

February 13, 2015

Dr. Montague McPherson
Hazardous Site Response Program
Georgia Department of Natural Resources
2 Martin Luther King Jr. Drive
Suite 1462, East Floyd Tower
Atlanta, Georgia 30334

**Re: VRP Seventh Progress Report (PR-7)
Metalplate Galvanizing Facility
505 Selig Drive SW
Atlanta, Georgia
HSI No. 10204
VRP No. VRP770490616
Tax Parcel 14F-0082-LL-0346
PPM Project No. 494501-PR7**

Dear Dr. McPherson:

Enclosed please find one copy of the VRP Seventh Progress Report for the referenced site. Also enclosed and included as an appendix to the progress report, is the Annual Groundwater Monitoring and Surface Water Monitoring/Corrective Action Effectiveness Report.

If you have any questions or need additional information please do not hesitate to contact me at (205) 836-5650.

Sincerely,
PPM Consultants, Inc.



Michael W. Dillon, P.G.
Project Manager/Senior Geologist

- c: Adam Brown, Metalplate Galvanizing, L.P.
Ernest Cain, Metalplate Galvanizing, L.P.
Paul Lynes, Paul Lynes, LLC
Bob Mowrey, Mowrey, Meezan, Coddington, Cloud, LLP
Max Zygmunt, Mowrey, Meezan, Coddington, Cloud, LLP
Tom Schmittou, Newfields, LLC

VRP Seventh Progress Report
(PR-7)

Metalplate Galvanizing Facility
505 Selig Drive, SW
Atlanta, Fulton County, Georgia 30336

HSI No. 10204

Tax Parcel 14F-0082-LL-0346

Submitted:

February 14, 2015

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CERTIFICATION

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction.



1.0 INTRODUCTION

1.1 Executive Summary

As a result of discussions between EPD and Metalplate Galvanizing, L.P. (Metalplate) regarding the company's commitment to install an industry-leading, state-of-the-art stormwater treatment system, and that system's potential impact on the appropriate timing of VRP-related obligations (see PR-6, § 1.1), Metalplate and EPD entered a Consent Order revising and extending VRP milestones through February 14, 2019. The Consent Order became effective on September 4, 2014. This Progress Report (PR-7) addresses surface and groundwater sampling developments, as well as changes in the stormwater management system of the Metalplate facility, since PR-6.

1.2 General Introduction

Metalplate received approval for the Voluntary Investigation and Remediation Plan and Application from the Georgia Environmental Protection Division (EPD) on February 14, 2011.

The purpose of each progress report is to describe actions taken since the last submittal. The background of the site, including site location, surrounding area, site description, and site history are documented in the groundwater monitoring report, Appendix B.

2.0 ACTIONS TAKEN SINCE LAST SUBMITTAL

2.1 Consent Order

Consent Order EPD-VRP-010 was finalized upon the Director's signature on September 4, 2014. Under the Consent Order, the following schedule applies:

- Progress Reports are due annually on February 14 of each year.
- Surface water sampling and groundwater sampling will be conducted annually with measurements of each relative elevation taken at the time of each sampling event.
- IGP storm water effluent limits effective August 22, 2015.
- Sediment evaluation due with PR-8, February 14, 2016.
- Final Remediation and Implementation Plan due with PR-9, February 14, 2017.
- Evaluation of Corrective Action progress due with PR-10, February 14, 2018.
- Certification of compliance with all applicable standards due with VRP CSR, February 14, 2019.

See Appendix A.

2.2 Surface Water and Groundwater Sampling Report, dated February 13, 2015

The conclusions of the surface water and groundwater monitoring/corrective action effectiveness report, February 13, 2015, are:

- Groundwater flow at the site is generally toward the southeast with a hydraulic gradient of approximately 0.035 feet per foot and a flow velocity of approximately 60.8 feet per year.

- During the October 2014 groundwater monitoring event total zinc concentrations did not exceed the Type 4 RRS for groundwater (31 mg/L).
- Concentrations of total zinc in groundwater in the upgradient portion of the plume (MW-7) have decreased following corrective action at the site, and the concentrations have remained relatively stable and below Type 4 RRS for the last five years. Total zinc concentrations have increased slightly at MW-2 and MW-13D since corrective action but have remained below the Type 4 RRS with the exception of concentrations at MW-2 on two occasions (April 2010 and April 2012).
- In November, 2014, EPD communicated through Metalplate's groundwater contractor, PPM, that certain data supplied by the owner of an uphill property adjacent to and east of the Metalplate property may be useful in updating the CSM and in determining future placement of the well requested in comment 8 of EPD's February 14, 2011 letter. Metalplate will consider that data as suggested, in particular for determining well placement. By considering the data for that purpose, Metalplate is not admitting knowledge regarding the source of the substances reflected in the data, as Metalplate lacks sufficient information on the activities of the adjacent owner to make any such conclusion.
- The Lower South Ditch functions as a groundwater divide and Selig Pond functions as a surface impoundment.
- Concentrations of dissolved zinc detected in surface water were above calculated acute ISWQS's in surface water samples. Such samples were collected prior to installation and start-up of the stormwater treatment system discussed below and thus the data does not yet reflect any positive effects that system may have.
- Effectiveness of the corrective action will continue to be monitored during annual sampling events.

See Appendix B.

2.3 Installation of Stormwater Treatment System

- In October 2014, Metalplate installed an electrocoagulation system for the treatment of stormwater at the facility.
- Preliminary results of the effluent since startup indicate the treatment system is effectively and significantly reducing the dissolved zinc in the discharged stormwater, resulting in levels below the calculated benchmarks.

3.0 RESPONSE TO CONDITIONS IN THE APPROVAL LETTER, FEBRUARY 14, 2011. As described in PR-6, this and future progress reports will omit comments that have been resolved or completed.

3.1 Cost Estimate and Financial Assurance (Condition 1)

See Section 2.2.5 of PR-5.

3.2 Outstanding Items from EPD Comment Letter dated February 14, 2011 (Condition 2)

The following addresses outstanding items contained in EPD's comment letter of February 14, 2011.

- 3.2.1 Conceptual Site Model, Surface water data (Item 2) – See PR-4, Section 2.1; PR-3, Section 2.3 and PR-6 Section 3.2.2.
- 3.2.2 Conceptual Site Model, Impact of contaminated groundwater on surface water concentrations (Item 3) – See PR-4, Sections 2.1 and 2.3, and PR-6, Section 3.2.3. Under the Consent Order schedule, this item is due in connection with the 2016 Progress Report.
- 3.2.3 Soil, continuation with corrective action on tax parcel ID 14-0059-LL-017, Aston Investment Property (Item 4) – See PR-6, Section 3.2.4; PR-5, Section 2.2.6; PR-4, Section 2.4.6; PR-3, Section 2.1.6.
- 3.2.4 Groundwater, additional monitoring well in the vicinity of the detention basin (Item 8) – Metalplate is modifying its storm water management pond system as part of its strategy to improve the quality of its storm water discharge. When the modifications are complete, the potential for such a monitoring well will be evaluated.

3.3 Payment of Fees (Condition 4)

Metalplate has paid all outstanding fees within sixty days of receipt of an invoice for any costs to the division in reviewing the application or subsequent document that exceeds the initial application fee. The last invoice was paid on October 31, 2014 for the amount of \$75.00.

3.4 Investigation of Aston property (Condition 5) – See PR-6, Section 3.5.

4.0 STATUS OF FUTURE REQUIREMENTS

- 4.1 Progress reports annually through February 14, 2019.
- 4.2 Finalize the remediation plan and provide a cost estimate for implementation of remediation and associated continuing actions. See Table 2.
- 4.3 February 14, 2019 - Compliance status report including certifications.

5.0 PROJECT SCHEDULE

A copy of the current project schedule is included in Table 2.

6.0 COST SUMMARY

6.1 VRP Cost

Table 1 summarizes the monthly invoiced services related to the VRP as follows:

VRP effort prior to approval (pre February 2011)	\$ 46,321.07
VRP project since approval (post February 2011)	<u>\$ 342,813.92</u>
Total VRP-related Cost	\$ 389,134.99

6.2 Total Project Cost

The total project cost to date (Initial HSI listing through January 31, 2015)	\$ 1,031,136.42
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TABLES

TABLE 1
SUMMARY OF INVOICED SERVICES

Table 1
Metalplate Galvanizing Facility
Cost Summary as of January 31, 2015

Month/Yr	Engineering/ Testing	Legal	Administrative (EPD)		
February-10	\$270.00	\$0.00	\$0.00		
March-10	\$0.00	\$1,827.50	\$0.00		
April-10	\$0.00	\$127.50	\$0.00		
May-10	\$0.00	\$297.50	\$0.00		
June-10	\$0.00	\$1,105.00	\$0.00		
July-10	\$13,792.75	\$7,737.50	\$0.00		
August-10	\$2,012.84	\$7,225.00	\$761.72		
September-10	\$598.03	\$319.17	\$761.72		
October-10	\$598.03	\$319.17	\$761.72		
November-10	\$598.03	\$319.17	\$761.72		
December-10	\$733.03	\$2,550.00	\$761.72		
January-11	\$598.03	\$722.50	\$761.72		
February-11	\$4,511.36	\$3,976.25	\$761.72	VRP application (pre-approval)	TOTAL
March-11	\$11,788.22	\$3,976.25	\$761.72	February 2010 - January 2011	\$46,321.07
April-11	\$32,289.66	\$5,716.46	\$0.00		
May-11	\$19,003.59	\$10,322.50	\$0.00		
June-11	\$2,010.00	\$3,488.75	\$0.00		
July-11	\$2,160.00	\$0.00	\$0.00		
August-11	\$15,638.23	\$4,707.50	\$0.00		
September-11	\$2,913.51	\$7,052.24	\$75.00		
October-11	\$4,399.51	\$9,980.95	\$225.00		
November-11	\$10,182.56	\$6,552.50	\$225.00		
December-11	\$2,621.82	\$0.00	\$225.00		
January-12	\$1,302.50	\$430.00	\$28.13		
February-12	\$2,101.03	\$632.50	\$28.13		
March-12	\$945.00	\$1,310.00	\$28.13		
April-12	\$12,260.35	\$2,177.50	\$28.13		
May-12	\$3,078.60	\$82.50	\$581.25		
June-12	\$8,595.00	\$4,231.35	\$581.25		
July-12	\$10,650.00	\$4,231.35	\$581.25		
August-12	\$17,828.71	\$5,458.55	\$581.25		
September-12	\$2,222.50	\$0.00	\$305.77		
October-12	\$25.00	\$0.00	\$305.77		
November-12	\$0.00	\$0.00	\$305.77		
December-12	\$0.00	\$330.00	\$305.77		
January-13	\$1,244.33	\$275.00	\$305.77		
February-13	\$21,794.86	\$7,135.00	\$305.77		
March-13	\$4,995.00	\$0.00	\$305.77		
April-13	\$0.00	\$0.00	\$305.77		
May-13	\$270.00	\$0.00	\$305.77		
June-13	\$135.00	\$0.00	\$305.77		
July-13	\$0.00	\$2,197.50	\$305.77		
August-13	\$1,147.50	\$860.00	\$305.77		
September-13	\$7,482.40	\$5,345.00	\$305.77		
October-13	\$1,012.50	\$226.47	\$912.50		
November-13	\$135.00	\$2,590.00	\$912.50		
December-13	\$4,737.50	\$1,077.50	\$912.50		
January-14	\$337.50	\$4,340.00	\$212.50		
February-14	\$10,082.43	\$1,677.00	\$212.50		
March-14	\$0.00	\$0.00	\$212.50		
April-14	\$0.00	\$192.50	\$212.50		
May-14	\$0.00	\$2,508.50	\$212.50		
June-14	\$0.00	\$2,171.50	\$212.50		
July-14	\$0.00	\$532.50	\$25.00		
August-14	\$0.00	\$0.00	\$25.00		
September-14	\$3,511.19	\$349.00	\$25.00		
October-14	\$0.00	\$0.00	\$0.00		
November-14	\$0.00	\$0.00	\$0.00		
December-14	\$0.00	\$88.50	\$0.00	VRP Project (post-approval)	TOTAL
January-15	\$405.00	\$0.00	\$0.00	February 2011 - January 2015	\$342,813.92

Total VRP-Related Cost	\$389,134.99
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Project Cost From Initial HSI Listing (1994) thru Jan '15	TOTAL \$1,031,136.42
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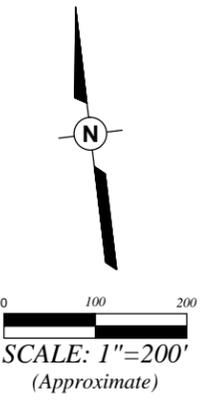
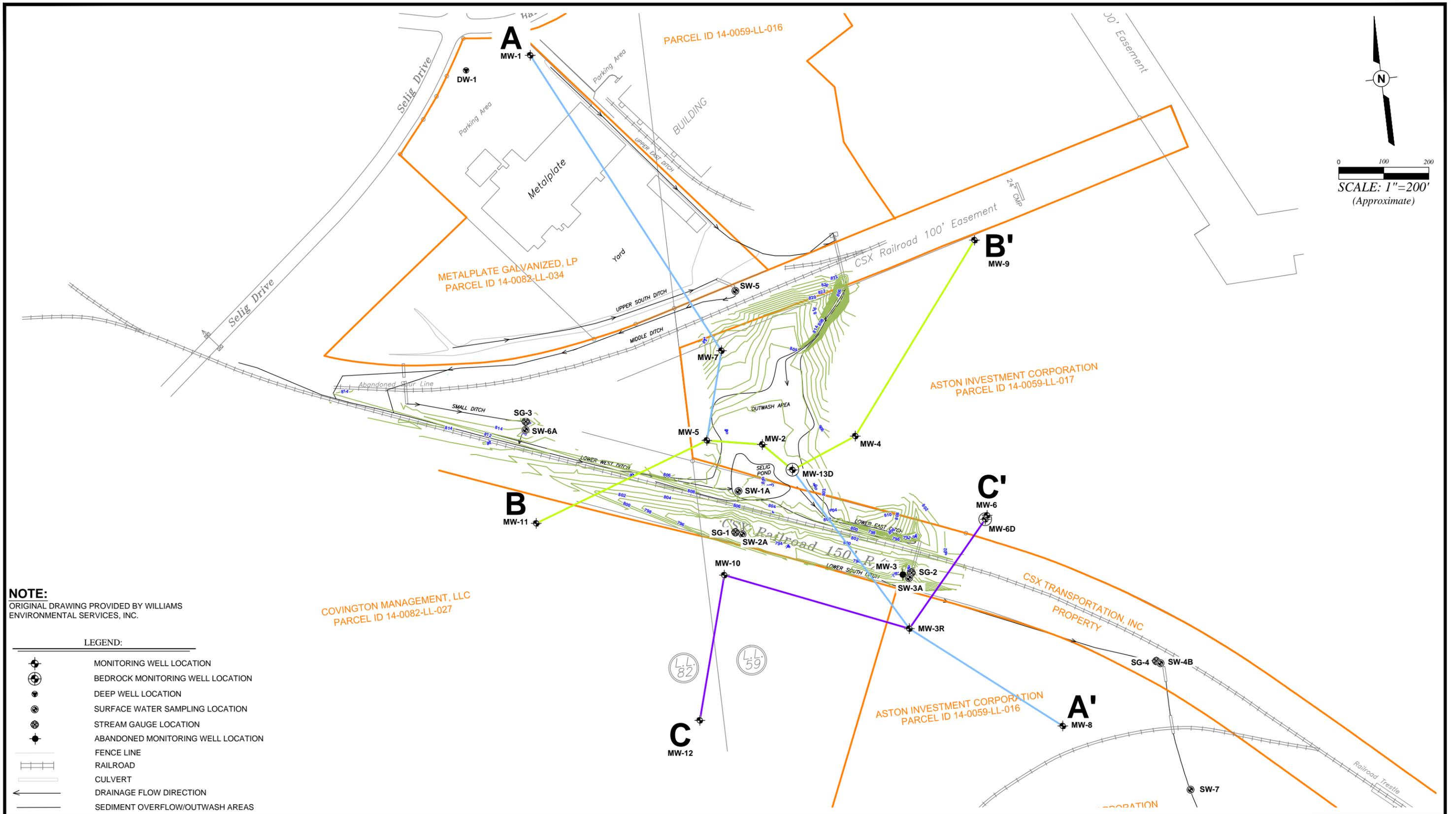
TABLE 2
PROJECT SCHEDULE

Attachment A
Updated VIRP Milestone Schedule
Metalplate Galvanizing Facility, HSI 10204
May 13, 2014

Projected Date	Area	Action
May 2014	Sampling	Limited sampling; surface water sampling and surface water / groundwater elevation measurements (No groundwater sampling).
October 2014	Sampling	Groundwater and surface water sampling with groundwater / surface water elevation measurements. (Final groundwater and surface water sampling event before start-up date of storm water treatment system.)
February 14, 2015	VRP	Progress Report (PR-7). Should include May and October 2014 sampling events.
April 2015	VRP	Sediment evaluation as per CSM in PR-4.
August 22, 2015	SW	IGP SW Effluent limit requirements effective.
October 2015	Sampling	Post Implementation Sampling Event #1 (groundwater and surface water sampling with elevation measurements).
February 14, 2016	VRP	(PR-8). Should include results of sediment evaluation.
October 2016	Sampling	Post Implementation Sampling Event #2 (groundwater and surface water sampling with elevation measurements).
February 14, 2017	VRP	(PR-9). Should include and evaluation of Corrective Action and submittal of Final Remediation and Implementation Plan.
October 2017	Sampling	Post Implementation Sampling Event #3 (groundwater and surface water sampling with elevation measurements).
February 14, 2018	VRP	(PR-10). Should include and evaluation of Corrective Action progress.
October 2018	Sampling	Post Implementation Sampling Event #4.
February 14, 2019	VRP-CSR	Submittal of VRP CSR certifying compliance with applicable VRP standards.

- Post-Implementation sampling and reporting schedule subject to the effectiveness of the stormwater treatment system and sediment / groundwater evaluation results. If, prior to February 2017, the data clearly and convincingly shows that additional corrective action will be necessary, the Final Remedial Plan submittal date shall be moved up accordingly.

FIGURES



NOTE:
 ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.

LEGEND:

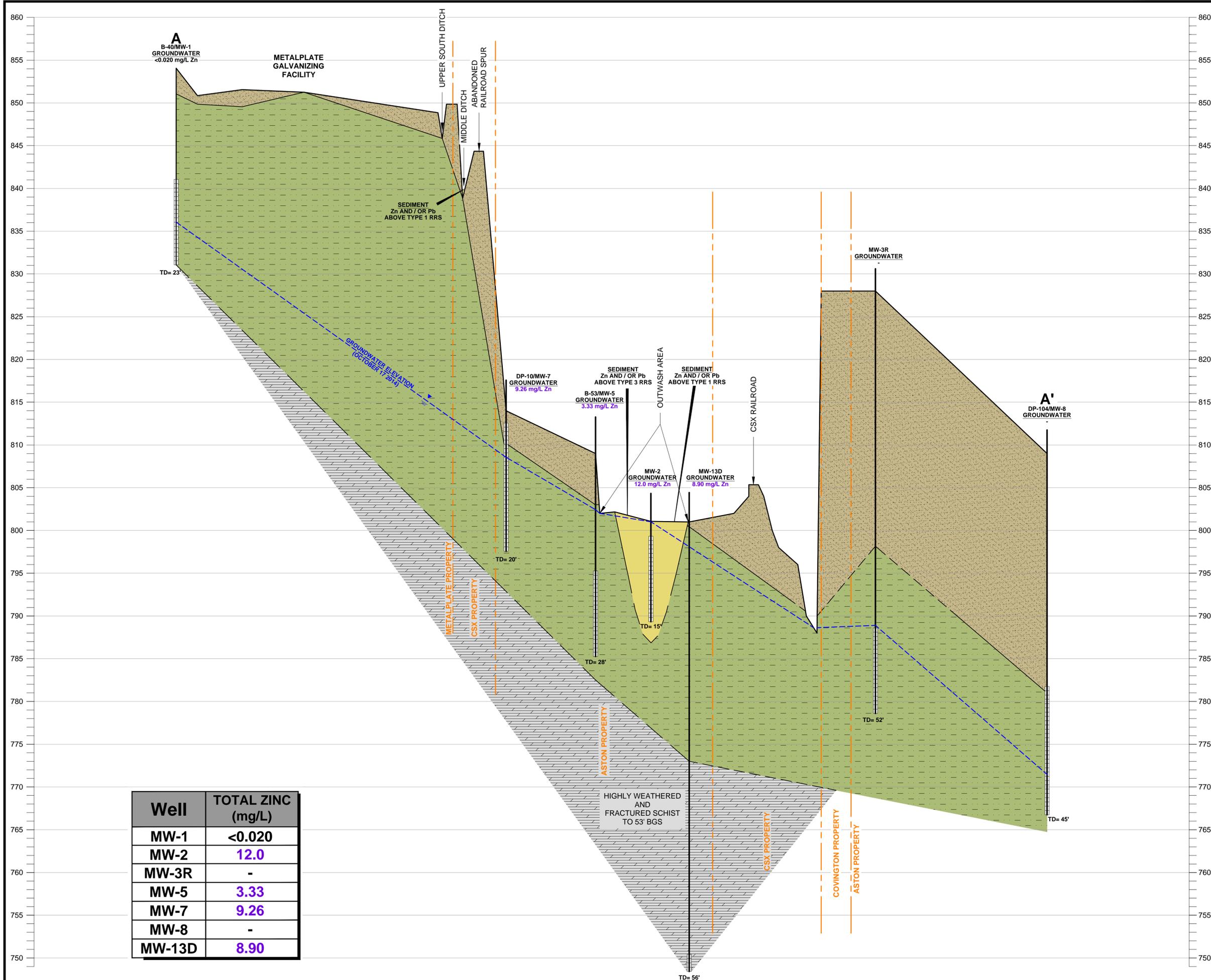
	MONITORING WELL LOCATION
	BEDROCK MONITORING WELL LOCATION
	DEEP WELL LOCATION
	SURFACE WATER SAMPLING LOCATION
	STREAM GAUGE LOCATION
	ABANDONED MONITORING WELL LOCATION
	FENCE LINE
	RAILROAD
	CULVERT
	DRAINAGE FLOW DIRECTION
	SEDIMENT OVERFLOW/OUTWASH AREAS

PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 02/03/15
PROJECT NUMBER: 494501	BILLING GROUP: PR7

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

SITE MAP

FIGURE NUMBER
1



Well	TOTAL ZINC (mg/L)
MW-1	<0.020
MW-2	12.0
MW-3R	-
MW-5	3.33
MW-7	9.26
MW-8	-
MW-13D	8.90

Notes:
 1. UPPER CONTACT LINES SHOW GENERALIZED SURFACE TOPOGRAPHY.
 2. REFER TO FIGURE 1 FOR LOCATION OF CROSS-SECTION LINES.

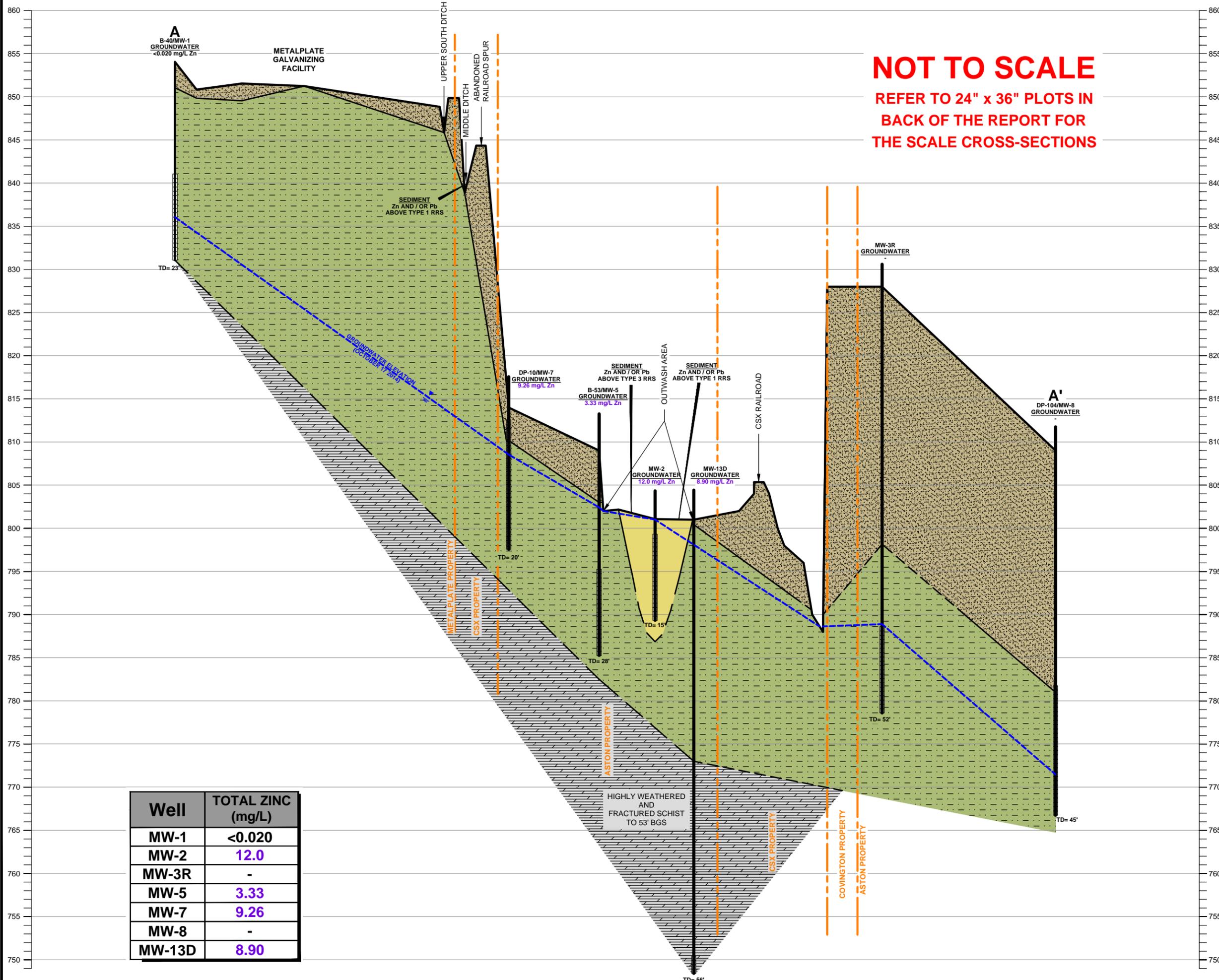
LEGEND:

- B-40/MW-1** SOIL BORING/MONITORING WELL LOCATION
- SEDIMENT
- NATURAL UNCONSOLIDATED SOIL OR FILL MATERIAL
- CLAYEY SILT SAPROLITE
- BEDROCK
- TD= 23'** TOTAL DEPTH (ft.)
- 9.26 mg/L Zn PURPLE CONCENTRATION INDICATES ABOVE TYPE 3 RRS
- SCREENED INTERVAL
- RRS** RISK REDUCTION STANDARD

*HORIZ. SCALE: 1"=100'
 VERT. SCALE: 1"=5'
 VERT. EXAGGERATION: x20*

METALPLATE GALVANIZING, L.P.
 METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

CONCEPTUAL SITE MODEL - CROSS-SECTION A-A'



NOT TO SCALE
 REFER TO 24" x 36" PLOTS IN
 BACK OF THE REPORT FOR
 THE SCALE CROSS-SECTIONS

Well	TOTAL ZINC (mg/L)
MW-1	<0.020
MW-2	12.0
MW-3R	-
MW-5	3.33
MW-7	9.26
MW-8	-
MW-13D	8.90

Notes:
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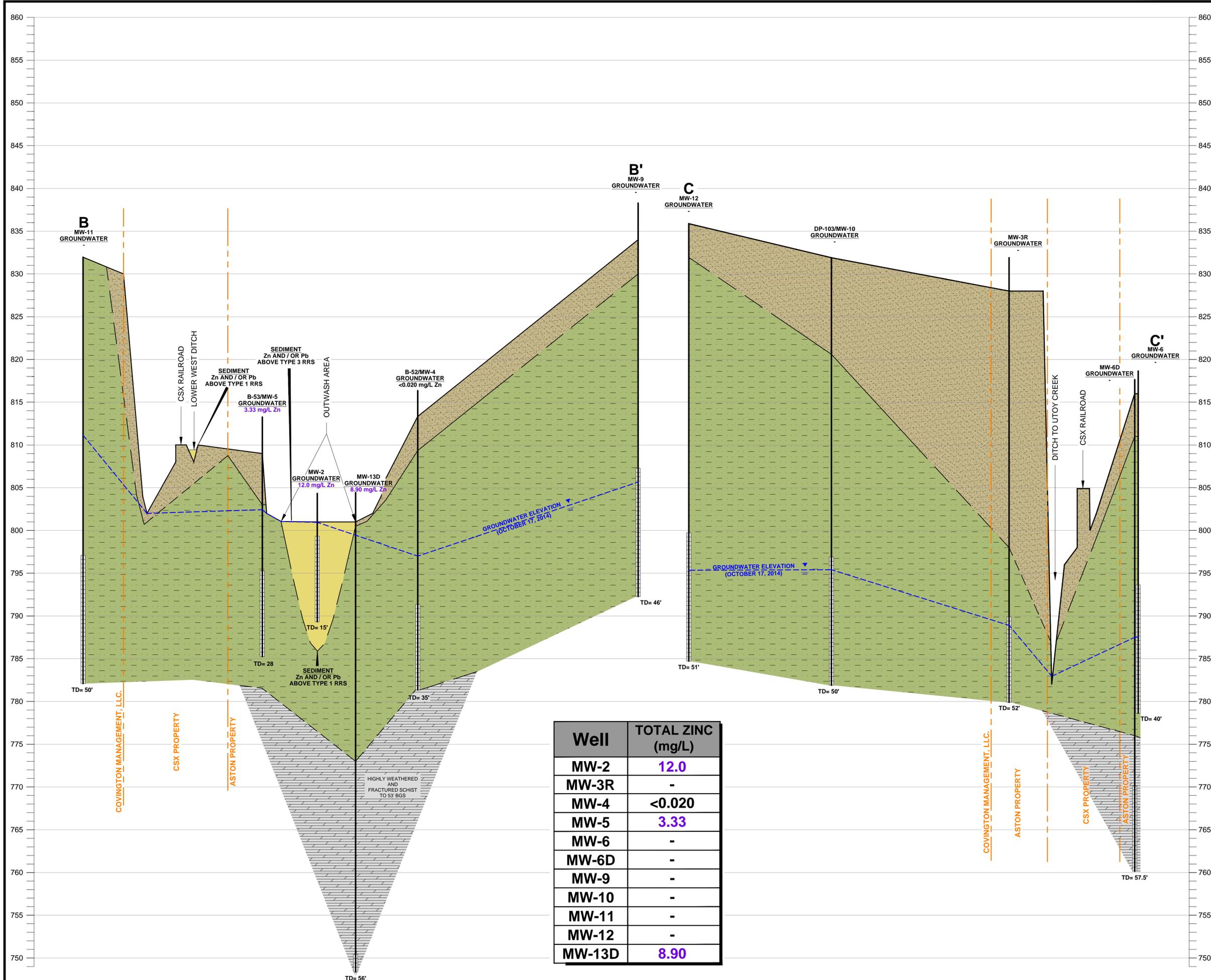
LEGEND:

- B-40/MW-1 SOIL BORING/MONITORING WELL LOCATION
- SEDIMENT
- NATURAL UNCONSOLIDATED SOIL OR FILL MATERIAL
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HORIZ. SCALE: 1"=100'
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 VERT. EXAGGERATION: x20

METALPLATE GALVANIZING, L.P.
 METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

CONCEPTUAL SITE MODEL - CROSS-SECTION A-A'



Notes:
 1. UPPER CONTACT LINES SHOW GENERALIZED SURFACE TOPOGRAPHY.
 2. REFER TO FIGURE 1 FOR LOCATION OF CROSS-SECTION LINES.

LEGEND:

- MW-11 MONITORING WELL LOCATION
- SEDIMENT
- NATURAL UNCONSOLIDATED SOIL OR FILL MATERIAL
- CLAYEY SILT SAPROLITE
- BEDROCK
- TD= 50' TOTAL DEPTH (ft.)
- 15.7 mg/L Zn PURPLE CONCENTRATION INDICATES ABOVE TYPE 3 RRS
- SCREENED INTERVAL
- RRS RISK REDUCTION STANDARD

HORIZ. SCALE: 1"=100'
 VERT. SCALE: 1"=5'
 VERT. EXAGGERATION: x20

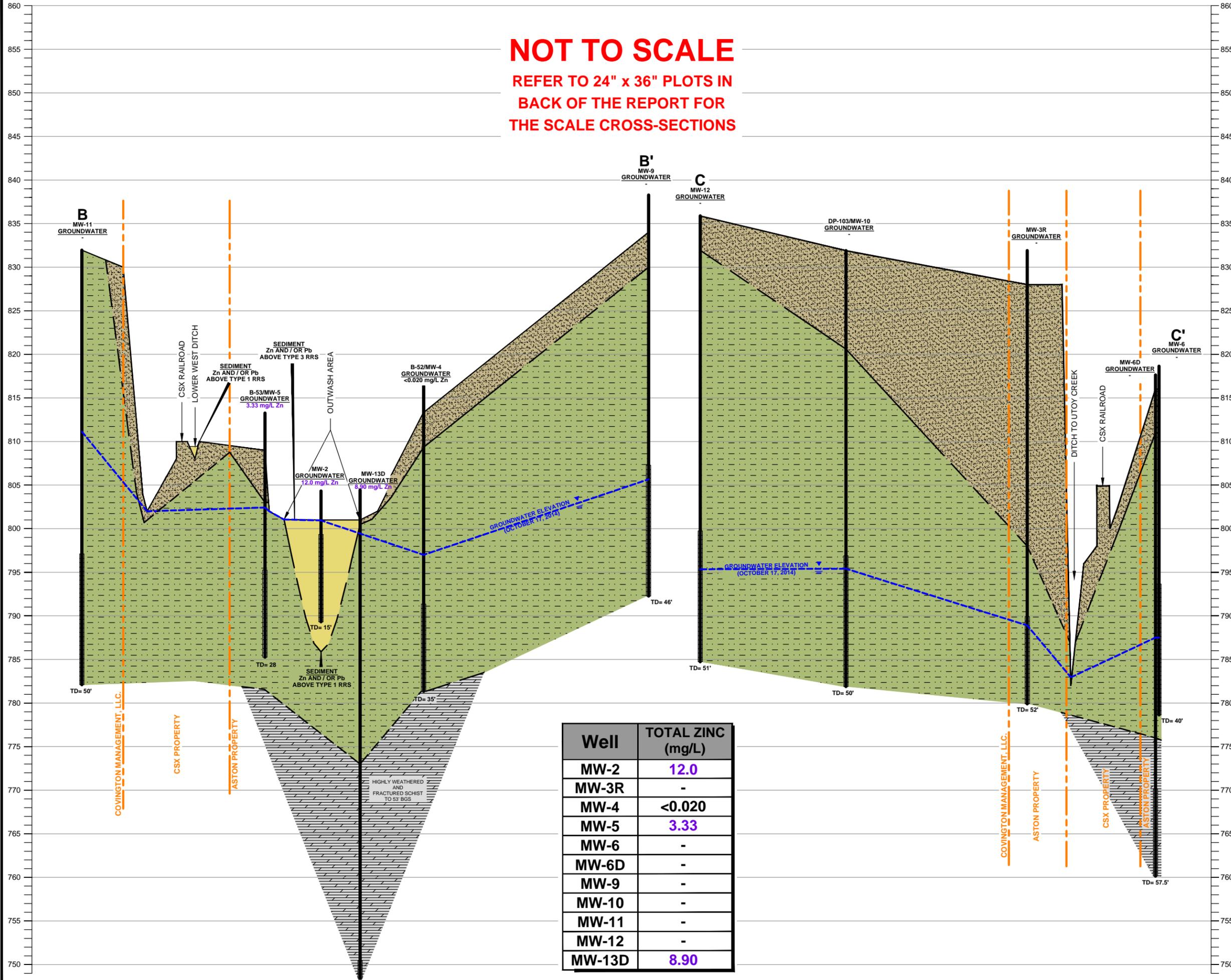
METALPLATE GALVANIZING, L.P.
 METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

CONCEPTUAL SITE MODEL - CROSS-SECTION B-B' AND C-C'

Well	TOTAL ZINC (mg/L)
MW-2	12.0
MW-3R	-
MW-4	<0.020
MW-5	3.33
MW-6	-
MW-6D	-
MW-9	-
MW-10	-
MW-11	-
MW-12	-
MW-13D	8.90

NOT TO SCALE

**REFER TO 24" x 36" PLOTS IN
BACK OF THE REPORT FOR
THE SCALE CROSS-SECTIONS**



Notes:
 1. UPPER CONTACT LINES SHOW GENERALIZED SURFACE TOPOGRAPHY.
 2. REFER TO FIGURE 1 FOR LOCATION OF CROSS-SECTION LINES.

LEGEND:

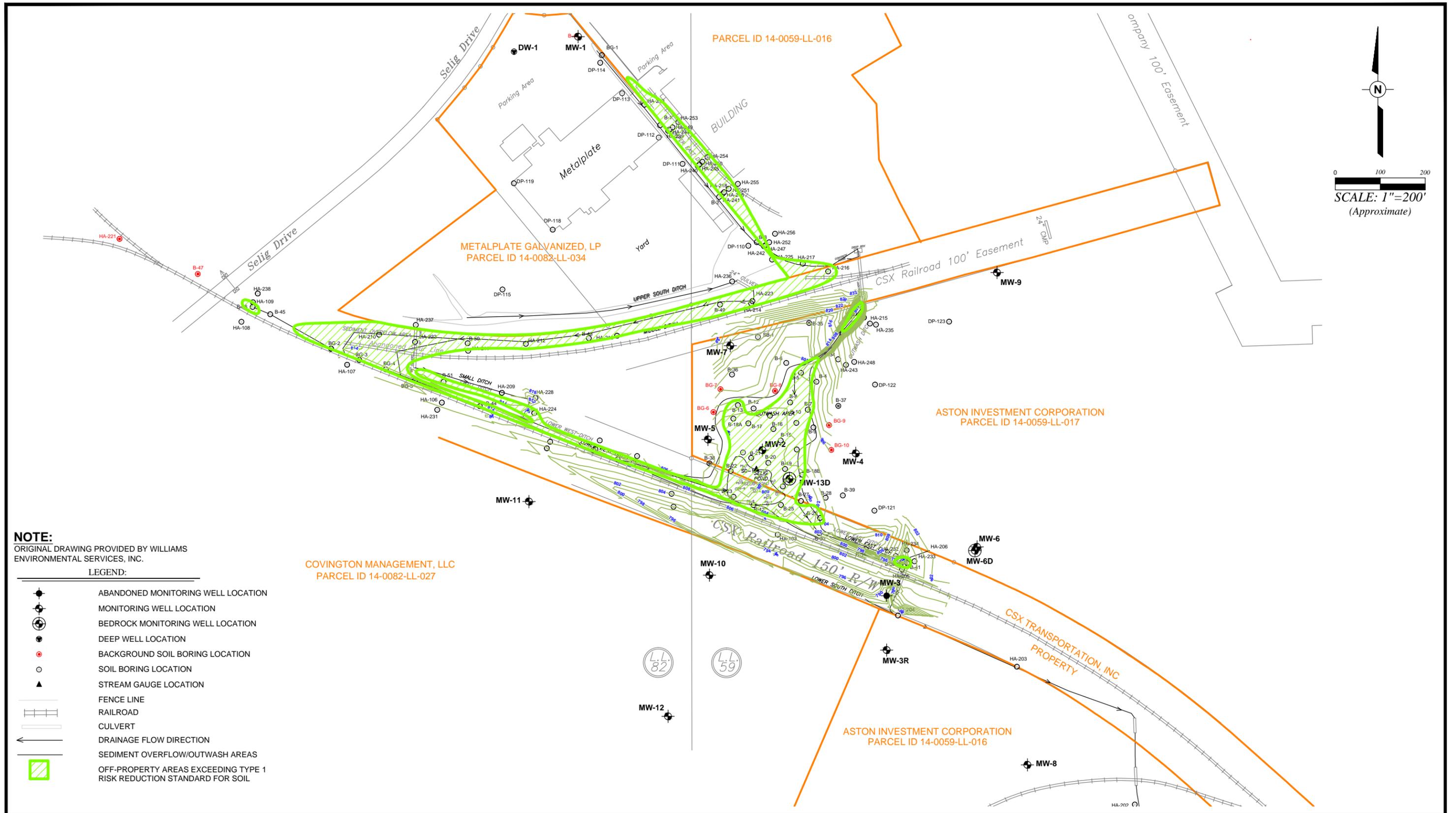
- MW-11 MONITORING WELL LOCATION
- SEDIMENT
- NATURAL UNCONSOLIDATED SOIL OR FILL MATERIAL
- CLAYEY SILT SAPROLITE
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- TD= 50' TOTAL DEPTH (ft.)
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HORIZ. SCALE: 1"=100'
 VERT. SCALE: 1"=5'
 VERT. EXAGGERATION: x20

METALPLATE GALVANIZING, L.P.
 METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

**CONCEPTUAL SITE MODEL -
CROSS-SECTION B-B' AND C-C'**

Well	TOTAL ZINC (mg/L)
MW-2	12.0
MW-3R	-
MW-4	<0.020
MW-5	3.33
MW-6	-
MW-6D	-
MW-9	-
MW-10	-
MW-11	-
MW-12	-
MW-13D	8.90

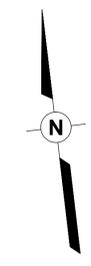


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DRAWN BY: BWH	DRAWN DATE: 02/03/15
PROJECT NUMBER: 494501	BILLING GROUP: PR7

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

OFF-PROPERTY AREAS EXCEEDING TYPE 1 RRS FOR SOIL

FIGURE NUMBER
4



NOTES:
 1. ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.
 2. POTENTIOMETRIC SURFACE NOT CONTOURED FOR BEDROCK WELLS.

- LEGEND:**
- MONITORING WELL LOCATION
 - BEDROCK MONITORING WELL LOCATION
 - DEEP WELL LOCATION
 - STREAM GAUGE LOCATION
 - ABANDONED MONITORING WELL LOCATION
 - 801.01** GROUNDWATER ELEVATION (ft.)
 - 775.00** GROUNDWATER ELEVATION CONTOUR (ft.)
 - GROUNDWATER FLOW DIRECTION

REVISION HISTORY	
DATE	DESCRIPTION

DRAWN BY: _____
 APPROVED: _____
 ENGINEER'S SEAL

GROUNDWATER / SURFACE WATER
 ELEVATION MAP
 (OCTOBER 17, 2014)

PPM PPM CONSULTANTS, INC.
 www.ppmco.com

METALPLATE GALVANIZING, L.P.
 METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

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DRAWING SCALE
 1" = 100'

PROJECT NUMBER 494501	FIGURE NUMBER 5
BILLING GROUP PR7	



- NOTES:**
1. ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.
 2. POTENTIOMETRIC SURFACE NOT CONTOURED FOR BEDROCK WELLS.

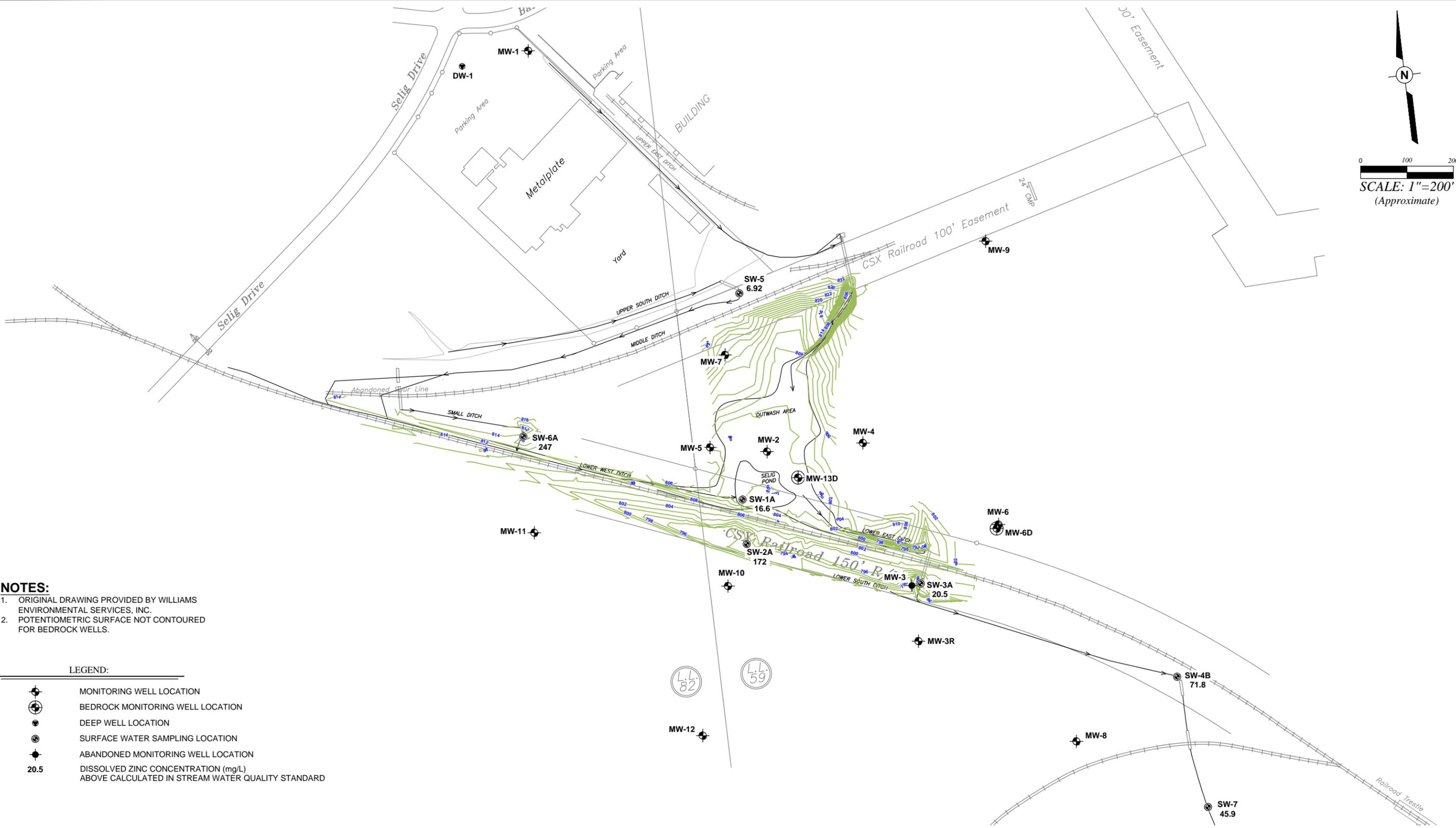
- LEGEND:**
- MONITORING WELL LOCATION
 - BEDROCK MONITORING WELL LOCATION
 - DEEP WELL LOCATION
 - SURFACE WATER SAMPLING LOCATION
 - ABANDONED MONITORING WELL LOCATION
 - 0.0209 TOTAL ZINC CONCENTRATION (mg/L)
 - ESTIMATED HORIZONTAL EXTENT OF ZINC IN GROUNDWATER EXCEEDING THE TYPE 1 RRS (2 mg/L)
 - NS NOT SAMPLED

PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 02/03/15
PROJECT NUMBER: 494501	BILLING GROUP: PR7

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

TOTAL ZINC ISOCONCENTRATION MAP - GROUNDWATER
 (OCTOBER 17, 2014)

FIGURE NUMBER
6



- NOTES:**
1. ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.
 2. POTENTIOMETRIC SURFACE NOT CONTOURED FOR BEDROCK WELLS.

- LEGEND:**
- ⊕ MONITORING WELL LOCATION
 - ⊕ (with circle) BEDROCK MONITORING WELL LOCATION
 - DEEP WELL LOCATION
 - ⊙ SURFACE WATER SAMPLING LOCATION
 - ⊕ (with circle) ABANDONED MONITORING WELL LOCATION
 - 20.5 DISSOLVED ZINC CONCENTRATION (mg/L) ABOVE CALCULATED IN STREAM WATER QUALITY STANDARD

PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 02/03/15
PROJECT NUMBER: 494501	BILLING GROUP: PR7

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

DISSOLVED ZINC CONCENTRATION MAP - SURFACE WATER
 (OCTOBER 16, 2014)

FIGURE NUMBER
7

APPENDICES

APPENDIX A
CONSENT ORDER
September 4, 2014

Georgia Department of Natural Resources

Environmental Protection Division-Land Protection Branch

2 Martin Luther King, Jr. Dr., Suite 1456, Atlanta, Georgia 30334

Judson H. Turner, Director

(404) 656-4713

SEP 4 2014

VIA E-MAIL AND REGULAR MAIL

Metalplate Galvanizing Corp.
c/o Mr. Adam Brown
500 Selig Drive
Atlanta, Georgia 30336

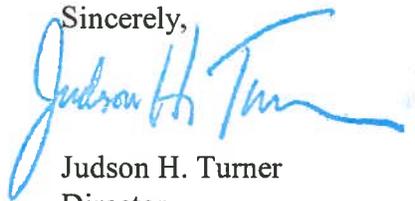
RE: Consent Order No. EPD-VRP-010
Metalplate Galvanizing Facility, HSI # 10204
Atlanta, Fulton County, Georgia

Dear Mr. Brown:

An executed copy of Consent Order EPD-VRP-010 is enclosed. We did not receive comments during the 30-day public comment period; therefore, the order was executed as proposed. The Order enables your continued participation in the Voluntary Investigation and Remediation Program (VIRP) under an extended schedule for corrective action at the site.

Please continue to implement the VIRP Application and Plan in accordance with the revised schedule within the Order. EPD anticipates receipt of the next VIRP Progress Report by February 14, 2015. If you have any questions or concerns, please contact Montague M^cPherson of the Response and Remediation Program at (404) 657-8600.

Sincerely,



Judson H. Turner
Director

Encl: Consent Order EPD-VRP-010

File: HSI # 10204

**STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION**

IN RE:)
Metalplate Galvanizing, L.P.)
505 Selig Drive SW) Consent Order No. EPD-VRP- 010
Atlanta, Georgia 30336)
)
RESPONDENT)

CONSENT ORDER

WHEREAS, *Metalplate Galvanizing, L.P.* (hereinafter the "the Respondent") is the current owner of certain real property on which the Respondent operates a galvanizing facility, located at 505 Selig Drive, Atlanta, Georgia, comprised of approximately 10.5 acres and identified as Tax Parcel ID 14F-0082-LL-0346 (hereinafter the "Property"); and

WHEREAS, the Property is part of the Selig Road Site (HSI No. 10204) (hereinafter the "Site"), as defined in the Georgia Hazardous Site Response Act O.C.G.A. Section 12-8-90 et seq., as amended (hereinafter "HSR Act") and the Rules promulgated pursuant thereto (hereinafter "Rules"); and

WHEREAS, there has been a release of zinc and other hazardous wastes or hazardous constituents, as defined in the Georgia Hazardous Waste Management Act, O.C.G.A. Section 12-8-60 et seq., as amended (hereinafter "HWM Act"), on the Site (hereinafter the "Release"); and

WHEREAS, the Director of the Environmental Protection Division, Department of Natural Resources, State of Georgia (hereinafter "Director" and "EPD" respectively) has determined that, with respect to the Release, the Respondent is subject to the provisions of the HSR Act and Rules; and

WHEREAS, the Director determined that there has been a release exceeding a reportable quantity at the Site and subsequently listed the Site on the Hazardous Site Inventory on June 29, 1994; and

WHEREAS, on August 9, 2010, the Respondent submitted to EPD an application, including a Voluntary Investigation and Remediation Plan (hereinafter the "VIRP"), for enrollment of the Property into the Georgia Voluntary Remediation Program (hereinafter the "VRP"), established under the Georgia Voluntary Remediation Program Act, O.C.G.A. Section 12-8-100 et seq., as amended (hereinafter "VRP Act"); and

WHEREAS, on February 14, 2011, EPD approved the VIRP and associated schedule, which provided for the VRP Compliance Status Report (hereinafter "CSR") submission by February 14, 2016; and

WHEREAS, the Respondent has continued to implement corrective action on the Site, including significant efforts to reduce zinc concentrations in stormwater; and

WHEREAS, a policy of the VRP Act is to “. . . encourage the voluntary and timely investigation and remediation of properties. . .”; and

WHEREAS, in order to accomplish that policy, the Director has established a policy that VRP properties shall be in compliance with applicable cleanup standards within five (5) years of enrollment in the VRP; and

WHEREAS, the Respondent has proposed a revised schedule which extends the CSR submittal date and modifies the VRP reporting schedule for the Property; and

WHEREAS, the Respondent has completed delineation of the horizontal and vertical extent of the Release in accordance with the requirements of the VRP Act.

NOW, THEREFORE, it is hereby ORDERED by the Director and CONSENTED to by the Respondent, as follows:

1. Upon execution of this Order, Respondent's VIRP dated August 9, 2010 shall be deemed modified in accordance with the Milestone Schedule included as Attachment A. Under the VRP, and subject to any relevant modifications thereto, the Respondent must comply with the attached schedule for addressing the Release and submission of a compliance status report, subject to modifications and extensions granted in writing by EPD, such modifications and extensions not to be unreasonably denied.
2. Within sixty (60) days after Respondent's receipt from EPD of an invoice for any costs to EPD in reviewing the VRP documents that exceed the initial VRP application fee, the Respondent shall reimburse EPD for such costs, provided the invoice includes a reasonably detailed itemization and justification for those costs.
3. The Respondent and one or more registered professional geologists or engineers shall be responsible to oversee the implementation of the VIRP in accordance with the provisions, purposes, standards, and policies of the VRP Act. EPD may, at its sole discretion, review and comment on documents submitted by the Respondent. However, failure of EPD to respond to a submittal within any timeframe does not relieve the Respondent from complying with the specified schedule, the VRP Act, and this Order.
4. This Order shall terminate if and as of the date the Director concurs under Section 12-8-107(e) of the VRP Act, as amended, with the Respondent's certification that the Site complies with applicable standards.
5. Enrollment of the Property in the VRP shall terminate (hereinafter the "Termination Date") sixty (60) days after either the Director or the Respondent provides written notification to the other party that enrollment of the Property in the VRP is being terminated, as provided in Section 12-8-107(d) of the VRP Act, as amended. As of the Termination Date, the Site shall be subject to the risk reduction standards promulgated at Section 391-3-19-.07 of the Rules for Hazardous Site Response, or such alternate standards as may be approved by the Director. The Respondent shall take those actions necessary to ensure compliance with these standards within a schedule approved by the Director, and shall submit periodic status reports in such format as required by the Director.

6. Unless otherwise provided in this Order, the following notice provisions shall apply:
- a. Notifications, submissions or other communications required by this Order, shall be made in writing and addressed as follows:

As to the Respondent:

Metalplate Galvanizing, L.P.
Attn: Mr. Adam Brown
505 Selig Drive SW
Atlanta, Georgia 30336

As to EPD:

Georgia Environmental Protection Division
Response and Remediation Program
Attn: Program Manager
2 Martin Luther King Jr. Drive, SE, Suite 1054
Atlanta, Georgia 30334

- b. Either party may, by written notice to the other party, change its designated representatives for receipt of notice or its notice address.
 - c. For purposes of the VRP deliverables referenced in Condition 1 hereof, EPD's receipt of a deliverable by the specified milestone due date via U.S. Mail, courier or hand delivery, or EPD's receipt of an electronic transmittal of a copy of the deliverable by the specified milestone due date confirming that the deliverable has been sent via U.S. Mail, courier or hand delivery, shall constitute timely submission of the deliverable under the VRP.
7. The Respondent shall seek access to any property not owned by the Respondent as may be necessary to comply with the terms of this Order. If unable to obtain such access, the Respondent shall notify EPD and such notice shall be considered as notice that the inaccessible property will be addressed in accordance with the HSR Act and Rules.
8. All documents or schedules required by the terms of this Order are, upon approval by the Director, incorporated into this Order. The Respondent shall implement all approved documents. Except as provided in Condition 8, any noncompliance with such approved documents shall be termed noncompliance with this Order.
9. All actions required by this Order, or any approved document shall be conducted in accordance with the schedules prescribed therein, unless there is a delay caused by reasonably unforeseen circumstances beyond the control of the Respondent. Reasonably unforeseen circumstances beyond the control of the Respondent include the following:
- a. Failure to secure timely and necessary federal, state or local approvals or permits to conduct the work, provided that such approvals or permits have been timely and diligently sought;

- b. Judicial or administrative action resulting from third-party litigation which affects the activities covered by this Order and is inconsistent with the terms and conditions of this Order;
- c. Act of God, act of war, insurrection, civil disturbance, flood, fire, explosion, vandalism, contractor or supplier strikes, lockout or bankruptcy, or unanticipated breakage or accident to machinery, equipment, or lines of pipe despite diligent maintenance;

The Respondent shall have the burden of demonstrating that it was rendered unable, wholly or in part, by these delays to carry out its obligations. Financial inability to perform an obligation required by this Consent Order is not in itself a reasonably unforeseen circumstance beyond the control of the Respondent.

- 10. The individual signing this Order for the Respondent is duly authorized to enter into and bind the Respondent to the terms of the Order.

For purposes of enforcement under any applicable State Law, this Order shall be construed as and shall have the same force and effect as a final Order of the Director pursuant to the HSR Act, as amended, the VRP Act, as amended, and the relevant portions of the HWM Act, as amended. By entering into this Order or by taking any action in accordance with this Order, the Respondent does not admit any fact, conclusion of law, or allegation contained in this Order. The Respondent does not admit liability for any purpose, nor admit any liability or responsibility for the conditions at the Site, any allegation of negligence, wrongdoing or fault relating to the Site, or any allegation of wrongful conduct relating to the Site under any federal, state or local laws or regulations.

The Respondent agrees that it is willfully and voluntarily taking the actions set out in the Consent Order to settle and compromise the issues between it and EPD. Without admitting the same, the Respondent waives its rights to assert that EPD lacked authority or jurisdiction to issue this Order.

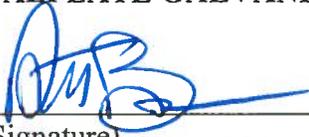
The Respondent agrees that should it be unable to complete the actions as set out in the Consent Order, any actions or expenditures taken by EPD to fulfill the terms set out in this Consent Order shall be accorded the level of deference, if any, otherwise provided by applicable law, and that any legal action challenging these actions or expenditures will be limited to the judicial review of contested agency cases as provided in O.C.G.A. § 50-13-19.

By agreement of the parties, this Order shall be considered final and effective immediately, and the Respondent does hereby waive any right to appeal the terms and conditions of this Order.

This Consent Order shall be signed first by the Respondent and shall be deemed executed when signed by the Director of EPD.

It is so ORDERED, CONSENTED, AND AGREED to this 4th day of Sept, 2014. (to be filled in by the Director upon his signature)

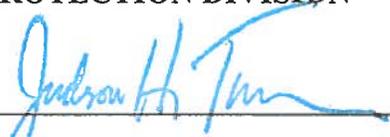
**FOR THE RESPONDENT,
METALPLATE GALVANIZING, L.P.**

By: 
(Signature)
Adam T. Brown
(Printed Name)

TITLE: VP of Technical & Environmental Affairs

DATE: 7-14-14

**FOR THE ENVIRONMENTAL
PROTECTION DIVISION**


Judson H. Turner, Director
Environmental Protection Division
Department of Natural Resources
State of Georgia

Attachment A
Updated VIRP Milestone Schedule
Metalplate Galvanizing Facility, HSI 10204
May 13, 2014

Projected Date	Area	Action
May 2014	Sampling	Limited sampling; surface water sampling and surface water / groundwater elevation measurements (No groundwater sampling).
October 2014	Sampling	Groundwater and surface water sampling with groundwater / surface water elevation measurements. (Final groundwater and surface water sampling event before start-up date of storm water treatment system.)
February 14, 2015	VRP	Progress Report (PR-7). Should include May and October 2014 sampling events.
April 2015	VRP	Sediment evaluation as per CSM in PR-4.
August 22, 2015	SW	IGP SW Effluent limit requirements effective.
October 2015	Sampling	Post Implementation Sampling Event #1 (groundwater and surface water sampling with elevation measurements).
February 14, 2016	VRP	(PR-8). Should include results of sediment evaluation.
October 2016	Sampling	Post Implementation Sampling Event #2 (groundwater and surface water sampling with elevation measurements).
February 14, 2017	VRP	(PR-9). Should include and evaluation of Corrective Action and submittal of Final Remediation and Implementation Plan.
October 2017	Sampling	Post Implementation Sampling Event #3 (groundwater and surface water sampling with elevation measurements).
February 14, 2018	VRP	(PR-10). Should include and evaluation of Corrective Action progress.
October 2018	Sampling	Post Implementation Sampling Event #4.
February 14, 2019	VRP-CSR	Submittal of VRP CSR certifying compliance with applicable VRP standards.

- Post-Implementation sampling and reporting schedule subject to the effectiveness of the stormwater treatment system and sediment / groundwater evaluation results. If, prior to February 2017, the data clearly and convincingly shows that additional corrective action will be necessary, the Final Remedial Plan submittal date shall be moved up accordingly.

Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, SE, Suite 1452 East, Atlanta, Georgia 30334-9000

Environmental Protection Division

Judson H. Turner, Director

Phone: (404) 463-7600

Fax: (404) 651-9329

July 28, 2014

JUL 30 REC'D

Mr. Adam T. Brown
Metalplate Galvanizing, L.P.
505 Selig Drive SW
Atlanta, GA 30336

**RE: Proposed Consent Order
Order No. EPD-VRP-010**

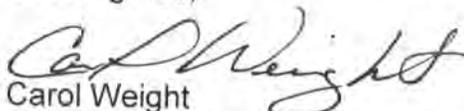
Dear Mr. Brown:

The Environmental Protection Division appreciates your willingness to enter into the referenced proposed consent order.

Since this proposed order falls into the category of orders which must be public noticed prior to execution, EPD today issued public notice on the proposed order. The notice appears on EPD's website and is mailed to those persons who have requested such notices. A copy of the notice is enclosed.

The notice period is scheduled to expire on August 27, 2014. We will review all comments received and will either (1) execute the order exactly as proposed or (2) contact you if we believe the order needs revisions. Of course, since this is proposed as a consent order, we cannot make revisions to the order without your prior consent.

Best regards,



Carol Weight
Public Affairs Coordinator

Enclosure

c: Montague McPherson



Environmental Protection Division

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A Division of the Georgia Department of Natural Resources

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Enforcement

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Enforcement

The Georgia Environmental Protection Division uses enforcement actions to correct serious environmental problems and to bring businesses, individuals and government entities into compliance with environmental laws. The most common enforcement actions are consent orders and administrative orders. The order explains the nature of the problem, details the action necessary to correct the problem and may or may not include a settlement amount or fine.

Proposed Orders (notices that change weekly)

Georgia EPD provides notice and opportunity for public comment on certain proposed administrative consent orders. Notices are posted on this web site weekly, usually on Monday. A thirty-day comment period is provided. Comments, suggestions, hearing requests, and other information (including but not limited to letters, documents, photos and videos) should be mailed to the address shown in the notice.

Executed Orders (notices that change weekly)

Georgia EPD issues a notice of fully executed administrative orders and fully executed administrative consent orders issued by the director. The list is posted on this web page weekly, usually on Monday.

[Search Enforcement Orders \(search all orders since June 15, 1998\)](#)

Mail Subscriptions

Mail subscriptions to these notices are available at a cost of \$50 per year. That fee provides the subscriber with all notices of proposed and executed orders issued from July 1 through June 30 of the following year. For information about subscriptions, call Georgia EPD at (404) 657-5947 inside the Atlanta calling area or toll-free within Georgia at (888) 373-5947.

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PROPOSED ORDERS

PUBLIC NOTICE. The Georgia Environmental Protection Division is providing public notice of the following proposed orders;

Under authority of the Hazardous Waste Management Act :

Facility: Lafarge Road Marking, Inc./East Point
Location: Fulton County
Order Number: EPD-VRP-009
Cause of Order: Replacing enforcement order HW-562 issued under HWMA; to allow enrollment of property in the Voluntary Investigation & Remediation Program and establish implementation schedule for corrective action
Requirement(s) of Order: Implement corrective action and comply with cleanup standards on property according to the VIRP Application, Act and order schedule
Settlement Amount: None
Date Notice Posted: June 30, 2014
Comment Period Closes: July 30, 2014
Send Comments To: Mr. Jeff Cown, Chief, Land Protection Branch
 Environmental Protection Division
 2 Martin Luther King Jr., Drive, Suite 1154 E
 Atlanta, Georgia 30334

Under authority of the Voluntary Remediation Program Act :

Facility: Metal Galvanizing, L.P./Atlanta
Location: Fulton County
Order Number: EPD-VRP-010
Cause of Order: Metal Galvanizing has proposed revised schedule for final Voluntary Investigation & Remediation Plan Compliance Status Report; property in GA Voluntary Remediation Program
Requirement(s) of Order: Metal Galvanizing has continued implementing corrective action at site, including significant reductions of zinc concentrations in stormwater; EPD grants modification according to revised milestone schedule; MG must comply with new schedule to complete cleanup; original date of report was to be February 16, 2016; submit final VRP Compliance Status Report, certifying compliance with VRP standards by February 14, 2019
Settlement Amount: None
Date Notice Posted: July 28, 2014
Comment Period Closes: August 27, 2014
Send Comments To: Mr. Jeff Cown, Chief, Land Protection Branch
 Environmental Protection Division
 2 Martin Luther King Jr., Drive, Suite 1154 E
 Atlanta, Georgia 30334

Under authority of the Water Quality Control Act (including Surface Water Allocation) :

Facility: Geo Specialty Chemicals, Inc./Cedartown; order issued to Mr. Mike Hunter
Location: Polk County
Order Number: EPD-WQ-MDO-14-025
Cause of Order: Violations of NPDES Permit/exceeded daily maximum discharge limits
Requirement(s) of Order: Correct immediately
Settlement Amount: \$593.00
Date Notice Posted: July 14, 2014
Comment Period Closes: August 13, 2014
Send Comments To: Mr. James Cooley-Manager/Mountain District
 Environmental Protection Division
 Post Office Box 3250
 Cartersville, Georgia 30120

Facility: SynCot Plastics(carpet fiber recycling facility)/Cartersville
Location: Bartow County
Order Number: EPD-WQ-6042
Cause of Order: Unpermitted industrial waste discharges to ditch(waters of the state)
Requirement(s) of Order: To address issue, SynCot received/signed consent order EPD-WQ-6020 in April 2014; Syncort has resolved issue by rerouting drain to existing sewer system; is asking to reduce settlement amount owed because of hardship and amount spent on corrective action; EPD has agreed to reduce amount; all other requirements of order and Permit remain in effect
Settlement Amount: \$2000.00
Date Notice

Posted: July 14, 2014
Comment Period August 13, 2014
Closes:
Send Comments Mr. James Cooley-Manager/Mountain District
To: Environmental Protection Division
Post Office Box 3250
Cartersville, Georgia 30120

Copies of proposed orders are provided at no charge. To order copies, call 1-888-373-5947 (404/657-5947 inside Atlanta dialing area).

EXECUTED ORDERS

The following orders were posted by the Georgia Environmental Protection Division July 21, 2014 - July 25, 2014

Under authority of the Comprehensive Solid Waste Management Act :

Facility: Golden Isles Wood Products, Inc./Newcastle St., Brunswick
 Location: Glynn County
 Order Number: AMENDMENT #3 TO EPD-SW-2300
 Date of Issue: July 23, 2014
 Cause of Order: Schedule revision for removal of wood ash and lime material
 Requirement(s) of Order: Schedules are extended until July 1, 2016
 Settlement Amount: None

Facility: Property site, parcel 110 011001A off SR-195; order issued to Mr. William Douglas Wingate, Georgia Farm Services, LLC
 Location: Lee County
 Order Number: EPD-SW-2629
 Date of Issue: July 18, 2014
 Cause of Order: Open dump/solid waste, scrap tires, pesticide waste; open burning
 Requirement(s) of Order: Immediately stop open dumping at site; submit/implement solid waste handling policy approved by EPD, for Georgia Farm Services to ensure that generated SW is properly recycled/disposed at appropriate facility; hire professional engineer/geologist knowledgeable in SW and pesticide management who will oversee corrective actions including inventory SW remaining at site and all SW removed to storage, recycling, or disposal facilities; characterize waste as hazardous waste or SW, for proper packing, labeling, transporting; collect representative soil samples, as required; analyze to detect levels of pesticide-related Haz constituents remaining; upon submitted site assessment, implement consultant's corrective action plan/schedule, providing detailed final report within 60 days of CAP completion
 Settlement Amount: \$7500.00

Facility: GWAR, LLC; construction and demolition waste landfill/compost operation/Gainesville; order issued to Mr. Ken Cronan
 Location: Hall County
 Order Number: EPD-SW-2628
 Date of Issue: July 10, 2014
 Cause of Order: Open burning of untreated lumber
 Requirement(s) of Order: Comply with Rules for Solid Waste Management at all times
 Settlement Amount: \$2500.00

Under authority of the Hazardous Waste Management Act :

Facility: Sibley Mill/Augusta
 Location: Richmond County
 Order Number: EPD-HW-1823
 Date of Issue: July 16, 2014
 Cause of Order: Violations of Rules for Hazardous Waste Management/including failure to submit 2012 HW Reduction Plan and 2011 HW Biennial Report, as required;
 Requirement(s) of Order: Comply with Act and Rules at all times
 Settlement Amount: \$500.00

Under authority of the Underground Storage Tank Act :

Facility: H & K Foods/Fort Gaines; order issued to Mr. Raja Patel
 Location: Clay County
 Order Number: EPD-UST-14-148
 Date of Issue: July 18, 2014
 Cause of Order: Violations of Rules for Underground Storage Tank Management
 Requirement(s) of Order: Correct immediately
 Settlement Amount: \$500.00

Facility: Shree Rang/Guyton; order issued to Mr. Vipul Patel, Shree Rang, Inc
 Location: Effingham County
 Order Number: EPD-UST-14-268
 Date of Issue: July 18, 2014
 Cause of Order: Violations of Rules for Underground Storage Tank Management
 Requirement(s) of Order: Correct immediately

Settlement Amount: \$500.00
 Facility: Royal Food Store/Washington; order issued to Mr. Chris Hellgeth
 Location: Wilkes County
 Order Number: EPD-UST-14-265
 Date of Issue: July 15, 2014
 Cause of Order: Violations of Rules for Underground Storage Tank Management
 Requirement(s) of Order: Correct immediately
 Settlement Amount: \$1200.00

Under authority of the Water Quality Control Act (including Surface Water Allocation):

Facility: Baker and Glover Mobile Home Park/Gainesville; order issued to Mr. Gary F. Glover
 Location: Hall County
 Order Number: EPD-WQ-NED-14-002
 Date of Issue: July 18, 2014
 Cause of Order: Violations of NPDES Permit/exceeded effluent limitations
 Requirement(s) of Order: Correct immediately
 Settlement Amount: \$200.00

Facility: City of Rochelle, Northwest water pollution control plant
 Location: Wilcox County
 Order Number: EPD-WQ-SDO-14-002
 Date of Issue: July 18, 2014
 Cause of Order: Failure to correctly identify and report any spill(s) to EPD within 24 hours as ordered in Permit and EPD WQ-5449
 Requirement(s) of Order: Achieve compliance with Permit, Rules for Water Quality Control and condition #1 of EPD-WQ-5449
 Settlement Amount: \$2072.00

Facility: Amrep, Inc./Marietta
 Location: Cobb County
 Order Number: EPD-WQ-ERT-6043
 Date of Issue: July 15, 2014
 Cause of Order: Fish kill/runoff from firefighting activities accumulated in onsite concrete containment structures, overflowing into concrete stormwater drains and into Elizabeth Branch of Sope Creek
 Requirement(s) of Order: Amrep has made great efforts to mitigate environmental impacts of fire; is working closely with EPD, Response and Remediation Program in assessing and responding to environmental impacts at facility; appropriately report any future spills or releases requiring reporting
 Settlement Amount: \$25000.00

Facility: Earthstone Countertops/Gainesville; order issued to Mr. Thomas Villeda
 Location: Hall County
 Order Number: EPD-WQ-6040
 Date of Issue: July 15, 2014
 Cause of Order: Failure to file for coverage under General NPDES Permit for Storm Water Discharges Associated with Industrial Activities; improper installation of control measures to prevent pollutants to state water
 Requirement(s) of Order: Earthstone has taken corrective measures including a water reuse system, to bring site into compliance
 Settlement Amount: \$750.00

Facility: Poultry houses on Dudley Farm Road/Winterville; order issued to Mr. David F. Ogle
 Location: Oglethorpe County
 Order Number: EPD-WQ-6039
 Date of Issue: July 15, 2014
 Cause of Order: Failure to file Notice of Intent for coverage under the General NPDES Permit for Storm Water Discharges (for construction and land disturbing activities); no erosion and sediment controls
 Requirement(s) of Order: Temporarily stabilize site; within 10 months from order execution date, entire site shall be permanently stabilized (final stabilization)
 Settlement Amount: \$4842.00

A copy of a single executed order will be provided at no charge. Additional copies are available at 25 cents per page prepaid. To order copies, call 1-888-373-5947 (404/657-5947 inside Atlanta dialing area).

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PS Form 3800, August 2006

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- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement "*Restricted Delivery*".
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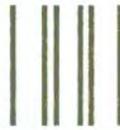
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Birmingham, AL 35234



APPENDIX B
SURFACE WATER AND GROUNDWATER SAMPLING
REPORT

February 13, 2015

ANNUAL GROUNDWATER AND SURFACE WATER MONITORING/CORRECTIVE ACTION EFFECTIVENESS REPORT

**METALPLATE GALVANIZING, L.P.
METALPLATE GALVANIZING FACILITY
505 SELIG DRIVE SW
ATLANTA, GEORGIA 30336**

HSI NO. 10204

PPM PROJECT NO. 494501-GWM14

FEBRUARY 13, 2015

Environmental Science
and Engineering



**ANNUAL GROUNDWATER/SURFACE WATER
MONITORING/CORRECTIVE ACTION EFFECTIVENESS REPORT**

FOR

**METALPLATE GALVANIZING FACILITY
505 SELIG DRIVE SW
ATLANTA, GEORGIA 30336**

HSI NO. 10204

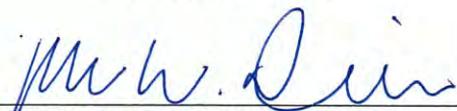
PREPARED FOR:

**METALPLATE GALVANIZING, L.P.
505 SELIG DRIVE SW
ATLANTA, GEORGIA 30336**

PPM PROJECT NO. 494501-GWM14

FEBRUARY 13, 2014

PREPARED BY:



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CERTIFICATION

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction.



1.0 INTRODUCTION

PPM Consultants, Inc. (PPM) was retained by Metalplate Galvanizing, L. P. (Metalplate) to conduct annual groundwater and surface water sampling and to prepare an annual corrective action effectiveness report for the Metalplate Galvanizing Facility/Selig Pond site located at 505 Selig Drive Southwest, Atlanta, Fulton County, Georgia (Georgia Hazardous Site Inventory Number 10204). These activities were conducted in accordance with the Georgia Environmental Protection Division (EPD) approved corrective action plan (CAP) dated August 27, 2007.

The purpose of these activities is to gauge the effectiveness of the corrective action, which included source removal and subsequent site restoration. This report provides a description of the site, summarizes the results of previous investigations, describes conducted field activities, and presents analytical results and findings from the May 2014 surface water sampling event and October 2014 groundwater/surface water sampling event. The constituent of interest (COI) for the site groundwater and surface water is zinc.

2.0 BACKGROUND

2.1 SITE LOCATION

The Metalplate facility is located at 505 Selig Drive Southwest in Atlanta, Fulton County, Georgia. The geographic coordinates of the site are 33° 44' 43" north latitude and 84° 32' 44" west longitude (**Figure 1, Site Location Map, Appendix A, Figures**).

2.2 SURROUNDING AREA

The facility is surrounded entirely by property that has been either developed for industrial or commercial purposes, or is undeveloped. The properties located to the north of the facility are industrial and undeveloped. The property west of the facility is industrial. Property to the east of the facility is commercial/industrial. The properties to the south of the facility are railroad property, undeveloped property, and commercial/industrial property. The site includes the property where the Metalplate facility is located and adjacent properties to the south, southeast, and east owned by Aston Investment Corporation (Aston), Commercial Development, Stonehenge Management Company, and CSX Transportation, Inc. (CSXT).

2.3 SITE DESCRIPTION

The site is mostly comprised of the drainage area just south of the facility and includes several ditches/drainages and a pond (**Figure 2, Site Map**). These include portions of the drainage ditches located near the eastern and southern property boundaries of the Metalplate property (Upper East Ditch and Upper South Ditch), portions of the drainage ditches on CSXT property (Middle Ditch, Small Ditch, Lower West Ditch, and Lower East Ditch), portions of the drainage ditch on Aston property (Outwash Ditch), and an alluvial fan depositional area (Outwash Area) located on Aston property. The site also includes Selig Pond that is approximately 30,000-square feet in area and is located on both Aston and CSXT properties (**Figure 2**). According to the topographic map of the area, elevations at the site generally range from 800 to 880 feet above mean sea level (amsl) (**Figure 1**).

2.4 SITE HISTORY

Following is a brief summary of the history of the site:

Atlantic Steel was the former owner of the present Metalplate property from 1966 to 1974. Atlantic Steel operated the galvanizing facility from 1966 to 1970. The assets of the galvanizing facility were sold to Metalplate in 1970 whereby Metalplate became the operator. The property was subsequently sold to Metalplate in 1974.

2.4.1 Sampling Event – March 28, 1984

Craig-Lynes Chemical Management, Inc. collected five water and/or sludge samples from within and in the vicinity of Selig Pond (**Figure 2**) as part of the Form 103 C (Notification of Hazardous Waste Site) reporting requirements to the United States Environmental Protection Agency (USEPA). One sample was also collected from a smaller pond on the south side of the railroad tracks.

The samples were analyzed for total concentrations of the eight Resource, Conservation, and Recovery Act (RCRA) metals and pH. Two samples were also analyzed for total organic carbon (TOC). The results of the sampling event indicated that elevated concentrations of lead were present in water and/or sludge in the area of Selig Pond. More information regarding this sampling event can be found in the Compliance Status Report (CSR), revised May 29, 2008.

2.4.2 Sampling Event – March 12, 1986

On March 12, 1986, USEPA representatives collected soil samples from the Lower West Ditch leading into Selig Pond, from within Selig Pond, from a location upgradient of Selig Pond, and from just below the CSXT railroad spur. Representatives for Metalplate were provided with splits of the samples. The split samples were analyzed for total lead and zinc and RCRA metals according to the extraction procedure (EP) toxicity leaching protocol. The results of the sampling event revealed elevated concentrations of lead and zinc in soil. Additional information can be found in the CSR.

2.4.3 Compliance Status Investigation – February 2000 through May 2008

A Compliance Status Investigation (CSI) was performed between February 28, 2000 and May 28, 2004, by Williams Environmental Services, Inc. (Williams) and continued by PPM between March 12, 2007 and May 16, 2008. The investigation was prompted by the site being placed on the state hazardous site inventory list based on an exceedance of the Reportable Quantities Screening Method (RQSM) threshold score for soil. The RQSM threshold was not exceeded for groundwater.

The purpose of the investigation was to determine the compliance status of the site compared with applicable risk reduction standards (RRSs) established under the Georgia Hazardous Site Response Act (HSRA). Other objectives of the study were to investigate the nature and horizontal and vertical extent of regulated COI in the soil, groundwater, and surface water, identify human and environmental receptors potentially exposed to the release, and define the properties affected by the release.

During the investigation, soil was evaluated by collection and analysis of soil samples from 147 soil borings advanced during and prior to the CSI. A total of 12 shallow Type II monitoring wells (MW-1 through MW-12) and two bedrock Type III monitoring wells (MW-6D and MW-13D) were installed for the evaluation of groundwater. Surface water was evaluated by collection and analysis of surface water samples from 16 locations.

The horizontal and vertical extent of COI concentrations in soil and groundwater above upper background limits (UBLs) was defined in all directions at the site during the CSI. At certain locations, lead and zinc concentrations in soil and concentrations of zinc in groundwater exceeded Type 1, 2, 3, and 4 RRSs. The results of the CSI can be found in the revised CSR submitted on May 29, 2008.

2.4.4 Soil Removal – August 11, 2008 through August 20, 2008

During the soil removal, a total of approximately 1,555 tons (estimated 1,037 cubic yards) of soil was excavated from the facility property, transported, and disposed. Soil with visible impact (discoloration) was excavated from the entire length of both the Upper East Ditch and the Upper South Ditch located on the facility property. Confirmation samples confirmed that soil with concentrations of COI above Type 4 RRSs was removed from the excavations. The excavations were a minimum of 1 foot deep and a maximum of approximately 7 feet deep.

Site restoration activities were performed by Metalplate following the soil removal. The Upper East Ditch and Upper South Ditch were reconstructed and a detention basin was constructed connecting the two ditches. The restoration was part of the Best Management Practice (BMP) for the facility's Storm Water Pollution Prevention Plan (SWPPP). These measures are expected to decrease sediment loads leaving the property and decrease COI concentrations in storm water, surface water, and groundwater.

2.4.5 Voluntary Investigation and Remediation Plan and Application

A Voluntary Investigation and Remediation Plan and Application was prepared by MACTEC and submitted to the EPD on August 9, 2010. In response, the EPD in letters dated February 14, 2011, accepted the Metalplate Galvanizing Facility property as a participant in the Voluntary Remediation Program Act (VRPA) and requested items to be included in future semi-annual VRP progress reports. The EPD requested the installation of an additional monitoring well in the vicinity of the detention basin for the purpose of enhancing horizontal delineation of groundwater, and enhancing the Conceptual Site Model (CSM), for use in future modeling of groundwater migration and surface water impacts.

2.4.6 Screening Level Ecological Risk Assessment

A Screening Level Ecological Risk Assessment (SLERA) was prepared by MACTEC and submitted to the EPD on August 9, 2010. In response, the EPD in a letter dated February 14, 2011, requested a revised SLERA, a Baseline Ecological Risk Assessment (BERA), Remedial Goal Options (RGOs), and a schedule for submittal of a sediment corrective action plan by May 16, 2011. The EPD also stated that semi-annual groundwater and surface water sampling results should be submitted with the required VRP progress reports.

2.4.7 Groundwater Monitoring

Baseline groundwater monitoring was conducted at the site between September 8, 2008 and September 10, 2008, shortly after the soil removal corrective action activities were complete. The sampling was conducted to establish baseline concentrations for the purpose of determining corrective action effectiveness. The results of the baseline groundwater sampling were presented in the Soil Removal Report.

Periodic groundwater monitoring events have been conducted to monitor plume stability and effectiveness of the corrective action. The results of these events have been presented in groundwater monitoring/corrective action effectiveness reports and VRP progress reports.

In correspondence dated November 8, 2013, the EPD provided a proposed VRP schedule after meeting with Metalplate representatives on October 21, 2013. The schedule (EPD Proposed Milestone Dates for Project Implementation, November 8, 2013) requested surface water sampling and collection of water elevation data to be conducted in April 2014. The schedule requested annual groundwater sampling, surface water sampling, and water elevation data collection to be conducted in October each year through 2018. Annual VRP Progress Reports were required to be submitted to the EPD in February each year following the October sampling events; with the exception of February 2019 in which a Compliance Status Report should be submitted. The schedule was adopted in the 2014 Consent Order discussed in Section 2.4.8. Results of the groundwater and surface water sampling activities conducted during each previous period will be included in the annual progress reports. During the annual groundwater sampling events, groundwater from monitoring wells MW-1, MW-2, MW-4, MW-5, MW-7, and MW13D will be sampled and analyzed.

2.4.8 2014 Consent Order and New Stormwater Treatment Plan

As a result of discussions between EPD and Metalplate Galvanizing, L.P. (Metalplate) regarding the company's commitment to install a state-of-the-art electrocoagulation stormwater treatment system, and that system's potential impact on the appropriate timing of VRP-related obligations, Metalplate and EPD entered a Consent Order revising and extending VRP milestones through February 14, 2019. The Consent Order became effective on September 4, 2014. The facility installed the electrocoagulator in the fall of 2014, and it began operating in October 2014. As a result, the facility has seen significant reductions of zinc in its discharged stormwater, well below applicable benchmarks. The data discussed in this report, collected in May and October 2014, would not reflect

potential beneficial impacts that may occur over time as a result of the treatment of stormwater.

3.0 INVESTIGATIVE METHODOLOGY

3.1 GROUNDWATER/SURFACE WATER ELEVATION SURVEY

Site groundwater flow direction was estimated through groundwater and surface water elevation surveys conducted on May 16, 2014 and October 17, 2014. Depth to groundwater measurements within the wells were accomplished with the use of a water level indicator capable of measuring the water depth to within +/- 0.01 feet. The indicator probe was cleaned prior to use at each well location by means of a phosphate-free soap rinse and a rinse with distilled water. The well casing elevations and groundwater depths were used to calculate groundwater elevations for the purpose of determining groundwater flow direction. Surface water elevations were measured at select location of the site with the aid of recently installed and surveyed stream gauges.

3.2 GROUNDWATER SAMPLING

Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-4, MW-5, MW-7, and MW-13D on October 17, 2014. The wells were sampled in general accordance with Region 4 EPA Science and Ecosystem Support Division operating procedure No. SESDPROC-301-R1.

Groundwater samples were collected using low flow/low volume groundwater sampling techniques. Depths to groundwater were measured in the monitoring wells using a water level indicator. Depths to water, well diameter, and total well depths from the monitoring wells were used to calculate well volumes. Purging and sampling was accomplished using a variable speed submersible pump or peristaltic pump and dedicated polyethylene tubing and silicone tubing. The intake of the polyethylene tubing for the peristaltic pump or intake of the submersible pump was placed at an approximate depth that correlated to the center of the monitoring well screened interval. In some cases, the top of water within the well was below the top of screen. In these cases, the intake was placed approximately at the center of the water column. Purging rates ranged from approximately 0.04 gallons per minute (gpm) to 0.09 gpm.

Temperature, pH, specific conductivity, oxidation-reduction potential (ORP), and turbidity were measured during purging using a flow-through cell. The wells were purged until

these field parameters had equilibrated and an attempt was made to collect samples when the turbidity was less than 10 nephelometric turbidity units (NTUs). The groundwater sample from monitoring well MW-1 was collected with turbidity levels greater than 10 NTUs after attempts to obtain lower turbidity levels were unsuccessful. The higher turbidity level was attributed to possible suspended mica. Field measurements were recorded on groundwater sampling field logs found in **Appendix B, Groundwater Sampling Field Logs** and are summarized in **Table 1, Intrinsic Groundwater Parameters, Appendix C, Tables**.

Groundwater samples were obtained through dedicated polyethylene tubing prior to reaching the flow-through cell and were placed in polyethylene containers, one containing nitric acid (HNO₃) for analysis of total zinc and one with no preservative for analysis of dissolved zinc. Each container was filled with the sample, promptly capped, and appropriately labeled to indicate the sample origin. Containers were subsequently placed in an iced cooler for preservation during shipment to the laboratory. Disposable, nitrile gloves were worn during the sample collection and changed between each sample acquisition.

3.3 SURFACE WATER SAMPLING

Surface water samples were collected from sample locations SW-1A, SW-2A, SW-3A, SW-4A, SW-5, SW-6, and SW-7 during the May 5, 2014 sampling event and from SW-1A, SW-2A, SW-3A, SW-4B, SW-5, SW-6A, and SW-7 during the October 16, 2014 sampling event. Prior to the October 16, 2014 sampling event, two of the surface water sampling locations were modified as requested by the EPD in a letter dated May 16, 2014. Surface water was sampled in general accordance with Region 4 EPA Science and Ecosystem Support Division operating procedure No. SESDPROC-201-R3.

Surface water samples were collected from downstream to upstream locations by directly dipping the sample container into the water at each sampling location. The sample containers were dipped into the stream in the upstream direction of sampling personnel. Precautions were made to ensure that bottom sediment was not disturbed and that samples collected were representative of the surface water body.

Weather conditions during the surface water sampling activities were sunny and 87 °F during the May 5, 2014 sampling event and overcast and 65 °F during the October 16, 2014 sampling event.

3.4 LABORATORY ANALYSIS

Analytical Environmental Services, Inc. (AES) of Atlanta, Georgia (NELAC Certification No. E87582) analyzed the groundwater and surface water samples. Samples were submitted using chain-of-custody protocol. Groundwater samples were analyzed for total zinc and dissolved zinc per EPA Method 6010C. Surface water samples were analyzed for dissolved zinc per EPA Method 6010C and total hardness per EPA Method 2340B.

4.0 FINDINGS

4.1 GROUNDWATER/SURFACE ELEVATIONS

Groundwater elevations, surface water elevations, and known ground surface elevations were utilized to contour the top of groundwater and determine groundwater flow direction. The elevations and groundwater flow pattern are shown on **Figure 3, Groundwater/Surface Water Elevation Map (May 16, 2014)** and **Figure 4, Groundwater/Surface Water Elevation Map (October 17, 2014)**. The groundwater flow on October 17, 2014 was to the southeast at an average gradient of 0.035 feet per foot (ft/ft) (measured from MW-1 to MW-4). Groundwater elevations are provided in the **Table 2, Groundwater/Surface Water Elevation Summary**, and shown on **Figure 3** and **Figure 4**.

The groundwater flow velocity (V) can be determined using the horizontal hydraulic conductivity, hydraulic gradient, and effective porosity. Site values for horizontal hydraulic conductivity and hydraulic gradient were determined from the data collected during the CSI, and groundwater monitoring events, respectively. Effective porosity can be estimated from published literature based on the presence of silt and sand.

The groundwater flow velocity (V) is calculated from the equation:

$$V = k * \frac{i}{n_e}$$

Where:

- k = hydraulic conductivity = 9.25E-04 ft/min (average from slug tests in soil)
- i = hydraulic gradient = 0.035 (average from monitoring well MW-1 to MW-6 on October 17, 2014)

- n_e = effective porosity = 0.28 (combination of silt and sand from Groundwater Hydrology and Hydraulics, D. B. McWhorter and D. K. Sunada, 1977).

Using the assumptions listed above, the average groundwater flow velocity at the site is approximately 0.167 feet per day (ft/day) or 60.8 feet per year (ft/year).

4.2 TOTAL ZINC CONCENTRATIONS IN GROUNDWATER

Total zinc concentrations for the baseline groundwater sampling event conducted at the time of corrective action (September 2008) and the two latest groundwater sampling events are summarized below and included in **Table 3, Groundwater Analytical Summary**. Groundwater analytical reports are included in **Appendix D, Groundwater/Surface Water Analytical Results**.

Total Zinc Concentrations in Groundwater for Baseline and Current Sampling Events (mg/L)

Well I.D.	September 2008 (Baseline)	October 2013	October 2014
MW-1	0.372	0.0209	<0.020
MW-2	11.0	15.7	12.0
MW-3	62.5	--	--
MW-3R	--	0.0251	--
MW-4	<0.020	0.0265	<0.020
MW-5	14.1	1.44	3.33
MW-6	0.028	<0.020	--
MW-6D	0.0493	<0.020	--
MW-7	48.8	8.54	9.26
MW-8	<0.020	0.0230	--
MW-9	<0.020	<0.020	--
MW-10	<0.020	<0.020	--
MW-11	<0.020	0.0246	--
MW-12	<0.020	<0.020	--
MW-13D	9.12	28.6	8.90

Bold – indicates above a Type 4 RRS [31 milligrams per liter (mg/L)]

The plume extends from the facility toward the southeast and is historically horizontally defined to the northwest by monitoring well MW-1, to the northeast by MW-4 and MW-9, to the southeast by MW-3R, MW-6, and MW-8, and to the southwest by MW-10 and MW-11. The Lower South Ditch also appears to function as a hydraulic divide (or barrier).

Total zinc concentrations in groundwater for the October 2014 event are shown on **Figure 5, Total Zinc Isoconcentration Map - Groundwater (October 17, 2014)**. A graph showing total zinc concentrations versus time is shown on **Figure 6, Total Zinc Concentration vs. Time**.

4.3 DISSOLVED ZINC CONCENTRATIONS IN SURFACE WATER

Dissolved zinc concentrations for surface water sampling events conducted on May 5, 2014 and October 17, 2014 are provided below and are included in **Table 4, Surface Water Analytical Summary**.

Instream Water Quality Standards (ISWQS's) were calculated for each surface water sample using the equation:

Zinc

$$\text{acute criteria} = (e^{(0.8473[\ln(\text{hardness})]+0.884)})(0.978) \text{ microgram per liter } (\mu\text{g/L})$$

The calculated ISWQS's are also summarized in **Table 4**. Analytical reports are included in **Appendix D, Groundwater/Surface Water Analytical Results**.

Dissolved Zinc Concentrations in Surface Water for Current Sampling Events (mg/L)

Sample I.D.	May 5, 2014 (Baseline)	October 16, 2014
SW-1A	211	16.6
SW-2A	180	172
SW-3A	36.2	20.5
SW-4A	78.8	--
SW-4B	--	71.8
SW-5	128	6.92
SW-6	235	--
SW-6A	--	287
SW-7	38.4	45.9

Bold – indicates above calculated ISWQS [see **Table 4** for standards]

Dissolved zinc concentrations in surface water were above the ISWQS's for zinc in all surface water samples collected and analyzed. Dissolved zinc concentrations in surface water for the surface water sampling events are shown on **Figure 7, Dissolved Zinc**

Concentration Map – Surface Water (May 16, 2014) and Figure 8, Dissolved Zinc Concentration Map – Surface Water (October 16, 2014).

As noted above, the surface water data reflected in this report does not reflect potential beneficial impacts that may occur over time as a result of Metalplate's installation of the electrocoagulation stormwater treatment system.

4.4 EVALUATION OF THE EFFECTIVENESS OF CORRECTIVE ACTION

The concentration of total zinc at the upgradient portion of the plume (MW-7) has decreased following corrective action at the site and the concentration has remained relatively stable and below the Type 4 RRS for the last five years. Total zinc concentrations have increased at MW-2 and MW-13D since corrective action and have remained below the Type 4 RRS with the exception of concentrations at MW-2 on two occasions (April 2010 and April 2012). Effectiveness of the corrective action will continue to be monitored during annual sampling events.

5.0 CONCLUSIONS

The general direction of groundwater flow at the site is toward the southeast. The hydraulic gradient between monitoring wells MW-1 and MW-6 is estimated at approximately 0.035 ft/ft and flow velocity is estimated at 60.8 ft/year. The Lower South Ditch functions as a groundwater divide and the Selig Pond functions as a surface impoundment. Both of these features impact the pattern of groundwater flow in the immediate vicinity as has been reflected in **Figure 3** and **Figure 4**.

During the latest groundwater sampling event (October 2014), total zinc concentrations did not exceed the Type 4 RRS for total zinc (31 mg/L) in any well.

Concentrations of total zinc in groundwater decreased to below the Type 4 RRS following corrective action and have stabilized. Total zinc concentrations in the area of the outwash (MW-2 and MW-13D) increased slightly following corrective action but, since corrective action, MW-13D has never exceeded Type 4 RRS and MW-2 has been below Type 4 RRS with the exception of two occasions.

Data recently provided to PPM by EPD from adjacent property owner will be considered for the purposes of determining future placement of the well requested in comment 8 of EPD's February 14, 2011 correspondence.

The concentrations of dissolved zinc detected in surface water were above calculated acute ISWQS's for all surface water samples collected.

In 2014, the facility installed a new electrocoagulation stormwater treatment system. As a result, zinc concentrations in discharged stormwater have decreased significantly to levels well below applicable benchmarks.

Effectiveness of the corrective action will continue to be monitored during annual sampling events.

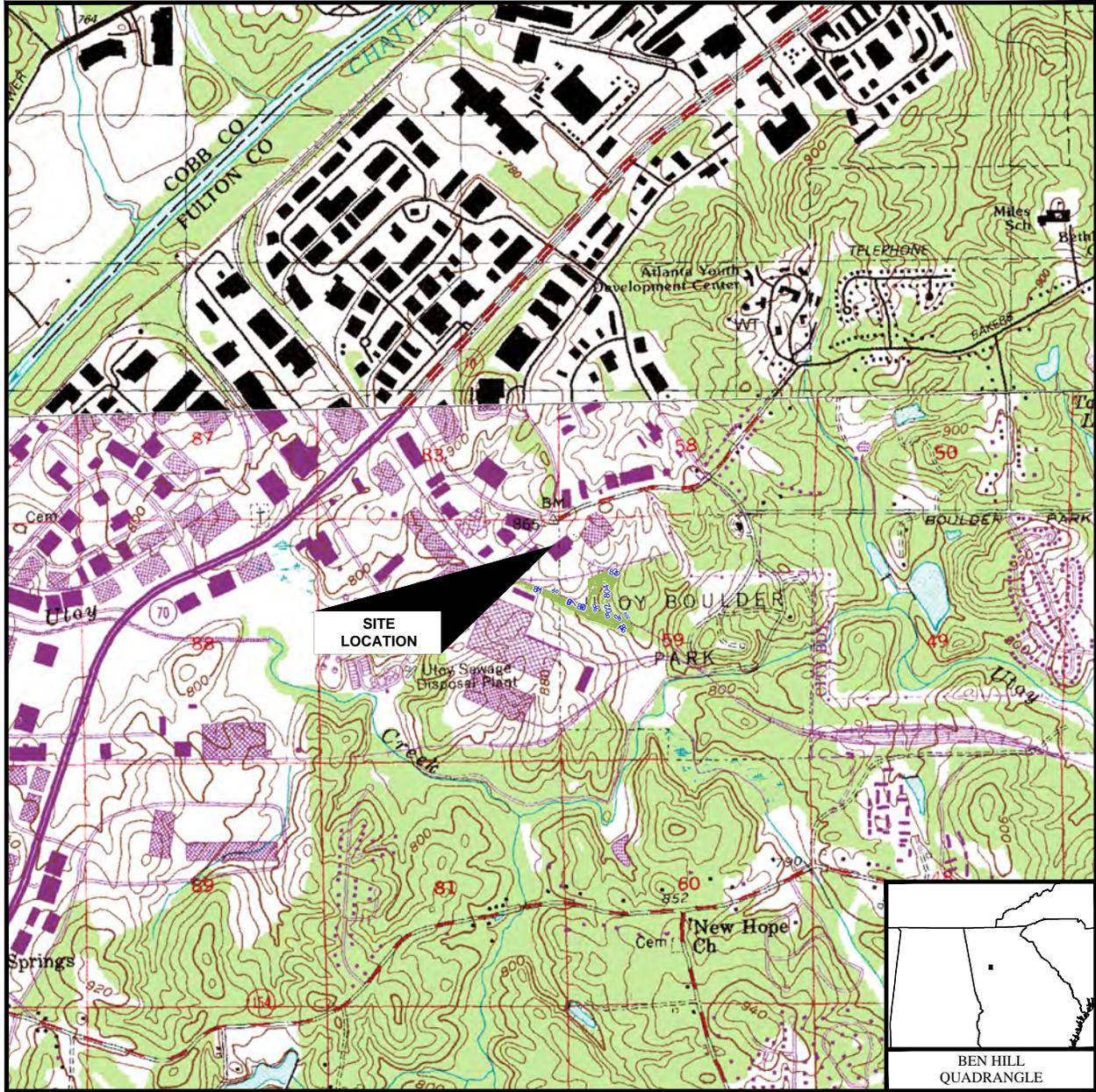
6.0 RECOMMENDATIONS

PPM recommends continuing the monitoring of the corrective action effectiveness by conducting annual groundwater and surface water sampling in accordance with the schedule provided in the 2014 Consent Order.

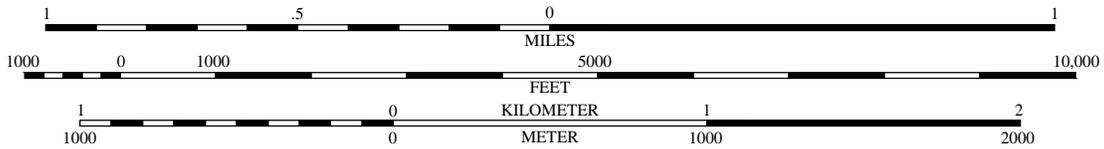
APPENDICES

APPENDIX A – FIGURES

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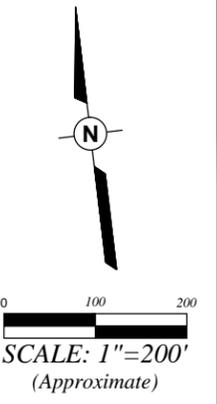
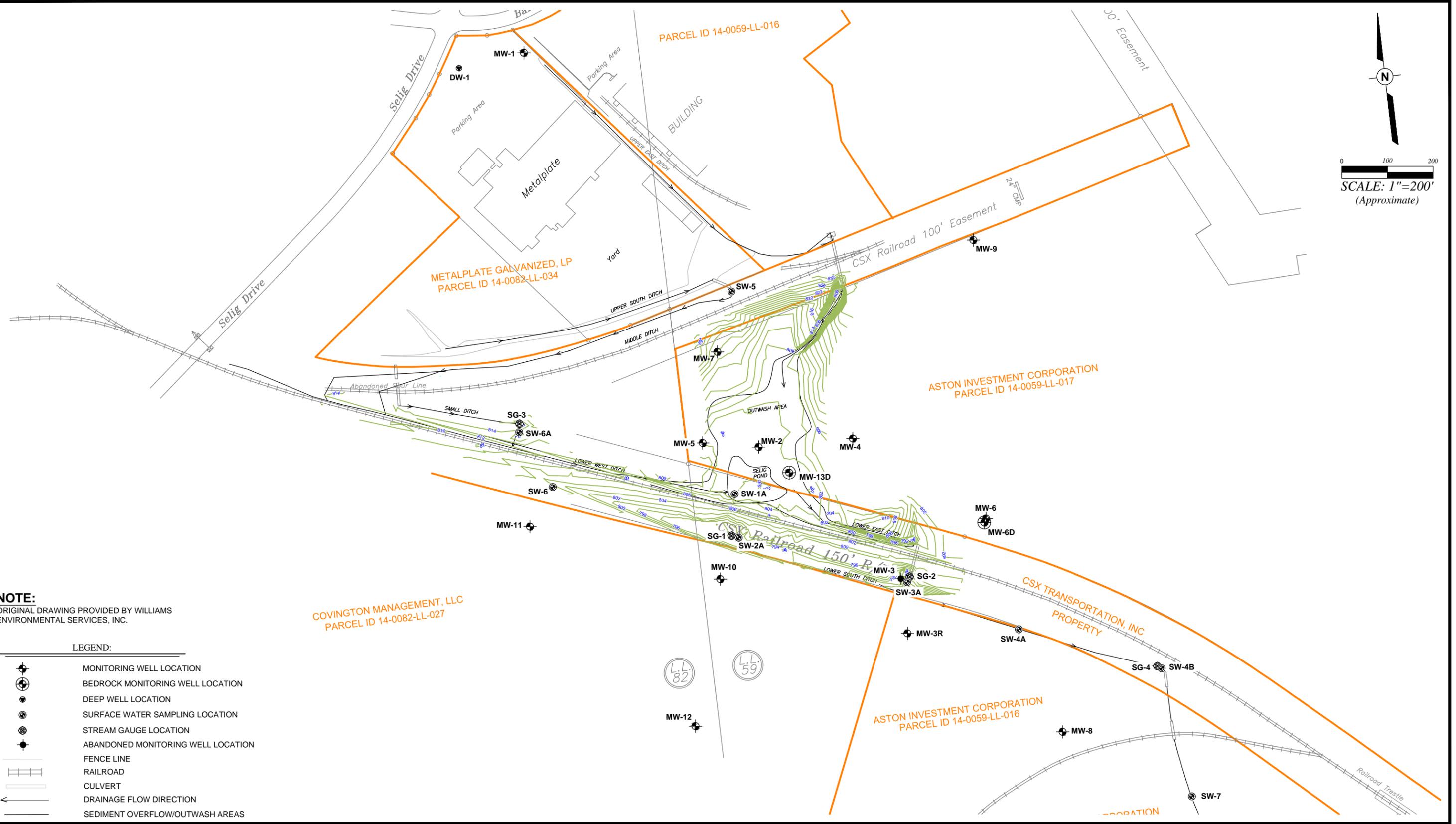
**METALPLATE
GALVANIZING, L.P.**
METALPLATE FACILITY/SELIG POND
505 SELIG DRIVE SW
ATLANTA, GEORGIA

SITE LOCATION MAP

FIGURE
NUMBER

1

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NOTE:
ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.

LEGEND:

	MONITORING WELL LOCATION
	BEDROCK MONITORING WELL LOCATION
	DEEP WELL LOCATION
	SURFACE WATER SAMPLING LOCATION
	STREAM GAUGE LOCATION
	ABANDONED MONITORING WELL LOCATION
	FENCE LINE
	RAILROAD
	CULVERT
	DRAINAGE FLOW DIRECTION
	SEDIMENT OVERFLOW/OUTWASH AREAS

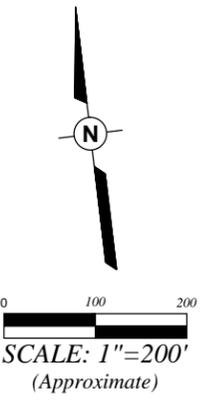
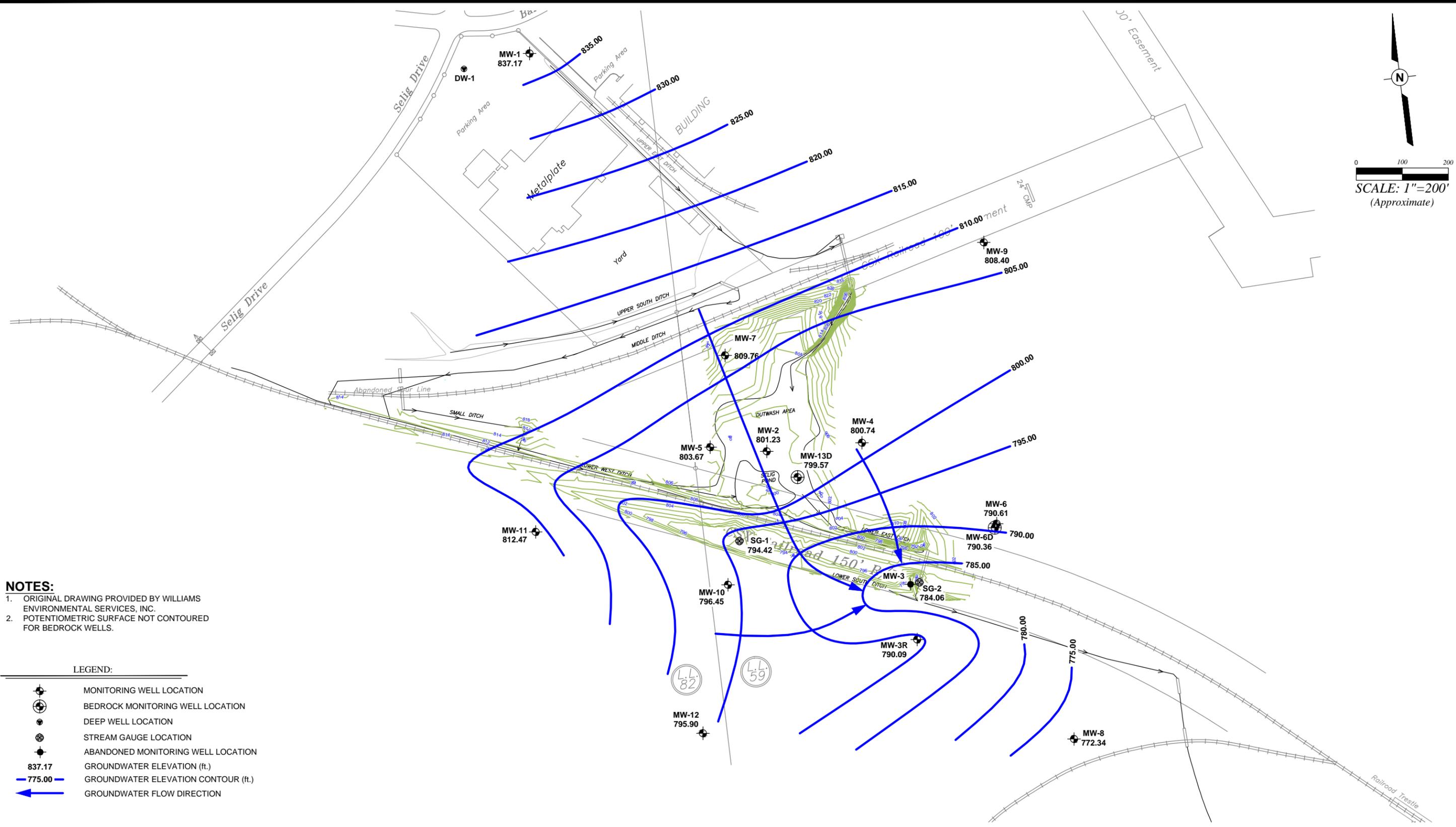
PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 01/15/15
PROJECT NUMBER: 494501	BILLING GROUP: GWM14

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
505 SELIG DRIVE SW
ATLANTA, GEORGIA

SITE MAP

FIGURE NUMBER
2

Z:\Metalplate Galvanizing_L_P\494501 - Metalplate Facility Selig Pond\Gwm14.dwg, 3.G.W, 2/13/2015 3:47:41 PM, brian hicks



- NOTES:**
1. ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.
 2. POTENTIOMETRIC SURFACE NOT CONTOURED FOR BEDROCK WELLS.

LEGEND:

	MONITORING WELL LOCATION
	BEDROCK MONITORING WELL LOCATION
	DEEP WELL LOCATION
	STREAM GAUGE LOCATION
	ABANDONED MONITORING WELL LOCATION
837.17	GROUNDWATER ELEVATION (ft.)
	GROUNDWATER ELEVATION CONTOUR (ft.)
	GROUNDWATER FLOW DIRECTION

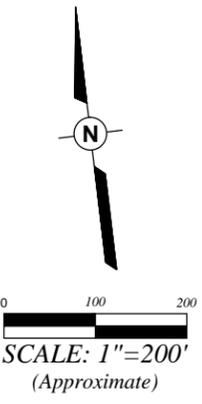
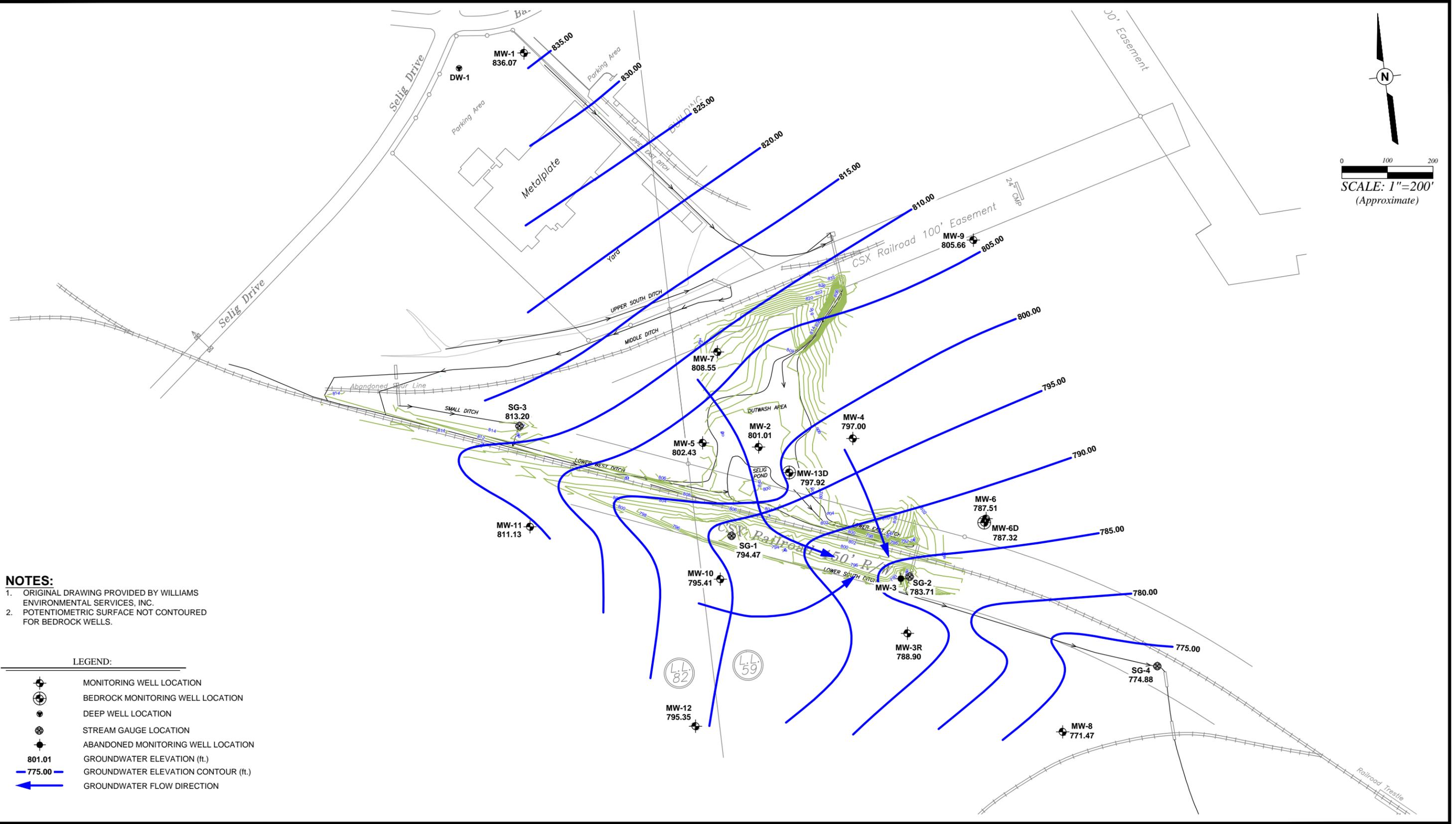
PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 01/15/15
PROJECT NUMBER: 494501	BILLING GROUP: GWM14

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

GROUNDWATER / SURFACE WATER ELEVATION MAP
 (MAY 16, 2014)

FIGURE NUMBER
3

Z:\Metalplate Galvanizing_L_P\494501 - Metalplate Facility Selig Pond\Gwm14\494501-Gwm14.dwg, 4.GW, 2/13/2015 3:47:51 PM, brian hicks



- NOTES:**
1. ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.
 2. POTENTIOMETRIC SURFACE NOT CONTOURED FOR BEDROCK WELLS.

LEGEND:

	MONITORING WELL LOCATION
	BEDROCK MONITORING WELL LOCATION
	DEEP WELL LOCATION
	STREAM GAUGE LOCATION
	ABANDONED MONITORING WELL LOCATION
801.01	GROUNDWATER ELEVATION (ft.)
775.00	GROUNDWATER ELEVATION CONTOUR (ft.)
	GROUNDWATER FLOW DIRECTION

PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 01/15/15
PROJECT NUMBER: 494501	BILLING GROUP: GWM14

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

GROUNDWATER / SURFACE WATER ELEVATION MAP
 (OCTOBER 17, 2014)

FIGURE NUMBER
4

Z:\Metalplate Galvanizing_L.P\494501 - Metalplate Facility Selig Pond\Gwm14.dwg, 5 Zinc, 2/13/2015 3:48:01 PM, brian hicks



- NOTES:**
1. ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.
 2. POTENTIOMETRIC SURFACE NOT CONTOURED FOR BEDROCK WELLS.

LEGEND:

	MONITORING WELL LOCATION
	BEDROCK MONITORING WELL LOCATION
	DEEP WELL LOCATION
	SURFACE WATER SAMPLING LOCATION
	ABANDONED MONITORING WELL LOCATION
0.0209	TOTAL ZINC CONCENTRATION (mg/L)
	ESTIMATED HORIZONTAL EXTENT OF ZINC IN GROUNDWATER EXCEEDING THE TYPE 1 RRS (2 mg/L)
NS	NOT SAMPLED

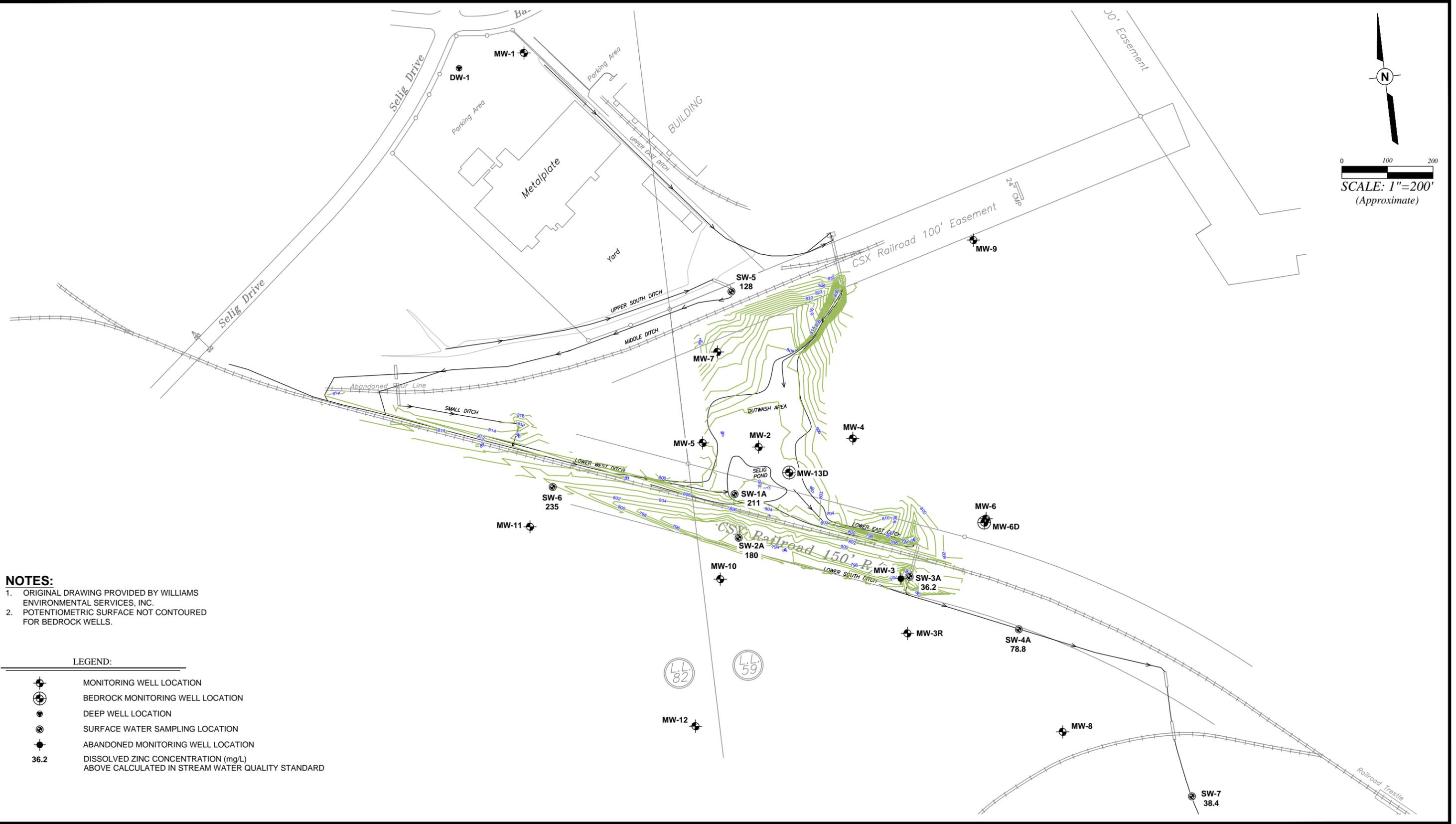
PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 01/15/15
PROJECT NUMBER: 494501	BILLING GROUP: GWM14

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

TOTAL ZINC ISOCONCENTRATION MAP - GROUNDWATER
 (OCTOBER 17, 2014)

FIGURE NUMBER
5

Z:\Metalplate Galvanizing_L.P\494501 - Metalplate Facility Selig Pond\Gwm14\494501-Gwm14.dwg, 7 Zinc, 2/13/2015 3:48:11 PM, brian hicks



- NOTES:**
1. ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.
 2. POTENTIOMETRIC SURFACE NOT CONTOURED FOR BEDROCK WELLS.

- LEGEND:**
- MONITORING WELL LOCATION
 - BEDROCK MONITORING WELL LOCATION
 - DEEP WELL LOCATION
 - SURFACE WATER SAMPLING LOCATION
 - ABANDONED MONITORING WELL LOCATION
 - 36.2** DISSOLVED ZINC CONCENTRATION (mg/L) ABOVE CALCULATED IN STREAM WATER QUALITY STANDARD

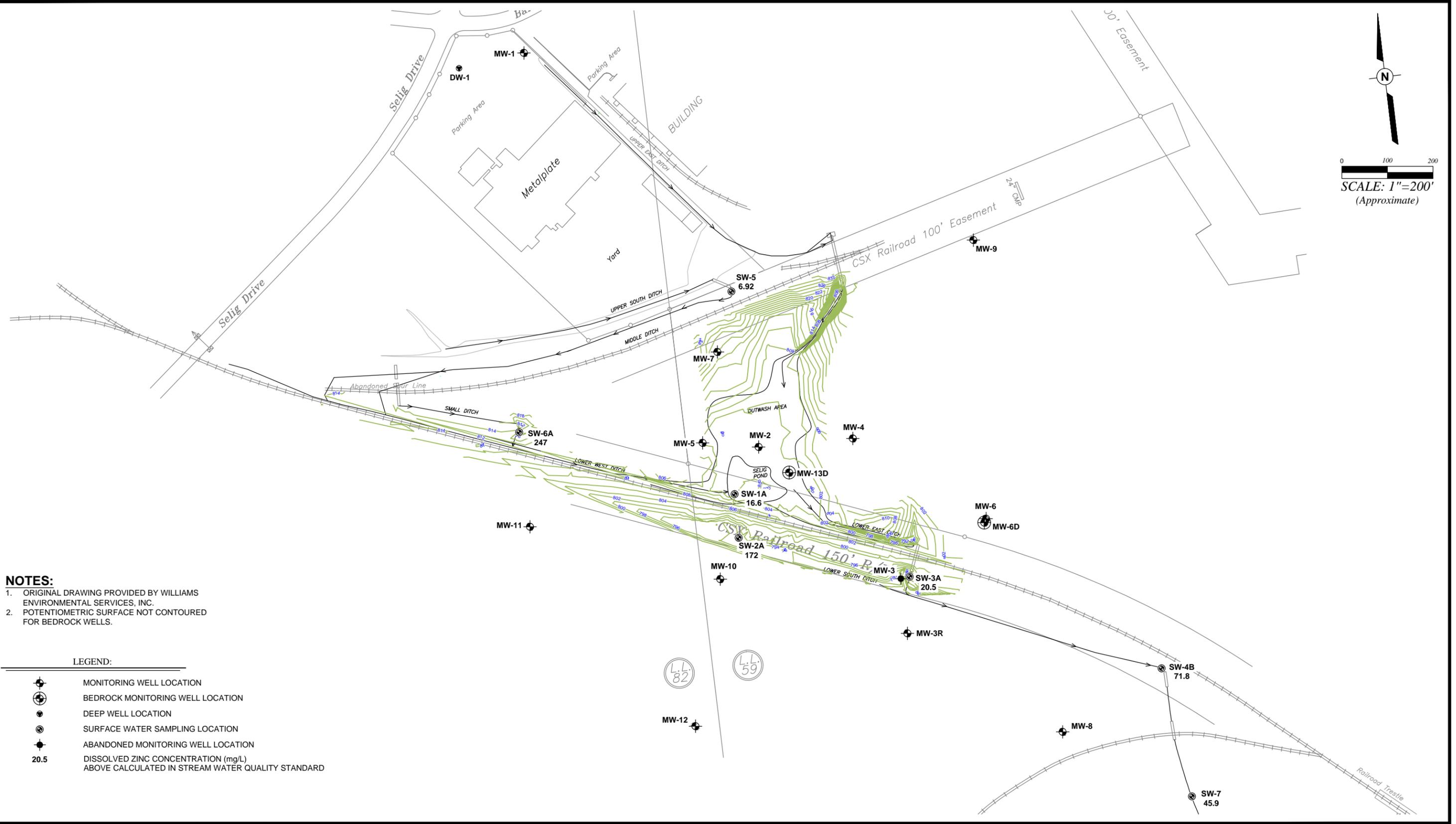
PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 01/15/15
PROJECT NUMBER: 494501	BILLING GROUP: GWM14

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

DISSOLVED ZINC CONCENTRATION MAP - SURFACE WATER
 (MAY 5, 2014)

FIGURE NUMBER
7

Z:\Metalplate Galvanizing_L.P\494501 - Metalplate Facility Selig Pond\Gwm14\494501-Gwm14.dwg, 8 Zinc, 2/13/2015 3:48:21 PM, brian hicks



- NOTES:**
1. ORIGINAL DRAWING PROVIDED BY WILLIAMS ENVIRONMENTAL SERVICES, INC.
 2. POTENTIOMETRIC SURFACE NOT CONTOURED FOR BEDROCK WELLS.

- LEGEND:**
- MONITORING WELL LOCATION
 - BEDROCK MONITORING WELL LOCATION
 - DEEP WELL LOCATION
 - SURFACE WATER SAMPLING LOCATION
 - ABANDONED MONITORING WELL LOCATION
 - 20.5 DISSOLVED ZINC CONCENTRATION (mg/L) ABOVE CALCULATED IN STREAM WATER QUALITY STANDARD

PPM PPM CONSULTANTS, INC. www.ppmco.com	
DRAWN BY: BWH	DRAWN DATE: 01/15/15
PROJECT NUMBER: 494501	BILLING GROUP: GWM14

METALPLATE GALVANIZING, L.P.
METALPLATE FACILITY/SELIG POND
 505 SELIG DRIVE SW
 ATLANTA, GEORGIA

DISSOLVED ZINC CONCENTRATION MAP - SURFACE WATER
 (OCTOBER 16, 2014)

FIGURE NUMBER
8

APPENDIX B – GROUNDWATER SAMPLING FIELD LOGS

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY ~ 67°
WELL I.D.:	MW-1		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	855.16
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	17.99
Well Depth (ft-BTOC)	23.02	Well Volume (gal)	0.81
Water Column (ft)	5.03	Screened Interval (ft-BGS)	13-23

WATER SAMPLE COLLECTION DATA

Method of Sampling	LOW-FLOW
Pump Type	PERISTALTIC PUMP
Tubing Type	LDPE 0.25 I.D.
Time of Sampling	9:25
Pumping Flow Rate (gpm)	< 0.5 gpm
Pump/Tubing depth (ft-BTOC)	20

WATER QUALITY PARAMETERS

	Initial					
Time	9:10	9:15	9:20	9:25		
Depth to water (ft-BTOC)	17.99	17.96	18.75	18.83		
Amount Purged	—		20.56 17.96	< 1.06		
Temperature (°C)	17.92	18.61	18.75	18.07		
Sp. Cond. (uS/cm)	103 uS	98	100	100		
pH (S.U.)	5.36	5.28	5.19	5.16		
ORP (mV)	101.6	130.8	160.2	169.6		
Turbidity (NTU)	8.82	5.76	14.8	15.8		

LABORATORY DATA

Sample I.D.	MW-1	Sample Time:	9:25
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

MARKS AND OBSERVATIONS: _____

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	Sunny ~74°
WELL I.D.:	MW-2		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	805.55
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	3.32
Well Depth (ft-BTOC)	15.41	Well Volume (gal)	1.97
Water Column (ft)	12.09	Screened Interval (ft-BGS)	2-12

WATER SAMPLE COLLECTION DATA

Method of Sampling	LOW-FLOW
Pump Type	PERISTALTIC
Tubing Type	LDPE 0.25" I.D.
Time of Sampling	12:30
Pumping Flow Rate (gpm)	~0.16 gpm
Pump/Tubing depth (ft-BTOC)	~10'

WATER QUALITY PARAMETERS

	Initial					
Time	12:05	12:10	12:20	12:30		
Depth to water (ft-BTOC)	3.32	3.43	3.42	3.44		
Amount Purged	—					
Temperature (°C)	19.61	20.43	21.00	21.23		
Sp. Cond. (uS/cm)	378	336	330	327		
pH (S.U.)	4.65	4.35	4.32	4.33		
ORP (mV)	166.8	227.4	266.2	263.8		
Turbidity (NTU)	25.5	17.0	7.15	2.50		

LABORATORY DATA

Sample I.D.	MW-2	Sample Time:	12:30
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: _____

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY - 70°
WELL I.D.:	MW-3R		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	794.24
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	41.70
Well Depth (ft-BTOC)	52.00	Well Volume (gal)	1.68
Water Column (ft)	10.3	Screened Interval (ft-BGS)	1-6

WATER SAMPLE COLLECTION DATA

Method of Sampling	NS
Pump Type	-
Tubing Type	-
Time of Sampling	-
Pumping Flow Rate (gpm)	-
Pump/Tubing depth (ft-BTOC)	-

WATER QUALITY PARAMETERS

	Initial						
Time							
Depth to water (ft-BTOC)							
Amount Purged	NOT SAMPLED.						
Temperature (°C)							
Sp. Cond. (uS/cm)							
pH (S.U.)							
ORP (mV)							
Turbidity (NTU)							

LABORATORY DATA

Sample I.D.	MW-3	Sample Time:	-
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: NOT SAMPLED

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY ~ 68°
WELL I.D.:	MW-4		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	814.78
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	19.35
Well Depth (ft-BTOC)	29.31	Well Volume (gal)	1.62
Water Column (ft)	9.96	Screened Interval (ft-BGS)	18-28

WATER SAMPLE COLLECTION DATA

Method of Sampling	LOW-FLOW
Pump Type	PERISTALTIC
Tubing Type	LDPE 0.25" I.D.
Time of Sampling	10:45
Pumping Flow Rate (gpm)	< 0.16 gpm
Pump/Tubing depth (ft-BTOC)	~25' BTOC

WATER QUALITY PARAMETERS

	Initial						
Time	10:15	10:20	10:25	10:35	10:45		
Depth to water (ft-BTOC)	19.35	19.53	19.55	19.55	19.56		
Amount Purged	—	<0.25g.	<0.5g.	1.0g.	~1.5g.		
Temperature (°C)	15.14	15.16	15.24	15.39	15.52		
Sp. Cond. (uS/cm)	88	76	76	77	74		
pH (S.U.)	5.78	5.63	5.63	5.59	5.53		
ORP (mV)	104.2	119.2	120.0	118.3	120.5		
Turbidity (NTU)	Nm	56.0	27.6	7.69	4.89		

LABORATORY DATA

Sample I.D.	MW-4	Sample Time:	10:45
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: _____

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY - 74°
WELL I.D.:	MW-5		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	813.26
Casing Diameter (in.)		Depth to Water (ft-BTOC)	9.73
Well Depth (ft-BTOC)	27.43	Well Volume (gal)	2.89
Water Column (ft)	17.7	Screened Interval (ft-BGS)	15-25

WATER SAMPLE COLLECTION DATA

Method of Sampling	LOW-FLOW
Pump Type	PERISTALTIC
Tubing Type	LDPE 0.25" I.D.
Time of Sampling	14:35
Pumping Flow Rate (gpm)	~0.1 GPM
Pump/Tubing depth (ft-BTOC)	~25'

WATER QUALITY PARAMETERS

	Initial						
Time	13:55	14:05	14:15	14:25	14:35		
Depth to water (ft-BTOC)	9.73	10.07	10.06	10.05	10.06		
Amount Purged	—	0.25G	0.06	1.75G	2.56G		
Temperature (°C)	17.43	17.47	17.38	17.32	17.38		
Sp. Cond. (uS/cm)	1426	1428	1419	1417	1406		
pH (S.U.)	5.45	5.29	5.27	5.25	5.22		
ORP (mV)	80.5	95.1	99.4	100.8	104.5		
Turbidity (NTU)	12.40	49.1	42.5	20.3	4.67		

LABORATORY DATA

Sample I.D.	MW-5	Sample Time:	14:35
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: _____

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY.
WELL I.D.:	MW-6		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	819.53
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	30.92
Well Depth (ft-BTOC)	39.23	Well Volume (gal)	1.35
Water Column (ft)	8.31	Screened Interval (ft-BGS)	23-38

WATER SAMPLE COLLECTION DATA

Method of Sampling	NOT SAMPLED
Pump Type	—
Tubing Type	—
Time of Sampling	—
Pumping Flow Rate (gpm)	—
Pump/Tubing depth (ft-BTOC)	—

WATER QUALITY PARAMETERS

	Initial						
Time							
Depth to water (ft-BTOC)							
Amount Purged							
Temperature (°C)		NOT SAMPLED.					
Sp. Cond. (uS/cm)							
pH (S.U.)							
ORP (mV)							
Turbidity (NTU)							

LABORATORY DATA

Sample I.D.	MW-6	Sample Time:	—
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: NOT SAMPLED.

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	Sunny - 68°
WELL I.D.:	MW-6D		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	818.74
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	30.32'
Well Depth (ft-BTOC)	42.36	Well Volume (gal)	1.96
Water Column (ft)	12.04	Screened Interval (ft-BGS)	45-55

WATER SAMPLE COLLECTION DATA

Method of Sampling	NOT SAMPLED.
Pump Type	-
Tubing Type	-
Time of Sampling	-
Pumping Flow Rate (gpm)	-
Pump/Tubing depth (ft-BTOC)	-

WATER QUALITY PARAMETERS

	Initial						
Time							
Depth to water (ft-BTOC)							
Amount Purged			NOT SAMPLED				
Temperature (°C)							
Sp. Cond. (uS/cm)							
pH (S.U.)							
ORP (mV)							
Turbidity (NTU)							

LABORATORY DATA

Sample I.D.	MW-6D	Sample Time:	-
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: NOT SAMPLED.

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY - 79°
WELL I.D.:	MW-7		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	818.74
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	9.02
Well Depth (ft-BTOC)	17.44	Well Volume (gal)	1.37
Water Column (ft)	8.42	Screened Interval (ft-BGS)	5-20

WATER SAMPLE COLLECTION DATA

Method of Sampling	LOW FLOW
Pump Type	PERISTALTIC
Tubing Type	LDPE - 0.25" I.D.
Time of Sampling	13:30
Pumping Flow Rate (gpm)	< 0.1 gpm
Pump/Tubing depth (ft-BTOC)	~13' mp

WATER QUALITY PARAMETERS

	Initial					
Time	12:50	13:00	13:10	13:20	13:30	
Depth to water (ft-BTOC)	9.02	9.27	9.27	9.27	9.27	
Amount Purged	—	< 0.5 gal	< 1.0 gal	1.5 gal	2.0 gal	
Temperature (°C)	18.93	18.75	19.29	19.40	19.90	
Sp. Cond. (uS/cm)	1532	1542	1529	1519	1511	
pH (S.U.)	4.98	4.87	4.88	4.88	4.85	
ORP (mV)	159.7	133.0	127.8	128.1	127.5	
Turbidity (NTU)	167.0	93.1	37.3	15.8	8.480	

LABORATORY DATA

Sample I.D.	MW-7	Sample Time:	13:30
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: _____

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY - ~64°
WELL I.D.:	MW-8		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	812.85
Casing Diameter (in.)		Depth to Water (ft-BTOC)	40.28
Well Depth (ft-BTOC)	45.49	Well Volume (gal)	0.849
Water Column (ft)	5.21	Screened Interval (ft-BGS)	28-43

WATER SAMPLE COLLECTION DATA

Method of Sampling	NOT SAMPLED
Pump Type	—
Tubing Type	—
Time of Sampling	—
Pumping Flow Rate (gpm)	—
Pump/Tubing depth (ft-BTOC)	—

WATER QUALITY PARAMETERS

	Initial						
Time							
Depth to water (ft-BTOC)							
Amount Purged		NOT SAMPLED					
Temperature (°C)							
Sp. Cond. (uS/cm)							
pH (S.U.)							
ORP (mV)							
Turbidity (NTU)							

LABORATORY DATA

Sample I.D.	MW-8	Sample Time:	
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: NOT SAMPLED.

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/12/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY - 48°
WELL I.D.:	MW-9		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	839.39
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	32.63
Well Depth (ft-BTOC)	46.51	Well Volume (gal)	2.26
Water Column (ft)	13.88	Screened Interval (ft-BGS)	21-43

WATER SAMPLE COLLECTION DATA

Method of Sampling	NOT SAMPLED.
Pump Type	—
Tubing Type	—
Time of Sampling	—
Pumping Flow Rate (gpm)	—
Pump/Tubing depth (ft-BTOC)	—

WATER QUALITY PARAMETERS

	Initial						
Time							
Depth to water (ft-BTOC)							
Amount Purged		NOT	SAMPLED.				
Temperature (°C)							
Sp. Cond. (uS/cm)							
pH (S.U.)							
ORP (mV)							
Turbidity (NTU)							

LABORATORY DATA

Sample I.D.	MW-9	Sample Time:	—
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: NOT SAMPLED

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/14/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY
WELL I.D.:	MW-10		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	833
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	36.49
Well Depth (ft-BTOC)	49.96	Well Volume (gal)	2.19
Water Column (ft)	13.47	Screened Interval (ft-BGS)	35-50

WATER SAMPLE COLLECTION DATA

Method of Sampling	NOT SAMPLED
Pump Type	—
Tubing Type	—
Time of Sampling	—
Pumping Flow Rate (gpm)	—
Pump/Tubing depth (ft-BTOC)	—

WATER QUALITY PARAMETERS

	Initial						
Time							
Depth to water (ft-BTOC)							
Amount Purged		NOT	SAMPLED				
Temperature (°C)							
Sp. Cond. (uS/cm)							
pH (S.U.)							
ORP (mV)							
Turbidity (NTU)							

LABORATORY DATA

Sample I.D.	MW-10	Sample Time:	—
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: NOT SAMPLED.

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY - 65°
WELL I.D.:	MW-11		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	833.06
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	20.83
Well Depth (ft-BTOC)	49.79	Well Volume (gal)	4.72
Water Column (ft)	28.96	Screened Interval (ft-BGS)	35-50

WATER SAMPLE COLLECTION DATA

Method of Sampling	NOT SAMPLED
Pump Type	—
Tubing Type	—
Time of Sampling	—
Pumping Flow Rate (gpm)	—
Pump/Tubing depth (ft-BTOC)	—

WATER QUALITY PARAMETERS

	Initial						
Time							
Depth to water (ft-BTOC)							
Amount Purged		NOT	SAMPLED.				
Temperature (°C)							
Sp. Cond. (uS/cm)							
pH (S.U.)							
ORP (mV)							
Turbidity (NTU)							

LABORATORY DATA

Sample I.D.	MW-11	Sample Time:	
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: MANITOLE VAULT NEEDS TO BE REPLACED.

NOT SAMPLED

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY - 64°
WELL I.D.:	MW-12		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	836.98
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	40.53
Well Depth (ft-BTOC)	50.03	Well Volume (gal)	1.55
Water Column (ft)	9.50	Screened Interval (ft-BGS)	35-50

WATER SAMPLE COLLECTION DATA

Method of Sampling	NOT SAMPLED.
Pump Type	—
Tubing Type	—
Time of Sampling	—
Pumping Flow Rate (gpm)	—
Pump/Tubing depth (ft-BTOC)	—

WATER QUALITY PARAMETERS

	Initial						
Time							
Depth to water (ft-BTOC)							
Amount Purged							
Temperature (°C)		NOT	SAMPLED				
Sp. Cond. (uS/cm)							
pH (S.U.)							
ORP (mV)							
Turbidity (NTU)							

LABORATORY DATA

Sample I.D.	MW-12	Sample Time:	
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: NOT SAMPLED.

GROUNDWATER SAMPLING FIELD LOG

SITE INFORMATION

CLIENT:	Metalplate Galvanizing	PROJECT NO.:	494501-GWM14
SITE NAME:	Metalplate	SAMPLING DATE:	10/17/14
LOCATION:	Atlanta Georgia	WEATHER:	SUNNY ~ 70°
WELL I.D.:	MW-13D		
SAMPLER'S NAME:	JMS/RS		

WELL CONSTRUCTION AND LIQUID LEVEL DATA

Casing Material	PVC	Reference Pt. (TOC)	805.55
Casing Diameter (in.)	2"	Depth to Water (ft-BTOC)	6.51
Well Depth (ft-BTOC)	56.19'	Well Volume (gal)	8.09
Water Column (ft)	49.68	Screened Interval (ft-BGS)	51-53

WATER SAMPLE COLLECTION DATA

Method of Sampling	LOW-FLOW
Pump Type	↑ LDPE 0.25" I.D. ↓
Tubing Type	PERISTALTIC
Time of Sampling	11:30
Pumping Flow Rate (gpm)	~ 0.1 gpm.
Pump/Tubing depth (ft-BTOC)	~ 52'

WATER QUALITY PARAMETERS

	Initial					
Time	11:15	11:20	11:25	11:30		
Depth to water (ft-BTOC)	6.51	7.96	7.70	7.47		
Amount Purged	-	~ 0.56	~ 0.756	1.06		
Temperature (°C)	16.75	16.97	17.05	17.48		
Sp. Cond. (uS/cm)	1302	1319	1319	1318		
pH (S.U.)	6.10	5.98	5.97	5.96		
ORP (mV)	72.5	67.7	71.8	80.7		
Turbidity (NTU)	5.02	1.35	1.39	1.38		

LABORATORY DATA

Sample I.D.	MW-13D	Sample Time:	11:30
Analyte	Total Zinc/Dissolved Zinc		
Containers/Preservative	250 ml (Nitric)/ 500 ml (unpreserved)		

REMARKS AND OBSERVATIONS: _____

APPENDIX C – TABLES

TABLE 1
INTRINSIC GROUNDWATER PARAMETERS
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA

SAMPLE I.D.	SAMPLE DATE	pH (S.U.)	TEMPERATURE (°C)	SPECIFIC CONDUCTIVITY (µS/cm)	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)
MW-1	4/15/2010	5.22	18.8	94	257.7	1.63
	12/14/2010	5.10	18.8	13	-17.1	0.00
	4/12/2011	5.04	18.1	116	167.3	4.24
	10/21/2011	5.28	20.1	101	317.6	5.28
	4/12/2012	5.29	20.5	80	175.4	4.08
	10/18/2012	5.23	20.9	86	82.8	57.0
	4/18/2013	4.62	19.9	87	99.1	7.99
	10/22/2013	5.03	19.5	111	228.0	0.90
	10/17/2014	5.16	18.1	100	169.6	15.8
MW-2	4/15/2010	4.27	15.7	350	306.1	0.75
	12/14/2010	4.09	10.9	17	NM*	0.00
	4/12/2011	4.04	15.2	287	171.4	1.36
	10/20/2011	4.23	20.2	380	368.8	1.05
	4/12/2012	4.10	18.2	636	247.8	3.52
	10/18/2012	4.14	21.0	374	136.4	2.54
	4/18/2013	3.93	17.6	490	102.7	2.52
	10/22/2013	4.10	19.8	454	298.0	0.55
	10/17/2014	4.33	21.2	327	263.8	2.50
MW-3	4/15/2010	4.17	14.6	1,015	287.0	476
	12/14/2010	3.99	11.3	16	NM*	254
	4/12/2011	4.10	12.4	19	-1,314.1	2,481
MW-3R	8/26/2011	6.10	25.2	238	38.0	192
	10/20/2011	6.26	19.0	438	-13.4	238
	4/11/2012	6.42	19.4	340	-78.8	12.1
	10/17/2012	6.38	20.8	389	-77.6	64.3
	4/17/2013	6.03	20.9	369	-61.5	17.1
	10/21/2013	6.29	19.9	414	-136.0	18.1
	10/17/2014	NS	NS	NS	NS	NS
MW-4	4/15/2010	5.56	15.0	58	228.0	7.93
	12/14/2010	5.21	14.9	36	167.3	0.00
	4/12/2011	5.05	15.7	41	126.9	2.21
	10/21/2011	5.45	15.8	55	310.2	5.32
	4/12/2012	5.53	16.0	38	180.8	16.3
	10/18/2012	5.43	17.0	49	68.2	4.60
	4/18/2013	4.68	17.3	34	84.2	4.23
	10/22/2013	5.24	16.8	63	231.0	2.33
	10/17/2014	5.53	15.5	74	120.5	4.89
MW-5	4/15/2010	5.19	15.8	1,415	265.0	9.23
	12/14/2010	4.85	15.3	1,207	200.8	10.3
	4/12/2011	4.99	16.0	1,452	131.4	7.98
	10/20/2011	4.55	17.0	1,403	414.4	2.95
	4/12/2012	5.13	16.0	1,183	166.9	31.4
	10/18/2012	4.56	17.6	1,085	111.8	4.99
	4/18/2013	4.74	16.1	1,129	54.6	4.99
	10/22/2013	5.07	17.6	1,590	249.0	25.8
	10/17/2014	5.22	17.4	1,406	104.5	4.67

**TABLE 1
INTRINSIC GROUNDWATER PARAMETERS
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

SAMPLE I.D.	SAMPLE DATE	pH (S.U.)	TEMPERATURE (°C)	SPECIFIC CONDUCTIVITY (µS/cm)	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)
MW-6	4/15/2010	5.44	16.4	47	229.0	46.4
	12/13/2010	5.34	15.2	44	199.6	1.68
	4/12/2011	5.36	17.0	56	115.9	6.35
	10/21/2011	5.74	15.8	64	187.5	3.37
	4/12/2012	5.70	16.8	47	178.1	5.63
	10/18/2012	5.56	17.5	54	92.4	9.80
	4/18/2013	5.03	17.8	51	72.2	20.0
	10/22/2013	5.32	17.0	75	230.0	3.42
	10/17/2014	NS	NS	NS	NS	NS
MW-6D	4/14/2010	5.84	16.9	80	171.2	46.1
	12/13/2010	5.73	14.8	70	146.1	40.0
	4/12/2011	5.77	16.4	90	72.7	1.16
	10/21/2011	5.65	15.5	97	189.0	5.19
	4/12/2012	6.07	15.6	74	150.4	4.14
	10/18/2012	5.84	16.7	76	55.2	4.36
	4/18/2013	5.25	17.0	85	60.2	8.42
	10/22/2013	5.72	16.6	111	201.0	1.23
	10/17/2014	NS	NS	NS	NS	NS
MW-7	4/15/2010	4.94	14.5	1,165	286.3	5.05
	12/14/2010	4.70	16.5	20	NM*	315
	4/12/2011	4.90	14.7	1,344	131.1	17.3
	10/20/2011	4.69	18.1	1,772	377.9	5.28
	4/12/2012	5.03	15.8	1,218	179.4	16.7
	10/18/2012	4.56	18.9	1,485	102.3	8.52
	4/18/2013	4.82	14.9	914	68.9	105
	10/22/2013	4.83	18.8	1,690	277.0	17.4
	10/17/2014	4.85	19.9	1,511	127.5	4.80
MW-8	4/14/2010	6.55	19.3	462	-121.8	9.75
	12/13/2010	6.47	16.5	395	-107.5	0.00
	4/12/2011	6.54	18.2	458	-155.4	1.73
	10/20/2011	7.07	17.7	432	-56.6	5.05
	4/11/2012	6.67	18.6	374	-127.4	2.71
	10/17/2012	6.72	19.2	386	-124.5	2.62
	4/17/2013	6.21	19.7	420	-95.3	0.49
	10/21/2013	6.42	19.0	510	-168.0	1.51
	10/17/2014	NS	NS	NS	NS	NS
MW-9	4/15/2010	5.56	17.1	25	213.5	2.85
	12/14/2010	5.56	15.2	40	151.5	1.81
	4/12/2011	5.54	17.6	54	116.3	8.87
	10/21/2011	5.71	16.5	70	309.1	3.61
	4/12/2012	5.87	16.9	56	171.6	2.23
	10/18/2012	5.61	17.7	72	62.5	3.02
	4/18/2013	4.96	17.8	79	67.8	2.92
	10/22/2013	5.58	17.8	71	207.0	5.34
	10/17/2014	NS	NS	NS	NS	NS
MW-10	4/15/2010	6.24	20.3	225	-67.7	30.8
	12/13/2010	5.47	12.6	55	135.7	>1,100
	4/12/2011	5.87	19.2	217	-42.4	4.12
	10/20/2011	6.61	19.3	84	121.3	10.6
	4/11/2012	6.04	20.1	135	22.6	14.5
	10/17/2012	5.82	20.0	100	-4.7	40.1
	4/17/2013	5.32	20.3	105	39.8	11.4
	10/21/2013	5.43	20.8	88	107.0	6.18
	10/17/2014	NS	NS	NS	NS	NS
	4/15/2010	5.95	22.0	150	168.3	4.00

TABLE 1
INTRINSIC GROUNDWATER PARAMETERS
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA

SAMPLE I.D.	SAMPLE DATE	pH (S.U.)	TEMPERATURE (°C)	SPECIFIC CONDUCTIVITY (µS/cm)	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)
MW-11	12/13/2010	5.97	18.5	121	149.9	4.61
	4/12/2011	5.77	21.4	143	114.7	5.37
	10/20/2011	6.81	20.5	134	165.4	18.3
	4/11/2012	6.04	21.7	136	156.6	5.87
	10/17/2012	5.99	21.4	131	17.7	2.24
	4/17/2013	5.59	21.5	151	43.2	3.59
	10/21/2013	5.80	21.7	184	132.0	4.99
	10/17/2014	NS	NS	NS	NS	NS
MW-12	4/14/2010	NL	NL	NL	NL	NL
	12/13/2010	5.67	16.9	66	163.4	3.85
	4/12/2011	5.74	19.6	78	101.8	3.65
	10/20/2011	6.74	19.5	82	179.7	2.18
	4/11/2012	6.07	20.2	65	160.9	9.51
	10/17/2012	5.87	20.4	67	53.9	46.1
	4/17/2013	5.41	20.2	69	78.3	4.82
	10/21/2013	5.79	20.6	91	157.0	4.09
	10/17/2014	NS	NS	NS	NS	NS
MW-13D	4/15/2010	5.29	16.7	1,315	195.1	7.14
	12/14/2010	5.05	14.3	1,214	212.8	0.00
	4/12/2011	4.99	16.0	1,532	102.1	7.93
	10/20/2011	5.14	17.0	1,575	195.6	4.35
	4/12/2012	5.24	16.2	1,236	146.7	4.70
	10/18/2012	5.13	17.4	1,231	78.6	2.93
	4/18/2013	4.88	17.5	1,213	45.7	1.23
	10/22/2013	5.01	17.2	1,600	238.0	1.49
	10/17/2014	5.96	17.5	1,318	80.7	1.38

Notes: S.U. - Standard Units
µS/cm - microSiemens/centimeter
°C - degrees Celsius
mV - millivolts
ppm - parts per million
NTU - Nephelometric Turbidity Units
NL - Not located
NM* - Not measured due to equipment malfunction

Source: PPM Consultants, Inc.
PPM Project No. 494501-GWM14

**TABLE 2
GROUNDWATER/SURFACE WATER ELEVATION SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

WELL I.D.	DATE	TOP OF CASING ELEVATION (ft)	WELL DEPTH (ft-BTOC)	DEPTH TO WATER (ft-BTOC)	GROUNDWATER ELEVATION (ft)
MW-1	2/13/2003	855.16	23.0	17.81	837.35
	3/5/2003		23.0	17.52	837.64
	1/6/2004		23.0	16.68	838.48
	5/28/2004		23.0	16.50	838.66
	5/27/2007		23.0	21.93	833.23
	5/6/2008		-	-	-
	9/8/2008		23.1	22.56	832.60
	12/16/2008		23.1	22.64	832.52
	3/18/2009		23.1	22.67	832.49
	6/23/2009		23.0	21.37	833.79
	9/24/2009		23.0	21.37	833.79
	4/14/2010		23.1	16.19	838.97
	12/13/2010		23.0	18.83	836.33
	4/12/2011		23.1	18.25	836.91
	10/20/2011	23.0	19.96	835.20	
	4/11/2012	23.0	19.50	835.66	
	10/17/2012	23.1	21.63	832.43	
	4/17/2013	23.0	19.87	834.19	
10/21/2013	23.1	17.92	836.14		
5/16/2014	23.1	16.89	837.17		
10/17/2014	23.0	17.99	836.07		
MW-2	2/13/2003	805.55	15.4	3.96	801.59
	3/5/2003		15.4	3.54	802.01
	1/6/2004		15.4	3.86	801.69
	5/28/2004		15.4	6.13	799.42
	5/27/2007		15.4	3.90	801.65
	5/6/2008		-	-	-
	9/8/2008		15.5	4.60	800.95
	12/16/2008		15.5	3.45	802.10
	3/18/2009		15.5	3.16	802.39
	6/23/2009		15.5	4.27	801.28
	9/24/2009		15.5	3.20	802.35
	4/14/2010		15.5	3.19	802.36
	12/13/2010		15.5	3.36	802.19
	4/12/2011		15.4	3.23	802.32
	10/20/2011	15.4	3.91	801.64	
	4/11/2012	15.5	4.18	801.37	
	10/17/2012	15.5	4.59	799.74	
	4/17/2013	15.4	3.25	801.08	
10/21/2013	15.4	3.38	800.95		
5/16/2014	15.4	3.10	801.23		
10/17/2014	15.4	3.32	801.01		

**TABLE 2
GROUNDWATER/SURFACE WATER ELEVATION SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

WELL I.D.	DATE	TOP OF CASING ELEVATION (ft)	WELL DEPTH (ft-BTOC)	DEPTH TO WATER (ft-BTOC)	GROUNDWATER ELEVATION (ft)
MW-3	2/13/2003	794.24	10.0	6.10	788.14
	3/5/2003		10.0	6.13	788.11
	1/6/2004		10.0	6.00	788.24
	5/28/2004		10.0	6.41	787.83
	5/27/2007		10.0	7.45	786.79
	5/6/2008		-	-	-
	9/8/2008		10.1	7.60	786.64
	12/16/2008		10.1	7.11	787.13
	3/18/2009		10.1	6.64	787.60
	6/23/2009		10.1	7.38	786.86
	9/24/2009		10.1	6.69	787.55
	4/14/2010		10.1	7.45	786.79
	12/13/2010		10.1	7.31	786.93
	4/12/2011		10.1	7.21	787.03
MW-3R	8/16/2011	831.70	52.0	42.08	789.62
	10/20/2011		52.0	42.53	789.17
	4/11/2012		50.0	42.00	789.70
	10/17/2012	830.60	50.1	42.93	787.67
	4/17/2013		52.0	41.97	788.63
	10/21/2013		52.0	40.28	790.32
	5/16/2014		52.0	40.51	790.09
10/17/2014	52.0	41.70	788.90		
MW-4	2/13/2003	817.45	29.4	17.40	800.05
	3/5/2003		29.4	16.77	800.68
	1/6/2004		29.4	16.72	800.73
	5/28/2004		29.4	17.00	800.45
	5/27/2007		29.4	18.05	799.40
	5/6/2008		-	-	-
	9/8/2008		34.6	21.53	795.92
	12/16/2008		34.6	21.08	796.37
	3/18/2009		34.6	19.65	797.80
	6/23/2009		34.6	18.76	798.69
	9/24/2009		34.6	19.39	798.06
	4/14/2010		34.4	14.39	803.06
	12/13/2010		34.4	19.28	798.17
	4/12/2011		34.5	16.98	800.47
	10/20/2011	34.6	21.73	795.72	
	4/11/2012	34.5	19.11	798.34	
	10/17/2012	816.35	34.6	22.23	794.12
	4/17/2013		34.5	17.87	798.48
	10/21/2013		30.4	18.59	797.76
	5/16/2014		30.4	15.61	800.74
	10/17/2014		29.3	19.35	797.00

**TABLE 2
GROUNDWATER/SURFACE WATER ELEVATION SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

WELL I.D.	DATE	TOP OF CASING ELEVATION (ft)	WELL DEPTH (ft-BTOC)	DEPTH TO WATER (ft-BTOC)	GROUNDWATER ELEVATION (ft)		
MW-5	2/13/2003	813.26	25.2	10.00	803.26		
	3/5/2003		25.2	9.41	803.85		
	1/6/2004		25.2	9.60	803.66		
	5/28/2004		25.2	9.89	803.37		
	5/27/2007		25.2	10.01	803.25		
	5/6/2008		-	-	-		
	9/8/2008		27.7	11.99	801.27		
	12/16/2008		27.7	10.39	802.87		
	3/18/2009		27.7	9.53	803.73		
	6/23/2009		27.7	10.62	802.64		
	9/24/2009		27.7	9.46	803.80		
	4/14/2010		27.6	9.08	804.18		
	12/13/2010		27.6	9.95	803.31		
	4/12/2011		27.6	9.25	804.01		
	10/20/2011		27.5	11.60	801.66		
	4/11/2012	27.4	10.24	803.02			
	10/17/2012	27.4	11.58	800.58			
	MW-5	4/17/2013	812.16	27.4	9.22	802.94	
10/21/2013		27.5		9.43	802.73		
5/16/2014		27.5		9.09	803.07		
10/17/2014		27.4		9.73	802.43		
MW-6		5/28/2004		819.53	40.3	28.38	791.15
		5/27/2007			40.3	29.01	790.52
	5/6/2008	-	-		-		
	9/8/2008	39.7	31.81		787.72		
	12/16/2008	39.7	31.70		787.83		
	3/18/2009	39.7	31.00		788.53		
	6/23/2009	39.7	29.66		789.87		
	9/24/2009	39.7	30.64		788.89		
	4/14/2010	39.7	26.36		793.17		
	12/13/2010	39.7	31.00		788.53		
	4/12/2011	39.7	29.73		789.80		
	10/20/2011	39.7	32.19		787.34		
	4/11/2012	39.4	30.72		788.81		
	10/17/2012	39.4	32.50		785.93		
	4/17/2013	39.4	30.06		788.37		
	MW-6	10/21/2013	818.43	39.4	30.27	788.16	
		5/16/2014		39.4	27.82	790.61	
		10/17/2014		39.2	30.92	787.51	

TABLE 2
GROUNDWATER/SURFACE WATER ELEVATION SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA

WELL I.D.	DATE	TOP OF CASING ELEVATION (ft)	WELL DEPTH (ft-BTOC)	DEPTH TO WATER (ft-BTOC)	GROUNDWATER ELEVATION (ft)
MW-6D	5/28/2004	818.74	57.3	27.75	790.99
	5/27/2007		57.3	29.65	789.09
	5/6/2008		-	-	-
	9/8/2008		57.5	31.12	787.62
	12/16/2008		57.5	30.98	787.76
	3/18/2009		57.5	30.26	788.48
	6/23/2009		57.5	29.08	789.66
	9/24/2009		57.5	29.88	788.86
	4/14/2010		57.6	26.04	792.70
	12/13/2010		57.5	30.22	788.52
	4/12/2011		57.4	29.04	789.70
	10/20/2011		57.5	31.50	787.24
	4/11/2012		57.5	30.06	788.68
	10/17/2012	817.64	57.5	31.77	785.87
	4/17/2013		57.5	29.35	788.29
	10/21/2013		57.5	29.64	788.00
5/16/2014	57.5		27.28	790.36	
10/17/2014	-	30.32	787.32		
MW-7	5/27/2007	818.74	20.3	9.07	809.67
	5/6/2008		-	-	-
	9/8/2008		20.3	11.47	807.27
	12/16/2008		20.3	10.60	808.14
	3/18/2009		20.3	9.08	809.66
	6/23/2009		20.3	9.40	809.34
	9/24/2009		20.3	8.66	810.08
	4/14/2010		20.3	7.27	811.47
	12/13/2010		20.3	8.87	809.87
	4/12/2011		20.3	7.96	810.78
	10/20/2011		18.6	10.27	808.47
	4/11/2012		19.6	8.81	809.93
	10/17/2012		817.57	16.8	10.42
	4/17/2013	16.8		8.09	809.48
	10/21/2013	17.5		8.34	809.23
	5/16/2014	17.5		7.81	809.76
10/17/2014	17.4	9.02	808.55		
MW-8	5/27/2007	812.85	45.8	39.99	772.86
	5/6/2008		46.1	40.16	772.69
	9/8/2008		45.7	40.62	772.23
	12/16/2008		45.7	40.48	772.37
	3/18/2009		45.7	40.24	772.61
	6/23/2009		45.7	39.99	772.86
	9/24/2009		45.7	39.40	773.45
	4/14/2010		45.7	39.10	773.75
	12/13/2010		45.6	40.30	772.55
	4/12/2011		45.6	40.05	772.80
	10/20/2011		45.7	40.66	772.19
	4/11/2012		45.6	40.30	772.55
	10/17/2012		811.75	45.6	40.67
	4/17/2013	45.7		39.92	771.83
	10/21/2013	45.7		40.00	771.75
	5/16/2014	45.7		39.41	772.34
10/17/2014	45.5	40.28	771.47		

**TABLE 2
GROUNDWATER/SURFACE WATER ELEVATION SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

WELL I.D.	DATE	TOP OF CASING ELEVATION (ft)	WELL DEPTH (ft-BTOC)	DEPTH TO WATER (ft-BTOC)	GROUNDWATER ELEVATION (ft)
MW-9	5/27/2007	839.39	45.0	33.45	805.94
	5/6/2008		-	-	-
	9/8/2008		46.8	36.44	802.95
	12/16/2008		46.8	37.46	801.93
	3/18/2009		46.8	37.37	802.02
	6/23/2009		46.8	34.45	804.94
	9/24/2009		46.8	35.32	804.07
	4/14/2010		46.8	26.65	812.74
	12/13/2010		46.8	32.98	806.41
	4/12/2011		46.8	33.35	806.04
	10/20/2011		46.8	35.23	804.16
	4/11/2012		46.8	35.05	804.34
	10/17/2012	838.29	46.7	37.03	801.26
	4/17/2013		46.7	35.66	802.63
	10/21/2013		46.8	32.17	806.12
	5/16/2014		46.8	29.89	808.40
10/17/2014	46.5		32.63	805.66	
MW-10	5/27/2007	833.00	50.0	36.23	796.77
	5/6/2008		50.7	36.80	796.20
	9/8/2008		50.1	37.70	795.30
	12/16/2008		50.1	37.44	795.56
	3/18/2009		50.1	37.13	795.87
	6/23/2009		50.1	36.76	796.24
	9/24/2009		50.1	36.48	796.52
	4/14/2010		50.1	34.83	798.17
	12/13/2010		50.2	36.47	796.53
	4/12/2011		50.1	36.14	796.86
	10/20/2011		50.1	37.65	795.35
	4/11/2012		50.1	37.22	795.78
	10/17/2012	831.90	50.1	38.11	793.79
	4/17/2013		50.1	37.73	794.17
	10/21/2013		49.5	36.40	795.50
	5/16/2014		49.5	35.45	796.45
10/17/2014	50.0		36.49	795.41	
MW-11	5/27/2007	833.06	50.5	20.40	812.66
	5/6/2008		-	-	-
	9/8/2008		49.8	21.71	811.35
	12/16/2008		49.8	22.55	810.51
	3/18/2009		49.8	20.84	812.22
	6/23/2009		49.8	20.37	812.69
	9/24/2009		49.8	20.64	812.42
	4/14/2010		49.8	19.33	813.73
	12/13/2010		49.8	21.23	811.83
	4/12/2011		49.8	20.04	813.02
	10/20/2011		49.8	21.97	811.09
	4/11/2012		49.8	20.60	812.46
	10/17/2012	831.96	49.8	21.88	810.08
	4/17/2013		49.8	19.93	812.03
	10/21/2013		49.8	20.25	811.71
	5/16/2014		49.8	19.49	812.47
10/17/2014	49.8		20.83	811.13	

**TABLE 2
GROUNDWATER/SURFACE WATER ELEVATION SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

WELL I.D.	DATE	TOP OF CASING ELEVATION (ft)	WELL DEPTH (ft-BTOC)	DEPTH TO WATER (ft-BTOC)	GROUNDWATER ELEVATION (ft)
MW-12	5/27/2007	836.98	51.2	40.18	796.80
	5/6/2008		-	-	-
	9/8/2008		50.2	41.66	795.32
	12/16/2008		50.2	41.98	795.00
	3/18/2009		50.2	41.93	795.05
	6/23/2009		50.2	40.97	796.01
	9/24/2009		50.2	40.95	796.03
	4/14/2010		NL	NL	NL
	12/13/2010		50.2	40.10	796.88
	4/12/2011		50.2	40.46	796.52
	10/20/2011		49.9	41.23	795.75
	4/11/2012	49.9	41.39	795.59	
	10/17/2012	835.88	50.0	42.02	793.86
	4/17/2013		49.9	41.62	794.26
	10/21/2013		50.0	40.63	795.25
	5/16/2014		50.0	39.98	795.90
10/17/2014	50.0		40.53	795.35	
MW-13D	5/6/2008	805.55	57.0	6.25	799.30
	9/8/2008		56.2	8.86	796.69
	12/16/2008		56.2	7.58	797.97
	3/18/2009		56.2	6.51	799.04
	6/23/2009		56.2	7.41	798.14
	9/24/2009		56.2	6.39	799.16
	4/14/2010		56.2	4.50	801.05
	12/13/2010		56.2	6.78	798.77
	4/12/2011		56.3	5.55	800.00
	10/20/2011		56.2	8.33	797.22
	4/11/2012		56.2	7.63	797.92
	10/17/2012	804.43	56.3	9.26	795.17
	4/17/2013		56.2	6.01	798.42
	10/21/2013		56.2	6.37	798.06
	5/16/2014		56.2	4.86	799.57
	10/17/2014		56.2	6.51	797.92
SG-1	5/16/2014	793.92	-	0.50	794.42
	10/17/2014		-	0.55	794.47
SG-2	5/16/2014	782.86	-	1.20	784.06
	10/17/2014		-	0.85	783.71
SG-3	10/17/2014	812.50	-	0.70	813.20
SG-4	10/17/2014	774.48	-	0.40	774.88

Notes: *ft-BTOC - feet below top of casing*
SG - stream gauge

Source: *Williams Environmental Services, Inc.*
PPM Consultants, Inc.
PPM Project No. 494501-GWM14

**TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

SAMPLE I.D.	DATE	TOTAL LEAD (mg/L)	TOTAL ZINC (mg/L)	DISSOLVED ZINC (mg/L)	TURBIDITY (NTUs)
Type 4 RRS		-	31	31	-
MW-1	1/13/2003	<0.010	0.121	-	4.20
	3/29/2007	-	0.0789	<0.020	4.24
	9/10/2008	-	0.372	-	-
	12/16/2008	-	-	-	-
	3/18/2009	-	-	-	-
	6/24/2009	-	0.0389	0.0233	16.7
	9/25/2009	-	0.0210	<0.020	58.2
	4/15/2010	-	0.0215	<0.020	1.63
	12/14/2010	-	<0.020	<0.020	0.00
	4/13/2011	-	0.0328	<0.020	0.00
	10/21/2011	-	<0.020	<0.020	5.28
	4/12/2012	-	<0.020	0.0393	4.08
	10/18/2012	-	0.109	-	57.0
	4/18/2013	-	0.0631	<0.020	7.99
10/22/2013	-	0.0209	<0.020	0.90	
10/17/2014	-	<0.020	<0.020	15.8	
MW-2	1/9/2003	<0.010	20.5	-	4.80
	1/28/2003	-	31.4	-	0.85
	3/29/2007	-	13.4	12.1	1.67
	9/9/2008	-	11.0	10.7	0.00
	12/16/2008	-	9.17	9.56	0.00
	3/18/2009	-	7.25	7.06	0.00
	6/23/2009	-	7.48	8.66	0.00
	9/24/2009	-	8.36	8.52	3.38
	4/15/2010	-	35.1	36.5	0.75
	12/14/2010	-	18.2	18.4	0.00
	4/13/2011	-	19.4	19.8	0.00
	10/21/2011	-	23.6	25.3	1.05
	4/12/2012	-	40.2	43.6	3.52
	10/18/2012	-	22.1	22.5	2.54
4/18/2013	-	27.6	29.3	2.52	
10/22/2013	-	15.7	16.7	0.55	
10/17/2014	-	12.0	12.2	2.50	
MW-3	2/13/2003	-	130	-	8.96
	1/7/2004	<0.010	-	-	-
	3/29/2007	-	48.5	29.0	16.8
	9/9/2008	-	62.5	42.6	15.3
	12/16/2008	-	132	139	13.8
	3/18/2009	-	114	108	53.5
	6/23/2009	-	62.0	64.3	3.60
	9/24/2009	-	118	109	91.0
	4/15/2010	-	47.2	-	476
	12/14/2010	-	65.4	-	254
4/13/2011	-	82.4	-	476	
MW-3R	8/16/2011	-	0.110	0.0675	192
	10/21/2011	-	0.0387	<0.020	238
	4/11/2012	-	<0.020	<0.020	12.1
	10/17/2012	-	<0.020	<0.020	64.3
	4/17/2013	-	<0.020	<0.020	17.1
	10/22/2013	-	0.0251	<0.020	18.1
10/17/2014	-	-	-	-	

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA

SAMPLE I.D.	DATE	TOTAL LEAD (mg/L)	TOTAL ZINC (mg/L)	DISSOLVED ZINC (mg/L)	TURBIDITY (NTUs)
Type 4 RRS		-	31	31	-
MW-4	2/12/2003	-	0.03	-	4.76
	1/6/2004	<0.010	-	-	-
	3/28/2007	-	0.0844	<0.020	4.70
	9/9/2008	-	<0.020	<0.020	10.8
	12/16/2008	-	<0.020	<0.020	0.97
	3/18/2009	-	<0.020	<0.020	0.01
	6/23/2009	-	<0.020	<0.020	0.00
	9/24/2009	-	<0.020	<0.020	0.00
	4/15/2010	-	<0.020	<0.020	7.93
	12/14/2010	-	<0.020	<0.020	0.00
	4/13/2011	-	<0.020	<0.020	0.00
	10/21/2011	-	<0.020	<0.020	5.32
	4/12/2012	-	<0.020	<0.020	16.3
	10/18/2012	-	<0.020	<0.020	4.60
4/18/2013	-	<0.020	<0.020	4.23	
10/22/2013	-	0.0265	<0.020	2.33	
10/17/2014	-	<0.020	<0.020	4.89	
MW-5	2/13/2003	-	5.9	-	24.70
	1/6/2004	<0.010	-	-	-
	3/29/2007	-	6.59	5.52	4.01
	9/9/2008	-	14.1	13.3	31.2
	12/16/2008	-	19.2	19.9	2.56
	3/19/2009	-	17.8	18.0	0.00
	6/23/2009	-	2.44	2.75	1.74
	9/24/2009	-	17.2	16.9	0.00
	4/15/2010	-	4.00	3.73	9.23
	12/14/2010	-	21.8	14.90	10.3
	4/13/2011	-	5.19	4.36	10.3
	10/21/2011	-	26.4	27.1	2.95
	4/12/2012	-	6.71	7.02	31.4
	10/18/2012	-	18.5	19.5	4.99
4/18/2013	-	5.67	5.60	4.99	
10/22/2013	-	1.44	1.67	25.8	
10/17/2014	-	3.33	3.81	4.67	
MW-6	5/28/2004	<0.010	<0.020	-	4.26
	3/28/2007	-	0.048	<0.020	4.21
	9/9/2008	-	0.028	<0.020	9.64
	12/17/2008	-	<0.020	<0.020	5.36
	3/18/2009	-	0.0235	<0.020	14.6
	6/23/2009	-	<0.020	<0.020	5.86
	9/25/2009	-	<0.020	<0.020	3.85
	4/15/2010	-	0.0580	<0.020	46.4
	12/13/2010	-	<0.020	<0.020	1.68
	4/13/2011	-	<0.020	<0.020	1.68
	10/21/2011	-	0.0242	<0.020	3.37
	4/12/2012	-	<0.020	<0.020	5.63
	10/18/2012	-	0.0272	<0.020	9.80
	4/18/2013	-	<0.020	<0.020	20.0
10/22/2013	-	<0.020	<0.020	3.42	
10/17/2014	-	-	-	-	

**TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

SAMPLE I.D.	DATE	TOTAL LEAD (mg/L)	TOTAL ZINC (mg/L)	DISSOLVED ZINC (mg/L)	TURBIDITY (NTUs)
Type 4 RRS		-	31	31	-
MW-6D	5/28/2004	<0.010	0.04	-	31.4
	3/28/2007	-	0.056	<0.020	31.2
	9/9/2008	-	0.0493	<0.020	9.23
	12/17/2008	-	<0.020	<0.020	0.00
	3/18/2009	-	<0.020	<0.020	0.00
	6/23/2009	-	0.0453	<0.020	0.00
	9/25/2009	-	<0.020	<0.020	1.64
	4/14/2010	-	<0.020	<0.020	46.1
	12/13/2010	-	<0.020	<0.020	40.1
	4/13/2011	-	<0.020	<0.020	40.0
	10/21/2011	-	<0.020	<0.020	5.19
	4/12/2012	-	<0.020	<0.020	4.14
	10/18/2012	-	<0.020	<0.020	4.36
	4/18/2013	-	<0.020	<0.020	8.42
10/22/2013	-	<0.020	<0.020	1.23	
10/17/2014	-	-	-	-	
MW-7	3/27/2007	-	37.1	29.7	4.79
	9/8/2008	-	48.8	48.0	11.5
	12/17/2008	-	24.8	23.2	10.9
	3/19/2009	-	8.46	8.49	15.1
	6/23/2009	-	40.0	39.5	9.17
	9/24/2009	-	10.9	11.6	11.6
	4/15/2010	-	12.7	12.2	5.05
	12/14/2010	-	13.7	13.8	315
	4/13/2011	-	9.13	8.55	315
	10/21/2011	-	14.2	15.3	5.28
	4/12/2012	-	7.70	11.2	16.7
	10/18/2012	-	10.8	10.4	8.52
	4/18/2013	-	5.33	5.36	105
10/22/2013	-	8.54	8.79	17.4	
10/17/2014	-	9.26	9.58	4.80	
MW-8	3/30/2007	-	<0.020	<0.020	19.4
	3/10/2008	<0.010	-	-	65.6
	9/10/2008	-	<0.020	<0.020	4.61
	12/17/2008	-	<0.020	<0.020	6.32
	3/19/2009	-	<0.020	<0.020	9.09
	6/24/2009	-	<0.020	<0.020	4.06
	9/25/2009	-	<0.020	<0.020	3.65
	4/14/2010	-	<0.020	<0.020	9.75
	12/13/2010	-	<0.020	<0.020	0.00
	4/13/2011	-	<0.020	<0.020	0.00
	10/20/2011	-	<0.020	<0.020	5.05
	4/11/2012	-	<0.020	<0.020	2.71
	10/17/2012	-	<0.020	<0.020	2.62
	4/17/2013	-	0.0228	<0.020	0.49
10/22/2013	-	0.0230	<0.020	1.51	
10/17/2014	-	-	-	-	

**TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

SAMPLE I.D.	DATE	TOTAL LEAD (mg/L)	TOTAL ZINC (mg/L)	DISSOLVED ZINC (mg/L)	TURBIDITY (NTUs)
Type 4 RRS		-	31	31	-
MW-9	3/30/2007	-	<0.020	<0.020	0.61
	9/9/2008	-	<0.020	<0.020	13.9
	12/17/2008	-	<0.020	<0.020	26.2
	3/18/2009	-	0.0211	<0.020	19.3
	6/23/2009	-	<0.020	<0.020	0.28
	9/25/2009	-	<0.020	<0.020	0.00
	4/15/2010	-	<0.020	<0.020	2.85
	12/14/2010	-	<0.020	<0.020	1.81
	4/13/2011	-	0.0296	<0.020	1.81
	10/21/2011	-	<0.020	<0.020	3.61
	4/12/2012	-	<0.020	<0.020	2.23
	10/18/2012	-	<0.020	<0.020	3.02
	4/18/2013	-	<0.020	<0.020	2.92
	10/22/2013	-	<0.020	<0.020	5.34
10/17/2014	-	-	-	-	
MW-10	3/30/2007	-	<0.020	<0.020	10.8
	3/6/2008	<0.010	-	-	11.9
	9/8/2008	-	<0.020	<0.020	14.4
	12/17/2008	-	<0.020	<0.020	28.2
	3/19/2009	-	<0.020	<0.020	6.84
	6/24/2009	-	<0.020	<0.020	2.92
	9/25/2009	-	<0.020	<0.020	15.9
	4/15/2010	-	<0.020	<0.020	30.8
	12/13/2010	-	0.0768	<0.020	>1,100
	4/12/2011	-	<0.020	<0.020	>1,100
	10/20/2011	-	<0.020	<0.020	10.6
	4/11/2012	-	<0.020	<0.020	14.5
	10/17/2012	-	<0.020	<0.020	40.1
	4/17/2013	-	<0.020	<0.020	11.4
10/22/2013	-	<0.020	<0.020	6.18	
10/17/2014	-	-	-	-	
MW-11	3/30/2007	-	<0.020	<0.020	3.55
	9/10/2008	-	<0.020	<0.020	2.35
	12/17/2008	-	<0.020	<0.020	0.00
	3/19/2009	-	<0.020	<0.020	0.00
	6/24/2009	-	<0.020	<0.020	0.00
	9/25/2009	-	0.175	0.0964	0.00
	4/15/2010	-	<0.020	0.0210	4.00
	12/13/2010	-	<0.020	<0.020	4.61
	4/12/2011	-	0.0229	<0.020	4.61
	10/20/2011	-	<0.020	<0.020	18.3
	4/11/2012	-	<0.020	<0.020	5.87
	10/17/2012	-	0.0344	0.0224	2.24
	4/17/2013	-	0.0293	<0.020	3.59
	10/22/2013	-	0.0246	<0.020	4.99
10/17/2014	-	-	-	-	

**TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA**

SAMPLE I.D.	DATE	TOTAL LEAD (mg/L)	TOTAL ZINC (mg/L)	DISSOLVED ZINC (mg/L)	TURBIDITY (NTUs)
Type 4 RRS		-	31	31	-
MW-12	3/30/2007	-	0.0759	<0.020	151
	9/10/2008	-	<0.020	<0.020	8.38
	12/17/2008	-	0.044	<0.020	116
	3/19/2009	-	0.0214	<0.020	41.1
	6/24/2009	-	<0.020	<0.020	0.00
	9/25/2009	-	<0.020	<0.020	0.00
	4/15/2010	-	NL	NL	NL
	12/13/2010	-	<0.020	<0.020	3.85
	4/12/2011	-	<0.020	<0.020	3.85
	10/20/2011	-	<0.020	<0.020	2.18
	4/11/2012	-	<0.020	<0.020	9.51
	10/17/2012	-	0.0230	<0.020	46.1
	4/17/2013	-	<0.020	<0.020	4.82
	10/22/2013	-	<0.020	<0.020	4.09
10/17/2014	-	-	-	-	
MW-13D	3/10/2008	<0.010	9.80	8.83	11.4
	9/9/2008	-	9.12	8.60	1.34
	12/16/2008	-	9.53	9.53	4.77
	3/18/2009	-	10.1	10.0	0.00
	6/23/2009	-	12.8	13.7	0.00
	9/24/2009	-	13.7	13.9	10.10
	4/15/2010	-	18.8	18.5	7.14
	12/14/2010	-	27.9	26.8	0.00
	4/13/2011	-	27.5	26.5	0.00
	10/21/2011	-	27.5	29.3	4.35
	4/12/2012	-	26.8	29.0	4.70
	10/18/2012	-	29.4	29.4	2.93
	4/18/2013	-	28.6	28.7	1.23
	10/22/2013	-	28.6	31.3	1.49
10/17/2014	-	8.90	9.18	1.38	
DUPLICATE RESULTS					
DUP (MW-2)	10/18/2012	-	22.0	23.0	2.54
DUP (MW-2)	4/18/2013	-	28.6	28.6	2.52
DUP (MW-2)	10/22/2013	-	16.0	16.8	0.55
DUP (MW-5)	10/17/2014	-	3.2	3.8	4.67

Notes: RRS - Risk reduction standard
 NTUs - Nephelometric Turbidity Units
 mg/L - milligrams per liter
 Bold - Concentration above a Type 4 RRS

Source(s): Williams Environmental Services, Inc.
 PPM Consultants, Inc.
 PPM Project No. 494501-GWM14

TABLE 4
SURFACE WATER ANALYTICAL SUMMARY
METALPLATE GALVANIZING FACILITY
ATLANTA, GEORGIA

SAMPLE I.D.	DATE	DISSOLVED ZINC (mg/L)	TOTAL HARDNESS (mg/L)	ACUTE ISWQS (mg/L)
SW-1A	5/5/2014	211	805	0.379
	10/16/2014	16.6	107	0.124
SW-2A	5/5/2014	180	841	0.379
	10/16/2014	172	873	0.379
SW-3A	5/5/2014	36.2	260	0.263
	10/16/2014	20.5	156	0.171
SW-4A	5/5/2014	78.8	493	0.379
SW-4B	10/16/2014	71.8	459	0.379
SW-5	5/5/2014	128	221	0.229
	10/16/2014	6.92	60.8	0.077
SW-6	5/5/2014	235	902	0.379
SW-6A	10/16/2014	247	862	0.379
SW-7	5/5/2014	38.4	233	0.240
	10/16/2014	45.9	286	0.285

Notes: ISWQS - Calculated Georgia instream water quality standard
mg/L - milligrams per liter
ISWQS were calculated using maximum 400 mg/L and minimum 25 mg/L total hardness
Bold - Concentration above calculated ISWQS

Source(s): PPM Consultants, Inc.
PPM Project No. 494501-GWM14

APPENDIX D – GROUNDWATER/SURFACE WATER ANALYTICAL RESULTS



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 27, 2014

Mike Dillon
PPM Consultants, Inc.
5555 Bankhead Hwy
Birmingham AL 35210

TEL: (205) 836-5650
FAX: (205) 836-5805

RE: Metal Plate

Dear Mike Dillon:

Order No: 1410G18

Analytical Environmental Services, Inc. received 7 samples on October 16, 2014 5:46 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

James Forrest
Project Manager

CHAIN OF CUSTODY

ANALYTICAL ENVIRONMENTAL SERVICES, INC
 3080 Presidential Drive, Atlanta GA 30340-3704
 TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188



COMPANY:		ADDRESS:		SIGNED BY:		DATE/TIME		RECEIVED BY:		DATE/TIME		PROJECT INFORMATION		RECEIPT	
PPM Consultants, Inc.		5555 Bankhead Hwy. Birmingham, AL 35210		SIGNATURE: <i>RS</i>				1: <i>[Signature]</i>		10/16/14 17:46		PROJECT NAME: Metal Plate		Total # of Containers: 14	
PHONE: 205-948-8765		FAX:		SIGNATURE: <i>RS</i>				2: <i>[Signature]</i>		10/16/14 15:46		PROJECT #: 494501-GW-M14		Turnaround Time Request	
SAMPLED BY: RS/JMS		SIGNATURE: <i>RS</i>		DATE		TIME		3: <i>[Signature]</i>				SITE ADDRESS: 505 Selig Dr. SW Atlanta, GA		Standard 5 Business Days	
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	I	N	X	X	X	X	X	X	X
		DATE	TIME												
1	SW-1A	10/16/14	13:02			SW	X								
2	SW-2A	10/16/14	12:53			SW	X								
3	SW-3A	10/16/14	12:33			SW	X								
4	SW-4B	10/16/14	12:05			SW	X								
5	SW-5	10/16/14	13:40			SW	X								
6	SW-6A	10/16/14	13:15			SW	X								
7	SW-7	10/16/14	11:55			SW	X								
8															
9															
10															
11															
12															
13															
14															

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD: OUT / IN VIA: VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER

INVOICE TO: (IF DIFFERENT FROM ABOVE)

SEND REPORT TO: Mike Dillon

STATE PROGRAM (if any):

E-mail? Y/N: Fax? Y/N

DATA PACKAGE: I II III IV

TURNAROUND TIME IS NOT INDICATED. AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+1 = Sulfuric acid + ice SM+1 = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: SW-1A
Project Name: Metal Plate	Collection Date: 10/16/2014 1:02:00 PM
Lab ID: 1410G18-001	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Zinc	16.6	0.0200		mg/L	197933	1	10/23/2014 20:03	JL
HARDNESS SM2340 B					(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	107	1.00		mg/L CaCO3	198039	1	10/23/2014 21:04	TA

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: SW-2A
Project Name: Metal Plate	Collection Date: 10/16/2014 12:53:00 PM
Lab ID: 1410G18-002	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED								
SW6010C					(SW3005A)			
Zinc	172	0.200		mg/L	197933	10	10/24/2014 16:12	JL
HARDNESS								
SM2340 B					(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	873	1.00		mg/L CaCO3	198039	1	10/23/2014 21:08	TA

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: SW-3A
Project Name: Metal Plate	Collection Date: 10/16/2014 12:33:00 PM
Lab ID: 1410G18-003	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED								
SW6010C					(SW3005A)			
Zinc	20.5	0.0200		mg/L	197933	1	10/23/2014 20:13	JL
HARDNESS								
SM2340 B					(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	156	1.00		mg/L CaCO3	198039	1	10/23/2014 21:12	TA

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: SW-4B
Project Name: Metal Plate	Collection Date: 10/16/2014 12:05:00 PM
Lab ID: 1410G18-004	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED								
SW6010C					(SW3005A)			
Zinc	71.8	0.0200		mg/L	197933	1	10/23/2014 20:18	JL
HARDNESS								
SM2340 B					(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	459	1.00		mg/L CaCO3	198039	1	10/23/2014 21:16	TA

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: SW-5
Project Name: Metal Plate	Collection Date: 10/16/2014 1:40:00 PM
Lab ID: 1410G18-005	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED								
SW6010C					(SW3005A)			
Zinc	6.92	0.0200		mg/L	197933	1	10/23/2014 20:25	JL
HARDNESS								
SM2340 B					(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	60.8	1.00		mg/L CaCO3	198039	1	10/23/2014 21:20	TA

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: SW-6A
Project Name: Metal Plate	Collection Date: 10/16/2014 1:15:00 PM
Lab ID: 1410G18-006	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED								
SW6010C					(SW3005A)			
Zinc	247	0.200		mg/L	197933	10	10/24/2014 16:16	JL
HARDNESS								
SM2340 B					(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	862	1.00		mg/L CaCO3	198039	1	10/23/2014 21:23	TA

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: SW-7
Project Name: Metal Plate	Collection Date: 10/16/2014 11:55:00 AM
Lab ID: 1410G18-007	Matrix: Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED								
SW6010C					(SW3005A)			
Zinc	45.9	0.0200		mg/L	197933	1	10/23/2014 20:35	JL
HARDNESS								
SM2340 B					(SM2340B)			
Hardness, Calcium/Magnesium (As CaCO3)	286	1.00		mg/L CaCO3	198039	1	10/23/2014 21:27	TA

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client PPM Work Order Number 1410518

Checklist completed by M/S? [Signature] Date 10/16/14

Carrier name: FedEx ___ UPS ___ Courier ___ Client US Mail ___ Other ___

Shipping container/cooler in good condition? Yes No ___ Not Present ___
Custody seals intact on shipping container/cooler? Yes No ___ Not Present ___
Custody seals intact on sample bottles? Yes No ___ Not Present ___
Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes No ___

Cooler #1 3.0 Cooler #2 ___ Cooler #3 ___ Cooler #4 ___ Cooler#5 ___ Cooler #6 ___

Chain of custody present? Yes No ___
Chain of custody signed when relinquished and received? Yes No ___
Chain of custody agrees with sample labels? Yes No ___
Samples in proper container/bottle? Yes No ___
Sample containers intact? Yes No ___
Sufficient sample volume for indicated test? Yes No ___
All samples received within holding time? Yes No ___
Was TAT marked on the COC? Yes ___ No
Proceed with Standard TAT as per project history? Yes No ___ Not Applicable ___
Water - VOA vials have zero headspace? No VOA vials submitted Yes ___ No ___
Water - pH acceptable upon receipt? Yes No ___ Not Applicable ___

Adjusted? ___ Checked by MTC

Sample Condition: Good Other(Explain) ___

(For diffusive samples or AIHA lead) Is a known blank included? Yes ___ No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: PPM Consultants, Inc.
Project: Metal Plate
Lab Order: 1410G18

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1410G18-001A	SW-1A	10/16/2014 1:02:00PM	Surface Water	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410G18-001B	SW-1A	10/16/2014 1:02:00PM	Surface Water	Hardness		10/22/2014	10/23/2014
1410G18-002A	SW-2A	10/16/2014 12:53:00PM	Surface Water	DISSOLVED METALS BY ICP		10/22/2014	10/24/2014
1410G18-002B	SW-2A	10/16/2014 12:53:00PM	Surface Water	Hardness		10/22/2014	10/23/2014
1410G18-003A	SW-3A	10/16/2014 12:33:00PM	Surface Water	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410G18-003B	SW-3A	10/16/2014 12:33:00PM	Surface Water	Hardness		10/22/2014	10/23/2014
1410G18-004A	SW-4B	10/16/2014 12:05:00PM	Surface Water	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410G18-004B	SW-4B	10/16/2014 12:05:00PM	Surface Water	Hardness		10/22/2014	10/23/2014
1410G18-005A	SW-5	10/16/2014 1:40:00PM	Surface Water	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410G18-005B	SW-5	10/16/2014 1:40:00PM	Surface Water	Hardness		10/22/2014	10/23/2014
1410G18-006A	SW-6A	10/16/2014 1:15:00PM	Surface Water	DISSOLVED METALS BY ICP		10/22/2014	10/24/2014
1410G18-006B	SW-6A	10/16/2014 1:15:00PM	Surface Water	Hardness		10/22/2014	10/23/2014
1410G18-007A	SW-7	10/16/2014 11:55:00AM	Surface Water	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410G18-007B	SW-7	10/16/2014 11:55:00AM	Surface Water	Hardness		10/22/2014	10/23/2014

Client: PPM Consultants, Inc.
Project Name: Metal Plate
Workorder: 1410G18

ANALYTICAL QC SUMMARY REPORT

BatchID: 197933

Sample ID: MB-197933	Client ID:	Units: mg/L	Prep Date: 10/22/2014	Run No: 278496							
SampleType: MBLK	TestCode: METALS, DISSOLVED SW6010C	BatchID: 197933	Analysis Date: 10/23/2014	Seq No: 5886055							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc BRL 0.0200

Sample ID: LCS-197933	Client ID:	Units: mg/L	Prep Date: 10/22/2014	Run No: 278496							
SampleType: LCS	TestCode: METALS, DISSOLVED SW6010C	BatchID: 197933	Analysis Date: 10/23/2014	Seq No: 5886056							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.039 0.0200 1.000 104 80 120

Sample ID: 1410H79-001AMS	Client ID:	Units: mg/L	Prep Date: 10/22/2014	Run No: 278496							
SampleType: MS	TestCode: METALS, DISSOLVED SW6010C	BatchID: 197933	Analysis Date: 10/23/2014	Seq No: 5886058							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.027 0.0200 1.000 0.005923 102 75 125

Sample ID: 1410H79-001AMSD	Client ID:	Units: mg/L	Prep Date: 10/22/2014	Run No: 278496							
SampleType: MSD	TestCode: METALS, DISSOLVED SW6010C	BatchID: 197933	Analysis Date: 10/23/2014	Seq No: 5886059							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.044 0.0200 1.000 0.005923 104 75 125 1.027 1.69 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	



October 27, 2014

Mike Dillon
PPM Consultants, Inc.
5555 Bankhead Hwy
Birmingham AL 35210

TEL: (205) 836-5650
FAX: (205) 836-5805

RE: Metal Plate

Dear Mike Dillon:

Order No: 1410H79

Analytical Environmental Services, Inc. received 7 samples on October 17, 2014 4:29 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

James Forrest
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1410479

1410479

Date: 10/17/14 Page 1 of 1

#	SAMPLE ID	SAMPLED			Matrix (See codes)	Composite	Grab	ANALYSIS REQUESTED		REMARKS	No # of Containers
		DATE	TIME								
1	MW-1	10/17/14	0925		GW			Total Zinc			2
2	MW-2	10/17/14	1230		GW			Dissolved Zinc			2
3	MW-4	10/17/14	1045		GW						2
4	MW-5	10/17/14	1435		GW						2
5	MW-7	10/17/14	1330		GW						2
6	MW-13D	10/17/14	1130		GW						2
7	DUP	10/17/14			GW						2
8											
9											
10											
11											
12											
13											
14											

RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: 10/17/14 16:29	RECEIVED BY: <i>[Signature]</i>	DATE/TIME: 10/17/14
1: <i>[Signature]</i>		2: <i>[Signature]</i>	4:29
3: <i>[Signature]</i>			

SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD	
OUT	/ /	VIA:	
IN		VIA:	
	CLIENT	FedEx	UPS MAIL COURIER
	GREYHOUND	OTHER	

PROJECT NAME: Metal Plate		PROJECT INFORMATION	
PROJECT #: 494501-GW-M14		Total # of Containers: 16	
SITE ADDRESS: 505 Selig Dr. Atlanta, GA		Turnaround Time Request: Standard 5 Business Days	
SEND REPORT TO: Mike Dillon		2 Business Day Rush	
INVOICE TO: (IF DIFFERENT FROM ABOVE)		Next Business Day Rush	
		Same Day Rush (auth req.)	
		Other	
STATE PROGRAM (if any):		E-mail? Y/N; Fax? Y/N	
DATA PACKAGE: I II III IV		QUOTE #:	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+M+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: MW-1
Project Name: Metal Plate	Collection Date: 10/17/2014 9:25:00 AM
Lab ID: 1410H79-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Zinc	BRL	0.0200		mg/L	197933	1	10/23/2014 19:11	JL
METALS, TOTAL SW6010C					(SW3010A)			
Zinc	BRL	0.0200		mg/L	198094	1	10/24/2014 01:50	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: MW-2
Project Name: Metal Plate	Collection Date: 10/17/2014 12:30:00 PM
Lab ID: 1410H79-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Zinc	12.2	0.0200		mg/L	197933	1	10/23/2014 19:29	JL
METALS, TOTAL SW6010C					(SW3010A)			
Zinc	12.0	0.0200		mg/L	198094	1	10/24/2014 01:54	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: MW-4
Project Name: Metal Plate	Collection Date: 10/17/2014 10:45:00 AM
Lab ID: 1410H79-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Zinc	BRL	0.0200		mg/L	197933	1	10/23/2014 19:33	JL
METALS, TOTAL SW6010C					(SW3010A)			
Zinc	BRL	0.0200		mg/L	198094	1	10/24/2014 01:58	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: MW-5
Project Name: Metal Plate	Collection Date: 10/17/2014 2:35:00 PM
Lab ID: 1410H79-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Zinc	3.81	0.0200		mg/L	197933	1	10/23/2014 19:37	JL
METALS, TOTAL SW6010C					(SW3010A)			
Zinc	3.33	0.0200		mg/L	198094	1	10/24/2014 02:01	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: MW-7
Project Name: Metal Plate	Collection Date: 10/17/2014 1:30:00 PM
Lab ID: 1410H79-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Zinc	9.58	0.0200		mg/L	197933	1	10/23/2014 19:48	JL
METALS, TOTAL SW6010C					(SW3010A)			
Zinc	9.26	0.0200		mg/L	198094	1	10/24/2014 02:12	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: MW-13D
Project Name: Metal Plate	Collection Date: 10/17/2014 11:30:00 AM
Lab ID: 1410H79-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Zinc	9.18	0.0200		mg/L	197933	1	10/23/2014 19:52	JL
METALS, TOTAL SW6010C					(SW3010A)			
Zinc	8.90	0.0200		mg/L	198094	1	10/24/2014 02:16	JL

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 27-Oct-14

Client: PPM Consultants, Inc.	Client Sample ID: DUP
Project Name: Metal Plate	Collection Date: 10/17/2014
Lab ID: 1410H79-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010C					(SW3005A)			
Zinc	3.83	0.0200		mg/L	197933	1	10/23/2014 19:56	JL
METALS, TOTAL SW6010C					(SW3010A)			
Zinc	3.21	0.0200		mg/L	198094	1	10/24/2014 02:20	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client PRM

Work Order Number 1410479

Checklist completed by MWJ Signature 10/2/14 Date

Carrier name: FedEx UPS Courier Client US Mail Other

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Container/Temp Blank temperature in compliance? (4°C±2)* Yes No

Cooler #1 3.5 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Was TAT marked on the COC? Yes No
- Proceed with Standard TAT as per project history? Yes No Not Applicable
- Water - VOA vials have zero headspace? No VOA vials submitted Yes No
- Water - pH acceptable upon receipt? Yes No Not Applicable

Sample Condition: Good Adjusted? _____ Other(Explain) _____ Checked by MWJ
(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: PPM Consultants, Inc.
 Project: Metal Plate
 Lab Order: 1410H79

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1410H79-001A	MW-1	10/17/2014 9:25:00AM	Groundwater	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410H79-001B	MW-1	10/17/2014 9:25:00AM	Groundwater	TOTAL METALS BY ICP		10/23/2014	10/24/2014
1410H79-002A	MW-2	10/17/2014 12:30:00PM	Groundwater	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410H79-002B	MW-2	10/17/2014 12:30:00PM	Groundwater	TOTAL METALS BY ICP		10/23/2014	10/24/2014
1410H79-003A	MW-4	10/17/2014 10:45:00AM	Groundwater	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410H79-003B	MW-4	10/17/2014 10:45:00AM	Groundwater	TOTAL METALS BY ICP		10/23/2014	10/24/2014
1410H79-004A	MW-5	10/17/2014 2:35:00PM	Groundwater	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410H79-004B	MW-5	10/17/2014 2:35:00PM	Groundwater	TOTAL METALS BY ICP		10/23/2014	10/24/2014
1410H79-005A	MW-7	10/17/2014 1:30:00PM	Groundwater	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410H79-005B	MW-7	10/17/2014 1:30:00PM	Groundwater	TOTAL METALS BY ICP		10/23/2014	10/24/2014
1410H79-006A	MW-13D	10/17/2014 11:30:00AM	Groundwater	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410H79-006B	MW-13D	10/17/2014 11:30:00AM	Groundwater	TOTAL METALS BY ICP		10/23/2014	10/24/2014
1410H79-007A	DUP	10/17/2014 12:00:00AM	Groundwater	DISSOLVED METALS BY ICP		10/22/2014	10/23/2014
1410H79-007B	DUP	10/17/2014 12:00:00AM	Groundwater	TOTAL METALS BY ICP		10/23/2014	10/24/2014

Client: PPM Consultants, Inc.
 Project Name: Metal Plate
 Workorder: 1410H79

ANALYTICAL QC SUMMARY REPORT

BatchID: 197933

Sample ID: MB-197933	Client ID:	Units: mg/L	Prep Date: 10/22/2014	Run No: 278496							
SampleType: MBLK	TestCode: METALS, DISSOLVED SW6010C	BatchID: 197933	Analysis Date: 10/23/2014	Seq No: 5886055							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc BRL 0.0200

Sample ID: LCS-197933	Client ID:	Units: mg/L	Prep Date: 10/22/2014	Run No: 278496							
SampleType: LCS	TestCode: METALS, DISSOLVED SW6010C	BatchID: 197933	Analysis Date: 10/23/2014	Seq No: 5886056							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.039 0.0200 1.000 104 80 120

Sample ID: 1410H79-001AMS	Client ID: MW-1	Units: mg/L	Prep Date: 10/22/2014	Run No: 278496							
SampleType: MS	TestCode: METALS, DISSOLVED SW6010C	BatchID: 197933	Analysis Date: 10/23/2014	Seq No: 5886058							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.027 0.0200 1.000 0.005923 102 75 125

Sample ID: 1410H79-001AMSD	Client ID: MW-1	Units: mg/L	Prep Date: 10/22/2014	Run No: 278496							
SampleType: MSD	TestCode: METALS, DISSOLVED SW6010C	BatchID: 197933	Analysis Date: 10/23/2014	Seq No: 5886059							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.044 0.0200 1.000 0.005923 104 75 125 1.027 1.69 20

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: PPM Consultants, Inc.
Project Name: Metal Plate
Workorder: 1410H79

ANALYTICAL QC SUMMARY REPORT

BatchID: 198094

Sample ID: MB-198094	Client ID:	Units: mg/L	Prep Date: 10/23/2014	Run No: 278522							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010C	BatchID: 198094	Analysis Date: 10/24/2014	Seq No: 5886494							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc BRL 0.0200

Sample ID: LCS-198094	Client ID:	Units: mg/L	Prep Date: 10/23/2014	Run No: 278522							
SampleType: LCS	TestCode: METALS, TOTAL SW6010C	BatchID: 198094	Analysis Date: 10/24/2014	Seq No: 5886495							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.046 0.0200 1.000 105 80 120

Sample ID: 1410G30-008BMS	Client ID:	Units: mg/L	Prep Date: 10/23/2014	Run No: 278522							
SampleType: MS	TestCode: METALS, TOTAL SW6010C	BatchID: 198094	Analysis Date: 10/24/2014	Seq No: 5886500							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.073 0.0200 1.000 107 75 125

Sample ID: 1410G30-008BMSD	Client ID:	Units: mg/L	Prep Date: 10/23/2014	Run No: 278522							
SampleType: MSD	TestCode: METALS, TOTAL SW6010C	BatchID: 198094	Analysis Date: 10/24/2014	Seq No: 5886501							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Zinc 1.076 0.0200 1.000 108 75 125 1.073 0.221 20

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix