42-045-00070

Monroe Energy

Monroe Energy, L.L.C.
4101 Post Road
Trainer, PA 19061
(610) 364-8000

April 3, 2013

Via FedEx 7994 3584 5512

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James Rebarchak
Regional Air Program Manager
PA Department of Environmental Protection
2 East Main Street
Norristown, PA 19401

Subject: **Benzene Waste Operations NESHAPS**
Quarterly Report: January 1, 2013 – March 31, 2013
EPA ID No. PAR 000015768

Dear Mr. Rebarchak:

Monroe Energy, LLC, Trainer Refinery, submits this letter to fulfill the quarterly reporting requirements pursuant to 40 CFR Part 61, Subpart FF, §61.357(d).

During this reporting period, the Crude Oil Desalter Brine Treatment Unit (BTU) was monitored as required by 40 CFR §61.354(a)(1). Monthly samples were collected in January, February and March. Measured benzene concentration in the BTU effluent remained less than 10 ppmw during the report period. The inspections required by these standards were also performed

Based on the information and belief formed after reasonable inquiry, I certify that the statements and information contained in this report are true, accurate, and complete.

If you have any questions about this report, please call Stephani Szymanski, LDAR & BWON Lead, at (610) 364-8073 or Matt Torell, Environmental Lead, at (610) 364-8399.

Sincerely,

Jeffrey K. Warmann
CEO and President

cc: Office of Air Enforcement & Compliance Assistance
U.S. EPA, Region 3
Mail Code 3AP20
1650 Arch Street
Philadelphia, PA 19103-2029
Via FedEx 7994 3616 1961

Monroe Energy, L.L.C.
4101 Post Road
Trainer, PA 19061
(610) 364-8000

April 3, 2013

Via FedEx 7994 3584 5512

James Rebarchak
Regional Air Program Manager
PA Department of Environmental Protection
2 East Main Street
Norristown, PA 19401

Re: Monroe Energy, LLC – Trainer Refinery
40 CFR 61, Subpart FF: Annual Report per §61.357
Reporting Period: January 1, 2012 – December 31, 2012

Dear Mr. Rebarchak:

Monroe Energy, LLC – Trainer Refinery (Monroe Energy) transmits with this letter the annual report required by the Benzene Waste Operations NESHAP (BWON) regulations at 40 CFR §61.357(d)(2), (d)(5) and (d)(8). This report covers the timeframe starting on June 22, 2012 when Monroe Energy, LLC purchased the Trainer Refinery through December 31, 2012. Please note that there are two (2) parts to this annual report. They are as follows:

1. The 2012 annual inspection and monitoring summary required by 40 CFR §61.357(d)(8). Please note that during the timeframe when Monroe Energy operated the refinery there were no quarterly visual inspection deficiencies or annual no detectable emission (NDE) monitoring leakers identified. As reported in the quarterly reports required by 40 CFR§ 61.357(d)(6), all inspections and NDE monitoring required by 40 CFR §61.343 -40 CFR §61.354 have been completed.

2. The 2012 total annual benzene (TAB) report required by 40 CFR §61.357(d)(2) and 40 CFR §61.357(d)(5). This report is included as Attachment A. Please note that Attachment A covers the entire 2012 reporting year, including the timeframe when the refinery was owned by Phillips66. Refinery operations were idled from January 1, 2012 through recommissioning of the Refinery by Monroe Energy in September 2012.

Based on the information and belief formed after reasonable inquiry, I certify that the statements and information contained in this report are true, accurate, and complete for the period of June 22, 2012 to December 31, 2012.

If you have any questions about this report or need additional information, please contact Stephani Szymanski, LDAR and BWON Lead at 610-364-8073 or Matt Torell, Environmental Lead at 610-364-8399.

Sincerely,

Jeffrey K. Warmann
CEO & President

Enclosure

cc: Office of Air Enforcement & Compliance Assistance
U.S. EPA, Region 3
Mail Code 3AP20
1650 Arch Street
Philadelphia, PA 19103-2029
Via FedEx 7994 3616 1961

Matt Torell (Monroe Energy)
Stephani Szymanski (Monroe Energy)

Phillips 66 Company
Trainer Refinery
4101 Post Rd
Trainer, PA 19061

April 3, 2013

Via FedEx

James Rebarchak
Commonwealth of Pennsylvania
Department of Environmental Protection
2 East Main Street
Norristown, PA 19401

Re: Phillips 66 – Trainer Refinery
40 CFR 61, Subpart FF: Annual Report per 61.357
Reporting Period: January 1, 2012 – December 31, 2012

Dear Mr. Rebarchak:

Phillips 66 Company, Trainer Refinery submits with this letter the annual report required by the Benzene Waste Operations NESHAP (BWON) regulations at 40 CFR 61.357(d)(2), (d)(5) and (d)(8). This report covers the timeframe starting on January 1, 2012 to December 31, 2012.

On September 29, 2011, the Trainer Refinery was idled in preparation for sale or permanent shutdown. Ownership of the Trainer Refinery was transferred to Monroe Energy, LLC on June 22, 2012.

Please note that there are two (2) parts to this annual report. They are as follows:

1. The 2012 annual inspection and monitoring summary required by 40 CFR 61.357(d)(8). Please note that during the timeframe when Phillips 66 operated the refinery there were no quarterly visual inspection deficiencies or annual no detectable emission (NDE) monitoring leakers identified. As reported in the quarterly reports required by 40 CFR 61.357(d)(6), all inspections and NDE monitoring required by 40 CFR 61.343 -40 CFR 61.354 have been completed.

2. The 2012 total annual benzene (TAB) report required by 40 CFR 61.357(d)(2) and 40 CFR 61.357(d)(5). This report is included as Attachment A. Please note that Attachment A covers the entire 2012 reporting year, including the timeframe when the refinery was owned by Monroe Energy LLC.

I certify that, based on information and belief formed after reasonable inquiry, the statements and information contained in this letter and attachments is true, accurate, and complete for the period from January 1, 2012 to June 22, 2012.

Should you have any questions or comments regarding this report, please call Colin Franks at (406) 255-2632.

Sincerely,

David P. Erfert
Refinery Manager

Enclosure

cc: Administrator
U.S. EPA, Region III
1650 Arch Street
Philadelphia, Pa 19103 **(Via FedEx)**

Monroe Energy

Monroe Energy, L.L.C.
4101 Post Road
Trainer, PA 19061
(610) 364-8000

Attachment A

2012 Total Annual Benzene (TAB) Report
40 CFR 61.357(d)(2)

&

6 BQ Table
40 CFR 61.357(d)(5)

Table A.1: Summary Table 2012 Total Annual Benzene (TAB) Report
Phillips 66
and
Monroe Energy, LLC
Trainer, Pennsylvania

Source	Table	TAB Quanity (Mg)	6.0 Mg Total (Mg)
Isocracker Unit	A.2	0.010293	0.010293
Fluidized Catalytic Cracking Unit (FCCU)	A.3	0.000121	0.000121
Platformer Unit	A.4	0.001602	0.001602
Alkylation Unit	A.5	0.001813	0.001813
Crude Units	A.6	27.226119	0.024895
Vacuum Units	A.7	0.141367	0.000022
Vacuum Gas Oil (VGO) Unit	A.8	0.000022	0.000022
Kerosene Hydrotreating Unit (KHT)	A.9	8.584000	0.000066
Diesel Hydrotreating Unit (DHT)	A.10	0.204785	0.000115
Lowline Compressor	A.11	0.001683	0.001683
SunOlin Compressor	A.12	0.000000	0.000000
Sour Water Stripper	A.13	0.000067	0.000050
Process Streams Area 6	A.14	0.014967	0.000000
Tank Water Draws	A.15	0.989332	0.623181
Laboratory Waste	A.16	0.045367	0.000623
Dock Waste	A.17	0.039694	0.039694
Knock Engines	A.18	0.013039	0.013039
Flare	A.19	0.013905	0.000000
Solid Waste	A.20	0.098694	0.098707
Spills and Miscellaneous Waste Streams	A.21	0.019960	0.019960
Vacuum Truck Waste	A.23	9.310643	0.000000
Pump Maintenance	A.24	0.005740	0.005740
Exchanger Maintenance	A.25	0.000000	0.000000
Compressor Maintenace	A.26	0.000001	0.000001
Tanker Truck Waste	A.27	0.014840	0.014840
	Total:	**46.738054**	**0.856467**

Table A.2: 2012 Process Waste Streams, Isocracker Unit, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Stream Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Aqueous Benzene (mg/l)	Organic Benzene (mg/kg)	Benzene Range (ppmw) Min	Benzene Range (ppmw) Max	Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
21-V-20	Deethanizer Feed Drum Water Draw	Uncontrolled	OWS	90	10	0.57	0.1	50	25	75	3.1	7.98	0.1250	0.000185	0.000185
21-V-18	Fuel Gas KO Drum	Uncontrolled	OWS	90	10	0.73	32	3,150	1,575	4,725	265	8.11	0.0400	0.005122	0.005122
NA	Combined Feed Sample Station	Uncontrolled	OWS	0	100	0.88	0	5,100	190	11,500	5,100	7.34	0.0007	0.001562	0.001562
NA	Second Stage Feed Sample Station	Uncontrolled	OWS	0	100	0.88	0	5,100	190	11,500	5,100	7.34	0.0007	0.001562	0.001562
NA	Heavy Isocrackate Sample Station	Uncontrolled	OWS	0	100	0.76	0	3,960	260	8,100	3,960	6.34	0.0007	0.001048	0.001048
NA	Splitter Bottoms Sample Station	Uncontrolled	OWS	0	100	0.76	0	3,080	260	8,180	3,080	6.34	0.0007	0.000815	0.000815
NA	Light Isocrackate Sample Station	Controlled	MACT Loop	0	100	0.66	0	19,050	5,020	228,180	19,050	5.50	0.0000	0.000000	0.000000

TAB Total (Mg/yr)	6.0 Mg Total (Mg/yr)
0.010293	0.010293

Table A.3: 2012 Process Waste Streams, Fluidized Catalytic Cracking Unit (FCCU), Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Aqueous Benzene (mg/L)	Organic Benzene (mg/kg)	Benzene Range (ppmw) Min	Benzene Range (ppmw) Max	Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
PV-6047	Raw Feed Drum	Uncontrolled	OWS	90	10	0.93	0.01	1.1	1	5	0.1	8.28	0.0630	0.000003	0.000003
PV-7765	Dry Gas KO Pot	Uncontrolled	OWS	90	10	0.73	5	18	6	18	5.8	8.12	0.0080	0.000022	0.000022
NA	FCC Feed Sample Station	Uncontrolled	OWS	0	100	0.93	0.01	1.1	1	5	1.1	7.76	0.0007	0.000000	0.000000
NA	Decant (Clarified) Oil Sample Station	Uncontrolled	OWS	0	100	1.02	0	54	54	54	54	8.51	0.0007	0.000020	0.000020
NA	Slurry Oil Sample Station	Uncontrolled	OWS	0	100	1.03	0	55	55	55	55	8.59	0.0007	0.000020	0.000020
NA	Light Cycle Oil Sample Station	Uncontrolled	OWS	0	100	0.92	0	40	1	95	40	7.67	0.0007	0.000013	0.000013
NA	Heavy Cycle Oil Sample Station	Uncontrolled	OWS	0	100	0.96	0	65	5	80	65	8.01	0.0007	0.000022	0.000022
NA	Fractionator Bottoms Sample Station	Uncontrolled	OWS	0	100	0.75	0	73	50	100	73	6.26	0.0007	0.000020	0.000020
NA	Light Cat Naphtha Sample Station	Controlled	MACT Loop	0	100	0.71	0	5,730	4,400	7,390	5,730	5.92	0.0000	0.000000	0.000000
NA	Heavy Cat Naphtha Sample Station	Controlled	MACT Loop	0	100	0.80	0	2,090	1,500	3,080	2,090	6.67	0.0000	0.000000	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.000121	0.000121

Table A.4: 2012 Process Waste Streams, Platformer Unit, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
13-K-2	H_2 Compressor Case Draw	Uncontrolled	OWS	0	100	0.84	0	0.4	0	15	0.4	6.97	0.0000	0.000000	0.000000
11-K-1	Naphtha H_2 Recycle Comp Seal Oil	Uncontrolled	OWS	0	100	0.87	0	218	7	250	218	7.26	0.0002	0.000019	0.000019
13-K-8T2	Platformer Debutanizer Accumulator	Uncontrolled	OWS	90	10	0.82	20	39,440	7,040	56,940	3,311	8.19	0.0002	0.000323	0.000323
13-K-1	Platformer H_2 Recycle Comp Seal Oil	Uncontrolled	OWS	0	100	0.87	0	218	160	250	218	7.26	0.0002	0.000019	0.000019
NA	Plat. AB Exch. Eff. Sample Station	Uncontrolled	OWS	0	100	0.85	0	7,340	880	258,370	7,340	7.09	0.0002	0.000620	0.000620
NA	Plat. CD Exch. Eff. Sample Station	Uncontrolled	OWS	0	100	0.85	0	7,340	880	258,370	7,340	7.09	0.0002	0.000620	0.000620
NA	Platformer Feed Sample Station	Controlled	MACT Loop	0	100	0.76	0	7,340	880	258,370	7,340	6.34	0.0000	0.000000	0.000000
NA	Platformate Sample Station	Controlled	MACT Loop	0	100	0.82	0	47,860	7,040	71,020	47,860	6.84	0.0000	0.000000	0.000000
NA	Light Reformate Sample Station	Controlled	MACT Loop	0	100	0.73	0	261,850	145,990	401,280	261,850	6.09	0.0000	0.000000	0.000000
NA	Heavy Reformate Sample Station	Controlled	MACT Loop	0	100	0.86	0	2,740	260	7,570	2,740	7.17	0.0000	0.000000	0.000000
NA	Naphtha Feed Sample Station	Controlled	MACT Loop	0	100	0.73	0	7,340	880	258,370	7,340	6.09	0.0000	0.000000	0.000000
NA	Light Naphtha Sample Station	Controlled	MACT Loop	0	100	0.66	0	12,410	5,630	66,260	12,410	5.50	0.0000	0.000000	0.000000
NA	Heavy Naphtha Sample Station	Controlled	MACT Loop	0	100	0.73	0	8,000	1,670	174,860	8,000	6.09	0.0000	0.000000	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.001602	0.001602

Table A.5: 2012 Process Waste Streams, Alkylation Unit, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
NA	Alkylate Sample Location	Uncontrolled	OWS	0	100	0.70	0.00	7,080	50	366,780	7,080	5.84	0.0007	0.001725	0.001725
AV-1	Alkylation Feed Surge Drum	Uncontrolled	OWS	90	10	0.70	0.01	60	50	70	4.3	8.09	0.0420	0.000088	0.000088

TAB (Mg/yr)	6.0 Mg/yr Total (Mg/yr)
0.001813	0.001813

Table A.6: 2012
Process Waste Streams, Crude Unit, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
01-V-1	543 1st Stage Desalter	Controlled	Brine Stripper	98	2	0.84	19	2,442	150	7,700	60	8.31	78.5	2.316653	0.000000
02-V-1	544 1st Stage Desalter	Controlled	Brine Stripper	98	2	0.84	19	2,442	150	7,700	60	8.31	78.5	2.316653	0.000000
D-543	543 Desalter Crude Surge Drum	Uncontrolled	OWS	90	10	0.84	19	2,442	150	7,700	225	8.21	0.010	0.001147	0.001147
D-544	544 Desalter Crude Surge Drum	Uncontrolled	OWS	90	10	0.84	19	2,442	150	7,700	225	8.21	0.010	0.001147	0.001147
D-543	543 Desalter Upsets	Controlled	Brine Stripper	50	50	0.84	19	2,442	150	7,700	1,124	7.67	0.400	0.205708	0.000000
D-544	544 Desalter Upsets	Controlled	Brine Stripper	50	50	0.84	19	2,442	150	7,700	1,124	7.67	0.400	0.205708	0.000000
D-543	543 Desalter Rag Tests	Uncontrolled	OWS	50	50	0.84	19	2,442	150	7,700	1,124	7.67	0.004	0.002160	0.002160
D-544	544 Desalter Rag Tests	Uncontrolled	OWS	50	50	0.84	19	2,442	150	7,700	1,124	7.67	0.004	0.002160	0.002160
21407	543 Salt Dryer KO Pot	Uncontrolled	OWS	90	10	0.84	5	49	46	52	9	8.21	0.139	0.000592	0.000592
21408	544 Salt Dryer KO Pot	Uncontrolled	OWS	90	10	0.84	5	49	46	52	9	8.21	0.139	0.000592	0.000592
D-301	543 Crude Overhead Accumulator	Controlled	544 Hotwell	90	10	0.73	19	7,340	3,170	258,370	568	8.11	40.3	11.078251	0.000000
D-401	544 Crude Overhead Accumulator	Controlled	544 Hotwell	90	10	0.73	19	7,340	3,170	258,370	568	8.11	40.3	11.078251	0.000000
NA	543 Diesel Sample Station	Uncontrolled	OWS	0	100	0.84	0	178	78	355	178	7.01	0.001	0.000052	0.000052
NA	544 Diesel Sample Station	Uncontrolled	OWS	0	100	0.84	0	178	78	355	178	7.01	0.001	0.000052	0.000052
NA	543 AGO Sample Station	Uncontrolled	OWS	0	100	0.87	0	63	5	880	63	7.26	0.001	0.000019	0.000019
NA	544 AGO Sample Station	Uncontrolled	OWS	0	100	0.87	0	63	5	880	63	7.26	0.001	0.000019	0.000019
NA	Brine Treatment Unit Bypass	Uncontrolled	OWS	98	2	1.00	19	2,442	14	62	67	8.34	0.486	0.016254	0.016254
NA	Brine Treatment Unit Effluent	Uncontrolled	OWS	100	0	1.00	0.009	2,442	0.003	0.025	0.009	8.34	156.9	0.000702	0.000702
NA	543 Kero Sample Station	Controlled	MACT Loop	0	100	0.81	0	155	29	390	155	6.76	0.000	0.000000	0.000000
NA	544 Kero Sample Station	Controlled	MACT Loop	0	100	0.81	0	155	29	390	155	6.76	0.000	0.000000	0.000000
NA	543 Naphtha Sample Station	Controlled	MACT Loop	0	100	0.73	0	7,340	3,170	258,370	7,340	6.09	0.000	0.000000	0.000000
NA	544 Naphtha Sample Station	Controlled	MACT Loop	0	100	0.73	0	7,340	3,170	258,370	7,340	6.09	0.000	0.000000	0.000000

TAB (Mg/yr)	6.0 Mg/yr Total (Mg/yr)
27.226119	0.024895

Table A.7: 2012 Process Waste Streams, Vacuum Unit, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
25419	541 & 542 Vacuum Jet	Controlled	541/542 Hotwell	98	2	0.86	0.6	60	25	75	2	8.32	167	0.134197	0.000000
21905	544 Vacuum Jet	Controlled	544 Hotwell	98	2	0.86	0.6	60	25	75	2	8.32	8.9	0.007148	0.000000
PV-2316	Fuel Gas KO Drum	Uncontrolled	OWS	90	10	0.73	5	490	300	680	41	8.12	0.0010	0.000020	0.000020
NA	541 Vac Gas Oil (VGO) Sample Stn	Uncontrolled	OWS	0	100	0.91	0	2	1	5	2	7.59	0.0007	0.000001	0.000001
NA	542 Vac Gas Oil (VGO) Sample Stn	Uncontrolled	OWS	0	100	0.91	0	2	1	5	2	7.59	0.0007	0.000001	0.000001
NA	544 Vac Gas Oil (VGO) Sample Stn	Uncontrolled	OWS	0	100	0.91	0	2	1	5	2	7.59	0.0007	0.000001	0.000001
NA	544 Lt Vac Gas Oil (LVGO) Sample Stn	Uncontrolled	OWS	0	100	0.88	0	2	1	5	2	7.34	0.0007	0.000000	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.141367	0.000022

Table A.8: 2012 Process Waste Streams, Vacuum Gas Oil (VGO) Unit, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
32-K-1	H_2 Recycle Compressor Seal Oil	Uncontrolled	OWS	0	100	0.87	0	218	150	250	218	7.26	0.0002	0.000019	0.000019
NA	VGO Feed Sample Station	Uncontrolled	OWS	0	100	0.91	0	1.6	1	5	1.6	7.59	0.0007	0.000001	0.000001
NA	Stripper Feed Sample Station	Uncontrolled	OWS	0	100	0.88	0	1.6	1	5	1.6	7.35	0.0007	0.000000	0.000000
NA	Stripper Bottoms Sample Station	Uncontrolled	OWS	0	100	0.88	0	1.6	1	5	1.6	7.35	0.0030	0.000002	0.000002

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.000022	0.000022

Table A.9: 2012 Process Waste Streams, Kerosene Hydrotreating Unit (KHT), Phillips 66 and Monroe Energy, LLC,Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	2.0 Mg Exemption (Mg/yr)
									Min	Max					
PV-1640	Stripper OH Receiver	Controlled	544 Hotwell	20	80	0.80	15	1,340	930	1,700	1,025	7.02	20.0	8.583934	0.000000
PV-1642	Fuel Gas KO Pot	Uncontrolled	OWS	90	10	0.73	5	490	15	490	41	8.12	0.0001	0.000002	0.000002
V-1633	Kero Compressor Post Pot (MH)	Uncontrolled	OWS	100	0	1.00	2	0	1	3	2	8.34	0.0001	0.000000	0.000000
V-1733	Kero Compressor Post Pot (CS)	Uncontrolled	OWS	100	0	1.00	2	0	1	3	2	8.34	0.0001	0.000000	0.000000
PV-1738	Kero Compressor Suction KO Drum	Uncontrolled	OWS	90	10	0.82	0	2	1	3	0.2	8.19	0.0030	0.000000	0.000000
NA	Kero Product Sample Station	Uncontrolled	OWS	0	100	0.82	0	155	29	390	155	6.84	0.0002	0.000013	0.000013
3-V-108	Kero Feed Drum Water Boot	Uncontrolled	OWS	95	5	0.82	15	155	29	39	20	8.27	0.0007	0.000007	0.000007
NA	Kero Feed Sample Station	Uncontrolled	OWS	0	100	0.82	0	155	29	390	155	6.84	0.0007	0.000044	0.000044

TAB (Mg/yr)	6.0 Mg/yr Exemption (Mg/yr)
8.584000	0.000066

Table A.10: 2012 Process Waste Streams, Diesel Hydrotreating Unit (DHT), Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
D-506	Diesel Overhead Receiver	Controlled	544 Hotwell	20	80	0.82	1.2	116	50	150	89	7.12	5.4	0.204670	0.000000
PV-1609	Fuel Gas KO Pot	Uncontrolled	OWS	90	10	0.90	4.9	490	15	490	49	8.25	0.0003	0.000007	0.000007
V-22130	Diesel Compressor Post Pot (CS)	Uncontrolled	OWS	90	10	0.90	0.6	0	1	3	1	8.25	0.0003	0.000000	0.000000
V-22131	Diesel Compressor Post Pot (MH)	Uncontrolled	OWS	90	10	0.90	0.6	0	1	3	1	8.25	0.0003	0.000000	0.000000
PV-2127	Diesel Recycle Compressor KO Drum	Uncontrolled	OWS	90	10	0.90	2.3	0	1	3	2	8.25	0.0030	0.000003	0.000003
NA	Diesel Feed Sample Station	Uncontrolled	OWS	0	100	0.86	0	116	75	175	116	7.17	0.0007	0.000035	0.000035
NA	Diesel Product Sample Station	Uncontrolled	OWS	0	100	0.86	0	116	75	175	116	7.17	0.0007	0.000035	0.000035
NA	Diesel Reactor Out Sample Station	Uncontrolled	OWS	0	100	0.86	0	116	75	175	116	7.17	0.0007	0.000035	0.000035

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.204785	0.000115

Table A.11: 2012 Process Waste Streams, Lowline Compressor, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
05-K-1	Lowline Compressor Sour Oil Trap	Uncontrolled	OWS	0	100	0.82	0.004	2,067	330	4,200	2,067	6.83	0.002	0.001683	0.001683

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.001683	0.001683

Table A.12: 2012 Process Waste Streams, SunOlin Compressor, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
05-K-1	SunOlin Compressor Sour Oil Trap [Compressor Not Operating]	Exempt	OWS	0	100	0.82	0	0			0	6.83	0.000	0.000000	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.000000	0.000000

Table A.13: 2012 Process Waste Streams, Sour Water Stripper, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
34-P-4B	Sour Water Stripper Bottoms to OWS	Uncontrolled	OWS	100	0	1.00	0.001	0	0	0.4	0.001	8.34	111	0.000050	0.000050
34-P-4B	SWS Bottoms to 544 Hotwell	Controlled	544 Hotwell	100	0	1.00	0.001	0	0	0.4	0.001	8.34	38	0.000017	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.000067	0.000050

Table A.14: 2012 Process Streams Area 6, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Equipment Number	Equipment Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Annual Flow (gal)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max					
N/A	Gasoline Blender Sample Location	Controlled	Crude Tank	0	100	0.73	0	20,670	2,380	9,860	20,670	6.09	189	0.010774	0.000000
	Proto Tank Drain (RBOB)	Controlled	Crude Tank	0	100	0.72	0	4,965	0	10,430	4,965	6.00	75	0.001015	0.000000
	Proto Tank Drain (PBOB)	Controlled	Crude Tank	0	100	0.74	0	5,810	4,490	7,130	5,810	6.17	50	0.000813	0.000000
	Proto Tank Drain (Conv. Regular)	Controlled	Crude Tank	0	100	0.72	0	7,700	4,500	17,760	7,700	6.00	75	0.001573	0.000000
	Proto Tank Drain (Conv. Premium)	Controlled	Crude Tank	0	100	0.72	0	5,810	4,490	7,130	5,810	6.00	50	0.000791	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.014967	0.000000

Table A.15: 2012 Tank Water Draws, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Tank Number	Tank Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw) Min	Benzene Range (ppmw) Max	Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gal)	TAB Quantity (Mg)	6.0 Mg Total (Mg)
151	Alkylate	Controlled	Vac Trk/Lt Slop	90	10	0.73	5	50	5	70	8	8.11	6,570	0.000050	0.000000
168	Alkylate	Controlled	Vac Trk/Lt Slop	90	10	0.73	5	50	5	70	8	8.11	6,570	0.000050	0.000000
159	Basestock	Controlled	Vac Trk/Lt Slop	90	10	0.71	98	9,800	7,830	12,060	805	8.10	13,140	0.009714	0.000000
93	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	383,988	0.075755	0.075755
94	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	383,988	0.075755	0.075755
95	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	87,769	0.017315	0.017315
96	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	87,769	0.017315	0.017315
162	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	142,624	0.028138	0.028138
163	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	142,624	0.028138	0.028138
164	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	142,624	0.028138	0.028138
165	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	142,624	0.028138	0.028138
166	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	142,624	0.028138	0.028138
174	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	222,557	0.043907	0.043907
175	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	222,557	0.043907	0.043907
178	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	142,624	0.028138	0.028138
181	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	222,557	0.043907	0.043907
182	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	222,557	0.043907	0.043907
185	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	222,557	0.043907	0.043907
186	Crude Oil	Uncontrolled	OWS	90	10	0.83	6	2,442	150	7,700	212	8.20	222,557	0.043907	0.043907
443	Cutter Stock	Uncontrolled	OWS	90	10	0.92	1	100	100	100	10	8.27	13,140	0.000125	0.000125
445	Cutter Stock	Uncontrolled	OWS	90	10	0.92	1	100	100	100	10	8.27	13,140	0.000125	0.000125
447	Cutter Stock	Uncontrolled	OWS	90	10	0.92	1	100	100	100	10	8.27	13,140	0.000125	0.000125
448	Cutter Stock	Uncontrolled	OWS	90	10	0.92	1	100	100	100	10	8.27	13,140	0.000125	0.000125
60	Decant (Clarified) Oil	Uncontrolled	OWS	90	10	1.02	1	50	50	50	6	8.36	6,570	0.000037	0.000037
61	Out-of-Service	Uncontrolled	OWS												
155	Diesel Fuel	Uncontrolled	OWS	90	10	0.86	1	100	100	100	10	8.22	13,140	0.000118	0.000118
157	Diesel Fuel	Uncontrolled	OWS	90	10	0.86	1	100	100	100	10	8.22	13,140	0.000118	0.000118
158	Diesel Fuel	Uncontrolled	OWS	90	10	0.86	1	100	100	100	10	8.22	13,140	0.000118	0.000118
152	Gasoline	Controlled	Vac Trk/Lt Slop	90	10	0.69	157	5,810	2,380	9,860	552	8.08	28,777	0.014566	0.000000
171	Gasoline	Controlled	Vac Trk/Lt Slop	90	10	0.69	157	5,810	2,380	9,860	552	8.08	28,777	0.014566	0.000000
153	Jet Fuel	Controlled	Vac Trk/Lt Slop	90	10	0.86	1	116	116	116	11	8.22	526	0.000005	0.000000
160	Jet Fuel	Controlled	Vac Trk/Lt Slop	90	10	0.86	1	116	116	116	11	8.22	526	0.000005	0.000000
161	Light Cat Naphtha	Controlled	Vac Trk/Lt Slop	90	10	0.65	160	5,730	4,400	7,390	530	8.05	26,280	0.012714	0.000000
99	Light Cycle Oil (LCO)	Uncontrolled	OWS	90	10	0.94	0.4	40	40	40	4.1	8.29	47,304	0.000183	0.000183
100	Light Cycle Oil (LCO)	Uncontrolled	OWS	90	10	0.94	0.4	40	40	40	4.1	8.29	47,304	0.000183	0.000183
132	Reformate (Light)	Controlled	Vac Trk/Lt Slop	90	10	0.82	2,100	261,850	145,990	401,280	23,755	8.19	6,570	0.144988	0.000000
134	Reformate (Light)	Controlled	Vac Trk/Lt Slop	90	10	0.82	2,100	261,850	145,990	401,280	23,755	8.19	6,570	0.144988	0.000000
66	Naphtha	Controlled	Vac Trk/Lt Slop	90	10	0.71	55	7,340	3,170	258,370	583	8.09	9,592	0.005132	0.000000
67	Naphtha	Controlled	Vac Trk/Lt Slop	90	10	0.71	55	7,340	3,170	258,370	583	8.09	9,592	0.005132	0.000000
513	Naphtha (Wild)	Controlled	Vac Trk/Lt Slop	90	10	0.71	55	7,340	3,170	258,370	583	8.09	9,592	0.005132	0.000000
177	No.6 Fuel Oil	Uncontrolled	OWS	90	10	0.86	0.4	25	25	25	2.5	8.22	73,584	0.000173	0.000173
183	No.6 Fuel Oil	Uncontrolled	OWS	90	10	0.86	0.4	25	25	25	2.5	8.22	0	0.000000	0.000000
332	No.6 Fuel Oil	Uncontrolled	OWS	90	10	0.86	0.4	25	25	25	2.5	8.22	73,584	0.000173	0.000173
333	No.6 Fuel Oil	Uncontrolled	OWS	90	10	0.86	0.4	25	25	25	2.5	8.22	73,584	0.000173	0.000173

Table A.15: 2012 Tank Water Draws, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Tank Number	Tank Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gal)	TAB Quantity (Mg)	6.0 Mg Total (Mg)
									Min	Max					
334	No.6 Fuel Oil	Uncontrolled	OWS	90	10	0.86	0.4	25	25	25	2.5	8.22	73,584	0.000173	0.000173
335	Slurry Oil	Uncontrolled	OWS	90	10	0.86	0.4	25	25	25	2.5	8.22	73,584	0.000173	0.000173
156	Raffinate	Controlled	Vac Trk/Lt Slop	90	10	0.95	18	1,800	1,800	1,800	188	8.30	13,140	0.002326	0.000000
170	Raffinate	Controlled	Vac Trk/Lt Slop	90	10	0.95	18	1,800	1,800	1,800	188	8.30	13,140	0.002326	0.000000
169	Reformate (Heavy)	Controlled	Vac Trk/Lt Slop	90	10	0.84	18	2,740	180	7,570	250	8.21	9,579	0.002228	0.000000
172	Reformate (Heavy)	Controlled	Vac Trk/Lt Slop	90	10	0.84	18	2,740	180	7,570	250	8.21	9,579	0.002228	0.000000
154	Toluene	Controlled	Vac Trk/Lt Slop	90	10	0.80	0.2	18	18	18	1.7	8.17	0	0.000000	0.000000
54	Vacuum Gas Oil (VGO)	Uncontrolled	OWS	85	15	0.88	0.4	55	38	60	7.7	8.19	73,584	0.000530	0.000530
55	Vacuum Gas Oil (VGO)	Uncontrolled	OWS	85	15	0.88	0.4	55	38	60	7.7	8.19	73,584	0.000530	0.000530
56	Vacuum Gas Oil (VGO)	Uncontrolled	OWS	85	15	0.88	0.4	55	38	60	7.7	8.19	73,584	0.000530	0.000530
173	Vacuum Gas Oil (VGO)	Uncontrolled	OWS	85	15	0.88	0.4	55	38	60	7.7	8.19	73,584	0.000530	0.000530
176	Vacuum Gas Oil (VGO)	Uncontrolled	OWS	85	15	0.88	0.4	55	38	60	7.7	8.19	73,584	0.000530	0.000530

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.989332	0.623181

Table A.16: 2012 Laboratory Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Unit	Sample Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw) Min	Benzene Range (ppmw) Max	Average Benzene (ppmw)	Annual Flow (gal)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
Crude	543 OVHD Water	Uncontrolled	OWS	100	0	1	5.7	0.00	3.2	9.8	5.7	22.5	0.000000	0.000000
	543 Naptha	Controlled	Lab Tank	0	100	0.73	0.00	7,340	3,170	258,370	7,340	63	0.001277	0.000000
	543 Kero	Uncontrolled	OWS	0	100	0.82	0.00	475	390	1,485	475	63	0.000093	0.000093
	543 Diesel	Uncontrolled	OWS	0	100	0.86	0.00	12	12	12	12	63	0.000002	0.000002
	543 AGO	Uncontrolled	OWS	0	100	0.87	0.00	63	63	63	63	63	0.000013	0.000013
	544 OVHD Water	Uncontrolled	OWS	100	0	1	0	0.00	0	0	0.0	22.5	0.000000	0.000000
	544 Naphtha	Controlled	Lab Tank	0	100	0.73	0.00	7,340	3,170	258,370	7,340	63	0.001277	0.000000
	544 Kero	Uncontrolled	OWS	0	100	0.82	0.00	475	390	1,485	475	63	0.000093	0.000093
	544 Diesel	Uncontrolled	OWS	0	100	0.86	0.00	12	12	12	12	63	0.000002	0.000002
	544 AGO	Uncontrolled	OWS	0	100	0.87	0.00	63	63	63	63	63	0.000013	0.000013
Vacuum	541 VGO	Uncontrolled	OWS	0	100	0.91	0.00	55	38	60	55	23	0.000004	0.000004
	542 VGO	Uncontrolled	OWS	0	100	0.91	0.00	55	38	60	55	23	0.000004	0.000004
	544 VGO	Uncontrolled	OWS	0	100	0.91	0.00	55	38	60	55	63	0.000012	0.000012
	544 Stink Oil	Uncontrolled	OWS	0	100	0.85	0.00	55	38	71	55	63	0.000011	0.000011
Kero	Kero Product	Uncontrolled	OWS	0	100	0.82	0.00	476	390	1,483	476	63	0.000093	0.000093
Diesel	HCN Product	Uncontrolled	OWS	0	100	0.86	0.00	116	100	116	116	63	0.000024	0.000024
	HCN Stripper OVHD	Uncontrolled	OWS	0	100	0.86	0.00	116	100	116	116	32	0.000012	0.000012
	USLD	Uncontrolled	OWS	0	100	0.86	0.00	116	100	116	116	63	0.000000	0.000000
	Diesel Stripper Bottoms	Uncontrolled	OWS	0	100	0.86	0.00	116	100	116	116	23	0.000009	0.000009
Alkylation	Alkylate	Controlled	Lab Tank	0	100	0.70	0.00	786	550	786	786	14	0.000028	0.000000
	Prewash Caustic	Uncontrolled	OWS	100	0	0.92	0.20	20	550	786	0	14	0.000000	0.000000
	Regen Merox	Uncontrolled	OWS	0	100	0.80	0.00	2,600	550	786	2,600	14	0.000000	0.000000
	HF Acid	Uncontrolled	OWS	100	0	1.00	1.00	100	125	150	1	5	0.000000	0.000000
	KOH Scrbr	Uncontrolled	OWS	0	100	0.70	0.00	786	550	786	786	23	0.000000	0.000000
FCC	FCC Feed	Uncontrolled	OWS	0	100	0.91	0.00	1,410	1,410	1,410	1,410	36	0.000175	0.000175
	FCC LCO	Uncontrolled	OWS	0	100	0.91	0.00	40	40	40	40	63	0.000009	0.000009
	FCC HCO	Uncontrolled	OWS	0	100	0.85	0.00	65	65	65	65	23	0.000005	0.000005
	Light Fluid	Controlled	Lab Tank	0	100	0.85	0.00	5,730	4,400	7,390	5,730	32	0.000581	0.000000
	Heavy Fluid	Controlled	Lab Tank	0	100	0.85	0.00	2,090	1,500	3,080	2,090	63	0.000424	0.000000
	Decant Oil	Uncontrolled	OWS	0	100	1.02	0.00	54	54	54	54	27	0.000006	0.000006
	Slurry Oil	Uncontrolled	OWS	0	100	1.00	0.00	55	55	55	55	0	0.000000	0.000000
	Fract Bottoms	Uncontrolled	OWS	0	100	0.75	0.00	73	73	73	73	0	0.000000	0.000000
Naphtha	Naptha Feed	Controlled	Lab Tank	0	100	0.74	0.00	7,340	3,170	258,370	7,340	23	0.000462	0.000000
	Light Naphtha	Controlled	Lab Tank	0	100	0.75	0.00	12,410	5,630	66,260	12,410	63	0.002219	0.000000
	Heavy Naphtha	Controlled	Lab Tank	0	100	0.73	0.00	8,000	1,670	174,860	8,000	23	0.000497	0.000000
Platformer	Platformer Feed	Controlled	Lab Tank	0	100	0.72	0.00	7,340	3,170	258,370	7,340	32	0.000630	0.000000
	Platformate	Controlled	Lab Tank	0	100	0.82	0.00	47,860	9,800	71,020	47,860	63	0.009356	0.000000
	Light Reformate	Controlled	Lab Tank	0	100	0.74	0.00	261,850	145,990	401,280	261,850	32	0.023097	0.000000
	Heavy Reformate	Controlled	Lab Tank	0	100	0.86	0.00	2,740	180	7,570	2,740	23	0.000201	0.000000
	Regen Catalyst	Controlled	Lab Tank	0	100	0.72	0.00	2,740	180	7,570	2,740	32	0.000235	0.000000
	Chl-Sorb Catalyst	Controlled	Lab Tank	0	100	0.72	0.00	2,740	180	7,570	2,740	32	0.000235	0.000000

Table A.16: 2012 Laboratory Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Unit	Sample Description	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Annual Flow (gal)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
									Min	Max				
	Spent Catalyst	Controlled	Recycled	0	100	0.72	0.00	2,740	180	7,570	2,740	32	0.000000	0.000000
Isocracker	Combined Feed	Uncontrolled	OWS	0	100	0.88	0.00	65	65	65	65	23	0.000005	0.000005
	Second Stage Feed	Uncontrolled	OWS	0	100	0.88	0.00	65	65	65	65	63	0.000014	0.000014
	Light Isocrackate	Controlled	Lab Tank	0	100	0.66	0.00	19,050	5,020	228,180	19,050	63	0.002997	0.000000
	Heavy Isocrackate	Controlled	Lab Tank	0	100	0.75	0.00	3,960	260	8,100	3,960	63	0.000708	0.000000
	Splitter Bottoms	Controlled	Lab Tank	0	100	0.75	0.00	58	5	95	58	63	0.000010	0.000000
VGO	VGO Feed	Uncontrolled	OWS	0	100	0.91	0.00	55	38	60	55	23	0.000004	0.000004
	Stripper Feed	Uncontrolled	OWS	0	100	0.85	0.00	55	38	65	55	23	0.000004	0.000004
	Stripper Bottoms	Uncontrolled	OWS	0	100	0.85	0.00	55	38	65	55	23	0.000004	0.000004
Miscellaneous	Rich Amine	Controlled	Lab Tank	0	100	0.73	0.00	5,810	2,380	9,860	5,810	9	0.000144	0.000000
	Lean Amine	Controlled	Lab Tank	0	100	0.73	0.00	5,810	2,380	9,860	5,810	9	0.000144	0.000000
	S Plant Lean	Controlled	Lab Tank	0	100	0.73	0.00	5,810	2,380	9,860	5,810	14	0.000217	0.000000
	S Plant Rich	Controlled	Lab Tank	0	100	0.86	0.00	116	100	116	116	9	0.000003	0.000000
	544 Resid	Uncontrolled	OWS	0	100	0.84	0.00	65	65	65	65	63	0.000013	0.000013
	Sample for Visual Inspections	Uncontrolled	OWS	100	0	1.00	0.00	0	0	0	0	378	0.000000	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.045367	0.000623

Table A.17: 2012 Dock Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Annual Dock Movements												
Product	API Gravity	Specific Gravity	Controlled/ Uncontrolled	Average Benzene (vol%)	Average Benzene (wt%)	Average Benzene (mg/l)	Number of Hose Disconnects		Annual Waste Quantity (lbs)	Annual Benzene Quantity (lbs)	Annual Benzene Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
							Receipts	Shipments				
Crude	40.5	0.823	Uncontrolled			5.7	38	0	26072	0.15	0.0001	0.0001
Alkylate	69.0	0.706	Uncontrolled			550	1	0	589	0.3	0.0001	0.0001
ULSD	36.7	0.842	Uncontrolled			100	1	8	1,263	0.1	0.0001	0.0001
HO Blend Stock	37.1	0.839	Uncontrolled			70	0	1	70	0.0	0.0000	0.0000
#6 FO	17.4	0.950	Uncontrolled			25	0	8	634	0.0	0.0000	0.0000
LSFO	19.4	0.938	Uncontrolled			25	0	0	0	0.0	0.0000	0.0000
CSO	12.0	0.986	Uncontrolled			55	0	3	247	0.0	0.0000	0.0000
Jet	41.4	0.818	Uncontrolled			100	0	2	137	0.0	0.0000	0.0000
Naphtha (Basestock 1)	57.2	0.750	Uncontrolled			24,600	1	0	625	15.4	0.0070	0.0070
PBOB	64.9	0.720	Uncontrolled			6,000	1	1	661	4.0	0.0018	0.0018
CBOB	56.4	0.753	Uncontrolled			8,015	0	4	251	2.0	0.0009	0.0009
RBOB	58.3	0.746	Uncontrolled			7,600	0	10	622	4.7	0.0021	0.0021
Reformate	63.0	0.728	Uncontrolled			91,500	0	4	243	22.2	0.0101	0.0101
VTB	13.8	0.974	Uncontrolled			65	0	1	81	0.0	0.0000	0.0000
Reformate 15%	65.6	0.718	Uncontrolled			320,000	0	1	60	19.2	0.0087	0.0087
Reformate 12%	62.2	0.730	Uncontrolled			320,000	0	1	61	19.5	0.0088	0.0088
VGO	24.1	0.909	Uncontrolled			55	0	5	379	0.0	0.0000	0.0000
VGO, LS	26.7	0.895	Uncontrolled			55	0	2	149	0.0	0.0000	0.0000

Assumptions:

1) 6" and 8" diameter cargo hoses are used for product movement at barge docks;
   8" diameter hose by 25' long used as basis for volume calculation.
   @ 100 gallons "waste" product/hose receipt disconnect
   @ 10 gallons "waste" product/hose shipment disconnect

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.039694	0.039694

Table A.18: 2012 Knock Engines, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Unit	Source	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw)		Average Benzene (ppmw)	Average Density (lbs/gal)	Annual Flow (gal)	TAB Quantity (Mg)	6.0 Mg Total (Mg)
									Min	Max					
Main Lab	Engine 1	Uncontrolled	OWS	0	100	0.73	0	20,670	13,000	41,000	20,670	6.09	114	0.006520	0.006520
Main Lab	Engine 2	Uncontrolled	OWS	0	100	0.73	0	20,670	13,000	41,000	20,670	6.09	114	0.006520	0.006520
Blender	Engine A	Controlled	OWS	0	0	0.00	0	0	0	0	0	0.00	0	0.000000	0.000000
Blender	Engine B	Controlled	OWS	0	0	0.00	0	0	0	0	0	0.00	0	0.000000	0.000000
Blender	Engine C	Controlled	OWS	0	0	0.00	0	0	0	0	0	0.00	0	0.000000	0.000000
Blender	Engine D	Controlled	OWS	0	0	0.00	0	0	0	0	0	0.00	0	0.000000	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.013039	0.013039

Table A.19: 2012 Flare, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Unit	Source	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw) Min	Benzene Range (ppmw) Max	Average Benzene (ppmw)	Average Density (lbs/gal)	Average Flow (gpm)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
62-V-1	Flare Knockout Drum	Controlled	TK 68/TK 184	98	2	0.82	47	4,680	4,680	4,680	123	8.31	0.05	0.010989	0.000000
62-V-3	Isocracker Finger Pot	Controlled	TK 68/TK 184	98	2	0.85	140	14,000	14,000	14,000	376	8.31	0.02	0.002910	0.000000
62-V-4	Platformer/Naphtha Finger Pot	Controlled	TK 68/TK 184	98	2	0.74	0.3	32	32	32	0.8	8.30	0.02	0.000006	0.000000
62-V-5	VGO/Amine/SWS Finger Pot	Controlled	TK 68/TK 184	98	2	0.88	0.02	1.6	1.6	1.6	0.04	8.32	0.02	0.000000	0.000000

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.013905	0.000000

Table A.20: 2012 Solid Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Waste Description	Controlled/ Uncontrolled	Disposition	Waste Quantity (tons)	Benzene Range (ppmw)		Benzene Concentration (mg/kg)	>10% Water (Y/N)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
				Min	Max				
Biosolids	Uncontrolled	Offsite Disposal	0.400	<0.001	<0.001	<0.001	Y	<0.001	<0.001
Dewatered Sand, Silt, Slurry	Uncontrolled	Offsite Disposal	2,772.15	0.098	0.163	0.130	Y	<0.001	<0.001
Multiple Wastes	Uncontrolled	Offsite Disposal	20	1,373	2,288	1,830	Y	0.033	0.033
Desalter Sludge	Uncontrolled	Offsite Disposal	23.40	0.046	0.076	0.061	Y	<0.001	<0.001
Cooling Tower Sediments	Uncontrolled	Offsite Disposal	32.25	0.046	0.076	0.061	Y	<0.001	<0.001
Dewatered Biological Sludge	Uncontrolled	Offsite Disposal	67.9	<0.001	<0.001	<0.001	Y	<0.001	<0.001
Kero Treater	Uncontrolled	Offsite Disposal	74.3	0.009	0.015	0.012	Y	<0.001	<0.001
FCC spent catalyst	Uncontrolled	Offsite Disposal	154.13	0.042	0.070	0.056	N	-0.00-	<0.001
Oily Soil sand and debris	Uncontrolled	Offsite Disposal	21.04	0.098	0.163	0.130	Y	<0.001	<0.001
Sand blast grit	Uncontrolled	Offsite Disposal	41.9	0.104	0.173	0.139	N	-0.00-	<0.001
Oily Wastewater Treatment Plant Sludge	Uncontrolled	Offsite Disposal	81.5	<0.001	<0.001	<0.001	Y	<0.001	<0.001
F037 Unfiltered Sludge	Uncontrolled	Offsite Disposal	357.3	0.900	1.500	1.2	Y	<0.001	<0.001
Waste Flammable Liquid	Uncontrolled	Offsite Disposal	0.0	2.025	3.375	3	Y	<0.001	<0.001
Crude Oil Storage Tank Bottoms 96 TK Sand	Uncontrolled	Offsite Disposal	29.1	1,832	3,053	2,442	Y	0.065	0.065
Methyl Mercaptan	Uncontrolled	Offsite Disposal	0.0	-0.00-	-0.00-	-0.00-	Y	-0.00-	-0.00-
Platinum Catalyst	Controllled	Offsite Disposal	0.0	17.3	28.8	23	Y	<0.001	<0.001
Waste Reformate Tolad 3915 Blend	Uncontrolled	Offsite Disposal	20.0	0.034	0.056	0.05	Y	<0.001	<0.001

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.098694	0.098707

Table A.21: 2012 Spills and Miscellaneous Waste Streams Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Spill Date	Product Spilled	Controlled/ Uncontrolled	Disposition	Percent Aqueous	Percent Organic	Organic Density (sp.gr.)	Benzene Aqueous (mg/L)	Benzene Organic (mg/kg)	Benzene Range (ppmw) Min	Benzene Range (ppmw) Max	Average Benzene (ppmw)	Average Density (lbs/gal)	Total Volume (gpy)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
5/14/2012	Cutter Stock with Heavy Oil	Uncontrolled	Onsite Recovery	0.0	100.0	0.81	21	2,090	1,500	3,080	2,090	6.73	5.00	0.000032	0.000032
5/25/2012	Sodium Hypochlorite	Uncontrolled	Onsite Recovery	100.0	0.0	1.00	0	0	0	0	0	8.34	1.00	0.000000	0.000000
8/25/2012	Orphan Sheen - Unknown	Uncontrolled	Onsite Recovery	0.0	100.0	0.86	18	1,830	1,370	2,288	1,830	7.17		0.000000	0.000000
9/3/2012	Weathered Oil	Uncontrolled	Onsite Recovery	0.0	100.0	0.86	18	1,830	1,370	2,288	1,830	7.17	0.50	0.000003	0.000003
9/4/2012	Weathered Oil	Uncontrolled	Onsite Recovery	0.0	100.0	0.86	18	1,830	1,370	2,288	1,830	7.17	0.50	0.000003	0.000003
9/11/2012	Oil	Uncontrolled	Onsite Recovery	0.0	100.0	0.86	18	1,830	1,370	2,288	1,830	7.17	0.25	0.000001	0.000001
9/18/2012	Light Hydrocarbon Sheen - Diesel Fuel	Uncontrolled	Onsite Recovery	0.0	100.0	0.84	1	116	116	116	116	7.00	1.00	0.000000	0.000000
9/21/2012	Light Hydrocarbon Sheen - Diesel Fuel	Uncontrolled	Onsite Recovery	0.0	100.0	0.84	1	116	116	116	116	7.00	0.25	0.000000	0.000000
9/25/2012	Light Hydrocarbon Sheen - Diesel Fuel	Uncontrolled	Onsite Recovery	0.0	100.0	0.84	1	116	116	116	116	7.00	0.25	0.000000	0.000000
9/26/2012	Heavy and Light Reformate	Uncontrolled	Onsite Recovery	0.0	100.0	0.74	1011	101,100	101,100	101,100	101,100	6.16	21.00	0.005944	0.005944
9/28/2012	Heavy and Light Reformate	Uncontrolled	Onsite Recovery	0.0	100.0	0.74	1011	101,100	101,100	101,100	101,100	6.16	25.00	0.007076	0.007076
10/3/2012	Diesel Fuel	Uncontrolled	Onsite Recovery	0.0	100.0	0.84	1	116	116	116	101,100	7.00	20.00	0.006437	0.006437
11/20/2012	Crude inside Tank 166 Dike	Uncontrolled	Onsite Recovery	0.0	100.0	0.83	24	2,442	150	7,700	2,442	6.95	50.00	0.000386	0.000386
12/11/2012	Tank 162 Oil	Uncontrolled	Onsite Recovery	0.0	100.0	0.83	24	2,442	150	7,700	2,442	6.95	5.00	0.000039	0.000039
12/18/2012	Tank 164 Oil	Uncontrolled	Onsite Recovery	0.0	100.0	0.83	24	2,442	150	7,700	2,442	6.95	5.00	0.000039	0.000039

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.019960	0.019960

Table A.22: 2012 Vacuum Truck Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Date	Waste Origination	Off-Load Site/Waste Destination	Waste Quantity (gal/yr)	Driver's Notes	Vacuum Truck Contents	DBL CNT? (Y/N)	Aqueous Phase			Organic Phase				Controlled[1] (Y/N)	TAB Quantity (Mg/yr)	6 BQ (Mg/yr)
							%	Benzene Conc. (ppmw)	Benzene Quantity (kg/yr)	%	Benzene Conc. (ppmw)	Specific Gravity	Benzene Quantity (kg/yr)			
27-Jan	Old Yard Flare Pit Area 3	Cage	2700	Oily Water	Slop Oil	Y	99%	18.30	0.19	1%	1830.00	0.86	16.11	Controlled	0.00	-0.00-
31-Jan	#1 Primary Filter Contents	Rolloff	3000	Contents of Oily Water Filter	Slop Oil		99%	18.30	0.21	1%	1830.00	0.86	17.90	Controlled	0.02	-0.00-
31-Jan	MHGB Area 5	Cage	800	MHGB Surface Scum	Slop Oil	Y	99%	18.30	0.06	1%	1830.00	0.86	4.77	Controlled	0.00	-0.00-
1-Feb	Old Flare Yard Pit	Cage	1300	Oily Water	Slop Oil	Y	99%	18.30	0.09	1%	1830.00	0.86	7.76	Controlled	0.00	-0.00-
2-Feb	Area 5	Cage	800	Rain Water	Stormwater		99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
3-Feb	#1 Primary Filter Contents	Rolloff at Hazmat Pump	2300	Oily Sewer Waste	Slop Oil		5%	18.30	0.16	95%	1830.00	0.86	13.72	Controlled	0.01	-0.00-
8-Feb	Area 2		2500	Compressor	Lube Oil		99%	0.10	0.00	1%	10.00	0.80	0.06	Controlled	0.00	-0.00-
9-Feb	South Guard Basin	Cage	1000	Oily Sewer Waste	Slop Oil	Y	95%	18.30	0.07	5%	1830.00	0.86	5.97	Controlled	0.00	-0.00-
9-Feb	Tank 61	Cage	5000	Water	Crude Tank Water		100%	0.06	0.00	0%	5.70	1.00	0.11	Controlled	0.00	-0.00-
10-Feb	Tank 61	Tank 166	2300		Crude Tank Water		97%	0.06	0.00	3%	5.70	1.00	0.05	Controlled	0.00	-0.00-
10-Feb			2500	Amine Carryover during S/D	Amine		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
13-Feb	Tank 61	Cage	4000	Tank 61 Oil/Water	Crude Tank Water		99%	0.06	0.00	1%	5.70	1.00	0.10	Controlled	0.00	-0.00-
14-Feb	Guard Basin	Cage	1500	Oily Water	Slop Oil	Y	99%	18.30	0.10	1%	1830.00	0.86	8.95	Controlled	0.00	-0.00-
14-Feb	Tank 63	Cage	9200	Water	Crude Tank Water		99%	0.06	0.00	1%	5.70	1.00	0.20	Controlled	0.00	-0.00-
15-Feb	#1 Primary Filter	Cage	800	Hazardous Waste (Sludge)	FCCU Slurry Oil		99%	0.55	0.00	1%	55.00	1.00	0.17	Controlled	0.00	-0.00-
23-Feb	Tank 160	Cage	8900	Water	Kero Product		99%	5.14	0.17	1%	514.20	0.81	14.08	Controlled	0.01	-0.00-
24-Feb	Tank 160	Cage	2300	Water	Kero Product		99%	5.14	0.04	1%	514.20	0.81	3.64	Controlled	0.00	-0.00-
29-Feb	Tank 158	Cage	2400	Water	Kero Product		99%	5.14	0.05	1%	514.20	0.81	3.80	Controlled	0.00	-0.00-
1-Mar	Old Yard Flare Sump Pit		300	Scum/Oil	Slop Oil	Y	93%	18.30	0.02	7%	1830.00	0.86	1.79	Controlled	0.00	-0.00-
5-Mar	Tank 153	Cage	2500		Kero Product		99%	5.14	0.05	1%	514.20	0.81	3.98	Controlled	0.00	-0.00-
6-Mar	Tank 153	Cage	11200	Water	Kero Product		99%	5.14	0.22	1%	514.20	0.81	17.72	Controlled	0.02	-0.00-
16-Mar	FCC/Oily Drums in Alky		800	Oily Water	FCCU Slurry Oil		25%	0.55	0.00	75%	55.00	1.00	0.17	Controlled	0.00	-0.00-
23-Mar	Tank 94		7500	Water Cutter	Crude Tank Water		95%	0.06	0.00	5%	5.70	1.00	0.16	Controlled	0.00	-0.00-
25-Mar	Bulkhead and Area 1 Sewer	Cage	1000	Bulkhead River + Area 1 Sewer	Slop Oil	Y	99%	18.30	0.07	1%	1830.00	0.86	5.97	Controlled	0.00	-0.00-
2-Apr	Tank 64		1500		Crude Tank Water		98%	0.06	0.00	2%	5.70	1.00	0.03	Controlled	0.00	-0.00-
22-Apr	Guard Basin & Area 4 Ditch	Cage	1000		Slop Oil	Y	99%	18.30	0.07	1%	1830.00	0.86	5.97	Controlled	0.00	-0.00-
25-Apr	Area 8		14000		Slop Oil		95%	18.30	0.97	5%	1830.00	0.86	83.53	Controlled	0.08	-0.00-
26-Apr	Tank 157		800	Oily Water	Diesel Product		95%	1.16	0.00	5%	116.00	0.84	0.30	Controlled	0.00	-0.00-
27-Apr	Tank 157		3500		Diesel Product		95%	1.16	0.02	5%	116.00	0.84	1.29	Controlled	0.00	-0.00-
1-May	Tank 174		2000	Wash Water	Crude Tank Water		98%	0.06	0.00	2%	5.70	1.00	0.04	Controlled	0.00	-0.00-
2-May	Tank 93		1700	Oily Water	Crude Tank Water		98%	0.06	0.00	2%	5.70	1.00	0.04	Controlled	0.00	-0.00-
2-May	Tank 93		2000	Water & Oil	Crude Unit Feed		95%	24.42	0.19	5%	2442.00	0.83	15.43	Controlled	0.02	-0.00-
3-May	Tank 93		1800	Oily Water	Crude Tank Water		98%	0.06	0.00	2%	5.70	1.00	0.04	Controlled	0.00	-0.00-
4-May	Tank 93		2500		Crude Unit Feed		95%	24.42	0.23	5%	2442.00	0.83	19.29	Controlled	0.02	-0.00-
7-May	Area 5	AWWTP	6000	Oily Water	Slop Oil	Y	90%	18.30	0.42	10%	1830.00	0.86	35.80	Controlled	0.03	-0.00-
8-May	Tank 93		2500	Water & Oil	Crude Unit Feed		95%	24.42	0.23	5%	2442.00	0.83	19.29	Controlled	0.02	-0.00-
9-May	Tank 93		2500	Water & Oil Sludge	Crude Unit Feed		95%	24.42	0.23	5%	2442.00	0.83	19.29	Controlled	0.02	-0.00-
11-May	Tank 93		2500	Water & Oil	Crude Unit Feed		95%	24.42	0.23	5%	2442.00	0.83	19.29	Controlled	0.02	-0.00-
14-May	Tank 175		1000	Oily Water	Crude Unit Feed		95%	24.42	0.09	5%	2442.00	0.83	7.71	Controlled	0.01	-0.00-
14-May	Tank 93		4500	Oily Water	Crude Unit Feed		80%	24.42	0.42	20%	2442.00	0.83	34.72	Controlled	0.04	-0.00-
15-May	Tank 94		4500	Tank 94 Frat Tank	Crude Unit Feed		98%	24.42	0.42	2%	2442.00	0.83	34.72	Controlled	0.04	-0.00-
17-May	Tank 175		1600	Tank 175 Skimming	Crude Unit Feed		99%	24.42	0.15	1%	2442.00	0.83	12.34	Controlled	0.01	-0.00-
22-May	Area 6	Cage	1500	Oily Water	Slop Oil		90%	18.30	0.10	10%	1830.00	0.86	8.95	Controlled	0.01	-0.00-
23-May	Tank 175		3000	Oily Water	Crude Unit Feed		90%	24.42	0.28	10%	2442.00	0.83	23.14	Controlled	0.02	-0.00-
24-May	Tank 175		2000	Oily Water	Crude Unit Feed		90%	24.42	0.19	10%	2442.00	0.83	15.43	Controlled	0.02	-0.00-
24-May	Tank 175		1500	Oily Water	Crude Unit Feed		90%	24.42	0.14	10%	2442.00	0.83	11.57	Controlled	0.01	-0.00-
25-May	Tank 175	Cage	3200	Oily Water	Crude Unit Feed		90%	24.42	0.30	10%	2442.00	0.83	24.69	Controlled	0.02	-0.00-
28-May	Tank 175		3200	Oily Water	Crude Unit Feed		90%	24.42	0.30	10%	2442.00	0.83	24.69	Controlled	0.02	-0.00-
30-May	Tank 175	Cage	2000	Oily Water	Crude Unit Feed		90%	24.42	0.19	10%	2442.00	0.83	15.43	Controlled	0.02	-0.00-
1-Jun	Tank 175	Cage	1600	Oily Water	Crude Tank Water		99%	0.06	0.00	1%	5.70	1.00	0.03	Controlled	0.00	-0.00-
11-Jul	Area 5 Rosid Line		5600	Slurry	FCCU Slurry Oil	Y	0%	0.55	0.01	100%	55.00	1.00	1.17	Controlled	0.00	-0.00-
12-Jul	SCGB		3500	50% Crude/50% Water	Crude Unit Feed	Y	50%	24.42	0.32	50%	2442.00	0.83	27.00	Controlled	0.00	-0.00-
22-Jul	Area 3		4300	Chemical Wash	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
23-Jul	344 Vac		5000	Chemical Wash	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
25-Jul					Stormwater									Controlled	0.00	-0.00-
29-Jul	Tank 171 Water		1500		Crude Tank Water		100%	0.06	0.00	0%	5.70	1.00	0.03	Controlled	0.00	-0.00-
1-Aug	Oxidizer PV-6031/Isowash PV-650		4000	Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
2-Aug	South Pit	Tank 99	7500	Caustic Water	Caustic	Y	100%	0.20	0.01	0%	19.80	0.92	0.52	Controlled	0.00	-0.00-
3-Aug	North/South Outfall Pit (Alky)	Tank 99	10000	Caustic Water	Caustic	Y	100%	0.20	0.01	0%	19.80	0.92	0.69	Controlled	0.00	-0.00-
3-Aug	Area 3 Crude Stills		9000		Crude Unit Feed		95%	24.42	0.83	5%	2442.00	0.83	69.43	Controlled	0.07	-0.00-
6-Aug	Tank 1513 FCC execution by shelter		2300	Oily Rain Water	Slop Oil		99%	18.30	0.16	1%	1830.00	0.86	13.72	Controlled	0.01	-0.00-
7-Aug	Area 3		2800	Oil Reservoirs-Low Line	Lube Oil		0%	0.10	0.00	100%	10.00	0.80	0.06	Controlled	0.00	-0.00-
7-Aug	50% Caustic storage tank	Impound Sump	2800	Caustic Water	Caustic		100%	0.20	0.00	0%	19.80	0.92	0.19	Controlled	0.00	-0.00-
9-Aug	Alky Suit Wash neutralization tubes		750	Water for Alky wash tubes	Alkylate		100%	70.80	0.20	0%	7080.00	0.70	14.04	Controlled	0.01	-0.00-
10-Aug	WGC/Area 4		2800	Lube Oil from Wet Gas	Lube Oil		80%	0.10	0.00	20%	10.00	0.80	0.06	Controlled	0.00	-0.00-

Table A.22: 2012 Vacuum Truck Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Date	Waste Origination	Off-Load Site/Waste	Waste Quantity	Potential Waste	Vacuum Truck Contents	DBL CNT?	Aqueous Phase			Organic Phase				Controlled[1]	TAB Quantity	6 BQ
10-Aug	Area 4		1500	Wash Water (Lime, soda ash, iron fluride)	Slop Oil		99%	18.30	0.10	1%	1830.00	0.88	8.95	Controlled	0.01	-0.00-
11-Aug	Area 4 Caustic Tank	Cage	4400	Water 5% caustic wash	Caustic		5%	0.20	0.00	95%	19.80	0.92	0.30	Controlled	0.00	-0.00-
13-Aug	Rich amine flash drum exchangers	Cage	1500	Steam Out/ Water waste	Amine		98%	0.00	0.00	2%	0.00	1.00	0.00	Controlled	0.00	-0.00-
14-Aug	Water Wash PV 1515		1500	Water Wash	Stormwater		95%	0.00	0.00	9%	0.00	1.00	0.00	Controlled	0.00	-0.00-
15-Aug	Rain water at excavation		800	Rain Water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
15-Aug	Water Wash PV 3000	Cage	1600	Water Wash	Stormwater		99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
15-Aug	Sunolin Fuel Gas Mixpot			Water carbon, sludge, dirt	Lube Oil		90%	0.10	0.00	10%	10.00	0.60	0.00	Controlled	0.00	-0.00-
15-Aug	Wash tubes for repron @ Alky		900	Water 5% caustic wash out with water	Caustic		100%	0.20	0.00	0%	19.80	0.92	0.06	Controlled	0.00	-0.00-
17-Aug	Glove Wash tubes for Repron	Impound Sump	3100	Soda Ash Solution	Water		99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
17-Aug	Excavation Area 4		2400	Water	Slop Oil	Y	100%	18.30	0.17	0%	1830.00	0.86	14.32	Controlled	0.00	-0.00-
18-Aug	Rain Water Tank		9000	Rain water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
19-Aug	Area 3		2600	Water Wash DEA Surge	Amine	Y	99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
20-Aug	Separator Inlets/Sub #2		800	Oily Water	Slop Oil		99%	18.30	0.06	1%	1830.00	0.86	4.77	Controlled	0.00	-0.00-
20-Aug	Area 2	Cage	1500	Wash Water Flash Drum	Slop Oil	Y	99%	18.30	0.10	1%	1830.00	0.86	8.95	Controlled	0.00	-0.00-
20-Aug	VGO Exchanger		2400	Soda Ash Wash & 1% oil	Vacuum Unit VGO		99%	0.00	0.00	1%	0.00	0.91	0.00	Controlled	0.00	-0.00-
21-Aug	#1 Sulfur Train		700	River Water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
21-Aug	Electrical manholes @ substation 2	Cage	7500	Ground Water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
22-Aug	Rain rent tank		1500	Wash Water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
22-Aug	Manholes @ sub #2 station NTF		8600	Oily ground water	Slop Oil	Y	99%	18.30	0.60	1%	1830.00	0.86	51.31	Controlled	0.00	-0.00-
23-Aug	Electrical manholes area wide	Cage	4500	Oily Water	Slop Oil		99%	18.30	0.31	1%	1830.00	0.86	26.85	Controlled	0.03	-0.00-
24-Aug	Area 3	Cage	1500	Amine Water	Amine		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
24-Aug	Area 2		800	Wash water @ thermal reactor	Slop Oil		99%	18.30	0.06	1%	1830.00	0.86	4.77	Controlled	0.00	-0.00-
25-Aug	Boilerhouse Filterwash	Cage	1600	Dirty water from the boilerhouse	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
27-Aug	Clay Filter Area 3		2900	Clay Filter Wash Down	Diesel Product		100%	1.15	0.01	0%	116.00	0.84	1.03	Controlled	0.00	-0.00-
27-Aug	South Side Cooling Tower		5400	Rain Water/Fire Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
28-Aug	Clay Filters		3200	Dirty Water	Crude Tank Water		100%	0.06	0.00	0%	5.70	1.00	0.07	Controlled	0.00	-0.00-
30-Aug	Boilerhouse		1500	Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
31-Aug		Cage	2900		Slop Oil		99%	18.30	0.20	1%	1830.00	0.86	17.30	Controlled	0.02	-0.00-
1-Sep	Rear of WSPH	Cage	10400	Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
3-Sep			6400		Slop Oil		95%	18.30	0.44	5%	1830.00	0.86	38.18	Controlled	0.04	-0.00-
4-Sep	Water excavation & electrical manhole	Cage	10600	Water	Slop Oil	Y	100%	18.30	0.74	0%	1830.00	0.86	63.24	Controlled	0.00	-0.00-
5-Sep	Area 4	Cage	1500	Water from electric boxes	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
5-Sep	Sump @ 543	Cage	1000		Slop Oil	Y	95%	18.30	0.07	5%	1830.00	0.86	5.97	Controlled	0.00	-0.00-
6-Sep	S&P Pad	Cage	6200	Water	Stormwater		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
6-Sep	North and South Mud Pits	Cage	1200	Oily Water	Slop Oil	Y	99%	18.30	0.06	1%	1830.00	0.86	7.16	Controlled	0.00	-0.00-
7-Sep	Truck Containment	Cage	1200	Rain Water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
7-Sep	CP Pad	Cage	11000	Rain Water	Stormwater		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
8-Sep	SCGB	Cage	1700	Oily Water	Slop Oil	Y	99%	18.30	0.12	1%	1830.00	0.86	10.14	Controlled	0.00	-0.00-
10-Sep	Roof Drain Tank 159		1000	Rain Water	Stormwater		99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
10-Sep	Metering Pits	Cage	1700		Slop Oil	Y	100%	18.30	0.12	0%	1830.00	0.86	10.14	Controlled	0.00	-0.00-
10-Sep	Tank 188 Roof Drain	Cage	11200		Stormwater		95%	0.00	0.00	5%	0.00	1.00	0.00	Controlled	0.00	-0.00-
11-Sep	SCGB	Cage	1600	Oily Water	Stormwater	Y	95%	0.00	0.00	5%	0.00	1.00	0.00	Controlled	0.00	-0.00-
11-Sep	Tank 180	Cage	3900		Kero Product		100%	5.14	0.08	0%	514.20	0.81	6.17	Controlled	0.01	-0.00-
12-Sep	North & South Pit	Cage	6200	Unit Water	Alkylate	Y	98%	70.80	1.66	2%	7080.00	0.70	116.05	Controlled	0.00	-0.00-
12-Sep	Guard Basin	Cage	5600	Oily Water	Stormwater	Y	99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
13-Sep	Area 3		1500	44 Oil Exchange	Crude Unit AGO		40%	0.00	0.00	60%	0.00	0.87	0.00	Controlled	0.00	-0.00-
13-Sep	North/South Alky Pit		4200	Alky Wash	Alkylate	Y	99%	70.80	1.13	1%	7080.00	0.70	76.81	Controlled	0.00	-0.00-
14-Sep	Guard Basin		800	SCGB Water	Stormwater	Y	99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
14-Sep	Tank 55		16000	Tank 55 Water Wash	Vacuum Unit VGO		99%	0.00	0.00	1%	0.00	0.91	0.00	Controlled	0.00	-0.00-
15-Sep			10300	Oily Water	Slop Oil		95%	18.30	0.71	5%	1830.00	0.86	61.45	Controlled	0.06	-0.00-
15-Sep	Area 4		900	Water	FCCU Slurry Oil		100%	0.55	0.00	0%	55.00	1.00	0.19	Controlled	0.00	-0.00-
16-Sep	Stoney Creek Guard Basin		2300	Oily Water	Slop Oil	Y	98%	18.30	0.16	2%	1830.00	0.86	13.72	Controlled	0.00	-0.00-
16-Sep	Alky Feed Storage Drum		800	Fire Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
17-Sep	Tank 148	Cage	1700	DE Water Tank	Water	Y	99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
18-Sep	Stoney Creek Guard Basin		1200	Oily Water	Slop Oil	Y	99%	18.30	0.06	1%	1830.00	0.86	7.16	Controlled	0.00	-0.00-
19-Sep	Area 1 Frac Tank		1500	Wash Water Frac Tank Area 1	Slop Oil	Y	100%	18.30	0.10	0%	1830.00	0.86	8.95	Controlled	0.00	-0.00-
19-Sep	H2O S+P PAP	Cage	4300	Cage	Slop Oil		100%	18.30	0.30	0%	1830.00	0.86	25.85	Controlled	0.03	-0.00-
19-Sep	Pit + Concrete by Bulkhead	Cage	800	Cage	Slop Oil	Y	100%	18.30	0.06	0%	1830.00	0.86	4.77	Controlled	0.00	-0.00-
21-Sep	SCGB		800	SCGB(Water)	Crude Tank Water	Y	95%	0.06	0.00	5%	5.70	1.00	0.02	Controlled	0.00	-0.00-
21-Sep	344 Vac		22800	Chemical Wash	Water		95%	0.00	0.00	5%	0.00	1.00	0.00	Controlled	0.00	-0.00-
21-Sep	Overflow Pit for North/South Pits	Cage	9500	Oily Water	Slop Oil	Y	99%	18.30	0.57	1%	1830.00	0.86	57.27	Controlled	0.00	-0.00-
22-Sep	North/South Outfall Pit (Alky)	Cage	1500	Oily Water	Slop Oil	Y	99%	18.30	0.10	1%	1830.00	0.86	8.95	Controlled	0.00	-0.00-
22-Sep	Area 1		2400	Light Reformate, Soal Oil, Water	Light Reformate		20%	2818.50	23.82	80%	281850.00	0.74	1756.41	Controlled	1.78	-0.00-
22-Sep	Stoney Creek	Cage	2700		Stormwater	Y	99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
23-Sep	Stoneycreek Guard Basin		2300	Oily Water	Slop Oil	Y	95%	18.30	0.16	5%	1830.00	0.86	13.72	Controlled	0.00	-0.00-

Table A-22: 2012 Vacuum Truck Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Date	Waste Origination	Off-Load Site/Waste	Waste Quantity	Driver's Notes	Vacuum Truck Contents	DBL CNT?	Aqueous Phase			Organic Phase				Controlled	TAB Quantity	6 BQ
23-Sep	Stoney Creek	Cage	2600	Water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
24-Sep			800	SCGB(Water)	Crude Tank Water		95%	0.06	0.00	5%	5.70	1.00	0.02	Controlled	0.00	-0.00-
24-Sep	Stoney Creek	Cage	2600	Water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
25-Sep	Bundle Pad		5650	Oily Water	Slop Oil	Y	95%	18.30	0.39	5%	1830.00	0.86	33.71	Controlled	0.00	-0.00-
25-Sep	Water Supply House Pits	Cage	9000	Water	Water	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
25-Sep	Stoney Creek		4300		Stormwater	Y	99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
26-Sep	Stoney Creek	Cage	8500	River Water	Stormwater	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
27-Sep	Tank 186 Roof Rain Water	Cage	800	Water	Crude Unit Feed		100%	24.42	0.07	0%	2442.00	0.83	6.17	Controlled	0.01	-0.00-
27-Sep	Area 4		1100	Water	Slop Oil		100%	18.30	0.06	0%	1830.00	0.86	6.56	Controlled	0.01	-0.00-
28-Sep	Slurry Bundle in FCC		1400	Oily Water	Slop Oil		98%	18.30	0.10	2%	1830.00	0.86	8.35	Controlled	0.01	-0.00-
29-Sep	FCC/Wet Gas line washing		1200	Oily Water	FCCU Slurry Oil		99%	0.55	0.00	1%	55.00	1.00	0.25	Controlled	0.00	-0.00-
1-Oct	Wet Gas Lines		800	Fire Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
2-Oct	North/South Outfall Pit (Alky)		700	Oily Water	Slop Oil	Y	98%	18.30	0.05	2%	1830.00	0.86	4.18	Controlled	0.00	-0.00-
3-Oct	Repcon Tubs by Alky Unit		850	Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
3-Oct	523 Area 6	Impound Sump	1200	Light Naphtha	Light Naphtha		99%	124.10	0.56	1%	12410.00	0.66	37.33	Controlled	0.04	-0.00-
4-Oct	Repcon Tubs by Alky Unit/North South Pits		6700		Water	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
4-Oct	River Bulkhead	Cage	9000	Diesel	Diesel Product		98%	1.16	0.04	2%	116.00	0.84	3.32	Controlled	0.00	-0.00-
4-Oct	Area 2 Rebollor		500	Water Condensate	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
4-Oct	Area 4 Repcon Tubs		600		Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
5-Oct	Bulkhead	Cage	11400	Oily Water	Slop Oil		99%	18.30	0.79	1%	1830.00	0.86	68.01	Controlled	0.07	-0.00-
6-Oct	Sump		2800	Gas/Water from Sump	Gasoline (Genonic)	Y	10%	58.10	0.62	90%	5810.00	0.74	45.65	Controlled	0.00	-0.00-
6-Oct	River Bulkhead	Cage	15000	Oily Water	Slop Oil		99%	18.30	1.04	1%	1830.00	0.86	89.49	Controlled	0.09	-0.00-
6-Oct	Repron tubs		400	Fire Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
10-Oct	Metering Station Dock Area	Cage	900	Water	Slop Oil		100%	18.30	0.06	0%	1830.00	0.86	5.37	Controlled	0.01	-0.00-
10-Oct		Cage	1000	Rusty Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
10-Oct	Slop Oil Tote			Lube Oil	Lube Oil	Y	0%	0.10	0.00	100%	10.00	0.80	0.00	Controlled	0.00	-0.00-
11-Oct	Bulkhead/River	Cage	4000	Oily Sheen/Water	Slop Oil		90%	18.30	0.28	10%	1830.00	0.86	23.86	Controlled	0.02	-0.00-
11-Oct	Alky 4 Clean Water Sewer		7500	Rain Water	Stormwater		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
12-Oct	Tank 26 Boilerhouse		500	Fire Water/Condensate	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
12-Oct	S/D Bulkhead	Cage	14000	Water/Diesel	Diesel Product		90%	1.16	0.06	10%	116.00	0.84	5.17	Controlled	0.01	-0.00-
13-Oct	Well Water at excavation		1300	Ground Water	Crude Tank Water	Y	99%	0.06	0.00	1%	5.70	1.00	0.03	Controlled	0.00	-0.00-
15-Oct	Marcus Hook Guard Basin	Cage	2400	Gas Oil/Water	Crude Unit AGO	Y	93%	0.00	0.00	7%	0.00	0.87	0.00	Controlled	0.00	-0.00-
15-Oct	Clean Water Sewer	Cage	1500	Water/Sheen	Water	Y	95%	0.00	0.00	5%	0.00	1.00	0.00	Controlled	0.00	-0.00-
16-Oct	Tank 169	Cage	8300	Tank 169 Water Draw	Heavy Reformate		100%	27.40	0.86	0%	2740.00	0.86	74.07	Controlled	0.07	-0.00-
17-Oct	SCGB		1500	Crude/Water	Slop Oil	Y	99%	18.30	0.10	1%	1830.00	0.86	8.95	Controlled	0.00	-0.00-
18-Oct	Tank 173	Cage	2600		Vacuum Unit VGO		99%	0.00	0.00	1%	0.00	0.91	0.00	Controlled	0.00	-0.00-
19-Oct	Marcus Hook Guard Basin	Cage	2300	Gas Oil/Water	Crude Unit AGO	Y	98%	0.00	0.00	2%	0.00	0.87	0.00	Controlled	0.00	-0.00-
20-Oct	Area 4 FCC		1300	Steam Condensate	Water		90%	0.00	0.00	10%	0.00	1.00	0.00	Controlled	0.00	-0.00-
21-Oct	Area 2		1600	Flare Drips	Slop Oil		97%	18.30	0.11	3%	1830.00	0.86	9.55	Controlled	0.01	-0.00-
22-Oct	148 Tank	Tank 186	1000	Cutter & Gas Oil (FCC)	FCCU Slurry Oil		0%	0.55	0.00	100%	55.00	1.00	0.21	Controlled	0.00	-0.00-
23-Oct	Area 2	Tank 184/68 (Light Slop)	1600	Liquid/Foamy Oil	Slop Oil		75%	18.30	0.11	25%	1830.00	0.86	9.55	Controlled	0.01	-0.00-
23-Oct	173 excavation/pump containment	Cage Area 5	700	Mud/Fire Water/Gas Oil	Crude Unit AGO	Y	98%	0.00	0.00	2%	0.00	0.87	0.00	Controlled	0.00	-0.00-
23-Oct	Chester Inlet	Cage	4900		Stormwater		99%	0.00	0.00	1%	0.00	1.00	0.00	Controlled	0.00	-0.00-
24-Oct	Flare Dike Area	Cage	600		Slop Oil	Y	98%	18.30	0.06	2%	1830.00	0.86	4.77	Controlled	0.00	-0.00-
24-Oct	173 Tank Excavation	Cage	1200	Firewater, gas oil, mud	Crude Unit AGO	Y	98%	0.00	0.00	2%	0.00	0.87	0.00	Controlled	0.00	-0.00-
24-Oct	Tank 180	Cage	5800	Dirty Water	Kero Product		100%	5.14	0.11	0%	514.20	0.81	9.18	Controlled	0.01	-0.00-
25-Oct	173 Excavation	Cage	900	Water	Crude Unit AGO	Y	99%	0.00	0.00	1%	0.00	0.87	0.00	Controlled	0.00	-0.00-
25-Oct	Kero Unit	Tank 184	2500	Kerosene	Kero Product		1%	5.14	0.05	99%	514.20	0.81	3.96	Controlled	0.00	-0.00-
26-Oct	Area 3 Pits	Cage	2400	Water	Crude Tank Water	Y	99%	0.06	0.00	1%	5.70	1.00	0.05	Controlled	0.00	-0.00-
26-Oct	Area 6		400	Water	Slop Oil		99%	18.30	0.03	1%	1830.00	0.86	2.39	Controlled	0.00	-0.00-
29-Oct	Bleeder		14000	Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
30-Oct	Tank 188		1500		Crude Unit Feed		100%	24.42	0.14	0%	2442.00	0.83	11.57	Controlled	0.01	-0.00-
30-Oct	S&P Pad	Cage	25200	Water	Slop Oil		100%	18.30	1.75	0%	1830.00	0.86	150.35	Controlled	0.15	-0.00-
30-Oct	FCC Feed Pit Excavation	Cage	1700	Oily Water	Slop Oil	Y	99%	18.30	0.12	1%	1830.00	0.86	10.14	Controlled	0.00	-0.00-
31-Oct	C&D Pad	Cage	2600	Water	Slop Oil	Y	99%	18.30	0.19	1%	1830.00	0.86	16.71	Controlled	0.00	-0.00-
31-Oct	Water Supply Bits	Cage	8100	Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
1-Nov	35 Tanks	Impound Sump	7200	KOH & Firewater	Water		98%	0.00	0.00	2%	0.00	1.00	0.00	Controlled	0.00	-0.00-
2-Nov	Excavation	Cage	2900	Ground Water	Slop Oil	Y	100%	18.30	0.20	0%	1830.00	0.86	17.30	Controlled	0.00	-0.00-
2-Nov	Frac Tank in Alky Field	Cage	2000	KOH & Firewater	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
5-Nov	Area 6		1700	Water	Slop Oil		95%	18.30	0.12	5%	1830.00	0.86	10.14	Controlled	0.01	-0.00-
8-Nov	Slop Oil Tote on VGO		300	Slop Oil	Slop Oil		0%	18.30	0.02	100%	1830.00	0.86	1.79	Controlled	0.00	-0.00-
9-Nov	Bundle Pad	Cage	6000	Oily Water-Mud	Slop Oil		95%	18.30	0.42	5%	1830.00	0.86	35.80	Controlled	0.04	-0.00-
9-Nov	SRU Train #2	Cage	1000	Sulfur Condenser Wash Water	Water		98%	0.00	0.00	2%	0.00	1.00	0.00	Controlled	0.00	-0.00-
12-Nov	SRU #2		2800	Condenser Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
12-Nov	Bundle Pad	Cage	5450	Oily Water-Mud	Slop Oil		95%	18.30	0.38	5%	1830.00	0.86	32.52	Controlled	0.03	-0.00-
13-Nov	7&8 Boiler		3000	Rain Water	Stormwater		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
13-Nov	SRU #2 Condenser	Cage	800	Water Wash	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
14-Nov	Pit by 7-8 Boilers		800	Rain Water		Y	100%	#N/A	#N/A	0%	#N/A	#N/A	#N/A	Controlled	0.00	-0.00-
14-Nov	Tank 171	Cage	1500	Reformate/Water	Gasoline (Genonic)		95%	58.10	0.33	5%	5810.00	0.74	24.45	Controlled	0.02	-0.00-

Table A.22: 2012 Vacuum Truck Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Date	Waste Origination	Off-Load Site/Waste	Waste Quantity	Primary Water	Vacuum Truck Contents	DBL CNT?	Aqueous Phase			Organic Phase				Controlled[1]	TAB Quantity	6 BQ
							100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
16-Nov	Sky Train Reactor		800	Water	Water		99%	18.30	0.06	1%	1830.00	0.86	5.37	Controlled	0.01	-0.00-
16-Nov	Well @ Mur Area	Cage	900	Water/Oil	Slop Oil		98%	18.30	0.74	2%	1830.00	0.86	83.24	Controlled	0.00	-0.00-
16-Nov	Stoneycreek Guard Basin	Cage	10600	Oily Water	Slop Oil	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
20-Nov	Pond 8' Line	Cage	600	Pond Water	Water	Y										
27-Nov	Sweet unit drains		400	Amine/Condensate/Fire Water	Amine	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
30-Nov	Clay Treaters	Cage	800	Water	Diesel Product		100%	1.16	0.00	0%	116.00	0.84	0.30	Controlled	0.00	-0.00-
3-Dec	Clay Filters	Cage	2000	Water	Diesel Product		100%	1.16	0.01	0%	116.00	0.84	0.74	Controlled	0.00	-0.00-
4-Dec	Blender		200	Gas Component	No.1 Basestock		0%	78.30	0.06	100%	7830.00	0.75	4.42	Controlled	0.00	-0.00-
5-Dec	Rent Tanks on LP Pad	Impound Sump	5600	Alky Water - Rain for rent tanks	Stormwater		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
5-Dec	Propane Rail Rack Excavation		1700	Fire Water	Water	Y	100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
7-Dec	Tank 447 Pit	Cage	5600	Water	No.1 Basestock	Y	100%	78.30	1.66	0%	7830.00	0.75	123.86	Controlled	0.00	-0.00-
11-Dec	Light Ref	Cage	8100	Light Ref & Water	Light Reformate		90%	2618.50	80.40	10%	261850.00	0.74	5938.02	Controlled	6.02	-0.00-
12-Dec	ULSD Line @ ship dock		200	ULSD Condensate	Diesel Product	Y	99%	1.16	0.00	1%	116.00	0.84	0.07	Controlled	0.00	-0.00-
12-Dec	Goodwin Pump Containment 157 Dike		3	Diesel	Diesel Product	Y	0%	1.16	0.00	100%	116.00	0.84	0.00	Controlled	0.00	-0.00-
12-Dec	Light Ref Pump		40	Light Fluid	Light Reformate		0%	2618.50	0.40	100%	261850.00	0.74	29.32	Controlled	0.03	-0.00-
18-Dec	C&P Pad		1200	Water	Slop Oil		100%	18.30	0.08	0%	1830.00	0.86	7.16	Controlled	0.01	-0.00-
19-Dec	Tank 162	Cage	4500	Oily Water	Crude Tank Water		99%	0.06	0.00	1%	5.70	1.00	0.13	Controlled	0.00	-0.00-
20-Dec	Tank 164	Cage	6000	Oily Water	Crude Tank Water		99%	0.06	0.00	1%	5.70	1.00	0.10	Controlled	0.00	-0.00-
21-Dec	ULSD Line at Ship Dock		200	River Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
21-Dec	Water Supply	Cage	6000	Water	Water		100%	0.00	0.00	0%	0.00	1.00	0.00	Controlled	0.00	-0.00-
27-Dec	Tank 183 and Tank 186 Roof Drains	Cage	7100	Water	Lube Oil		100%	0.10	0.00	0%	10.00	0.80	0.22	Controlled	0.00	-0.00-
31-Dec	Oil Water Sewer Hub		3000	Oily Water Sludge	Slop Oil	Y	90%	18.30	0.21	10%	1830.00	0.86	17.90	Controlled	0.00	-0.00-
31-Dec	Tank 172	Cage	6000	Water	Heavy Reformate		100%	27.40	0.62	0%	2740.00	0.86	53.54	Controlled	0.05	-0.00-
	Slop Line 184 Dike		1200	Slop Oil/Crude/Sour Water	Slop Oil	Y	0%	18.30	0.08	100%	1830.00	0.86	7.16	Controlled	0.00	-0.00-

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
9.3	0.0

Table A.23: 2012 Pump Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Date	Area	Equipment #	Pump	Controlled/ Uncontrolled	Disposition	Event Number	Double Count	Percent Aqueous	Percent Organic	Material	Organic Density (sp.gr.)	Aqueous Benzene (mg/L)	Organic Benzene (mg/kg)	Benzene Range (ppmw) Min	Benzene Range (ppmw) Max	Average Benzene (ppmw)	Average Density (lbs/gal)	Total Volume (gpy)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
12/4/2012	Area 05 Waste Water Treatment	90P802A	T-11 SLUDGE TRANSFER PUMP	Uncontrolled	OWS	1	Y	0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	-0-	-0-
10/25/2012	Area 05 Waste Water Treatment	90P102D	SOUTH API SEPARATOR SLUDGE PUMP	Uncontrolled	OWS	1	Y	0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	-0-	-0-
12/18/2012	Area 05 Waste Water Treatment	90P300D	FILTER FEED PUMP RVSD	Uncontrolled	OWS	1	Y	0	100	Diesel Product	0.839763	1.10	110	110	110	110	7.00	15	-0-	-0-
12/27/2012	Area 05 Waste Water Treatment	90P600A	SLUDGE REC PUMP CLARIFIER #1 (MH	Uncontrolled	OWS	1	Y	0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	-0-	-0-
12/31/2012	Area 05 Waste Water Treatment	90P1318A	CLARIFIER SCUM / DRAIN PUMP PRSD	Uncontrolled	OWS	1	Y	0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	-0-	-0-
12/10/2012	Area 04 Alky Pretreat Unit		FRESH CAUSTIC PUMP	Uncontrolled	OWS	1		0	100	Caustic	0.92	0.199	19.8	15.8	24	20	7.07	15	<0.01	<0.01
11/15/2012	Area 04 Alky Unit	P16	DEPROPANIZER CHD PUMP CHSD	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
11/14/2012	Area 04 Alky Unit	P19	SETTLED ACID PUMP	Uncontrolled	OWS	1		0	100	HF Acid	1	1	100	125	100	100	8.34	15	<0.01	<0.01
11/1/2012	Area 05 LPG Storage	81P50	ISOBUTANE FEED PUMP	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/11/2012	Area 04 Alky Unit	P26	DEPROPANIZER OVERHEAD PUMP MHSD	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/10/2012	Area 04 Alky Unit		ISO STRIPPER REFLUX PUMP	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/13/2012	Area 05 North Tank Farm	83P10	PLATFORMER FEED PUMP	Uncontrolled	OWS	1		0	100	Alkylate	0.697377	70.8	7080	0	366780	7080	5.82	15	<0.01	<0.01
12/27/2012	Area 00 Residual Fuel	85P7	HIGH SULFUR FUEL OIL PUMP (176 TANK	Uncontrolled	OWS	1		0	100	Light Naphtha	0.661215	124.1	12410	1670	66260	12410	5.51	15	<0.01	<0.01
12/17/2012	Area 04 FCC Unit/CO Boiler	7P7B	FCC TOP REFLUX PUMP - MHSD	Uncontrolled	OWS	1		0	100	Heavy Cycle Oil (HCO)	0.940824	0.65	65	65	65	65	7.85	15	<0.01	<0.01
12/19/2012	Area 04 FCC Unit/CO Boiler	07C1P1A	MAIN AIR BLOWER MAIN LUBE OIL PUMP CHSD	Uncontrolled	OWS	1		0	100	Lube Oil	0.8	0.1	10	0	20	10	6.67	15	<0.01	<0.01
12/3/2012	Area 04 FCC Unit/CO Boiler	07P103A	50% CAUSTIC PUMP MHSD	Uncontrolled	OWS	1		0	100	Light Naphtha	0.661215	124.1	12410	1670	66260	12410	5.51	15	<0.01	<0.01
11/30/2012	Area 04 FCC Unit/CO Boiler	07P103B	50% CAUSTIC PUMP CHSD	Uncontrolled	OWS	1		0	100	Caustic	0.92	0.199	19.8	15.8	24	20	7.67	15	<0.01	<0.01
12/6/2012	Area 01 Isocracker	21P7A	ISO DEBUTANIZER FEED PUMP RVSD	Uncontrolled	OWS	1		0	100	Caustic	0.92	0.199	19.8	15.8	24	20	7.67	15	<0.01	<0.01
12/29/2012	Area 01 Naphtha Treater	11P4	NAPHTHA SPLITTER REFLUX PUMP MHSD	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/3/2012	Area 01 Naphtha Treater	11P5A	PLATFORMER CHARGE PUMP MHSD	Uncontrolled	OWS	1		0	100	Light Naphtha	0.661215	124.1	12410	1670	66260	12410	5.51	15	<0.01	<0.01
12/12/2012	Area 01 Naphtha Treater	11P7	NAPHTHA ABSORBER BOTTOMS PUMP	Uncontrolled	OWS	1		0	100	Light Naphtha	0.661215	124.1	12410	1670	66260	12410	5.51	15	<0.01	<0.01
12/5/2012	Area 02 Amine	33P2A	AMINE STRIPPER REFLUX PUMP MHSD	Uncontrolled	OWS	1		0	100	Light Naphtha	0.661215	124.1	12410	1670	66260	12410	5.51	15	<0.01	<0.01
12/31/2012	Area 02 Sour Water Stripper	34P4A	SOUR WATER STRIPPER REFLUX PUMP	Uncontrolled	OWS	1		0	100	Amine	1	0	0	0	0	0	8.34	15	-0-	-0-
12/31/2012	Area 02 Sour Water Stripper	34P4B	SOUR WATER STRIPPER REFLUX PUMP	Uncontrolled	OWS	1		0	100	Sour Water	1	73	7300	9125	5475	7300	8.34	15	<0.01	<0.01
10/29/2012	Area 04 FCC Unit/CO Boiler	P3	HEAVY GAS OIL PUMP	Uncontrolled	OWS	1		0	100	Sour Water	1	73	7300	9125	5475	7300	8.34	15	<0.01	<0.01
12/28/2012	Area 04 FCC Unit/CO Boiler	P51	INTERSTG LIQUID HYDROCARBON PUMP PRSD	Uncontrolled	OWS	1		0	100	Heavy Cycle Oil (HCO)	0.940824	0.65	65	65	65	65	7.85	15	<0.01	<0.01
11/13/2012	Area 04 FCC Unit/CO Boiler	P20	CLARIFIED OIL PUMP CHSD	Uncontrolled	OWS	1		0	100	Light Naphtha	0.661215	124.1	12410	1670	66260	12410	5.51	15	<0.01	<0.01
12/31/2012	Area 04 FCC Unit/CO Boiler	P2A	MAIN SLURRY PUMP RVSD	Uncontrolled	OWS	1		0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	<0.01	<0.01
11/19/2012	Area 04 FCC Unit/CO Boiler	P10C	DEETHANIZER FEED STOCK PUMP	Uncontrolled	OWS	1		0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	<0.01	<0.01
11/8/2012	Area 04 FCC Unit/CO Boiler	P20A	CLARIFIED OIL PUMP (MH PUMP	Uncontrolled	OWS	1		0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	<0.01	<0.01
11/29/2012	Area 04 FCC Unit/CO Boiler	MH727205-2	HOTWELL CONDENSATE PUMP	Uncontrolled	OWS	1		0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	<0.01	<0.01
12/19/2012	Area 04 FCC Unit/CO Boiler	P1A	DEBUT OVERHEAD REFLUX PUMP RVSD	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
11/26/2012	Area 03 544 Crude/Desalter	2C417	544V ASPHALT PUMP PRSD	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/17/2012	Area 03 544 Crude/Desalter	2C417A	HOTWELL SKIM OIL PUMP MHSD	Uncontrolled	OWS	1		0	100	Kero Product	0.811819	5.141953	514.1953	390	1485	514	6.77	15	<0.01	<0.01
12/10/2012	Area 03 544 Crude/Desalter	2C417B	HOTWELL SKIM OIL PUMP CHSD	Uncontrolled	OWS	1		0	100	Slop Oil	0.86	18.3	1830	1370	2288	1830	7.17	15	<0.01	<0.01
11/14/2012	Area 03 543 Crude/Desalter	02P4A	543 DESALTED CRUDE BRINE INJECT PMP PRSD	Uncontrolled	OWS	1		0	100	Slop Oil	0.86	18.3	1830	1370	2288	1830	7.17	15	<0.01	<0.01
11/27/2012	Area 03 542 Vacuum Unit	P2A	542V BOTTOMS PUMP BIG BUTTS PUMP-RVSD	Uncontrolled	OWS	1		0	100	Caustic	0.92	0.199	19.8	15.8	24	20	7.67	15	<0.01	<0.01
12/19/2012	Area 03 541 Vacuum Unit	P1A	541V BOTTOMS PUMP BIG BUTTS PUMP-RVSD	Uncontrolled	OWS	1		0	100	Heavy Cycle Oil (HCO)	0.940824	0.65	65	65	65	65	7.85	15	<0.01	<0.01
11/29/2012	Area 03 541 Vacuum Unit	PL105	541V GAS OIL FEED PUMP CHSD	Uncontrolled	OWS	1		0	100	Heavy Cycle Oil (HCO)	0.940824	0.65	65	65	65	65	7.85	15	<0.01	<0.01
11/29/2012	Area 03 544 Crude/Desalter	2C418B	544V HOTWELL PUMP CHSD	Uncontrolled	OWS	1		0	100	Heavy Cycle Oil (HCO)	0.940824	0.65	65	65	65	65	7.85	15	<0.01	<0.01
12/11/2012	Area 03 541 Vacuum Unit		541V BOTTOMS PUMP BABY BUTTS PUMP-PRSD	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
12/10/2012	Area 03 541 Vacuum Unit	P101A	HOTWELL CONDENSATE PUMP MHSD	Uncontrolled	OWS	1		0	100	Heavy Cycle Oil (HCO)	0.940824	0.65	65	65	65	65	7.85	15	<0.01	<0.01
12/5/2012	Area 03 541 Vacuum Unit	P101B	HOTWELL CONDENSATE PUMP CHSD	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
12/5/2012	Area 03 541 Vacuum Unit	P102B	HOTWELL SLOP OIL PUMP CHSD	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
12/14/2012	Area 04 Alky Pretreat Unit	06P301B	APT RAW FEED PUMP MH641295-2 PRSD	Uncontrolled	OWS	1		0	100	Slop Oil	0.86	18.3	1830	1370	2288	1830	7.17	15	<0.01	<0.01
11/20/2012	Area 05 Waste Water Treatment	6P801B	T-8 SLUDGE BLENDING TANK PUMP	Uncontrolled	OWS	1	Y	0	100	Alkylate	0.697377	70.8	7080	0	366780	7080	5.82	15	<0.01	<0.01
12/5/2012	Area 02 Boiler House	MH667295-2	CONDENSATE PUMP RVSD	Uncontrolled	OWS	1		0	100	FCCU Slurry Oil	1	0.55	55	55	55	55	8.34	15	-0-	-0-
12/3/2012	Area 06 South Tank Farm	83P12	HEAVY FUELS RACK DECANTED OIL TO RAILCAR	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
12/3/2012	Area 06 North Tank Farm	83P54	68 TANK TEMPERED WATER PUMP PRSD	Uncontrolled	OWS	1		0	100	Diesel Product	0.839763	1.10	110	110	110	110	7.00	15	<0.01	<0.01
12/3/2012	Area 06 South Tank Farm	MH512295-2	GASOLINE 513 TANK	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
12/3/2012	Area 06 South Tank Farm	MH511295-2	KEROSENE PUMP	Uncontrolled	OWS	1		0	100	Gasoline (Generic)	0.740154	58.1	5810	2380	9850	5810	6.17	15	<0.01	<0.01
12/3/2012	Area 06 LPG Storage	81P53	BUTANE 515-515 SPHERE 4X6X9 S/N 32271	Uncontrolled	OWS	1		0	100	Kero Product	0.811819	5.141953	514.1953	390	1485	514	6.77	15	<0.01	<0.01
12/20/2012	Area 06 Gasoline Blending	83P81B	ETF WATER DRAWOFF SUMP PUMP	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/5/2012	Area 06 LPG Storage	83P45A	PROPANE / BUTANE PIPELINE PUMP MHSD	Uncontrolled	OWS	1		0	100	Crude Tank Water	1	0.057	5.7	3.2	10	6	8.34	15	<0.01	<0.01
11/15/2012	Area 06 LPG Storage	83P45B	PROPANE / BUTANE PIPELINE PUMP CHSD	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/14/2012	Area 06 LPG Storage	83P48	PROPANE RAILCAR LOADING PUMP	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/3/2012	Area 06 South Tank Farm	83P1C	WTF CRUDE TRANSFER PUMP	Uncontrolled	OWS	1		0	100	Butane	0.6	9.3	930	697.5	1163	930	6.67	15	<0.01	<0.01
12/3/2012	Area 06 South Tank Farm	83P6A	ETF CRUDE TRANSFER PUMP	Uncontrolled	OWS	1		0	100	Crude Unit Feed	0.633333	24.42	2442	150	7700	2442	6.95	15	<0.01	<0.01
12/3/2012	Area 06 South Tank Farm	83P2	WTF 182 TANK CIRC PUMP	Uncontrolled	OWS	1		0	100	Crude Unit Feed	0.633333	24.42	2442	150	7700	2442	6.95	15	<0.01	<0.01
12/3/2012	Area 06 South Tank Farm	83P6C	ETF CRUDE TRANSFER PUMP	Uncontrolled	OWS	1		0	100	Crude Unit Feed	0.633333	24.42	2442	150	7700	2442	6.95	15	<0.01	<0.01
12/3/2012	Area 02 Water Treatment	MH65256-2	GOULDS CELLAR WATER PUMP	Uncontrolled	OWS	1		0	100	Crude Unit Feed	0.633333	24.42	2442	150	7700	2442	6.95	15	<0.01	<0.01
12/3/2012	Area 02 Water Treatment	MH256295-2	WATER SOFTNER CELLAR FILTER PUMP RVSD	Uncontrolled	OWS	1	Y	0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
12/3/2012	Area 02 Water Treatment	MH256295-2	WATER PUMP #6 BOILER AREA	Uncontrolled	OWS	1	Y	0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
12/28/2012	Area 05 North Tank Farm		LIGHT SLOP PUMP 184 TANK	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
12/3/2012	Area 01 Dock/Barge Loading	80P08	BARGE DOCK PRODUCT TRANSFER PUMP A CHSD	Uncontrolled	OWS	1		0	100	Slop Oil	0.86	18.3	1830	1370	2288	1830	7.17	15	<0.01	<0.01
12/15/2012	Area 04 FCC Unit/CO Boiler	J1A	CO BOILER FEED WATER PUMP PRSD	Uncontrolled	OWS	1		0	100	Diesel Product	0.839763	1.10	110	110	110	110	7.00	15	<0.01	<0.01
12/12/2012	Area 04 FCC Unit/CO Boiler		HOTWELL PUMP - SPARE	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
11/8/2012	Area 02 Cooling Tower		SULFURIC ACID INJECTION PUMP	Uncontrolled	OWS	1		0	100	Water	1	0	0	0	0	0	8.34	15	-0-	-0-
11/5/2012	Area 02 Cooling Tower		SULFURIC ACID INJECTION PUMP	Uncontrolled	OWS	1		0	100	Sulfuric Acid	1	0	0	0	0	0	8.34	15	-0-	-0-
12/29/2012	Area 04 FCC Unit/CO Boiler	07FDL001P2	CO BOILER FAN LUBE OIL PUMP MOTOR	Uncontrolled	OWS	1		0	100	Sulfuric Acid	1	0	0	0	0	0	8.34	15	-0-	-0-
									100	Lube Oil	1	0.1	10	0	20	10	6.67	15	<0.01	<0.01

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.005740	0.005740

Table A.24: 2012 Exchanger Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Date	Area	Equipment #	Exchanger	Controlled/ Uncontrolled	Disposition	Event Number	Double Count	Percent Aqueous	Percent Organic	Waste	Organic Density (sp.gr.)	Aqueous Benzene (mg/L)	Organic Benzene (mg/kg)	Benzene Range (ppmw) Min	Benzene Range (ppmw) Max	Average Benzene (ppmw)	Average Density (lbs/gal)	Total Volume (gpy)	TAB Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)

There were no maintenance events in which an exchanger needed to be taken offline and purged during this reporting period

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.000000	0.000000

Table A 25: 2012 Compressor Waste, Philips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Date	Area	Equipment #	Compressor	Controlled/ Uncontrolled	Disposition	Event Number	Double Count	Percent Aqueous	Percent Organic	Waste	Organic Density (sp.gr.)	Aqueous Benzene (mg/L)	Organic Benzene (mg/kg)	Benzene Range (ppmw) Min	Max	Average Benzene (ppmw)	Average Density (lbs/gal)	Total Volume (gpy)	TAD Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
6/18/2012	South Tank Farm		Barge Dock MVR Compressor	Uncontrolled	OWS	1	N	0	100	Lube Oil	0.8	0.1	10	0	20	10	6.67	25	<0.01	<0.01

TAD (Mg/yr)	6.0 Mg Total (Mg/yr)
0.000001	0.000001

Table A.26: 2012 Tanker Truck Waste, Phillips 66 and Monroe Energy, LLC, Trainer, Pennsylvania

Annual Truck Movements											
Product	API Gravity	Specific Gravity	Average Benzene (vol%)	Average Benzene (wt%)	Average Benzene (mg/l)	Number of Hose Disconnects		Annual Waste Quantity (lbs)	Annual Benzene Quantity (lbs)	Annual Benzene Quantity (Mg/yr)	6.0 Mg Total (Mg/yr)
						Receipts	Shipments				
LPG	147.7	0.507			930.0		832	35169	32.71	0.0148	0.0148
Sulfur		1.076					42	3769	0.00	0.0000	0.0000

Assumptions:

1) 6" and 8" diameter cargo hoses are used for product movement at truck terminal;
   8" diameter hose by 25' long used as basis for volume calculation.
   @ 100 gallons "waste" product/hose receipt disconnect
   @ 10 gallons "waste" product/hose shipment disconnect

TAB (Mg/yr)	6.0 Mg Total (Mg/yr)
0.014840	0.014840

42-045-00070

Monroe Energy

Monroe Energy, LLC
Trainer Refinery
4101 Post Road
Trainer, PA 19061
(610) 364-8000

July 1, 2013

Via Fed Ex

James Rebarchak
Regional Manager, Air Quality
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, Pennsylvania 19401

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Subject: Benzene Waste Operations NESHAPS
Quarterly Report: April 1, 2013 – June 30, 2013
EPA ID No. PAR 000015768

Monroe Energy, LLC, Trainer Refinery, submits this letter to fulfill the quarterly reporting requirements pursuant to 40 CFR Part 61, Subpart FF, §61.357(d).

During this reporting period, the Crude Oil Desalter Brine Treatment Unit (BTU) was monitored as required by 40 CFR §61.354(a)(1). Monthly samples were collected in January, February and March. Measured benzene concentration in the BTU effluent remained less than 10 ppmw during the report period. The inspections required by these standards were also performed

Based on the information and belief formed after reasonable inquiry, I certify that the statements and information contained in this report are true, accurate, and complete.

If you have any questions about this report, please call Stephani Szymanski, LDAR & BWON Lead, at (610) 364-8073 or Matt Torell, Environmental Lead, at (610) 364-8399.

Sincerely,

Jeffrey K. Warmann
CEO and President

cc: Office of Air Enforcement & Compliance Assistance
U.S. EPA, Region 3
Mail Code 3AP20
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Philadelphia, PA 19103-2029
Via FedEx