20/2015	4:01 AM	PDC	Validated	5032801	7300	--	--	--	--	--	--
T1-76-AS	3/20/2015		Field	No QC	WASTE_2015	8220	41.2	--	--	--	--	--
T1-75-AS	3/19/2015	5:00 AM	PDC	Validated	5032797	7400	--	--	--	--	--	--
T1-75-AS	3/19/2015		Field	No QC	WASTE_2015	9880	36.6	--	--	--	--	--
T1-74-AS	3/18/2015	5:00 AM	PDC	Validated	5032394	7500	--	--	--	--	--	--
T1-74-AS	3/18/2015		Field	No QC	WASTE_2015	13760	34.4	--	--	--	--	--
T1-73-AS	3/17/2015	4:45 AM	PDC	Validated	5032380	6800	--	--	--	--	--	--
T1-73-AS	3/17/2015		Field	No QC	WASTE_2015	6620	37.5	--	--	--	--	--

MSD 032330

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	8680	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	7910	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	8360	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	7760	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	8700	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	7500	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	8390	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	7750	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	9470	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	10890	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	9990	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	10510	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	9710	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	9310	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	9660	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	9020	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	9020	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	9850	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	9930	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	9930	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	10050	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	9400	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	10040	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	10170	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	3310	8130	0.0088	--	--	65.7

MSD 032331

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter:	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	2.78	79530	--	7.26	3.26
MH013	3/30/2015			LPTP	No QC	LPTP	--	3.06	--	--	7.25	3.48
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	3.21	95010	--	7.32	3.74
MH013	3/29/2015			LPTP	No QC	LPTP	--	3.72	--	--	7.28	3.72
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	2.50	64620	--	7.22	3.36
MH013	3/28/2015			LPTP	No QC	LPTP	--	2.24	--	--	--	2.57
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	1.92	68550	--	7.22	1.68
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	7.29	1.43
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	2.28	59504	--	7.75	1.65
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	2.24	145396	--	7.8	2.49
MH013	3/25/2015			LPTP	No QC	LPTP	--	2.13	--	--	7.49	1.88
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	1.89	211832	--	7.24	3.25
MH013	3/24/2015			LPTP	No QC	LPTP	--	2.02	--	--	7.24	2.31
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	1.89	171824	--	7.33	2.87
MH013	3/23/2015			LPTP	No QC	LPTP	--	1.74	--	--	7.29	2.23
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	2.17	242610	--	7.31	2.26
MH013	3/22/2015			LPTP	No QC	LPTP	--	2.17	--	--	7.31	2.26
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	2.24	236391	--	7.36	2.31
MH013	3/21/2015			LPTP	No QC	LPTP	--	2.03	--	--	7.30	2.08
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	2.39	185261	--	7.32	2.20
MH013	3/20/2015			LPTP	No QC	LPTP	--	1.96	--	--	7.35	1.75
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	2.48	215193	--	7.23	2.78
MH013	3/19/2015			LPTP	No QC	LPTP	--	2.18	--	--	7.21	1.97
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	1.95	132688	--	7.29	0.945
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	9.9	--	--	7.4	--	--

MSD 032332

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l		21 mg/l	5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	21	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	32	81430	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	17.5	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	40.5	101704	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	42	70148	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	74491	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	36825	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	15.5	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	38.5	110348	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	19.5	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	35	99836	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	14	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	33.5	102612	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	20.5	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	20.5	100156	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	40	101282	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	51	99704	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	24	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	49	103648	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	29.0	--	3.0	392	--	<50 ND	408

100643

MSD 032333

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Magnesium
						Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
						Permit Limitation/Surcharge Threshold		700 ug/l	5000 ug/l	2700 ug/l	150000 ug/l	400 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	< 5 ND	< 25 ND	44.8	< 50 ND	3030	< 25 ND	194000

MSD 032334

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	1,2,4-Trichlorobenzene
						Total or Dissolved	Total	Total	Total	Total	Total	Total	NA
						Permit Limitation/Surcharge Threshold	10 ug/l	2300 ug/l		500 ug/l		3000 ug/l	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	<0.2 ND	38.1	<75 ND	<35 ND	<100 ND	<250 ND	<25 ND

MSD 032335

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	ND	ND	ND	ND	ND	ND

MSD 032336

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	ND	ND	ND	ND	ND	ND

MSD 032337

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzidine	Benzo(a)pyrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	ND	ND	ND	ND	ND	ND

MSD 032338

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	ND	ND	ND	ND	ND	ND

MSD 032339

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Butyl benzyl phthalate	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	ND	ND	ND	ND	ND	ND

MSD 032340

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	ND	ND	<25 ND	ND	ND	ND

MSD 032341

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	<25 ND	ND	ND	ND	ND	ND

MSD 032342

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Phenanthrene	Phenol	Pyrene	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	168	ND	ND	<10 ND	ND	ND

MSD 032343

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,1-Dichloroethylene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	<10 ND	ND	ND	ND	ND	ND

MSD 032344

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	1,3-Dichloro-1-propene, trans	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Benzene	Bromodichloromethane	Bromoform
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold					140 ug/l		
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	ND	22.7	ND	< 10 ND	ND	ND

MSD 032345

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	<50 ND	ND	<10 ND	ND	ND	12.5	ND

MSD 032346

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Ethyl benzene	Methylene chloride	Tetrachloroethylene	Toluene	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	<10 ND	16.2	ND	<10 ND	ND	ND	ND

MSD 032347

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Xylene, total	4,4'-DDD	4,4'-DDE	4,4'-DDT	a-BHC	Aldrin	Aroclor 1016
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	ND	--	--	--	--	--	--

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Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	b-BHC
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	--	--	--	--	--	--	--

MSD 032349

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Chlordane, alpha & gamma	d-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin
						Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold							
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	--	--	--	--	--	--	--

MSD 032350

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Endrin Aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Toxaphene
						Total or Dissolved	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold					
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l
LPTP Permeate	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/30/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/29/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/28/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/27/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/26/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/25/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/24/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/23/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/22/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/21/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/20/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/19/2015			LPTP	No QC	LPTP	--	--	--	--	--
LPTP Permeate	3/18/2015			LPTP	No QC	LPTP	--	--	--	--	--
MH013	3/18/2015	7:50 AM	9:30 AM	Pace	Validated	60190002	--	--	--	--	--

MSD 032351

BRIDGETON LEACHATE PRETREATMENT PROCESS
CALCIUM REMOVAL AND SCALE INHIBITION PROCESS
OPERATING DESCRIPTION

Prepared for:

REPUBLIC SERVICES
BRIDGETON LANDFILL
13570 SAINT CHARLES ROCK RD
BRIDGETON, MISSOURI 63044

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CEC Project 130-484

MARCH 27, 2015

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Civil & Environmental Consultants, Inc.

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Table 3.1	Soda Ash System-Technical Risk Analysis

FIGURES

Figure 300-304	LPTP Process Flow Diagrams
Figure 400-401	Soda Ash Feed System- Piping & Instrumentation Diagram

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1.0 INTRODUCTION

The following memorandum provides the basis of design, process description, and technical risk analysis for a calcium removal and sequestration process for the Leachate Pretreatment Process (LPTP) at Bridgeton Landfill, a Republic Services site located in Bridgeton, Missouri.

1.1 LEACHATE PRETREATMENT PLANT DESCRIPTION

Republic Services (Republic) has built and commissioned a leachate pretreatment plant (LPTP) at its site in Bridgeton, Missouri. The facility has been in initial operation since October 2014. The project is part of the overall work at the site encompassing leachate extraction, gas extraction, and landfill cell capping work.

Table 1.1 provides the wastewater characterization information for the LPTP.

Table 1.1: LPTP Wastewater Characteristics

Item	Value	Average to maximum*
Flow, design average, gpd	300,000	~150,000
Flow, design, maximum, gpd	450,000	~292,000
Biochemical Oxygen Demand, mg/l	31,000	NA
Chemical Oxygen Demand, mg/l	71,000	54,558 to 125,800
Total Suspended Solids, mg/l	2,600	4,270 to 52,480
Zinc, mg/l	50	5.7 to 6.3
Iron, mg/l	800	NA

*From 08/26/2014 to 03/27/2015
NA- Not Analyzed

Table 1.2 provides the treatment requirements, for the system, which include the discharge permit for the St. Louis Metropolitan Sanitary District (MSD).

Table 1.2: LPTP Discharge Limits

Parameter, mg/l	Daily Average Limit		Daily Maximum Limit	
	Large River	*Small River*	*Large River*	*Small River*
Antimony	0.5	0.5	1.5	1.5
Arsenic	0.77*	0.3	1.2	0.9
Barium	10.0	30.0	30.0	30.0

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Parameter, mg/l	Daily Average Limit		Daily Maximum Limit	
	Large River	*Small River*	*Large River*	*Small River*
Beryllium	0.4	0.1	1.2	0.3
Cadmium	0.7	0.07	1.2	0.21
Chromium	5.0	5.0	15.0	15.0
Copper	2.7	0.7	4.5	2.1
Cyanide, Amenable	0.4	0.1	1.2	0.3
Iron	150.0	25.0	450.0	75
Lead	0.4	0.2	0.6	0.3
Mercury	0.01	0.01	0.03	0.03
Nickel	2.3	1.0	4.1	3.0
Total Oil & Grease	200	200	200	200
Phenolic Compounds	7.0	7.0	21.0	21.0
Selenium	0.2	0.2	0.6	0.6
Silver	0.5	0.5	1.5	1.5
Zinc	3.0	3.0	9.0	9.0

*Current Variance

Figures 300-304 provide the process flow diagram for the leachate pretreatment process. The LPTP consists of the following unit operations:

1. **Equalization Tankage-** to receive the site leachate, gas well liquid, miscellaneous pretreatment facility recycle streams, and provide buffering/leveling of wastewater characteristics. The 316,000 gallon equalization tank utilizes a jet (venturi) type mixing and aeration system, along with antifoam feed and odor control support systems. The landfill wastewaters are received through a grit removal station to remove large particulates that could interfere with pumping/mechanical equipment at the LPTP. The equalization tankage is serviced by twin pumping systems, the first to load out tankers for off-site management of leachate (if necessary), and the second to feed influent to the pretreatment unit in a controlled manner. An odor control system processes the air discharge from the equalization tank.

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2. **Physical/Chemical Pretreatment-** to remove suspended solids and metals from the influent wastewater through screening, pH adjustment and chemical addition (coagulant and flocculant), followed by clarification through an inclined plate clarifier. Pretreatment effluent is collected in a pH adjustment tank and combined with return activated solids from biological treatment (actually the ultrafiltration units) prior to feeding to the biological treatment units. Settled solids constituents are pumped to solids thickening/dewatering operations. The pretreatment operation utilizes an odor control system.
3. **Biological Treatment-** to remove biodegradable organic and nitrogen components of the wastewater; The system consists of 4 x 1 Million Gallon Aeration Tanks that utilize jet aeration/mixing to affect biological treatment. The biological system is supported with foam control, instrumentation (level, dissolved oxygen, pH), heating/cooling and odor control systems.
4. **Ultrafiltration Units-** to separate treated effluent from the aeration tanks mixed liquor and facilitate solids processing by returning solids to the aeration tanks and sending waste solids for thickening and dewatering. Three ultrafiltration units complete with instrumentation, pumps, and clean-in-place (CIP) systems are utilized at the LPTP.
5. **Solids Thickening-** to pre-concentrate the waste solids from the Physical/Chemical Pretreatment and Biological (MBR) operations for subsequent dewatering. Rotary drum thickeners, with a flocculant feed systems are utilized to prepare the solids for dewatering.
6. **Solids Dewatering-** to process the waste solids generated from the Physical/Chemical Pretreatment and Biological Treatment operations. Two (2) screw presses, with a flocculant feed system are used to dewater the thickened sludges. An odor control system services the solids processing building and roll-off box areas.
7. **Effluent Collection/Discharge-**permeate from the ultrafiltration units is pumped into a 96,000 gallon holding tank. The material is then discharge (or initially hauled) to the Metropolitan Sanitary District (MSD) sewage treatment facility.
8. **Cooling System-**to provide stable operating temperatures for biological processing by cooling the aeration tanks. The system consists of heat exchangers to transfer heat from the mixed liquor to cooling water. Forced air circulation cooling towers are utilized to remove the transferred heat from the cooling water. Potable water is utilized as make-up for the cooling water. Chemical feed systems are utilized to provide corrosion, scaling, and microbial control in the cooling system.
9. **Odor Control-**to mitigate potential odor from the LPTP operations. Regenerative Thermal Oxidizers (RTOs) are used to process collective exhaust from various LPTP operations/areas. The system destroys up to 99% of volatile organic compounds and recovers approximately 95% of the energy.

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There are additionally chemical feed systems that support the above mentioned unit operations. Utility sumps are used to collect miscellaneous process streams such as thickening/dewatering units' effluent, clean-up waters, blow downs and transfer the material back to the equalization tank.

Operation activities also include performance of routine limited landfill inspection and maintenance activities (including removal of gas condensate from the LFG flaring system with a vacuum tanker and unloading the material into the LPTP) on the night shift.

As with any new process facility, the LPTP has had equipment and operational issues that became apparent during commissioning and initial operations. These issues were compounded by the nature of the Bridgeton project:

1. High project visibility and regulatory/public scrutiny;
2. Rapid completion requirement of the project;
3. Development of a project concept with less than ideal wastewater characterization data availability;
4. Quality of the leachate, especially hardness, organic strength, and salinity;
5. Changes to leachate and gas condensate quality and flows; and,
6. Rapid acquisition of process systems and equipment prior to completion of design.

1.2 PROBLEM DEFINITION

Several of the operational problems have been traced to high calcium levels in the leachate, which produce calcium carbonate scale in the process, as described in Table 1.3:

Table 1.3-Operational Issues Related to High Calcium Levels

Process Area	Equipment/Operational Issues
Equalization Tankage	1. Scaling on piping; 2. Instrumentation issues;
Physical/Chemical Pretreatment	1. Scaling on piping; 2. Rise in soluble components (calcium and magnesium)in leachate not currently addressed by pretreatment that have caused excessive inert solids build-up in biological process that degrade performance; 3. Instrumentation issues (mainly due to inorganic scaling) impacting operations
Biological Treatment	1. Accumulation of inert solids producing biological process loss of stability;

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Process Area	Equipment/Operational Issues
	2. Calcium levels are removing necessary nutrient (phosphorus) from biological process impacting treatment efficiency; 3. Instrumentation issues (mainly due to inorganic scaling) impacting operations;
Ultrafiltration Units	1. High manual maintenance, loss of production due to scaling-fouling of screens/ membrane units; 2. Excessive cleaning due to scaling issues; 3. Reduction in membrane life caused by excessive cleanings

The calcium scaling impacts on the biological process and the ultrafiltration are of most immediate concern.

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Impacts to the biological process can be estimated by the following relationship:

$$C_{inerts\text{-}MBR} = C_{inerts\text{-}Influent} \times SRT/HRT$$

Where:

Term	Definition
$C_{inerts\text{-}MBR}$	Total amount of inert solids in the MBR tankage, mg/l
$C_{inerts\text{-}Influent}$	Amount of Inert Solids in the Influent to the MBR System (Effluent from the Pretreatment System)
SRT	Solids Retention Time, days; (Time that the average solid particle is in the MBR system)
HRT	Hydraulic Retention Time, days (Time that average volume of flow is in the MBR tankage)

For the Bridgeton LPTP, the terms can be expressed as follows:

SRT= 40+ days, operational target of MBR system;
HRT= 3,000,000 Gallon of Reaction Tankage/300,000 GPD of influent, or 15 days;

The influent Calcium is estimated to be 6,000 mg/l, this produces 15,000 mg/l of scale (calcium carbonate) in the process;

$$C_{inerts\text{-}MBR} = C_{inerts\text{-}Influent} \times SRT/HRT$$
$$C_{inerts\text{-}MBR} = 15{,}000 \text{ mg/l} \times (45 \text{ days}/15 \text{ days})$$
$$C_{inerts\text{-}MBR} = 45{,}000 \text{ mg/l}$$

The problem is that the MBR can only manage a finite concentration of solids in the process, and must have enough bacteria to allow for effective treatment. If we allow a maximum level of inert solids (calcium carbonate) in the MBR tanks of 20,000 mg/l, then the impact of increasing calcium (inert) concentration on the MBR tanks and their ability to maintain enough biology in the system to remove the biodegradable components in the leachate. This is shown in Table 1.4:

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Table 1.4 Impact of Calcium (Calcium Carbonate) Concentration in Feed on Biological Capacity of System

Calcium in Influent, mg/l Ca	$C_{inerts-Influent}$, mg/l	HRT, days	$C_{inerts-MBR}$, Allowed mg/l	SRT Allowed at Inert Concentration, days	Is enough biology around to completely treat leachate?
600	1500	10	20,000	133.3	Yes
1,200	3,000	10	20,000	66.7	Yes
1,800	4,500	10	20,000	44.4	Yes
2,400	6,000	10	20,000	33.3	Yes
3,000	7,500	10	20,000	26.7	Probably
3,600	9,000	10	20,000	22.2	Probably
4,200	10,500	10	20,000	19.0	Probably
4,800	12,000	10	20,000	16.7	Unlikely
5,400	13,500	10	20,000	14.8	Unlikely
6,000	15,000	10	20,000	13.3	Unlikely

Note: Based on 300,000 gpd fed and 3,000,000 gallons of MBR available

The other biological impact of the excess calcium in solution is to precipitate phosphate (as either hydroxyl apatite or calcium phosphate). This reduces the amount of phosphorus available to the biology in the process which reduces treatment efficiency and stability.

The impact on the Ultrafiltration System of high inert solids and high Calcium concentration include:

1. Clogging of the strainers ahead of the UF membranes which reduces flow;
2. Plugging of the membranes resulting in production loss and increased cleaning; and,
3. Scaling on the membrane surface (by calcium carbonate) which increases the frequency of cleaning and reduces the effective life of the membrane.

The system was analyzed to evaluate the use of different screening approaches and sizes to reduce the impacts of the calcium carbonate scaling on the UF system. Also the system provider, Dynatech, has become involved to review membrane cleaning and other operational issues.

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1.3 APPROACHES TESTED

Various means were evaluated to find the most cost effective way reliable method to remove or inhibit the calcium in the leachate from inducing the formation of most of the scaling in the process. The available approaches include:

1. Chemical or other conditioning of the wastewater to sequester the calcium (prevent its role in formation of scale). A successful chemical sequestration approach must:
    a. Be consistently effective;
    b. Have no significant side effects to the operation;
    c. Must not be biodegraded (otherwise scale will form in aeration tanks);
    d. Must not be significantly inhibitory or toxic to the process;
2. Chemical precipitation of calcium as calcium carbonate in the pretreatment process to avoid it forming elsewhere in the process;
3. Reduction of operating pH in the MBR units. This would increase available phosphorus and reduce calcium carbonate scaling; and,
4. A combination of approaches 1 and 2, partial precipitation of calcium as calcium carbonate to a level where a chemical inhibitor will be effective in preventing scale formation.

An initial effort at chemical sequestration to prevent scale formation was tried at the PTLP was tried in January 2015, and was unsuccessful. The sequestration agent used was designed to interact with the carbonate portion of the calcium carbonate scale.

Based on vendor consultation and jar testing the approach selected was to follow the ~~third~~ 4th approach by using partial precipitation of the calcium in the influent in the pretreatment step (to a level of </=400 mg/l Calcium-[or </=1,000 mg/l Calcium as CaCO3]) and adding a chemical inhibitor (at 10-20 mg/l) in the pretreatment effluent. This chemical inhibitor interacts only with the calcium to prevent it from forming scale, as opposed to the originally tried sequestration agent, which binds with the calcium carbonate. Also, the pH was to be kept between 7.0-7.3 in the process to improve phosphorus availability to the bacteria in the MBR.

Jar tests were used to confirm the effectiveness of the approach to reduce calcium, as well as to screen out potential negative impacts. The calcium inhibitor was evaluated for negative impacts on the biological process, through SOUR (standard oxygen uptake rate) testing. No decrease (or increase) on SOUR was observed, even at 100 times planned dosing rates Chemical precipitation relies on using the influent alkalinity in the leachate to provide part of the carbonate to precipitate the calcium.

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Table 1.5 provides the most recent results of Calcium removal testing. Based on a Calcium level of the influent of 4,000 mg/l as Calcium (10,000 as Calcium Carbonate), and 11,000 mg/l Alkalinity, it is projected that the following chemical dosages will be required to meet the pretreatment requirements:

- Sodium Carbonate, 6-7g/l;
- Sodium Hydroxide, 50% wt. solution, 4.5 ml/l;
- Flocculant, 50 mg/l;
- Calcium Inhibitor, 10 mg/l

Reagent	Anticipated Dosage,	Peak Dosage Allowed by System
Sodium Carbonate	6-7 g/l	10 g/l
Sodium Hydroxide, 50 wt. %, ml/l	4.5 ml/l	N/A
Flocculant	50 mg/l	N/A
Calcium Inhibitor	15 mg/l	100 mg/l

Table 1.6 provides the SOUR results for the Calcium Inhibitor and a Membrane Flux Enhancer tested. The relative lack of change of SOUR results for the Calcium Inhibitor is a good sign that the inhibitor is neither inhibitory nor consumed (which would have produced a significantly higher SOUR value).

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Table 1.5 Calcium Precipitation Jar Testing Results

	DATE	3/17/2015				3/18/2015				3/19/2015	3/20/2015
	INFLUENT										
	Calcium Hardness (ppm)	10260				10260				11970	10260
	pH	6.87				6.43				6.28	6.18
	Alkalinity	None Taken				5500				5900	7090
	PRETREATED										
Soda Ash = 5 g/L	Jar #									1	
	Soda Ash Dosge (g/L)									5	
	pH Adjusted									10.5	
	Caustic Added (mL)									6.4	
	Flocculant Dosage (mg/L)									40	
	Settled Volume (mL/L)									375	
	Calcium Hardness (ppm CaCO3)									3,078	
	TSS (mg/L)									10,460	
Soda Ash = 6 g/L	Jar #					1	2	3	4	2	1
	Soda Ash Dosge (g)					6	6	6	6	6	6
	pH Adjusted					9.5	10.0	10.5	11.0	10.5	10.5
	Caustic Added (mL)					2.8	4.5	5.6	6.5	6	5.8
	Flocculant Dosage (mg/L)					30	35	40	40	40	40
	Settled Volume (mL/L)					100	200	350	400	300	300
	Calcium Hardness (ppm CaCO3)					1,368	1,026	855	684	1,710	1,881
	TSS (mg/L)					8,200	7,600	8,160	10,780	11,520	9,820
Soda Ash = 7 g/L	Jar #	1	2	3	4	1	2	3	4	3	
	Soda Ash Dosge (g)	7	7	7	7	7	7	7	7	7	
	pH Adjusted	9.5	10.0	10.5	11.0	9.5	10.0	10.5	11.0	10.5	
	Caustic Added (mL)	2.2	3.5	4.6	5.3	2.5	5.1	5.9	6.7	6.5	
	Flocculant Dosage (mg/L)	45	45	50	50	35	40	45	50	45	
	Settled Volume (mL/L)	300	350	400	450	50	200	300	350	300	
	Calcium Hardness (ppm CaCO3)	513	239	86	17	513	342	171	34	855	
	TSS (mg/L)	15,140	15,240	14,840	13,680	12,100	5,940	8,600	11,760	11,240	
Soda Ash = 8 g/L	Jar #	1	2	3	4	1	2	3	4	4	
	Soda Ash Dosge (g)	8	8	8	8	8	8	8	8	8	
	pH Adjusted	9.5	10.0	10.5	11.0	9.5	10.0	10.5	11.0	10.5	
	Caustic Added (mL)	1.8	3.3	4.5	5.4	2.4	3.7	5.5	6.2	6.2	
	Flocculant Dosage (mg/L)	25	30	40	45	35	40	45	55	50	
	Settled Volume (mL/L)	50	100	150	200	50	100	200	250	275	
	Calcium Hardness (ppm CaCO3)	273.6	153.9	51.3	<17.1	307.8	188.1	85.5	17.1	513.0	
	TSS (mg/L)	13,060	13,020	16,180	18,080	6,040	12,380	11,000	15,160	13,180	
Soda Ash = 9 g/L	Jar #	1	2	3	4						
	Soda Ash Dosge (g)	9	9	9	9						
	pH Adjusted	9.5	10.0	10.5	11.0						
	Caustic Added (mL)	1.6	2.6	4.1	4.5						
	Flocculant Dosage (mg/L)	30	30	40	45						
	Settled Volume (mL/L)	50	100	150	200						
	Calcium Hardness (ppm CaCO3)	205.2	85.5	34.2	<17.1						
	TSS (mg/L)	7,060	5,840	13,840	14,700						

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Table 1.6 SOUR Results- Calcium Inhibitor and/or Membrane Flux Enhancer

	THR404 Dosage (ppm)				MPE50 Dosage				THR404/MPE50 Dosage (ppm)			
Time (sec)	0	30	150	300	0	3000	15000	30000	0/0	30/3000	150/15000	300/30000
15	8.7	8.9		8.9	8.8	8.6	7.7	6.5	8.5	8.8	6.8	7.3
30	8.5	8.7	8.7	8.6	8.6	8.5	7.8	6.1	8.3	8.6	6.2	6.9
45	8.4	8.5	8.5	8.4	8.4	8.5	7.5	5.6	8.0	8.4	5.8	6.4
60	8.2	8.3	8.2	8.3	8.2	8.4	6.9	5.2	7.8	8.3	5.5	6.0
75	8.1	8.2	8.0	8.1	8.0	8.3	6.2	4.9	7.6	8.2	5.3	5.8
90	7.9	8.0	7.9	7.9	7.9	8.2		4.7	7.4	8.1	5.1	5.5
105	7.8	7.8	7.7	7.8	7.7	8.1		4.5	7.2	8.0	5.0	5.4
120	7.6	7.7	7.5	7.6	7.5	8.1		4.3	7.0	7.9	4.9	5.3
135	7.4	7.5	7.4	7.5	7.4	8.0			6.9	7.8	4.9	5.2
SOUR Rate (mg O2/g MLVSS/hr)	7.52	8.24	8.97	8.16	8.48	3.68	18.72	15.09	9.84	5.68	10.80	12.56

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2.0 PROCESS DESCRIPTION

The overall approach to deal with the calcium is partial precipitation to a level where a chemical inhibitor will be effective in preventing scale formation. Given the relative urgency of the situation a rapidly mobilized short term approach, followed by implementation of a permanent solution based on results of interim operation, optimization of the system, and /or discovery of a more cost effective solution will be utilized.

Figure 400 and 401 provide the process diagram for the approach. A sodium carbonate solution make-up system will be utilized to provide the carbonate necessary to precipitate calcium down to a level where a calcium inhibitor can eliminate the formation of additional calcium to minimize negative impacts to the process.

Sodium carbonate will be automatically be made up at the desired concentration and delivered to the existing Pretreatment operation at a controlled dosage. A silo (S-1000) will receive pneumatically conveyed sodium carbonate from bulk delivery trucks. An auger will feed the material to the make-up tank (T-1100). The make-up of the carbonate solution will be an automatic batch system, using potable water to mix with sodium carbonate. Upon low level in the make-up tank (LSL-1100), a water solenoid will open (SOL-108) and the silo auger will be activated to provide sodium carbonate and water on preset amounts to the make-up tank. A mixer (MX-1100) will be used to help dissolve the sodium carbonate to produce an approximate 5-20% wt. solution for use as a reagent. At high level in the tank (LSH-1100) the make-up process will be terminated.

Sodium carbonate solution will be delivered to the existing precipitation/mix tank (TK-201) by a VFD/flow meter (FE-1100) controlled progressive cavity pump (P-1100). The existing pretreatment flow meter (FE-200) will pace the delivery of sodium carbonate solution. Heat tracing and insulation are used to maintain the proper temperature of the carbonate solution.

A calcium inhibitor will be fed to the pretreatment effluent tank (TK-205) by a metering pump (P-1125). The existing pretreatment flow meter (FE-200) will pace the delivery of the calcium inhibitor.

The silo will be located outside the existing building on a concrete pad located on the south-central wall of the building. The make-up tank and delivery pump will be located just inside the PTLP building adjacent to the silo. The chemical feed pump (P-1125) will be located adjacent to the existing pH adjustment tank (TK-205).

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Table 2.1 provides an equipment list for the process. With the exception of the make-up tank (T-1100) the rest of the equipment could be utilized in a permanent system. For a permanent sodium carbonate feed system, the plastic short-term tank would be replaced with a steel tank, and immersion heaters would be used to keep the sodium carbonate solution warm (to allow it being made up at higher concentrations to minimize water usage). The preliminary sizing for the immersion heater capacity is 300,000 BTU/hr. The silo auger system may require upgrades on the control to improve its automation, as well as an electronic level indicator.

The main differences between the initial and permanent system include the following:

1. Replacement of the sodium carbonate solution make-up tank with a metal vessel (to allow for its heating);
2. Slight improvements to the silo (for automated level measurement) and possible upgrade to the auger controls;
3. Addition of immersion heaters to heat the sodium carbonate solution make-up tank (to reduce the amount of water used); and,
4. Minor modifications to the potable water piping.

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3.0 TECHNICAL RISK ANALYSIS

Table 3.1 provides a technical risk analysis for the soda system, identifying process risk, impact, and contingencies to lessen/eliminate risk.

Table 3.1 Soda Ash System- Technical Risk Analysis

Identified Risk	Impact Point	Contingencies
Failure of Inhibitor	• UF Membrane Fouling • Solids Balance in Aeration Tank	• Run with better Calcium removal (higher carbonate dosing); • Removal to 1000 ppm Calcium allows for 60% VSS at 16,700 mg/l; • Removal to 500 ppm Calcium allows for 80% VSS at 12,500 mg/l in Aeration Tanks • Continued search for alternate inhibitors; • Use of Calcium KPI testing/Control Charts
Clarifier Solids Loading	• High Underflow Pumping • High Recycle Flow	• Eliminate current practice of solids recirculation to the precipitation tank; • Evaluate clarifier performance/jar test every shift; • Take Thickener Effluent Flow (MST-411 A/B) through Filtrate Transfer Tank to Avoid Retreating; • Evaluate/mobilize use of Thickeners as pretreatment material solid/liquid separator; • Additional pretreatment solid/liquid clarifier or other device;
Thickener (MST-411 A/B) Overloading	• Insufficient Processing backs up liquid and solids processing	• Operate units within common operational availability; • Evaluate thickener performance/jar test every shift; • Use free board available in Aeration Tanks for biosolids storage; • Additional thickening device
Sludge storage volume TK-410 & TK-412	• Insufficient volume, backs up processing	• Operate thickening and dewatering units within common operational availability; • Add additional solids storage;
Screw Press (D-413A/B) Overloading	• Insufficient Processing backs up liquid and solids processing	• Operate units within common operational availability; • Evaluate screw press performance/jar test every shift; • Use free board available in Aeration Tanks for biosolids storage; • Additional dewatering device;

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Doug Mendoza

From: Doug Mendoza
Sent: Thursday, April 02, 2015 1:49 PM
To: 'Ed Galbraith'
Subject: RE: Bridgeton Landfill Weekly Report - SP014/hauled waste collection times missing

Ed,

The sample collection times for the hauled waste samples were not added to the new results on the spreadsheet. Please have them added and let us know when complete, so that we may enter the results in our database.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, April 01, 2015 11:13 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

Eberline has analyzed the sample for Uranium isotopes and will be reissuing the report. In reviewing the data with them, it was discovered that there was an error in the gamma-derived total uranium. That will also be amended in the revised report. Also in discussing the Gross Beta result, which was unusually low, it was decided that they would reanalyze the sample for Gross Beta using sample preparation measures to account for solids in the matrix. The Total Uranium and Gross Beta results have been removed from the most current spreadsheet. We are awaiting a revised report and will post it, hopefully by next week.

Please let me know if you have any questions.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

DL

Doug Mendoza

From: Rob G Daly
Sent: Thursday, April 02, 2015 6:57 AM
To: Jonathon Sprague; Bret A. Berthold; Scott D Kappelmann; John Lodderhose; Doug Mendoza; Ken Goins
Subject: Bridgeton Landfill- PS No 1-3 and Force Main (Flow Shift)

FYI for the larger group.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Jay Kniker
Sent: Wednesday, April 01, 2015 3:17 PM
To: Mark Bright; Mike Waxman; Mike Townley; Ken Gambaro; Steve Hahn; Rob G Daly; Todd Bolte; Buffy Santel
Subject: Bridgeton Landfill

We have switch flow of the Bridgeton-Bissell force main from the Coldwater Treatment Plant service area to the Bissell Treatment Plant service area. This occurred around 2 pm this afternoon.

Please contact me should you require further information.

Thank you.

Jay D. Kniker, P.E.
MSD
Pump Station Division Engineer
60 E. Grand
St. Louis, MO 63147
314.436.8703

m

Doug Mendoza

From:	Doug Mendoza
Sent:	Thursday, April 02, 2015 6:15 AM
To:	Christopher J. Bulmahn; Margie Irvin; Scott Rehmer; Angie McDonough; Brian G. Gibson; Martin Blecha; Rebecca Vitelli; Steve Grace; Dave Schepers; Jason T. Edwards; Joe Pavlich; Keith Holderle; Dave Kupke; Jason Gill; Jennifer A Pipas; Michael S. Kynion; Tom Boehm
Cc:	John Lodderhose
Subject:	Bridgeton Landfill - Update on hauling and force main to Bissell Point STP

Folks,

Bridgeton Landfill began discharging to Bissell Point through the force main yesterday afternoon.

They will continue to also haul some material to the Bissell hauled waste receiving station for at least the next few days. They are bringing down some excess volume in their treatment system tanks.

---Doug Mendoza

Doug Mendoza

Bridgeton Landfill

From: Doug Mendoza
Sent: Thursday, April 02, 2015 6:10 AM
To: 'LaFata, Natalie'
Cc: nathan.winton@mrbults.com; Kamp, Kevin
Subject: RE: Hauling Request

Natalie,

This request is approved.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Wednesday, April 01, 2015 11:25 AM
To: Doug Mendoza
Cc: nathan.winton@mrbults.com; Kamp, Kevin
Subject: Hauling Request

Doug – I would like to request for overtime through the month of April at the plant for hauling of Activated Sludge/Permeate. We would like to be able to haul a minimum of 23 loads per day with the option to haul up to 40 loads if overtime is requested and approved by MSD.
Please let me know if this will be possible.

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
Mobile: (314) 341-3375 · http://www.cecinc.com
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Greensburg, PA 15601
(724)850-5600

April 01, 2015

CB 4-06

Doug Mendoza
Metropolitan St. Louis Sewer District
10 Grand Avenue
Saint Louis, MO 63147

RE: Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Dear Doug Mendoza:
Enclosed are the analytical results for sample(s) received by the laboratory on March 17, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carin A. Ferris

Carin Ferris
carin.ferris@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: PA014572014-4
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30143010001	**IESI**	Water	03/12/15 10:50	03/17/15 09:45
30143010002	**Bridgeton Landfill**	Water	03/12/15 08:30	03/17/15 09:45

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SAMPLE ANALYTE COUNT

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30143010001	**IESI**	EPA 900.0	FCC	2
		EPA 901.1	MAH	11
		EPA 903.1	JC2	1
		EPA 904.0	JLW	1
		ASTM D5174.97	RMK	1
		HSL-300	LAL	4
30143010002	**Bridgeton Landfill**	EPA 900.0	FCC	2
		EPA 901.1	MAH	11
		EPA 903.1	JC2	1
		EPA 904.0	JLW	1
		ASTM D5174.97	RMK	1
		HSL-300	LAL	4

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PROJECT NARRATIVE

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Method: **EPA 900.0**
Description: 900.0 Gross Alpha/Beta
Client: Metropolitan St. Louis Sewer District
Date: April 01, 2015

General Information:
2 samples were analyzed for EPA 900.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Method: **EPA 901.1**
Description: 901.1 Gamma Spec
Client: Metropolitan St. Louis Sewer District
Date: April 01, 2015

General Information:
2 samples were analyzed for EPA 901.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Metropolitan St. Louis Sewer District
Date: April 01, 2015

General Information:
2 samples were analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Metropolitan St. Louis Sewer District
Date: April 01, 2015

General Information:
2 samples were analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Method: **ASTM D5174.97**
Description: D517497 Total Uranium KPA
Client: Metropolitan St. Louis Sewer District
Date: April 01, 2015

General Information:
2 samples were analyzed for ASTM D5174.97. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Method: **HSL-300**
Description: HSL300(AS) Actinides
Client: Metropolitan St. Louis Sewer District
Date: April 01, 2015

General Information:
2 samples were analyzed for HSL-300. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: RADC/23752

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 866035)
  - Thorium-230
  - Uranium-234
  - Uranium-235
  - Uranium-238
- Bridgeton Landfill (Lab ID: 30143010002)
  - Thorium-230
  - Uranium-234
  - Uranium-235
  - Uranium-238
- IESI (Lab ID: 30143010001)
  - Thorium-230
  - Uranium-234
  - Uranium-235
  - Uranium-238

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Sample: IESI **Lab ID: 30143010001** Collected: 03/12/15 10:50 Received: 03/17/15 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, six mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	**8.39 ± 10.1 (18.1)** **C:NA T:NA**	pCi/L	03/23/15 22:38	12587-46-1	
Gross Beta	EPA 900.0	**156 ± 29.3 (7.84)** **C:NA T:NA**	pCi/L	03/23/15 22:38	12587-47-2	
Actinium-228	EPA 901.1	**0.000 ± 9.321 (21.160)** **C:NA T:NA**	pCi/L	03/23/15 14:14	14331-83-0	
Bismuth-212	EPA 901.1	**16.397 ± 52.738 (58.350)** **C:NA T:NA**	pCi/L	03/23/15 14:14	14913-49-6	
Bismuth-214	EPA 901.1	**50.027 ± 11.299 (11.050)** **C:NA T:NA**	pCi/L	03/23/15 14:14	14733-03-0	
Lead-212	EPA 901.1	**2.274 ± 7.035 (8.724)** **C:NA T:NA**	pCi/L	03/23/15 14:14	15092-94-1	
Lead-214	EPA 901.1	**58.896 ± 13.407 (9.932)** **C:NA T:NA**	pCi/L	03/23/15 14:14	15067-28-4	
Potassium-40	EPA 901.1	**202.540 ± 56.298 (48.700)** **C:NA T:NA**	pCi/L	03/23/15 14:14	13966-00-2	
Radium-226	EPA 901.1	**17.586 ± 104.900 (130.100)** **C:NA T:NA**	pCi/L	03/23/15 14:14	13982-63-3	
Radium-228	EPA 901.1	**0.000 ± 9.321 (21.160)** **C:NA T:NA**	pCi/L	03/23/15 14:14	15262-20-1	
Thallium-208	EPA 901.1	**0.015 ± 4.308 (5.252)** **C:NA T:NA**	pCi/L	03/23/15 14:14	14913-50-9	
Thorium-234	EPA 901.1	**77.393 ± 142.080 (536.900)** **C:NA T:NA**	pCi/L	03/23/15 14:14	15065-10-8	
Uranium-235	EPA 901.1	**1.675 ± 32.940 (40.810)** **C:NA T:NA**	pCi/L	03/23/15 14:14	15117-96-1	
Radium-226	EPA 903.1	**15.6 ± 15.5 (20.9)** **C:NA T:77%**	pCi/L	03/27/15 12:00	13982-63-3	
Radium-228	EPA 904.0	**-1.81 ± 13.2 (25.3)** **C:68% T:56%**	pCi/L	03/31/15 19:43	15262-20-1	
Total Uranium	ASTM D5174.97	**2.63 ± 0.127 (3.854)** **C:NA T:NA**	ug/L	03/24/15 13:49	7440-61-1	
Thorium-230	HSL-300	**0.546 ± 1.14 (2.05)** **C:NA T:29%**	pCi/L	03/27/15 07:52	14269-63-7	N2
Uranium-234	HSL-300	**0.273 ± 0.237 (0.290)** **C:NA T:97%**	pCi/L	03/26/15 13:30	13966-29-5	N2
Uranium-235	HSL-300	**0.011 ± 0.240 (0.542)** **C:NA T:97%**	pCi/L	03/26/15 13:30	15117-96-1	N2
Uranium-238	HSL-300	**0.433 ± 0.292 (0.290)** **C:NA T:97%**	pCi/L	03/26/15 13:30		N2

Sample: Bridgeton Landfill **Lab ID: 30143010002** Collected: 03/12/15 08:30 Received: 03/17/15 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 3 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	**0.000 ± 17.4 (35.2)** **C:NA T:NA**	pCi/L	03/21/15 22:35	12587-46-1	
Gross Beta	EPA 900.0	**211 ± 44.3 (31.3)** **C:NA T:NA**	pCi/L	03/21/15 22:35	12587-47-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

Sample: Bridgeton Landfill **Lab ID: 30143010002** Collected: 03/12/15 08:30 Received: 03/17/15 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 3 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Actinium-228	EPA 901.1	**7.721 ± 9.059 (15.900)** C:NA T:NA	pCi/L	03/23/15 15:15	14331-83-0	
Bismuth-212	EPA 901.1	**35.874 ± 16.109 (77.470)** C:NA T:NA	pCi/L	03/23/15 15:15	14913-49-6	
Bismuth-214	EPA 901.1	**88.764 ± 16.234 (10.480)** C:NA T:NA	pCi/L	03/23/15 15:15	14733-03-0	
Lead-212	EPA 901.1	**24.328 ± 28.812 (10.720)** C:NA T:NA	pCi/L	03/23/15 15:15	15092-94-1	
Lead-214	EPA 901.1	**101.310 ± 17.495 (10.720)** C:NA T:NA	pCi/L	03/23/15 15:15	15067-28-4	
Potassium-40	EPA 901.1	**278.280 ± 60.695 (43.570)** C:NA T:NA	pCi/L	03/23/15 15:15	13966-00-2	
Radium-226	EPA 901.1	**102.060 ± 76.958 (99.280)** C:NA T:NA	pCi/L	03/23/15 15:15	13982-63-3	
Radium-228	EPA 901.1	**7.721 ± 9.059 (15.900)** C:NA T:NA	pCi/L	03/23/15 15:15	15262-20-1	
Thallium-208	EPA 901.1	**3.701 ± 4.820 (5.764)** C:NA T:NA	pCi/L	03/23/15 15:15	14913-50-9	
Thorium-234	EPA 901.1	**68.192 ± 363.850 (466.500)** C:NA T:NA	pCi/L	03/23/15 15:15	15065-10-8	
Uranium-235	EPA 901.1	**8.485 ± 30.938 (37.980)** C:NA T:NA	pCi/L	03/23/15 15:15	15117-96-1	
Radium-226	EPA 903.1	**3.83 ± 4.82 (6.76)** C:NA T:83%	pCi/L	03/27/15 12:20	13982-63-3	
Radium-228	EPA 904.0	**4.57 ± 4.00 (7.08)** C:79% T:83%	pCi/L	03/31/15 19:44	15262-20-1	
Total Uranium	ASTM D5174.97	**4.43 ± 0.173 (1.927)** C:NA T:NA	ug/L	03/24/15 13:51	7440-61-1	
Thorium-230	HSL-300	**-0.335 ± 0.397 (1.01)** C:NA T:59%	pCi/L	03/27/15 07:53	14269-63-7	N2
Uranium-234	HSL-300	**0.308 ± 0.425 (0.753)** C:NA T:66%	pCi/L	03/26/15 13:30	13966-29-5	N2
Uranium-235	HSL-300	**0.000 ± 0.352 (0.226)** C:NA T:66%	pCi/L	03/26/15 13:30	15117-96-1	N2
Uranium-238	HSL-300	**0.199 ± 0.356 (0.676)** C:NA T:66%	pCi/L	03/26/15 13:30		N2

Gross gamma = 594.742

U-nat = <0.753

REPORT OF LABORATORY ANALYSIS

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MSD 032383

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QUALITY CONTROL - RADIOCHEMISTRY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

QC Batch: RADC/23731 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 30143010001, 30143010002

METHOD BLANK: 865324 Matrix: Water
Associated Lab Samples: 30143010001, 30143010002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.306 ± 0.549 (0.939) C:NA T:86%	pCi/L	03/27/15 11:48	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

QC Batch: RADC/23756 | Analysis Method: ASTM D5174.97
QC Batch Method: ASTM D5174.97 | Analysis Description: D5174.97 Total Uranium KPA
Associated Lab Samples: 30143010001, 30143010002

METHOD BLANK: 866039 | Matrix: Water
Associated Lab Samples: 30143010001, 30143010002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Total Uranium	0.106 ± 0.004 (0.193) C:NA T:NA	ug/L	03/24/15 13:10	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

QC Batch: RADC/23729 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 30143010001, 30143010002

METHOD BLANK: 865322 Matrix: Water
Associated Lab Samples: 30143010001, 30143010002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.264 ± 0.338 (0.717) C:80% T:81%	pCi/L	03/31/15 11:27	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

QC Batch: RADC/23752 Analysis Method: HSL-300
QC Batch Method: HSL-300 Analysis Description: HSL300(AS) Actinides
Associated Lab Samples: 30143010001, 30143010002

METHOD BLANK: 866035 Matrix: Water
Associated Lab Samples: 30143010001, 30143010002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Thorium-230	0.033 ± 0.062 (0.040) C:NA T:58%	pCi/L	03/26/15 13:33	N2
Uranium-234	0.063 ± 0.055 (0.078) C:NA T:95%	pCi/L	03/26/15 13:30	N2
Uranium-235	0.017 ± 0.045 (0.088) C:NA T:95%	pCi/L	03/26/15 13:30	N2
Uranium-238	0.006 ± 0.038 (0.087) C:NA T:95%	pCi/L	03/26/15 13:30	N2

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

QC Batch: RADC/23779 Analysis Method: EPA 901.1
QC Batch Method: EPA 901.1 Analysis Description: 901.1 Gamma Spec
Associated Lab Samples: 30143010001, 30143010002

METHOD BLANK: 866092 Matrix: Water
Associated Lab Samples: 30143010001, 30143010002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Actinium-228	0.000 ± 7.965 (40.550) C:NA T:NA	pCi/L	03/19/15 11:05	
Bismuth-212	3.937 ± 88.612 (107.200) C:NA T:NA	pCi/L	03/19/15 11:05	
Bismuth-214	7.610 ± 16.786 (20.770) C:NA T:NA	pCi/L	03/19/15 11:05	
Lead-212	4.104 ± 10.833 (14.040) C:NA T:NA	pCi/L	03/19/15 11:05	
Lead-214	0.000 ± 4.732 (20.950) C:NA T:NA	pCi/L	03/19/15 11:05	
Potassium-40	0.000 ± 43.823 (134.400) C:NA T:NA	pCi/L	03/19/15 11:05	
Radium-226	21.366 ± 144.270 (193.200) C:NA T:NA	pCi/L	03/19/15 11:05	
Radium-228	0.000 ± 7.965 (40.550) C:NA T:NA	pCi/L	03/19/15 11:05	
Thallium-208	0.000 ± 3.823 (10.550) C:NA T:NA	pCi/L	03/19/15 11:05	
Thorium-234	0.000 ± 107.500 (259.900) C:NA T:NA	pCi/L	03/19/15 11:05	
Uranium-235	0.000 ± 21.862 (50.090) C:NA T:NA	pCi/L	03/19/15 11:05	

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

QC Batch: RADC/23759 Analysis Method: EPA 900.0
QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta
Associated Lab Samples: 30143010001, 30143010002

METHOD BLANK: 866042 Matrix: Water
Associated Lab Samples: 30143010001, 30143010002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.091 ± 0.454 (1.23) C:NA T:NA	pCi/L	03/21/15 18:56	
Gross Beta	-0.285 ± 0.959 (2.40) C:NA T:NA	pCi/L	03/21/15 18:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: IESI/Bridgeton Landfill
Pace Project No.: 30143010

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2 The lab does not hold TNI accreditation for this parameter.

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Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1815367

Section A Required Client Information:

Company: MSD
Address: 10 E Grand
St. Louis MO 63147
Email To: dmendoza@stlmsd.com
Phone: 314-436-8717 Fax: 314-436-8753
Requested Due Date/TAT: 15 day

Section B Required Project Information:

Report To: Mr. Doug Mendoza
Copy To:
Purchase Order No.:
Project Name:
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Radiochemistry	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 0143010
1	IESI	OT	C	3/11	1102	3/12	1050					X							✓		001
2	Bridgeton Landfill	"	"	3/11	1135	3/12	0832					X							✓		002
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
				[signature] Pace	3/17/15	0945	NA	N	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Joe Parlick
SIGNATURE of SAMPLER: Joe Parlick
DATE Signed (MM/DD/YY): 3/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

MSD 032391

Revised COC

CAF 3/16/15

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

181536

Section A Required Client Information:

Company: MSD
Address: 10 E Grand
St. Louis MO 63147
Email To: dmendoza@sthmsd.com
Phone: 314-436-8717 Fax: 314-436-8753
Requested Due Date/TAT: 15 day

Section B Required Project Information:

Report To: Mr. Doug Mendoza
Copy To:
Purchase Order No.:
Project Name:
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER WASTEWATER

Site Location STATE:

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	Radio Chemistry	Radium-226	Radium-228	Gross Alpha	Gross Beta	Gross Gamma (*)	Uranium-Natural (*)	Thorium-230	Uranium (µg/L)	(*) see attachment	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N	2	2	2	2	2	2	2	2	2			
1	IESI	OT	C	3/11	1102	3/12	1050					X							✓	✓	✓	✓	✓	✓	✓	✓	✓			001
2	Bridgeton Land Fill	"	"	3/11	1135	3/12	0830					X							✓	✓	✓	✓	✓	✓	✓	✓	✓			002
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

0143010

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Douglas Mendoza/MSD	3/12/15	~1400	[signature] Pace	3/17/15	0945	NA	N	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Pavlick

SIGNATURE of SAMPLER: Joe Pavlick

DATE Signed (MM/DD/YY): 3/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev.07, 15-May-2007

30143010

The particular radioactivity/radionuclides MSD needs tested for each set are:

- Radium-226 (pci/L)
- Radium-228 (pci/L)
- Gross Alpha (pci/L)
- Gross Beta (pci/L)
- Gross Gamma (pci/L)
  - **The list below contains radionuclides in addition to Pace's usual Gamma-NORM list**
  - Consisting of
    - Actinium-228 (pci/L)
    - Bismuth-212 (pci/L)
    - Bismuth-214 (pci/L)
    - Lead-212 (pci/L)
    - Lead-214 (pci/L)
    - Potassium-40 (pci/L)
    - Radium-226 (pci/L)
    - Radium-228 (pci/L)
    - Thallium-208 (pci/L)
    - Thorium-234 (pci/L)
    - Uranium-235 (pci/L)
- Uranium-natural (pci/L)
  - Consisting of
    - Uranium-234 (pci/L)
    - Uranium-235 (pci/L)
    - Uranium-238 (pci/L)
  - **We understand that you likely will simply analyze for the three isotopes, and MSD itself will sum them for the U-natural total**
- Thorium-230 (pci/L)
- Uranium, in concentration(ug/L)

Sample Condition Upon Receipt

Pace Analytical

Client Name: MSD

Project # 30143010

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 773 1415 3560

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap Y Bubble Bags ____ None ____ Other _____

Thermometer Used NA Type of Ice: Wet Blue (None) ☐ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: NA °C Correction Factor: NA °C Final Temp: NA °C

Date and initials of person examining contents: Am 3/17/15

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☐Yes	☒No	☐N/A	3. received by email CDF 3/18/15
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☐N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing preservation have been checked.	☒Yes	☐No	☐N/A	13. added 6ml HNO_3 to 001 & 3ml HNO_3 to 002
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☒No	☐N/A	pH<2 Am 3/17/15 1110
exceptions: VOA, coliform, TOC, O&G, Phenols	☐Yes	☒No		Initial when completed Am — Lot # of added preservative DL15-0162
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	15.
Trip Blank Present:	☐Yes	☐No	☒N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Carrie Serrio **Date:** 3/17/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30143010

Client Name: MSD

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	SW																		5					
002	SW																		5					

SCURF Back (C016-4 15May2012).xls

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, April 01, 2015 11:13 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

Eberline has analyzed the sample for Uranium isotopes and will be reissuing the report. In reviewing the data with them, it was discovered that there was an error in the gamma-derived total uranium. That will also be amended in the revised report. Also in discussing the Gross Beta result, which was unusually low, it was decided that they would reanalyze the sample for Gross Beta using sample preparation measures to account for solids in the matrix. The Total Uranium and Gross Beta results have been removed from the most current spreadsheet. We are awaiting a revised report and will post it, hopefully by next week.

Please let me know if you have any questions.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Doug Mendoza Bridgeton Landfill

From:	John Lodderhose
Sent:	Wednesday, April 01, 2015 10:39 AM
To:	Rob G Daly
Cc:	Jonathon Sprague; Jay Kniker; Doug Mendoza; Nora C. Estopare; Michael Grace; Mark Bright; Scott D Kappelmann
Subject:	RE: Bridgeton PS No. 1-3 Status Update

They did submit a sampling plan with all the revisions that we requested. However they need to make a few minor revisions to finalize the plan. They started the sampling plan last Friday.

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: Rob G Daly <rdaly@stlmsd.com>
Date:03/31/2015 1:19 PM (GMT-06:00)
To: John Lodderhose <JRLODD@stlmsd.com>
Cc: Jonathon Sprague <JSPRAGUE@stlmsd.com>, Jay Kniker <jkniker@stlmsd.com>, Doug Mendoza <DMENDOZA@stlmsd.com>, "Nora C. Estopare" <nestopare@stlmsd.com>, Michael Grace <MGRACE@stlmsd.com>, Mark Bright <MGBRIG@stlmsd.com>, Scott D Kappelmann <skappelmann@stlmsd.com>
Subject: Bridgeton PS No. 1-3 Status Update

John

I know you are at MWEA for the next few days- as is Doug and a lot of the rest of us but was hoping to get some clarity on the following issues when you return if possible. Also- an update on a few items from the last few days so that we are sharing information with you and the group.

Questions:

1. Did Bridgeton ever respond officially after our last meeting? They had stated ' a few days'. That was a week and a half ago.
2. Specifically- did they ever submit a revised sampling and monitoring protocol that incorporates our desired revisions? If so- can we get copied on it?
3. Have they provided a start date for that sampling and monitoring program? They had agreed to copy us on when they sample- and we have received no notification of this to date- so am assuming at this time that they have not started the program.
4. This formal response should include an acknowledgment of the fact that we have not accepted the PS No 1- and that they are responsible for any operation and maintenance of this asset until such time as we do accept it. I have communicated this verbally to Bridgeton folks in the field last Friday, March 27th and they communicated assent verbally- but this should be nailed down a bit more formally in my opinion. To be clear we DO have an interim (while working on final version) SOP in place (meeting in field last week) to identify maintenance issues to them- but onus for any maintenance response is on them and our default positon is to shut off all flow from landfill until any maintenance issues are resolved on their end (applies only to PS No. 1)
5. We communicated on site about engineering controls and administrative controls required. They stated they 'would get back to us'. We offered our cooperation on the front end of this I assume they will avail themselves

of that assistance if and when they feel like getting around to it... I just wanted you to know we offered to collaborate as much as possible with them- while still being clear that it is their responsibility to propose we dispose.

Update items:

1. We have had an issue with the downstream SSO site communicating reliably with our SCADA system-which is an essential component of what triggers station shutdown- and upstream (landfill) storage protocol implementation. We have devoted a significant amount of senior staff time and labor to helping them rectify something that is really their purview- not ours. We will keep doing this because we need it to work as much as they do. In interim- they are looking at shifting flow from Coldwater TP to Bissel TP system either tomorrow (Wednesday the 1st) or soon thereafter - as we have an interim plan to provide the reliability at the SSO site that we need while the longer term solution is being implemented. TP folks are notified and will be kept in the loop by us when shift of flow occurs.
2. Force main is tested and we have markers installed per my understanding – and we are ready to let them run flow through
3. We have an instrument for benzene, etc. talked about at last meeting almost specified and are looking too order soon. Just FYI.

We appreciate all the assistance and collaboration to date on this issue by all parties- it has been greatly appreciated and has been an excellent example of cooperative effort across a lot of boundaries.

If I inadvertently missed anybody in this message- please feel free to forward.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

MARCH 2015

Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Thursday, March 26, 2015 12:03 PM
To: Doug Mendoza; John Lodderhose
Cc: 'Bouchard, Derek (DBouchard@republicservices.com)'; 'bpower@republicservices.com'; Robert W. Murphy; Rick J. Campbell
Subject: RE: Air sampling
Attachments: Lift Station Sampling Plan_rev 2015_0326.pdf

Doug and John,

Attached is the revised air sampling plan.

Please note that the sampling procedure for ammonia is a one-hour test; our plan is to take two samples at each location, for a total of four samples per event. The sampling equipment for ammonia has arrived so we plan to acquire those samples tomorrow.

Please let us know if you have any comments or questions.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

From: Ed Galbraith
Sent: Thursday, March 26, 2015 9:39 AM
To: Doug Mendoza (DMENDOZA@stlmsd.com); John Lodderhose
Cc: Bouchard, Derek (DBouchard@republicservices.com); bpower@republicservices.com
Subject: Air sampling

Doug and John,

A reminder that we are planning to sample the lift station/valve chamber tomorrow. Our guy will be on site sometime around 7:30 and start sampling at 8:00.

We are working on revisions to the sampling plan per your comments and hope to have that in your hands by the end of today.

Regarding ammonia sampling, it requires a different type of sampling tube. We have those ordered and are counting on them arriving today. If for some reason they don't, our recommendation will be to proceed with sampling for the other constituents and pick up the ammonia on the next round.

Sampling Plan

Lift Station PS1

Prepared for
Bridgeton Landfill

March 26, 2015

BARR

Sampling Plan

Lift Station PS1

Prepared for
Bridgeton Landfill

March 26, 2015

Sampling Plan

Discharge to Metropolitan St. Louis Sewer District

March 2015

Contents

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MSD 032403

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Figure 1 LFG Collection at Lift Station, Feezor Engineering

List of Appendices, Attachments, or Exhibits

Appendix A Enthalpy Analytical Sample Chain of Custody

1.0 Background

Background

Bridgeton Landfill has constructed a new Lift Station/Bypass Valve Chamber (PS1) for discharge to Metropolitan St. Louis Sewer District (MSD) Treatment Plants. As part of the construction, the landfill installed a vacuum trench to prevent accumulation of vapors in PS1 (See Figure 1). This vacuum trench was installed following the observation of volatile organic compounds (VOCs) within PS1 when left sealed for extended periods of time.

The purpose of this plan is to confirm that the vacuum trench is providing adequate mitigation of VOC migration into PS1. As vapor migration is susceptible to seasonal variation, we recommend sampling under various atmospheric conditions throughout one season as opposed to a tightly clustered group of samples with comparable atmospheric conditions. This plan suggests a two tiered approach utilizing monthly summa canister sampling coupled with weekly to bi-weekly instant read technology to confirm the continued effectiveness of the vacuum trench.

A sampling event conducted in February demonstrated the effectiveness of the vacuum trench with reported levels of benzene well below any concern threshold. The additional three month sampling in this plan is designed to measure the effectiveness under a variety of conditions. Because the local climate typically exhibits high variability through the spring months, the timing in this plan is ideally positioned to capture a wide spectrum of meteorological conditions.

2.0 Sampling

2.1 Canister Sampling:

Two ambient samples will be taken using 6-liter summa canisters with 8-hour regulators. One sample will be collected in the lift station portion (about 2' below ground surface) and one sample will be taken in the bypass valve chamber (about 10' below ground surface). Sampling personnel will collect the canisters approximately 8 hours after deploying them. The doors to each chamber will remain closed during sampling.

This sampling has already been conducted for the month of February and will occur once per calendar month for six months beginning in March 2015. After the first three months, canister sampling may be discontinued provided that worker protection levels have been met for all samples. Worker protection levels means National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit, Time-Weighted- Average (REL-TWA.)

Bridgeton Landfill will notify MSD of the date and time of planned sampling events.

2.2 Silica Gel Tube Sampling (Ammonia)

Four silica gel (SiGel) tube samples will be taken for ammonia analysis. Each tube is a one-hour test. Two samples will be taken at each location. The first set of samples will be taken approximately 3-4 hours after the air canisters are set and the doors are closed. The second set will be collected about one hour prior to collecting the air canisters, before the doors are opened.

At each station, the SiGel tubes and a pump will be placed on top of the door and a flexible hose made of Teflon or other suitable material will be connected to the SiGel tube and placed through an aperture in the door to draw air from inside the chambers. The draw will be approximately 300 cc per minute for about one hour.

Note: for the March sampling event, because of scheduling and lead time, the equipment for the ammonia sampling may not be available; however future sampling events will include this step. It should be noted that previous air sampling conducted on 4/25/2013 and 4/30/2013 in the Westlake Lift station resulted in ammonia levels of 0.14 and 0.13 mg/m^3 respectively. The NIOSH REL TWA for Ammonia is 18 mg/m^3.

SiGel tube sampling will be conducted for up to six months. After the first three months, this sampling may be discontinued provided that NIOSH REL-TWA levels have been met for all samples.

2.3 Field Meter Sampling

Bridgeton Landfill staff will take readings through openings in the doors of the lift station and bypass valve chamber. Personnel will use two meters:

1. UltraRae 3000 field sampler with a RAE-Sep™ benzene tube and compound specific mode to determine benzene concentrations.

2. 4-Gas Monitor (O, CO, LEL and HS) with a sampling tube that can be inserted through an aperture while the doors are closed.

The schedule will be as follows:

- Once per week for the period beginning March 23, 2015 and ending June 26, 2015.

- Once every two weeks for the period beginning June 29, 2015 and ending September 30, 2015.

After the first three months, the sampling may be discontinued provided that benzene meets NIOSH REL-TWA levels and no action level for the 4-gas meter has been triggered significantly.

Table 2-1 4-Gas Monitor Action Levels

Parameter	Action Level
O_2	< 19.5%
LEL	> 10%
CO	> 40 parts per million
H_2S	> 10 parts per million

2.4 Field Records

A field book will be used to record information including time and date of deployment and collection of the canisters, canister pressure before and after the sample period, names of sampling personnel, meteorological information (temperature, cloud cover, rainfall, wind, atmospheric pressure), times, locations, depths and readings for samples taken from hand-held devices, and other relevant information. This data will be transmitted each month following receipt of the laboratory analytical results.

3.0 Laboratory Analysis

3.1 Analytical

The canisters will be shipped to Enthalpy Analytical Inc., 800 Capitola Dr, Durham, NC 27713. Each canister will be analyzed for the compounds in Table 3-1.

Table 3-1: Air Sampling Analytes

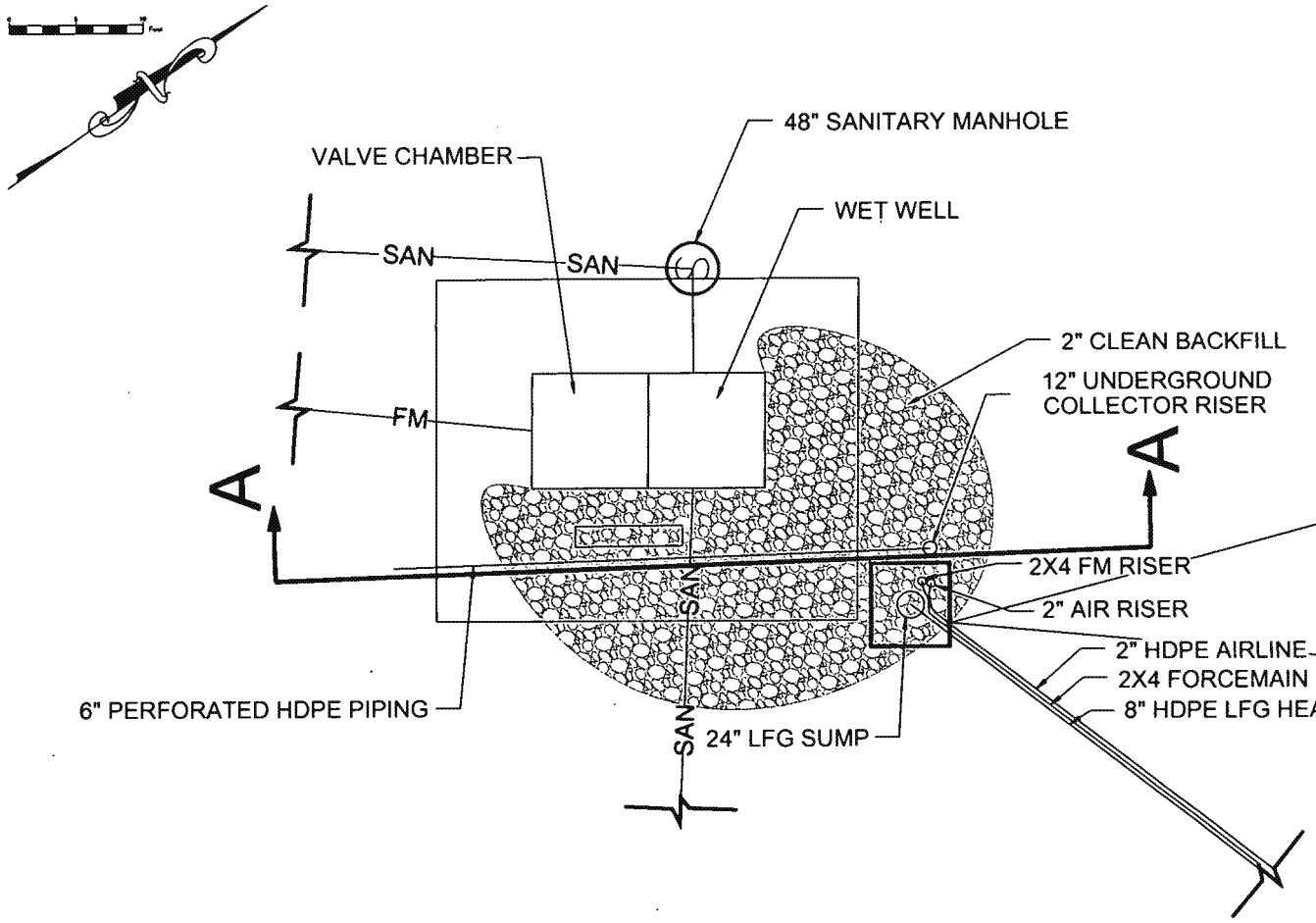
Analyte	Typical Method
Benzene	TO-15, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).
Dimethyl sulfide	TO-15, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).
Ammonia	NIOSH 6016
Methane	GC/FID: EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).

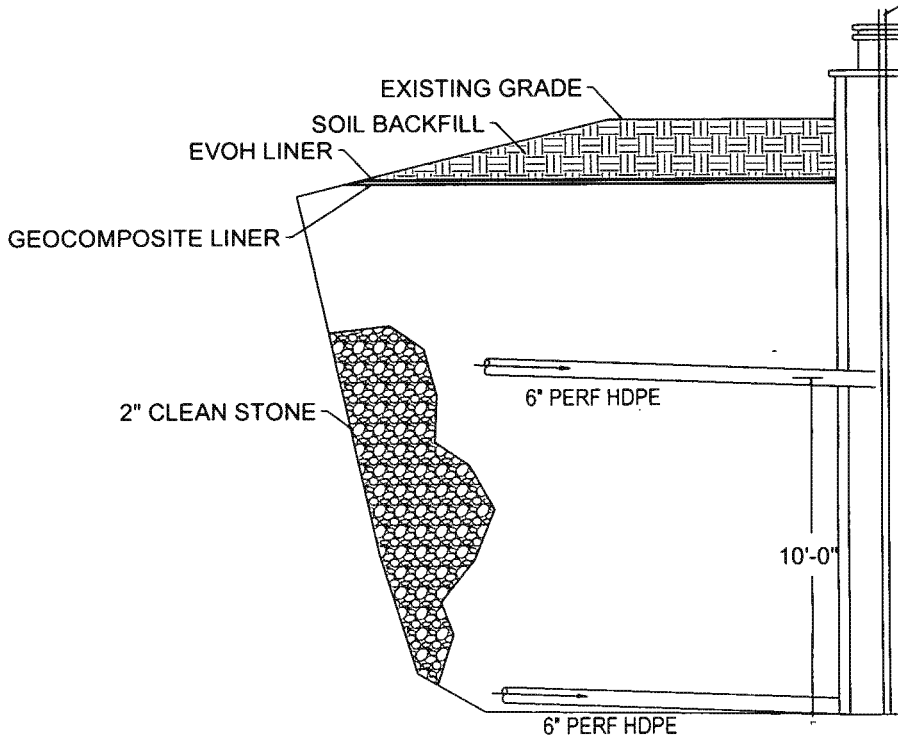
Note: Laboratory may substitute alternate analytical methods.

4.0 Data Management

Analytical reports will be submitted electronically to Bridgeton Landfill, normally within ten days following a sampling event.

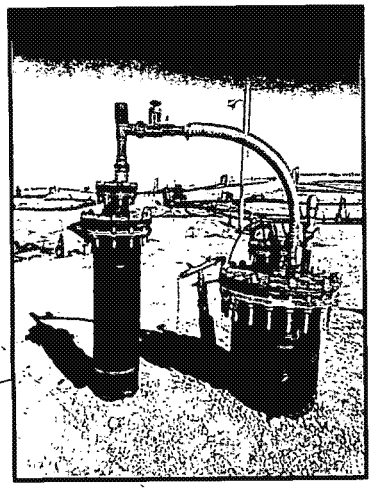
Barr Engineering will check quality control data including laboratory acceptance limits, duplicate analysis, measurement or calculation errors, and any omissions. Suspect data will be flagged and/or excluded from use. Unusual data will be rechecked to verify accuracy. Barr will prepare a Technical Memo summarizing the data and any quality control issues. The memo and complete analytical report will be provided to MSD within seven days of receiving the lab report.


48" SANITARY MANHOLE
VALVE CHAMBER
WET WELL
SAN
SAN
2" CLEAN BACKFILL
12" UNDERGROUND
COLLECTOR RISER
FM
A
A
2X4 FM RISER
2" AIR RISER
2" HDPE AIRLINE
2X4 FORCEMAIN
8" HDPE LFG HEA
6" PERFORATED HDPE PIPING
SAN
SAN
24" LFG SUMP


EXISTING GRADE
SOIL BACKFILL
EVOH LINER
GEOCOMPOSITE LINER
2" CLEAN STONE
6" PERF HDPE
10'-0"
6" PERF HDPE

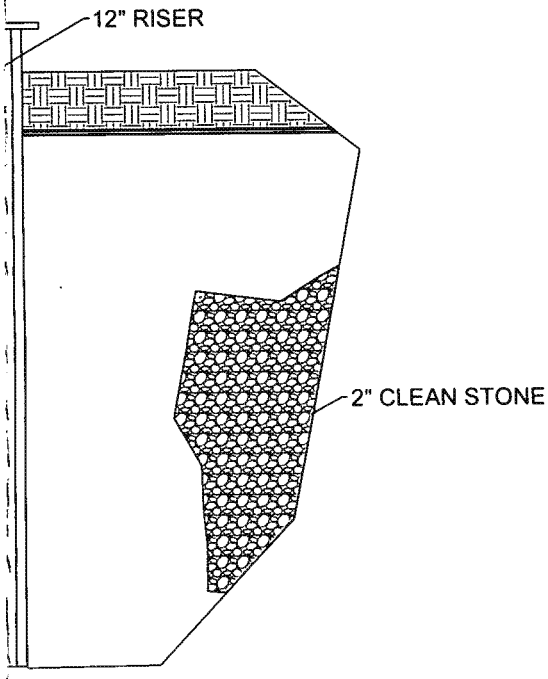
SECTION

NTS



R

QUID REMOVAL PUMP



BRIDGETON LANDFILL, LLC 13570 ST. CHARLES ROCK ROAD BRIDGETON, MISSOURI 63044	BRIDGETON LANDFILL INFRASTRUCTURE	FEEZOR ENGINEERING, INC.	FEB 2015 DESIGNED BY: DMK APPROVED BY:	DRAWING NO.: 001
LFG COLLECTION AT LIFT STATION			REVISION / DATE	
PROJECT NUMBER: 01-067	FILE PATH:			

ENTHALPY analytical, inc.

Chain of Custody Record

Page_____of_____

Special Handling:

☐ Standard Turn Around Time (10 business days)

☐ Rush Turn Around Time -- Date Needed_____

- All TATs Subject to Approval by Enthalpy Analytical, Inc.
- All Bag/Can Samples Disposed of 1 Month from Receipt.
- All Other Samples Disposed of 4 Months from Receipt.

Client Name:_____

Project Manager:_____

Report To:_____

Project Number:_____

Site Name:_____

Location:_____

PO#:_____

Telephone#:_____

Email:_____

For spiked or duplicate samples: please provide sample volumes for recovery calculations. For Particulates: please provide tare weights and/or condensed water volumes.

Special Instructions:

A=Air 1=H2SO4 2=NaOH W=Water O=Other
X=XAD C=Charcoal SG=Silica Gel

G=Grab C=Composite Q=Quality Control O=Other

Sample ID	Date	Time	Sample Volume	Type	Matrix	# of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters	# of Tubes	# Other	Analyses:								Notes:

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Condition Upon Receipt:
					☐ Iced ☐ Ambient ☐ °C_____
					☐ Iced ☐ Ambient ☐ °C_____
					☐ Iced ☐ Ambient ☐ °C_____

800-1 Capitola Drive • Durham, NC 27713 • (919) 850-4392 • FAX (919) 850-9012 • www.enthalpy.com

Bridgeton Landfill

Doug Mendoza

From: Doug Mendoza
Sent: Thursday, March 26, 2015 11:15 AM
To: Ed Galbraith (EGalbraith@barr.com) (EGalbraith@barr.com)
Cc: Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com); Kamp, Kevin (kkamp@cecinc.com)
Subject: RE: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

Ed,

The requested new mass limit for biochemical oxygen demand specific to when discharge is directed to the Bissell Point Wastewater Treatment Plant is approved and effective as of your response yesterday, 3/25/15. A draft permit is being prepared, with an effective date of 3/25/15, and should be forwarded via email and mailed on 3/27/15.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Doug Mendoza
Sent: Thursday, March 26, 2015 10:02 AM
To: 'Ed Galbraith'
Subject: RE: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

Yes, I have received your response.

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Thursday, March 26, 2015 10:02 AM
To: Doug Mendoza
Subject: FW: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

Please reply to confirm receipt. Thanks!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

From: Ed Galbraith
Sent: Wednesday, March 25, 2015 9:59 AM
To: 'Doug Mendoza'; John Lodderhose; Kamp, Kevin (kkamp@cecinc.com); Power, Brian

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Thursday, March 26, 2015 10:37 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Cc: Matt Stewart (mstewart@herstassociates.com)
Subject: RE: Bridgeton Landfill Weekly Report

Regarding the Uranium questions below, Eberline has analyzed the sample for Uranium isotopes and will be reissuing the report. In reviewing the data with them, it was discovered that there was an error in the gamma-derived total uranium. That too will be amended in the revised report. Finally, in discussing the Gross Beta result, which was unusually low, it was decided that they would reanalyze the sample for Gross Beta using sample preparation measures to account for solids in the matrix.

Given these issues, please disregard Uranium and Gross Beta results until a revised report is issued. I will notify the group via the weekly update when that report is available.

Thank you.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

From: Ed Galbraith
Sent: Wednesday, March 25, 2015 11:50 AM
To: 'Doug Mendoza (DMENDOZA@stlmsd.com)'; 'John Lodderhose'; 'Brian G. Gibson (bgibson@stlmsd.com)'; 'Catherine Politte'; 'Michael Grace'; 'Nora C. Estopare (nestopare@stlmsd.com)'; 'Rob G Daly (rdaly@stlmsd.com)'; 'Steve Grace'; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; 'Christopher J. Bulmahn (cjbulmahn@stlmsd.com)'; 'Ken Gambaro (kmgamb@stlmsd.com)'; 'mdtown@stlmsd.com'; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

PERMIT FILE

Bridgeton Landfill

Doug Mendoza

From: Doug Mendoza
Sent: Thursday, March 26, 2015 10:02 AM
To: 'Ed Galbraith'
Subject: RE: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

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Sent: Wednesday, March 25, 2015 9:59 AM
To: 'Doug Mendoza'; John Lodderhose; Kamp, Kevin (kkamp@cecinc.com); Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Subject: RE: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

Doug, we are good with this change. Thank you.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Wednesday, March 25, 2015 9:05 AM
To: John Lodderhose; Kamp, Kevin (kkamp@cecinc.com); Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Cc: Ed Galbraith
Subject: FW: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

Sorry, forgot to hit "reply all" option.

From: Doug Mendoza
Sent: Wednesday, March 25, 2015 9:02 AM
To: 'Ed Galbraith'
Subject: RE: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

Ed,

The requested levels are acceptable. However, we have revised the organization of the special condition to provide greater clarity. Note also that the hourly discharge level applies in addition to the daily discharge level when directed to the Bissell Point plant, not as an alternative "or" option. Otherwise, the complying with only hourly discharge level would allow up to 39,600 lb/day. We also have retained the phrase "at any time." There is no reason for it to need to be removed.

A.3. Special Biochemical Oxygen Demand Limitation
In addition to complying with all permit and applicable District ordinance prohibitions against the discharge of any pollutant released at a concentration which will cause interference with the operation of the wastewater system, the permittee shall not discharge through sampling point 013, at any time:

- For wastewater directed to the District's Missouri River wastewater treatment plant or Coldwater Creek wastewater treatment plant,
  - Daily mass of greater than 4,300 lb/day biochemical oxygen demand
- For wastewater directed to the District's Bissell Point wastewater treatment plant,
  - Hourly mass of greater than 1,650 lb/hour biochemical oxygen demand, and
  - Daily mass of greater than 20,000 lb/day biochemical oxygen demand.

These limitations in no way gives separate approval to or reservation for permittee of wastewater discharges with a biochemical oxygen demand above its long term average discharge levels.

For your information, the 20,000 lb/day level was arrived at by MSD considering several factors: past BOD levels in leachate hauled to the Bissell Point plant when operational problems were encountered, adding a safety factor, and combination of Bridgeton Landfill's wastewater with Lambert-St. Louis International Airport's wastewater in the same MSD trunk sewer. The airport has a separate BOD mass limitation to control loadings from its deicing operations, and the combined strength from both industrial users must be considered to guard against septic conditions occurring in the trunk sewer or downstream pump stations.

We also plan to update the description for sampling point 013. Now that construction is complete at the landfill, we are able to give a more specific location.

- Old Sampling Point 013 description: Manhole immediately upstream of junction manhole to pump stations for Missouri River plant, or for sewer extension line to other MSD treatment plants

- New Sampling Point 013 description: MH 15' NW, 27' SW of the N corner of concrete containment wall for effluent tank along Boenker Lane

Please let us know if you have concerns regarding the above items.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT
Douglas M. Mendoza, P.E.
Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Tuesday, March 24, 2015 1:53 PM
To: Doug Mendoza
Cc: John Lodderhose; bpower@republicservices.com; Kamp, Kevin
Subject: FW: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

Mr. Doug Mendoza
Industrial Pretreatment Manager
Metropolitan St. Louis Sewer District
10 East Grand Ave.
St. Louis, MO 63147

RE: REQUEST FOR PERMIT MODIFICATION FOR TOTAL BOD LOADING WHEN DISCHARGING TO BISSELL POINT WASTEWATER TREATMENT PLANT

Per your recent conversation with Kevin Kamp of CEC Consultants, Bridgeton Landfill is requesting a modification of its discharge permit (1003803000), Special Condition A3 to amend the mass limit for biochemical oxygen demand when discharging to the Bissell Point Wastewater Treatment Plant. We offer the following specific language for your consideration:

A.3. Special Biochemical Oxygen Demand Limitation

In addition to complying with all permit and applicable District ordinance prohibitions against the discharge of any pollutant released at a concentration which will cause interference with the operation of the wastewater system, the permittee shall not discharge through sampling point **013**, ~~at any time~~, wastewater with a daily mass of greater than 4,300 lb/day biochemical oxygen demand **for any discharge that is directed to the Missouri River or Coldwater Creek Wastewater Treatment Plants.**

For discharges directed to the Bissell Point Wastewater Treatment Plant through sample point 013, the permittee shall not exceed a discharge of 20,000 lb/day or 1,650 lb/hour biochemical oxygen demand.

These limitations in no way give separate approval to or reservation for permittee of wastewater discharges with a biochemical oxygen demand above its long term average discharge levels.

If you have any questions, feel free to contact me at 573-418-5562. If you require a more formal request please let me know. Thank you for your consideration.

Sincerely,

Doug Mendoza

Bridgeton Landfill

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Thursday, March 26, 2015 9:39 AM
To: Doug Mendoza; John Lodderhose
Cc: Bouchard, Derek (DBouchard@republicservices.com); bpower@republicservices.com
Subject: Air sampling

Doug and John,

A reminder that we are planning to sample the lift station/valve chamber tomorrow. Our guy will be on site sometime around 7:30 and start sampling at 8:00.

We are working on revisions to the sampling plan per your comments and hope to have that in your hands by the end of today.

Regarding ammonia sampling, it requires a different type of sampling tube. We have those ordered and are counting on them arriving today. If for some reason they don't, our recommendation will be to proceed with sampling for the other constituents and pick up the ammonia on the next round.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, March 25, 2015 6:02 PM
To: Doug Mendoza
Cc: bpower@republicservices.com; Bouchard, Derek (DBouchard@republicservices.com); John Lodderhose
Subject: FW: Bridgeton Landfill Weekly Report

Doug there is one other issue that I should point out. Our Gross Beta result was essentially non-detect, which is a first for this material and quite unexpected, given that the material was from 014, and received limited treatment. I have also asked Eberline to consider this and offer any possible explanation.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

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Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

The 1st Quarter radchem lab report is included. Total Uranium- Natural activity is included as well as the additional gamma spectrum emitters (Bi-212 and U-235) that you requested.

The report does not include other isotopes for uranium. While we note that results for uranium activity are below method detection limits, the relationship between the U-235 result and total activity is not entirely clear. Doug, as you and I discussed, we will follow up with Eberline to better understand how their method derives the total (in the apparent absence of all individual isotopes) and report back to you.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

DM

Doug Mendoza

Bridgeton Landfill

From: Jay Kniker
Sent: Friday, March 20, 2015 1:32 PM
To: Koziatek, Dan; Jonathon Sprague; John Lodderhose; Doug Mendoza; Ken Gambaro; Rob G Daly; Mark Bright; Jeff Jones
Cc: Mike Steiniger (Mike@steinigercos.com); Kamp, Kevin; Knuth, Matt; Mike Jerome (mjerome@bistateutilities.com); Chris Beer (cbeer@eccstl.com); Bobby Lyerla (ralyerla@munequip.com); 'Mark Price' (mprice@eccstl.com); Franklin Chott (fchott@eccstl.com); Brian J. Power (BPower@republicservices.com)
Subject: RE: Bridgeton Force Main Status & Bissell Startup

Dan,

At this time, I cannot recommend turning the system on to the Bissell System, based on the following conditions:

1. It is my understanding that the force main from Coldwater Creek Connection to the Bissell Connection has not be fully pressure tested.
2. We are having issues with the communications at SSO-597. The power system installed is not reliable, and causing communication alarms, which shut down the system. We need to find a solution to provide reliable power to the site, prior to allowing flow to go to the Bissell System.

Please be aware, that we are scheduled to be on-site to start locating the force main along St. Charles Rock Road, and we will work with you to figure out a solution to the SSO-597 communication issue.

Please contact me should you require further information.

Thank you.

Jay D. Kniker, P.E.
MSD
Pump Station Division Engineer
60 E. Grand
St. Louis, MO 63147
314.436.8703

From: Koziatek, Dan [mailto:dkoziatek@cecinc.com]
Sent: Wednesday, March 18, 2015 4:08 PM
To: Jay Kniker; Jonathon Sprague; John Lodderhose; Doug Mendoza; Ken Gambaro; Rob G Daly
Cc: Mike Steiniger (Mike@steinigercos.com); Kamp, Kevin; Knuth, Matt; Mike Jerome (mjerome@bistateutilities.com); Chris Beer (cbeer@eccstl.com); Bobby Lyerla (ralyerla@munequip.com); 'Mark Price' (mprice@eccstl.com); Franklin Chott (fchott@eccstl.com); Brian J. Power (BPower@republicservices.com)
Subject: Bridgeton Force Main Status & Bissell Startup

Jay,

We continue to make good progress with the force main construction to the Bissell Point connection. The following is a brief summary of the status of the constructed improvements:

- All of the force main piping has been bored and the crew is finishing the last two fused connections and ARVs.

Doug Mendoza

From: Doug Mendoza
Sent: Thursday, March 19, 2015 10:57 AM
To: 'Kamp, Kevin'; LaFata, Natalie
Cc: nathan.winton@mrbults.com; Brian G. Gibson; Scott Rehmer; Jason T. Edwards
Subject: RE: MSD Overtime for Hauling for Bridgeton Landfill leachate Fri 3/20/15 - Wed 3/25/15

Kevin,

We are able to provide you the following hours for extended coverage at the hauled waste station:

Day	Covered Hours	Available hauling
F-3/20	4 am to 3 pm	up to 33 trucks or 247,500 gallons
Sat-3/21	4 am to 11:30 am	up to 22 trucks or 165,000 gallons (last discharge at 11:00 am)
Sun-3/22	11:30 am to 7 pm	up to 22 trucks or 165,000 gallons (last discharge at 6:30 pm)
M-3/23	4 am to 5:30 pm	up to 39 trucks or 292,500 gallons (last discharge at 5:00 pm)
T-3/24	4 am to 7 pm	up to 40 trucks or 300,000 gallons
W-3/25	4 am to 7 pm	up to 40 trucks or 300,000 gallons

We understand that Saturday's sample pulled for confirmation may be out of hold time before your contract laboratory opens on Monday. A slight exceedance of the hold time will be accepted for this instance only.

Please also be aware that normal hauled waste station operating hours limit you to up to 24 trucks or 180,000 gallons at 20 minute discharge intervals. Should you wish to haul more than that volume after 3/25/15, you will need to request extended coverage.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Doug Mendoza
Sent: Wednesday, March 18, 2015 1:14 PM
To: 'Kamp, Kevin'; LaFata, Natalie
Cc: nathan.winton@mrbults.com; Brian G. Gibson
Subject: RE: MSD Overtime for Hauling

Kevin,

I'll give you more details later on the available coverage – However, someone pointed out that you had "Current Covered" for F – 3/20 as 4 am to 7 pm. This is incorrect. We have coverage currently available for 4 am to 3 pm. I don't expect that this one will change.

Doug

From: Kamp, Kevin [mailto:kkamp@cecinc.com]
Sent: Wednesday, March 18, 2015 10:27 AM
To: Doug Mendoza; LaFata, Natalie
Cc: nathan.winton@mrbults.com; Brian G. Gibson
Subject: RE: MSD Overtime for Hauling

Doug,

Thanks for getting back to me so quickly. To keep the flexibility probably easiest to present our request as follows:

Day	Requested Hours	Current Covered
W-3/18	4 am to 7 pm	4 am to 7 pm
R -3/19	4 am to 7 pm	4 am to 7 pm
F-3/20	4 am to 7 pm	4 am to ~~7 pm~~ **3 pm**
Sat- 3/21	4 am to 3 pm	4 am to 11:30 am
Sn-3/22	4 am to 7 pm	11:30 am to 7 pm
M-3/23	4 am to 7 pm	7 am to 3 pm
T-3/24	4 am to 7 pm	7 am to 3 pm
W-3/25	4 am to 3 pm	7 am to 3 pm

The last few days of hauling the higher volumes towards the end of the month will be to complete empty the contents of the current tank utilized for hauling. We will schedule that once that becomes more clear and may spread that out to three days and eliminate the OT needs.

Thanks again for your help.

Sincerely,

Kevin T. Kamp, P.E. / Principal
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4570 · Fax: 314-656-4595 ·
Mobile: 314-397-0414 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

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From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Wednesday, March 18, 2015 9:56 AM
To: Kamp, Kevin; LaFata, Natalie
Cc: nathan.winton@mrbults.com; Brian G. Gibson
Subject: RE: MSD Overtime for Hauling

Thanks, Kevin.

I believe I mentioned before, but never heard back: The desired volumes for 3/30 & 3/31 cannot be delivered within the normal 7 am – 3 pm operating hours. If you wish to deliver more than 180,000 gallons, you will need to request the overtime coverage. Some options: 4 am – 7 am will allow an additional 9 trucks or 67,500 gallons for a total of 247,500 gallons – this is easier for MSD to staff. 3 pm – 5:30 pm will allow another 7 trucks or 52,500 gallons – this could be staffed fairly easily on M-Th, but not Friday. You have the option to wait before requesting the overtime for 3/30 & 3/31. However, I cannot guarantee coverage if it is short notice.

As you may remember, the continued high BOD strength of the treated leachate is what requires the 20 minute minimum spacing between discharge of loads. Once Bridgeton Landfill's treatment is fully effective, that restriction could be adjusted for future deliveries.

FYI, this is the current situation for coverage:

Wed	3/18 – 4 am to 7 pm	allows all 300,000 gallons
Thu	3/19 – 4 am to 7 pm	allows all 300,000 gallons
Fri	3/20 – 4 am to 3 pm	allows all 240,000 gallons

Sat 3/21 – 4 am to 11:30 am – allows up to 165,000 gallons – however I expect that more coverage will be set up
Sun 3/22 – 11:30 am to 7 pm – allows up to 165,000 gallons – however I expect that more coverage will be set up

Mon 3/23 to Fri 3/27 7 am to 3 pm allows up to 180,000 gallons each day

Mon 3/30 & Tue 3/31 7 am to 3 pm allows up to 180,000 gallons each day

---Doug Mendoza

From: Kamp, Kevin [mailto:kkamp@cecinc.com]
Sent: Wednesday, March 18, 2015 9:33 AM
To: Doug Mendoza; LaFata, Natalie
Cc: nathan.winton@mrbults.com; Brian G. Gibson
Subject: RE: MSD Overtime for Hauling

Doug,
We thank you and the Bissell staff for the help making the hauling flexible. We would like to request the overtime to be able to haul on Saturday and Sunday this weekend and then extended hours for Monday Tuesday and Wednesday of next week. This will give the flexibility should there be additional volume to manage and dispose. If all goes as planned the actual schedule is below but again we would like to have some flexibility and thus the reason for the overtime request.

Date	Hauled Vol
3/18/2015	300,000
3/19/2015	300,000
3/20/2015	240,000
3/21/2015	-
3/22/2015	180,000
3/23/2015	180,000
3/24/2015	150,000
3/25/2015	-
3/26/2015	135,000
3/27/2015	135,000
3/28/2015	-
3/29/2015	-
3/30/2015	255,000
3/31/2015	255,000

Sincerely,

Kevin T. Kamp, P.E. / Principal
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4570 · Fax: 314-656-4595 ·
Mobile: 314-397-0414 · http://www.cecinc.com
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From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Tuesday, March 17, 2015 12:50 PM
To: LaFata, Natalie
Cc: Kamp, Kevin; nathan.winton@mrbults.com; Brian G. Gibson
Subject: RE: MSD Overtime for Hauling

Natalie & Kevin,

I have people to work from 4 am to 7 pm through Thursday 3/19/15. I also have people to work from 4 am to 3 pm on Friday 3/20/15. So you should be able to bring in all loads on Wed & Thurs, but likely only 33 loads on Friday. If someone becomes available to cover later on Friday, I will let you know.

I also understand that Kevin will be requesting weekend and weekday coverage through 3/25/15. Once I receive that request, I will attempt to provide staffing. However, the short notice may mean not all hours will be able to be staffed.

Doug

From: Doug Mendoza
Sent: Tuesday, March 17, 2015 8:17 AM
To: 'LaFata, Natalie'
Cc: Kamp, Kevin; nathan.winton@mrbults.com; Brian G. Gibson
Subject: RE: MSD Overtime for Hauling

Natalie,

So far I am able to get coverage for the 4 am – 7 am slots W, Th, and F. However, for late afternoons, we are only set up so far to receive the last truck at 5:00 pm on W & Th, and the last truck on Friday at 2:40 pm (station closing at 3:00 pm).

I am still trying to get OT lined up until 7 pm for W, Th, and F. However, it doesn't look promising. I'll let you know by noon.

Anyway, right now you actually will be able to bring 40 loads in on W & Th if you don't have any delays. With 3 loads per hour, starting at 4 am, the 40th load would arrive at 5:00 pm and have time to discharge. That is the latest we will receive a load, unless someone volunteers to work until 7 pm.

For Friday, you should be able to bring in 33 loads, with us closing at 3 pm, unless you have some delays.

---Doug

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Monday, March 16, 2015 9:47 AM
To: Doug Mendoza
Cc: Kamp, Kevin; nathan.winton@mrbults.com
Subject: MSD Overtime for Hauling

Doug – I would like to request for overtime through this week (through Friday 3/20) at the plant for hauling of Activated Sludge/Permeate. We would like to be able to haul 40 loads everyday this week due to an increase in production. Please let me know if this will be possible.

Thanks!

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
Mobile: (314) 341-3375 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

Doug Mendoza

Bridgeton Landfill

From: Koziatek, Dan <dkoziatek@cecinc.com>
Sent: Wednesday, March 18, 2015 4:08 PM
To: Jay Kniker; Jonathon Sprague; John Lodderhose; Doug Mendoza; Ken Gambaro; Rob G Daly
Cc: Mike Steiniger (Mike@steinigercos.com); Kamp, Kevin; Knuth, Matt; Mike Jerome (mjerome@bistateutilities.com); Chris Beer (cbeer@eccstl.com); Bobby Lyerla (ralyerla@munequip.com); 'Mark Price' (mprice@eccstl.com); Franklin Chott (fchott@eccstl.com); Brian J. Power (BPower@republicservices.com)
Subject: Bridgeton Force Main Status & Bissell Startup

Jay,

We continue to make good progress with the force main construction to the Bissell Point connection. The following is a brief summary of the status of the constructed improvements:

- All of the force main piping has been bored and the crew is finishing the last two fused connections and ARVs.
- Locator balls have been installed to a point near Woodson Road and we expect to be beyond the CWC connection by the end of the week. Ball installation will continue until they are completely installed to the BP connection (estimated in another week or so).
- The SSO panel was also set and I believe the programming between it and PS1 is now being coordinated (pending).
- We expect the force main to be completely constructed, tested and functional to the Bissell connection by the end of the week.

As such, I would like to target next **Monday (3/23)** to switch the discharge of the wastewater from the Coldwater Creek connection to the Bissell Point connection. Can you please confirm your technician availability to perform this switch?

Punchlist items – as you know, there are still some remaining improvements to be taken care of in the next few weeks before we call for final inspections including the following:

- Pavement/Sidewalk restoration – some slabs have been poured. However, we will be meeting with MoDOT next week to further coordinate these efforts.
- Grass Pavers at pump station entrances
- Sod/seed at pump stations and other disturbed areas
- PS1 water line extension to yard hydrant
- Locator ball installation to BP connection. Note that the field locating of the balls to CWC is also scheduled to be done by MSD tech early next week.
- As-Built drawings

Sincerely,

Dan Koziatek, P.E. / Senior Project Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4588 · Fax: 314-656-4595 ·
Mobile: 314-330-9805 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, March 18, 2015 10:40 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

CB
3-26

The material for the week is now posted on Barr's ftp site.

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
3/16/2015	T1-072-AS	20	150,000	300,000
	T1-071-AS	20	150,000	
3/13/2015	T1-071-AS	19	142,500	255,000
	T1-070-AS	15	112,500	
3/12/2015	T1-070-AS	5	37,500	180,000
	T1-069-AS	19	142,500	
3/11/2015	T1-069-AS	12	90,000	180,000
	T1-068-AS	12	90,000	
3/10/2015	T1-068-AS	9	67,500	180,000
	T1-067-AS	15	112,500	

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	3/15/2015			LPTP	No QC	LPTP	--	8640	--	--	--	--
MH013	3/15/2015			LPTP	No QC	LPTP	--	9090	--	--	--	--
LPTP Permeate	3/14/2015			LPTP	No QC	LPTP	--	8500	--	--	--	--
MH013	3/14/2015			LPTP	No QC	LPTP	--	7450	--	--	--	--
LPTP Permeate	3/13/2015			LPTP	No QC	LPTP	--	9510	--	--	--	--
MH013	3/13/2015			LPTP	No QC	LPTP	--	8920	--	--	--	--
LPTP Permeate	3/12/2015			LPTP	No QC	LPTP	--	7490	--	--	--	--
MH013	3/12/2015			LPTP	No QC	LPTP	--	4590	--	--	--	--
LPTP Permeate	3/11/2015			LPTP	No QC	LPTP	--	6780	--	--	--	--
MH013	3/11/2015			LPTP	No QC	LPTP	--	6700	--	--	--	--
LPTP Permeate	3/10/2015			LPTP	No QC	LPTP	--	6990	--	--	--	--
MH013	3/10/2015			LPTP	No QC	LPTP	--	6700	--	--	--	--

MSD 032428

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	3/15/2015			LPTP	No QC	LPTP	--	1.66	18450	--	7.31	2.49
MH013	3/15/2015			LPTP	No QC	LPTP	--	1.46	--	--	7.28	1.54
LPTP Permeate	3/14/2015			LPTP	No QC	LPTP	--	1.75	71278	--	7.28	2.40
MH013	3/14/2015			LPTP	No QC	LPTP	--	1.40	--	--	7.29	1.65
LPTP Permeate	3/13/2015			LPTP	No QC	LPTP	--	1.60	155870	--	7.35	2.22
MH013	3/13/2015			LPTP	No QC	LPTP	--	1.21	--	--	7.39	1.53
LPTP Permeate	3/12/2015			LPTP	No QC	LPTP	--	1.52	192492	--	7.42	0.52
MH013	3/12/2015			LPTP	No QC	LPTP	--	0.622	--	--	7.45	0.394
LPTP Permeate	3/11/2015			LPTP	No QC	LPTP	--	0.889	78130	--	7.39	1.90
MH013	3/11/2015			LPTP	No QC	LPTP	--	0.335	--	--	7.34	0.78
LPTP Permeate	3/10/2015			LPTP	No QC	LPTP	--	1.15	130410	--	7.30	1.49
MH013	3/10/2015			LPTP	No QC	LPTP	--	--	--	--	7.36	--

MSD 032429

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l			5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	3/15/2015			LPTP	No QC	LPTP	21.5	--	--	--	--	--	--
MH013	3/15/2015			LPTP	No QC	LPTP	60	99815	--	--	--	--	--
LPTP Permeate	3/14/2015			LPTP	No QC	LPTP	16	--	--	--	--	--	--
MH013	3/14/2015			LPTP	No QC	LPTP	35	76214	--	--	--	--	--
LPTP Permeate	3/13/2015			LPTP	No QC	LPTP	23	--	--	--	--	--	--
MH013	3/13/2015			LPTP	No QC	LPTP	40	94752	--	--	--	--	--
LPTP Permeate	3/12/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	3/12/2015			LPTP	No QC	LPTP	97	98801	--	--	--	--	--
LPTP Permeate	3/11/2015			LPTP	No QC	LPTP	16	--	--	--	--	--	--
MH013	3/11/2015			LPTP	No QC	LPTP	40	60295	--	--	--	--	--
LPTP Permeate	3/10/2015			LPTP	No QC	LPTP	3	--	--	--	--	--	--
MH013	3/10/2015			LPTP	No QC	LPTP	41.5	93506	--	--	--	--	--

MSD 032430

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Biochemical Oxygen Demand (5 day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-71-AS	3/16/2015		Field	No QC	WASTE_2015	--	9040	--	--	--	7.52	--
T1-71-AS	3/13/2015		Field	No QC	WASTE_2015	--	9220	--	--	--	7.62	--
T1-70-AS	3/12/2015		Field	No QC	WASTE_2015	--	7680	--	--	--	7.76	--
T1-69-AS	3/11/2015		Field	No QC	WASTE_2015	--	8070	--	--	--	7.52	--
T1-68-AS	3/10/2015		Field	No QC	WASTE_2015	--	8230	--	--	--	7.60	--
T1-67-AS	3/09/2015	4:39 AM	PDC	Validated	5031045	1700	7100	--	--	--	--	--
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	10730	--	--	--	7.39	--
T1-66-AS	3/08/2015	4:50 AM	PDC	Validated	5031043	2000	9600	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	9790	--	--	--	7.55	--
T1-65-AS	3/07/2015	4:18 AM	PDC	Validated	5031041	1600	7500	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	8540	--	--	--	7.46	--
T1-64-AS	3/06/2015	4:21 AM	PDC	Validated	5030859	1200	6300	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	8390	--	--	--	7.59	--
T1-63-AS	3/05/2015	4:30 AM	PDC	Validated	5030617	900	4500	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	7210	--	--	--	7.66	--
T1-62-AS	3/04/2015	4:45 AM	PDC	Validated	5030323	570	4500	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	6980	--	--	--	7.72	--
T1-61-AS	3/03/2015	4:30 AM	PDC	Validated	5030112	1100	6000	--	--	--	--	--
T1-61-AS	3/03/2015		Field	No QC	WASTE_2015	--	7330	--	--	--	7.57	--

MSD 032431

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Solids, total suspended	Temperature, °C	Antimony	Arsenic	Beryllium	Cadmium	Chromium
					Total or Dissolved	NA	NA	Total	Total	Total	Total	Total
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	mg/l	mg/l	mg/l	mg/l	mg/l
T1-71-AS	3/16/2015		Field	No QC	WASTE_2015	6740	39.8	--	--	--	--	--
T1-71-AS	3/13/2015		Field	No QC	WASTE_2015	8740	35.1	--	--	--	--	--
T1-70-AS	3/12/2015		Field	No QC	WASTE_2015	6760	37.4	--	--	--	--	--
T1-69-AS	3/11/2015		Field	No QC	WASTE_2015	6940	37.5	--	--	--	--	--
T1-68-AS	3/10/2015		Field	No QC	WASTE_2015	10380	35.5	--	--	--	--	--
T1-67-AS	3/09/2015	4:39 AM	PDC	Validated	5031045	12000	--	--	--	--	--	--
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	11160	39.6	--	--	--	--	--
T1-66-AS	3/08/2015	4:50 AM	PDC	Validated	5031043	7400	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	7380	39.8	--	--	--	--	--
T1-65-AS	3/07/2015	4:18 AM	PDC	Validated	5031041	8800	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	7140	40.8	--	--	--	--	--
T1-64-AS	3/06/2015	4:21 AM	PDC	Validated	5030859	8900	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	7560	34.1	--	--	--	--	--
T1-63-AS	3/05/2015	4:30 AM	PDC	Validated	5030617	2100	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	5480	34.7	--	--	--	--	--
T1-62-AS	3/04/2015	4:45 AM	PDC	Validated	5030323	2000	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	5840	31	--	--	--	--	--
T1-61-AS	3/03/2015	4:30 AM	PDC	Validated	5030112	6100	--	--	--	--	--	--
T1-61-AS	3/03/2015		Field	No QC	WASTE_2015	5740	32.5	--	--	--	--	--

MSD 032432

Bridgeton Landfill

Doug Mendoza

From: Rob G Daly
Sent: Monday, March 16, 2015 9:36 AM
To: 'Ed Galbraith'; Doug Mendoza
Cc: John Lodderhose; Bouchard, Derek (DBouchard@republicservices.com); Robert W. Murphy; Rick J. Campbell; bpower@republicservices.com; Michael Grace
Subject: Bridgeton PS No. 1- Air Sampling

Ed

John Lodderhose will continue to be our official voice (or his representative Doug) on these issues– and I am sure will respond 'officially' on our behalf- or he will have Doug do it- but... here is some preliminary information.

Per a discussion late last week-I believe that John L. is finalizing our official response to the proposed sampling plan- which should not impact sampling scheduled to be conducted, or already conducted.

Site presence for sampling: I have just conferred with our risk management folks- Mike Grace-and he concurs that we do not intend to have, or need, a site representative from MSD present to witness this sampling. We do reserve the right to change that in the future and exercise that option if we feel it is necessary, so we would request that we continue to be notified of date/times when sampling events are scheduled to occur. No need to ask us when in other words- just notify us of the date/time of the event and we can either have someone there or not- and it leaves the responsibility in our court.

I added Mike Grace from our Risk Management group to the email string to clue him in on this.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Monday, March 16, 2015 9:26 AM
To: Doug Mendoza; Rob G Daly
Cc: John Lodderhose; Bouchard, Derek (DBouchard@republicservices.com); Robert W. Murphy; Rick J. Campbell; bpower@republicservices.com
Subject: March Lift Station Air Sampling

Doug and Rob,

We are planning to conduct the next round of air sampling next week on Thursday or Friday (3/26 or 3/27.) Please let us know if MSD intends to have a representative on site and if either day is preferred.

Thank you.

Ed Galbraith

Bridgeton Landfill

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Monday, March 16, 2015 9:26 AM
To: Doug Mendoza; Rob G Daly
Cc: John Lodderhose; Bouchard, Derek (DBouchard@republicservices.com); Robert W. Murphy; Rick J. Campbell; bpower@republicservices.com
Subject: March Lift Station Air Sampling

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Thank you.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Monday, March 16, 2015 9:20 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Doug, I asked Andrea Nord to clarify how the duplicate process works for this method. Her description is below. Let me know if you have any further questions. Thank you.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

From: Andrea A. Nord
Sent: Friday, March 13, 2015 1:17 PM
To: Ed Galbraith
Subject: RE: Bridgeton Landfill Weekly Report

In accordance with the method, PDC is required to run at least one laboratory duplicate sample in order to evaluate analytical precision. The sample selected to use as a laboratory duplicate can be chosen from any client's sample which is analyzed as part of the analytical run. In the data set in question, the laboratory selected one Bridgeton sample and one sample from another client. See embedded for more details.

T1-52-AS:

Batch B503000 - 04-No Prep WC

Blank (B503000-BLK1)			Prepared: 02/23/15 Analyzed: 02/28/15				
BOD	< 6.0	mg/L					
LCS (B503000-BS1)			Prepared: 02/23/15 Analyzed: 02/28/15				
BOD	214	mg/L	198.0		108	84.6-115.4	
Duplicate (B503000-DUP1)	Source: 5022876-01		Prepared: 02/23/15 Analyzed: 02/28/15				
BOD	1040	mg/L		1050			0.9	20

Memos

BOD value for sample T1-52-AS is reported at <750 mg/L. COD value is reported at 5400 mg/L. The BOD dilutions were set to read out anywhere from 750 to 9000 mg/L, however this sample had a lower BOD value than expected. BOD's that are currently being set, are at a wider range to hopefully capture data.

> Sample T1-52-AS collected on 2/22/15 had a reported value of <750 mg/L. The lab duplicate (sample 5022876-01) selected for analytical batch B5030000, shown in this image, was Bridgeton's sample T1-53-AS collected on 2/23/15 and had a BOD value of 1100 mg/L. The material is likely slightly different because of the difference in reported BOD results.

T1-54-AS:

Batch B503117 - 04-No Prep WC

Blank (B503117-BLK1)			Prepared: 02/25/15 Analyzed: 03/02/15				
BOD	< 6.0	mg/L					
LCS (B503117-BS1)			Prepared: 02/25/15 Analyzed: 03/02/15				
BOD	173	mg/L	198.0		87	84.6-115.4	
Duplicate (B503117-DUP1)	Source: 5023085-01		Prepared: 02/25/15 Analyzed: 03/02/15				
BOD	619	mg/L		524			17	20

Memos

BOD value for sample T1-54-AS is reported at <600 mg/L. COD value is reported at 4600 mg/L. The BOD dilutions were set to read out anywhere from 600 to 6000 mg/L, however this sample had a lower BOD value than expected. BOD's that are currently being set, are at a wider range to hopefully capture data.

> The lab duplicate (sample 5023085-01) selected for this analytical batch is not Bridgeton's sample.

Andrea A. Nord

Senior Data Quality Specialist
Barr Engineering Co.
4700 West 77th Street
Minneapolis, MN 55435

office: 952.832.2893
toll-free: 800.632.2277

anord@barr.com
www.barr.com

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From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Friday, March 13, 2015 7:46 AM
To: Ed Galbraith; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Thank you for the additional information. I will look at the various values for the month of February to determine interpolated BOD values. If they are above the ND levels, then I will use the ND levels instead. However, it will not impact the billing (see my last paragraph).

As you indicated, I did not notice that the source material for the duplicate analyses was different from the material for the primary analyses. Apparently I am not understanding something in the process. Would you have someone, perhaps from the laboratory, explain why or how a duplicate result is obtained when the material being analyzed is not the same material/sample as for the primary analysis?

Regarding the billing for the hauled waste, you are correct in that the BOD levels, and the TSS levels, combined for a hauled waste that was only at the floor of $0.02/gallon. MSD's Finance Department was informed yesterday to bill Bridgeton Landfill for the February hauled waste deliveries.

Sincerely,
Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Thursday, March 12, 2015 4:04 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Doug you're right I should have pointed that out. The ND values were a result of dilution issues caused by the lower BOD levels, which I did point out, however as you have reminded me, that didn't tell the whole story.

Couple of things.

1. The duplicate sample 5023085 is not actually a Bridgeton LF sample, so that would not be appropriate to use.
2. The duplicate sample 5022876 is actually our sample TI-53 AS, which is the value between the two ND values. So it's not the same sample material as 5022878, although the value could be used as a surrogate for 5022878, looking at the overall average.

Point of clarification for all concerned – the BOD levels are such that we are at $0.02/gallon for hauled waste, which is the floor rate stipulated in the agreement. These results should not impact the hauled waste rates. If that is not correct, please let me know.

I apologize that you had to do more homework - we are trying to make it easier for you, not harder. In the future feel free to throw it back to us for more explanation. Thanks.

Ed Galbraith

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egalbraith@barr.com
www.barr.com

resourceful. naturally. BARR

Doug Mendoza Bridgeton Landfill

From: Doug Mendoza
Sent: Friday, March 13, 2015 10:43 AM
To: 'LaFata, Natalie'
Cc: Kamp, Kevin; nathan.winton@mrbults.com; Brian G. Gibson; Martin Blecha; Dave Kupke
Subject: RE: Friday Hauling

Yes, that is approved. We already have coverage requested and set up until 7 pm on 3/13, 3/16, and 3/17. So long as the last truck is discharging by 6:40 pm, you can bring up to those amounts.

Doug

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Friday, March 13, 2015 9:34 AM
To: Doug Mendoza
Cc: Kamp, Kevin; nathan.winton@mrbults.com
Subject: Friday Hauling

Doug, as long as there are no issues on MSD's end, we would like to request an increase for today's loads. Between 31- 34 loads for today. We would also like to plan for 40 loads on Monday.
Let me know if this is an issue.

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
Mobile: (314) 341-3375 · http://www.cecinc.com
Sent from my iPhone

Doug Mendoza

From: Doug Mendoza
Sent: Friday, March 13, 2015 7:46 AM
To: 'Ed Galbraith'; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

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Sincerely,
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MSD Industrial Pretreatment Manager

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Sent: Thursday, March 12, 2015 4:04 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

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TO: Chris Verplancke, Finance Department
Cynthia Chalk, Finance Department

FROM: Angie McDonough amm

DATE: March 12, 2015

SUBJECT: BRIDGETON LANDFILL LLC
WASTEWATER USER CHARGE BILLING
ACCOUNT NUMBER 0039145-8

Pursuant to the MSD Industrial Wastewater Discharge Permit for the above referenced facility, please bill this facility for the following charges for the indicated billing period:

VOLUME
Hauled Waste Discharge

6,420,000 gallons X $0.020/Gal = $128,400.00

Department of Environmental Compliance (REG) labor fee is $1,449.10 for 34 extra hours.
Use Revenue Code "INFO" and utility type Q.
Budget code is 1101-08050-51011 so revenue will be credited back to Department of Environmental Compliance budget.

Department of Environmental Compliance (OT) labor fee is $13,350.88 for 214 extra hours.
Use Revenue Code "INFO" and utility type Q.
Budget code is 1101-08050-51020 so revenue will be credited back to Department of Environmental Compliance budget.

Total Bill = $143,199.98

The volume was obtained from the customer's on-site discharge self-monitoring report and hauled waste total truck capacities.

SOURCE OF WASTE: SP014 Commingled landfill leachate and landfill gas collection system condensate

BILLING PERIOD: February 1, 2015 through February 28, 2015

Other applicable wastewater user charges, as per Ordinance 13758, should be included in this bill. Please call me at 436-8762 if you have any questions.

bv

ec: Doug Mendoza
Brian Gibson
Bridgeton Republic Services
Laura Joiner
Cathy Politte
Keidra King

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

Christopher J. Bulmahn

From:	Bouchard, Derek <DBouchard@republicservices.com>
Sent:	Thursday, March 12, 2015 4:44 PM
To:	Christopher J. Bulmahn
Subject:	Bridgeton Landfill LLC 2015 Outfall Report - February
Attachments:	Bridgeton Landfill LLC 2015 Outfall report - February.pdf

10038030 00

Attached. Let me know if you have any questions/comments.

Thank you,

REPUBLIC SERVICES

We'll handle it from here.™

Derek Bouchard Environmental Specialist
Bridgeton Landfill, LLC
13570 St. Charles Rock Road
e dbouchard@republicservices.com
o 3146562114 c 3143023634
w republicservices.com

2015

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

3/12/2015 Filed in 15.4

Month	Net Meter Reading	Precipitation Inches	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	10,463,750	1.67	2/1/2014	702,337	22,656	93,895.32	938.95
February	11,485,331	1.74	3/1/2014	1,021,581	36,485	136,575.00	1,365.75
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							

Note:

MSD 032443

Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Thursday, March 12, 2015 4:04 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

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Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
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www.barr.com

resourceful. naturally. BARR

From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Thursday, March 12, 2015 8:43 AM
To: Ed Galbraith; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

Doug Mendoza

Bridgeton Landfill

From: Doug Mendoza
Sent: Thursday, March 12, 2015 3:05 PM
To: 'LaFata, Natalie'
Cc: Kamp, Kevin; Brian G. Gibson
Subject: RE: Hauling Changes

Yes, you may haul those amounts.

Please be aware that extended hours coverage, arranged at Bridgeton Landfill's request, is as follows:

Fri 3/13/15, 4 am – 7 pm
Mon 3/16/15, 4 am – 7 pm
Tue 3/17/15, 4 am – 7 pm

Extended hours have not been arranged beyond this. The previously approved hauling schedule for March, along with this requested update, will all fit within normal operating hours or the above extended coverage – except for the requested 255,000 gallons on Thu 3/26/15. If you wish to be able to deliver more than 180,000 gallons on 3/26/15, you will need to formally request extended coverage for that date.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: LaFata, Natalie [mailto:nlafata@cecinc.com]
Sent: Thursday, March 12, 2015 3:00 PM
To: Doug Mendoza
Cc: Kamp, Kevin
Subject: Hauling Changes

Doug, we would like to get the approval to haul 180,000 gallons to Bissell on Friday (3/13) and 255,000 gallons on Monday (3/16). This would prevent any hauling to need to occur over the weekend.

Please let me know if this will be an issue for MSD.
Thanks!

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
Mobile: (314) 341-3375 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

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Doug Mendoza

Bridgeton Landfill

From: LaFata, Natalie <nlafata@cecinc.com>
Sent: Thursday, March 12, 2015 3:00 PM
To: Doug Mendoza
Cc: Kamp, Kevin
Subject: Hauling Changes

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Thanks!

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll Free: (866) 250-3679 ext. 3626 · Fax: (314) 656-4595
Mobile: (314) 341-3375 · http://www.cecinc.com
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Doug Mendoza

From: Doug Mendoza
Sent: Thursday, March 12, 2015 8:43 AM
To: 'Ed Galbraith'; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

We notice that two of the BOD results for hauled waste loads (T1-52-AS and T1-54-AS) have BOD results listed on the spreadsheet as ND (or non-detect). It's fairly obvious that this should be impossible for the wastewater that Bridgeton Landfill is hauling. Since the results were simply transmitted as ND, with no explanation, we had to research through the lab reports on the ftp site. From the associated reports, we found the following:

T1-52-AS:

Batch B503000 - 04-No Prep WC

Blank (B503000-BLK1)			Prepared: 02/23/15 Analyzed: 02/28/15		
BOD	< 6.0	mg/L			
LCS (B503000-BS1)			Prepared: 02/23/15 Analyzed: 02/28/15		
BOD	214	mg/L	198.0	108	84.6-115.4
Duplicate (B503000-DUP1)	Source: 5022876-01		Prepared: 02/23/15 Analyzed: 02/28/15		
BOD	1040	mg/L	1050		0

Memos

BOD value for sample T1-52-AS is reported at <750 mg/L. COD value is reported at 5400 mg/L. The BOD dilutions were s out anywhere from 750 to 9000 mg/L, however this sample had a lower BOD value than expected. BOD's that are currently l are at a wider range to hopefully capture data.

T1-54-AS:

Batch B503117 - 04-No Prep WC

Blank (B503117-BLK1)			Prepared: 02/25/15 Analyzed: 03/02/15		
BOD	< 6.0	mg/L			
LCS (B503117-BS1)			Prepared: 02/25/15 Analyzed: 03/02/15		
BOD	173	mg/L	198.0	87	84.6-115.4
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BOD	619	mg/L	524		

Memos

BOD value for sample T1-54-AS is reported at <600 mg/L. COD value is reported at 4600 mg/L. The BOD dilutions were se out anywhere from 600 to 6000 mg/L, however this sample had a lower BOD value than expected. BOD's that are currently b are at a wider range to hopefully capture data.

We could use the detection level values for the BOD, or try to interpolate a BOD from similar COD results in your data. However, we note that both samples had BOD duplicates that were above the detection levels. Therefore, we will be using those BOD values for the analytical results and to calculate the hauling charges for the batches.

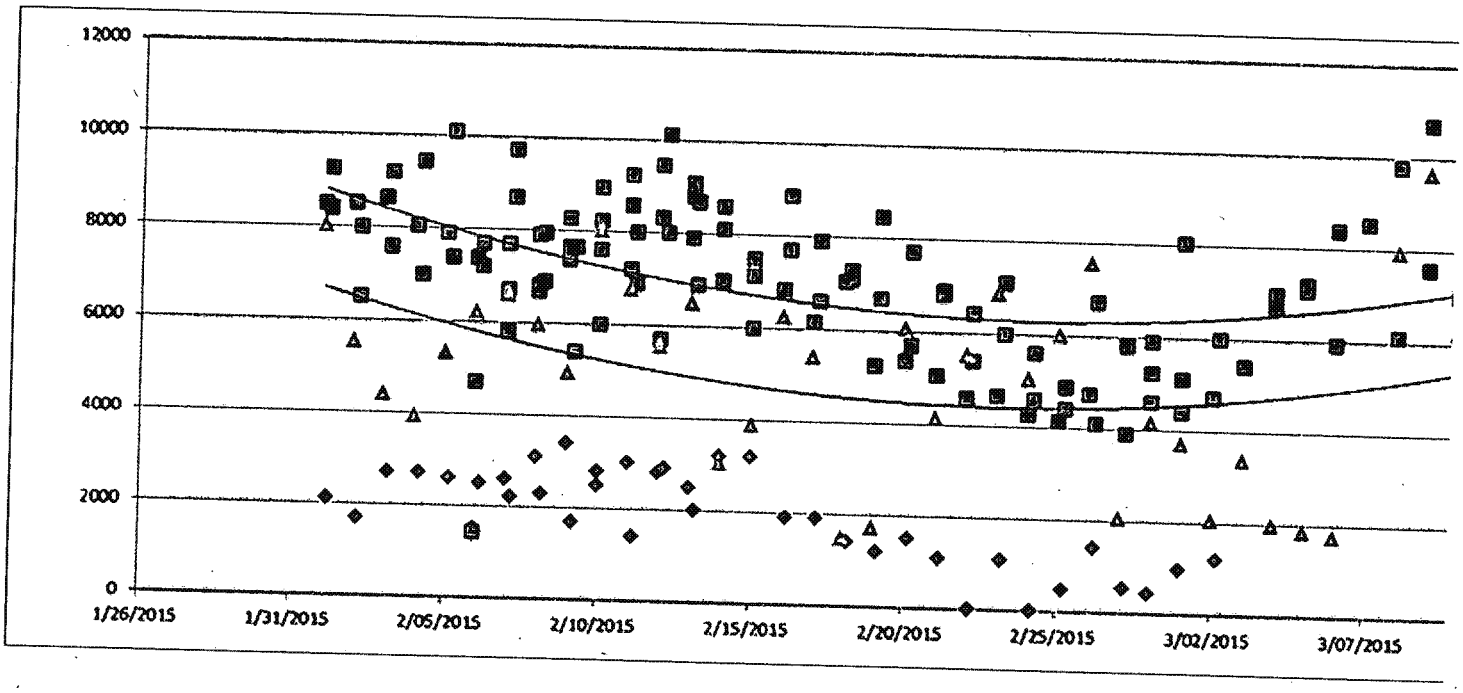
In the future, please call out and provide the supporting data in your cover correspondence for anomalous results such as these.

Thank you,
Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, March 11, 2015 11:07 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

The material for the week is now posted on Barr's ftp site.

The latter half of February saw a sustained drop in BOD levels in hauled material. This corresponds to a drop in permeate production and the addition of phosphoric acid to increase biological activity. We hypothesize that the result was better biological treatment overall. See chart below:



The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

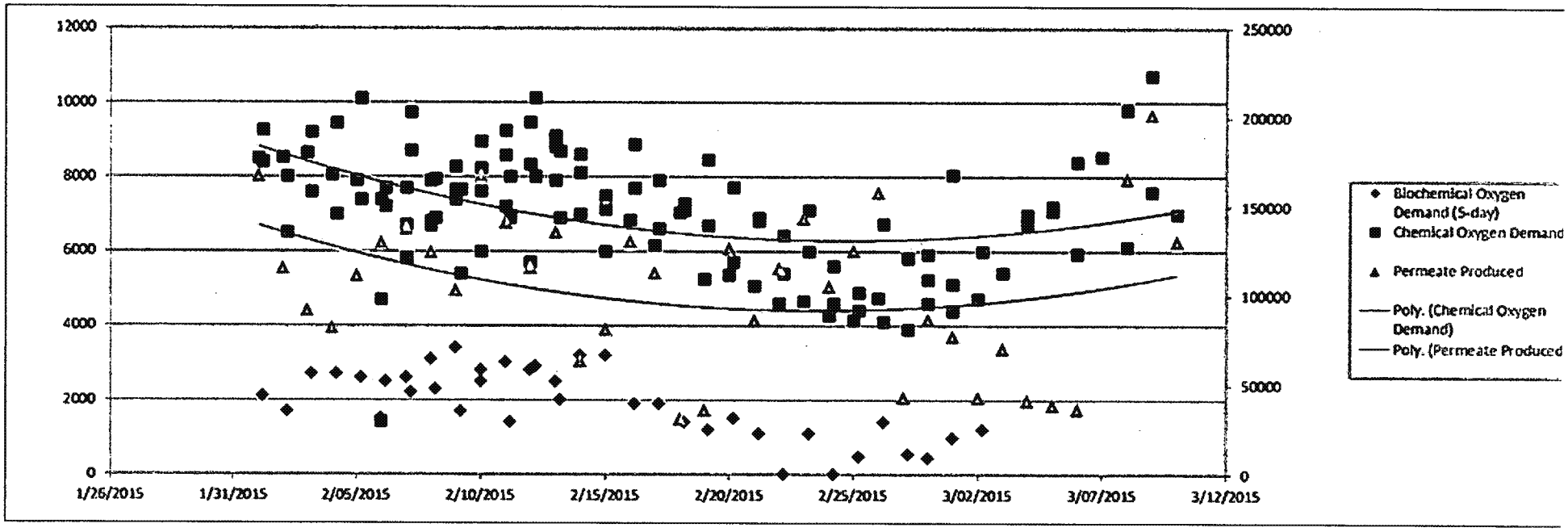
Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, March 11, 2015 11:07 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: Bridgeton Landfill Weekly Report

CB
3-26

The material for the week is now posted on Barr's ftp site.

The latter half of February saw a sustained drop in BOD levels in hauled material. This corresponds to a drop in permeate production and the addition of phosphoric acid to increase biological activity. We hypothesize that the result was better biological treatment overall. See chart below:



MSD 032449

The FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

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resourceful. naturally. BARR

MSD 032450

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
3/9/2015	T1-067-AS	20	150,000	255,000
	T1-066-AS	14	105,000	
3/8/2015	T1-066-AS	17	127,500	255,000
	T1-065-AS	17	127,500	
3/7/2015	T1-065-AS	25	187,500	255,000
	T1-064-AS	9	67,500	
3/6/2015	T1-064-AS	22	165,000	255,000
	T1-063-AS	12	90,000	
3/5/2015	T1-063-AS	22	165,000	255,000
	T1-062-AS	12	90,000	
3/4/2015	T1-062-AS	17	127,500	255,000
	T1-061-AS	17	127,500	
3/3/2015	T1-061-AS	22	165,000	255,000
	T1-060-AS	12	90,000	
3/2/2015	T1-060-AS	22	165,000	255,000
	T1-059-AS	12	90,000	
3/1/2015	T1-059-AS	15	112,500	255,000
	T1-058-AS	19	142,500	
2/28/2015	T1-058-AS	18	135,000	255,000
	T1-057-AS	16	120,000	
2/27/2015	T1-057-AS	22	165,000	255,000
	T1-056-AS	12	90,000	
2/26/2015	T1-056-AS	20	150,000	232,500
	T1-055-AS	11	82,500	
2/25/2015	T1-055-AS	21	157,500	255,000
	T1-054-AS	13	97,500	
2/24/2015	T1-054-AS	22	165,000	255,000
	T1-053-AS	12	90,000	
2/23/2015	T1-053-AS	20	150,000	240,000
	T1-052-AS	12	90,000	
2/22/2015	T1-052-AS	22	165,000	240,000
	T1-051-AS	10	75,000	
2/21/2015	T1-051-AS	22	165,000	240,000
	T1-050-AS	10	75,000	
2/20/2015	T1-050-AS	21	157,500	255,000
	T1-049-AS	13	97,500	
2/19/2015	T1-049-AS	22	165,000	270,000
	T1-048-AS	14	105,000	
2/18/2015	T1-048-AS	22	165,000	270,000
	T1-047-AS	14	105,000	
2/17/2015	T1-047-AS	25	187,500	300,000
	T1-046-AS	15	112,500	
2/16/2015			-	232,500
	T1-046-AS	31	232,500	
2/15/2015	No hauling		-	
			-	
2/14/2015	No hauling		-	
			-	
2/13/2015	T1-045-AS	20	150,000	240,000
	T1-044-AS	12	90,000	
2/12/2015	T1-044-AS	18	135,000	240,000
	T1-043-AS	14	105,000	
2/11/2015			-	120,000
	T1-043-AS	16	120,000	
2/10/2015	No hauling		-	
			-	
2/9/2015	T1-042-AS	7	52,500	120,000
	T1-041-AS	9	67,500	
2/8/2015	T1-041-AS	24	180,000	300,000
	T1-040-AS	16	120,000	
2/7/2015	T1-040-AS	23	172,500	300,000
	T1-039-AS	17	127,500	

Total Batch Volume	
Row Labels	Sum of Batch Volume (gal)
No hauling	-
T1-001-AS	90,000
T1-002-AS	45,000
T1-003-AS	112,500
T1-004-AS	112,500
T1-005-AS	300,000
T1-006-AS	247,500
T1-007-AS	285,000
T1-008-AS	292,500
T1-009-AS	315,000
T1-010-AS	300,000
T1-011-AS	300,000
T1-012-AS	285,000
T1-013-AS	330,000
T1-014-AS	285,000
T1-015-AS	270,000
T1-016-AS	330,000
T1-017-AS	307,500
T1-018-AS	277,500
T1-019-AS	382,500
T1-020-AS	292,500
T1-021-AS	307,500
T1-022-AS	217,500
T1-023-AS	300,000
T1-024-AS	337,500
T1-025-AS	292,500
T1-026-AS	247,500
T1-027-AS	127,500
T1-028-AS	360,000
T1-029-AS	292,500
T1-030-AS	337,500
T1-031-AS	172,500
T1-032-AS	360,000
T1-033-AS	232,500
T1-034-AS	322,500
T1-035-AS	277,500
T1-036-AS	300,000
T1-037-AS	292,500
T1-038-AS	300,000
T1-039-AS	307,500
T1-040-AS	292,500
T1-041-AS	247,500
T1-042-AS	52,500
T1-043-AS	225,000
T1-044-AS	225,000
T1-045-AS	150,000
T1-046-AS	345,000
T1-047-AS	292,500
T1-048-AS	270,000
T1-049-AS	262,500
T1-050-AS	232,500
T1-051-AS	240,000
T1-052-AS	255,000
T1-053-AS	240,000
T1-054-AS	262,500
T1-055-AS	240,000
T1-056-AS	240,000
T1-057-AS	285,000
T1-058-AS	277,500
T1-059-AS	202,500
T1-060-AS	255,000
T1-061-AS	292,500

2/6/2015	T1-039-AS	24	180,000	300,000
	T1-038-AS	16	120,000	
2/5/2015	T1-038-AS	24	180,000	300,000
	T1-037-AS	16	120,000	
2/4/2015	T1-037-AS	23	172,500	300,000
	T1-036-AS	17	127,500	
2/3/2015	T1-036-AS	23	172,500	300,000
	T1-035-AS	17	127,500	
2/2/2015	T1-035-AS	20	150,000	300,000
	T1-034-AS	20	150,000	
2/1/2015	T1-034-AS	23	172,500	300,000
	T1-033-AS	17	127,500	
1/31/2015	T1-033-AS	14	105,000	300,000
	T1-032-AS	26	195,000	
1/30/2015	T1-032-AS	22	165,000	300,000
	T1-031-AS	18	135,000	
1/29/2015	T1-031-AS	5	37,500	187,500
	T1-030-AS	20	150,000	
1/28/2015	T1-030-AS	25	187,500	300,000
	T1-029-AS	15	112,500	
1/27/2015	T1-029-AS	24	180,000	300,000
	T1-028-AS	16	120,000	
1/26/2015				240,000
	T1-028-AS	32	240,000	
1/25/2015	No hauling		-	-
			-	
1/24/2015	T1-027-AS	17	127,500	225,000
	T1-026-AS	13	97,500	
1/23/2015	T1-026-AS	20	150,000	300,000
	T1-025-AS	20	150,000	
1/22/2015	T1-025-AS	19	142,500	300,000
	T1-024-AS	21	157,500	
1/21/2015	T1-024-AS	24	180,000	300,000
	T1-023-AS	16	120,000	
1/20/2015	T1-023-AS	24	180,000	300,000
	T1-022-AS	16	120,000	
1/19/2015	T1-022-AS	13	97,500	300,000
	T1-021-AS	27	202,500	
1/18/2015	T1-021-AS	14	105,000	300,000
	T1-020-AS	26	195,000	
1/17/2015	T1-020-AS	13	97,500	300,000
	T1-019-AS	27	202,500	
1/16/2015	T1-019-AS	24	180,000	300,000
	T1-018-AS	16	120,000	
1/15/2015	T1-018-AS	21	157,500	300,000
	T1-017-AS	19	142,500	
1/14/2015	T1-017-AS	22	165,000	300,000
	T1-016-AS	18	135,000	
1/13/2015	T1-016-AS	26	195,000	300,000
	T1-015-AS	14	105,000	
1/12/2015	T1-015-AS	22	165,000	300,000
	T1-014-AS	18	135,000	
1/11/2015	T1-014-AS	20	150,000	300,000
	T1-013-AS	20	150,000	
1/10/2015	T1-013-AS	24	180,000	300,000
	T1-012-AS	16	120,000	
1/9/2015	T1-012-AS	22	165,000	300,000
	T1-011-AS	18	135,000	
1/8/2015	T1-011-AS	22	165,000	300,000
	T1-010-AS	18	135,000	
1/7/2015	T1-010-AS	22	165,000	300,000
	T1-009-AS	18	135,000	
1/6/2015	T1-009-AS	24	180,000	300,000
	T1-008-AS	16	120,000	
1/5/2015	T1-008-AS	23	172,500	300,000
	T1-007-AS	17	127,500	

T1-062-AS	217,500
T1-063-AS	255,000
T1-064-AS	232,500
T1-065-AS	315,000
T1-066-AS	232,500
T1-067-AS	150,000
(blank)	-
Grand Total	**17,332,500**

1/4/2015	T1-007-AS	21	157,500	270,000
	T1-006-AS	15	112,500	
1/3/2015	T1-006-AS	18	135,000	270,000
	T1-005-AS	18	135,000	
1/2/2015	T1-005-AS	22	165,000	165,000
			-	
1/1/2015	No hauling		-	-
			-	
12/31/2014	T1-004-AS	15	112,500	112,500
			-	
12/30/2014	T1-003-AS	15	112,500	112,500
			-	
12/29/2014	T1-002-AS	6	45,000	45,000
			-	
12/28/2014	No hauling		-	-
			-	
12/27/2014	No hauling		-	-
			-	
12/26/2014	T1-001-AS	12	90,000	90,000
			-	

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	3/09/2015			LPTP	No QC	LPTP	--	7590	--	--	--	--
MH013	3/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/08/2015			LPTP	No QC	LPTP	--	6120	--	--	--	--
MH013	3/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	3/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/06/2015			LPTP	No QC	LPTP	--	5930	--	--	--	--
MH013	3/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/05/2015			LPTP	No QC	LPTP	--	7080	--	--	--	--
MH013	3/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/04/2015			LPTP	No QC	LPTP	--	6730	--	--	--	--
MH013	3/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/03/2015			LPTP	No QC	LPTP	--	5420	--	--	--	--
MH013	3/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/02/2015			LPTP	No QC	LPTP	--	4720	--	--	--	--
MH013	3/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/01/2015			LPTP	No QC	LPTP	--	4390	--	--	--	--
MH013	3/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/28/2015			LPTP	No QC	LPTP	--	4600	--	--	--	--
MH013	2/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	2/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/26/2015			LPTP	No QC	LPTP	--	4740	--	--	--	--
MH013	2/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/25/2015			LPTP	No QC	LPTP	--	4140	--	--	--	--
MH013	2/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/24/2015			LPTP	No QC	LPTP	--	4260	--	--	--	--
MH013	2/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/23/2015			LPTP	No QC	LPTP	--	4660	--	--	--	--
MH013	2/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/22/2015			LPTP	No QC	LPTP	--	4600	--	--	--	--
MH013	2/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/21/2015			LPTP	No QC	LPTP	--	5070	--	--	--	--
MH013	2/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/20/2015			LPTP	No QC	LPTP	--	5360	--	--	--	--
MH013	2/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/19/2015			LPTP	No QC	LPTP	--	5250	--	--	--	--
MH013	2/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/18/2015			LPTP	No QC	LPTP	--	7050	--	--	--	--
MH013	2/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/17/2015			LPTP	No QC	LPTP	--	6150	--	--	--	--
MH013	2/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--

MSD 032454

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	3/09/2015			LPTP	No QC	LPTP	--	1.40	201330	--	7.35	2.87
MH013	3/09/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/08/2015			LPTP	No QC	LPTP	--	1.99	165640	--	7.51	2.49
MH013	3/08/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/07/2015			LPTP	No QC	LPTP	--	--	0	--	--	--
MH013	3/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/06/2015			LPTP	No QC	LPTP	--	7.05	36522	--	7.49	9.85
MH013	3/06/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/05/2015			LPTP	No QC	LPTP	--	2.54	38881	--	7.51	2.61
MH013	3/05/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/04/2015			LPTP	No QC	LPTP	--	2.21	41102	--	7.42	2.51
MH013	3/04/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/03/2015			LPTP	No QC	LPTP	--	1.09	70590	--	7.56	--
MH013	3/03/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/02/2015			LPTP	No QC	LPTP	--	1.87	43110	--	7.59	2.92
MH013	3/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/01/2015			LPTP	No QC	LPTP	--	2.23	77130	--	7.51	2.59
MH013	3/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/28/2015			LPTP	No QC	LPTP	--	2.23	86908	--	7.62	2.63
MH013	2/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/27/2015			LPTP	No QC	LPTP	--	--	43076	--	--	--
MH013	2/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/26/2015			LPTP	No QC	LPTP	--	1.79	157983	--	7.55	2.83
MH013	2/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/25/2015			LPTP	No QC	LPTP	--	2.54	125348	--	7.66	2.90
MH013	2/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/24/2015			LPTP	No QC	LPTP	--	2.79	105220	--	7.65	3.48
MH013	2/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/23/2015			LPTP	No QC	LPTP	--	2.43	143150	--	7.31	3.20
MH013	2/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/22/2015			LPTP	No QC	LPTP	--	0.577	115520	--	7.33	1.73
MH013	2/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/21/2015			LPTP	No QC	LPTP	--	1.82	86427	--	7.46	2.04
MH013	2/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/20/2015			LPTP	No QC	LPTP	--	1.15	126676	--	7.42	2.55
MH013	2/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/19/2015			LPTP	No QC	LPTP	--	3.38	36321	--	7.48	2.61
MH013	2/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/18/2015			LPTP	No QC	LPTP	--	3.02	30914	--	7.55	3.68
MH013	2/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/17/2015			LPTP	No QC	LPTP	--	2.43	112880	--	7.56	2.49
MH013	2/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--

MSD 032455

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l			5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	3/09/2015			LPTP	No QC	LPTP	6	--	--	--	--	--	--
MH013	3/09/2015			LPTP	No QC	LPTP	--	97094	--	--	--	--	--
LPTP Permeate	3/08/2015			LPTP	No QC	LPTP	13.5	--	--	--	--	--	--
MH013	3/08/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	3/07/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	3/07/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	3/06/2015			LPTP	No QC	LPTP	14.5	--	--	--	--	--	--
MH013	3/06/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	3/05/2015			LPTP	No QC	LPTP	18	--	--	--	--	--	--
MH013	3/05/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	3/04/2015			LPTP	No QC	LPTP	15	--	--	--	--	--	--
MH013	3/04/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	3/03/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	3/03/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	3/02/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	3/02/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	3/01/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	3/01/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/28/2015			LPTP	No QC	LPTP	11	--	--	--	--	--	--
MH013	2/28/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	2/27/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/26/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	2/26/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/25/2015			LPTP	No QC	LPTP	11	--	--	--	--	--	--
MH013	2/25/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/24/2015			LPTP	No QC	LPTP	15.5	--	--	--	--	--	--
MH013	2/24/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/23/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	2/23/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/22/2015			LPTP	No QC	LPTP	10.5	--	--	--	--	--	--
MH013	2/22/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/21/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	2/21/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/20/2015			LPTP	No QC	LPTP	13	--	--	--	--	--	--
MH013	2/20/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/19/2015			LPTP	No QC	LPTP	8.5	--	--	--	--	--	--
MH013	2/19/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/18/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	2/18/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/17/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	2/17/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--

MSD 032456

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH	Phenolics
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units	mg/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	10730	--	--	--	7.39	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	9790	--	--	--	7.55	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	8540	--	--	--	7.46	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	8390	--	--	--	7.59	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	7210	--	--	--	7.66	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	6980	--	--	--	7.72	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	1200	6000	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	8050	--	--	--	7.48	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	970	5100	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	8040	--	--	--	7.5	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	440	5900	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	5240	--	--	--	7.92	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	540	3900	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	5800	--	--	--	7.66	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	1400	4100	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	6740	--	--	--	7.59	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	470	4400	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	-- 600	4880	--	--	--	7.87	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	ND ~~[illegible]~~ (*)	4600	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	5600	--	--	--	7.77	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	1100	6000	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	-- 740	7100	--	--	--	7.56	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	ND ~~[illegible]~~ (*)	5400	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	6430	--	--	--	7.76	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	1100	6900	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	6820	--	--	--	7.63	--

(*) Values are from BOD duplicate results on lab reports. Values are interpolated from other hauled loads. —DMM

MSD 032457

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Solids, total suspended	Temperature, °C	Antimony	Arsenic	Beryllium	Cadmium	Chromium
					Total or Dissolved	NA	NA	Total	Total	Total	Total	Total
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	deg C	mg/l	mg/l	mg/l	mg/l	mg/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	11160	39.6	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	7380	39.8	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	7140	40.8	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	7560	34.1	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	5480	34.7	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	5840	31	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	7900	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	8820	33	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	3700	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	7020	32.1	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	7800	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	6400	29.2	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	3400	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	4980	31.6	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	6800	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	4880	30.4	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	5100	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	3220	30.6	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	5200	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	4160	30.1	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	10000	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	7540	28.5	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	5400	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	3980	32.5	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	8200	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	5880	28.1	--	--	--	--	--

MSD 032458

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Copper	Iron	Lead	Magnesium	Mercury	Nickel	Selenium
					Total or Dissolved	Total	Total	Total	Total	Total	Total	Total
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032459

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Silver	Thallium	Zinc	1,2,4-Trichlorobenzene	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol
					Total or Dissolved	Total	Total	Total	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032460

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Nitrophenol
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032461

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether	4-Nitrophenol	Acenaphthene	Acenaphthylene
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032462

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Anthracene	Benz(a)anthracene	Benzidine	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene	Dibenz(a,h)anthracene
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032464

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	Naphthalene	Nitrobenzene
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032466

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032467

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichlorobenzene	1,2-Dichloroethane
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	ND	ND	ND	ND
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	ND	ND	ND	ND
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	ND	ND	ND	ND
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	ND	ND	ND	ND
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	ND	ND	ND	ND
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	ND	ND	ND	ND	ND
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	ND	ND	ND	ND
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032468

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis	1,3-Dichloro-1-propene, trans	1,3-Dichlorobenzene	1,4-Dichlorobenzene
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	ND	ND	ND	ND	ND	ND
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	ND	ND	ND	ND	ND	ND
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	ND	ND	ND	ND	ND	ND
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	ND	ND	ND	ND	ND	ND
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	ND	ND	ND	ND	ND	ND
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	ND	ND	ND	ND	ND	29
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	ND	ND	ND	ND	ND	ND
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032469

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	2-Chloroethyl vinyl ether	Acrolein	Acrylonitrile	Benzene	Bromodichloromethane	Bromoform	Bromomethane
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	ND	ND	ND	ND
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	ND	ND	ND	ND
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	ND	ND	ND	ND
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	ND	ND	ND	ND
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	ND	ND	ND	ND
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	ND	ND	ND	ND	ND
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	ND	ND	ND	ND
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032470

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Ethyl benzene
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	ND	ND	ND	ND
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	ND	ND	ND	ND
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	ND	ND	ND	ND
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	ND	ND	ND	ND
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	ND	ND	ND	ND
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	ND	ND	ND	ND	ND
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	ND	ND	ND	ND
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032471

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Methyl ethyl ketone	Methylene chloride	Tetrachloroethylene	Toluene	Total Toxic Organics	Trichloroethylene	Trichlorofluoromethane
					Total or Dissolved	NA	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	ND	--	ND	ND
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	ND	--	ND	ND
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	ND	--	ND	ND
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	ND	--	ND	ND
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	ND	--	ND	ND
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	ND	ND	--	ND	ND
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	ND	--	ND	ND
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--	--

MSD 032472

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Vinyl chloride	Xylene, m & p	Xylene, o	Xylene, total
					Total or Dissolved	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l
T1-67-AS	3/09/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-66-AS	3/08/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-65-AS	3/07/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-64-AS	3/06/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-63-AS	3/05/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-62-AS	3/04/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-60-AS	3/02/2015	4:50 AM	PDC	Validated	5030010	--	--	--	--
T1-60-AS	3/02/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-59-AS	3/01/2015	5:15 AM	PDC	Validated	5030009	--	--	--	--
T1-59-AS	3/01/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-58-AS	2/28/2015	4:35 AM	PDC	Validated	5030008	--	--	--	--
T1-58-AS	2/28/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023435	--	--	--	--
T1-57-AS	2/27/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023273	--	--	--	--
T1-56-AS	2/26/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023112	--	--	--	--
T1-55-AS	2/25/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022952	--	--	--	--
T1-54-AS	2/24/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022876	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	ND	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022878	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022879	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--

Doug Mendoza

Bridgeton Landfill

From:	Doug Mendoza
Sent:	Tuesday, March 10, 2015 7:00 AM
To:	'Ed Galbraith'
Cc:	Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Subject:	RE: Bridgeton BOD Surcharge Nov 2014- Feb 2015.docx

That is correct. We did not bill any surcharge for the days with <300 mg/L BOD.

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Monday, March 09, 2015 8:25 PM
To: Doug Mendoza
Cc: Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Subject: RE: Bridgeton BOD Surcharge Nov 2014- Feb 2015.docx

Doug, the 9615 CCF in your memo represents the volume >300 mg/l BOD. The non-surcharged volume (<300 mg/l) is not included. Was that your intent?

Ed Galbraith
Barr Engineering
Office: 573-638-5024
Cell: 573-418-5562
Fax: 573-638-5001

From: Doug Mendoza [DMENDOZA@stlmsd.com]
Sent: Monday, March 09, 2015 11:15 AM
To: Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Cc: Ed Galbraith
Subject: FW: Bridgeton BOD Surcharge Nov 2014- Feb 2015.docx

Mr. Power,

Please find below a copy of the billing memo that was sent to MSD's Finance Department. It is to bill Bridgeton Landfill for the high strength component of its onsite discharge from November 19, 2014 until February 15, 2015. Republic Services' accounts payable department also was copied on the memo email. Details of the surcharge level determination are attached.

As you may recall, MSD wrote Bridgeton Landfill on November 21, 2014 agreeing to delay application of a set surcharge level, but also reserving the right to bill retroactively for surcharge. Since it has been more than three months since onsite discharges started, and your pretreatment system still is not in a complete, steady-state mode, we are billing for onsite discharges up to the point where they were temporarily ceased on February 15, 2015.

Please note that since your pretreatment system has not yet achieved full biological treatment, much of the remaining strength appears to be accurately reflected in the BOD value. Therefore, the surcharge levels are based on BOD rather than COD. Note also that while the memo below lists the volume discharged (and the associated rate for volume), volume is not included with this surcharge billing. This is because Bridgeton Landfill already has been billed separately for the volume.

If you have any questions, please contact me.

TO: **Chris Verplancke, Finance Department**
Cynthia Chalk, Finance Department

FROM: Angie McDonough amm

DATE: March 9, 2015

RE: **BRIDGETON LANDFILL LLC**
WASTEWATER USER CHARGE BILLING
ACCOUNT NUMBER 0039145-8

Pursuant to the MSD Industrial Wastewater Discharge Permit for the above referenced facility, please bill this facility for the following charges for the indicated billing period:

DISCHARGE PERIOD: **November 29, 2014 through February 15, 2015**

BILLING IS FOR: **On- site discharge high strength BOD**

SAMPLE POINT: **013 - Commingled landfill leachate and landfill gas collection system condensate.**

Billing Item	Quantity	Units	Rate	Charge
Volume	9,615	CcF	$ 2.82 /CcF	
BOD Extra-Strength Surcharge	1,920	mg/L	$ 620.14 /ton	$30,137.60
Total	–	–	–	$30,137.60

If you have any questions, please call me at extension 8762.

bv

ec: Doug Mendoza
Brian Gibson
Bridgeton Republic Services
Laura Joiner
Cathy Politte
Keidra King

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

Doug Mendoza

From: Doug Mendoza
Sent: Monday, March 09, 2015 11:16 AM
To: Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Cc: Ed Galbraith (EGalbraith@barr.com) (EGalbraith@barr.com)
Subject: FW: Bridgeton BOD Surcharge Nov 2014- Feb 2015.docx
Attachments: Bridgeton Landfill onsite volume and strength Nov 2014 - Feb 2015.xlsx

Mr. Power,

Please find below a copy of the billing memo that was sent to MSD's Finance Department. It is to bill Bridgeton Landfill for the high strength component of its onsite discharge from November 19, 2014 until February 15, 2015. Republic Services' accounts payable department also was copied on the memo email. Details of the surcharge level determination are attached.

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Please note that since your pretreatment system has not yet achieved full biological treatment, much of the remaining strength appears to be accurately reflected in the BOD value. Therefore, the surcharge levels are based on BOD rather than COD. Note also that while the memo below lists the volume discharged (and the associated rate for volume), volume is not included with this surcharge billing. This is because Bridgeton Landfill already has been billed separately for the volume.

If you have any questions, please contact me.

Sincerely,
Doug Mendoza
MSD Industrial Pretreatment Manager

From: Rebecca Vitelli
Sent: Monday, March 09, 2015 11:00 AM
To: Special Handling/Other DEC
Cc: Angie McDonough; Doug Mendoza; Brian G. Gibson; bridgetonap@republicservies.com; Catherine Politte; Keidra King
Subject: Bridgeton BOD Surcharge Nov 2014- Feb 2015.docx

TO: **Chris Verplancke, Finance Department**
Cynthia Chalk, Finance Department

FROM: Angie McDonough amm

DATE: March 9, 2015

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BOD Extra-Strength Surcharge	1,920	mg/L	$ 620.14 /ton	$30,137.60
Total	--	--	--	$30,137.60

If you have any questions, please call me at extension 8762.

bv

ec: Doug Mendoza
Brian Gibson
Bridgeton Republic Services
Laura Joiner
Cathy Politte
Keidra King

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

BRIDGETON LANDFILL ONSITE DISCHARGE - NOVEMBER 2014 - FEBRUARY 2015

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Total Discharge	BOD/COD	Interpolated BOD/COD	Used BOD/COD	BOD*Disch
						Total or Dissolved	NA	NA	NA				
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l					
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal				
MH013	2/15/2015	12:25 AM	10:15 PM	PDC	Validated	5022177	3,200	6,000	98,721	0.533333		0.533333	315,907,200
MH013	2/14/2015	12:01 AM	11:00 PM	PDC	Validated	5022176	3,200	7,000	67,868	0.457143		0.457143	217,177,600
MH013	2/13/2015	1:00 AM	3:00 PM	PDC	Validated	5022148	2,500	7,900	152,379	0.316456		0.316456	380,947,500
MH013	2/12/2015	1:00 AM	3:15 PM	PDC	Validated	5022010	2,800	5,700	134,317	0.491228		0.491228	376,087,600
MH013	2/11/2015	1:00 AM	3:00 PM	PDC	Validated	5021749	3,000	7,200	102,643	0.416667		0.416667	307,929,000
MH013	2/10/2015	1:00 AM	1:30 PM	PDC	Validated	5021377	2,500	6,000	99,555	0.416667		0.416667	248,887,500
MH013	2/09/2015	5:00 AM	9:00 PM	PDC	Validated	5021376	3,400	7,400	99,379	0.459459		0.459459	337,888,600
MH013	2/08/2015	5:00 AM	1:00 PM	PDC	Validated	5021023	3,100	6,700	74,418	0.462687		0.462687	230,695,800
MH013	2/07/2015	11:30 AM	9:00 PM	PDC	Validated	5021021	2,600	5,800	68,948	0.448276		0.448276	179,264,800
MH013	2/06/2015	5:00 PM	11:59 PM	PDC	Validated	5021020	1,500	4,700	82,218	0.319149		0.319149	123,327,000
MH013	1/14/2015	5:00 PM	11:00 PM	Pace	Validated	60186290	2,090		102,561		0.26149755	0.261498	214,352,490
MH013	1/04/2015			LPTP	No QC	LPTP		6,970	88,622		0.26149755	0.261498	161,525,815
MH013	1/03/2015			LPTP	No QC	LPTP		4,500	180,086		0.26149755	0.261498	211,914,211
MH013	1/02/2015			LPTP	No QC	LPTP		5,290	164,725		0.26149755	0.261498	227,867,719
MH013	1/01/2015			LPTP	No QC	LPTP		4,990	171,886		0.26149755	0.261498	224,289,357
MH013	12/31/2014			LPTP	No QC	LPTP		4,980	170,525		0.26149755	0.261498	222,067,507
MH013	12/30/2014			LPTP	No QC	LPTP		4,900	170,327		0.26149755	0.261498	218,246,453
MH013	12/29/2014	11:00 AM	9:00 PM	Pace	Validated	60185491	1,060	5,200	107,160	0.203846		0.203846	113,589,600
MH013	12/28/2014	1:00 AM	11:00 PM	PDC	Validated	4123601	1,600	4,000	95,382	0.4		0.4	152,611,200
MH013	12/27/2014			LPTP	No QC	LPTP		6,890	194,482		0.37424242	0.374242	501,477,730
MH013	12/26/2014			LPTP	No QC	LPTP		7,230	181,455		0.37424242	0.374242	490,975,990
MH013	12/25/2014	3:00 AM	11:00 PM	PDC	Validated	4123526	2,300	6,600	209,797	0.348485		0.348485	482,533,100
MH013	12/24/2014			LPTP	No QC	LPTP		6,820	223,866		0.3597263	0.359726	549,217,920
MH013	12/23/2014			PDC	Validated	4123476	2,300	6,200	161,328	0.370968		0.370968	371,054,400
MH013	12/22/2014	1:00 AM	11:00 PM	PDC	Validated	4123435	3,000	7,700	185,637	0.38961		0.38961	556,911,000
MH013	12/21/2014	1:00 AM	11:00 PM	PDC	Validated	4123226	3,200	8,600	224,349	0.372093		0.372093	717,916,800
MH013	12/20/2014			LPTP	No QC	LPTP		7,630	189,681		0.3661413	0.366141	529,903,863
MH013	12/19/2014	12:01 AM	11:20 AM	Pace	Validated	60185089	2,280	6,330	220,853	0.36019		0.36019	503,544,840
LPTP Permeate	12/18/2014	12:15 AM	11:45 PM	Pace	Validated	60185095	2,380	6,280	285,745	0.378981		0.378981	680,073,100
LPTP Permeate	12/17/2014	1:00 AM	11:00 PM	Pace	Validated	60184969	2,190	6,150	137,231	0.356098		0.356098	300,535,890
LPTP Permeate	12/16/2014	3:00 AM	11:00 PM	Pace	Validated	60184814	1,770	4,270	140,172	0.41452		0.41452	248,104,440
LPTP Permeate	12/15/2014	3:00 AM	11:00 PM	Pace	Validated	60184697	1,860	4,950	118,430	0.375758		0.375758	220,279,800
LPTP Permeate	12/14/2014	12:01 AM	11:59 PM	Pace	Validated	60184584	1,560	5,340	155,816	0.292135		0.292135	243,072,960
LPTP Permeate	12/13/2014	1:00 AM	11:00 PM	Pace	Validated	60184583	1,700	5,550	146,414	0.306306		0.306306	248,903,800
LPTP Permeate	12/12/2014	12:01 AM	11:40 AM	Pace	Validated	60184496	1,470	5,500	101,039	0.267273		0.267273	148,527,330
LPTP Permeate	12/11/2014	1:00 AM	11:00 PM	Pace	Validated	60184493	1,510	6,010	77,434	0.251248		0.251248	116,925,340
LPTP Permeate	12/10/2014	1:00 AM	11:00 PM	Pace	Validated	60184402	1,460	5,060	83,552	0.288538		0.288538	121,985,920
LPTP Permeate	12/09/2014	12:30 AM	11:00 PM	Pace	Validated	60184264	879	3,200	117,163	0.274688		0.274688	102,986,277
LPTP Permeate	12/08/2014	1:00 AM	11:00 PM	Pace	Validated	60184176	1,040	4,060	153,712	0.256158		0.256158	159,860,480
LPTP Permeate	12/07/2014	1:00 AM	11:00 PM	Pace	Validated	60184020	1,570	4,960	176,775	0.316532		0.316532	277,536,750
LPTP Permeate	12/06/2014	12:15 PM	11:30 PM	Pace	Validated	60184019	1,680	5,210	199,678	0.322457		0.322457	335,459,040
LPTP Permeate	12/05/2014	12:05 AM	11:35 AM	Pace	Validated	60183966	2,020	5,640	135,888	0.358156		0.358156	274,493,760
LPTP Permeate	12/04/2014	12:56 AM	7:00 PM	Pace	Validated	60183965	2,060	5,480	178,118	0.375912		0.375912	366,923,080
LPTP Permeate	12/03/2014	4:00 AM	11:00 PM	Pace	Validated	60183850	655	2,370	189,592	0.276371		0.276371	124,182,760
LPTP Permeate	12/02/2014	3:00 AM	11:00 PM	Pace	Validated	60183709	698	2,680	188,186	0.260448		0.260448	131,353,828
LPTP Permeate	12/01/2014	1:00 AM	11:50 PM	Pace	Validated	60183605	817	3,540	204,643	0.230791		0.230791	167,193,331
LPTP Permeate	11/30/2014	1:00 AM	11:50 PM	Pace	Validated	60183522	1,070	4,040	189,224	0.264851		0.264851	202,469,680
LPTP Permeate	11/29/2014	1:00 AM	11:50 PM	Pace	Validated	60183525	900	3,990	189,819	0.225564		0.225564	170,837,100
								1,972 <=Avg BOD	7,191,799 <= Total Disch for Surcharge				13,809,817,261 <= Total BOD*Discharge
													1,920 <= Flow weighted BOD
LPTP Permeate	11/28/2014	12:05 AM	11:35 AM	Pace	Validated	60183489	365	3,010	150,527	0.121262		0.121262	54,942,355
LPTP Permeate	11/27/2014	12:45 AM	1:00 PM	Pace	Validated	60183491	302	2,960	163,648	0.102027		0.102027	49,421,696
LPTP Permeate	11/26/2014	1:10 AM	10:40 PM	Pace	Validated	60183490	173	2,770	133,196	0.062455		0.062455	23,042,908
LPTP Permeate	11/25/2014	1:00 AM	11:40 PM	Pace	Validated	60183478	135	2,750	188,369	0.049091		0.049091	25,429,815
LPTP Permeate	11/24/2014	1:00 AM	11:50 PM	Pace	Validated	60183482	284	3,070	182,143	0.092508		0.092508	51,728,612
LPTP Permeate	11/23/2014	1:00 AM	11:00 PM	Pace	Validated	60183237	146	2,650	170,298	0.055094		0.055094	24,863,508
LPTP Permeate	11/22/2014	1:00 AM	11:59 PM	Pace	Validated	60183235	125	2,600	174,031	0.048077		0.048077	21,753,875
LPTP Permeate	11/21/2014	2:00 PM	11:50 PM	Pace	Validated	60183234	271	2,800	168,051	0.096786		0.096786	45,541,821
LPTP Permeate	11/20/2014	1:00 PM	11:00 PM	Pace	Validated	60183231	208	2,720	182,001	0.076471		0.076471	37,856,208
LPTP Permeate	11/19/2014	3:00 PM	9:00 PM	Pace	Validated	60183048	250	2,990	45,426	0.083612		0.083612	11,356,500
									1,557,690 <= Total Disch w/NO Surcharge				

Doug Mendoza

From: Power, Brian <BPower@republicservices.com>
Sent: Saturday, March 07, 2015 6:20 AM
To: Doug Mendoza; Ed Galbraith (EGalbraith@barr.com) (EGalbraith@barr.com)
Subject: External communication of MSD and Bridgeton Landfill sampling requirements/program for Bridgeton Landfill

Doug, thank you for your email. We recognize MSD's obligations to provide data in its possession to the public when requested, and we are ready to help you meet that obligation however we can. As you know, we have systems in place to verify and QC all sampling data, provide it to you in a timely way, and bring to your attention any changes or anomalies in the data. If there is anything that we can improve on to make the data reporting process easier for MSD, I hope you will let us know.

Brian J. Power
Environmental Manager
Bridgeton Landfill, LLC.
13570 Saint Charles Rock Road
Bridgeton, MO 63044

Phone: (618) 410-0157
Email: bpower@republicservices.com

From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Tuesday, March 03, 2015 8:34 AM
To: Ed Galbraith; Power, Brian <BPower@republicservices.com> (BPower@republicservices.com) (BPower@republicservices.com)
Subject: External communication of MSD and Bridgeton Landfill sampling requirements/program for Bridgeton Landfill

Ed & Brian,

This is just to pass on some information to you. As you know, we recently met with the public (at their request) regarding the monitoring and oversight that MSD performs at Bridgeton Landfill. At that meeting, questions and discussions occurred regarding what sampling MSD performs and what Bridgeton Landfill performs. MSD will be meeting with some members of the public again to provide details of MSD's future sampling plans at Bridgeton Landfill. Members may also request details of what pollutants Bridgeton Landfill self-monitors, as well as potentially requesting sample result data. MSD is obligated to provide requested information, since its files are public documents.

Sincerely,
Doug Mendoza
MSD Industrial Pretreatment Manager

Doug Mendoza Bridgeton Landfill

From: Koziatek, Dan <dkoziatek@cecinc.com>
Sent: Friday, March 06, 2015 1:09 PM
To: Jonathon Sprague; Kamp, Kevin; Jay Kniker; John Lodderhose; Doug Mendoza; Ken Gambaro; Steve Hahn; Mike Steiniger (Mike@steinigercos.com); Mike Jerome (mjerome@bistateutilities.com); Knuth, Matt; Chris Beer (cbeer@eccstl.com); Franklin Chott (fchott@eccstl.com); 'Mark Price' (mprice@eccstl.com); Bobby Lyerla (ralyerla@munequip.com); Rob G Daly; Power, Brian (BPower@republicservices.com)
Subject: Bridgeton-Bissell Force Main - Startup

All,

We have heard from all of the associated groups and have confirmed we are ready to start up the Bridgeton Bissell force main system on **Monday, March 9th at 8am**.

Thank you to everyone for helping to coordinate these efforts and providing personnel throughout the project to get the system planned, designed, reviewed, permitted, constructed, inspected, tested and started. I truly appreciate all of the hard work that has gone into this project.

Sincerely,

Dan Koziatek, P.E. / Senior Project Manager
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4588 · Fax: 314-656-4595 ·
Mobile: 314-330-9805 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

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From: Jonathon Sprague [mailto:JSPRAGUE@stlmsd.com]
Sent: Friday, March 06, 2015 8:58 AM
To: Kamp, Kevin; Jay Kniker
Cc: Power, Brian (BPower@republicservices.com); Koziatek, Dan; John Lodderhose; Doug Mendoza; Ken Gambaro; Steve Hahn
Subject: RE: Bridgeton-Bissell Force Main

I concur that you can start the stations on Monday based on the condition listed below. Please coordinate and communicate with Rob Daly with pump stations, Ken Gambaro at Coldwater and John Lodderhose with DEC group and make sure all other issues are resolved and everyone concurs with the plan.

Jonathon Sprague
Director of Operations
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103
314 768-6261

From: Kamp, Kevin [mailto:kkamp@cecinc.com]
Sent: Thursday, March 05, 2015 3:07 PM
To: Jonathon Sprague; Jay Kniker

Doug Mendoza Bridgeton Landfill

From: Ken Gambaro
Sent: Friday, March 06, 2015 10:47 AM
To: Kamp, Kevin; John Lodderhose; Doug Mendoza
Subject: RE: Bridgeton-Bissell Force Main

We are OK with it. Please confirm when pumping will start.

Kenneth M. Gambaro, P.E.
Operations Division Manager
Metropolitan St. Louis Sewer District
Missouri River WWTP
314-646-2421
Coldwater Creek WWTP
314-646-2431

From: Kamp, Kevin [mailto:kkamp@cecinc.com]
Sent: Friday, March 06, 2015 9:19 AM
To: John Lodderhose; Doug Mendoza; Ken Gambaro
Subject: FW: Bridgeton-Bissell Force Main

I think you guys had no issues for some time but just confirming that you are ready for us to start on the schedule we have outlined before. Please drop me a note that you are good. Thanks

Sincerely,

Kevin T. Kamp, P.E. / Principal
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4570 · Fax: 314-656-4595 ·
Mobile: 314-397-0414 · http://www.cecinc.com
Senior Leadership · Integrated Services · Personal Business Relationships

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From: Jonathon Sprague [mailto:JSPRAGUE@stlmsd.com]
Sent: Friday, March 06, 2015 8:58 AM
To: Kamp, Kevin; Jay Kniker
Cc: Power, Brian (BPower@republicservices.com); Koziatek, Dan; John Lodderhose; Doug Mendoza; Ken Gambaro; Steve Hahn
Subject: RE: Bridgeton-Bissell Force Main

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Jonathon Sprague
Director of Operations
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103
314 768-6261

Dr

Doug Mendoza

Bridgeton Landfill

From: Doug Mendoza
Sent: Friday, March 06, 2015 9:21 AM
To: 'Kamp, Kevin'; John Lodderhose; Ken Gambaro
Subject: RE: Bridgeton-Bissell Force Main

That is correct from DEC standpoint.

From: Kamp, Kevin [mailto:kkamp@cecinc.com]
Sent: Friday, March 06, 2015 9:19 AM
To: John Lodderhose; Doug Mendoza; Ken Gambaro
Subject: FW: Bridgeton-Bissell Force Main

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Cc: Power, Brian (BPower@republicservices.com); Koziatek, Dan; John Lodderhose; Doug Mendoza; Ken Gambaro; Steve Hahn
Subject: RE: Bridgeton-Bissell Force Main

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Doug Mendoza

Bridgeton Landfill

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Director of Operations
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From: Kamp, Kevin [mailto:kkamp@cecinc.com]
Sent: Thursday, March 05, 2015 3:07 PM
To: Jonathon Sprague; Jay Kniker
Cc: Power, Brian (BPower@republicservices.com); Koziatek, Dan; John Lodderhose; Doug Mendoza
Subject: Bridgeton-Bissell Force Main

Jon,

I appreciate your time on the phone toady. To elaborate on what we discussed, I wanted to give you an update on the force main and our desire to begin using the infrastructure as soon as we can. The Bridgeton Bissell force main has been constructed to the Coldwater Creek connection. All three pump stations are complete and have been inspected and tested (with potable water) by MSD personnel. Additional work continues beyond the CWC connection to reach the Bissell Point watershed connection (near I-170). We have approximately 2,000 linear feet to go to make the Bissell connection and expect to be complete by March 20.

Doug Mendoza Bridgeton Landfill

From: Jonathon Sprague
Sent: Friday, March 06, 2015 8:58 AM
To: 'Kamp, Kevin'; Jay Kniker
Cc: Power, Brian (BPower@republicservices.com); Koziatek, Dan; John Lodderhose; Doug Mendoza; Ken Gambaro; Steve Hahn
Subject: RE: Bridgeton-Bissell Force Main

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St. Louis, MO 63103
314 768-6261

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Sent: Thursday, March 05, 2015 3:07 PM
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Cc: Power, Brian (BPower@republicservices.com); Koziatek, Dan; John Lodderhose; Doug Mendoza
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Phase 1 of the force main was installed using locator balls and these balls are in and complete. However, Phases 2, 3 and 4 were specified and approved to use tracer wire. This tracer wire was installed with the force main piping when horizontally bored. The wire was fed from a spool and affixed to the pipe per manufacturers specifications. The ends of the wire were brought to grade every 500' (minimum) – i.e. at each ARV, bore pit (using a access box) and cleanout. This wire and installation procedure was specified as an alternative to the standard locator balls in order to provide MSD with both horizontal and vertical location of the installed piping – and to minimize the pavement coring and pavement disturbance to install the numerous locator balls along the pipe.

Unfortunately, we have had some difficulty with the field location of the tracer wire after installation. This difficulty is related to several factors including faulty wire connectors, broken splices in the wire below grade, inexperience with the new locator devices, etc. Although MSD technicians have made several attempts to locate the wire they ultimately have not been satisfied with the performance of the tracer wire system in the current state. Although there still is merit and benefits to the use of the tracer wire in this application, the schedule and cost benefit for this particular situation and the long lead time of troubleshooting and repairing the wire to overcome the issues of extreme winter working conditions and extensive traffic control efforts needed to get to this point leads us to the tough decision to redundantly install locator balls along the main to get the flow through to the Coldwater connection as we believe that this decision

TO: Chris Verplancke, Finance Department
Cynthia Chalk, Finance Department

FROM: Angie McDonough amm

DATE: March 5, 2015

SUBJECT: BRIDGETON LANDFILL LLC
WASTEWATER USER CHARGE BILLING
ACCOUNT NUMBER 0039145-8

Pursuant to the MSD Industrial Wastewater Discharge Permit for the above referenced facility, please bill this facility for the following charges for the indicated billing period:

VOLUME

February On-Site Discharge
980,446 gallons discharged on-site

Total Volume = 980,446 gallons = 1311 CcF

Total Bill = 1311 CcF x $2.82/CcF = $3,697.02

The volume was obtained from the customer's on-site discharge self-monitoring report.

SOURCE OF WASTE: SP 801 Commingled landfill leachate and landfill gas collection system condensate.

BILLING PERIOD: February 1, 2015 through February 28, 2015

Other applicable wastewater user charges, as per Ordinance 13758, should be included in this bill. Please call me at 436-8762 if you have any questions.

bv

ec: Doug Mendoza
Brian Gibson
Bridgeton Republic Services
Laura Joiner
Cathy Politte
Keidra King

FILE: IU, Bridgeton Landfill LLC, 1003-8030-00

Bridgeton Landfill

Doug Mendoza

From: Kamp, Kevin <kkamp@cecinc.com>
Sent: Thursday, March 05, 2015 3:07 PM
To: Jonathon Sprague; Jay Kniker
Cc: Power, Brian (BPower@republicservices.com); Koziatek, Dan; John Lodderhose; Doug Mendoza
Subject: Bridgeton-Bissell Force Main

Jon,

I appreciate your time on the phone toady. To elaborate on what we discussed, I wanted to give you an update on the force main and our desire to begin using the infrastructure as soon as we can. The Bridgeton Bissell force main has been constructed to the Coldwater Creek connection. All three pump stations are complete and have been inspected and tested (with potable water) by MSD personnel. Additional work continues beyond the CWC connection to reach the Bissell Point watershed connection (near I-170). We have approximately 2,000 linear feet to go to make the Bissell connection and expect to be complete by March 20.

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The contractor has already mobilized their crews to begin core drilling the pavement to install the balls. You will see the trucks in the field today (March 5). According to the contractor, by using multiple crews they estimate being complete to the CWC connection by the end of next week (March 13). That said, we request that MSD work with us to allow the start up the system and begin forcing wastewater to the Coldwater Creek connection. We prefer to do this start up and begin conveying wastewater on Monday, March 9th. To do this we suggest and offer the following:

1. We will install locator balls per MSD specifications.
2. We will perform requested locates of the constructed force main that may be required over the next few weeks during the installation of the locator balls.
3. Additionally during the next few weeks, if damage occurs to the constructed force main due to other adjacent construction projects, we will repair the damage to bring the force main to an operable status.

Please review and let us know if MSD is agreeable to these conditions and can allow for the use of the force main to begin as outlined. We truly appreciate the District's continued cooperation on this project.

Sincerely,

Kevin T. Kamp, P.E. / Principal
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
Toll-Free: 866-250-3679 · Direct: 314-656-4570 · Fax: 314-656-4595 ·
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Bridgeton Landfill

Doug Mendoza

From: Rob G Daly
Sent: Thursday, March 05, 2015 2:08 PM
To: John Lodderhose
Cc: Michael Grace; Nora C. Estopare; Mark Bright; Jay Kniker; 'Bill Pietroburgo'; Jonathon Sprague; Doug Mendoza
Subject: Bridgeton PS No. 1 Site Hazard (PS No. 1)- Sampling/Monitoring Protocol Revisions (Proposed)

John

Per our discussion this morning- see below.

I am requesting that you respond to Bridgeton folks with the following, re: revisions to their proposed sampling and monitoring proposal- and I did speak verbally with Jon Sprague this morning- he also agrees with this plan.

1. See specific technical request made by our Industrial hygienist. We would ask that sampling and monitoring protocol be modified to incorporate his comments and suggested revisions. They are minor.
2. I am specifically requesting that we extend the sampling/monitoring protocol to a 6 month mandatory minimum duration period. **Period to start March 2 and end August 28th.** I would add a caveat that we (District) will be glad to collectively re-assess the gathered/collected results at the three month mark and that it is possible that we will at that time identify to landfill that no further testing need continue- to be followed by acceptance of PS No. 1 by District Operations/PS group. This caveat is based on testing revealing no 'negative' results in interim periods of sampling that would be considered to pose a health hazard, either immediate or longer term. I leave it to you, and Nora, if needed, to identify the right language here, e.g. 'results collected shall not exceed common STEL, etc." part- but I think we all have the gist of this- we want to make sure that there are no demonstrated health hazards at site over a long enough period of time to validate that their 'protective system' actually fulfills its intended function. Three month re-assessment mark – lets go ahead and schedule it. I propose **Monday, June 1st, at Bissel REO Conf Room at 1:00 pm**. I already booked it tentatively for this date/time for this purpose- but did not invite personnel- was going to leave this in your court.
3. Chain of custody of data and witnessing sampling-per Landfill proposal? How do you think this should be dealt with? Do you need someone from your group to witness this sampling event each time? Can you please communicate your intent on this side to us? Or is the chain of custody piece in their proposal sufficient to answer any potential concerns?

4. Can we please receive a copy of the revised sampling plan that incorporates these revisions to share with our staff?

5. If we could also be copied on any conversations you initiate with landfill on this specific issue, as well as getting direct copied on sampling results as they become available each time, it would be greatly appreciated. We will intend to have our blanket vendor (Bill Pietroburgo) analyze these three and/or 6 month results on our behalf (but NOT on a continuous basis as they are collected) and we will ask him to provide his analysis of possible impact to staff health and safety. The group I am copying in this email is the proposed distribution group for sampling results as they become available.

This will not impact the ability to start the water flowing to either Coldwater or Bissel. It will simply place responsibility for maintenance and maintenance response on Bridgeton folks until we DO accept this asset for operations and maintenance.

Please let me know if any issues or concerns with this proposed plan. Thank you.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Bill Pietroburgo [mailto:bpietroburgo@pe-engrs.com]
Sent: Thursday, February 26, 2015 12:25 PM
To: Rob G Daly
Cc: Michael Grace; Nora C. Estopare; Mark Bright; Jay Kniker
Subject: RE: Bridgeton Bissell Force Main - Gas Collection System at PS1

Rob,

I think the plan looks good – however, I think the sampling should be extended out to 6 months as well to reflect the summer months when organics (benzene in particular) are most likely to volatize. This would also assess the longer term viability/effectiveness of the vacuum trench system. I would also include the reduced sulfur compounds in the TO-15 analysis (summa canisters) including dimethyl sulfide.

I would like to see the Field Meter Sampling with Benzene Tubes extended out to the six month period as follows:

The new schedule would be as follows:

- Once per week for the period beginning March 2, 2015 and ending May 29, 2015.
- Once every two weeks for the period beginning June 1, 2015 and ending August 28, 2015.

Thanks....Bill

From: Rob G Daly [mailto:rdaly@stlmsd.com]
Sent: Tuesday, February 24, 2015 9:36 PM
To: Bill Pietroburgo
Cc: Michael Grace; Nora C. Estopare; Mark Bright; Jay Kniker
Subject: Bridgeton Bissell Force Main - Gas Collection System at PS1

Bill

If possible- could you please review this proposed plan and provide your professional opinion and answers to this essential set of question(s):

1. Does this proposed sampling plan adequately sample and monitor constituent components of concern- or is something else necessary?

2. Is the frequency and duration proposed adequate to genuinely, and appropriately, assess site conditions? I have actually proposed 6 months- not three- just FYI.

If at all possible to get an answer by Thursday, February 26th it would be very very helpful.

Rob Daly, P.E.
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Rob G Daly
Sent: Tuesday, February 24, 2015 4:16 PM
To: Jay Kniker; Mark Bright
Subject: Fwd: FW: Bridgeton Bissell Force Main - Gas Collection System at PS1

Fyi. I will not review in detail until Thursday.

-------- Original Message --------
Subject: FW: Bridgeton Bissell Force Main - Gas Collection System at PS1
From: John Lodderhose <JRLODD@stlmsd.com>
To: Rob G Daly <rdaly@stlmsd.com>,"Nora C. Estopare" <nestopare@stlmsd.com>,Michael Grace <MGRACE@stlmsd.com>
CC:

Proposed sampling plan attached.

From: Kamp, Kevin [mailto:kkamp@cecinc.com]
Sent: Tuesday, February 24, 2015 1:54 PM
To: Jay Hoskins; Doug Mendoza; John Lodderhose
Cc: Brian J. Power (BPower@republicservices.com); Derek Bouchard (dbouchard@republicservices.com); Ed Galbraith; James Getting (jgetting@republicservices.com); jmerrigan@lathropgage.com; Rick J. Campbell; Koziatek, Dan
Subject: RE: Bridgeton Bissell Force Main - Gas Collection System at PS1

John/Doug,
Please find attached the proposed air sampling plan for pump station 1. Also please forward on to the others in the group as needed. We appreciate your assistance in allowing this project and its progress to continue while we collect this data. Feel free to contact Ed or Dan with any questions you may have.

Sincerely,

Kevin T. Kamp, P.E. / Principal
Civil & Environmental Consultants, Inc.
4848 Park 370 Blvd., Suite F · Hazelwood, MO 63042
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Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Wednesday, March 04, 2015 11:30 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report

CB 3-10

The material for the week is now posted on Barr's ftp site.

In last week's spreadsheet there was a transcription error for sample **T1-51-AS (02/21/2015)** for pH, COD, TSS. The values have been corrected.
pH=7.63 (corrected from *7.7)*
COD=6,820 mg/l *(corrected from 7710)*
TSS=5,880 mg/l *(corrected from 4640)*

As a reminder, the FTP site can be accessed as follows:

Copy this link and paste it into Windows Explorer (NOT Internet Explorer) ftp://ftp.barr.com/bridgetonlandfill/2015%20Reports/
User: blfdata; Password: tran$fer!

Ed Galbraith

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resourceful. naturally. BARR

Table 1
LPTP Discharge Samples
Bridgeton Landfill

(* DATA ALREADY ENTERED)

						Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrate	Nitrite	Nitrogen, ammonia as N
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	300 mg/l	600 mg/l				
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
LPTP Permeate	3/02/2015			LPTP	No QC	LPTP	--	4720	--	--	--	--
MH013	3/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/01/2015			LPTP	No QC	LPTP	--	4390	--	--	--	--
MH013	3/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/28/2015			LPTP	No QC	LPTP	--	4600	--	--	--	--
MH013	2/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
MH013	2/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/26/2015			LPTP	No QC	LPTP	--	4740	--	--	--	--
MH013	2/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/25/2015			LPTP	No QC	LPTP	--	4140	--	--	--	--
MH013	2/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/24/2015			LPTP	No QC	LPTP	--	4260	--	--	--	--
MH013	2/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/23/2015			LPTP	No QC	LPTP	--	4660	--	--	--	--
MH013	2/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/22/2015			LPTP	No QC	LPTP	--	4600	--	--	--	--
MH013	2/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/21/2015			LPTP	No QC	LPTP	--	5070	--	--	--	--
MH013	2/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/20/2015			LPTP	No QC	LPTP	--	5360	--	--	--	--
MH013	2/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/19/2015			LPTP	No QC	LPTP	--	5250	--	--	--	--
MH013	2/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/18/2015			LPTP	No QC	LPTP	--	7050	--	--	--	--
MH013	2/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/17/2015			LPTP	No QC	LPTP	--	6150	--	--	--	--
MH013	2/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/16/2015			LPTP	No QC	LPTP	--	6830	--	--	--	--
MH013	2/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/15/2015			LPTP	No QC	LPTP	--	7130	--	--	--	--
MH013	2/15/2015	12:25 AM	10:15 PM	PDC	Validated	5022177	3200	6000	--	--	--	--
MH013	2/15/2015			LPTP	No QC	LPTP	--	7500	--	--	--	--
LPTP Permeate	2/14/2015			LPTP	No QC	LPTP	--	8610	--	--	--	--
MH013	2/14/2015	12:01 AM	11:00 PM	PDC	Validated	5022176	3200	7000	--	--	--	--
MH013	2/14/2015			LPTP	No QC	LPTP	--	8110	--	--	--	--
LPTP Permeate	2/13/2015			LPTP	No QC	LPTP	--	9100	--	--	--	--
MH013	2/13/2015	1:00 AM	3:00 PM	PDC	Validated	5022148	2500	7900	--	--	--	--
MH013	2/13/2015			LPTP	No QC	LPTP	--	8810	--	--	--	--
LPTP Permeate	2/12/2015			LPTP	No QC	LPTP	--	9470	--	--	--	--
MH013	2/12/2015	1:00 AM	3:15 PM	PDC	Validated	5022010	2800	5700	--	--	--	--
MH013	2/12/2015			LPTP	No QC	LPTP	--	8330	--	--	--	--

MSD 032492

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Oil and Grease	Orthophosphate, as P	Permeate Produced	pH	pH	Phosphorus, total, as P
						Total or Dissolved	NA	NA	NA	NA	NA	NA
						Permit Limitation/Surcharge Threshold	200 mg/l			5.5 - 11.5 pH units	5.5 - 11.5 pH units	
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	mg/l	gal	pH units	pH units	mg/l
LPTP Permeate	3/02/2015			LPTP	No QC	LPTP	--	1.87	43110	--	7.59	2.92
MH013	3/02/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	3/01/2015			LPTP	No QC	LPTP	--	2.23	77130	--	7.51	2.59
MH013	3/01/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/28/2015			LPTP	No QC	LPTP	--	2.23	86908	--	7.62	2.63
MH013	2/28/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/27/2015			LPTP	No QC	LPTP	--	--	43076	--	--	--
MH013	2/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/26/2015			LPTP	No QC	LPTP	--	1.79	157983	--	7.55	2.83
MH013	2/26/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/25/2015			LPTP	No QC	LPTP	--	2.54	125348	--	7.66	2.90
MH013	2/25/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/24/2015			LPTP	No QC	LPTP	--	2.79	105220	--	7.65	3.48
MH013	2/24/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/23/2015			LPTP	No QC	LPTP	--	2.43	143150	--	7.31	3.20
MH013	2/23/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/22/2015			LPTP	No QC	LPTP	--	0.577	115520	--	7.33	1.73
MH013	2/22/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/21/2015			LPTP	No QC	LPTP	--	1.82	86427	--	7.46	2.04
MH013	2/21/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/20/2015			LPTP	No QC	LPTP	--	1.15	126676	--	7.42	2.55
MH013	2/20/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/19/2015			LPTP	No QC	LPTP	--	3.38	36321	--	7.48	2.61
MH013	2/19/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/18/2015			LPTP	No QC	LPTP	--	3.02	30914	--	7.55	3.68
MH013	2/18/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/17/2015			LPTP	No QC	LPTP	--	2.43	112880	--	7.56	2.49
MH013	2/17/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/16/2015			LPTP	No QC	LPTP	--	0.981	130263	--	7.49	2.30
MH013	2/16/2015			LPTP	No QC	LPTP	--	--	--	--	--	--
LPTP Permeate	2/15/2015			LPTP	No QC	LPTP	--	0.057	80928	--	7.46	1.97
MH013	2/15/2015	12:25 AM	10:15 PM	PDC	Validated	5022177	--	--	--	--	--	--
MH013	2/15/2015			LPTP	No QC	LPTP	--	--	--	--	7.51	--
LPTP Permeate	2/14/2015			LPTP	No QC	LPTP	--	0.933	63743	--	7.55	2.41
MH013	2/14/2015	12:01 AM	11:00 PM	PDC	Validated	5022176	--	--	--	--	--	--
MH013	2/14/2015			LPTP	No QC	LPTP	--	--	--	--	7.58	--
LPTP Permeate	2/13/2015			LPTP	No QC	LPTP	--	1.14	135481	--	7.68	2.24
MH013	2/13/2015	1:00 AM	3:00 PM	PDC	Validated	5022148	--	--	--	--	--	--
MH013	2/13/2015			LPTP	No QC	LPTP	--	--	--	--	7.76	--
LPTP Permeate	2/12/2015			LPTP	No QC	LPTP	--	0.926	115770	--	7.67	2.31
MH013	2/12/2015	1:00 AM	3:15 PM	PDC	Validated	5022010	--	--	--	--	--	--
MH013	2/12/2015			LPTP	No QC	LPTP	--	--	--	--	7.82	--

MSD 032493

Table 1
LPTP Discharge Samples
Bridgeton Landfill

						Parameter	Solids, total suspended	Total Discharge	Total Phenolics	Total Toxic Organics	Ultraviolet absorbance at 254 nm	Antimony	Arsenic
						Total or Dissolved	NA	NA	NA	NA	NA	Total	Total
						Permit Limitation/Surcharge Threshold	300 mg/l			5844 ug/l			770 ug/l
Location	Date	Start Composite	End Composite	Lab Name	Data Status	Lab Report	mg/l	gal	mg/l	ug/l	cm-1	ug/l	ug/l
LPTP Permeate	3/02/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	3/02/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	3/01/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	3/01/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/28/2015			LPTP	No QC	LPTP	11	--	--	--	--	--	--
MH013	2/28/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/27/2015			LPTP	No QC	LPTP	--	--	--	--	--	--	--
MH013	2/27/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/26/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	2/26/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/25/2015			LPTP	No QC	LPTP	11	--	--	--	--	--	--
MH013	2/25/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/24/2015			LPTP	No QC	LPTP	15.5	--	--	--	--	--	--
MH013	2/24/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/23/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	2/23/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/22/2015			LPTP	No QC	LPTP	10.5	--	--	--	--	--	--
MH013	2/22/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/21/2015			LPTP	No QC	LPTP	12	--	--	--	--	--	--
MH013	2/21/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/20/2015			LPTP	No QC	LPTP	13	--	--	--	--	--	--
MH013	2/20/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/19/2015			LPTP	No QC	LPTP	8.5	--	--	--	--	--	--
MH013	2/19/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/18/2015			LPTP	No QC	LPTP	10	--	--	--	--	--	--
MH013	2/18/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/17/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	2/17/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/16/2015			LPTP	No QC	LPTP	11.5	--	--	--	--	--	--
MH013	2/16/2015			LPTP	No QC	LPTP	--	0	--	--	--	--	--
LPTP Permeate	2/15/2015			LPTP	No QC	LPTP	13	--	--	--	--	--	--
MH013	2/15/2015	12:25 AM	10:15 PM	PDC	Validated	5022177	32	--	--	--	--	--	450
MH013	2/15/2015			LPTP	No QC	LPTP	59	98721	--	--	--	--	--
LPTP Permeate	2/14/2015			LPTP	No QC	LPTP	17	--	--	--	--	--	--
MH013	2/14/2015	12:01 AM	11:00 PM	PDC	Validated	5022176	120	--	--	--	--	--	460
MH013	2/14/2015			LPTP	No QC	LPTP	67	67868	--	--	--	--	--
LPTP Permeate	2/13/2015			LPTP	No QC	LPTP	13	--	--	--	--	--	--
MH013	2/13/2015	1:00 AM	3:00 PM	PDC	Validated	5022148	120	--	--	--	--	--	470
MH013	2/13/2015			LPTP	No QC	LPTP	54	152379	--	--	--	--	--
LPTP Permeate	2/12/2015			LPTP	No QC	LPTP	14.5	--	--	--	--	--	--
MH013	2/12/2015	1:00 AM	3:15 PM	PDC	Validated	5022010	85	--	--	--	--	--	460
MH013	2/12/2015			LPTP	No QC	LPTP	51	134317	--	--	--	--	--

MSD 032494

Hauled Waste Volume Summary				
Date	Batch I.D.	No. Of Trucks Hauled	Batch Volume (gal)	Daily Volume (gal)
3/2/2015	T1-060-AS	22	165,000	255,000
	T1-059-AS	12	90,000	
3/1/2015	T1-059-AS	15	112,500	255,000
	T1-058-AS	19	142,500	
2/28/2015	T1-058-AS	18	135,000	255,000
	T1-057-AS	16	120,000	
2/27/2015	T1-057-AS	22	165,000	255,000
	T1-056-AS	12	90,000	
2/26/2015	T1-056-AS	20	150,000	232,500
	T1-055-AS	11	82,500	
2/25/2015	T1-055-AS	21	157,500	255,000
	T1-054-AS	13	97,500	
2/24/2015	T1-054-AS	22	165,000	255,000
	T1-053-AS	12	90,000	
2/23/2015	T1-053-AS	20	150,000	240,000
	T1-052-AS	12	90,000	
2/22/2015	T1-052-AS	22	165,000	240,000
	T1-051-AS	10	75,000	
2/21/2015	T1-051-AS	22	165,000	240,000
	T1-050-AS	10	75,000	
2/20/2015	T1-050-AS	21	157,500	255,000
	T1-049-AS	13	97,500	
2/19/2015	T1-049-AS	22	165,000	270,000
	T1-048-AS	14	105,000	
2/18/2015	T1-048-AS	22	165,000	270,000
	T1-047-AS	14	105,000	
2/17/2015	T1-047-AS	25	187,500	300,000
	T1-046-AS	15	112,500	
2/16/2015			-	232,500
	T1-046-AS	31	232,500	
2/15/2015	No hauling		-	
			-	
2/14/2015	No hauling		-	
			-	
2/13/2015	T1-045-AS	20	150,000	240,000
	T1-044-AS	12	90,000	
2/12/2015	T1-044-AS	18	135,000	240,000
	T1-043-AS	14	105,000	
2/11/2015			-	120,000
	T1-043-AS	16	120,000	
2/10/2015	No hauling		-	
			-	
2/9/2015	T1-042-AS	7	52,500	120,000
	T1-041-AS	9	67,500	
2/8/2015	T1-041-AS	24	180,000	300,000
	T1-040-AS	16	120,000	
2/7/2015	T1-040-AS	23	172,500	300,000
	T1-039-AS	17	127,500	
2/6/2015	T1-039-AS	24	180,000	300,000
	T1-038-AS	16	120,000	
2/5/2015	T1-038-AS	24	180,000	300,000
	T1-037-AS	16	120,000	
2/4/2015	T1-037-AS	23	172,500	300,000
	T1-036-AS	17	127,500	
2/3/2015	T1-036-AS	23	172,500	300,000
	T1-035-AS	17	127,500	
2/2/2015	T1-035-AS	20	150,000	300,000
	T1-034-AS	20	150,000	
2/1/2015	T1-034-AS	23	172,500	300,000
	T1-033-AS	17	127,500	
1/31/2015	T1-033-AS	14	105,000	300,000
	T1-032-AS	26	195,000	

Total Batch Volume	
Row Labels	Sum of Batch Volume (gal)
No hauling	-
T1-001-AS	90,000
T1-002-AS	45,000
T1-003-AS	112,500
T1-004-AS	112,500
T1-005-AS	300,000
T1-006-AS	247,500
T1-007-AS	285,000
T1-008-AS	292,500
T1-009-AS	315,000
T1-010-AS	300,000
T1-011-AS	300,000
T1-012-AS	285,000
T1-013-AS	330,000
T1-014-AS	285,000
T1-015-AS	270,000
T1-016-AS	330,000
T1-017-AS	307,500
T1-018-AS	277,500
T1-019-AS	382,500
T1-020-AS	292,500
T1-021-AS	307,500
T1-022-AS	217,500
T1-023-AS	300,000
T1-024-AS	337,500
T1-025-AS	292,500
T1-026-AS	247,500
T1-027-AS	127,500
T1-028-AS	360,000
T1-029-AS	292,500
T1-030-AS	337,500
T1-031-AS	172,500
T1-032-AS	360,000
T1-033-AS	232,500
T1-034-AS	322,500
T1-035-AS	277,500
T1-036-AS	300,000
T1-037-AS	292,500
T1-038-AS	300,000
T1-039-AS	307,500
T1-040-AS	292,500
T1-041-AS	247,500
T1-042-AS	52,500
T1-043-AS	225,000
T1-044-AS	225,000
T1-045-AS	150,000
T1-046-AS	345,000
T1-047-AS	292,500
T1-048-AS	270,000
T1-049-AS	262,500
T1-050-AS	232,500
T1-051-AS	240,000
T1-052-AS	255,000
T1-053-AS	240,000
T1-054-AS	262,500
T1-055-AS	240,000
T1-056-AS	240,000
T1-057-AS	285,000
T1-058-AS	277,500
T1-059-AS	202,500
T1-060-AS	165,000
(blank)	-

1/30/2015	T1-032-AS	22	165,000	300,000
	T1-031-AS	18	135,000	
1/29/2015	T1-031-AS	5	37,500	187,500
	T1-030-AS	20	150,000	
1/28/2015	T1-030-AS	25	187,500	300,000
	T1-029-AS	15	112,500	
1/27/2015	T1-029-AS	24	180,000	300,000
	T1-028-AS	16	120,000	
1/26/2015				240,000
	T1-028-AS	32	240,000	
1/25/2015	No hauling		-	
			-	
1/24/2015	T1-027-AS	17	127,500	225,000
	T1-026-AS	13	97,500	
1/23/2015	T1-026-AS	20	150,000	300,000
	T1-025-AS	20	150,000	
1/22/2015	T1-025-AS	19	142,500	300,000
	T1-024-AS	21	157,500	
1/21/2015	T1-024-AS	24	180,000	300,000
	T1-023-AS	16	120,000	
1/20/2015	T1-023-AS	24	180,000	300,000
	T1-022-AS	16	120,000	
1/19/2015	T1-022-AS	13	97,500	300,000
	T1-021-AS	27	202,500	
1/18/2015	T1-021-AS	14	105,000	300,000
	T1-020-AS	26	195,000	
1/17/2015	T1-020-AS	13	97,500	300,000
	T1-019-AS	27	202,500	
1/16/2015	T1-019-AS	24	180,000	300,000
	T1-018-AS	16	120,000	
1/15/2015	T1-018-AS	21	157,500	300,000
	T1-017-AS	19	142,500	
1/14/2015	T1-017-AS	22	165,000	300,000
	T1-016-AS	18	135,000	
1/13/2015	T1-016-AS	26	195,000	300,000
	T1-015-AS	14	105,000	
1/12/2015	T1-015-AS	22	165,000	300,000
	T1-014-AS	18	135,000	
1/11/2015	T1-014-AS	20	150,000	300,000
	T1-013-AS	20	150,000	
1/10/2015	T1-013-AS	24	180,000	300,000
	T1-012-AS	16	120,000	
1/9/2015	T1-012-AS	22	165,000	300,000
	T1-011-AS	18	135,000	
1/8/2015	T1-011-AS	22	165,000	300,000
	T1-010-AS	18	135,000	
1/7/2015	T1-010-AS	22	165,000	300,000
	T1-009-AS	18	135,000	
1/6/2015	T1-009-AS	24	180,000	300,000
	T1-008-AS	16	120,000	
1/5/2015	T1-008-AS	23	172,500	300,000
	T1-007-AS	17	127,500	
1/4/2015	T1-007-AS	21	157,500	270,000
	T1-006-AS	15	112,500	
1/3/2015	T1-006-AS	18	135,000	270,000
	T1-005-AS	18	135,000	
1/2/2015	T1-005-AS	22	165,000	165,000
			-	
1/1/2015	No hauling		-	
			-	
12/31/2014	T1-004-AS	15	112,500	112,500
			-	
12/30/2014	T1-003-AS	15	112,500	112,500
			-	
12/29/2014	T1-002-AS	6	45,000	45,000
			-	

Grand Total	15,547,500

12/28/2014	No hauling			
12/27/2014	No hauling			
12/26/2014	T1-001-AS	12	90,000	90,000
			-	

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Biochemical Oxygen Demand (5-day)	Chemical Oxygen Demand	Cyanide	Nitrogen, ammonia as N	Oil and Grease	pH
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	pH units
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	8050	--	--	--	7.48
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	8040	--	--	--	7.5
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	5240	--	--	--	7.92
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	5800	--	--	--	7.66
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	6740	--	--	--	7.59
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	4880	--	--	--	7.87
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	5600	--	--	--	7.77
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	7100	--	--	--	7.56
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	6430	--	--	--	7.76
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	6820	--	--	--	7.63
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	1500	5700	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	7710	--	--	--	7.70
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	1200	6700	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	8450	--	--	--	7.87
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	1400	7100	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	7280	--	--	--	7.89
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	1900	6600	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	7900	--	--	--	7.82

MSD 032498

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Phenolics	Solids, total suspended	Temperature, °C	Antimony	Arsenic	Beryllium
					Total or Dissolved	NA	NA	NA	Total	Total	Total
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	deg C	mg/l	mg/l	mg/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	8820	33	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	7020	32.1	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	6400	29.2	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	4980	31.6	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	4880	30.4	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	3220	30.6	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	4160	30.1	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	7540	28.5	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	3980	32.5	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	5880	28.1	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	7300	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	4640	29.9	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	6700	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	6240	28.4	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	13000	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	5660	34	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	9200	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	5580	29.5	--	--	--

MSD 032499

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Cadmium	Chromium	Copper	Iron	Lead	Magnesium
					Total or Dissolved	Total	Total	Total	Total	Total	Total
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032500

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
					Total or Dissolved	Total	Total	Total	Total	Total	Total
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032501

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	1,2,4-Trichlorobenzene	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methyl-4,6-dinitrophenol	2-Nitrophenol	3,3'-Dichlorobenzidine
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032503

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol	4-Chlorophenyl phenyl ether	4-Nitrophenol	Acenaphthene	Acenaphthylene
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Anthracene	Benz(a)anthracene	Benzidine	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032505

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Benzo(k)fluoranthene	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate	Butyl benzyl phthalate
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032506

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Chrysene	Dibenz(a,h)anthracene	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032507

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032508

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Indeno(1,2,3-cd)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032509

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	1,4-Dichlorobenzene
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	--	--	--	--	--	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	--	--	--	--	--	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	--	--	--	--	--	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	--	--	--	--	--	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	--	--	--	--	--	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	--	--	--	--	--	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	--	--	--	--	--	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032510

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichlorobenzene
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	ND	ND	ND
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	ND	ND	ND
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	ND	ND	ND
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	ND	ND	ND
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	ND	ND	ND
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	ND	ND	ND	ND
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	ND	ND	ND
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	ND	<25 ND	ND	ND	ND	<25 ND
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	ND	<25 ND	ND	ND	ND	<25 ND
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	ND	<25 ND	ND	ND	ND	<25 ND
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	ND	<25 ND	ND	ND	ND	<25 ND
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032511

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	1,2-Dichloroethane	1,2-Dichloroethylene, cis	1,2-Dichloroethylene, trans	1,2-Dichloropropane	1,3-Dichloro-1-propene, cis	1,3-Dichloro-1-propene, trans
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	--	ND	ND	ND	ND
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	--	ND	ND	ND	ND
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	--	ND	ND	ND	ND
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	--	ND	ND	ND	ND
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	--	ND	ND	ND	ND
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	--	ND	ND	ND	ND
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	--	ND	ND	ND	ND
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	ND	--	ND	ND	ND	ND
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	ND	--	ND	ND	ND	ND
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	ND	--	ND	ND	ND	ND
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	ND	--	ND	ND	ND	ND
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032512

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chloroethyl vinyl ether	Acrolein	Acrylonitrile	Benzene
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	ND	ND	ND
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	ND	ND	ND
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	ND	ND	ND
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	ND	ND	ND
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	ND	ND	ND
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	29	ND	ND	ND	ND
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	ND	ND	ND
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	ND	<25 ND	ND	ND	ND	<25 ND
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	ND	<25 ND	ND	ND	ND	<25 ND
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	ND	<25 ND	ND	ND	ND	<25 ND
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	ND	<25 ND	ND	ND	ND	<25 ND
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032513

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chlorodibromomethane
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	ND	ND	ND
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	ND	ND	ND
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	ND	ND	ND
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	ND	ND	ND
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	ND	ND	ND
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	ND	ND	ND	ND
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	ND	ND	ND
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	ND	ND	<50 ND	ND	<25 ND	ND
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	ND	ND	<50 ND	ND	<25 ND	ND
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	ND	ND	<50 ND	ND	<25 ND	ND
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	ND	ND	<50 ND	ND	<25 ND	ND
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032514

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Chloroethane	Chloroform	Chloromethane	Ethyl benzene	Methyl ethyl ketone	Methylene chloride
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	ND	ND	ND	ND
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	ND	ND	ND	ND
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	ND	ND	ND	ND
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	ND	ND	ND	ND
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	ND	ND	ND	ND
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	ND	ND	ND	ND
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	ND	ND	ND	ND
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	ND	ND	ND	<25 ND	ND	<25 ND
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	ND	ND	ND	<25 ND	ND	<25 ND
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	ND	ND	ND	<25 ND	ND	<25 ND
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	ND	ND	ND	<25 ND	ND	<25 ND
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032515

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Tetrachloroethylene	Toluene	Total Toxic Organics	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride
					Total or Dissolved	NA	NA	NA	NA	NA	NA
					Analysis Location	Lab	Lab	Lab	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	--	ND	ND	ND
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	--	ND	ND	ND
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	--	ND	ND	ND
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	--	ND	ND	ND
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	--	ND	ND	ND
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	--	ND	ND	ND
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	--	ND	ND	ND
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	ND	<25 ND	--	ND	ND	ND
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	ND	<25 ND	--	ND	ND	ND
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	ND	<25 ND	--	ND	ND	ND
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	ND	<25 ND	--	ND	ND	ND
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--	--	--	--

MSD 032516

Table 1
Hauled Waste
Bridgeton Landfill

					Parameter	Xylene, m & p	Xylene, o	Xylene, total
					Total or Dissolved	NA	NA	NA
					Analysis Location	Lab	Lab	Lab
Location	Date	Sample Collection Time	Lab Name	Data Status	Lab Report	ug/l	ug/l	ug/l
T1-59-AS	3/02/2015		Field	Validated	WASTE_2015	--	--	--
T1-59-AS	3/01/2015		Field	Validated	WASTE_2015	--	--	--
T1-58-AS	2/28/2015		Field	Validated	WASTE_2015	--	--	--
T1-57-AS	2/27/2015	4:35 AM	PDC	Validated	5023418	ND	ND	--
T1-57-AS	2/27/2015		Field	Validated	WASTE_2015	--	--	--
T1-56-AS	2/26/2015	4:45 AM	PDC	Validated	5023269	ND	ND	--
T1-56-AS	2/26/2015		Field	Validated	WASTE_2015	--	--	--
T1-55-AS	2/25/2015	4:50 AM	PDC	Validated	5023097	ND	ND	--
T1-55-AS	2/25/2015		Field	Validated	WASTE_2015	--	--	--
T1-54-AS	2/24/2015	4:40 AM	PDC	Validated	5022948	ND	ND	--
T1-54-AS	2/24/2015		Field	Validated	WASTE_2015	--	--	--
T1-53-AS	2/23/2015	4:50 AM	PDC	Validated	5022874	ND	ND	--
T1-53-AS	2/23/2015		Field	No QC	WASTE_2015	--	--	--
T1-52-AS	2/22/2015	4:40 AM	PDC	Validated	5022873	ND	ND	--
T1-52-AS	2/22/2015		Field	No QC	WASTE_2015	--	--	--
T1-51-AS	2/21/2015	4:35 AM	PDC	Validated	5022866	ND	ND	--
T1-51-AS	2/21/2015		Field	No QC	WASTE_2015	--	--	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022737	ND	ND	--
T1-50-AS	2/20/2015	4:30 AM	PDC	Validated	5022747	--	--	--
T1-50-AS	2/20/2015		Field	No QC	WASTE_2015	--	--	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022567	ND	ND	--
T1-49-AS	2/19/2015	4:08 AM	PDC	Validated	5022569	--	--	--
T1-49-AS	2/19/2015		Field	No QC	WASTE_2015	--	--	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022369	ND	ND	--
T1-48-AS	2/18/2015	4:31 AM	PDC	Validated	5022374	--	--	--
T1-48-AS	2/18/2015		Field	No QC	WASTE_2015	--	--	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022224	ND	ND	--
T1-47-AS	2/17/2015	4:30 AM	PDC	Validated	5022226	--	--	--
T1-47-AS	2/17/2015		Field	No QC	WASTE_2015	--	--	--

MSD 032517

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Bridgeton Landfill

Doug Mendoza

From:	Ed Galbraith <EGalbraith@barr.com>
Sent:	Tuesday, March 03, 2015 10:05 AM
To:	Doug Mendoza
Cc:	bpower@republicservices.com; Bouchard, Derek (DBouchard@republicservices.com); Kamp, Kevin; 'LaFata, Natalie'; Matt Stewart (mstewart@herstassociates.com); John Lodderhose
Subject:	Gamma Emitter Decay Rates

Doug, you had asked us to check with Eberline regarding short decay rate isotopes and whether the time lag between sampling and analysis would result in lower results. Specifically, you enquired about Bi-214, Pb-212, Pb-214 and Tl-208.

The answer I received from Mike McDougal at Eberline is that each of these is a daughter product of a parent isotope and under normal circumstances, the levels should remain fairly constant as long as a supporting parent isotope exists. Pb-212 and Tl-2018 are part of the thorium series and are decay products of Ra-228. Bi-214 and Pb-214 are in the uranium series and are decay products of both Th-234 and Ra-226.

You mentioned Pace's recent reanalysis of MSD's sample that showed significant decreases for Bi-214 and Pb-214 between the first and second runs. The time between sample collection and the first analytical run was 24 days; and an additional 19 days until the second run. The concept that the difference was significantly affected by linear decay would not be our first hypothesis, given the extremely short half-lives of these two isotopes. However we anticipate the results of future sampling to possibly shed more light on this.

On a related note, the 1st quarter sample for 014 was taken on 01/22/2015 and we received that report today, without the results for Bi-212, U-235 that you have requested and without Uranium –Natural as required by the permit. We have asked them to analyze for those results and revise the report. However, the first report that you see will likely not include those.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
www.barr.com

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Doug Mendoza

From: Ed Galbraith <EGalbraith@barr.com>
Sent: Monday, March 02, 2015 9:12 AM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report - revised

Doug, as Natalie noted in a previous email to you, the sample collection included three 1L jars, so there was sufficient sample volume for a second run.

TSS reanalysis was requested but the result did not shed any light on the oil & grease data, therefore the data was of no consequence.

Ed Galbraith

Senior Environmental Consultant
Jefferson City office: 573.638.5024
cell: 573.418.5562
egalbraith@barr.com
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resourceful. naturally. BARR

From: Doug Mendoza [mailto:DMENDOZA@stlmsd.com]
Sent: Monday, March 02, 2015 8:34 AM
To: Ed Galbraith; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report - revised

Ed,

My understanding is that samples are entirely consumed when analyzed for oil & grease. Please explain how Pace was able to reanalyze the sample for oil & grease. Are they using some approved method that does not consume the entire sample? Or are two containers collected at the time of sampling? If two containers are collected, then it actually would be an analysis of a parallel sample.

Doug Mendoza

From: LaFata, Natalie <nlafata@cecinc.com>
Sent: Monday, March 02, 2015 8:36 AM
To: Doug Mendoza
Cc: Ed Galbraith
Subject: Re: Bridgeton Landfill Weekly Report - revised

I send Pace 3 - 1L jars for O&G

Natalie L. La Fata / Plant Manager
Civil & Environmental Consultants, Inc.
Mobile: (314) 341-3375 · http://www.cecinc.com
Sent from my iPhone

On Mar 2, 2015, at 8:34 AM, Doug Mendoza <DMENDOZA@stlmsd.com> wrote:

Ed,

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We note from the spreadsheet that total suspended solids also was reanalyzed, but outside the accepted holding time. This was not noted in your email.

Doug Mendoza
MSD Industrial Pretreatment Manager

From: Ed Galbraith [mailto:EGalbraith@barr.com]
Sent: Wednesday, February 25, 2015 5:45 PM
To: Doug Mendoza; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
Subject: RE: Bridgeton Landfill Weekly Report - revised

All,
We caught an error in the analytical data spreadsheet - the units were left off of the tabs for "Hauled Material" and "Hauled Material Values". That omission has been corrected and the ftp site updated.

Also, please note that for the 014 sample taken on 01/20/2015, the Oil and Grease value was reported at 168 mg/l. At our request, Pace reanalyzed the sample and got a result of 22.7 mg/l. Both values are recorded in the spreadsheet. We can only speculate that the matrix was unfamiliar to the lab because of the presence of activated sludge, which may have caused a complication with the first extraction.

Ed Galbraith

Doug Mendoza

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Sent: Monday, March 02, 2015 8:34 AM
To: 'Ed Galbraith'; John Lodderhose; Brian G. Gibson; Catherine Politte; Michael Grace; Nora C. Estopare; Rob G Daly; Steve Grace; 'Tippett Mosby, Leanne (Leanne.TippettMosby@dnr.mo.gov)'; 'Aaron Schmidt'; 'Nagel, Chris (Christopher.Nagel@dnr.mo.gov)'; 'bpower@republicservices.com'; 'Getting, James'; 'Bouchard, Derek (DBouchard@republicservices.com)'; 'Kamp, Kevin'; 'LaFata, Natalie'; 'Cooper, Ivan (icooper@cecinc.com)'; 'lwright@cecinc.com'; Kelly Caddy; Dana B. Pasi; Christopher J. Bulmahn; Ken Gambaro; Mike Townley; 'lwright@cecinc.com'; Andrea A. Nord
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Ed Galbraith

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