Attachment IV

Analytical Report for Reissuance of NPDES Pemit No. MI0001848

Monroe Power Plant

November 22, 2013

DTE - Monroe PP
Attn: Ms. Claire Jennings
3500 E. Front Street
Monroe, MI 48161

Project: MPP Permit Renewal, 2013

Dear Ms. Claire Jennings,

Enclosed is a copy of the laboratory report for the following work order(s) received by TriMatrix Laboratories:

Work Order	Received	Description
1311089	11/05/2013	Laboratory Services

This report relates only to the sample(s) as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) and/or one of the following certification programs:

ACLASS DoD-ELAP/ISO17025 (#ADE-1542); Arkansas DEP (#88-0730/12-056-0); Florida DEP (#E87622-24); Georgia EPD (#E87622-24); Illinois DEP (#200026/003059); Kansas DPH (#E-10302); Kentucky DEP (#0021); Louisiana DEP (#83658); Michigan DPH (#0034); Minnesota DPH (#491715); New York ELAP (#11776/48855); North Carolina DNRE (#659); Texas CEQ (#T104704495-13-3); Virginia DCLS (#460153/1622); Wisconsin DNR (#999472650); USDA Soil Import Permit (#P330-12-00236).

Any qualification or narration of results, including sample acceptance requirements and test exceptions to the above referenced programs, is presented in the Statement of Data Qualifications and Project Technical Narrative sections of this report. Estimates of analytical uncertainties and certification documents for the test results contained within this report are available upon request.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Jennifer L. Rice
Project Chemist

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TRIMATRIX LABORATORIES

PROJECT TECHNICAL NARRATIVE(s)

Polychlorinated Biphenyls (PCBs) by EPA Method 608

Narrative: Due to insufficient sample volume, matrix QC was not performed on this batch. A blank and a Laboratory Control Sample make up the batch QC.

Analysis: USEPA-608

Sample/Analyte: 1311089-01 001A Composite
1311089-10 Intake Composite

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TRIMATRIX LABORATORIES

PROJECT TECHNICAL NARRATIVE(s)

Volatile Organic Compounds by EPA Method 624

Narrative: Sample was not preserved per 40 CFR Part 136.3,Table II: a sample collected for Acrolein must be pH adjusted to a range of 4-5 or analyzed within 3 days of collection.

Analysis: USEPA-624

Sample/Analyte: 1311089-07 001A VOC Lab Composite
1311089-15 Intake VOC Lab Composite

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TRIMATRIX LABORATORIES

PROJECT TECHNICAL NARRATIVE(s)

Semivolatile Organic Compounds by EPA Method 625

Narrative: Due to insufficient sample volume, matrix QC was not performed on this batch. A blank and a Laboratory Control Sample make up the batch QC.

Analysis: USEPA-625

Sample/Analyte: 1311089-01 001A Composite
1311089-10 Intake Composite

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TRIMATRIX LABORATORIES

PROJECT TECHNICAL NARRATIVE(s)

Total Metals by EPA 200 Series Methods

Narrative: The CRL recovery for this analyte was outside of the laboratory control limits.

Analysis: USEPA-200.8

3K13002-CRL1	Antimony
3K18003-CRL2	Zinc

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TRIMATRIX LABORATORIES

PROJECT TECHNICAL NARRATIVE(s)

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Narrative: Due to insufficient sample volume, matrix QC was not performed on this batch. A blank and a Laboratory Control Sample make up the batch QC.

Analysis: SM 2120 B-2011

Sample/Analyte: 1311089-01 001A Composite
1311089-10 Intake Composite

Analysis: SM 5540 C-2011

Sample/Analyte:	1311089-01 001A Composite	Surfactants, MBAS
	1311089-10 Intake Composite	Surfactants, MBAS

Narrative: The CRL recovery for this analyte was outside of the laboratory control limits.

Analysis: SM 4500-NO3 F-2011

3K19071-CRL1 — Nitrogen, Nitrate+Nitrite

Analysis: SM 5220 D-2011

3K18051-CRL1 — Chemical Oxygen Demand

Analysis: SM 5540 C-2011

3K11026-CRL1 — Surfactants, MBAS

Narrative: The MS or MSD recovery, but not both, was outside the control limit. The RPD is within the control limit.

Analysis: USEPA-351.2 Rev. 2.0

Sample/Analyte: 1311089-01 001A Composite — Nitrogen, Total Kjeldahl

Narrative: The referenced method requires analysis occur within 15 minutes of sample collection. Analysis was performed at the laboratory on 11-6-13.

Analysis: SM 4500-SO3 B-2011

Sample/Analyte:	1311089-01 001A Composite	Sulfite
	1311089-10 Intake Composite	Sulfite

Narrative: Distillation pretreatment was not performed. Common interfering ions were complexed by a buffer solution. Fluoroborates (if present) may result in a low bias of the reported concentration.

Analysis: SM 4500-F C-2011

Sample/Analyte:	1311089-01 001A Composite	Fluoride
	1311089-10 Intake Composite	Fluoride

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TRIMATRIX LABORATORIES

STATEMENT OF DATA QUALIFICATIONS

Polychlorinated Biphenyls (PCBs) by EPA Method 608

Qualification: The corresponding CCV for this analytical batch had a recovery exceeding the upper control limit of the method. A positive result for this analyte in any associated samples are considered estimated. Non-detectable results are not qualified.

Analysis: USEPA-608

Sample:	1311089-01	001A Composite
	1311089-10	Intake Composite

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TRIMATRIX LABORATORIES

STATEMENT OF DATA QUALIFICATIONS

Volatile Organic Compounds by EPA Method 624

Qualification: The corresponding CCV for this analytical batch had a recovery below the lower control limit of the method. Positive results for this analyte in any associated samples are considered estimated; non-detectable results are considered approximate.

Analysis: USEPA-624

Sample/Analyte:	1311089-07	001A VOC Lab Composite	Acrolein
	1311089-15	Intake VOC Lab Composite	Acrolein

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STATEMENT OF DATA QUALIFICATIONS

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Qualification: The laboratory duplicate RPD for this sample exceeded the control limit.

Analysis: SM 2540 D-2011

Sample/Analyte:		
1311089-01	001A Composite	Residue, Suspended
1311089-10	Intake Composite	Residue, Suspended

Qualification: The following reported test methods and analyte(s) are exceptions to our NELAP Fields of Accreditation, or for which accreditation is not required, applicable, or available.

Analysis: EPA-351.2/4500-NH3G

Analyte(s): Nitrogen, Organic

Analysis: SM 4500-SO3 B-2011

Analyte(s): Sulfite

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**001A Composite**	Sampled:	11/5/13 10:40		
Lab Sample ID:	**1311089-01**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/8/13 7:56	By:	ALK
Dilution Factor:	1	Analyzed:	11/12/13 6:23	By:	MSZ
QC Batch:	1311972	Analytical Batch:	3K18033		

*Polychlorinated Biphenyls (PCBs) by EPA Method 608

CAS Number	Analyte	Analytical Result	RL
12674-11-2	PCB-1016	<0.20	0.20
11104-28-2	PCB-1221	<0.20	0.20
11141-16-5	PCB-1232	<0.20	0.20
53469-21-9	PCB-1242	<0.20	0.20
12672-29-6	PCB-1248	<0.20	0.20
11097-69-1	PCB-1254	<0.20	0.20
11096-82-5	PCB-1260	<0.20	0.20

Surrogates:	*% Recovery*	*Control Limits*
Decachlorobiphenyl	*98*	*45-134*
Tetrachloro-m-xylene	*86*	*27-126*

*See Statement of Data Qualifications

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ANALYTICAL REPORT

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Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**001A Composite**	Sampled:	11/5/13 10:40		
Lab Sample ID:	**1311089-01**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 7:53	By:	ALK
Dilution Factor:	1	Analyzed:	11/13/13 11:45	By:	JLB
QC Batch:	1311894	Analytical Batch:	3K13027		

Semivolatile Organic Compounds by EPA Method 625

CAS Number	Analyte	Analytical Result	RL
83-32-9	Acenaphthene	<5.0	5.0
208-96-8	Acenaphthylene	<5.0	5.0
120-12-7	Anthracene	<5.0	5.0
92-87-5	Benzidine	<50	50
56-55-3	Benzo(a)anthracene	<5.0	5.0
50-32-8	Benzo(a)pyrene	<5.0	5.0
205-99-2	Benzo(b)fluoranthene	<5.0	5.0
207-08-9	Benzo(k)fluoranthene	<5.0	5.0
191-24-2	Benzo(g,h,i)perylene	<5.0	5.0
101-55-3	4-Bromophenyl Phenyl Ether	<5.0	5.0
85-68-7	Butyl Benzyl Phthalate	<5.0	5.0
59-50-7	4-Chloro-3-methylphenol	<5.0	5.0
111-91-1	Bis(2-chloroethoxy)methane	<5.0	5.0
111-44-4	Bis(2-chloroethyl) Ether	<5.0	5.0
108-60-1	Bis(2-chloroisopropyl) Ether	<5.0	5.0
91-58-7	2-Chloronaphthalene	<5.0	5.0
95-57-8	2-Chlorophenol	<5.0	5.0
7005-72-3	4-Chlorophenyl Phenyl Ether	<5.0	5.0
218-01-9	Chrysene	<5.0	5.0
53-70-3	Dibenz(a,h)anthracene	<5.0	5.0
84-74-2	Di-n-butyl Phthalate	<5.0	5.0
95-50-1	1,2-Dichlorobenzene	<5.0	5.0
541-73-1	1,3-Dichlorobenzene	<5.0	5.0
106-46-7	1,4-Dichlorobenzene	<5.0	5.0
91-94-1	3,3´-Dichlorobenzidine	<20	20
120-83-2	2,4-Dichlorophenol	<5.0	5.0
84-66-2	Diethyl Phthalate	<5.0	5.0
105-67-9	2,4-Dimethylphenol	<5.0	5.0
131-11-3	Dimethyl Phthalate	<5.0	5.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**001A Composite**	Sampled:	11/5/13 10:40		
Lab Sample ID:	**1311089-01**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 7:53	By:	ALK
Dilution Factor:	1	Analyzed:	11/13/13 11:45	By:	JLB
QC Batch:	1311894	Analytical Batch:	3K13027		

Semivolatile Organic Compounds by EPA Method 625 (Continued)

CAS Number	Analyte	Analytical Result	RL
534-52-1	4,6-Dinitro-2-methylphenol	<20	20
51-28-5	2,4-Dinitrophenol	<20	20
121-14-2	2,4-Dinitrotoluene	<5.0	5.0
606-20-2	2,6-Dinitrotoluene	<5.0	5.0
117-84-0	Di-n-octyl Phthalate	<5.0	5.0
122-66-7	1,2-Diphenylhydrazine	<5.0	5.0
117-81-7	Bis(2-ethylhexyl) Phthalate	<5.0	5.0
206-44-0	Fluoranthene	<5.0	5.0
86-73-7	Fluorene	<5.0	5.0
118-74-1	Hexachlorobenzene	<5.0	5.0
87-68-3	Hexachlorobutadiene	<5.0	5.0
77-47-4	Hexachlorocyclopentadiene	<5.0	5.0
67-72-1	Hexachloroethane	<5.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	<5.0	5.0
78-59-1	Isophorone	<5.0	5.0
91-20-3	Naphthalene	<5.0	5.0
98-95-3	Nitrobenzene	<5.0	5.0
100-02-7	4-Nitrophenol	<20	20
88-75-5	2-Nitrophenol	<5.0	5.0
62-75-9	N-Nitroso-dimethylamine	<5.0	5.0
86-30-6	N-Nitroso-diphenylamine	<5.0	5.0
621-64-7	N-Nitroso-di-n-propylamine	<5.0	5.0
87-86-5	Pentachlorophenol	<20	20
85-01-8	Phenanthrene	<5.0	5.0
108-95-2	Phenol	<5.0	5.0
129-00-0	Pyrene	<5.0	5.0
120-82-1	1,2,4-Trichlorobenzene	<5.0	5.0
88-06-2	2,4,6-Trichlorophenol	<5.0	5.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**001A Composite**	Sampled:	11/5/13 10:40		
Lab Sample ID:	**1311089-01**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 7:53	By:	ALK
Dilution Factor:	1	Analyzed:	11/13/13 11:45	By:	JLB
QC Batch:	1311894	Analytical Batch:	3K13027		

Semivolatile Organic Compounds by EPA Method 625 (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
2-Fluorophenol	*39*	*18-74*
Phenol-d6	*24*	*12-47*
Nitrobenzene-d5	*73*	*34-122*
2-Fluorobiphenyl	*78*	*36-136*
2,4,6-Tribromophenol	*68*	*19-131*
o-Terphenyl	*85*	*27-138*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**001A Composite**	Sampled:	11/5/13 10:40
Lab Sample ID:	**1311089-01**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 200 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Aluminum	**770**	50	ug/L	1	USEPA-200.7	11/20/13 13:22	KLV	1312365
Antimony	<1.0	1.0	ug/L	1	USEPA-200.8	11/13/13 11:03	DSC	1311927
Arsenic	<1.0	1.0	ug/L	1	USEPA-200.8	11/18/13 10:41	DSC	1312191
Barium	**42**	5.0	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Beryllium	<1.0	1.0	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Boron	**50**	20	ug/L	1	USEPA-200.8	11/18/13 13:42	DSC	1312191
Cadmium	<0.20	0.20	ug/L	1	USEPA-200.8	11/18/13 10:41	DSC	1312191
Chromium	<10	10	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Cobalt	<10	10	ug/L	1	USEPA-200.7	11/20/13 13:22	KLV	1312365
Copper	**9.4**	1.0	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Iron	**1100**	20	ug/L	1	USEPA-200.7	11/20/13 13:22	KLV	1312365
Lead	**1.3**	1.0	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Magnesium	**13000**	500	ug/L	1	USEPA-200.7	11/20/13 13:22	KLV	1312365
Manganese	**30**	10	ug/L	1	USEPA-200.7	11/20/13 13:22	KLV	1312365
Molybdenum	<100	100	ug/L	1	USEPA-200.7	11/20/13 13:22	KLV	1312365
Nickel	**5.5**	5.0	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Selenium	<1.0	1.0	ug/L	1	USEPA-200.8	11/18/13 10:41	DSC	1312191
Silver	<0.50	0.50	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Thallium	<1.0	1.0	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Tin	<200	200	ug/L	1	USEPA-200.7	11/20/13 13:22	KLV	1312365
Titanium	<100	100	ug/L	1	USEPA-200.7	11/20/13 13:22	KLV	1312365
Vanadium	<4.0	4.0	ug/L	1	USEPA-200.8	11/12/13 14:55	DSC	1311927
Zinc	**12**	10	ug/L	1	USEPA-200.8	11/18/13 10:41	DSC	1312191

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**001A Composite**	Sampled:	11/5/13 10:40
Lab Sample ID:	**1311089-01**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
BOD, (5-Day)	<2.0	2.0	mg/L	1	SM 5210 B-2011	11/06/13 10:26	SKA	1311898
Bromide	**0.59**	0.50	mg/L	1	ASTM D 1246-05	11/08/13 13:00	SLL	1312017
Chemical Oxygen Demand	**23**	5.0	mg/L	1	SM 5220 D-2011	11/12/13 15:42	SLL	1312127
Color (Apparent)	**25.0**	5.00	A.C.U.	1	SM 2120 B-2011	11/06/13 13:55	CAC	1311916
Fluoride	**0.24**	0.10	mg/L	1	SM 4500-F C-2011	11/12/13 14:20	SLL	1312144
Hardness as CaCO3	**182**	2	mg/L	1	SM 2340 C-2011	11/08/13 16:30	KAR	1311987
Surfactants, MBAS	<0.0250	0.0250	mg/L	1	SM 5540 C-2011	11/06/13 13:57	WAH	1312072
Phosphorus, Total	**0.0999**	0.0100	mg/L	1	SM 4500-P E-2011	11/12/13 11:59	KAR	1312057
Residue, Dissolved @ 180° C	**230**	50	mg/L	1	SM 2540 C-2011	11/07/13 10:30	WAH	1311905
***Residue, Suspended**	**41.8**	5.0	mg/L	1	SM 2540 D-2011	11/07/13 11:00	WAH	1311906
Sulfate	**42**	10	mg/L	2	ASTM D516-90 (07)	11/15/13 12:42	LMA	1312413
Sulfide, Total	**0.021**	0.020	mg/L	1	SM 4500-S2 D-2011	11/08/13 14:41	WAH	1312049
Sulfite	<1.0	1.0	mg/L	1	SM 4500-SO3 B-2011	11/06/13 12:05	CAC	1311914
Carbon, Total Organic	**4.6**	0.50	mg/L	1	SM 5310 C-2011	11/15/13 05:38	KAR	1312292
Nitrogen, Ammonia	**0.15**	0.050	mg/L	1	SM 4500-NH3 G-2011	11/12/13 15:02	CLB	1312053
Nitrogen, Nitrate+Nitrite	**2.1**	0.25	mg/L	5	SM 4500-NO3 F-2011	11/07/13 17:01	CAC	1312005
Nitrogen, Organic	**0.66**	0.50	mg/L	1	EPA-351.2/4500-NH3G	11/13/13 09:35	CLB	1312132
Nitrogen, Total Kjeldahl	**0.81**	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	11/11/13 11:12	CLB	1311992
Nitrogen, Inorganic	**2.2**	0.25	mg/L	5	[CALC]	11/12/13 15:02	CAC	[CALC]

*See Statement of Data Qualifications

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**001A Grab Day 2**	Sampled:	11/5/13 10:20
Lab Sample ID:	**1311089-02**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Cyanide, Available	<0.0020	0.0020	mg/L	1	USEPA OIA-1677	11/11/13 11:18	LMA	1312077
HEM; Oil & Grease	<5.00	5.00	mg/L	1	USEPA-1664A	11/14/13 07:30	WAH	1312251
Phenolics, Total	<0.0500	0.0500	mg/L	1	USEPA-420.4	11/11/13 10:09	LMA	1311932
Temperature °C (Field)	**18.0**	0.1	°C	1	SM 2550 B	11/05/13 10:20	JAE	1311967
pH (Field)	**7.50**	1.00	pH Units	1	SM 4500-H B-2011	11/05/13 10:20	JAE	1311967
Chlorine, Total Residual (Field)	<0.20	0.20	mg/L	1	HACH-8167	11/05/13 10:20	JAE	1311967
Oxygen, Dissolved (Field)	**9.79**	0.10	mg/L	1	SM 4500-O G	11/05/13 10:20	JAE	1311967

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Trip Blank**	Sampled:	11/5/13 0:00
Lab Sample ID:	**1311089-03**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Mercury	<0.500	0.500	ng/L	1	USEPA-1631E	11/07/13 09:58	MSM	1311955

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Field Blank-001A (LLHg)**	Sampled:	11/4/13 10:01
Lab Sample ID:	**1311089-04**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Mercury	<0.500	0.500	ng/L	1	USEPA-1631E	11/07/13 10:12	MSM	1311955

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**001A (LLHg)**	Sampled:	11/4/13 10:04
Lab Sample ID:	**1311089-05**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Mercury	**4.41**	0.500	ng/L	1	USEPA-1631E	11/07/13 10:15	MSM	1311955

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**001A Duplicate (LLHg)**	Sampled:	11/4/13 10:07
Lab Sample ID:	**1311089-06**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Mercury	**4.85**	0.500	ng/L	1	USEPA-1631E	11/07/13 10:26	MSM	1311955

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**001A VOC Lab Composite**	Sampled:	11/5/13 10:20		
Lab Sample ID:	**1311089-07**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 17:00	By:	DLV
Dilution Factor:	1	Analyzed:	11/8/13 3:20	By:	DLV
QC Batch:	1312050	Analytical Batch:	3K11009		

Volatile Organic Compounds by EPA Method 624

CAS Number	Analyte	Analytical Result	RL
*107-02-8	Acrolein	<5.0	5.0
107-13-1	Acrylonitrile	<1.0	1.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<1.0	1.0
75-25-2	Bromoform	<1.0	1.0
74-83-9	Bromomethane	<1.0	1.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
110-75-8	2-Chloroethyl Vinyl Ether	<10	10
67-66-3	Chloroform	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
124-48-1	Dibromochloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
542-75-6	1,3-Dichloropropene (Total)	<2.0	2.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
75-09-2	Methylene Chloride	<5.0	5.0
79-34-5	1,1,2,2-Tetrachloroethane	<1.0	1.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

Continued on next page

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**001A VOC Lab Composite**	Sampled:	11/5/13 10:20		
Lab Sample ID:	**1311089-07**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 17:00	By:	DLV
Dilution Factor:	1	Analyzed:	11/8/13 3:20	By:	DLV
QC Batch:	1312050	Analytical Batch:	3K11009		

Volatile Organic Compounds by EPA Method 624 (Continued)

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*101*	*85-118*
1,2-Dichloroethane-d4	*108*	*87-122*
Toluene-d8	*100*	*85-113*
4-Bromofluorobenzene	*102*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**001A Grab Day 1**	Sampled:	11/4/13 10:15
Lab Sample ID:	**1311089-08**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Temperature °C (Field)	**16.0**	0.1	°C	1	SM 2550 B	11/04/13 10:15	JAE	1312488
pH (Field)	**8.40**	1.00	pH Units	1	SM 4500-H B-2011	11/04/13 10:15	JAE	1312488
Chlorine, Total Residual (Field)	<0.20	0.20	mg/L	1	HACH-8167	11/04/13 10:15	JAE	1312488
Oxygen, Dissolved (Field)	**8.81**	0.10	mg/L	1	SM 4500-O G	11/04/13 10:15	JAE	1312488

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Intake Grab Day 1**	Sampled:	11/4/13 9:30
Lab Sample ID:	**1311089-09**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Temperature °C (Field)	**9.0**	0.1	°C	1	SM 2550 B	11/04/13 09:30	JAE	1312488
pH (Field)	**7.65**	1.00	pH Units	1	SM 4500-H B-2011	11/04/13 09:30	JAE	1312488
Chlorine, Total Residual (Field)	<0.20	0.20	mg/L	1	HACH-8167	11/04/13 09:30	JAE	1312488
Oxygen, Dissolved (Field)	**8.13**	0.10	mg/L	1	SM 4500-O G	11/04/13 09:30	JAE	1312488

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**Intake Composite**	Sampled:	11/5/13 9:45		
Lab Sample ID:	**1311089-10**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/8/13 7:56	By:	ALK
Dilution Factor:	1	Analyzed:	11/12/13 6:49	By:	MSZ
QC Batch:	1311972	Analytical Batch:	3K18033		

*Polychlorinated Biphenyls (PCBs) by EPA Method 608

CAS Number	Analyte	Analytical Result	RL
12674-11-2	PCB-1016	<0.20	0.20
11104-28-2	PCB-1221	<0.20	0.20
11141-16-5	PCB-1232	<0.20	0.20
53469-21-9	PCB-1242	<0.20	0.20
12672-29-6	PCB-1248	<0.20	0.20
11097-69-1	PCB-1254	<0.20	0.20
11096-82-5	PCB-1260	<0.20	0.20

Surrogates:	***% Recovery***	***Control Limits***
Decachlorobiphenyl	*102*	*45-134*
Tetrachloro-m-xylene	*83*	*27-126*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**Intake Composite**	Sampled:	11/5/13 9:45		
Lab Sample ID:	**1311089-10**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 7:53	By:	ALK
Dilution Factor:	1	Analyzed:	11/13/13 12:20	By:	JLB
QC Batch:	1311894	Analytical Batch:	3K13027		

Semivolatile Organic Compounds by EPA Method 625

CAS Number	Analyte	Analytical Result	RL
83-32-9	Acenaphthene	<5.0	5.0
208-96-8	Acenaphthylene	<5.0	5.0
120-12-7	Anthracene	<5.0	5.0
92-87-5	Benzidine	<50	50
56-55-3	Benzo(a)anthracene	<5.0	5.0
50-32-8	Benzo(a)pyrene	<5.0	5.0
205-99-2	Benzo(b)fluoranthene	<5.0	5.0
207-08-9	Benzo(k)fluoranthene	<5.0	5.0
191-24-2	Benzo(g,h,i)perylene	<5.0	5.0
101-55-3	4-Bromophenyl Phenyl Ether	<5.0	5.0
85-68-7	Butyl Benzyl Phthalate	<5.0	5.0
59-50-7	4-Chloro-3-methylphenol	<5.0	5.0
111-91-1	Bis(2-chloroethoxy)methane	<5.0	5.0
111-44-4	Bis(2-chloroethyl) Ether	<5.0	5.0
108-60-1	Bis(2-chloroisopropyl) Ether	<5.0	5.0
91-58-7	2-Chloronaphthalene	<5.0	5.0
95-57-8	2-Chlorophenol	<5.0	5.0
7005-72-3	4-Chlorophenyl Phenyl Ether	<5.0	5.0
218-01-9	Chrysene	<5.0	5.0
53-70-3	Dibenz(a,h)anthracene	<5.0	5.0
84-74-2	Di-n-butyl Phthalate	<5.0	5.0
95-50-1	1,2-Dichlorobenzene	<5.0	5.0
541-73-1	1,3-Dichlorobenzene	<5.0	5.0
106-46-7	1,4-Dichlorobenzene	<5.0	5.0
91-94-1	3,3'-Dichlorobenzidine	<20	20
120-83-2	2,4-Dichlorophenol	<5.0	5.0
84-66-2	Diethyl Phthalate	<5.0	5.0
105-67-9	2,4-Dimethylphenol	<5.0	5.0
131-11-3	Dimethyl Phthalate	<5.0	5.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**Intake Composite**	Sampled:	11/5/13 9:45		
Lab Sample ID:	**1311089-10**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 7:53	By:	ALK
Dilution Factor:	1	Analyzed:	11/13/13 12:20	By:	JLB
QC Batch:	1311894	Analytical Batch:	3K13027		

Semivolatile Organic Compounds by EPA Method 625 (Continued)

CAS Number	Analyte	Analytical Result	RL
534-52-1	4,6-Dinitro-2-methylphenol	<20	20
51-28-5	2,4-Dinitrophenol	<20	20
121-14-2	2,4-Dinitrotoluene	<5.0	5.0
606-20-2	2,6-Dinitrotoluene	<5.0	5.0
117-84-0	Di-n-octyl Phthalate	<5.0	5.0
122-66-7	1,2-Diphenylhydrazine	<5.0	5.0
117-81-7	Bis(2-ethylhexyl) Phthalate	<5.0	5.0
206-44-0	Fluoranthene	<5.0	5.0
86-73-7	Fluorene	<5.0	5.0
118-74-1	Hexachlorobenzene	<5.0	5.0
87-68-3	Hexachlorobutadiene	<5.0	5.0
77-47-4	Hexachlorocyclopentadiene	<5.0	5.0
67-72-1	Hexachloroethane	<5.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	<5.0	5.0
78-59-1	Isophorone	<5.0	5.0
91-20-3	Naphthalene	<5.0	5.0
98-95-3	Nitrobenzene	<5.0	5.0
100-02-7	4-Nitrophenol	<20	20
88-75-5	2-Nitrophenol	<5.0	5.0
62-75-9	N-Nitroso-dimethylamine	<5.0	5.0
86-30-6	N-Nitroso-diphenylamine	<5.0	5.0
621-64-7	N-Nitroso-di-n-propylamine	<5.0	5.0
87-86-5	Pentachlorophenol	<20	20
85-01-8	Phenanthrene	<5.0	5.0
108-95-2	Phenol	<5.0	5.0
129-00-0	Pyrene	<5.0	5.0
120-82-1	1,2,4-Trichlorobenzene	<5.0	5.0
88-06-2	2,4,6-Trichlorophenol	<5.0	5.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**Intake Composite**	Sampled:	11/5/13 9:45		
Lab Sample ID:	**1311089-10**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 7:53	By:	ALK
Dilution Factor:	1	Analyzed:	11/13/13 12:20	By:	JLB
QC Batch:	1311894	Analytical Batch:	3K13027		

Semivolatile Organic Compounds by EPA Method 625 (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
2-Fluorophenol	*35*	*18-74*
Phenol-d6	*23*	*12-47*
Nitrobenzene-d5	*71*	*34-122*
2-Fluorobiphenyl	*76*	*36-136*
2,4,6-Tribromophenol	*60*	*19-131*
o-Terphenyl	*81*	*27-138*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Intake Composite**	Sampled:	11/5/13 9:45
Lab Sample ID:	**1311089-10**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 200 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Aluminum	**710**	50	ug/L	1	USEPA-200.7	11/20/13 13:26	KLV	1312365
Antimony	<1.0	1.0	ug/L	1	USEPA-200.8	11/13/13 11:06	DSC	1311927
Arsenic	**1.6**	1.0	ug/L	1	USEPA-200.8	11/18/13 10:44	DSC	1312191
Barium	**41**	5.0	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Beryllium	<1.0	1.0	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Boron	**45**	20	ug/L	1	USEPA-200.8	11/18/13 13:45	DSC	1312191
Cadmium	<0.20	0.20	ug/L	1	USEPA-200.8	11/18/13 10:44	DSC	1312191
Chromium	<10	10	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Cobalt	<10	10	ug/L	1	USEPA-200.7	11/20/13 13:26	KLV	1312365
Copper	**17**	1.0	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Iron	**1100**	20	ug/L	1	USEPA-200.7	11/20/13 13:26	KLV	1312365
Lead	**1.8**	1.0	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Magnesium	**12000**	500	ug/L	1	USEPA-200.7	11/20/13 13:26	KLV	1312365
Manganese	**36**	10	ug/L	1	USEPA-200.7	11/20/13 13:26	KLV	1312365
Molybdenum	<100	100	ug/L	1	USEPA-200.7	11/20/13 13:26	KLV	1312365
Nickel	**6.4**	5.0	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Selenium	<1.0	1.0	ug/L	1	USEPA-200.8	11/18/13 10:44	DSC	1312191
Silver	<0.50	0.50	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Thallium	<1.0	1.0	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Tin	<200	200	ug/L	1	USEPA-200.7	11/20/13 13:26	KLV	1312365
Titanium	<100	100	ug/L	1	USEPA-200.7	11/20/13 13:26	KLV	1312365
Vanadium	**5.4**	4.0	ug/L	1	USEPA-200.8	11/12/13 15:00	DSC	1311927
Zinc	**12**	10	ug/L	1	USEPA-200.8	11/18/13 10:44	DSC	1312191

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Intake Composite**	Sampled:	11/5/13 9:45
Lab Sample ID:	**1311089-10**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
BOD, (5-Day)	<2.0	2.0	mg/L	1	SM 5210 B-2011	11/06/13 10:46	SKA	1311898
Bromide	<0.50	0.50	mg/L	1	ASTM D 1246-05	11/08/13 13:00	SLL	1312017
Chemical Oxygen Demand	**25**	5.0	mg/L	1	SM 5220 D-2011	11/12/13 15:42	SLL	1312127
Color (Apparent)	**20.0**	5.00	A.C.U.	1	SM 2120 B-2011	11/06/13 13:55	CAC	1311916
Fluoride	**0.20**	0.10	mg/L	1	SM 4500-F C-2011	11/12/13 14:20	SLL	1312144
Hardness as CaCO3	**183**	2	mg/L	1	SM 2340 C-2011	11/08/13 16:30	KAR	1311987
Surfactants, MBAS	<0.0250	0.0250	mg/L	1	SM 5540 C-2011	11/06/13 13:58	WAH	1312072
Phosphorus, Total	**0.0936**	0.0100	mg/L	1	SM 4500-P E-2011	11/12/13 11:59	KAR	1312057
Residue, Dissolved @ 180° C	**230**	50	mg/L	1	SM 2540 C-2011	11/07/13 10:30	WAH	1311905
***Residue, Suspended**	**38.6**	5.0	mg/L	1	SM 2540 D-2011	11/07/13 11:00	WAH	1311906
Sulfate	**39**	10	mg/L	2	ASTM D516-90 (07)	11/15/13 12:42	LMA	1312413
Sulfide, Total	**0.033**	0.020	mg/L	1	SM 4500-S2 D-2011	11/08/13 14:43	WAH	1312049
Sulfite	<1.0	1.0	mg/L	1	SM 4500-SO3 B-2011	11/06/13 12:05	CAC	1311914
Carbon, Total Organic	**4.4**	0.50	mg/L	1	SM 5310 C-2011	11/15/13 06:41	KAR	1312292
Nitrogen, Ammonia	**0.10**	0.050	mg/L	1	SM 4500-NH3 G-2011	11/12/13 15:11	CLB	1312053
Nitrogen, Nitrate+Nitrite	**1.8**	0.25	mg/L	5	SM 4500-NO3 F-2011	11/07/13 17:05	CAC	1312005
Nitrogen, Organic	<0.50	0.50	mg/L	1	EPA-351.2/4500-NH3G	11/13/13 09:35	CLB	1312132
Nitrogen, Total Kjeldahl	<0.50	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	11/11/13 11:12	CLB	1311992
Nitrogen, Inorganic	**1.9**	0.25	mg/L	5	[CALC]	11/12/13 15:11	CAC	[CALC]

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Intake Grab Day 2**	Sampled:	11/5/13 9:30
Lab Sample ID:	**1311089-11**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Cyanide, Available	<0.0020	0.0020	mg/L	1	USEPA OIA-1677	11/11/13 11:19	LMA	1312077
HEM; Oil & Grease	<5.00	5.00	mg/L	1	USEPA-1664A	11/14/13 07:30	WAH	1312251
Phenolics, Total	<0.0500	0.0500	mg/L	1	USEPA-420.4	11/11/13 10:14	LMA	1311932
Temperature °C (Field)	**10.0**	0.1	°C	1	SM 2550 B	11/05/13 09:30	JAE	1311967
pH (Field)	**7.46**	1.00	pH Units	1	SM 4500-H B-2011	11/05/13 09:30	JAE	1311967
Chlorine, Total Residual (Field)	<0.20	0.20	mg/L	1	HACH-8167	11/05/13 09:30	JAE	1311967
Oxygen, Dissolved (Field)	**9.09**	0.10	mg/L	1	SM 4500-O G	11/05/13 09:30	JAE	1312488

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Intake Field Blank (LLHg)**	Sampled:	11/4/13 9:17
Lab Sample ID:	**1311089-12**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Mercury	<0.500	0.500	ng/L	1	USEPA-1631E	11/07/13 10:29	MSM	1311955

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Intake (LLHg)**	Sampled:	11/4/13 9:20
Lab Sample ID:	**1311089-13**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Mercury	**5.40**	0.500	ng/L	1	USEPA-1631E	11/07/13 10:33	MSM	1311955

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services
Client Sample ID:	**Intake Duplicate (LLHg)**	Sampled:	11/4/13 9:23
Lab Sample ID:	**1311089-14**	Sampled By:	Jeff Elsey
Matrix:	Waste Water	Received:	11/5/13 18:20

Total Metals by EPA 1600 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Mercury	**4.71**	0.500	ng/L	1	USEPA-1631E	11/07/13 10:36	MSM	1311955

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**Intake VOC Lab Composite**	Sampled:	11/5/13 9:30		
Lab Sample ID:	**1311089-15**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 17:00	By:	DLV
Dilution Factor:	1	Analyzed:	11/8/13 3:49	By:	DLV
QC Batch:	1312050	Analytical Batch:	3K11009		

Volatile Organic Compounds by EPA Method 624

CAS Number	Analyte	Analytical Result	RL
*107-02-8	Acrolein	<5.0	5.0
107-13-1	Acrylonitrile	<1.0	1.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<1.0	1.0
75-25-2	Bromoform	<1.0	1.0
74-83-9	Bromomethane	<1.0	1.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
110-75-8	2-Chloroethyl Vinyl Ether	<10	10
67-66-3	Chloroform	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
124-48-1	Dibromochloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
542-75-6	1,3-Dichloropropene (Total)	<2.0	2.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
75-09-2	Methylene Chloride	<5.0	5.0
79-34-5	1,1,2,2-Tetrachloroethane	<1.0	1.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**DTE - Monroe PP**	Work Order:	**1311089**		
Project:	MPP Permit Renewal, 2013	Description:	Laboratory Services		
Client Sample ID:	**Intake VOC Lab Composite**	Sampled:	11/5/13 9:30		
Lab Sample ID:	**1311089-15**	Sampled By:	Jeff Elsey		
Matrix:	Waste Water	Received:	11/5/13 18:20		
Unit:	ug/L	Prepared:	11/7/13 17:00	By:	DLV
Dilution Factor:	1	Analyzed:	11/8/13 3:49	By:	DLV
QC Batch:	1312050	Analytical Batch:	3K11009		

Volatile Organic Compounds by EPA Method 624 (Continued)

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*102*	*85-118*
1,2-Dichloroethane-d4	*107*	*87-122*
Toluene-d8	*101*	*85-113*
4-Bromofluorobenzene	*104*	*82-110*

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Polychlorinated Biphenyls (PCBs) by EPA Method 608

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
QC Batch: 1311972 608 Liquid/Liquid Extraction/USEPA-608								
Method Blank					Analyzed:		11/12/2013	By: MSZ
Unit: ug/L					Analytical Batch:		3K18033	
PCB-1016			<0.20			--	0.20	
PCB-1221			<0.20				0.20	
PCB-1232			<0.20				0.20	
PCB-1242			<0.20				0.20	
PCB-1248			<0.20				0.20	
PCB-1254			<0.20				0.20	
PCB-1260			<0.20			--	0.20	
Surrogates:								
Decachlorobiphenyl				*96*	*45-134*			
Tetrachloro-m-xylene				*84*	*27-126*			
Laboratory Control Sample					Analyzed:		11/12/2013	By: MSZ
Unit: ug/L					Analytical Batch:		3K18033	
PCB-1248		0.600	**0.627**	104	38-158	--	0.20	
Surrogates:								
Decachlorobiphenyl				*93*	*45-134*			
Tetrachloro-m-xylene				*84*	*27-126*			

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 624

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL

QC Batch: 1312050 5030B Aqueous Purge & Trap/USEPA-624

Method Blank Analyzed: 11/07/2013 By: DLV
Unit: ug/L Analytical Batch: 3K11009

Acrolein			<5.0				5.0
Acrylonitrile			<1.0				1.0
Benzene			<1.0				1.0
Bromodichloromethane			<1.0				1.0
Bromoform			<1.0				1.0
Bromomethane			<1.0				1.0
Carbon Tetrachloride			<1.0				1.0
Chlorobenzene			<1.0				1.0
Chloroethane			<1.0				1.0
2-Chloroethyl Vinyl Ether			<10				10
Chloroform			<1.0				1.0
Chloromethane			<1.0				1.0
Dibromochloromethane			<1.0				1.0
1,1-Dichloroethane			<1.0				1.0
1,2-Dichloroethane			<1.0				1.0
1,1-Dichloroethene			<1.0				1.0
1,3-Dichloropropene (Total)			<2.0				2.0
trans-1,2-Dichloroethene			<1.0				1.0
1,2-Dichloropropane			<1.0				1.0
Ethylbenzene			<1.0			--	1.0
Methylene Chloride			<5.0				5.0
1,1,2,2-Tetrachloroethane			<1.0				1.0
Tetrachloroethene			<1.0				1.0
Toluene			<1.0				1.0
1,1,1-Trichloroethane			<1.0				1.0
1,1,2-Trichloroethane			<1.0				1.0
Trichloroethene			<1.0				1.0
Vinyl Chloride			<1.0				1.0
Surrogates:							
Dibromofluoromethane				***101***	***85-118***		
1,2-Dichloroethane-d4				***105***	***87-122***		
Toluene-d8				***100***	***85-113***		
4-Bromofluorobenzene				***101***	***82-110***		

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 624 (Continued)

QC Batch: 1312050 (Continued) 5030B Aqueous Purge & Trap/USEPA-624

Laboratory Control Sample Analyzed: 11/07/2013 By: DLV

Unit: ug/L Analytical Batch: 3K11009

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Acrolein		40.0	**28.6**	71	48-146	--		5.0
Acrylonitrile		40.0	**36.8**	92	73-129	--		1.0
Benzene		40.0	**42.4**	106	84-119	--		1.0
Bromodichloromethane		40.0	**38.8**	97	82-124	--		1.0
Bromoform		40.0	**35.2**	88	65-123	--		1.0
Bromomethane		40.0	**44.6**	111	55-142	--		1.0
Carbon Tetrachloride		40.0	**40.0**	100	79-127	--		1.0
Chlorobenzene		40.0	**40.9**	102	84-118	--		1.0
Chloroethane		40.0	**41.6**	104	76-124	--		1.0
Chloroform		40.0	**41.7**	104	82-119	--		1.0
Chloromethane		40.0	**42.4**	106	73-125	--		1.0
Dibromochloromethane		40.0	**37.2**	93	74-121	--		1.0
1,1-Dichloroethane		40.0	**41.4**	104	80-118	--		1.0
1,2-Dichloroethane		40.0	**41.3**	103	81-122	--		1.0
1,1-Dichloroethene		40.0	**42.4**	106	77-123	--		1.0
1,3-Dichloropropene (Total)		80.0	**77.8**	97	81-116	--		2.0
trans-1,2-Dichloroethene		40.0	**41.6**	104	76-126	--		1.0
1,2-Dichloropropane		40.0	**42.1**	105	82-122	--		1.0
Ethylbenzene		40.0	**42.0**	105	87-119	--		1.0
Methylene Chloride		40.0	**40.7**	102	75-129	--		5.0
1,1,2,2-Tetrachloroethane		40.0	**40.8**	102	70-137	--		1.0
Tetrachloroethene		40.0	**42.6**	107	81-117	--		1.0
Toluene		40.0	**41.8**	104	85-118	--		1.0
1,1,1-Trichloroethane		40.0	**43.5**	109	81-122	--		1.0
1,1,2-Trichloroethane		40.0	**41.6**	104	83-121	--		1.0
Trichloroethene		40.0	**43.0**	107	82-119	--		1.0
Vinyl Chloride		40.0	**41.8**	104	77-123	--		1.0
Surrogates:								
Dibromofluoromethane				***99***	***85-118***			
1,2-Dichloroethane-d4				***100***	***87-122***			
Toluene-d8				***100***	***85-113***			
4-Bromofluorobenzene				***100***	***82-110***			

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Semivolatile Organic Compounds by EPA Method 625

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL

QC Batch: 1311894 625 Liquid/Liquid Extraction/USEPA-625

Method Blank Analyzed: 11/13/2013 By: JLB

Unit: ug/L Analytical Batch: 3K13027

Acenaphthene			<5.0				5.0	
Acenaphthylene			<5.0				5.0	
Anthracene			<5.0				5.0	
Benzidine			<50				50	
Benzo(a)anthracene			<5.0			--	5.0	
Benzo(a)pyrene			<5.0			--	5.0	
Benzo(b)fluoranthene			<5.0			--	5.0	
Benzo(k)fluoranthene			<5.0				5.0	
Benzo(g,h,i)perylene			<5.0				5.0	
4-Bromophenyl Phenyl Ether			<5.0				5.0	
Butyl Benzyl Phthalate			<5.0				5.0	
4-Chloro-3-methylphenol			<5.0				5.0	
Bis(2-chloroethoxy)methane			<5.0				5.0	
Bis(2-chloroethyl) Ether			<5.0				5.0	
Bis(2-chloroisopropyl) Ether			<5.0				5.0	
2-Chloronaphthalene			<5.0				5.0	
2-Chlorophenol			<5.0				5.0	
4-Chlorophenyl Phenyl Ether			<5.0			--	5.0	
Chrysene			<5.0			--	5.0	
Dibenz(a,h)anthracene			<5.0				5.0	
Di-n-butyl Phthalate			<5.0			--	5.0	
1,2-Dichlorobenzene			<5.0				5.0	
1,3-Dichlorobenzene			<5.0				5.0	
1,4-Dichlorobenzene			<5.0				5.0	
3,3'-Dichlorobenzidine			<20				20	
2,4-Dichlorophenol			<5.0				5.0	
Diethyl Phthalate			<5.0			--	5.0	
2,4-Dimethylphenol			<5.0				5.0	
Dimethyl Phthalate			<5.0				5.0	
4,6-Dinitro-2-methylphenol			<20				20	
2,4-Dinitrophenol			<20				20	
2,4-Dinitrotoluene			<5.0				5.0	
2,6-Dinitrotoluene			<5.0				5.0	
Di-n-octyl Phthalate			<5.0				5.0	
1,2-Diphenylhydrazine			<5.0				5.0	
Bis(2-ethylhexyl) Phthalate			<5.0				5.0	

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Semivolatile Organic Compounds by EPA Method 625 (Continued)

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL

QC Batch: 1311894 (Continued) 625 Liquid/Liquid Extraction/USEPA-625

Method Blank (Continued) — Analyzed: 11/13/2013 By: JLB
Unit: ug/L — Analytical Batch: 3K13027

Fluoranthene			<5.0				5.0
Fluorene			<5.0				5.0
Hexachlorobenzene			<5.0				5.0
Hexachlorobutadiene			<5.0				5.0
Hexachlorocyclopentadiene			<5.0				5.0
Hexachloroethane			<5.0				5.0
Indeno(1,2,3-cd)pyrene			<5.0				5.0
Isophorone			<5.0			--	5.0
Naphthalene			<5.0				5.0
Nitrobenzene			<5.0				5.0
4-Nitrophenol			<20				20
2-Nitrophenol			<5.0				5.0
N-Nitroso-dimethylamine			<5.0				5.0
N-Nitroso-diphenylamine			<5.0			--	5.0
N-Nitroso-di-n-propylamine			<5.0				5.0
Pentachlorophenol			<20				20
Phenanthrene			<5.0				5.0
Phenol			<5.0				5.0
Pyrene			<5.0				5.0
1,2,4-Trichlorobenzene			<5.0				5.0
2,4,6-Trichlorophenol			<5.0				5.0
Surrogates:							
2-Fluorophenol				*52*	*18-74*		
Phenol-d6				*31*	*12-47*		
Nitrobenzene-d5				*81*	*34-122*		
2-Fluorobiphenyl				*89*	*36-136*		
2,4,6-Tribromophenol				*77*	*19-131*		
o-Terphenyl				*91*	*27-138*		

Laboratory Control Sample — Analyzed: 11/13/2013 By: JLB
Unit: ug/L — Analytical Batch: 3K13027

Acenaphthene		100	**90.1**	90	47-145	--	5.0

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Semivolatile Organic Compounds by EPA Method 625 (Continued)

QC Batch: 1311894 (Continued) 625 Liquid/Liquid Extraction/USEPA-625

Laboratory Control Sample (Continued) Analyzed: 11/13/2013 By: JLB

Unit: ug/L Analytical Batch: 3K13027

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Acenaphthylene		100	**85.6**	86	33-145	--		5.0
Anthracene		100	**92.0**	92	27-133	--		5.0
Benzidine		200	**175**	88	28-120	--		50
Benzo(a)anthracene		100	**86.4**	86	33-143	--		5.0
Benzo(a)pyrene		100	**94.7**	95	17-163	--		5.0
Benzo(b)fluoranthene		100	**87.7**	88	24-159	--		5.0
Benzo(k)fluoranthene		100	**96.6**	97	11-162	--		5.0
Benzo(g,h,i)perylene		100	**96.2**	96	1-219	--		5.0
4-Bromophenyl Phenyl Ether		100	**93.3**	93	53-127	--		5.0
Butyl Benzyl Phthalate		100	**80.6**	81	1-152	--		5.0
4-Chloro-3-methylphenol		100	**83.7**	84	22-147	--		5.0
Bis(2-chloroethoxy)methane		100	**86.4**	86	33-184	--		5.0
Bis(2-chloroethyl) Ether		100	**81.9**	82	12-158	--		5.0
Bis(2-chloroisopropyl) Ether		100	**86.0**	86	36-166	--		5.0
2-Chloronaphthalene		100	**89.1**	89	60-118	--		5.0
2-Chlorophenol		100	**80.9**	81	23-134	--		5.0
4-Chlorophenyl Phenyl Ether		100	**91.5**	92	25-158	--		5.0
Chrysene		100	**86.6**	87	17-168	--		5.0
Dibenz(a,h)anthracene		100	**95.6**	96	1-227	--		5.0
Di-n-butyl Phthalate		100	**82.4**	82	1-118	--		5.0
1,2-Dichlorobenzene		100	**87.2**	87	32-129	--		5.0
1,3-Dichlorobenzene		100	**87.2**	87	1-172	--		5.0
1,4-Dichlorobenzene		100	**86.6**	87	20-124	--		5.0
3,3'-Dichlorobenzidine		200	**190**	95	1-262	--		20
2,4-Dichlorophenol		100	**90.5**	90	39-135	--		5.0
Diethyl Phthalate		100	**84.1**	84	1-114	--		5.0
2,4-Dimethylphenol		100	**76.6**	77	32-119	--		5.0
Dimethyl Phthalate		100	**84.8**	85	1-112	--		5.0
4,6-Dinitro-2-methylphenol		100	**87.6**	88	1-181	--		20
2,4-Dinitrophenol		100	**68.8**	69	1-191	--		20
2,4-Dinitrotoluene		100	**88.6**	89	39-139	--		5.0
2,6-Dinitrotoluene		100	**90.6**	91	50-158	--		5.0
Di-n-octyl Phthalate		100	**81.5**	82	4-146	--		5.0
1,2-Diphenylhydrazine		100	**78.8**	79	62-128	--		5.0
Bis(2-ethylhexyl) Phthalate		100	**81.7**	82	8-158	--		5.0
Fluoranthene		100	**88.5**	88	26-137	--		5.0

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Semivolatile Organic Compounds by EPA Method 625 (Continued)

QC Batch: 1311894 (Continued) 625 Liquid/Liquid Extraction/USEPA-625

Laboratory Control Sample (Continued) Analyzed: 11/13/2013 By: JLB

Unit: ug/L Analytical Batch: 3K13027

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Fluorene		100	**87.5**	88	59-121	--		5.0
Hexachlorobenzene		100	**95.8**	96	1-152	--		5.0
Hexachlorobutadiene		100	**98.5**	98	24-116	--		5.0
Hexachlorocyclopentadiene		100	**79.6**	80	21-138	--		5.0
Hexachloroethane		100	**81.7**	82	40-113	--		5.0
Indeno(1,2,3-cd)pyrene		100	**96.5**	96	21-196	--		5.0
Isophorone		100	**71.8**	72	56-129	--		5.0
Naphthalene		100	**88.6**	89	21-133	--		5.0
Nitrobenzene		100	**81.1**	81	35-180	--		5.0
4-Nitrophenol		100	**26.1**	26	1-132	--		20
2-Nitrophenol		100	**88.4**	88	29-182	--		5.0
N-Nitroso-dimethylamine		100	**46.2**	46	22-87	--		5.0
N-Nitroso-diphenylamine		100	**101**	101	45-110	--		5.0
N-Nitroso-di-n-propylamine		100	**76.8**	77	1-230	--		5.0
Pentachlorophenol		100	**75.3**	75	14-176	--		20
Phenanthrene		100	**90.5**	90	54-120	--		5.0
Phenol		100	**40.1**	40	5-112	--		5.0
Pyrene		100	**92.8**	93	52-115	--		5.0
1,2,4-Trichlorobenzene		100	**96.7**	97	44-142	--		5.0
2,4,6-Trichlorophenol		100	**89.2**	89	37-144	--		5.0
Surrogates:								
2-Fluorophenol				*55*	*18-74*			
Phenol-d6				*36*	*12-47*			
Nitrobenzene-d5				*86*	*34-122*			
2-Fluorobiphenyl				*90*	*36-136*			
2,4,6-Tribromophenol				*93*	*19-131*			
o-Terphenyl				*92*	*27-138*			

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Total Metals by EPA 200 Series Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: Aluminum/USEPA-200.7									
QC Batch: 1312365 (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Method Blank			<50	ug/L					50
Laboratory Control Sample		2000	**1810**	ug/L	91	85-115			50
Analyte: Antimony/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/13/2013	By: DSC
Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		50.0	**46.7**	ug/L	93	85-115			1.0
Analyte: Arsenic/USEPA-200.8									
QC Batch: 1312191 (200.2 Digestion)							Analyzed:	11/18/2013	By: DSC
Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		50.0	**44.2**	ug/L	88	85-115			1.0
Analyte: Barium/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<5.0	ug/L					5.0
Laboratory Control Sample		50.0	**45.1**	ug/L	90	85-115			5.0
Analyte: Beryllium/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		50.0	**44.5**	ug/L	89	85-115			1.0
Analyte: Boron/USEPA-200.8									
QC Batch: 1312191 (200.2 Digestion)							Analyzed:	11/18/2013	By: DSC
Method Blank			<20	ug/L					20
Laboratory Control Sample		50.0	**49.1**	ug/L	98	85-115			20
Analyte: Cadmium/USEPA-200.8									
QC Batch: 1312191 (200.2 Digestion)							Analyzed:	11/18/2013	By: DSC
Method Blank			<0.20	ug/L					0.20

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Total Metals by EPA 200 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: **Cadmium**/USEPA-200.8 (Continued)									
QC Batch: 1312191 (Continued) (200.2 Digestion)							Analyzed:	11/18/2013	By: DSC
Laboratory Control Sample		50.0	**43.5**	ug/L	87	85-115			0.20
Analyte: **Chromium**/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<10	ug/L					10
Laboratory Control Sample		50.0	**43.9**	ug/L	88	85-115			10
Analyte: **Cobalt**/USEPA-200.7									
QC Batch: 1312365 (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Method Blank			<10	ug/L					10
Laboratory Control Sample		400	**377**	ug/L	94	85-115			10
Analyte: **Copper**/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		50.0	**44.5**	ug/L	89	85-115			1.0
Analyte: **Iron**/USEPA-200.7									
QC Batch: 1312365 (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Method Blank			<20	ug/L					20
Laboratory Control Sample		400	**370**	ug/L	93	85-115			20
Analyte: **Lead**/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		50.0	**44.3**	ug/L	89	85-115			1.0
Analyte: **Magnesium**/USEPA-200.7									
QC Batch: 1312365 (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Method Blank			<500	ug/L					500

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Total Metals by EPA 200 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: Magnesium/USEPA-200.7 (Continued)									
QC Batch: 1312365 (Continued) (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Laboratory Control Sample		20000	**18700**	ug/L	93	85-115			500
Analyte: Manganese/USEPA-200.7									
QC Batch: 1312365 (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Method Blank			<10	ug/L					10
Laboratory Control Sample		400	**376**	ug/L	94	85-115			10
Analyte: Molybdenum/USEPA-200.7									
QC Batch: 1312365 (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Method Blank			<100	ug/L					100
Laboratory Control Sample		400	**373**	ug/L	93	85-115			100
Analyte: Nickel/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<5.0	ug/L					5.0
Laboratory Control Sample		50.0	**43.4**	ug/L	87	85-115			5.0
Analyte: Selenium/USEPA-200.8									
QC Batch: 1312191 (200.2 Digestion)							Analyzed:	11/18/2013	By: DSC
Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		50.0	**42.4**	ug/L	85	85-115			1.0
Analyte: Silver/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<0.50	ug/L					0.50
Laboratory Control Sample		50.0	**43.7**	ug/L	87	85-115			0.50
Analyte: Thallium/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<1.0	ug/L					1.0

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Total Metals by EPA 200 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: **Thallium**/USEPA-200.8 (Continued)									
QC Batch: 1311927 (Continued) (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Laboratory Control Sample		50.0	**44.2**	ug/L	88	85-115			1.0
Analyte: **Tin**/USEPA-200.7									
QC Batch: 1312365 (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Method Blank			<200	ug/L					200
Laboratory Control Sample		2000	**1860**	ug/L	93	85-115			200
Analyte: **Titanium**/USEPA-200.7									
QC Batch: 1312365 (200.2 Digestion)							Analyzed:	11/20/2013	By: KLV
Method Blank			<100	ug/L					100
Laboratory Control Sample		400	**368**	ug/L	92	85-115			100
Analyte: **Vanadium**/USEPA-200.8									
QC Batch: 1311927 (200.2 Digestion)							Analyzed:	11/12/2013	By: DSC
Method Blank			<4.0	ug/L					4.0
Laboratory Control Sample		50.0	**43.6**	ug/L	87	85-115			4.0
Analyte: **Zinc**/USEPA-200.8									
QC Batch: 1312191 (200.2 Digestion)							Analyzed:	11/18/2013	By: DSC
Method Blank			<10	ug/L					10
Laboratory Control Sample		50.0	**47.5**	ug/L	95	85-115			10

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Total Metals by EPA 1600 Series Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: **Mercury**/USEPA-1631E									
QC Batch: 1311955 (1631E Digestion)							Analyzed:	11/07/2013	By: MSM
Method Blank			<0.500	ng/L					0.500
Method Blank			<0.500	ng/L					0.500
Method Blank			<0.500	ng/L					0.500
Laboratory Control Sample		4.00	**3.738**	ng/L	93	77-123			0.500
1311089-05 [001A (LLHg)]									
Matrix Spike	4.411	4.00	**9.402**	ng/L	125	71-125			0.500
Matrix Spike Duplicate	4.411	4.00	**8.088**	ng/L	92	71-125	15	24	0.500

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: BOD, (5-Day)/SM 5210 B-2011									
QC Batch: 1311898 (General Inorganic Prep)							Analyzed:	11/06/2013	By: SKA
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample		198	**189**	mg/L	96	85-115			2.0
Analyte: Bromide/ASTM D 1246-05									
QC Batch: 1312017 (Method Specific Preparation)							Analyzed:	11/08/2013	By: SLL
Method Blank			<0.50	mg/L					0.50
Laboratory Control Sample		5.00	**5.23**	mg/L	105	90-110			0.50
1311089-01 [001A Composite]									
Matrix Spike	0.588	2.50	**3.09**	mg/L	100	80-120			0.50
Duplicate	0.588		**0.581**	mg/L			1	20	0.50
Analyte: Carbon, Total Organic/SM 5310 C-2011									
QC Batch: 1312292 (Method Specific Preparation)							Analyzed:	11/15/2013	By: KAR
Method Blank			<0.50	mg/L					0.50
Laboratory Control Sample		2.00	**2.05**	mg/L	103	84-118			0.50
1311089-01 [001A Composite]									
Matrix Spike	4.59	2.00	**6.74**	mg/L	108	75-124			0.50
Matrix Spike Duplicate	4.59	2.00	**6.73**	mg/L	107	75-124	0.2	20	0.50
Analyte: Chemical Oxygen Demand/SM 5220 D-2011									
QC Batch: 1312127 (5220 D COD Digestion)							Analyzed:	11/12/2013	By: SLL
Method Blank			<5.0	mg/L					5.0
Laboratory Control Sample		60.0	**62.3**	mg/L	104	95-105			5.0
Analyte: Color (Apparent)/SM 2120 B-2011									
QC Batch: 1311916 (Method Specific Preparation)							Analyzed:	11/06/2013	By: CAC
Method Blank			<5.00	A.C.U.					5.00
Laboratory Control Sample		50.0	**50.0**	A.C.U.	100	80-120			5.00
Analyte: Cyanide, Available/USEPA OIA-1677									
QC Batch: 1312077 (Method Specific Preparation)							Analyzed:	11/11/2013	By: LMA
Method Blank			<0.0020	mg/L					0.0020

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: Cyanide, Available/USEPA OIA-1677 (Continued)									
QC Batch: 1312077 (Continued) (Method Specific Preparation)							Analyzed:	11/11/2013	By: LMA
Laboratory Control Sample		0.0200	**0.0194**	mg/L	97	82-132			0.0020
Analyte: Fluoride/SM 4500-F C-2011									
QC Batch: 1312144 (Method Specific Preparation)							Analyzed:	11/12/2013	By: SLL
Method Blank			<0.10	mg/L					0.10
Laboratory Control Sample		2.00	**2.14**	mg/L	107	90-110			0.10
Analyte: Hardness as CaCO3/SM 2340 C-2011									
QC Batch: 1311987 (Method Specific Preparation)							Analyzed:	11/08/2013	By: KAR
Method Blank			<2	mg/L					2
Laboratory Control Sample		200	**199**	mg/L	100	92-110			2
Laboratory Control Sample		86.3	**89**	mg/L	103	92-110			2
1311089-01 [001A Composite]									
Matrix Spike	182	400	**583**	mg/L	100	86-113			4
Duplicate	182		**180**	mg/L			1	20	2
Analyte: HEM; Oil & Grease/USEPA-1664A									
QC Batch: 1312251 (1664A Extraction)							Analyzed:	11/14/2013	By: WAH
Method Blank			<4.00	mg/L					4.00
Laboratory Control Sample		40.0	**37.7**	mg/L	94	78-114			4.00
1311089-02 [001A Grab Day 2]									
Duplicate	<4.00		<4.00	mg/L				18	4.00
Analyte: Nitrogen, Ammonia/SM 4500-NH3 G-2011									
QC Batch: 1312053 (4500-NH3 B Ammonia Distillation)							Analyzed:	11/12/2013	By: CLB
Method Blank			<0.050	mg/L					0.050
Laboratory Control Sample		1.00	**0.923**	mg/L	92	90-110			0.050
Analyte: Nitrogen, Nitrate+Nitrite/SM 4500-NO3 F-2011									
QC Batch: 1312005 (General Inorganic Prep)							Analyzed:	11/07/2013	By: CAC
Method Blank			<0.050	mg/L					0.050

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: Nitrogen, Nitrate+Nitrite/SM 4500-NO3 F-2011 (Continued)									
QC Batch: 1312005 (Continued) (General Inorganic Prep)							Analyzed:	11/07/2013	By: CAC
Laboratory Control Sample		0.500	**0.504**	mg/L	101	90-110			0.050
Analyte: Nitrogen, Total Kjeldahl/USEPA-351.2 Rev. 2.0									
QC Batch: 1311992 (351.2 TKN Digestion)							Analyzed:	11/11/2013	By: CLB
Method Blank			<0.50	mg/L					0.50
Laboratory Control Sample		2.00	**2.06**	mg/L	103	90-110			0.50
1311089-01 [001A Composite]									
Matrix Spike	0.812	2.00	**2.55**	mg/L	**87**	90-110			0.50
Matrix Spike Duplicate	0.812	2.00	**2.71**	mg/L	95	90-110	6	20	0.50
Analyte: Phenolics, Total/USEPA-420.4									
QC Batch: 1311932 (Method Specific Preparation)							Analyzed:	11/11/2013	By: LMA
Method Blank			<0.0500	mg/L					0.0500
Laboratory Control Sample		0.250	**0.243**	mg/L	97	90-110			0.0500
1311089-02 [001A Grab Day 2]									
Matrix Spike	0.00608	0.250	**0.234**	mg/L	91	90-110			0.0500
Matrix Spike Duplicate	0.00608	0.250	**0.237**	mg/L	92	90-110	1	20	0.0500
Analyte: Phosphorus, Total/SM 4500-P E-2011									
QC Batch: 1312057 (4500-P B Phosphorus Digestion)							Analyzed:	11/12/2013	By: KAR
Method Blank			<0.0100	mg/L					0.0100
Laboratory Control Sample		0.800	**0.801**	mg/L	100	90-110			0.0100
Analyte: Residue, Dissolved @ 180° C/SM 2540 C-2011									
QC Batch: 1311905 (General Inorganic Prep)							Analyzed:	11/07/2013	By: WAH
Method Blank			<50	mg/L					50
Laboratory Control Sample		200	**210**	mg/L	103	80-117			50
Analyte: Residue, Suspended/SM 2540 D-2011									
QC Batch: 1311906 (General Inorganic Prep)							Analyzed:	11/07/2013	By: WAH
Method Blank			<3.3	mg/L					3.3

Continued on next page

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: Residue, Suspended/SM 2540 D-2011 (Continued)									
QC Batch: 1311906 (Continued) (General Inorganic Prep)							Analyzed:	11/07/2013	By: WAH
Laboratory Control Sample		200	**190**	mg/L	95	88-104			24.8
1311089-01 [001A Composite]									
Duplicate	41.8		**58.2**	mg/L			**33**	5	5.0
1311089-10 [Intake Composite]									
Duplicate	38.6		**49.6**	mg/L			**25**	5	5.0
Analyte: Sulfate/ASTM D516-90 (07)									
QC Batch: 1312413 (General Inorganic Prep)							Analyzed:	11/15/2013	By: LMA
Method Blank			<5.0	mg/L					5.0
Laboratory Control Sample		20.0	**20.9**	mg/L	104	88-112			5.0
Analyte: Sulfide, Total/SM 4500-S2 D-2011									
QC Batch: 1312049 (Method Specific Preparation)							Analyzed:	11/08/2013	By: WAH
Method Blank			<0.020	mg/L					0.020
Laboratory Control Sample		0.320	**0.349**	mg/L	109	80-120			0.020
Analyte: Sulfite/SM 4500-SO3 B-2011									
QC Batch: 1311914 (Method Specific Preparation)							Analyzed:	11/06/2013	By: CAC
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		50.0	**47.0**	mg/L	94	80-120			1.0
1311089-01 [001A Composite]									
Matrix Spike	<1.0	50.0	**43.0**	mg/L	86	76-104			1.0
Duplicate	<1.0		<1.0	mg/L				20	1.0
Analyte: Surfactants, MBAS/SM 5540 C-2011									
QC Batch: 1312072 (Method Specific Preparation)							Analyzed:	11/06/2013	By: WAH
Method Blank			<0.0250	mg/L					0.0250
Laboratory Control Sample		0.125	**0.122**	mg/L	98	80-120			0.0250

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Chain of Custody Record

COC No: 13100804

Pg. ___ of ___

For Lab Use Only
Cont. 5
VOA Seals(Y/N) Y
Receipt Log No. 3123
Project Chem ST
Work Order No. 1311089

Client Name: DTE Electric Company
Address: 3500 E Front Street
City, State Zip: Monroe, MI 48161
Phone/Fax: 734.384.2559, 734.384.2560, 313.235.6509
Email: mabinj@dtenergy.com, johnsonk@dtenergy.com, chuseyn@dtenergy.com

Project Name: MONPP NPDES Permit Renewal
Client Project No. / P.O. No.: 4700534056
Invoice To: [X] Client [ ] Other (comments)
Contact/Report To: A. Mabin / K.Johnson / N. Chusey

Analyses Requested

Sample Date	Meant Date	Sample Number	Field Sample ID	Cooler ID	Sample Date	Sample Time	Matrix	BOD, TSS, TDS (A)	Cyan, Fluride, SO4, Sulfate, NH3-N, TKN, TPO4, PPO4 (A)	COD, MeBr, Phos (C)	SVOC, PCB (A)	TOC (C)	Metals, hardness (B)	Sulfide (F)	Sulfite, pH, Cl2, VOC, SO3 (A)		Total	Sample Comments
0365		01	001 A Composite	1152	11/5/13	0900 ✓	WW	2	1	1	4	2	1	1	1		13	
												2 bot 1155					0	
																	0	
																	0	
																	0	
																	0	
																	0	
																	0	
																	0	

Container Type (corresponds to Container Packing List): 3 1 4 2 1 6 0 24 1
Number of Containers Submitted

PRESERVATIVES
A. NONE pH>2
B. HNO_3 pH<2
C. H_2SO_4 pH<2
D. 1+1 HCl pH<2
E. NaOH pH>12
F. ZnAc/NaOH pH>9
G. MeOH
H. Other (note below)

Sampled By (print): ~~C. Jennings~~ J. Elsey
Sampler Signature:
Company: DTE Electric Company - Monroe Power Plant

How Shipped? Hand ___ Carrier ___
Tracking No.

1. Relinquished By: Date 11/5/13 Time 1330
1. Received By: Date 11/5/13 Time 1330

Comments:
NPN: Nitrate + Nitrite
Metals: Ar, Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Tl, Sn, Ti, V, Zn
SVOC: TTC list include 4,6 - Dinitro-O-Cresol, p-Chloro-m-cresol, and 3,4 Benzofluoranthene; PCB: 7 aroclors

2. Relinquished By: Date 11-5-13 Time 1830
2. Received By: Date Time
3. Relinquished By: Date 11/5/13 Time 1830
3. Received By: Date Time

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Chain of Custody Record

COC No. 13100803

Pg. ___ of ___

For Lab Use Only
Cur: 5
VOA Rem/Temp: 5.62 G
Receipt Log No.: 5335
Project Manager:
Work Order No.: 1311089

Client Name: DTE Electric Company
Address: 3500 E Front Street
City, State Zip: Monroe, MI 48161
Phone/Fax: 734.384.2559, 734.384.2560, 313.235.5698
Email: mabinj@dteenergy.com, johnsonk@dteenergy.com, chuseyn@dteenergy.com

Project Name: MONPP NPDES Permit Renewal
Client Project No. / P.O. No.: 4700534058
Invoice To: ☒ Client ☐ Other (comments)
Contact/Report To: A. Mabin / K. Johnson / N. Chusey

Analyses Requested

Containers Type (corresponds to Container Packing List): C D C
Number of Containers Submitted

Schedule	Matrix Code	Sample Number	Field Sample ID	Cooler ID	Sample Date	Sample Time	Grab	Comp	Matrix	Total Phenol	VOCs*	O&G	Available Cyanide	LLHg	Total	Sample Comments
03		02	001A Grab (Day 2)	1052	11/5/13	1020	✓		ww	1		2	2		5	field pH: 7.50
															0	field Temp: 18°C
															0	field TRC: 20.01
															0	field DO: 9.79
11		03	Trip Blank	1376 / 1052			✓		ww					2	2	
10		04	Field Blank - 001A (LLHg)		11/4/13	1001	✓		ww					2	2	
08		05	001A (LLHg)		11/4/13	1001	✓		ww					24	24	
09		06	001A Duplicate (LLHg)		11/4/13	1007	✓		ww					2	2	
															0	
12		07	~~Intake~~ 001B VOC Lab Composite (Day 2)		11/5/13	1020			ww		22				2	Lab to composite VOC 2 aliquots (Day 1, Day 2)

Sampled By (print): C. Jennings / J. Elsey
How Shipped? Hand ___ Carrier ___
Tracking No.
Sampler Signature:
Company: DTE Electric Company

Comments: *VOC's: Please Include Methyl Bromide and Methyl Chloride

Relinquished By	Date	Time	Received By	Date	Time
1. [signature]	11/5/13	1330	2. [signature]	11-5-13	1820
2. [signature]	11/5/13	1330	3. [signature]	11-5-13	1820

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Chain of Custody Record

COC No. 13100802

Pg ___ of ___

For Lab Use Only
Cart. 5
VOA Receipt 3 of 4
Receipt Trip No. 5135
Project Chemist
Work Order No. 1311089

Client Name: DTE Electric Company
Address: 3500 E Front Street
City, State Zip: Monroe, MI 48161
Phone/Fax: 734.384.2580, 734.384.2589, 313.235.5889
Email: [illegible]

Project Name: MONPP NPDES Permit Renewal
Client Project No. / P.O. No.: 4700534058
Invoice To: [X] Client [ ] Other (comments)
Contact/Report To: A. Mabin / K. Johnson / N. Chuey

Analyses Requested: VOC's

PRESERVATIVES: A NONE pH>7; B HNO3 pH<2; C H2SO4 pH<2; D 1+1 HCl pH<2; E NaOH pH>12; F Zn(Ac)/NaOH pH>9; G MeOH; H Other (note below)

Container Type (corresponds to Chain of Custody Packing List): D

Sample Date	Matrix Code	Sample Number		Field Sample ID	Cooler ID	Sample Date	Sample Time	Matrix	# Containers Submitted	Total	Sample Comments
01	08		1	001A Grab Day 1 (VOC Lab Composite)	1132	11/4/13	1015	✓ WW	2	3	field pH: 8.40
			2							0	field Temp: 16°C
			3							0	field TRC: 0.02 mg/L
			4							0	field DO: 8.31
			5							0	
02	09		6	Intake Grab Day 1 (VOC Lab Composite)	1376	11/4/13	0930	✓ WW	3/2	2/3	field pH: 7.65
			7							0	field Temp: 9°C
			8							0	field TRC: 0.02 mg/L
			9							0	field DO: 8.13
			10							0	

JS

Sampled By (print): ~~O. Jeanes~~ / J. Elsey
Sampler Signature:
Company: DTE Electric Company - Monroe Power Plant

How Shipped? Hand ___ Carrier ___
Tracking No.

1) Relinquished By: [signature] Date 11/5/13 Time 1330
2) Relinquished By: [signature] Date 11/5/13 Time 1830
3) Relinquished By: [signature] Date 11-5-13 Time 1830
4) Relinquished By: [signature] Date 11-5-13 Time 1830

Comments
*VOC's: Please include Methyl Bromide and Methyl Chloride
*001A Temp must be obtained at the Vehicle Bridge

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Chain of Custody Record

COC No. 13100800

Pg. ___ of ___

For Lab Use Only
Cart: 5
VOA Rack/Tray: 342-G
Receipt Log No.: 50-33
Project Chemist:
Work Order No.: 1311089

Client Name: DTE Electric Company - Monroe Power Plant
Address: 3500 E Front Street
City, State Zip: Monroe, MI 48161
Phone/Fax: 734.384.2559, 734.384.2560, 313.235.5529
Email: mabinr@dteenergy.com, johnsonk@dteenergy.com, churey@dteenergy.com

Project Name: MONPP NPDES Permit Renewal
Client Project No. / P.O. No.: 4700534058
Invoice To: [X] Client [ ] Other (comments)
Contact/Report To: A. Mabin / K. Johnson / N. Churey

Analyses Requested

PRESERVATIVES
A NONE pH>7
B HNO_3 pH<2
C H_2SO_4 pH<2
D 1+1 HCl pH<2
E NaOH pH>12
F ZnAc/NaOH pH>9
G MeOH
H (Other, write below)

Schedule	Bottle Code	Sample Number	Field Sample ID	Cooler ID	Sample Date	Sample Time	Matrix	A BOD, TSS, TDS	A	C	A SVOC, PCB	C TOC	B metals, hardness	F Sulfide (3762)				Total	Sample Comments
			Container Type (corresponds to Container Packing List)																
			Number of Containers Submitted																
06		10	1 Intake Composite	1372	11/5/13	0945	ww	2	1	1	4	2	1	1	1			13	
			2															0	
			3															0	
			4															0	
			5															0	
			6															0	
			7															0	
			8															0	
			9															0	
			10															0	

Sampled By (print): C. Jennings / J. Elsey
Sampler's Signature:
Company: DTE Electric Company - Monroe Power Plant

How Shipped? Hand ___ Carrier ___
Tracking No.:

1. Relinquished By: Date 11/5/13 Time 1330
1. Received By: Date 11/5/13 Time 1330
2. Relinquished By: Date 11-5-13 Time 1330
2. Received By: Date Time
3. Relinquished By: Date Time
3. Received By: Date 11/5/13 Time 1820

Comments:
NPN, Nitrate + Nitrite
Metals: Al, Sb, As, Ba, Be, B, Cd, Ca, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Ag, Tl, Sn, Ti, V, Zn
SVOC: TTO list (include 4-6 - Dimethyl O Cresol, p-Chloro-m-cresol, and 3,4 Benzylfluoranthene); PCB: 7 aroclors

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Chain of Custody Record

COC No. 13100801

Pg. ___ of ___

For Lab Use Only
Cart: 2
VOA Frig Tag: 248-49
Receipt Log No.: 5928
Project Chemist:
TRI Order No.: 1311089

Client Name: DTE Electric Company
Address: 3500 E Front Street
City, State Zip: Monroe, MI 48161
Phone/Fax: 734.384.3589, 734.384.2590, 313.2365968
E-mail: [illegible]

Project Name: MONPP NPDES Permit Renewal
Client Project No. / P.O. No.: 4700534058
Invoice To: ☑ Client ☐ Other (comments)
Contact/Report To: A. Mabin / K. Johnson / N. Chuey

Analyses Requested

Container Type (cross-reference to Container Packing List)

Sample Date	Matrix Code	Sample Number	Field Sample ID	Cooler ID	Sample Date	Sample Time	Preservative	Matrix	G Total Phenol	D VOC's *	C O & G	Available Cyanide	LLHg	Total	Sample Comments
04		11	Intake Grab (Day 2)	1376	11/5/13	0930	✓	ww	1		2	2		5	field pH: 7.46
														0	field Temp: 10°
														0	field TRC: [illegible]
														0	field DO: 9.09
10		12	Intake Field Blank (LLHg)		11/4/13	0917	✓	ww					2	2	
07		13	Intake (LLHg)		11/4/13	0920	✓	ww					2	2	
09		14	Intake Duplicate (LLHg)		11/4/13	0923	✓	ww					2	2	
														0	
05		15	Intake VOC Lab Composite (Day 2)	1376	11/5/13	0930	✓	ww		3 2				2 3	Lab Composite VOC: Aliquots of Day 1 and Day 2
														0	Day 1 and Day 2 Aliquots

Number of Containers Submitted

Preservative Key:
A. NONE pH 7
B. HNO_3 pH<2
C. H_2SO_4 pH<2
D. 1+1 HCl pH<2
E. NaOH pH>12
F. ZnAc/NaOH pH>9
G. MeOH
H. Other (note below)

Sampled By (print): C. Jennings / J. Elsey
Sampling Company: DTE Electric Company - Monroe Power Plant
How Shipped? Hand ___ Carrier ___
Tracking No.:

Comments: *VOC's: Please include Methyl Bromide and Methyl Chloride

Relinquished By	Date	Time	Received By	Date	Time
[illegible]	11/5/13	1330	Ray Folsom	11/5/13	1330
Ray Folsom	11/5/13	1330	[illegible]	11/5/13	1330

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SAMPLE RECEIVING / LOG-IN CHECKLIST

TRIMATRIX LABORATORIES

Client: DTE ELECTRIC
Receipt Record Page/Line #: 50-35
New / Add To: Work Order #: 1311089
Project Chemist: Samplers #:

Recorded by (initials/date): DN 11-5-13
☑ Cooler ☐ Box ☐ Other
Cs Received: 2
Thermometer Used: ☑ IR Gun (#202) ☐ Digital Thermometer (#54) ☐ Other (#)
☐ See Additional Cooler Information Form

Cooler #	Cooler #	Cooler #	Cooler #
Time: TN 1376 2217	Time: TN 1053 2230	Time:	Time:
Custody Seals: ☑ None ☐ Present / Intact ☐ Present / Not Intact	Custody Seals: ☑ None ☐ Present / Intact ☐ Present / Not Intact	Custody Seals: ☐ None ☐ Present / Intact ☐ Present / Not Intact	Custody Seals: ☐ None ☐ Present / Intact ☐ Present / Not Intact
Coolant Location: Dispersed / Top / Middle / Bottom	Coolant Location: Dispersed / Top / Middle / Bottom	Coolant Location: Dispersed / Top / Middle / Bottom	Coolant Location: Dispersed / Top / Middle / Bottom
Coolant/Temperature Taken Via: ☑ Loose Ice / Avg 2-3 containers ☐ Bagged Ice / Avg 2-3 containers ☐ Blue Ice / Avg 2-3 containers ☐ None / Avg 2-3 containers	Coolant/Temperature Taken Via: ☑ Loose Ice / Avg 2-3 containers ☐ Bagged Ice / Avg 2-3 containers ☐ Blue Ice / Avg 2-3 containers ☐ None / Avg 2-3 containers	Coolant/Temperature Taken Via: ☐ Loose Ice / Avg 2-3 containers ☐ Bagged Ice / Avg 2-3 containers ☐ Blue Ice / Avg 2-3 containers ☐ None / Avg 2-3 containers	Coolant/Temperature Taken Via: ☐ Loose Ice / Avg 2-3 containers ☐ Bagged Ice / Avg 2-3 containers ☐ Blue Ice / Avg 2-3 containers ☐ None / Avg 2-3 containers
Alternate Temperature Taken Via: ☑ Temperature Blank (TB) ☐ 1 Container	Alternate Temperature Taken Via: ☑ Temperature Blank (TB) ☐ 1 Container	Alternate Temperature Taken Via: ☐ Temperature Blank (TB) ☐ 1 Container	Alternate Temperature Taken Via: ☐ Temperature Blank (TB) ☐ 1 Container
Recorded °C / Correction Factor °C / Actual °C	Recorded °C / Correction Factor °C / Actual °C	Recorded °C / Correction Factor °C / Actual °C	Recorded °C / Correction Factor °C / Actual °C
Temp Blank: 0 / 5.2	Temp Blank: 0 / 2.1	Temp Blank:	Temp Blank:
TB Location: Representative / Not Representative	TB Location: Representative / Not Representative	TB Location: Representative / Not Representative	TB Location: Representative / Not Representative
1: 4.8 / 0 / 4.8	1: 3.2 / 0.0 / 3.2	1:	1:
2: 5.5 / 0 / 5.5	2: 3.3 / 0.0 / 3.3	2:	2:
3: 5.4 / 0 / 5.4	3: 3.5 / 0.0 / 3.5	3:	3:
Average °C: 5.2	Average °C: 3.3	Average °C:	Average °C:
☑ Cooler ID on COC? ☑ VOC Trip Blank received?	☑ Cooler ID on COC? ☑ VOC Trip Blank received?	☐ Cooler ID on COC? ☐ VOC Trip Blank received?	☐ Cooler ID on COC? ☐ VOC Trip Blank received?

If any shaded areas checked, complete Sample Receiving Non-Conformance and/or Inventory Form

Paperwork Received

Yes	No	
☑	☐	Chain of Custody record(s)? If No, initialed by
☑		Received for Lab? Signed/Date/Time?
☐	☑	Shipping document?
☐	☐	Other: Field Data

COC Information

☑ TriMatrix COC ☐ Other

COC ID Numbers: 13100804, 13100802, 13100803, 13100800, 13100801

Check Sample Preservation

N/A	Yes	No	
	☑	☐	Average sample temperature ≤6° C?
☑		☐	Was thermal preservation required?
☑	☐	☐	If "No", Project Chemist Approval Initials:
☑	☐	☐	If "Yes" Completed Non Conf Order - Cont. Inventory Form?
☐	☐	☑	Completed Sample Preservation Verification Form?
☐	☐	☑	Samples chemically preserved correctly?
☑	☐	☐	If "No", added orange tag?
	☐	☑	Received pre-preserved VOC vials? ☐ MeOH ☐ Na SO_4

Check COC for Accuracy

Yes	No	
☑	☐	Analysis Requested?
☑	☐	Sample ID matches COC?
☑	☐	Sample Date and Time matches COC?
☑	☐	Container type completed on COC?
☑	☐	Container type collected or received?

Check for Short Hold-Time Prep/Analyses

☐ Bacteriological
☐ Air Bags
☐ BnCores / Methanol Pre-Preserved
☐ Formaldehyde/Aldehyde
☑ Green-tagged containers
☐ Yellow/White-tagged 1L ambers (SV Prep-Lab)

AFTER HOURS ONLY: COPIES OF COC TO LAB AREA(S)
☐ NONE RECEIVED
☑ RECEIVED, COCs TO LAB(S)

Sample Condition Summary

N/A	Yes	No	
	☐	☑	Broken containers/vials?
	☐	☑	Missing or incomplete labels?
	☐	☑	Illegible information on labels?
	☐	☑	Low volume received?
	☐	☑	Inappropriate or non-TriMatrix containers received?
☐	☐	☑	VOC vials / TOX containers have headspace?
☑	☐	☐	Extra sample locations / containers not listed on COC?

Notes

(2)
☑ Trip Blank received ☐ Trip Blank not listed on COC

Cooler Received (Date/Time)	Paperwork Delivered (Date/Time)	Met Hold Goal Met?
DN 11-5-13	11-5-13	Yes / No

Log In Forms - Receiving Log-In_Checklist revision 3.4

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SAMPLE PRESERVATION VERIFICATION FORM

page 1 of 2

Client: DTE ELECTRIC

Received Log #: 5035 Completed by (initials/date): JH 11-5-13

Work Order #: 1311089

Project Code/Title:

COC ID # 13100804

Adjusted by: _____ Date: _____

DO NOT ADJUST pH FOR THESE CONTAINER TYPES

Container Type	5 / 23	4	13		3	6	15	
Tag Color	Lt. Blue	Blue	Brown		Green	Red	Red Stripe	
Preservative	NaOH	H_2SO_4	H_2SO_4		None	HNO_3	HNO_3	
Expected pH	>12	<2	<2		6-8	<2	<2	
COC Line #1		✓			✓✓✓	✓		
COC Line #2								
COC Line #3								
COC Line #4								
COC Line #5								
COC Line #6								
COC Line #7								
COC Line #8								
COC Line #9								
COC Line #10								

Comments:

Ph Strip Lot #: HC378115

Aqueous Samples: For each sample and container type check the box if pH is acceptable. If pH is not acceptable for any sample container, record pH in box, and note on Sample Receiving Checklist and on Sample Receiving Non-Conformance Form. If approved by Project Chemist, add acid or base to the sample to achieve the correct pH. Add up to, but do not exceed 2x the volume initially added at container prep (see table below for initial volumes used). Add orange pH tag to sample container and record information requested. Record adjusted pH on this form. Do not adjust pH for container types 3, 6, and 15.

COC ID # 13100803

Adjusted by: _____ Date: _____

DO NOT ADJUST pH FOR THESE CONTAINER TYPES

Container Type	5 / 23	4	13		3	6	15	
Tag Color	Lt. Blue	Blue	Brown		Green	Red	Red Stripe	
Preservative	NaOH	H_2SO_4	H_2SO_4		None	HNO_3	HNO_3	
Expected pH	>12	<2	<2		6-8	<2	<2	
COC Line #1	✓✓		✓					
COC Line #2								
COC Line #3								
COC Line #4								
COC Line #5								
COC Line #6								
COC Line #7								
COC Line #8								
COC Line #9								
COC Line #10								

Comments:

Container Size (ml)	Original Vol. of Preservative (ml)
Container Type 5	NaOH
500	2.5
1000	5.0
Container Type 4	H_2SO_4
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H_2SO_4
500	2.5

Log In Forms - Sample_Preserve_Verification

Version 3.0

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Individual sample results relate only to the sample tested.

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TRIMATRIX LABORATORIES

SAMPLE PRESERVATION VERIFICATION FORM

page 2 of 2

Client: DTE ELECTRIC
Work Order #: 1301311089
Receipt Log #: 50-35
Completed By (initials/date): JN 11-5-13
Project Chemist:

COC ID #: 13100800
Adjusted by:
Date:

DO NOT ADJUST pH FOR THESE CONTAINER TYPES

Container Type	5 / 23	4	13		3	6	15	
Tag Color	Lt. Blue	Blue	Brown		Green	Red	Red Stripe	
Preservative	NaOH	H_2SO_4	H_2SO_4		None	HNO_3	HNO_3	
Expected pH	>12	<2	<2		6-8	<2	<2	
COC Line #1		✓			✓✓✓	✓		
COC Line #2								
COC Line #3								
COC Line #4								
COC Line #5								
COC Line #6								
COC Line #7								
COC Line #8								
COC Line #9								
COC Line #10								

Comments:

Ph Strip Lot #: HC378115

Aqueous Samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container, record pH in box, and note on Sample Receiving Checklist and on Sample Receiving Non-Conformance Form. If approved by Project Chemist, add acid or base to the sample to achieve the correct pH. Add up to, but do not exceed 2x the volume initially added at container prep (see table below for initial volumes used). Add orange pH tag to sample container and record information requested. Record adjusted pH on this form. Do not adjust pH for container types 3, 6, and 15.

COC ID #: 13100801
Adjusted by:
Date:

DO NOT ADJUST pH FOR THESE CONTAINER TYPES

Container Type	5 / 23	4	13		3	6	15	
Tag Color	Lt. Blue	Blue	Brown		Green	Red	Red Stripe	
Preservative	NaOH	H_2SO_4	H_2SO_4		None	HNO_3	HNO_3	
Expected pH	>12	<2	<2		6-8	<2	<2	
COC Line #1	✓✓		✓					
COC Line #2								
COC Line #3								
COC Line #4								
COC Line #5								
COC Line #6								
COC Line #7								
COC Line #8								
COC Line #9								
COC Line #10								

Comments:

Container Size (mL)	Original Vol. of Preservative (mL)
Container Type 5	NaOH
500	2.5
1000	5.0
Container Type 4	H_2SO_4
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H_2SO_4
500	2.5

Log In Forms – Sample_Preserve_Verification

version 3.0

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Attachment V					
Adjacent Property Owners					
Monroe Power Plant					
NPDES Permit No. MI0001848					
Application for Reissuance - 2014					
Name	**Address**	**City**	**State**	**Zip Code**	**Parcel No.**
Port of Monroe	3055 E Front St	Monroe	MI	48161	55-49-01527-000
Thompson McCully Oil	3125 E. Front St	Monroe	MI	48161	55-49-01527-008
Headwaters Resources, Inc.	3333 E. Front St	Monroe	MI	48161	55-49-01527-012
Gerdau Macsteel Monroe	3350 E. Front St.	Monroe	MI	48161	55-49-01498-002
Hickman Williams Company	40 Port Ave.	Monroe	MI	48161	55-49-01527-011
Exemption 6 [redacted]					
Herons Boardwalk, LLC	6647 Waters Edge Drive	Monroe	MI	48161	12-010-201-00
Monroe Marina	6647 Waters Edge Drive	Monroe	MI	48161	12-300-509-06
Monroe Public Schools	6670 Waters Edge Drive	Monroe	MI	48161	12-010-198-10
Michigan Dept. of Natural Resources	MDNR, Finance and Operations - PO Box 30028	Lansing	MI	48909	12-010-198-10
Monroe Boat Club	7932 Bolles Harbor Dr.	Monroe	MI	48161	12-085-037-00
Trout's Properties L.L.C.	7970 Bolles Harbor Dr	Monroe	MI	48161	12-085-025-00
Harbor Marine	13390 Bridge	Monroe	MI	48161	12-300-046-00
Norfolk Southern	110 Franklin Rd	Roanoke	VA	24042	Various