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GROUNDWATER MONITORING REPORT
PPG INDUSTRIES, INC.
JANUARY 2013 MONITORING EVENT
940 WASHBURN SWITCH ROAD
SHELBY, CLEVELAND CO., NC
S&ME PROJECT # 1354-11-137

Prepared for:

PPG Industries

PPG Industries, Inc.
940 Washburn Switch Road
Shelby, North Carolina 28150

Prepared by:

S&ME

S&ME, Inc.
9751 Southern Pine Boulevard
Charlotte, North Carolina 28273

February 15, 2013

February 15, 2013

PPG Industries, Inc.
940 Washburn Switch Road
Shelby, North Carolina 28150

Attention: Mr. Richard Young

Reference: **Groundwater Monitoring Report**
January 2013 Semi-Annual Monitoring Event
PPG Industries, Inc.
940 Washburn Switch Road
Shelby, Cleveland County, North Carolina
S&ME Project # 1354-11-137

Dear Mr. Young:

S&ME, Inc. (S&ME) submits this Groundwater Monitoring Report for the referenced facility as part of a continuing groundwater monitoring program in accordance with North Carolina Department of Environment and Natural Resources (NCDENR) requirements. The sampling and reporting services were performed in general accordance with S&ME's Proposal No. 1354-24380-11 dated July 11, 2011. The January 2013 sampling results indicated concentrations of iron (MW-3 and 5) and manganese (MW-3, 4, 5, 6 and 7) at levels exceeding the 15A NCAC 2L .0202 groundwater quality standards (2L Standards). Manganese concentrations were similar to prior sampling events. Iron concentrations varied from prior sampling events, however, the concentrations in MW-3 and MW-5 were in the range of previously reported concentrations. No other parameters were detected above the 2L Standards. Based on these findings, we recommend continued semi-annual groundwater monitoring.

We appreciate the opportunity to provide our professional environmental services to PPG Industries, Inc. on this project. Should you have any questions concerning this report, please contact us at your earliest convenience.

Sincerely,

S&ME, INC.

Becka L. Davidson
Environmental Professional

Al Quarles, L.G.
Senior Hydrogeologist

NORTH CAROLINA LICENSED SEAL 1133 GEOLOGIST AL QUARLES

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GROUNDWATER MONITORING REPORT
JANUARY 2013 MONITORING EVENT
PPG INDUSTRIES, INC.
940 WASHBURN SWITCH ROAD
SHELBY, CLEVELAND CO., NC
S&ME PROJECT # 1354-11-137

1 INTRODUCTION

S&ME includes herein, the results of the January 2013 semi-annual groundwater monitoring event for the referenced PPG Industries, Inc. fiberglass manufacturing plant located in Shelby, North Carolina (**Figures 1 and 2**). The NCDENR, Division of Waste Management (DWM) requires that a semi-annual monitoring program be implemented for this type of facility to monitor for potential environmental impacts. **Figure 3** is provided as a site plan of the subject facility and illustrates the locations of the seven groundwater monitor wells.

The report includes: 1) a description of the sample collection methodology; 2) groundwater level data and a groundwater surface map; and 3) results and conclusions of the groundwater quality analyses. Historical water quality data are also presented in the attached tables.

2 SAMPLING METHODOLOGY

On January 23 and 24, 2013, S&ME measured the depth to groundwater in the monitor wells from the top of monitor well casings (**Table 1**). Prior to water level measurements, monitor well seals were removed to allow groundwater levels to equilibrate with atmospheric pressure. Water level measurements were used to prepare a groundwater surface map from which the direction of groundwater flow could be inferred, as illustrated in **Figure 3**.

Low-flow sampling methods generally consistent with NCDENR guidance and EPA standard operating procedures were performed using a peristaltic pump with new tubing for each well. The base of the tubing was placed approximately 1 foot from the base of each well and the pump was operated at a low flow rate in an attempt to limit drawdown of the water column. During purging of each well, S&ME recorded pH, specific conductance, temperature, dissolved oxygen, oxygen-reduction potential, and turbidity. Field measurements are included on the Field Sampling Records in **Appendix I**.

After field measurements were generally stabilized, the groundwater samples were collected directly from the tubing into laboratory-provided sample containers in a manner to limit aeration of the sample. No field or laboratory filtration of the samples was performed. The samples were analyzed in accordance with EPA Methods and Standard

Methods for the parameters listed in **Table 2**. Standard control measures, including sample collection and handling, were implemented before, during and after sample collection. Sample containers were delivered to a NCDENR-certified laboratory (Pace Laboratories) in accordance with chain-of-custody protocol.

3 RESULTS

3.1 Water Levels and Groundwater Flow

On January 23 and 24, 2013, S&ME measured the depth to water from the monitor well's top of casing (TOC). Based on the TOC elevations and depths to water, groundwater elevations were calculated. The groundwater surface elevations are summarized in **Table 1** and are presented in **Figure 3**. The inferred direction of groundwater flow is generally to the west.

Monitoring well MW-1 was dry during the January 2013 sampling event. Compared to July 2012 water levels, the January 2013 water levels decreased from 0.31 feet (MW-3) to 4.59 feet (MW-2); however, water levels increased in monitor well MW-6 by 0.11 feet.

3.2 Groundwater Quality

The results of the January 2013 groundwater sampling event are summarized in **Table 2**. A copy of the laboratory report is included in **Appendix II**. The historical results since January 2006 are summarized in **Table 3**. The January 2013 sampling results indicated concentrations of iron (MW-3 and 5) and manganese (MW-3, 4, 5, 6 and 7) at levels exceeding the 15A NCAC 2L .0202 groundwater quality standards (2L Standards). Manganese concentrations were similar to prior sampling events. Iron concentrations, however, varied from prior sampling events. Iron was previously detected at levels exceeding the 2L Standard in monitor wells MW-2 and MW-6 in July 2012. Iron was last detected at levels exceeding the 2L Standard in monitor well MW-3 in January 2010. Iron concentrations in monitor well MW-5 have remained consistent with prior sampling events. No other parameters were detected above the 2L Standards.

Comparison of the historical data indicates relatively consistent detections of manganese in all wells (including upgradient well MW-1), fluctuating between non-detectable concentrations to concentrations exceeding the 2L Standards. Iron concentrations, however, have fluctuated over prior sampling events. The upgradient well MW-1 was dry during the January 2013 sampling event.

Barium, Cadmium, chromium and lead have previously been detected at concentrations that exceeded the 2L Standards in several wells (i.e., MW-4, MW-5, MW-6, and MW-7); however, the detections are more sporadic than those for iron and manganese.

Concentrations of chloride, nitrate, sulfate, and total dissolved solids (TDS) were either not detected above the laboratory reporting limits or not detected above the 2L Standards.

There are no standards for biological oxygen demand (BOD), chemical oxygen demand (COD), or total organic carbon (TOC).

The historical results do not indicate increasing trends in constituent concentrations.

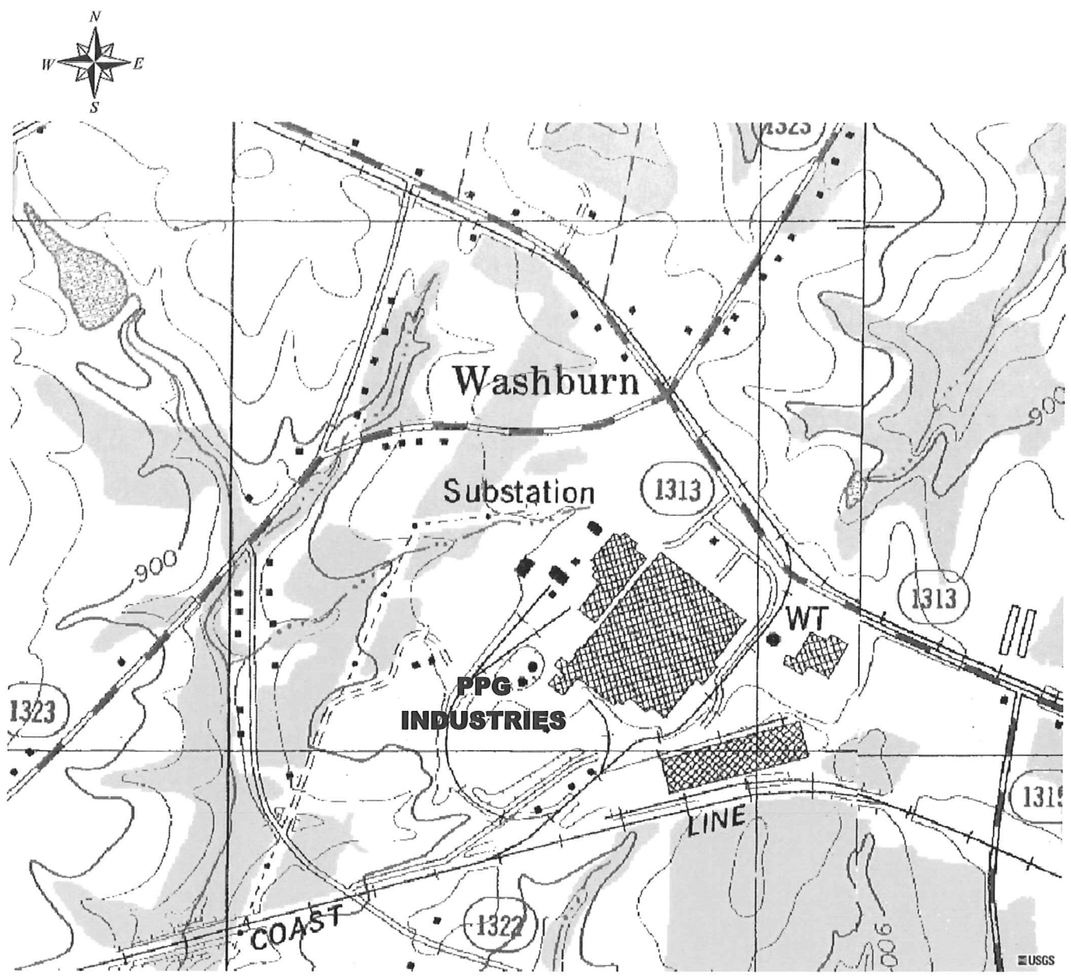
3.3 Quality Control Sample

S&ME also collected an equipment blank by pumping deionized (DI) water from a 1 liter glass container supplied by the laboratory through new inlet and outlet tubing attached to new peristaltic pump tubing directly into the laboratory containers (after passing 1 liter of water through the tubing). The blank was analyzed for the same parameters as the groundwater samples. None of the analyzed compounds were detected in the equipment blank sample except for nitrate (0.063 mg/L). The source of the nitrate is likely from the laboratory supplied DI water but may be from the tubing. Nitrate was reported in all monitor well samples, at levels above the nitrate level in the equipment blank.

3.4 Recommendations

Based on the results of the January 2013 monitoring event, S&ME recommends continued semi-annual groundwater monitoring.

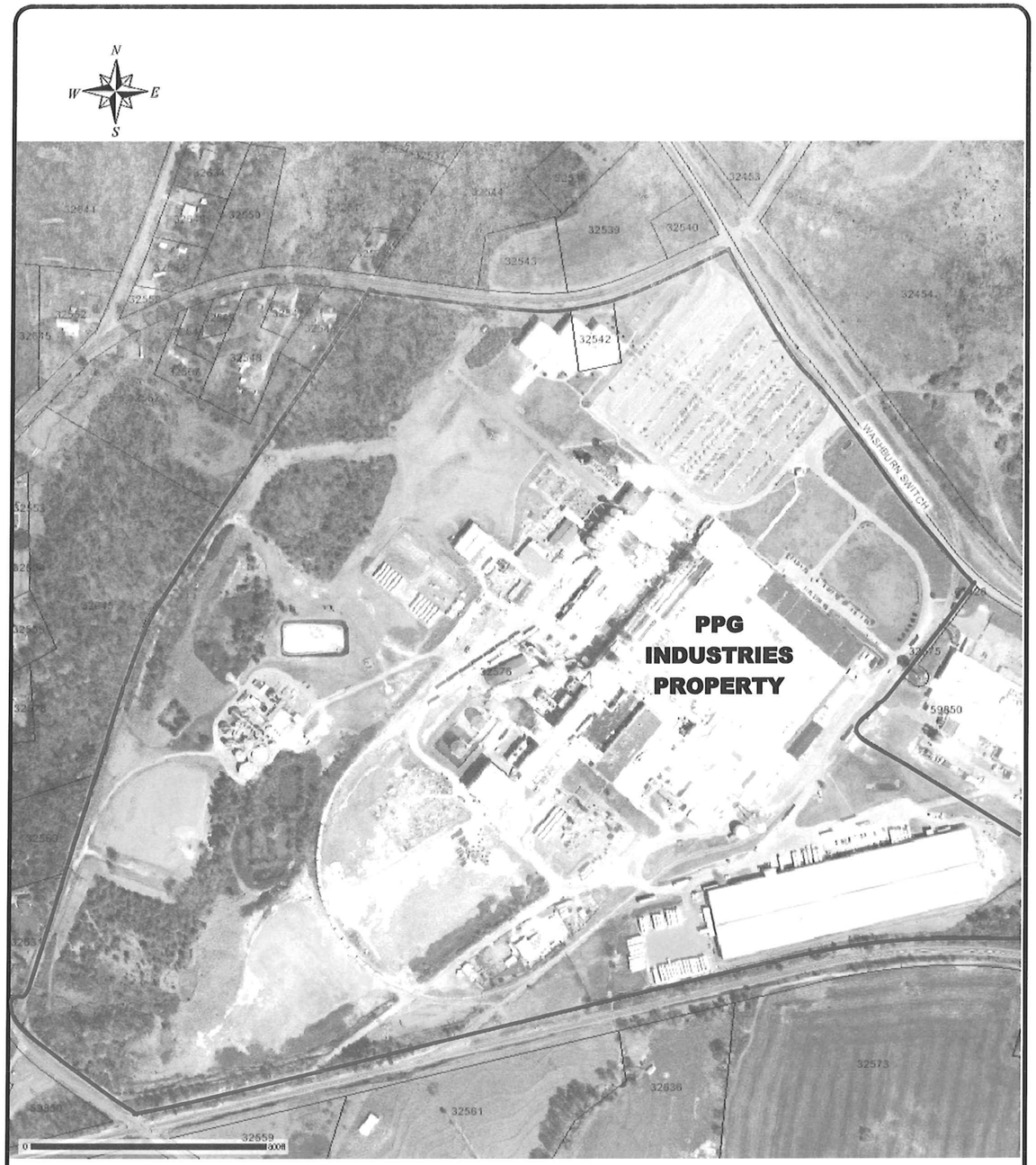
FIGURES



Source: USGS Topographic Map obtained from http://terraserver-usa.com

Approximate Location of Subject Property

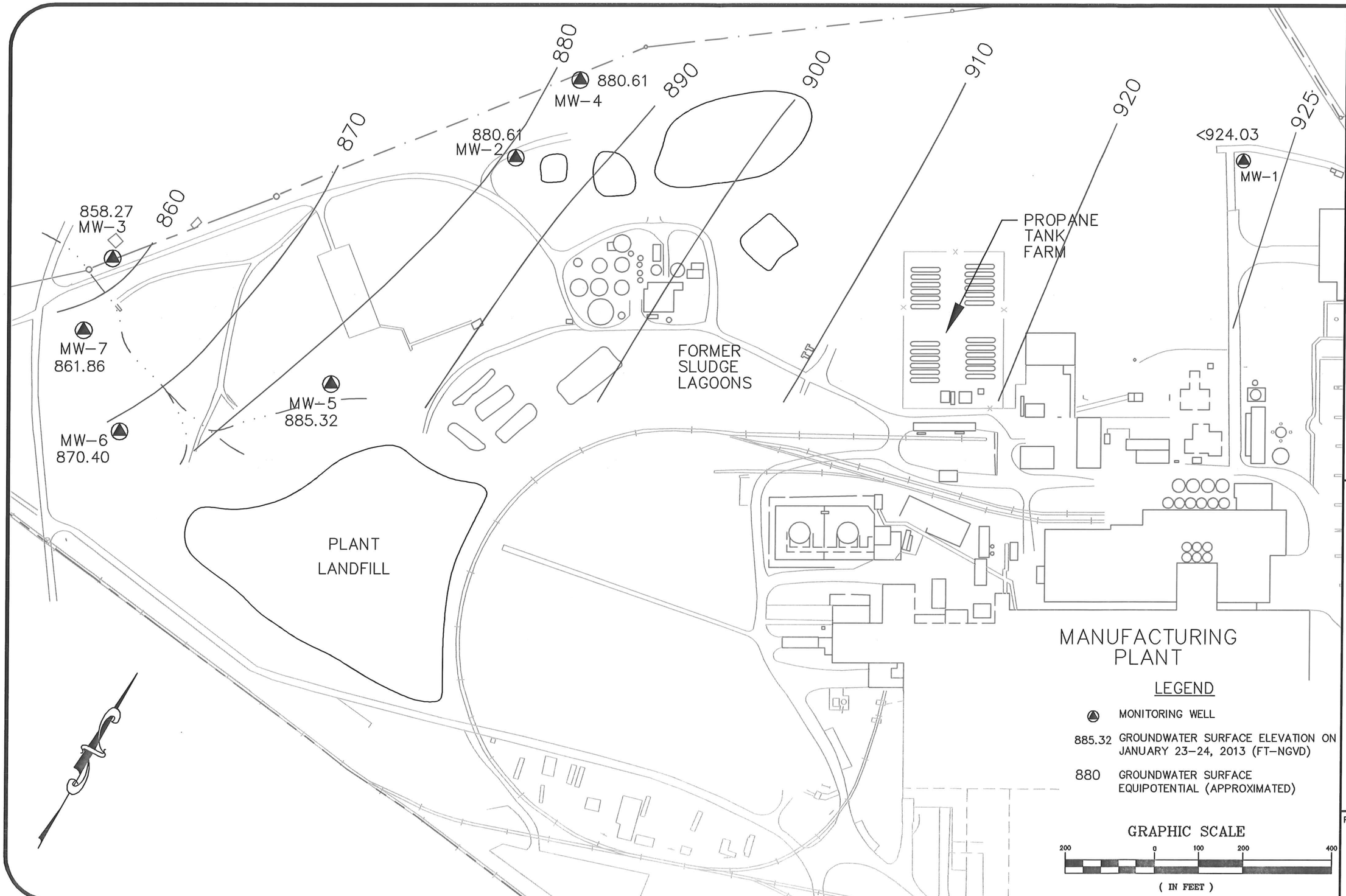
Scale: Not To Scale	S&ME	**SITE LOCATION MAP** PPG Industries 940 Washburn Switch Road Shelby, North Carolina	**Figure**
Drawn by: WAQ			**1**
Checked by:			
Date: 02-17-12		S&ME Job No.: 1354-11-137	



Approximate Location of Subject Property

Source: 2005 Aerial obtained from Cleveland County GIS Website

Scale: As Shown	S&ME	**SITE AERIAL MAP** PPG Industries 940 Washburn Switch Road Shelby, North Carolina	**Figure**
Drawn by: WAQ			**2**
Checked by:			
Date: 02-17-12		S&ME Job No.: 1354-11-137	



DATE: 01-28-13
DRAWN BY: CSM
CHECKED BY:
SCALE: AS SHOWN
PROJECT NO. 1354-11-137

S&ME
WWW.SMEINC.COM

GROUNDWATER CONTOUR MAP
JANUARY 2013
PPG INDUSTRIES INC.
SHELBY, NORTH CAROLINA

FIGURE NO.
3

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TABLES

Table 1

Water Levels and Well Purging Data (January 23-24, 2013)
PPG Industries, Inc.
Shelby, North Carolina
S&ME Project # 1354-11-137

		Monitor Well						
Parameter	**Unit**	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**	**MW-7**
Top-of-Casing Elevation	feet	953.03	904.41	867.01	901.39	892.41	886.65	870.34
Depth to Water from Top-of-Casing	feet	*	23.80	8.74	20.78	7.09	16.25	8.48
Water Level Elevation	feet	<924.03	880.61	858.27	880.61	885.32	870.40	861.86
Elevation Change**	feet	>-1.64	-4.59	-0.31	-3.54	-0.81	0.11	-0.52
Well Depth from Top-of-Casing	feet	29	30	20	27	21	21	21
Sample Appearance		*	clear	clear	clear	clear	clear	clear
Flow	milliliters per minute	*	70	100	60	100	70	100
pH	standard	*	5.0	5.6	5.4	4.7	4.8	4.8
Conductivity	microSiemens per centimeter	*	30	139	99	74	32	33
Turbidity	nephelometric turbidity units	*	0.9	8.6	2.2	9.5	0.7	0.4
Dissolved Oxygen	milligrams per liter	*	4.7	1.3	0.3	2.4	5.6	4.2
Temperature	Celcius	*	13.5	13.2	12.6	13.2	12.9	11.5
ORP	millivolts	*	222.7	142	206.2	225.7	209	196

Notes

* = Well was dry at 29 feet below top of casing
** Difference in feet from the previous monitoring event.

TABLE 2
WATER QUALITY DATA (January 23-24, 2013)
PPG INDUSTRIES, INC.
SHELBY, NORTH CAROLINA
S&ME PROJECT 1354-11-137

PARAMETER	UNITS	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	EQ-1	15A NCAC 2L STND. Current
Barium	mg/L	NS	**0.0254**	**0.105**	**0.118**	**0.176**	**0.0287**	**0.0551**	<0.0050	0.7
Cadmium	mg/L	NS	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002
Chromium	mg/L	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.01
Copper	mg/L	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	1
Iron	mg/L	NS	<0.050	**1.080** *	<0.0500	**1.110** *	<0.0500	<0.0500	<0.0500	0.3
Lead	mg/L	NS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.015
Manganese	mg/L	NS	**0.0125**	**4.100** *	**0.0739** *	**0.172** *	**0.0718** *	**0.0684** *	<0.0050	0.05
BOD	mg/L	NS	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NA
Chloride	mg/L	NS	**3.3**	**2.7**	**13.4**	**15.6**	**6.7**	**4.9**	<1.0	250
COD	mg/L	NS	<25	<25	<25	<25	<25	<25	<25	10
Nitrate	mg/L	NS	**0.065**	**0.44**	**1.0**	**1.3**	**0.23**	**0.83**	**0.063**	250
Sulfate	mg/L	NS	<2.0	**18.6**	<2.0	<2.0	<2.0	<2.0	<2.0	500
TDS	mg/L	NS	**36**	**177**	**78**	**55**	**41**	**30**	<25	NA
TOC	mg/L	NS	**3.3**	**5.0**	**4.5**	**2.5**	**1.5**	**1.5**	<1.0	NA

NOTES:
NA = No numerical standard
mg/L = Milligrams per liter
* = Values exceeding current 15A NCAC 2L Standards (Revised 1/1/2010)
2L Standard = 15A NCAC 2L .0202 Groundwater Quality Standards
NS = Not Sampled (MW-1, dry)

TABLE 3
WATER QUALITY DATA (MW-2)

PPG INDUSTRIES, INC.
SHELBY, NORTH CAROLINA
S&ME PROJECT 1354-11-137

PARAMETER	2L STND.	SAMPLE COLLECTION DATE														
		01/12/06	07/06/06	01/10/07	07/11/07	01/23/08	07/09/08	01/29/09	07/08/09	01/19/10	07/16/10	01/27/11	07/12/11	01/25/12	07/25/12	01/24/13
Barium	0.7	0.027	0.025	0.015	0.026	0.0238	0.0305	0.0229	0.0269	0.0276	0.0241	0.0257	0.0263	0.0291	0.0258	0.0254
Cadmium	0.002	---	---	---	---	---	---	---	---	---	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	0.01	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Copper	1	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Iron	0.30	---	0.11	---	**0.49**	---	0.0591	---	**0.341**	---	<0.05	<0.05	0.13	<0.05	**0.601**	<0.0050
Lead	0.015	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Manganese	0.05	0.015	0.019	0.016	0.028	0.0236	**0.0539**	0.0204	0.0249	0.0099	0.0079	0.0093	0.0142	0.0106	0.0165	0.0125
BOD	NA	4	---	---	---	---	---	10.8	---	---	<2	<2	<2.0	<2.0	<2.0	<2.0
Chloride	250		5.5	6.4	6.9	---	17.6	---	6.7	7.6	8	6.8	7.4	8.2	5	3.3
COD	NA	---	---	---	---	---	---	---	---	---	<25	<25	<25.0	<25.0	<25.0	<25.0
Nitrate	10	0.5	0.42	0.4	0.48	0.3	0.32	0.2	0.42	0.53	0.53	0.45	0.47	0.37	0.29	0.065
Sulfate	250		---	---	---	---	---	---	---	---	<5	<5	<5.0	<5.0	<2.0	<2.0
TDS	500	---	42	---	---	32	28	---	52	30	<25	<25	<25.0	<25.0	<25.0	36
TOC	NA	6.2	9	2	3.7	---	8.2	10.7	2.9	2.5	<1	1.2	2.4	2.6	2	3.3

BOD = Biological Oxygen Demand
COD = Chemical Oxygen Demand
TDS = Total Dissolved Solids
TOC = Total Organic Carbon
TOX = Total Organic Halides

All concentrations in milligrams per liter (mg/L)
--- = Below quantitation limits unless otherwise noted
Blank = Not Sampled
Bold = Values exceeding 15A NCAC 2L Standards
NA = No Standard Established

TABLE 3
WATER QUALITY DATA (MW-3)

PPG INDUSTRIES, INC.
SHELBY, NORTH CAROLINA
S&ME PROJECT 1354-11-137

PARAMETER	2L STND.	SAMPLE COLLECTION DATE														
		01/12/06	07/06/06	01/10/07	07/11/07	01/23/08	07/09/08	01/29/09	07/08/09	01/20/10	07/16/10	01/27/11	07/12/11	01/25/12	07/25/12	01/23/13
Barium	0.7	0.082	0.11	0.074	0.096	0.0854	0.0911	0.0787	0.0885	0.105	0.127	0.115	0.124	0.109	0.108	0.105
Cadmium	0.002	---	---	---	---	---	---	---	---	---	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	0.01	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Copper	1	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Iron	0.30	**7.9**	**1.5**	**6.6**	**0.56**	**2.5**	**4.07**	**1.52**	**0.328**	**0.845**	0.0969	0.252	0.133	0.132	0.163	**1.08**
Lead	0.015	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Manganese	0.05	**4**	**2.1**	**4.4**	**3.9**	**3.91**	**4.11**	**3.17**	**3.28**	**2**	**1.96**	**1.96**	**0.83**	**2.14**	**2.9**	**4.1**
BOD	NA	2	---	---	---	---	---	---	---	---	<2	<2	<2.0	<2.0	<2.0	<2.0
Chloride	250		---	---	---	---	---	---	---	---	<5	<5	<5.0	<5.0	2.5	2.7
COD	NA	---	---	---	---	---	---	31	---	---	<25	<25	<25.0	53	<25.0	<25
Nitrate	10	0.1	0.27	0.1	---	0.1	---	0.19	0.13	0.48	0.71	0.97	0.93	0.79	0.8	0.44
Sulfate	250		29	22	30	23.9	27.5	24.3	26.4	17.3	19.9	19.9	13.7	21.1	22.5	18.6
TDS	500	82	120	84	86	104	114	86	126	144	124	106	113	116	145	177
TOC	NA	10	18	4.3	5.3	---	14.6	26.3	6.8	1.9	5.3	4.7	5.2	38.8	<1.0	5

BOD = Biological Oxygen Demand
COD = Chemical Oxygen Demand
TDS = Total Dissolved Solids
TOC = Total Organic Carbon
TOX = Total Organic Halides

All concentrations in milligrams per liter (mg/L)
--- = Below quantitation limits unless otherwise noted
Blank = Not Sampled
Bold = Values exceeding 15A NCAC 2L Standards
NA = No Standard Established

TABLE 3
WATER QUALITY DATA (MW-4)

PPG INDUSTRIES, INC.
SHELBY, NORTH CAROLINA
S&ME PROJECT 1354-11-137

PARAMETER	2L STND.	SAMPLE COLLECTION DATE														
		01/12/06	07/06/06	01/10/07	07/11/07	01/23/08	07/09/08	01/29/09	07/08/09	01/19/10	07/15/10	01/27/11	07/12/11	01/25/12	07/25/12	01/24/13
Barium	0.7	0.15	0.18	0.15	0.2	0.163	0.225	0.333	**1.12**	0.129	0.133	0.12	0.123	0.126	0.118	0.118
Cadmium	0.002	---	---	---	---	---	---	---	---	---	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	0.01	---	---	---	**0.023**	---	---	**0.0285**	**0.208**	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Copper	1	---	---	---	0.0024	---	---	0.0112	0.0529	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Iron	0.30	0.17	**0.34**	**0.65**	**2.4**	**1.45**	**0.49**	**8.08**	**40.1**	---	<0.05	<0.05	<0.0500	<0.0500	<0.500	<0.0500
Lead	0.015	---	---	---	---	---	---	---	0.009	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Manganese	0.05	**0.058**	**0.063**	**0.092**	**0.1**	**0.187**	**0.137**	**0.26**	**0.902**	**0.0681**	**0.0694**	**0.0745**	**0.0691**	**0.093**	**0.071**	**0.0739**
BOD	NA	6	2.3	2	2	2.2	4.5	4.4	4.1	2	<2	2.3	<2.0	<2.0	<2.0	<2.0
Chloride	250		20	19	19	19	21.2	19.8	19.2	19.9	20.8	18.4	17.5	18.4	16.2	13.4
COD	NA	---	41	48	---	---	---	48	50.1	---	32	<25	<25.0	<25.0	<25.0	<25
Nitrate	10	0.81	0.91	1	1.2	0.94	0.72	0.71	0.62	0.81	0.76	0.86	0.83	0.87	0.86	1.0
Sulfate	250		---	---	---	---	---	---	---	---	<5	<5	<5.0	<5.0	<2.0	<2.0
TDS	500	78	110	38	120	84	88	48	130	78	76	72	77	51	76	78
TOC	NA	19	23	8.2	12	4.2	15	20.6	8.2	9.6	38.6	6.2	6.5	5.5	4.4	4.5

BOD = Biological Oxygen Demand
COD = Chemical Oxygen Demand
TDS = Total Dissolved Solids
TOC = Total Organic Carbon
TOX = Total Organic Halides

All concentrations in milligrams per liter (mg/L)
--- = Below quantitation limits unless otherwise noted
Blank = Not Sampled
Bold = Values exceeding 15A NCAC 2L Standards
NA = No Standard Established

TABLE 3
WATER QUALITY DATA (MW-5)

PPG INDUSTRIES, INC.
SHELBY, NORTH CAROLINA
S&ME PROJECT 1354-11-137

PARAMETER	2L STND.	SAMPLE COLLECTION DATE														
		01/12/06	07/06/06	01/10/07	07/11/07	01/23/08	07/09/08	01/29/09	07/08/09	01/20/10	07/16/10	01/28/11	07/13/11	01/26/12	07/25/12	01/23/13
Barium	0.7	0.2	0.13	0.19	0.22	0.12	0.174	0.131	0.182	0.152	0.17	0.0944	0.161	0.136	0.153	0.176
Cadmium	0.002	---	---	---	---	---	---	---	---	---	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	0.01	0.003	---	---	0.0089	---	0.0067	---	**0.0141**	---	<0.005	<0.005	<0.0050	0.0064	<0.0050	<0.0050
Copper	1	0.003	---	---	0.0095	---	---	---	0.0104	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Iron	0.30	**1.3**	---	0.2	**7.3**	**0.591**	**0.307**	**1.03**	**11**	**1.52**	**1.23**	**4.75**	**2.07**	**1.98**	**1.39**	**1.11**
Lead	0.015	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Manganese	0.05	**0.22**	**0.077**	**0.18**	**0.26**	**0.217**	**0.155**	**0.925**	**0.245**	**0.306**	**0.145**	**0.643**	**0.0853**	**0.299**	**0.0546**	**0.172**
BOD	NA	---	---	---	---	---	---	---	---	---	<2	<2	<2.0	<2.0	<2.0	<2.0
Chloride	250		12	15	8.2	10.8	7.8	11.7	8.1	16.6	11.4	15.4	10.8	19.9	11	15.6
COD	NA	---	28	---	---	---	---	---	36	---	<25	<25	<25.0	<25.0	<25.0	<25
Nitrate	10	2.3	1.9	2.1	4.5	2.2	3.1	2.6	3.3	1.2	3.7	0.99	3.5	0.79	3.2	1.3
Sulfate	250		---	---	---	---	---	---	9.5	---	<5	<5	<5.0	<5.0	<2.0	<2.0
TDS	500	20	110	---	24	50	36	30	56	76	32	52	34	37	39	55
TOC	NA	5.6	10	2.1	2.6	---	3.7	8.1	2.1	2.6	1.3	2	1.8	3	1.4	2.5

BOD = Biological Oxygen Demand
COD = Chemical Oxygen Demand
TDS = Total Dissolved Solids
TOC = Total Organic Carbon
TOX = Total Organic Halides

All concentrations in milligrams per liter (mg/L)
--- = Below quantitation limits unless otherwise noted
Blank = Not Sampled
Bold = Values exceeding 15A NCAC 2L Standards
NA = No Standard Established

TABLE 3
WATER QUALITY DATA (MW-6)

PPG INDUSTRIES, INC.
SHELBY, NORTH CAROLINA
S&ME PROJECT 1354-11-137

PARAMETER	2L STND.	SAMPLE COLLECTION DATE														
		01/12/06	07/06/06	01/10/07	07/11/07	01/23/08	07/09/08	01/29/09	07/08/09	01/20/10	07/15/10	01/28/11	07/13/11	01/26/12	07/25/12	01/23/13
Barium	0.7	0.043	0.1	0.05	0.13	0.0436	0.0473	0.0507	0.0272	0.0202	0.0256	0.033	0.0298	0.0865	0.036	0.0287
Cadmium	0.002	---	---	---	---	---	---	---	---	---	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	0.01	---	0.0082	---	**0.017**	---	---	0.0052	---	---	<0.005	<0.005	<0.0050	**0.019**	<0.0050	<0.0050
Copper	1	---	0.003	---	0.016	---	---	---	---	---	<0.005	<0.005	<0.0050	0.0109	<0.0050	<0.0050
Iron	0.30	0.21	**2.8**	**0.58**	**7.7**	0.143	---	**1.86**	0.0503	---	**0.449**	0.0536	<0.0500	**5.7**	**5.16**	<0.050
Lead	0.015	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Manganese	0.05	0.02	**0.19**	**0.1**	**0.24**	0.0305	0.0245	**0.0877**	**0.112**	0.0054	**0.511**	0.0485	**0.0528**	**0.134**	**1.54**	**0.0718**
BOD	NA	2	2	---	---	---	---	---	---	---	9.4	<2	<2.0	<2.0	<2.0	<2.0
Chloride	250		6.1	---	8.6	9.2	11	9.1	7.5	5.5	8	7.7	8.1	7.8	8.5	6.7
COD	NA	---	---	---	---	---	---	---	31.1	---	<25	<25	<25.0	<25.0	<25.0	<25
Nitrate	10	0.18	0.82	0.91	0.49	0.72	0.69	0.46	0.23	0.14	0.11	0.26	<0.20	<0.20	0.046	0.23
Sulfate	250		---	---	---	---	---	---	---	---	<5	<5	<5.0	<5.0	<2.0	<2.0
TDS	500	---	58	---	---	24	34	---	52	56	<25	<25	<25.0	<25.0	40	41
TOC	NA	3.9	5.3	1.2	---	---	1.3	4.4	8.4	7.5	<1	<1	1.4	1.2	1.3	1.5

BOD = Biological Oxygen Demand
COD = Chemical Oxygen Demand
TDS = Total Dissolved Solids
TOC = Total Organic Carbon
TOX = Total Organic Halides

All concentrations in milligrams per liter (mg/L)
--- = Below quantitation limits unless otherwise noted
Blank = Not Sampled
Bold = Values exceeding 15A NCAC 2L Standards
NA = No Standard Established

TABLE 3
WATER QUALITY DATA (MW-7)

PPG INDUSTRIES, INC.
SHELBY, NORTH CAROLINA
S&ME PROJECT 1354-11-137

PARAMETER	2L STND.	SAMPLE COLLECTION DATE														
		01/12/06	07/06/06	01/10/07	07/11/07	01/23/08	07/09/08	01/29/09	07/08/09	01/20/10	07/15/10	01/27/11	07/12/11	01/26/12	07/25/12	01/23/13
Barium	0.7	0.057	0.094	0.026	0.048	0.0548	0.0514	0.0526	0.0492	0.0473	0.0493	0.0462	0.0507	0.0523	0.548	0.0551
Cadmium	0.002	---	---	---	---	---	---	---	---	---	<0.001	<0.001	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	0.01	---	**0.012**	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Copper	1	---	0.01	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Iron	0.30	**0.32**	**4.3**	**0.43**	---	0.051	---	---	0.0738	---	<0.05	<0.05	<0.0500	<0.0500	<0.0500	<0.0500
Lead	0.015	---	---	---	---	---	---	---	---	---	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Manganese	0.05	**0.092**	**0.17**	0.026	**0.083**	**0.0898**	**0.0779**	**0.0733**	**0.0683**	**0.0651**	0.047	**0.0586**	**0.0542**	**0.067**	**0.0618**	**0.0684**
BOD	NA	3	---	---	---	---	3.8	---	---	---	<2	<2	<2.0	<2.0	<2.0	<2.0
Chloride	250	-	8.5	6	---	---	5.2	---	---	---	<5	<5	<5.0	<5.0	4.2	4.9
COD	NA	<25	---	180	---	---	---	---	---	---	<25	<25	<25.0	<25.0	<25.0	<25
Nitrate	10	0.57	0.22	0.11	0.94	1.3	1.2	1.3	0.85	1	1.3	0.79	0.89	0.93	1	0.83
Sulfate	250		---	---	---	---	---	---	---	---	<5	<5	<5.0	<5.0	<2.0	<2.0
TDS	500	---	48	---	---	20	22	---	36	66	<25	<25	<25.0	<25.0	29	30
TOC	NA	3.3	5.1	1.3	---	---	4.3	4.3	1.7	1.3	<1	1	1.5	<1.0	1.1	1.5

BOD = Biological Oxygen Demand
COD = Chemical Oxygen Demand
TDS = Total Dissolved Solids
TOC = Total Organic Carbon
TOX = Total Organic Halides

All concentrations in milligrams per liter (mg/L)
--- = Below quantitation limits unless otherwise noted
Blank = Not Sampled
Bold = Values exceeding 15A NCAC 2L Standards
NA = No Standard Established

APPENDIX I
FIELD SAMPLING FORMS

PPG INDUSTRIES, INC.
940 WASHBURN SWITCH RD
SHELBY, NORTH CAROLINA
MONITOR WELL SAMPLING LOG

S&ME

S&ME PROJECT #: 1354-11-137

WELL ID: MW-1
DATE: 1/24/13
PERSONNEL: C. Marchin
A. Bloom

WELL CONDITION: GOOD
WEATHER: CLEAR 40's

REASON FOR SAMPLING: 2013 January Sampling Event

TOC - Ground Level: ____ ft
Total Well Depth from TOC: 28.65 ft
Initial Depth to Water (DTW) from TOC: Dry @ 28.65 ft
Sand Pack or Open Hole: SAND PACK
Depth to intake from TOC: ____ ft
Initial DTW - 0.33 ft from TOC: ____ ft

Water Column: 0 ft
Well Diameter: ____ in 4"
Borehole Diameter: ____ in

Purge Equipment:
Peristaltic Pump, Horiba 22
Hach 2100P Turbidity Meter

Record of Well Evacuation

Time								
DTW (ft)	Dry @ 28.65							
Vol Purged (Cumm-ml)								
Flow Rate (ml/min)								
pH (Stand Units)								
DO (mg/L)								
Conductivity (mS/sec)								
Turbidity (NTUs)								
Temperature (°C)								
Odor (Subjective)								
Color (Subjective)								
ORP								

Parameters	#	Type	Size	Preservative	
BOD	1	Plastic	1 L	None	
COD	1	Plastic	125 ml	H2SO4	
TOC	2	Glass	40 ml	HCL	orange
TDS	1	Plastic	500 ml	None	
Metals	1	Plastic	250 ml	HNO3	red
Chloride	1	Plastic	250 ml	None	
SO4, NO2, NO3	1	Plastic	250 ml	None	

Sample Time: NOT SAMPLED ! DRY
Laboratory: Pace Analytical
Shipping Date: ____
Delivery Date: ____

PPG INDUSTRIES, INC.
940 WASHBURN SWITCH RD
SHELBY, NORTH CAROLINA
MONITOR WELL SAMPLING LOG

S&ME

S&ME PROJECT #: 1354-11-137

WELL ID: MW-2
DATE: 1/24/13
PERSONNEL: C. MARCHIN
A. BLOOM

WELL CONDITION: GOOD
WEATHER: CLEAR 40'S

REASON FOR SAMPLING: 2013 January Sampling Event

TOC - Ground Level: — ft
Total Well Depth from TOC: 30.0 ft
Initial Depth to Water (DTW) from TOC: 23.80 ft
Sand Pack or Open Hole: SAND PACK
Depth to intake from TOC: 29.0 ft
Initial DTW - 0.33 ft from TOC: 24.13 ft

Water Column: 6.20 ft
Well Diameter: 4 in
Borehole Diameter: — in

Purge Equipment:
Peristaltic Pump, Horiba 22
Hach 2100P Turbidity Meter

Record of Well Evacuation

Time	0915	0930	0945	~~1000~~ 0955	1000			
DTW (ft)	~~24.87~~	23.88	23.82	23.82	23.82			
Vol Purged (Cumm-ml)	0	1050	2100	~~3150~~ 2800	3150			
Flow Rate (ml/min)	70	70	70	70	70			
pH (Stand Units)	4.96	4.97	4.96	4.95	4.95			
DO (mg/L)	4.77	4.99	4.76	4.72	4.73			
Conductivity (mS/sec)	40.6	30.3	30.3	30.3	30.4			
Turbidity (NTUs)	6.67	1.79	1.23	0.92	0.93			
Temperature (°C)	13.8	13.6	13.5	13.6	13.5			
Odor (Subjective)	none	none	none	none	NONE			
Color (Subjective)	clear	clear	clear	clear	CLEAR			
ORP	204.1	214.9	221.8	222.4	222.7			

Parameters	#	Type	Size	Preservative	
BOD	1	Plastic	1 L	None	
COD	1	Plastic	125 ml	H2SO4	
TOC	2	Glass	40 ml	HCL	orange
TDS	1	Plastic	500 ml	None	
Metals	1	Plastic	250 ml	HNO3	red
Chloride	1	Plastic	250 ml	None	
SO4, NO2, NO3	1	Plastic	250 ml	None	

Sample Time: 1000
Laboratory: Pace Analytical
Shipping Date: 1/24/13
Delivery Date: 1/24/13

PPG INDUSTRIES, INC.
940 WASHBURN SWITCH RD
SHELBY, NORTH CAROLINA
MONITOR WELL SAMPLING LOG

S&ME

S&ME PROJECT #: 1354-11-137

WELL ID: MW-3
DATE: 1/23/13
PERSONNEL: C. MARCHIN
M. BLOOM

WELL CONDITION: GOOD
WEATHER: CLEAR 30'S

REASON FOR SAMPLING: 2013 January Sampling Event

TOC - Ground Level: — ft
Total Well Depth from TOC: 20.0 ft
Initial Depth to Water (DTW) from TOC: 8.74 ft
Sand Pack or Open Hole: SAND PACK
Depth to intake from TOC: 19.0 ft
Initial DTW - 0.33 ft from TOC: 9.07 ft

Water Column: 11.26 ft
Well Diameter: 4 in
Borehole Diameter: — in

Purge Equipment:
Peristaltic Pump, Horiba 22
Hach 2100P Turbidity Meter

Record of Well Evacuation START 0945

Time	0945	1005	1020	1030				
DTW (ft)	8.80	9.12	9.14	9.13				
Vol Purged (Cumm-ml)	0	2000	3500	4500				
Flow Rate (ml/min)	100	~~2000~~ 100	100	100				
pH (Stand Units)	5.71	5.66	5.65	5.63				
DO (mg/L)	1.88	1.51	1.41	1.30				
Conductivity (mS/sec)	144.6	139.4	139.3	139.3				
Turbidity (NTUs)	21.6	9.99	9.19	8.64				
Temperature (°C)	12.6	12.5	13.2	13.2				
Odor (Subjective)	NONE	NONE	NONE	NONE				
Color (Subjective)	CLEAR	CLEAR	CLEAR	CLEAR				
ORP (mV)	130.8	141.3	141.5	142.0				

Parameters	#	Type	Size	Preservative
BOD	1	Plastic	1 L	None ✓
COD	1	Plastic	125 ml	H2SO4 ✓
TOC	~~2~~ 3	Glass	40 ml	~~HCL~~ PHOSPHORIC ACID orange ✓
TDS	1	Plastic	500 ml	None ✓
Metals	1	Plastic	250 ml	HNO3 red ✓
Chloride	1	Plastic	250 ml	None ✓
SO4, NO2, NO3	1	Plastic	250 ml	None ✓

Sample Time: 1030
Laboratory: Pace Analytical
Shipping Date: —
Delivery Date: 1/24/13

PPG INDUSTRIES, INC.
940 WASHBURN SWITCH RD
SHELBY, NORTH CAROLINA
MONITOR WELL SAMPLING LOG

S&ME

S&ME PROJECT #: 1354-11-137

WELL ID: MW-4
DATE: 1/24/13
PERSONNEL: C. MARCHIN
A. BLOOM

WELL CONDITION: GOOD
WEATHER: CLEAR 40's

REASON FOR SAMPLING: 2013 January Sampling Event

TOC - Ground Level: ——— ft
Total Well Depth from TOC: ~~24.0~~ ft 27.0
Initial Depth to Water (DTW) from TOC: 20.78 ft
Sand Pack or Open Hole: SAND PACK
Depth to intake from TOC: 23.0 ft
Initial DTW - 0.33 ft from TOC: 21.11 ft

Water Column: 3.22 ft
Well Diameter: 2 in
Borehole Diameter: ___ in

Purge Equipment:
Peristaltic Pump, Horiba 22
Hach 2100P Turbidity Meter

Record of Well Evacuation

Time	1045	1100	1115	1125	1135			
DTW (ft)	20.90	20.99	20.98	20.99	20.99			
Vol Purged (Cumm-ml)	0	900	1800	2400	3000			
Flow Rate (ml/min)	60	60	60	60	60			
pH (Stand Units)	5.34	5.34	5.34	5.35	5.35			
DO (mg/L) *	0.65	~~3.2~~ 0.34	0.29	0.30	0.30			
Conductivity (mS/sec)	100.2	100.0	99.8	98.8	98.7			
Turbidity (NTUs)	84.3	41.3	4.12	2.53	2.20			
Temperature (°C)	12.6	12.6	12.5	12.6	12.6			
Odor (Subjective)	NONE	NONE	NONE	NONE	NONE			
Color (Subjective)	SOME SAND	~~SL~~ CLEAR	CLEAR	CLEAR	CLEAR			
ORP	214.4	212.4	209.4	208.3	206.2			

Parameters	#	Type	Size	Preservative	
BOD	1	Plastic	1 L	None	
COD	1	Plastic	125 ml	H2SO4	
TOC	2	Glass	40 ml	HCL	orange
TDS	1	Plastic	500 ml	None	
Metals	1	Plastic	250 ml	HNO3	red
Chloride	1	Plastic	250 ml	None	
SO4, NO2, NO3	1	Plastic	250 ml	None	

* DO VERY LOW

Sample Time: 1135
Laboratory: Pace Analytical
Shipping Date: —
Delivery Date: 1/24/13

PPG INDUSTRIES, INC.
940 WASHBURN SWITCH RD
SHELBY, NORTH CAROLINA
MONITOR WELL SAMPLING LOG

S&ME

S&ME PROJECT #: 1354-11-137

WELL ID: MW-5
DATE: 1/23/13
PERSONNEL: Coleman Marchin
Amanda Bloom

WELL CONDITION: Good
WEATHER: Clear, 30's

REASON FOR SAMPLING: 2013 January Sampling Event

TOC - Ground Level: — ft
Total Well Depth from TOC: 21 ft
Initial Depth to Water (DTW) from TOC: 7.09 ft
Sand Pack or Open Hole: Sand pack
Depth to intake from TOC: ~20 ft
Initial DTW - 0.33 ft from TOC: 6.76 ft

Water Column: 13.81 ft
Well Diameter: 2 in
Borehole Diameter: — in

Purge Equipment:
Peristaltic Pump, Horiba 22
Hach 2100P Turbidity Meter

Record of Well Evacuation

Time	1450	1510	1520	1530	1535			
DTW (ft)	7.31	7.44	7.44	7.43	7.45			
Vol Purged (Cumm-ml)	0	1500	2500	3500	4000			
Flow Rate (ml/min)	100	100	100	100	100			
pH (Stand Units)	4.70	4.71	4.70	4.70	4.70			
DO (mg/L)	2.63	2.27	2.40	2.39	2.40			
Conductivity (mS/sec)	72.4	73.7	73.6	73.4	73.5			
Turbidity (NTUs)	39.8	20.1	10.0	9.62	9.45			
Temperature (°C)	13.4	13.7	13.4	13.1	13.2			
Odor (Subjective)	no odor	NO ODOR	No odor	NO ODOR	NO ODOR			
Color (Subjective)	Clear	CLEAR	clear	CLEAR	CLEAR			
ORP	226.3	225.2	225.8	225.6	225.7			

Parameters	#	Type	Size	Preservative	
BOD	1	Plastic	1 L	None	
COD	1	Plastic	125 ml	H2SO4	
TOC	2	Glass	40 ml	HCL	orange
TDS	1	Plastic	500 ml	None	
Metals	1	Plastic	250 ml	HNO3	red
Chloride	1	Plastic	250 ml	None	
SO4, NO2, NO3	1	Plastic	250 ml	None	

Sample Time: 1535
Laboratory: Pace Analytical
Shipping Date: —
Delivery Date: 1/24/13

PPG INDUSTRIES, INC.
940 WASHBURN SWITCH RD
SHELBY, NORTH CAROLINA
MONITOR WELL SAMPLING LOG

S&ME

S&ME PROJECT #: 1354-11-137

WELL ID: MW-6
DATE: 1/23/13
PERSONNEL: C. Marchin, A. Bloom

WELL CONDITION: Good
WEATHER: Clear, 30s

REASON FOR SAMPLING: 2013 January Sampling Event

TOC - Ground Level: ____ ft
Total Well Depth from TOC: 21.0 ft
Initial Depth to Water (DTW) from TOC: 16.25 ft
Sand Pack or Open Hole: sand pack
Depth to intake from TOC: ~20' ft
Initial DTW - 0.33 ft from TOC: 16.58 ft

Water Column: 4.75 ft
Well Diameter: 2 in
Borehole Diameter: — in

Purge Equipment:
Peristaltic Pump, Horiba 22
Hach 2100P Turbidity Meter

Record of Well Evacuation

Time	1305	1320	1335	1350	1400			
DTW (ft)	16.35	16.39	16.37	16.38	16.38			
Vol Purged (Cumm-ml)	0	~~1500~~ 1050	2100	3150	4200			
Flow Rate (ml/min)	70	70	70	70	70			
pH (Stand Units)	4.87	4.83	4.86	4.86	4.84			
DO (mg/L)	6.71	6.15	5.98	5.57	5.59			
Conductivity (mS/sec)	31.2	31.9	32.8	32.3	31.8			
Turbidity (NTUs)	5.34	2.24	0.64	0.83	0.66			
Temperature (°C)	12.4	12.5	13.1	12.9	12.9			
Odor (Subjective)	none	none	none	none	none			
Color (Subjective)	clear	Clear	Clear	clear	clear			
ORP	200.3	204.6	207.0	209.7	208.6			

Parameters	#	Type	Size	Preservative	
BOD	1	Plastic	1 L	None	
COD	1	Plastic	125 ml	H2SO4	
TOC	2	Glass	40 ml	HCL	orange
TDS	1	Plastic	500 ml	None	
Metals	1	Plastic	250 ml	HNO3	red
Chloride	1	Plastic	250 ml	None	
SO4, NO2, NO3	1	Plastic	250 ml	None	

Sample Time: 1400
Laboratory: Pace Analytical
Shipping Date:
Delivery Date: 1/24/13

PPG INDUSTRIES, INC.
940 WASHBURN SWITCH RD
SHELBY, NORTH CAROLINA
MONITOR WELL SAMPLING LOG

S&ME

S&ME PROJECT #: 1354-11-137

WELL ID: MW-7
DATE: 1/23/13
PERSONNEL: C. MARCHAIN
A. BLOOM

WELL CONDITION: GOOD
SOME ICE IN CASING (~ 5 ft TOC)
WEATHER: CLEAR 30's

REASON FOR SAMPLING: 2013 January Sampling Event

TOC - Ground Level: ____ ft
Total Well Depth from TOC: 21.0 ft
Initial Depth to Water (DTW) from TOC: 8.48 ft
Sand Pack or Open Hole: SAND PACK
Depth to intake from TOC: ~20 ft
Initial DTW - 0.33 ft from TOC: 8.81 ft

Water Column: 12.51 ft
Well Diameter: 2 in
Borehole Diameter: — in

Purge Equipment:
Peristaltic Pump, Horiba 22
Hach 2100P Turbidity Meter

Record of Well Evacuation

Time	11:25	11:40	11:55	1205				
DTW (ft)	8.56	8.60	8.60	8.60				
Vol Purged (Cumm-ml)	0	1500	3000	4000				
Flow Rate (ml/min)	100	100	100	100				
pH (Stand Units)	4.91	4.80	4.80	4.78				
DO (mg/L)	4.35	4.32	4.22	4.21				
Conductivity (mS/sec)	33.7	32.3	32.4	32.5				
Turbidity (NTUs)	0.49	0.58	0.63	0.38				
Temperature (°C)	11.0	11.4	11.6	11.5				
Odor (Subjective)	none	none	NONE	NONE				
Color (Subjective)	clear	clear	CLEAR	CLEAR				
ORP	177.5	190.5	192.4	195.6				

Parameters	#	Type	Size	Preservative	
BOD	1	Plastic	1 L	None	
COD	1	Plastic	125 ml	H2SO4	
TOC	2	Glass	40 ml	HCL	orange
TDS	1	Plastic	500 ml	None	
Metals	1	Plastic	250 ml	HNO3	red
Chloride	1	Plastic	250 ml	None	
SO4, NO2, NO3	1	Plastic	250 ml	None	

Sample Time: 1205
Laboratory: Pace Analytical
Shipping Date: —
Delivery Date: 1/24/13

APPENDIX II
LABORATORY REPORT

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

February 07, 2013

Mr. Al Quarles
S&ME, Inc.
9751 Southern Pine Blvd.
Charlotte, NC 28273

RE: Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Dear Mr. Quarles:
Enclosed are the analytical results for sample(s) received by the laboratory on January 24, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

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

Sincerely,

Kevin Herring

Kevin Herring

kevin.herring@pacelabs.com
Project Manager

Enclosures

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SAMPLE ANALYTE COUNT

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92145912001	**MW-2**	EPA 200.7	SH1	7	PASI-A
		SM 2540C	LMD	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	AES	1	PASI-A
		EPA 353.2	DMN	2	PASI-A
		SM 4500-CI-E	DMN	1	PASI-A
		SM 5220D	EWS	1	PASI-A
		SM 5310B	AES	1	PASI-A
92145912002	**MW-3**	EPA 200.7	SH1	7	PASI-A
		SM 2540C	LMD	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	AES	1	PASI-A
		EPA 353.2	DMN	2	PASI-A
		SM 4500-CI-E	DMN	1	PASI-A
		SM 5220D	EWS	1	PASI-A
		SM 5310B	AES	1	PASI-A
92145912003	**MW-4**	EPA 200.7	SH1	7	PASI-A
		SM 2540C	LMD	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	AES	1	PASI-A
		EPA 353.2	DMN	2	PASI-A
		SM 4500-CI-E	DMN	1	PASI-A
		SM 5220D	EWS	1	PASI-A
		SM 5310B	AES	1	PASI-A
92145912004	**MW-5**	EPA 200.7	SH1	7	PASI-A
		SM 2540C	LMD	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	AES	1	PASI-A
		EPA 353.2	DMN	2	PASI-A
		SM 4500-CI-E	DMN	1	PASI-A
		SM 5220D	EWS	1	PASI-A
		SM 5310B	AES	1	PASI-A
92145912005	**MW-6**	EPA 200.7	SH1	7	PASI-A
		SM 2540C	LMD	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	AES	1	PASI-A
		EPA 353.2	DMN	2	PASI-A

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HITS ONLY

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92145912001	**MW-2**					
EPA 200.7	Barium	25.4	ug/L	5.0	01/30/13 16:23	
EPA 200.7	Copper	<5.0	ug/L	5.0	01/30/13 16:23	
EPA 200.7	Iron	<50.0	ug/L	50.0	01/30/13 16:23	
EPA 200.7	Manganese	12.5	ug/L	5.0	01/30/13 16:23	
SM 2540C	Total Dissolved Solids	36.0	mg/L	25.0	01/27/13 16:14	
EPA 353.2	Nitrogen, Nitrate	0.065	mg/L	0.020	01/24/13 23:27	
SM 4500-Cl-E	Chloride	3.3	mg/L	1.0	01/31/13 18:59	
SM 5310B	Total Organic Carbon	3.3	mg/L	1.0	01/31/13 02:55	
92145912002	**MW-3**					
EPA 200.7	Barium	105	ug/L	5.0	01/30/13 16:26	
EPA 200.7	Iron	1080	ug/L	50.0	01/30/13 16:26	
EPA 200.7	Manganese	4100	ug/L	5.0	01/30/13 16:26	
SM 2540C	Total Dissolved Solids	177	mg/L	25.0	01/27/13 16:13	
EPA 300.0	Sulfate	18.6	mg/L	2.0	01/30/13 23:40	
EPA 353.2	Nitrogen, Nitrate	0.44	mg/L	0.020	01/24/13 22:23	
SM 4500-Cl-E	Chloride	2.7	mg/L	1.0	01/31/13 19:00	
SM 5310B	Total Organic Carbon	5.0	mg/L	1.0	01/31/13 03:09	
92145912003	**MW-4**					
EPA 200.7	Barium	118	ug/L	5.0	01/30/13 16:34	
EPA 200.7	Copper	<5.0	ug/L	5.0	01/30/13 16:34	
EPA 200.7	Manganese	73.9	ug/L	5.0	01/30/13 16:34	
SM 2540C	Total Dissolved Solids	78.0	mg/L	25.0	01/27/13 16:15	
EPA 353.2	Nitrogen, Nitrate	1.0	mg/L	0.020	01/24/13 23:28	
SM 4500-Cl-E	Chloride	13.4	mg/L	1.0	02/05/13 19:25	
SM 5310B	Total Organic Carbon	4.5	mg/L	1.0	01/31/13 03:21	
92145912004	**MW-5**					
EPA 200.7	Barium	176	ug/L	5.0	01/30/13 16:47	
EPA 200.7	Copper	<5.0	ug/L	5.0	01/30/13 16:47	
EPA 200.7	Iron	1110	ug/L	50.0	01/30/13 16:47	
EPA 200.7	Manganese	172	ug/L	5.0	01/30/13 16:47	
SM 2540C	Total Dissolved Solids	55.0	mg/L	25.0	01/27/13 16:14	
EPA 353.2	Nitrogen, Nitrate	1.3	mg/L	0.020	01/24/13 23:23	
SM 4500-Cl-E	Chloride	15.6	mg/L	1.0	02/05/13 19:27	
SM 5310B	Total Organic Carbon	2.5	mg/L	1.0	01/31/13 03:35	
92145912005	**MW-6**					
EPA 200.7	Barium	28.7	ug/L	5.0	01/30/13 16:50	
EPA 200.7	Iron	<50.0	ug/L	50.0	01/30/13 16:50	
EPA 200.7	Manganese	71.8	ug/L	5.0	01/30/13 16:50	
SM 2540C	Total Dissolved Solids	41.0	mg/L	25.0	01/27/13 16:14	
EPA 353.2	Nitrogen, Nitrate	0.23	mg/L	0.020	01/24/13 22:29	
SM 4500-Cl-E	Chloride	6.7	mg/L	1.0	02/05/13 19:28	
SM 5310B	Total Organic Carbon	1.5	mg/L	1.0	01/31/13 03:49	
92145912006	**MW-7**					
EPA 200.7	Barium	55.1	ug/L	5.0	01/30/13 16:53	

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PROJECT NARRATIVE

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Method: **EPA 200.7**
Description: 200.7 MET ICP
Client: S&ME, Inc.
Date: February 07, 2013

General Information:
7 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

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

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Method: **SM 5210B**
Description: 5210B BOD, 5 day
Client: S&ME, Inc.
Date: February 07, 2013

General Information:
7 samples were analyzed for SM 5210B. All samples were received in acceptable condition with any exceptions noted below.

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

Sample Preparation:
The samples were prepared in accordance with with any exceptions noted below.

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

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

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Method: **EPA 353.2**
Description: 353.2 Nitrogen, NO2/NO3 unpres
Client: S&ME, Inc.
Date: February 07, 2013

General Information:
7 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below.

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

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

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

QC Batch: WETA/14343

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 92145912002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 910929)
  - Nitrogen, Nitrite

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Method: **SM 5220D**
Description: 5220D COD
Client: S&ME, Inc.
Date: February 07, 2013

General Information:
7 samples were analyzed for SM 5220D. All samples were received in acceptable condition with any exceptions noted below.

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

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

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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ANALYTICAL RESULTS

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Sample: MW-2 **Lab ID: 92145912001** Collected: 01/24/13 10:00 Received: 01/24/13 14:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Barium	**25.4**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:23	7440-39-3	
Cadmium	**<1.0**	ug/L	1.0	1	01/29/13 20:00	01/30/13 16:23	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:23	7440-47-3	
Copper	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:23	7440-50-8	
Iron	**<50.0**	ug/L	50.0	1	01/29/13 20:00	01/30/13 16:23	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:23	7439-92-1	
Manganese	**12.5**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:23	7439-96-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**36.0**	mg/L	25.0	1		01/27/13 16:14		
5210B BOD, 5 day	Analytical Method: SM 5210B							
BOD, 5 day	**<2.0**	mg/L	2.0	1	01/24/13 23:21	01/29/13 19:45		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**<2.0**	mg/L	2.0	1		01/30/13 23:26	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.065**	mg/L	0.020	1		01/24/13 23:27		
Nitrogen, Nitrite	**<0.020**	mg/L	0.020	1		01/24/13 23:27		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**3.3**	mg/L	1.0	1		01/31/13 18:59	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**<25.0**	mg/L	25.0	1		02/04/13 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**3.3**	mg/L	1.0	1		01/31/13 02:55	7440-44-0	

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ANALYTICAL RESULTS

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Sample: MW-4 **Lab ID: 92145912003** Collected: 01/24/13 11:35 Received: 01/24/13 14:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Barium	**118**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:34	7440-39-3	
Cadmium	**<1.0**	ug/L	1.0	1	01/29/13 20:00	01/30/13 16:34	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:34	7440-47-3	
Copper	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:34	7440-50-8	
Iron	**<50.0**	ug/L	50.0	1	01/29/13 20:00	01/30/13 16:34	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:34	7439-92-1	
Manganese	**73.9**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:34	7439-96-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**78.0**	mg/L	25.0	1		01/27/13 16:15		
5210B BOD, 5 day	Analytical Method: SM 5210B							
BOD, 5 day	**<2.0**	mg/L	2.0	1	01/24/13 23:21	01/29/13 19:45		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**<2.0**	mg/L	2.0	1		01/30/13 23:54	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**1.0**	mg/L	0.020	1		01/24/13 23:28		
Nitrogen, Nitrite	**<0.020**	mg/L	0.020	1		01/24/13 23:28		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**13.4**	mg/L	1.0	1		02/05/13 19:25	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**<25.0**	mg/L	25.0	1		02/04/13 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**4.5**	mg/L	1.0	1		01/31/13 03:21	7440-44-0	

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ANALYTICAL RESULTS

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Sample: MW-6 **Lab ID: 92145912005** Collected: 01/23/13 14:00 Received: 01/24/13 14:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Barium	**28.7**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:50	7440-39-3	
Cadmium	**<1.0**	ug/L	1.0	1	01/29/13 20:00	01/30/13 16:50	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:50	7440-47-3	
Copper	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:50	7440-50-8	
Iron	**<50.0**	ug/L	50.0	1	01/29/13 20:00	01/30/13 16:50	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:50	7439-92-1	
Manganese	**71.8**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:50	7439-96-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**41.0**	mg/L	25.0	1		01/27/13 16:14		
5210B BOD, 5 day	Analytical Method: SM 5210B							
BOD, 5 day	**<2.0**	mg/L	2.0	1	01/24/13 23:21	01/29/13 19:45		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**<2.0**	mg/L	2.0	1		01/31/13 00:21	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.23**	mg/L	0.020	1		01/24/13 22:29		
Nitrogen, Nitrite	**<0.020**	mg/L	0.020	1		01/24/13 22:29		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**6.7**	mg/L	1.0	1		02/05/13 19:28	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**<25.0**	mg/L	25.0	1		02/04/13 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**1.5**	mg/L	1.0	1		01/31/13 03:49	7440-44-0	

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ANALYTICAL RESULTS

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Sample: EQ-1 **Lab ID: 92145912007** Collected: 01/24/13 12:20 Received: 01/24/13 14:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Barium	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:56	7440-39-3	
Cadmium	**<1.0**	ug/L	1.0	1	01/29/13 20:00	01/30/13 16:56	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:56	7440-47-3	
Copper	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:56	7440-50-8	
Iron	**<50.0**	ug/L	50.0	1	01/29/13 20:00	01/30/13 16:56	7439-89-6	
Lead	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:56	7439-92-1	
Manganese	**<5.0**	ug/L	5.0	1	01/29/13 20:00	01/30/13 16:56	7439-96-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**<25.0**	mg/L	25.0	1		01/27/13 16:15		
5210B BOD, 5 day	Analytical Method: SM 5210B							
BOD, 5 day	**<2.0**	mg/L	2.0	1	01/24/13 23:21	01/29/13 19:45		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**<2.0**	mg/L	2.0	1		01/31/13 01:15	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.063**	mg/L	0.020	1		01/25/13 22:03		
Nitrogen, Nitrite	**<0.020**	mg/L	0.020	1		01/25/13 22:03		
4500 Chloride	Analytical Method: SM 4500-Cl-E							
Chloride	**<1.0**	mg/L	1.0	1		02/05/13 19:29	16887-00-6	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**<25.0**	mg/L	25.0	1		02/04/13 13:00		
5310B TOC	Analytical Method: SM 5310B							
Total Organic Carbon	**<1.0**	mg/L	1.0	1		02/05/13 18:23	7440-44-0	

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9800 Kincey Ave. Suite 100
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QUALITY CONTROL DATA

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

MATRIX SPIKE SAMPLE: 912906

Parameter	Units	92146035002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	ND	500	485	97	70-130	
Manganese	ug/L	75.5	500	560	97	70-130	

SAMPLE DUPLICATE: 912905

Parameter	Units	92146061002 Result	Dup Result	RPD	Qualifiers
Barium	ug/L	ND	<5.0		
Cadmium	ug/L	ND	<1.0		
Chromium	ug/L	ND	<5.0		
Copper	ug/L	ND	<5.0		
Iron	ug/L	ND	<50.0		
Lead	ug/L	ND	<5.0		
Manganese	ug/L	ND	<5.0		

SAMPLE DUPLICATE: 912907

Parameter	Units	92146152001 Result	Dup Result	RPD	Qualifiers
Barium	ug/L	680	650	5	
Cadmium	ug/L	ND	<50.0		
Chromium	ug/L	585	530	10	
Copper	ug/L	360	333	8	
Iron	ug/L	161000	156000	3	
Lead	ug/L	ND	<250		
Manganese	ug/L	36000	35000	3	

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QUALITY CONTROL DATA

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

QC Batch: WET/23937 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92145912001, 92145912002, 92145912003, 92145912004, 92145912005, 92145912006, 92145912007

METHOD BLANK: 910921 Matrix: Water
Associated Lab Samples: 92145912001, 92145912002, 92145912003, 92145912004, 92145912005, 92145912006, 92145912007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	01/29/13 19:45	

LABORATORY CONTROL SAMPLE: 910922

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	177	89	84.5-115.4	

SAMPLE DUPLICATE: 910923

Parameter	Units	92145934001 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	87000 ug/L	78.0	11	

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QUALITY CONTROL DATA

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

QC Batch: WETA/14343 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92145912001, 92145912002, 92145912003, 92145912004, 92145912005, 92145912006

METHOD BLANK: 910927 Matrix: Water
Associated Lab Samples: 92145912001, 92145912002, 92145912003, 92145912004, 92145912005, 92145912006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	<0.020	0.020	01/24/13 22:19	
Nitrogen, Nitrite	mg/L	<0.020	0.020	01/24/13 22:19	

LABORATORY CONTROL SAMPLE: 910928

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.4	97	90-110	
Nitrogen, Nitrite	mg/L	1	1.0	101	90-110	

MATRIX SPIKE SAMPLE: 910929

Parameter	Units	92145912002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.44	2.5	2.9	97	90-110	
Nitrogen, Nitrite	mg/L	<0.020	1	1.2	115	90-110	M1

SAMPLE DUPLICATE: 910930

Parameter	Units	92145912002 Result	Dup Result	RPD	Qualifiers
Nitrogen, Nitrate	mg/L	0.44	0.45	1	
Nitrogen, Nitrite	mg/L	<0.020	<0.020		

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QUALITY CONTROL DATA

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

QC Batch: WETA/14407 — Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E — Analysis Description: 4500 Chloride
Associated Lab Samples: 92145912001, 92145912002

METHOD BLANK: 914467 — Matrix: Water
Associated Lab Samples: 92145912001, 92145912002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	01/31/13 18:41	

LABORATORY CONTROL SAMPLE: 914468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.8	99	90-110	

MATRIX SPIKE SAMPLE: 914469

Parameter	Units	92145595005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	87.3	20	88.5	6	75-125	M6

SAMPLE DUPLICATE: 914470

Parameter	Units	92145595005 Result	Dup Result	RPD	Qualifiers
Chloride	mg/L	87.3	89.8	3	

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QUALITY CONTROL DATA

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

QC Batch: WETA/14416 Analysis Method: SM 5220D
QC Batch Method: SM 5220D Analysis Description: 5220D COD
Associated Lab Samples: 92145912001, 92145912002, 92145912003, 92145912004, 92145912005, 92145912006, 92145912007

METHOD BLANK: 914648 Matrix: Water
Associated Lab Samples: 92145912001, 92145912002, 92145912003, 92145912004, 92145912005, 92145912006, 92145912007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<25.0	25.0	02/04/13 13:00	

LABORATORY CONTROL SAMPLE: 914649

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	750	727	97	90-110	

MATRIX SPIKE SAMPLE: 914650

Parameter	Units	92146422001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	32.0	750	755	96	75-125	

MATRIX SPIKE SAMPLE: 914652

Parameter	Units	92145934001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	751000 ug/L	1500	2040	86	75-125	

SAMPLE DUPLICATE: 914651

Parameter	Units	92146422002 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	ND	<25.0		

SAMPLE DUPLICATE: 914653

Parameter	Units	92145933012 Result	Dup Result	RPD	Qualifiers
Chemical Oxygen Demand	mg/L	732000 ug/L	722	1	

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QUALITY CONTROL DATA

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

QC Batch: WETA/14436 — Analysis Method: SM 5310B
QC Batch Method: SM 5310B — Analysis Description: 5310B TOC
Associated Lab Samples: 92145912006, 92145912007

METHOD BLANK: 916150 — Matrix: Water
Associated Lab Samples: 92145912006, 92145912007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	<1.0	1.0	02/05/13 17:01	

LABORATORY CONTROL SAMPLE: 916151

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	24.2	97	90-110	

MATRIX SPIKE SAMPLE: 916154

Parameter	Units	92146383007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	33.8	25	45.4	46	75-125	M1

MATRIX SPIKE SAMPLE: 916193

Parameter	Units	92145912006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	25	27.9	106	75-125	

SAMPLE DUPLICATE: 916155

Parameter	Units	92146383008 Result	Dup Result	RPD	Qualifiers
Total Organic Carbon	mg/L	13.8	13.7	1	

SAMPLE DUPLICATE: 916194

Parameter	Units	92145912007 Result	Dup Result	RPD	Qualifiers
Total Organic Carbon	mg/L	<1.0	<1.0		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PPG SHELBY 1354-11-137
Pace Project No.: 92145912

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92145912001	MW-2	EPA 200.7	MPRP/12480	EPA 200.7	ICP/11398
92145912002	MW-3	EPA 200.7	MPRP/12480	EPA 200.7	ICP/11398
92145912003	MW-4	EPA 200.7	MPRP/12480	EPA 200.7	ICP/11398
92145912004	MW-5	EPA 200.7	MPRP/12480	EPA 200.7	ICP/11398
92145912005	MW-6	EPA 200.7	MPRP/12480	EPA 200.7	ICP/11398
92145912006	MW-7	EPA 200.7	MPRP/12480	EPA 200.7	ICP/11398
92145912007	EQ-1	EPA 200.7	MPRP/12480	EPA 200.7	ICP/11398
92145912001	MW-2	SM 2540C	WET/23961		
92145912002	MW-3	SM 2540C	WET/23961		
92145912003	MW-4	SM 2540C	WET/23961		
92145912004	MW-5	SM 2540C	WET/23961		
92145912005	MW-6	SM 2540C	WET/23961		
92145912006	MW-7	SM 2540C	WET/23961		
92145912007	EQ-1	SM 2540C	WET/23961		
92145912001	MW-2	SM 5210B	WET/23937	SM 5210B	WET/23939
92145912002	MW-3	SM 5210B	WET/23937	SM 5210B	WET/23939
92145912003	MW-4	SM 5210B	WET/23937	SM 5210B	WET/23939
92145912004	MW-5	SM 5210B	WET/23937	SM 5210B	WET/23939
92145912005	MW-6	SM 5210B	WET/23937	SM 5210B	WET/23939
92145912006	MW-7	SM 5210B	WET/23937	SM 5210B	WET/23939
92145912007	EQ-1	SM 5210B	WET/23937	SM 5210B	WET/23939
92145912001	MW-2	EPA 300.0	WETA/14394		
92145912002	MW-3	EPA 300.0	WETA/14394		
92145912003	MW-4	EPA 300.0	WETA/14394		
92145912004	MW-5	EPA 300.0	WETA/14394		
92145912005	MW-6	EPA 300.0	WETA/14394		
92145912006	MW-7	EPA 300.0	WETA/14394		
92145912007	EQ-1	EPA 300.0	WETA/14394		
92145912001	MW-2	EPA 353.2	WETA/14343		
92145912002	MW-3	EPA 353.2	WETA/14343		
92145912003	MW-4	EPA 353.2	WETA/14343		
92145912004	MW-5	EPA 353.2	WETA/14343		
92145912005	MW-6	EPA 353.2	WETA/14343		
92145912006	MW-7	EPA 353.2	WETA/14343		
92145912007	EQ-1	EPA 353.2	WETA/14352		
92145912001	MW-2	SM 4500-Cl-E	WETA/14407		
92145912002	MW-3	SM 4500-Cl-E	WETA/14407		
92145912003	MW-4	SM 4500-Cl-E	WETA/14439		
92145912004	MW-5	SM 4500-Cl-E	WETA/14439		
92145912005	MW-6	SM 4500-Cl-E	WETA/14439		
92145912006	MW-7	SM 4500-Cl-E	WETA/14439		
92145912007	EQ-1	SM 4500-Cl-E	WETA/14439		
92145912001	MW-2	SM 5220D	WETA/14416		
92145912002	MW-3	SM 5220D	WETA/14416		
92145912003	MW-4	SM 5220D	WETA/14416		

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

1671039

Section A Required Client Information:

Company: S&ME, Inc.
Address: 9751 Southern Pine Blvd, Charlotte NC 28273
Email To: aquarles@smeinc.com
Phone: 704-523-4726 Fax:
Requested Due Date/TAT: Stnd

Section B Required Project Information:

Report To: Al Quarles
Copy To:
Purchase Order No.: 57911
Project Name: PPG Shelby
Project Number: 1354-11-137

Section C Invoice Information:

Attention: Barbara Ellington
Company Name: S&ME
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 898-23

REGULATORY AGENCY: ☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Requested Analysis Filtered (Y/N)

Section D Required Client Information

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other Phosphorus	Analysis Test Y/N	RCRA Metals 200.7	Chloride	Nitrate	Nitrite	BOD	TOC	TDS	COD	SO4				Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																			✓	✓	✓	✓	✓	✓	✓	✓	✓					Metals: Ba, Cd, Cr, Cu, Fe, Pb, Mn 92145912
1	MW-2					1/24/13	1000			4	1	1					3		X	X	X	X	X	X	X	X	X					001
2	MW-3					1/25/13	1030			4	1	1					3		X	X	X	X	X	X	X	X	X					002
3	MW-4					1/24/13	1135			4	1	1					3		X	X	X	X	X	X	X	X	X					003
4	MW-5					1/23/13	1535			4	1	1					3		X	X	X	X	X	X	X	X	X					004
5	MW-6					1/23/13	1400			4	1	1					3		X	X	X	X	X	X	X	X	X					005
6	MW-7					1/23/13	1205			4	1	1					3		X	X	X	X	X	X	X	X	X					006
7	EQ-1					1/24/13	1220			4	1	1					3		X	X	X	X	X	X	X	X	X					007
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] S&ME	1/24/13	~~1300~~ 1410	[signature] Pace	1-24-13	1410	2.1	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: COLEMAN MARCHIN
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 1/24/13

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

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