REMEDIAL INVESTIGATION REPORT
Former RKO Cleaners
(NYSDEC Site Number 401065)

NYSDEC STANDBY ENGINEERING CONTRACT
Work Assignment #D007625-20

PREPARED FOR
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 BROADWAY
ALBANY, NEW YORK 12233

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Prepared by

16 Corporate Woods Boulevard
Albany, NY 12211

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

ACRONYMS AND ABBREVIATIONS

AOC	Areas of Concern
Bgs	below ground surface
C&D	construction and demolition
cVOC	chlorinated volatile organic compound
DCE	cis-1,2 dicholorethene
DUSR	Data Usability Summary Report
ESA	Environmental Site Assessment
GWQS	Groundwater Quality Standards
HDR	Henningson, Durham & Richardson Architecture and Engineering, PC.
HSA	Hollow Stem Auger
ID	Inside Diameter
IRM	Interim Remedial Measure
MiHpt	Membrane Interface Probe – Hydraulic Profiling Tool
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCE	tetrachloroethene
RI	Remedial Investigation
RAOs	Remedial Action Objectives
sVOCs	semi volatile organic compound
SCOs	Soil Cleanup Objectives
SVI	soil vapor intrusion
TCE	trichloroethene
TVOC	total volatile organic compounds
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound
µg/l	micrograms per liter
µg/m^3	micrograms per cubic meter
µg/kg	micrograms per kilograms
UST	underground storage tank

Executive Summary

From June 2015 through June 2016, Henningson, Durham & Richardson Architecture and Engineering, P.C. (HDR) conducted a Remedial Investigation (RI) at the Former RKO Dry Cleaners Site (NYSDEC Site #401065), located at 566 Washington Avenue, City of Albany, Albany County, New York. The RI activities were primarily focused on-site with some activities also performed off-site to aid in contamination delineation. The purpose and objective of this Remedial Investigation Report (RIR) is to document the nature and extent of the on-site and off-site contamination associated with the Former RKO Dry Cleaners Site.

Site Background and History

The RKO Dry Cleaners site is located in the central portion of the City of Albany at the intersection of Ontario Street and Washington Avenue (Figure 1). The site is a 0.77-acre vacant lot presently covered with concrete and gravel that is occasionally used for parking by the nearby residents. The site is bordered to the north by the intersection of Washington Avenue and Ontario Street; to the south and east by apartment buildings, and to the west by Ontario Street. On the north side of Washington Avenue is a gas station and on the west side of Ontario Street is Beverwyck Park. Previously, a circa 1950 building was present on the property and the site was operated as a dry cleaner from 1964 to 2005, with the exception of 1995 when Lee's Market was listed as the occupant. A residential structure is likely to have existed on the lot prior to its commercial use. The former commercial building was approximately 2,575 square feet with a partial basement under the rear (southwest) quarter of the building footprint. In December 2000, a large fire occurred at the property resulting in a spill incident (NYSDEC Spill #0010595) that reported dry cleaning fluids may have been spilled but were consumed by the fire. After the fire, the building was boarded up and left vacant until 2012 when the New York State Department of Environmental Conservation (NYSDEC) began to characterize the site as a possible source of contamination. Site Characterization activities confirmed the presence of the tetrachloroethene (PCE), trichloroethene (TCE) and, cis-1,2-dichloroethene (DCE) contamination. These contaminants are classified as chlorinated volatile organic compounds (cVOCs); PCE is frequently associated with dry cleaning operations, with TCE and DCE being typical by-products of PCE degradation.

Summary of RI Scope

The primary RI activities were as follows:.

July 2015:

- Nine membrane interface probe-hydraulic profiling tool (MiHpt) test borings advanced 20-30 ft below ground surface (bgs) (sampling interval of 1 ft); and
- Four soil boring locations with 1-3 samples taken at each and three surface[1] soil samples for a total of 10 soil samples.

August 2015:

- Five existing groundwater monitoring wells sampled by NYSDEC.

December 2015 / January 2016:

- Twenty-eight total soil samples;
  - Eleven soil boring locations with 2-3 samples taken at each;
  - Three soil samples taken during monitoring well installation (separate locations);
- Two new groundwater monitoring wells installed (MW6 and MW8);
- Four groundwater samples collected: one from each of the new wells, one grab sample (MW7) and one from existing MW3; and
- Synoptic round of groundwater level measurements.

March 2016:

- Two properties investigated for soil vapor intrusion: one which had been previously investigated and determined to be monitored periodically.

Summary of Site Conditions

- Land cover in the area primarily consists of asphalt and concrete (parking areas, roads, and sidewalks), structures (businesses and homes), vegetation (lawns, right-of-way and a public park property).
- The surface water feature nearest to the site is a small pond located in Washington Park approximately four-tenths of a mile to the south east, followed by the Hudson River just over 1 mile in the same direction.
- Shallow surface soils were generally characterized during the RI as gray or brown plastic clay, soft to firm.
- Native clay soils were encountered from approximately 2 ft. bgs to 7 ft. bgs, and a mixture of clay and silt were encountered from approximately 7 ft. bgs to 20 ft. bgs.
- Bedrock is estimated to be approximately 300 ft. bgs.
- Groundwater depths ranged from 6 to 13 ft. bgs, as gauged in the monitoring wells and flows towards to the east.
- The groundwater gradient across the site is 0.043 and hydraulic conductivity (K) was generally estimated to be between 10 and 28 ft/day from 10 to 14 ft. bgs, with much lower conductivity (0-5 ft/day) occurring in the interval below 14 ft. bgs.

Summary of Environmental Findings

Soil

On-site soil sampling results indicated a relatively focused area of PCE contamination located on the east side of the site, where the back door of the old commercial building was located. This hot spot area includes four locations with PCE concentrations ranging from 15 milligrams per kilogram (mg/kg) or parts per million (ppm) at SP-11 to 110 mg/kg at SP-10. Three of the four locations had PCE over the Restricted Residential Soil Cleanup Objective (RRSCO) of 19 mg/kg and the 15 mg/kg at SP-11 was over the Unrestricted Use SCO (UUSCO) and the Protection of

Groundwater SCO (PGWSCO), both being 1.3 mg/kg. The depth of this contamination ranges from 6-12 feet bgs with the highest concentration of 110 mg/kg being located at the 8-12 feet bgs interval. Trichloroethene, a breakdown product of PCE, is also present in the hot spot area, ranging from 0.36 mg/kg to 0.92 mg/kg at SP-3, with two locations above both the UUSCO and PGWSCO of 0.47 mg/kg. In addition to the hot spot, one location, MP7-SS, had cVOC levels which were above UUSCO/PWGSCOs but below RRSCOs for TCE and DCE, another breakdown product of PCE. At all of the other sampling locations only trace levels of cVOCs (primarily PCE) were detected and none of the samples exhibited VOC concentrations above UUSCOs. The depth of contaminated soils which exceed applicable SCOs ranges from the shallowest contamination occurring at 6 feet bgs at the location of MW6 and SP-11, to the deepest contaminated soils occurring in the 10-14 ft bgs in the sample collected at MP7-SS. In general, the majority of the contaminated soil occurs between 8-12 feet bgs at this site on the east side of the site, adjacent to the former back door location.

The soil sampling results also detected various metals (six samples), PCBs (two samples), and pesticides (two samples) that exceed the UUSCOs. However, the results do not appear to be related to the former dry cleaning operation at the site and are likely attributed to the urban land use in the area.

All soil samples were collected on-site, with the exception of one surface soil sample that was collected in an adjacent grassy right-of-way. Based on the sampling results, soil contamination is not anticipated to extend off-site.

Groundwater

The site related cVOCs including PCE, TCE and DCE were detected at concentrations exceeding applicable NYSDEC Class GA groundwater standards (all 5 micrograms per liter [µg/L] or parts per billion [ppb]). A maximum concentration of 9,600 µg/L of PCE was detected in the on-site HDR-installed overburden monitoring well MW6 in January 2016. The location of this monitoring well coincides with the contaminated soil hot spot discussed above. PCE, TCE and DCE were all detected over GA groundwater standards in MW3, located where the sump of the previous building had been. However, these concentrations have all decreased substantially since 2012, when the well was originally installed and sampled. PCE was also detected at 21 µg/L in one off-site well, MW2, which is directly down gradient of the hot spot and MW6. The two groundwater sampling locations which were new in January 2016, MW7 and MW8, both came back with non-detect for all VOCs indicating groundwater contamination has likely not migrated further off-site in the direction of groundwater flow (east).

Soil Vapor

Based on the soil vapor intrusion (SVI) investigation performed as part of the 2012/2013 Site Characterization, a Sub-slab Depressurization System (SSDS) was installed at a structure on one property and another structure was recommended for periodic monitoring due to the inability to install an SSDS. During the RI, one such periodic monitoring event was performed on that structure. SVI sampling (indoor air and sub-slab) was also performed at another structure not

previously sampled and it was found that no further action (mitigation or monitoring) was required in accordance with New York State Department of Health (NYSDOH) guidance matrices pertaining to vapor intrusion.

Conclusions

A relatively localized area of cVOC soil contamination exists in the eastern portion of the site and is likely the source of the groundwater contamination. Based on the apparent extent of this soil and groundwater contamination, an interim remedial measure (IRM) to remove or treat the remaining contamination associated with the site would likely remedy the contamination attributed to the site. Potential IRM options could include further soil excavation and off-site disposal or a targeted injection of an oxidant to destroy the remaining cVOCs. Both of these options could be quickly implemented at the site once further evaluations are completed to determine which one (or combination of the two) would be most effective in meeting the established remedial goals for the site.

[1] *Exposed soils at the site are limited due the existing impervious cover. As surface soil samples were required by NYSDOH, it was determined the best candidates for sampling were: material characterized as accumulation of sediment within a seam of existing concrete; beneath the sod of a grass right-of-way strip located in front of 564 Washington Avenue; and immediately under the existing at-grade concrete slab.*

1.0 INTRODUCTION

1.1 Site Background & History

The RKO Dry Cleaners site is located in the central portion of the City of Albany at the intersection of Ontario Street and Washington Avenue (Figure 1). The site is a 0.77 acre vacant lot presently covered with concrete and gravel that is occasionally used for parking by the nearby residents. The site is bordered on the north by the intersection of Washington Avenue and Ontario Street, to the south and east by apartment buildings, and to the west by Ontario Street. There is a gas station on the north side of Washington Avenue across from the site, and Beverwyck Park is on the west side of Ontario Street, also across from the site. Land cover in the area primarily consists of asphalt and concrete (parking areas, roads, and sidewalks), structures (businesses and homes), vegetation (lawns and a public park).The nearest surface water feature to the site is a small pond located in Washington Park, approximately 2,000 feet to the south east, and the Hudson River just over one mile in the same direction. Previously, a circa 1950 building was present on the property and the site was operated as a dry cleaner from 1964 to 2005, with the exception of 1995 when Lee's Market was listed as the occupant. A residential structure is likely to have existed prior to its commercial use. The former commercial building was approximately 2,575 square feet and had a basement under the rear (southwest) quarter of the building footprint. In December 2000, a large fire occurred at the property resulting in a spill incident (NYSDEC Spill #0010595) that reported dry cleaning fluids may have been spilled, but the fire department indicated it was consumed by the fire. After the fire the building was boarded up and left vacant until 2012 when NYSDEC began to characterize the site as a possible source of contamination.

1.2 Previous Investigations

The condition of the site and vacant building were evaluated by the NYSDEC in May of 2012, and water which had collected in the basement of the structure was sampled. Analytical results of those samples identified PCE, TCE, and DCE in concentrations exceeding NYSDEC standards for Class GA groundwater (6NYCRR Part 703) as well as being a characteristic hazardous waste. These contaminants are classified as cVOCs; PCE is frequently associated with dry cleaning operations, with TCE and DCE being typical by-products of PCE degradation. The structural integrity of the building was determined to be unsound and the building was razed by the City of Albany in June of 2012. During the building demolition several IRMs were undertaken which included: basement dewatering, removal of containers from construction and demolition (C&D) debris, and removal and disposal of hazardous C&D debris.

During the above mentioned IRMs, a suspected fuel oil underground storage tank (UST) was confirmed, and was removed and cleaned on July 24, 2012. The 1,000 gallon tank was located on the eastern side of the property. Post excavation sampling from the sidewalls indicated that no VOCs or sVOCs were present. PCE was detected in the sample collected from the bottom of the excavation, but PCE is not related to the contents of the fuel oil UST (Aztech, 2012).

After the removal of C&D debris and UST were completed, NYSDEC continued the investigation at the site as part of the Site Characterization (SC) process. SC activities included:

July 2012:

- Sub-slab soil and groundwater sampling;
- After sub-slab sampling, a dewatering point was constructed in the basement for future dewatering purposes and the remaining area in the basement was backfilled with clean sand to within two feet of grade and finished with crushed stone. Backfilling of the basement was completed on July 25, 2012 (Aztech, 2012).

August 2012:

- Seven soil boring locations with one soil sample at one location (below sub-slab on-site);
- Five borings converted into groundwater monitoring wells and sampled (MW1 through MW5, two on-site and three off-site);
- Four soil vapor points installed (SV-1 through SV-4) and two sampled due to insufficient air draw at the other two locations, likely due to the tight soil formation; and
- One ambient air sample collected.

November 2012:

- Two nearby properties (south and east) investigated for soil vapor intrusion via sampling of sub-slab vapor and indoor air.

January 2013:

- One property (east) resampled for SVI; and
- One additional property (further east) investigated for soil vapor intrusion based on the November 2012 results.

Soil analytical results from the sub-slab sample were in excess of their respective soil cleanup objectives (SCOs) for unrestricted use/protection of groundwater, as defined by 6NYCRR Part 375- 6.8(a) but, below their respective soil cleanup objective for restricted residential use, as defined by 6NYCRR Part 375-6.8(b).

All five groundwater samples collected from each monitoring well in August of 2012 contained PCE. Two wells (MW2 and MW3) exceeded NYSDEC Class GA groundwater standards for PCE, TCE, and/or DCE. Soil vapor samples were also collected in August, concurrent with the groundwater sampling. Petroleum-related compounds were detected in the SV-4 sample which is located adjacent to the location of the former UST, while PCE, TCE, and DCE were detected in the SV-3 sample.

Based on the soil vapor sampling results, soil vapor intrusion sampling was completed at nearby residences, and two of the three residences which were sampled qualified for mitigation based on the decision matrix in the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York. A sub-slab depressurization system (SSDS) was successfully installed at a property east of the site that was identified for mitigation and remains operational. Sub-slab communication testing at the second property due for mitigation

indicated a system would not be effective if installed; therefore the property was recommended for periodic monitoring; one such sampling event took place as part of this investigation and is further detailed in Chapter 3.

1.3 Project Objectives & Approach

The objectives for the on-site investigation were to build on the Site Characterization work and further characterize the nature and extent of site-related contamination in order to identify and evaluate appropriate remedial measures. A soil sampling and MiHpt subsurface investigation was implemented, with results that warranted an additional soil sampling event. One groundwater monitoring well was installed on-site in the vicinity of the highest detected soil contamination.

The objectives for the off-site investigation were to characterize the potential migration of organic vapors associated with the site into neighboring structures and the assessment of potential impacts to off-site soils and groundwater. A vapor intrusion sampling program was implemented as part of the of the investigation, with multiple residential structures in the vicinity of the site sampled to assess both indoor and sub-slab air quality for the presence of site related contaminants of concern. Off-site soil samples were also collected during the off-site RI monitoring well installation activities to characterize any potential site related soil contamination in the vicinity of the site.

One additional groundwater monitoring well was installed off-site in a down gradient position and another downgradient groundwater sample was collected from a probe location due to access issues which prevented the installation of a permanent monitoring well. Off-site groundwater quality was evaluated based on the results of groundwater samples collected from monitoring wells installed during previous site characterization work and during this remedial investigation.

1.4 Applicable Criteria

To determine the nature and extent of contamination at the site, standards and screening criteria were used during the RI to evaluate the analytical data for soil, groundwater, soil vapor, indoor air, and outdoor air. Applicable criteria utilized included:

<u>Soil</u>

Soil sample results were compared to 6NYCRR Part 375 Environmental Remediation Programs Tables 375- 6.8(a) and 375-6.8(b) Protection of Groundwater SCOs (PGWSCOs), Unrestricted Use SCOs (UUSCOs), and Restricted Residential Use SCOs (RRSCOs) for organic and inorganic constituents (NYSDEC 2006).

Groundwater

Groundwater analytical results were compared to NYSDEC Part 703 Groundwater Quality Standards (GWQS) Class GA or Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS).

Soil Vapor Intrusion (SVI)

The Soil Vapor/Indoor Air matrices contained in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) were used to evaluate SVI in nearby structures.

The applicable criteria values listed above are included for reference in the analytical data tables associated with the RI report.

2.0 REMEDIAL INVESTIGATION ACTIVITIES

The following activities were performed as part of the RI:

July 2015

- Nine membrane MiHpt test borings advanced 20-30 ft below ground surface (bgs) (sampling interval of 1 ft);
- Four soil boring locations with 1-3 samples taken at each and three surface[1] soil samples for a total of 10 soil samples.

August 2015

- Five existing groundwater monitoring wells sampled by NYSDEC.

December 2015 / January 2016

- Twenty-eight total soil samples;
  - Eleven soil boring locations with 2-3 samples taken at each;
  - Three soil samples taken during monitoring well installation (separate locations);
- Two new groundwater monitoring wells installed (MW6 and MW8);
- Four groundwater samples collected: one from each of the new wells, one grab sample (MW7) and one from existing MW3; and
- Synoptic round of groundwater level measurements.

March 2016

- Two properties investigated for soil vapor intrusion: one which had been previously investigated and determined to be monitored periodically.

2.1 On-site MiHpt Investigation and Soil Sampling – July 2015

A MiHpt investigation was conducted to evaluate VOC contamination at the former RKO Dry Cleaners site, within the basement footprint of the former building underneath the remaining slab. Subcontractor Zebra Technical Services, LLC (Zebra) was retained by HDR to profile designated probe locations utilizing a MiHpt which consists of a sensor array optimized for detecting and characterizing the presence of free product in subsurface soils, and parts per billion to low parts per million concentration dissolved phase VOCs in groundwater. For this investigation the MiHpt array included a photo ionization detector (PID), a flame ionization detector (FID), a halogen specific detector (XSD), and a hydraulic profiling tool (HPT) for estimating in-situ formation permeability.

On Tuesday, June 30, 2015, HDR and Zebra mobilized to the site along with the drilling subcontractor, Parratt-Wolff, to begin the MiHpt investigation. HDR field staff were on-site along with NYSDEC personnel to observe the drilling and MiHpt data collection, and direct Zebra and Parratt-Wolff to the investigation boring locations and depth. The sampling locations were determined by the NYSDEC and generally based on the previous sump location in the basement of the former building and previous sampling results during demolition.

In advance of the MiHpt probe arriving, HDR's standby driller Parratt-Wolff pre-drilled 5 borings through 8 – 10 ft of crushed stone and fill material that was used to backfill the former basement, in order to penetrate the underlying basement slab and reach the native soil beneath it. A 4-inch diameter schedule 40 PVC pipe was then inserted into each borehole to prevent it from collapsing. This allowed for easy and efficient sub-slab access of the MiHpt probe which would not have been able to penetrate the concrete slab. Based on in-field review of the MiHpt data being collected, four additional on-site locations were augured by Parratt-Wolff and then sampled by Zebra with the MiHpt in an effort to determine on-site extent of the contaminants. During the two-day MiHpt investigation, a total of 9 MiHpt borings were advanced to 20 – 30 ft bgs, with a sampling interval of 1 ft. The MiHpt boring locations are shown on Figure 2. Appendix A contains the data package provided by Zebra at the completion of the MiHpt investigation and includes output plots with

ECD, XSD, and PID response at depth. This indicates whether VOCs are present in the soils within the unsaturated zone as well as dissolved in the groundwater.

In conjunction with the MiHpt investigation, Parratt Wolff, under the direction of HDR and the NYSDEC, assisted HDR with the collection of soil samples in the vicinity of three of the MiHpt probe locations and one other on-site location (Figure 2 & Appendix J – Enlarged Figure 2L). Soil macro cores were extracted in 2" diameter, 4-foot long sections and logged by an HDR geologist (Appendix B). The cores were initially screened and then based on PID readings, visual assessment, and/or depth, soil was selected and retained in plastic bags to collect head space readings. Head space PID readings were then used to determine which samples were selected to be jarred and sent to the laboratory for VOC analysis. During this event, three surface soil samples were also collected to evaluate contact with exposed surface soils as a potential exposure pathway. Exposed soils at the site are limited due the existing impervious cover (i.e., concrete, pavement, clean crushed stone). As surface soil samples were required by NYSDOH, it was determined the best candidates for sampling were as follows:

- Material characterized as accumulation of soils within a seam of existing concrete (SS11);
- soils beneath the grass sod in the right-of-way strip located in front of 564 Washington Avenue (SS12); and
- soils immediately under the existing at-grade concrete slab (MP6-SS).

A total of 10 soil samples, including the 3 surface samples, were collected, stored on ice and taken to the laboratory via courier under chain of custody to HDR's standby analytical laboratory, Hampton Clarke, for analytical testing. All samples were tested for VOCs (8260C), while surface samples were analyzed for the full analytical suite including VOCs, SVOCs (8270D), PCBs (8082A), Pesticides (8081B), and Metals (6010C/6020A/7471B).

MiHpt and soil sample locations were surveyed by MJ Engineering and Land Surveying, PC on July 23, 2015. All work was conducted on-site with the exception of the one surface soil sample located in front of 564 Washington Avenue. The basemap survey is provided in Appendix H.

2.2 Soil Sampling – December 2015

Based on the analytical results from the soil samples and MiHpt analyses collected during the July 2015 sampling, NYSDEC requested an additional soil sampling event be conducted at the site to further delineate contamination encountered in an initially unexpected area of the site during the July sampling. HDR's standby driller Parratt Wolff, under the direction of HDR and NYSDEC, assisted HDR with the collection of soil samples. Samples were obtained by augering to the desired depth and macro cores were collected, logged, screened, and bagged by HDR's on-site representative using the same method as described in Section 2.1. Head space analysis by PID screening was used to select two soil samples at each boring location which were collected in jars, stored on ice and transported to the lab via courier under chain of custody to HDR's standby analytical laboratory, Hampton Clarke, for analysis. Eleven of the 12 on-site locations requested by NYSDEC were successfully sampled. Despite multiple attempts, one location was unable to be sampled due to refusal. Twenty-five soil samples were submitted and analyzed for VOCs (8260C), and selected samples were analyzed for the full analytical suite in addition to VOCs: SVOCs (8270D), PCB (8082A), PE (8081B), Metals (6010C/6020A/7471B). Soil sampling logs are available in Appendix B. MJ Engineering and Land Survey, PC surveyed the locations of the soil samples on December 23, 2015.

2.3 Monitoring Well Installation and Sampling – January 2016

On January 11 and 12, 2016 two new groundwater monitoring wells were installed, one on-site (MW6) and one off-site (MW8), and one grab groundwater sample was collected from another off-site, temporary location (MW7). Each of the wells was completed at 20 ft bgs at the proposed drilling locations. Parratt Wolff conducted the drilling using a truck mounted rotary drill rig outfitted with 4.25-inch ID hollow stem augers (HSA). During drilling, split spoon samples were collected every five (5) feet to allow field screening of the composition of the subsurface material, along the length of the well. Once advancement of the borehole was completed to the target depth, a standard 2-inch diameter schedule-40 PVC monitoring well was installed in the borehole following standard monitoring well construction procedures. The bottom 10 ft. of each well was constructed using 10-slot well screen and a sand filter pack consisting of #0 well sand surrounding the well screen and above to a level 2 – 3 ft above the top of the screened interval. To isolate the

screened interval and prevent vertical migration of water downward through the borehole to the screen, a two (2) ft. bentonite seal was installed above the well sand filter pack. The seal consisted of bentonite chips added directly to the annulus between the wall of the borehole and the well screen and riser. The pellets were hydrated thereby insuring an effective seal above the sand pack surrounding the well screen. Once the bentonite seal was adequately hydrated the remainder of the borehole was backfilled with a mixture of cement-bentonite grout. Each well had a 6-inch flush-mount casing installed with a concrete apron to complete the well. Each well riser was secured with a locking compression plug to prevent infiltration through the top of the well. Split spoon samples were logged and screened by the onsite HDR geologist. One soil sample from each well location at depths varying from 11-19 ft bgs was collected and analyzed for VOCs. Overhead utilities prevented installation of MW7 in the desired off-site location. Parratt Wolff used a direct push probe rig to set a temporary well screen and allow for the collection of a groundwater sample from the location. Approximately three well volume's worth of groundwater, as estimated in the field, was purged with a one-inch bailer before the sample was collected. Four-foot macro cores were collected to the desired depth and logged by HDR's onsite geologist, and one soil sample was collected and analyzed for VOCs.

HDR personnel conducted sampling of the newly installed monitoring wells MW6 and MW8, and resampled MW3, on January 26, 2016. Each monitoring well was sampled following standard low flow sampling protocols. A peristaltic pump was used to purge each well until stabilization of groundwater chemistry data indicated that the water being purged was representative aquifer formation water and thereby suitable for sampling. This occurred after approximately one and one half hours of pumping at MW3 at less than 0.4 liters per minute. Stabilization was achieved in MW6 after approximately 2 hours and 20 minutes of pumping at approximately 0.125 liters per minutes, and at MW8 after approximately 2 hours of pumping at a rate of 0.1 liters per minute. Drawdown in the monitoring wells during sampling was minimized where possible, and the pumping rate was decreased as necessary. Recharge in MW8 was very poor and the pump was stopped during purge to allow additional recharge before full stabilization was achieved.

All groundwater samples collected by HDR were stored on ice and taken to the laboratory via courier under chain of custody to Hampton Clarke for analysis. All samples collected by HDR

were tested for VOCs and a subset of the samples were tested for the full suite of analytes. Groundwater sampling logs for HDR's sampling event can be found in Appendix D.

Monitoring well boring and construction logs are located in Appendix C, including the boring log for temporary sampling point MW7. MJ Engineering and Land Survey, PC surveyed the locations of the monitoring wells and MW7 on January 19, 2016.

2.4 Soil Vapor Intrusion Sampling – March 2016

During March 2016, soil vapor intrusion (SVI) sampling was conducted by HDR in two structures located on two separate properties to the east of the site. One of the structures sampled has been periodically monitored for soil vapor intrusion (as described in Section 1.2), and the other structure was selected based on the close proximity to the subject site and the previous need to have mitigated a property nearby. As per NYSDOH Guidance, sub-slab, interior, and one outdoor air samples were collected. At each subslab location HDR constructed a temporary sampling point by drilling through the existing concrete slab located in the basements using a hammer drill and installing a stainless steel vapor sampling point attached to Teflon tubing. The point was surrounded by course, washed sand, sealed below grade using a plug of VOC-free permagum in the annulus around the tubing, and finally sealed at the surface with quick set cement. In accordance with NYSDOH Soil Vapor Guidance, each temporary point was tested for tracer gas (helium) intrusion during each sampling event to verify that short circuiting to ambient air was not occurring. The point was then purged using a personal air sampling pump at a rate below 0.2 L/minute. The point at the structure being sampled for the first time was constructed as a temporary installation and the point was drilled out and sealed with cement upon completion of the sampling event. A permanent subslab sampling point was installed in the structure that has previously been sampled, since NYSDEC and NYSDOH anticipated that monitoring of the soil vapor would be ongoing.

Sampling was conducted from March 31, 2016 through April 1, 2016. Property owners were instructed to keep windows closed and heating systems running as normal. Samples were collected in batch certified 6-liter Summa canisters with 24-hour regulators. After sample collection, the

samples were shipped to Spectrum Analytical in Agawam, MA under the chain of custody protocol and were received on April 4, 2016. SVI sampling logs are included in Appendix E. The analytical data summary packages received from Spectrum Analytical are found in Appendix F. Environmental Data Services completed a Data Usability Summary Report (DUSR), provided in Appendix G.

2.5 Investigative Derived Waste (IDW)

Investigative derived waste (IDW), including soil cuttings from bore holes and purge water from monitoring wells, was drummed and stored on-site until it could be characterized and disposed of by the IDW contractor. A "contained–in" determination letter dated May 6, 2016 was received from the NYSDEC regarding the waste generated during this investigation. This letter confirmed the concentrations detected for individual VOCs were all significantly less than their current soil and groundwater action levels and Land Disposal Restriction concentrations. The "contained-in" letter is included as Appendix I and all IDW generated during the RI was properly disposed of at a permitted facility.

2.6 Additional Investigation

NYSDEC personnel sampled the five existing monitoring wells (MW1 through MW5) on August 6, 2015. All groundwater samples collected by the NYSDEC were tested for the full suite of analytes and the results are discussed in Chapter 3.

3.0 REMEDIAL INVESTIGATION RESULTS

This section summarizes the RI data by media. The analytical data obtained during the RI can be found in the complete Analytical Data Summary Packages provided by the analytical laboratory in Appendix F. Upon completion of the sample analyses, HDR provided the necessary documentation to the HDR's contracted data validator, Environmental Data Services., to allow for preparation of a DUSR on the sampling results (Appendix G).

3.1 MiHpt Investigation– July 2015

During the 2 day MiHpt investigation a total of 9 MiHpt borings were advanced between 20 and 30 ft. bgs. with each probe operating with a sampling interval of 1 ft. MiHpt sampling locations are shown on Figure 3. Detector responses remained at baseline with some minor variations in the XSD, PID and FID detectors. There were noticeable decreases in the HPT indicating the poor permeability of the underlying soil, which is consistent with the presence of grey, wet, clays beneath the slab. The MiHpt results did not indicate significant VOC concentrations in the soil matrix beneath the basement slab; fluctuations in the PID readings are most notable in MP-1, MP-6 and MP-7. The highest PID values were recorded at the MP-6 and MP-7 locations, and soil samples collected within the paired soil sampling locations confirmed the presence of contaminants in those locations. The MiHpt investigation delineated two areas for further investigation with geoprobe borings and groundwater sampling. MiHpt sampling results are available in Appendix A.

3.2 Soil Sampling Results – July and December 2015 and January 2016

3.2.1 July 2015 Soil Sample Results

During the July 2015 MiHpt sampling event three locations were selected for soil sampling in conjunction with the MiHpt data (Figure 2). The soil sampling locations for MP-4, MP-6, and MP-7 were advanced adjacent to the MiHpt sampling locations once the MiHpt sampling was completed. A fourth soil sample location was selected (SS10-SS) to determine the extent of contamination to the west. Additionally, three surface soil samples (SS10, SS11, MP6-SS) were collected, as described in Section 2.1. All samples were analyzed for VOCs. Results from MP-4 indicated trace amounts of benzene and xylenes were present at a depth of 10-12 ft. bgs. in this sample, but these contaminants are not believed to be site related and concentrations were all below UUSCOs. Trace amounts of methylene chloride, a solvent and cVOC, were also present in 6 of the 10 samples collected during this event. Methylene chloride is a typical laboratory contaminant and is not believed to be site-related. Below is a summary table of samples containing site-related cVOC's; since PCE, TCE and DCE were all found in groundwater above GWQSs, the PGWSCOs are applicable.

Table A: cVOCs IN SOIL, JULY 2015

	PGW SCO	UU SCO	RR SCO	MP4-SS (10-12')	MP6-SS (0-1')	MP6-SS (10-12')	MP7-SS (10-14')	SS10-SS (10')	SS11 (0-1')
PCE	1.3	1.3	19	0.0072	0.01	**24 J**	0.9	0.084	0.0078
TCE	0.47	0.47	21	0.0029	ND	**0.53**	**3.5**	0.026	ND
cis-1,2-DCE	0.25	0.25	100	ND	ND	ND	**0.46**	0.018	ND

- **Bolded** value indicates concentration over PGW/UU SCOs
- **Shaded** value indicates concentration over RRSCO
- All values are reported in mg/kg or ppm
- J – estimated value
- ND – not detected
- PCE, TCE and cis-1,2-DCE were not detected in MP4-SS (20'), MP6-SS (23-24'), and SS12 (0-1')

Based on these cVOC soil results, migration of the contaminant is not anticipated to be occurring to the west, and no additional areas of concern (AOC) were identified on the western portion of the site. Only the three surface soil samples (SS11, SS12 and MP6-SS) were analyzed for the full suite of parameters. SVOCs were detected in surface samples SS11 and SS12, with no exceedances of UUSCOs. A low level UUSCO exceedance of the pesticide chlordane was found in the SS11 and a low level UUSCO exceedance of the pesticide p,p'-DDT was detected in SS12; however both were below their respective RRSCOs. PCBs were also detected above the UUSCO for total PCBs but below the RRSCO in both soil samples.

Various metals were detected in each surface soil sample. The following table summarizes only the metals which were in exceedance of UUSCOs. RRSCO's are applicable for all the metals with cadmium and lead in exceedance at SS12. However, these contaminants were not found in groundwater above GWQSs. Additional metals that were detected but below UUSCOs include: aluminum, arsenic, barium, beryllium, calcium, cobalt, iron, magnesium, manganese, potassium and vanadium.

Table B: METALS DETECTED ABOVE SCOS IN SURFACE SOILS, JULY 2015

	UU SCO	RR SCO	SS11 (0-1')	SS12 (0-1')	MP6-SS (0-1')
Cadmium	2.5	4.3	2.4	**4.6**	ND
Chromium	30	180	27 J	**35 J**	23 J
Copper	50	270	**92 J**	**66 J**	41 J
Lead	63	400	**83 J**	***1,900 J***	16 J
Mercury	0.18	0.81	**0.36**	***0.75***	ND
Nickel	30	310	**31**	**33**	**34**
Zinc	109	10,000	**280**	**440**	100

- **Bolded** value indicates concentration over UUSCO
- ***Bold italicized*** value indicates concentration over PGWSCO
- **Shaded** value indicates concentration over RRSCO
- All values are reported in mg/kg or ppm
- J – estimated value
- ND – not detected
- PCE, TCE and cis-1,2-DCE were not detected in MP4-SS (20'), MP6-SS (23-24'), and SS12 (0-1').

All detected metals, pesticides and PCBs are not considered contaminants of concern related to this site or investigation and the contaminants are considered to be background concentrations associated with the urban nature of this site. Many SVOCs detected are typically constituents of gasoline and are likely related to the gas station located across Washington Avenue from the site. Full soil sampling results for the July 2015 sampling event are displayed in Table 1 at the end of this RI report, and detections and UUSCO exceedances of VOCs are displayed on Figure 4 (also see Appendix J Enlarged Figure 4L), while detections and UUSCO exceedances of SVOCs, PCBs, pesticides, and metals are displayed on Figure 5 (also see Appendix J Enlarged Figure 5L).

3.2.2 December 2015 and January 2016 Soil Sample Results

The results from the July 2015 event warranted additional soil sampling at the site to further delineate contaminated soils. Previously the highest levels of contamination on-site were thought to occur in the vicinity of MW3, however, the July 2015 results indicated that the primary AOC is located in the vicinity of MP6 along the eastern portion of the site. This area coincides with the location of the back door of the former dry cleaner's building. Eleven geoprobe soil sampling

locations were completed in December with 25 soil samples collected. Three additional soil samples were collected during the monitoring well installation in January.

All soil samples were analyzed for VOCs. PCE was detected with the highest concentrations being near the eastern portion of the site, while lower concentrations, many below UUSCOs, were found across the site at varying depths. Occasional trace amounts of DCE and TCE were also present, which are breakdown products of PCE and are related to site contamination. Soil samples collected in the eastern area of the site and at the depths ranging from approximately 8 – 12 ft bgs generally contained the highest concentrations of site-related cVOCs (Figure 4). Other observations include acetone (a common laboratory contaminant) and chloroform (a by-product of water chlorination) exceeding their respective UUSCOs in SP5 2-4 ft bgs and SP10 at 8-12 ft bgs, respectively; both are below their respective RRSCO. Trace amounts of methylene chloride, common laboratory contaminant, were also present in 17 soil samples. Below is a summary table of samples containing site-related cVOCs over UUSCOs; since these contaminants were all found in groundwater above GWQSs, the PGWSCOs are applicable. In addition to the exceedances below, 16 soil samples contained trace amounts of these cVOCs, below their respective UUSCOs.

Table C: cVOCs Detected above SCOs in Soil, Dec. 2015/Jan. 2016

	PGW SCO	UU SCO	RR SCO	SP3 (9-10')	SP10 (8-12')	SP11 (6-8')	SP11 (11-12')	MW6 (11')
PCE	1.3	1.3	19	**44**	**110**	**15**	**17**	**41**
TCE	0.47	0.47	21	**0.92**	**0.74**	0.39	0.36	0.44
cis-1,2-DCE	0.25	0.25	100	ND	ND	ND	ND	ND

- **Bolded** value indicates concentration over PGW/UU SCOs
- **Shaded** value indicates concentration over RRSCO
- All values are reported in mg/kg (ppm)

Five of the samples collected in December 2015 were analyzed for the full suite of parameters. One SVOC, Di-n-butylphthalate, was detected at 0.025 mg/kg in SP12 at 18 ft. bgs. Di-n-butylphthalate is not included in the 6NYCRR Part 375-6.8 SCO tables, however, it is included in the Commissioner Policy 51 (CP-51) Soil Cleanup Guidance in the Supplemental SCOs and the detection at SP12 is below the residential SCO. PCBs and pesticide results were non-detect for all samples.

Various metals were again detected in all five soil samples. UUSCOs were exceeded in 4 of the 5 samples although PGWSCOs and RRSCOs were not exceeded in any samples. The following table summarizes only the metals which were in exceedance of UUSCO's. RRSCO's are applicable for all metals with the exception of manganese where the PGWSCO is applicable since it was also found in an unfiltered groundwater sample above GWQSs. Additional metals that were detected below UUSCOs include: aluminum, barium, beryllium, calcium, cobalt, iron, lead, magnesium, mercury, potassium, selenium, sodium and vanadium.

Table D: METALS DETECTED ABOVE SCOS IN SOIL, DEC. 2015/JAN. 2016

	PGW SCO	**UU SCO**	**RR SCO**	**SP8 (9-11')**	**SP10 (8-12')**	**SP12 (10.5-16')**	**SP12 (18')**
Arsenic	16	13	16	12	9.6	**13**	**13**
Chromium	NS	30	180	**33 J**	**39 J**	**34 J**	**32 J**
Copper	1,720	50	270	**58 J**	**62 J**	**55 J**	**57 J**
Manganese	2,000	1,600	2,000	1,100 J	***1,900 J***	1,100 J	1,200 J
Nickel	130	30	310	**49 J**	**55 J**	**46 J**	**46 J**
Zinc	2,480	109	10,000	**130 J**	**140 J**	**130 J**	**120 J**

- **Bolded** value indicates concentration over UUSCO
- ***Bold italicized*** value indicates concentration over PGWSCO
- **Shaded** value indicates concentration over RRSCO
- All values are reported in mg/kg (ppm)
- J – estimated value
- Metals detected at SP10 (0-8') were all below applicable SCOs

Soil sampling results for the December 2015 soil sampling event as well as for soil samples collected during the January 2016 well installation event are displayed in Table 2 at the end of this RIR. VOC results and exceedances are displayed on Figure 4 (also see Appendix J Enlarged Figure 4L) and SVOCs, Metals, PCBs and Pesticides are shown on Figure 5 (also see appendix J-Enlarged Figure 5L).

3.3 Monitoring Well Sampling Results – August 2015 and January 2016

Contaminants of concern associated with the site which exceeded the applicable NYSDEC Class GA standards during the August 2015 and January 2016 monitoring well sampling program included PCE, TCE, and cis-1,2 DCE. These compounds exceeded groundwater standards in on-

site wells MW3 and MW6, and off-site exceedances were confined to the downgradient well nearest to the site, MW2 as shown below in Table E and Figure 6. Other compounds detected below applicable standards included DCE and vinyl chloride in MW5, and PCE in MW4. Chloroform and trans-1,2-DCE were detected below GWQSs in MW3. As noted earlier, chloroform is a by-product of water chlorination and is likely due to leakage from water lines.

Table E: cVOCs Detected above Class GA GWQS, Aug. 2015 and Jan. 2016

	Class GA GWQS	MW2	MW3		MW6
		Aug 2015	Aug 2015	Jan 2016	Jan 2016
PCE	**5**	**21**	**130**	**110**	**9,600**
TCE	**5**	ND	**35**	**24**	**85**
Cis-1,2 DCE	**5**	ND	**37**	**39**	ND

- **Bolded** value indicates concentration over Class GA GWQS
- All values are reported in µg/L (ppb)

It should be noted that while cVOC concentrations in MW3 are above the Class GA standards, all the levels have significantly decreased from when the well was originally installed and sampled in 2012 (PCE was 410 µg/L and both TCE and DCE were around 80 µg/L). This well is located where the sump of the previous building had been.

All of the wells were analyzed for the full suite of parameters with the exception of MW7 and MW8, which were analyzed for VOCs only. SVOC exceedances were detected for benzo(b)fluoranthene, and benzo(k)fluoranthene in MW3 during the August sampling event only, and these hydrocarbons are not considered site related contaminants and related to the presence of urban fill. Additionally, total PCBs were detected below the GWQS in MW5. Various metals (total) were detected in all the wells. Exceedances (where standards are available) are summarized in Table F below. The only dissolved metals above GWQSs were manganese and sodium, which are typically naturally occurring metals. Complete groundwater sampling results are available in Table 3 and VOC results and exceedances are displayed on Figure 7.

Table F: METALS (TOTAL) DETECTED ABOVE CLASS GA GWQS, AUG. 2015 AND JAN. 2016

	Class GA GWQS	MW1 Aug 2015	MW2 Aug 2015	MW3 Aug 2015	MW3 Jan 2016	MW4 Aug 2015	MW5 Aug 2015	MW6 Jan 2016
Arsenic	**25**	17	4	11 J	2.1	11	**63**	2.7
Iron	**300**	**19,200**	**2,230**	**27,000**	ND	**16,200**	**35,700**	ND
Manganese	**300**	**528**	30	**4,010**	**1,700 J**	**3,590**	**659**	180 J
Sodium	**200,000**	**700,000**	**260,000**	**76,600**	**72,000**	**138,000**	**662,000**	**52,000**

- **Bolded** value indicates concentration over Class GA GWQS
- All values are reported in µg/L (ppb)
- J – estimated value
  NS – No Standard

3.4 Soil Vapor Sampling Results – March 2016

In March 2016, two homes located east of the Former RKO Dry Cleaners site were sampled for soil vapor intrusion, and one outdoor air sample was collected (Table 4). Results from the sampling event were compared to decision matrix 1 and 2 found in the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Within these two structures, PCE and its breakdown products including TCE, cis-1,2 DCE and vinyl chloride were not detected in indoor or the outdoor air samples. For sub-slab samples, one location tested positive for PCE and TCE but detections were below the no further action threshold when paired with the ND indoor air samples. Other analytes were present in sub-slab, indoor, and the outdoor sample but these contaminants are hydrocarbons and not considered contaminants of concern for this site.

4.0 REMEDIAL INVESTIGATION INTERPRETATION AND EVALUATION

4.1 Geology

Shallow surface soils observed during the installation of the new monitoring wells as part of this RI were generally characterized as gray or brown plastic clay, soft to firm. Lacustrine (lake) deposits of massive native clay soils were encountered from approximately 2 ft. bgs. to approximately 7 ft. bgs, and a mixture of clay and silt were encountered from approximately 7 ft. bgs. to 20 ft. bgs during this investigation.

The clay deposits are part of the thick lacustrian deposits from the former Lake Albany. Lake Albany formed about 15,000 years ago and stretched from Poughkeepsie to Glens Falls, was 8-12 miles wide. The lake existed for 5,000-8,000 years (New York State Museum, 1989). Sediment deposited by the lake in the vicinity of the site is up to 300 feet. Bedrock is estimated to be around 300 feet below ground surface in the area of the site and is mapped as Normanskill Shale on the New York State Bedrock Geology Map (New York State Museum, 1970).

4.2 Hydrogeology

A synoptic round of groundwater level measurements was completed at the beginning of the January 2016 well sampling. Groundwater elevations were then used to complete an analysis of groundwater flow direction and gradient for the RI. Previous investigations at the site indicated groundwater depths within the area containing the monitoring wells ranging from 6-13 ft. bgs. Groundwater was encountered in the shallow overburden and is estimated to exhibit an easterly flow direction. This is consistent with historic groundwater elevations, and generally follows site topography. Measurements indicated that the localized shallow groundwater flow field at the site is consistently oriented with flow toward the east. The groundwater gradient across the site is 0.043. In addition, the presence of contaminants of concern associated with the site in off-site overburden monitoring well MW2 located to the east of the site is also indicative of an easterly groundwater flow direction in the immediate vicinity of the site. Groundwater elevations calculated from the synoptic round of depth-to-water measurements are shown on Figure 3 along with the estimated groundwater contours.

Hydraulic conductivity (K) measurements were collected during the MiHpt program which indicate discrete sediment layers (inter-bedded zones of higher and lower K) which result in a macro scale horizontal K significantly higher than the vertical K. Typically this is referred to as an anisotropic aquifer and contributing to the much higher horizontal hydraulic conductivity groundwater flow (and transport) being predominately horizontal rather than vertical. Hydraulic conductivity estimates from MiHpt profiles are generally low, exhibiting hydraulic conductivity (K) values which measured around 28 ft/day between 10 and 14 ft bgs, but other parts of the lake

deposits were much lower with K values of 10 or less ft/day. Two locations had higher estimated K values of greater than 50 ft/day, but these higher conductivity intervals occurred at depth, one at 19 ft bgs (MP-5) and one at 23 ft bgs. (MP-7), both well below where contamination is detected onsite.

The aquifer in the vicinity of the site is not part of a primary aquifer or a source of drinking water for local residents. Residents local to the site are part of the City of Albany Public Water Supply, whose water source is the Alcove Reservoir, which is surface water and is located on the Hannacroix Creek in the Town of Coeymans (City of Albany, 2010).

4.3 Sampling Results Interpretation

4.3.1 On-Site Soil Contamination

On-site soil contamination consisted primarily of the PCE, a chlorinated solvent commonly associated with dry cleaning processes, with the presence of breakdown products (TCE and DCE). This contamination was most prevalent and had the highest concentrations on the east side of the site, in the vicinity of the back door of the former dry cleaning building. This hot spot area includes four sample locations with PCE concentrations ranging from 15 mg/kg at SP-11 to 110 mg/kg at SP-10. Three of the four locations had PCE over the RRSCO of 19 mg/kg and the 15 mg/kg sample at SP-11 was over the UUSCO and PGWSCO, both being 1.3 mg/kg. The depth of this contamination ranges from 6-12 feet bgs with the highest concentration of 110 mg/kg being located at the 8-12 feet bgs interval. TCE is also present in the hot spot area, ranging from 0.36 mg/kg to 0.92 mg/kg at SP-3, with two locations above both the UUSCO and PGWSCO of 0.47 mg/kg. In addition to the hot spot, one location, MP7-SS, had cVOC levels which were above UUSCO/PWGSCOs but below RRSCOs for TCE and DCE. At all of the other sampling locations only trace levels of cVOCs (primarily PCE) were detected and none of the samples exhibited concentrations above UUSCOs.

From these results it can reasonably be postulated that a release or releases of the dry cleaning solvent PCE occurred in the vicinity of the back door of the former structure. Likely due to the tight geology formation, the extent of cVOC contamination remains relatively localized to an

estimated horizontal area of approximately 200 square feet. With depths ranging from 6-12 feet bgs, the total known volume is estimated to be approximately 1,200 cubic feet (45 cubic yards). Given the low exceedances at MP7-SS and surrounding soil sample results, contamination is expected to be relatively isolated at that location.

In addition to the VOCs discussed above, soil sampling results also detected the presence of metals in 7 samples, PCBs in 2 samples, and pesticides in 2 samples that exceed their respective UUSCOs. All of these detections were below RRSCOs with the exception of one surface soil sample, SS12, which contained two metals, cadmium and lead, above RRSCOs. This sample was located off-site, in a grass right-of-way strip in front of an adjacent property and is not anticipated to be site related. All detected metals, pesticides and PCBs are not considered contaminants of concern related to this site or investigation and the contaminants are considered to be background concentrations associated with the urban nature of this site. Many SVOCs detected are benzene and other hydrocarbons, that are likely related to the gas station located across (north) Washington Avenue from the site.

Site related soil contamination is not anticipated to extend off-site.

4.3.2 Groundwater Contamination

The site related cVOCs PCE, TCE and DCE were detected at concentrations exceeding applicable Class GA groundwater standards (all being 5 µg/L). A maximum concentration of 9,600 µg/L of PCE was detected in the on-site overburden monitoring well MW6 in January 2016. The location of this monitoring well coincides with the contaminated soil hot spot discussed in Section 5.3.1. PCE, TCE and DCE were all detected over groundwater standards in MW3, located where the sump of the previous building had been. However, these concentrations have all decreased substantially since 2012, when the well was originally installed and sampled. PCE was also detected at 21 µg/L in one off-site well, MW2, which is directly down gradient of the hot spot and MW6. The two groundwater sampling locations which were new in January 2016, MW7 and MW8, both came back with non-detect for all VOCs. This indicates groundwater contamination

has likely not migrated further off-site in the direction of groundwater flow (east), again likely due to the dense clay subsurface.

4.3.3 Soil Vapor Intrusion

Similar to soil and groundwater, it appears that the dense clay and silt found at the site has limited migration of contaminants in the soil vapor. The property closest to the site is within 25 feet of the known soil contamination and likely within the groundwater plume area. The residence on this property has been mitigated for SVI and was not retested during this investigation. The next two closest properties were tested for SVI and site-related contaminants of concern were not detected in the indoor air samples. However, several site-related cVOCs were detected in the sub-slab soil vapor. The noted concentrations do not require further action at this time since they are well below the threshold to require additional monitoring and/or mitigation.

4.4 Potential Exposure Pathways and Receptors

4.4.1 On-site and Off-site Soils

The extent of soil that is exposed at the surface on-site is limited due to the coverage of the area by impervious surfaces. This includes the existing at grade concrete slab and the former basement which remains in place and was backfilled with clean sand and crushed stone as part of a previous IRM. Contaminants of concern are detected at levels exceeding applicable SCOs in on-site soils at a depth of at least 6 ft. bgs., and in trace amounts at the surface. Therefore exposure pathways for on-site soils are not complete.

In the off-site area investigated, the extent of soil exposed at the surface is limited due to the coverage of the area by impervious surfaces such as commercial properties, parking lots, roadways and driveways which border the site. Areas where soil is present at the surface are limited to grassy right-of-way strips between the roadways and sidewalks and some small lawns associated with neighboring properties. The largest area of exposed soil is present to the west (upgradient) of the site, across Ontario Street at Beverwyck Park.

The lack of historical off-site disposal of contaminants in the vicinity of the site, and the presence of only residual concentrations of urban fill-related contaminants in off-site soil samples indicates that there are no potential exposure pathways for off-site soils.

4.4.2 Groundwater and Surface Water

Groundwater has been characterized in the site vicinity through sampling of both on-site and off-site monitoring wells. Contaminants of concern have been detected in three of the on-site wells and one nearby off-site monitoring well. No documented users of groundwater are present and water is supplied by a municipal system that does not utilize groundwater in the site area. There are no proximal surface water bodies that would serve as a receptor for off-site migration of contamination and the results of the RI indicate that only limited migration of contaminants has occurred. Given these findings, no exposure pathway has been identified that would present a threat to human health or the environment via off-site groundwater or surface water.

4.4.3 Soil Vapor

RI results indicate that although the site-related contaminants of concern, including PCE, TCE, and DCE are present in sub-slab samples at one of two adjacent properties that were sampled during the RI, the concentrations are below the threshold requiring either mitigation or additional monitoring by NYSDOH. Additionally, these contaminants were not found in indoor air at either of the two locations sampled, indicating that soil vapor intrusion is not anticipated to be occurring. The off-site soil vapor exposure pathway for these two properties has therefore been characterized as an incomplete exposure pathway which does not present a threat to human health or the environment at this time. During SC sampling, another adjacent structure was determined to need mitigation and an SSDS was installed which is still in operation thereby addressing the exposure pathway for that property.

4.4.4 Site Specific Remedial Action Objectives

Remedial Action Objectives (RAOs) are developed for a site to determine the levels to which site specific concerns must be addressed to protect human health and the environment. Included here are site specific RAOs that are recommended for the Former RKO Dry Cleaners Site:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore groundwater to pre-disposal/pre-release conditions, to the extent practicable.
- Reduce or remove the source of groundwater contamination, to the extent practicable.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants in soil

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings on-site and off-site.

These RAOs will be carried into the Feasibility Study for the site and remedial alternatives will be developed and evaluated for their ability to achieve RAOs and applicable and relevant and appropriate standards, criteria and guidance values (SCGs).

5.0 CONCLUSIONS

An on-site and off-site investigation of potential soil and groundwater contamination and associated vapor intrusion was conducted between June 2015 and June 2016 to determine the nature and extent of the contamination attributable to the Former RKO Dry Cleaners Site in the City of Albany. MiHpt sampling, soil sampling, groundwater sampling, and vapor intrusion sampling indicate that contaminants of concern related to the site are present on-site and in limited off-site locations.

Further investigation at this site is not warranted at this time based on the limited apparent extent of the remaining contamination in the site soils, groundwater, and soil vapor. The extent of the soil contamination is limited to on-site areas and is centered around several sampling locations (MP6-SS, MW6, SP10, and SP11) that would have been the rear southeastern quadrant of the former building, where the former backdoor was located. The most heavily contaminated groundwater is also found in this area and the existing groundwater plume extends slightly off-site in the downgradient direction of groundwater flow (easterly). The maximum downgradient extent of the plume appears to be in the vicinity of the Washington Avenue approximately 100 ft from the suspected source of the contamination which is about 15 ft off-site. Soil vapor intrusion sampling conducted as part of the RI on two adjacent residential properties indicated that site related contaminants are not currently present in the indoor air of these structures and the present levels of contaminants in the sub-slab soil vapor remain below NYSDOH action levels for further monitoring or mitigation. A permanent sampling port was installed at one of these structures as it was previously recommended for periodic, ongoing monitoring. The SSDS system that was installed based on results of and during the SC will remain in operation.

Based on the limited apparent extent of the contamination, an IRM to remove and/or treat the remaining contamination associated with the site would likely remedy the site-related contamination. Potential IRM options could include further soil excavation and off-site disposal and/or a targeted injection of an oxidant or other in-situ treatment, such as enhanced biodegradation, to destroy the remaining VOCs. These options could be quickly implemented at

the site once further evaluations are completed to determine what would be most effective in meeting the site RAOs.

Based on the limited apparent extent of the contamination, an IRM to remove and/or treat the remaining contamination associated with the site would likely remedy the site-related contamination. Potential IRM options could include further soil excavation and off-site disposal and/or a targeted injection of an oxidant or other in-situ treatment, such as enhanced biodegradation, to destroy the remaining VOCs. These options could be quickly implemented at the site once further evaluations are completed to determine what would be most effective in meeting the site RAOs.

CERTIFICATION

I Erich Zimmerman, certify that I am currently a NYS registered professional engineer and *that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.*

Erich Zimmerman, P.E.

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Table 1A: Soil Sampling Results – VOCs (July 2015)

			Sample Location	MP4-SS		MP4-SS	
			Sample Depth	10 - 12'		20'	
			CLIENT ID:	MP4-SS-10-12-20150701		MP4-SS-20-20150701	
			LAB ID:	AC85841-002		AC85841-003	
			COLLECTION DATE:	7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier
Constituent							
Benzene	0.06	4.8	0.06	0.0030		ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U
m&p-Xylenes	NA	NA	NA	0.0014		ND	U
Methylene chloride	0.05	NA	0.05	0.0044		0.011	
o-Xylene	0.26	NA	NA	0.0012		ND	U
Tetrachloroethene	1.3	100	1.3	0.0072		ND	U
Toluene	0.7	100	0.7	0.0025		ND	U
Trichloroethene	0.47	21	0.47	0.0029		ND	U
Xylenes (Total)	0.26	100	1.6	0.0026		ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 1A: Soil Sampling Results – VOCs (July 2015)

			Sample Location	MP6-SS		MP6-SS	
			Sample Depth	0-1'		10-12'	
			CLIENT ID:	MP6-SS-0-1-20150701		MP6-SS-10-12-20150701	
			LAB ID:	AC85841-006		AC85841-007	
			COLLECTION DATE:	7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier
Constituent							
Benzene	0.06	4.8	0.06	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U
m&p-Xylenes	NA	NA	NA	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	ND	U	ND	U
o-Xylene	0.26	NA	NA	ND	U	ND	U
Tetrachloroethene	1.3	100	1.3	0.010		***24***	J
Toluene	0.7	100	0.7	ND	U	ND	U
Trichloroethene	0.47	21	0.47	ND	U	***0.53***	
Xylenes (Total)	0.26	100	1.6	ND	U	ND	U

Units - mg/kg

Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.

Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375

Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 1A: Soil Sampling Results – VOCs (July 2015)

			Sample Location	MP6-SS		MP7-SS	
			Sample Depth	23-24'		10-14'	
			CLIENT ID:	MP6-SS-23-24-20150701		MP7-SS-10-14-20150701	
			LAB ID:	AC85841-010		AC85841-001	
			COLLECTION DATE:	7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier
Constituent							
Benzene	0.06	4.8	0.06	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	***0.46***	
m&p-Xylenes	NA	NA	NA	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	0.012		ND	U
o-Xylene	0.26	NA	NA	ND	U	ND	U
Tetrachloroethene	1.3	100	1.3	ND	U	0.90	
Toluene	0.7	100	0.7	ND	U	ND	U
Trichloroethene	0.47	21	0.47	ND	U	***3.5***	
Xylenes (Total)	0.26	100	1.6	ND	U	ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 1A: Soil Sampling Results – VOCs (July 2015)

			Sample Location	SS10-SS		SS10-SS	
			Sample Depth	10'		26'	
			CLIENT ID:	SS10-SS-10-20150701		SS10-SS-26-20150701	
			LAB ID:	AC85841-015		AC85841-016	
			COLLECTION DATE:	7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier
Constituent							
Benzene	0.06	4.8	0.06	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	0.018		ND	U
m&p-Xylenes	NA	NA	NA	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	0.014		0.0084	
o-Xylene	0.26	NA	NA	ND	U	ND	U
Tetrachloroethene	1.3	100	1.3	0.084		ND	U
Toluene	0.7	100	0.7	ND	U	ND	U
Trichloroethene	0.47	21	0.47	0.026		ND	U
Xylenes (Total)	0.26	100	1.6	ND	U	ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 1A: Soil Sampling Results – VOCs (July 2015)

			Sample Location	SS11		SS12	
			Sample Depth	0-1'		0-1'	
			CLIENT ID:	SS11-0-1-20150701		SS12-0-1-20150701	
			LAB ID:	AC85841-014		AC85841-011	
			COLLECTION DATE:	7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier
Constituent							
Benzene	0.06	4.8	0.06	ND	U	ND	UJ
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	UJ
m&p-Xylenes	NA	NA	NA	ND	U	ND	UJ
Methylene chloride	0.05	NA	0.05	0.0044		0.0022	J
o-Xylene	0.26	NA	NA	ND	U	ND	UJ
Tetrachloroethene	1.3	100	1.3	0.0078		ND	UJ
Toluene	0.7	100	0.7	ND	U	ND	UJ
Trichloroethene	0.47	21	0.47	ND	U	ND	UJ
Xylenes (Total)	0.26	100	1.6	ND	U	ND	UJ

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 1B: Soil Sampling Results – SVOCs (July 2015)

			Sample Location	SS11		SS12		MP6-SS	
			Sample Depth	0-1'		0-1'		0-1'	
			CLIENT ID:	SS11-0-1-20150701		SS12-0-1-20150701		MP6-SS-0-1-20150701	
			LAB ID:	AC85841-014		AC85841-011		AC85841-006	
			COLLECTION DATE:	7/1/2015		7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Benzo[a]anthracene	1	1	1	0.35		0.52	J	ND	U
Benzo[a]pyrene	1	1	22	0.36		0.42	J	ND	U
Benzo[b]fluoranthene	1	1	1.7	0.49		0.66	J	ND	U
Benzo[g,h,i]perylene	100	100	1,000	0.35		0.32	J	ND	U
Benzo[k]fluoranthene	0.8	3.9	1.7	0.14		0.25	J	ND	U
bis(2-Ethylhexyl)phthalate	NA	NA	NA	2.0		1.6	J	0.43	J
Butylbenzylphthalate	NA	NA	NA	0.56		0.24	J	ND	U
Chrysene	1	3.9	1	0.44	J	0.52	J	ND	UJ
Di-n-butylphthalate	NA	NA	NA	0.062		0.12	J	ND	U
Fluoranthene	100	100	1,000	0.51		0.93	J	ND	U
Indeno[1,2,3-cd]pyrene	0.5	0.5	8.2	0.23		0.26	J	ND	U
Phenanthrene	100	100	1,000	0.27		0.4	J	ND	U
Pyrene	100	100	1,000	0.58		0.9	J	ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 1C: Soil Sampling Results – Metals (July 2015)

			Sample Location	SS11		SS12		MP6-SS	
			Sample Depth	0-1'		0-1'		0-1'	
			CLIENT ID:	SS11-0-1-20150701		SS12-0-1-20150701		MP6-SS-0-1-20150701	
			LAB ID:	AC85841-014		AC85841-011		AC85841-006	
			COLLECTION DATE:	7/1/2015		7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aluminum	NA	NA	NA	14,000		12,000		14,000	
Antimony	NA	NA	NA	ND	U	ND	U	ND	U
Arsenic	13	16	16	8.6		7.3		10	
Barium	350	400	820	140	J	140	J	59	J
Beryllium	7.2	72	47	0.37		0.43		0.54	
Cadmium	2.5	4.3	7.5	2.4		**4.6**		ND	U
Calcium	NA	NA	NA	100,000	J	35,000	J	31,000	J
Chromium	30	36	NA	27	J	**35**	J	23	J
Cobalt	NA	NA	NA	6.4	J	8.3	J	12	J
Copper	50	270	1,720	**92**	J	**66**	J	41	J
Iron	NA	NA	NA	40,000		35,000		37,000	
Lead	63	400	450	**83**	J	***1,900***	J	16	J
Magnesium	NA	NA	NA	7,700		9,500		12,000	
Manganese	1,600	2,000	2,000	560	J	600	J	1,300	J
Nickel	30	310	130	**31**		**33**		**34**	
Potassium	NA	NA	NA	1,400		1,700		1,400	
Selenium	3.9	180	4	ND	U	ND	U	ND	U
Silver	2	180	8.3	ND	U	ND	U	ND	U
Sodium	NA	NA	NA	ND	U	ND	U	430	
Thallium	NA	NA	NA	ND	U	ND	U	ND	U
Vanadium	NA	NA	NA	24		40		20	
Zinc	109	10,000	2,480	**280**		**440**		100	
Mercury	0.18	0.81	0.73	**0.36**		***0.75***		ND	U

Units - mg/kg

Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375

Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 1D: Soil Sampling Results – PCBs (July 2015)

			Sample Location	SS11		SS12		MP6-SS	
			Sample Depth	0-1'		0-1'		0-1'	
			CLIENT ID:	SS11-0-1-20150701		SS12-0-1-20150701		MP6-SS-0-1-20150701	
			LAB ID:	AC85841-014		AC85841-011		AC85841-006	
			COLLECTION DATE:	7/1/2015		7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aroclor (Total)	0.1	1	NA	**0.68**		**0.38**		ND	U
Aroclor-1016	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1221	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1232	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1242	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1248	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1254	0.1	1	NA	**0.68**		**0.38**		ND	U
Aroclor-1260	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1262	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1268	0.1	1	NA	ND	U	ND	U	ND	U

Units - mg/kg

Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375

Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 1E: Soil Sampling Results – Pesticides (July 2015)

			Sample Location	SS11		SS12		MP6-SS	
			Sample Depth	0-1'		0-1'		0-1'	
			CLIENT ID:	SS11-0-1-20150701		SS12-0-1-20150701		MP6-SS-0-1-20150701	
			LAB ID:	AC85841-014		AC85841-011		AC85841-006	
			COLLECTION DATE:	7/1/2015		7/1/2015		7/1/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aldrin	0.005	0.097	0.19	ND	U	ND	U	ND	U
Alpha-BHC	0.02	0.48	0.02	ND	U	ND	U	ND	U
beta-BHC	0.036	0.36	0.09	ND	U	ND	U	ND	U
Chlordane	NA	NA	NA	0.18		ND	U	ND	U
delta-BHC	0.04	100	0.25	ND	U	ND	U	ND	U
Dieldrin	0.005	0.2	0.1	ND	U	ND	U	ND	U
Endosulfan I	2.4	24	102	ND	U	ND	U	ND	U
Endosulfan II	2.4	24	102	ND	U	ND	U	ND	U
Endosulfan Sulfate	2.4	24	1000	ND	U	ND	U	ND	U
Endrin	0.014	11	0.06	ND	U	ND	U	ND	U
Endrin Aldehyde	NA	NA	NA	ND	U	ND	U	ND	U
Endrin Ketone	NA	NA	NA	ND	U	ND	U	ND	U
gamma-BHC	0.1	1.3	NA	ND	U	ND	U	ND	U
Heptachlor	0.042	2.1	0.38	ND	U	ND	U	ND	U
Heptachlor Epoxide	NA	NA	NA	ND	U	ND	U	ND	U
Methoxychlor	NA	NA	NA	ND	U	ND	U	ND	U
p,p'-DDD	0.0033	NA	NA	ND	U	ND	U	ND	U
p,p'-DDE	0.0033	NA	NA	ND	U	ND	U	ND	U
p,p'-DDT	0.0033	NA	NA	ND	U	**0.010**	J	ND	U
Toxaphene	NA	NA	NA	ND	U	ND	U	ND	U

Units - mg/kg
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 1		SP 1		SP 2	
			Sample Depth:	0'-1' bgs		15'-16' bgs		3'-4' bgs	
			CLIENT ID:	SP1-0-1-20151217		SP1-15-16-20151217		SP2-3-4-20151217	
			LAB ID:	AC88849-001		AC88849-002		AC88849-003	
			COLLECTION DATE:	12/17/2015		12/17/2015		12/17/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	U
Chloroform	0.37	49	0.37	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	ND	U	0.0039		0.0039	J
Tetrachloroethene	1.3	100	1.3	0.0089		ND	U	0.0054	
Trichloroethene	0.47	21	0.47	ND	U	ND	U	ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 2		SP 3		SP 3	
			Sample Depth:	15'-16' bgs		3'-4' bgs		9'-10' bgs	
			CLIENT ID:	SP2-15-16-20151217		SP3-3-4-20151217		SP3-9-10-20151217	
			LAB ID:	AC88849-004		AC88849-005		AC88849-006	
			COLLECTION DATE:	12/17/2015		12/17/2015		12/17/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	U
Chloroform	0.37	49	0.37	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	0.0037		0.0048		ND	U
Tetrachloroethene	1.3	100	1.3	ND	U	0.0040		***44***	
Trichloroethene	0.47	21	0.47	ND	U	ND	U	***0.92***	

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 5		SP 5		SP 6	
			Sample Depth:	2'-4' bgs		8'-12' bgs		5'-7' bgs	
			CLIENT ID:	SP5-2-4-20151217		SP5-8-12-20151217		SP6-5-7-20151217	
			LAB ID:	AC88849-007		AC88849-008		AC88849-009	
			COLLECTION DATE:	12/17/2015		12/17/2015		12/17/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	***0.11***		ND	U	ND	U
Chloroform	0.37	49	0.37	0.0024		ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	0.015		ND	U	ND	U
Tetrachloroethene	1.3	100	1.3	0.054		0.72	J	0.028	
Trichloroethene	0.47	21	0.47	ND	U	ND	U	ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 6		SP 7		SP 7	
			Sample Depth:	10'-11' bgs		3'-4' bgs		10' bgs	
			CLIENT ID:	SP6-10-11-20151217		SP7-3-4-20151217		SP7-10-20151217	
			LAB ID:	AC88849-010		AC88849-011		AC88849-012	
			COLLECTION DATE:	12/17/2015		12/17/2015		12/17/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	U
Chloroform	0.37	49	0.37	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U	0.018	
Methylene chloride	0.05	NA	0.05	ND	U	0.0034		0.013	
Tetrachloroethene	1.3	100	1.3	1.1		0.012		0.34	
Trichloroethene	0.47	21	0.47	0.051		ND	U	0.041	

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 8		SP 8		SP 9	
			Sample Depth:	0'-1' bgs		9'-11' bgs		0'-1' bgs	
			CLIENT ID:	SP8-0-1-20151218		SP8-9-11-20151218		SP9-0-1-20151218	
			LAB ID:	AC88849-013		AC88849-014		AC88849-015	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	U
Chloroform	0.37	49	0.37	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	0.013		0.0033	J	0.027	J
Tetrachloroethene	1.3	100	1.3	0.021		0.0029	J	0.014	J
Trichloroethene	0.47	21	0.47	ND	U	ND	U	ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 9		SP 10		SP 10	
			Sample Depth:	9'-10' bgs		0.5'-1.3' bgs		8'-12' bgs	
			CLIENT ID:	SP9-9-10-20151218		SP10-0.5-1.3-20151218		SP10-8-12-20151218	
			LAB ID:	AC88849-016		AC88849-017		AC88849-018	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	U
Chloroform	0.37	49	0.37	ND	U	ND	U	***0.38***	
cis-1,2-Dichloroethene	0.25	100	0.25	0.044		ND	U	ND	U
Methylene chloride	0.05	NA	0.05	0.0079	J	0.015	J	ND	U
Tetrachloroethene	1.3	100	1.3	0.37	J	0.019	J	***110***	
Trichloroethene	0.47	21	0.47	0.12		ND	U	***0.74***	

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 10		SP 10		SP 11	
			Sample Depth:	8'-12' bgs		15'-16' bgs		6'-8' bgs	
			CLIENT ID:	DUPE		SP10-15-16-20151218		SP11-6-8-20151218	
			LAB ID:	AC88849-020		AC88849-019		AC88849-021	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	U
Chloroform	0.37	49	0.37	ND	U	ND	U	0.18	
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	ND	U	ND	U	ND	U
Tetrachloroethene	1.3	100	1.3	***30***	J	ND	U	***15***	
Trichloroethene	0.47	21	0.47	0.14		ND	U	0.39	

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 11		SP 11		SP 12	
			Sample Depth:	11'-12' bgs		15'-16' bgs		0'-8' bgs	
			CLIENT ID:	SP11-11-12-20151218		SP11-15-16-20151218		SP12-0-8-20151218	
			LAB ID:	AC88849-022		AC88849-023		AC88849-024	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	U
Chloroform	0.37	49	0.37	0.19		ND	U	ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	0.0035		ND	U
Methylene chloride	0.05	NA	0.05	ND	U	0.0035		0.012	J
Tetrachloroethene	1.3	100	1.3	***17***		0.0044		0.0038	
Trichloroethene	0.47	21	0.47	0.36		0.0038		ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 12		SP 12		MW 8	
			Sample Depth:	10.5'-16' bgs		18' bgs		21' bgs	
			CLIENT ID:	SP12-10.5-16-20151218		SP12-18-20151218		MW8-21-20160111	
			LAB ID:	AC88849-025		AC88849-028		AC89150-001	
			COLLECTION DATE:	12/18/2015		12/18/2015		1/11/2016	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	U
Chloroform	0.37	49	0.37	ND	U	0.0031		ND	U
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U	ND	U
Methylene chloride	0.05	NA	0.05	0.011	J	0.0062		0.0055	
Tetrachloroethene	1.3	100	1.3	ND	U	ND	U	ND	U
Trichloroethene	0.47	21	0.47	ND	U	ND	U	ND	UJ

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2A: Soil Sampling Results – VOCs (Dec 2015 / Jan 2016)

			Sampling Location:	MW 6		MW 6		MW 7	
			Sample Depth:	11' bgs		11' bgs		19' bgs	
			CLIENT ID:	MW6-11-20160111		DUPE-20160111		MW7-19-20160112	
			LAB ID:	AC89150-002		AC89150-003		AC89150-004	
			COLLECTION DATE:	1/11/2016		1/11/2016		1/12/2016	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Acetone	0.05	100	0.05	ND	U	ND	U	ND	UJ
Chloroform	0.37	49	0.37	ND	U	ND	U	ND	UJ
cis-1,2-Dichloroethene	0.25	100	0.25	ND	U	ND	U	ND	UJ
Methylene chloride	0.05	NA	0.05	ND	U	0.004		0.0052	J
Tetrachloroethene	1.3	100	1.3	***41***		0.21		ND	UJ
Trichloroethene	0.47	21	0.47	0.44		ND	UJ	ND	UJ

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedeance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2B: Soil Sampling Results – SVOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 8		SP 10	
			Sample Depth:	9'-11' bgs		8'-12' bgs	
			CLIENT ID:	SP8-9-11-20151218		SP10-8-12-20151218	
			LAB ID:	AC88849-014		AC88849-018	
			COLLECTION DATE:	12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier
Constituent							
Di-n-butylphthalate	NA	NA	NA	ND	U	ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2B: Soil Sampling Results – SVOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 10		SP 12	
			Sample Depth:	8'-12' bgs		0'-8' bgs	
			CLIENT ID:	DUPE		SP12-0-8-20151218	
			LAB ID:	AC88849-020		AC88849-024	
			COLLECTION DATE:	12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier
Constituent							
Di-n-butylphthalate	NA	NA	NA	ND	U	ND	U

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2B: Soil Sampling Results – SVOCs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 12		SP 12	
			Sample Depth:	10.5'-16' bgs		18' bgs	
			CLIENT ID:	SP12-10.5-16-20151218		SP12-18-20151218	
			LAB ID:	AC88849-025		AC88849-028	
			COLLECTION DATE:	12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier
Constituent							
Di-n-butylphthalate	NA	NA	NA	ND	U	0.025	

Units - mg/kg
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2C: Soil Sampling Results – Metals (Dec 2015 / Jan 2016)

			Sampling Location:	SP 8		SP 10		SP 10	
			Sample Depth:	9'-11' bgs		8'-12' bgs		8'-12' bgs	
			CLIENT ID:	SP8-9-11-20151218		SP10-8-12-20151218		DUPE	
			LAB ID:	AC88849-014		AC88849-018		AC88849-020	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aluminum	NA	NA	NA	25,000	J	30,000	J	24,000	J
Antimony	NA	NA	NA	ND	R	ND	R	ND	R
Arsenic	13	16	16	12		9.6		8.7	
Barium	350	400	820	160	J	180	J	140	J
Beryllium	7.2	72	47	0.75	J	0.89	J	0.82	J
Cadmium	2.5	4.3	7.5	ND	UJ	ND	UJ	ND	UJ
Calcium	NA	NA	NA	93,000	J	190,000	J	160,000	J
Chromium	30	36	NA	**33**	J	**39**	J	32	J
Cobalt	NA	NA	NA	24		27		22	
Copper	50	270	1,720	**58**	J	**62**	J	**52**	J
Iron	NA	NA	NA	59,000	J	67,000	J	56,000	J
Lead	63	400	450	21	J	20	J	17	J
Magnesium	NA	NA	NA	29,000	J	45,000	J	37,000	J
Manganese	1,600	2,000	2,000	1,100	J	**1,900**	J	**1,600**	J
Mercury	0.18	0.81	0.73	ND	U	0.12		ND	U
Nickel	30	310	130	**49**	J	**55**	J	**45**	J
Potassium	NA	NA	NA	3,400	J	5,000	J	4,200	J
Selenium	3.9	180	4	3.5		3.3		3.1	
Silver	2	180	8.3	ND	U	ND	U	ND	U
Sodium	NA	NA	NA	750	J	540	J	450	J
Thallium	NA	NA	NA	ND	U	ND	U	ND	U
Vanadium	NA	NA	NA	49	J	52	J	43	J
Zinc	109	10,000	2,480	**130**	J	**140**	J	**110**	J

Units - mg/kg
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2C: Soil Sampling Results – Metals (Dec 2015 / Jan 2016)

			Sampling Location:	SP 12		SP 12		SP 12	
			Sample Depth:	0'-8' bgs		10.5'-16' bgs		18' bgs	
			CLIENT ID:	SP12-0-8-20151218		SP12-10.5-16-20151218		SP12-18-20151218	
			LAB ID:	AC88849-024		AC88849-025		AC88849-028	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aluminum	NA	NA	NA	16,000	J	24,000	J	24,000	J
Antimony	NA	NA	NA	ND	R	ND	R	ND	R
Arsenic	13	16	16	5.5		**13**		**13**	
Barium	350	400	820	110	J	200	J	140	J
Beryllium	7.2	72	47	0.42	J	0.9	J	0.73	J
Cadmium	2.5	4.3	7.5	ND	UJ	ND	UJ	ND	UJ
Calcium	NA	NA	NA	17,000	J	83,000	J	100,000	J
Chromium	30	36	NA	23	J	**34**	J	**32**	J
Cobalt	NA	NA	NA	14		22		23	
Copper	50	270	1,720	40	J	**55**	J	**57**	J
Iron	NA	NA	NA	39,000	J	55,000	J	60,000	J
Lead	63	400	450	17	J	22	J	21	J
Magnesium	NA	NA	NA	11,000	J	24,000	J	31,000	J
Manganese	1,600	2,000	2,000	780	J	1,100	J	1,200	J
Mercury	0.18	0.81	0.73	ND	U	0.16		0.12	
Nickel	30	310	130	29	J	**46**	J	**46**	J
Potassium	NA	NA	NA	1,400	J	4,000	J	3,700	J
Selenium	3.9	180	4	ND	U	3.5		3.1	
Silver	2	180	8.3	ND	U	ND	U	ND	U
Sodium	NA	NA	NA	ND	UJ	640	J	490	J
Thallium	NA	NA	NA	ND	U	ND	U	ND	U
Vanadium	NA	NA	NA	23	J	47	J	47	J
Zinc	109	10,000	2,480	100	J	**130**	J	**120**	J

Units - mg/kg
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2D: Soil Sampling Results – PCBs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 8		SP 10		SP 10	
			Sample Depth:	9'-11' bgs		8'-12' bgs		8'-12' bgs	
			CLIENT ID:	SP8-9-11-20151218		SP10-8-12-20151218		DUPE	
			LAB ID:	AC88849-014		AC88849-018		AC88849-020	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aroclor (Total)	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1016	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1221	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1232	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1242	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1248	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1254	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1260	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1262	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1268	0.1	1	NA	ND	U	ND	U	ND	U

Units - mg/kg
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2D: Soil Sampling Results – PCBs (Dec 2015 / Jan 2016)

			Sampling Location:	SP 12		SP 12		SP 12	
			Sample Depth:	0'-8' bgs		10.5'-16' bgs		18' bgs	
			CLIENT ID:	SP12-0-8-20151218		SP12-10.5-16-20151218		SP12-18-20151218	
			LAB ID:	AC88849-024		AC88849-025		AC88849-028	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aroclor (Total)	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1016	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1221	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1232	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1242	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1248	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1254	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1260	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1262	0.1	1	NA	ND	U	ND	U	ND	U
Aroclor-1268	0.1	1	NA	ND	U	ND	U	ND	U

Units - mg/kg
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2E: Soil Sampling Results – Pesticides (Dec 2015 / Jan 2016)

			Sampling Location:	SP 8		SP 10		SP 10	
			Sample Depth:	9'-11' bgs		8'-12' bgs		8'-12' bgs	
			CLIENT ID:	SP8-9-11-20151218		SP10-8-12-20151218		DUPE	
			LAB ID:	AC88849-014		AC88849-018		AC88849-020	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aldrin	0.005	0.097	0.19	ND	U	ND	U	ND	U
Alpha-BHC	0.02	0.48	0.02	ND	U	ND	U	ND	U
beta-BHC	0.036	0.36	0.09	ND	U	ND	U	ND	U
Chlordane (Technical)	NA	NA	NA	ND	U	ND	U	ND	U
delta-BHC	0.04	100	0.25	ND	U	ND	U	ND	U
Dieldrin	0.005	0.2	0.1	ND	U	ND	U	ND	U
Endosulfan I	2.4	24	102	ND	U	ND	U	ND	U
Endosulfan II	2.4	24	102	ND	U	ND	U	ND	U
Endosulfan Sulfate	2.4	24	1,000	ND	U	ND	U	ND	U
Endrin	0.014	11	0.06	ND	U	ND	U	ND	U
Endrin Aldehyde	NA	NA	NA	ND	U	ND	U	ND	U
Endrin Ketone	NA	NA	NA	ND	U	ND	U	ND	U
gamma-BHC	0.1	1.3	NA	ND	U	ND	U	ND	U
Heptachlor	0.042	2.1	0.38	ND	U	ND	U	ND	U
Heptachlor Epoxide	NA	NA	NA	ND	U	ND	U	ND	U
Methoxychlor	NA	NA	NA	ND	U	ND	U	ND	U
p,p'-DDD	0.0033	NA	NA	ND	U	ND	U	ND	U
p,p'-DDE	0.0033	NA	NA	ND	U	ND	U	ND	U
p,p'-DDT	0.0033	NA	NA	ND	U	ND	U	ND	U
Toxaphene	NA	NA	NA	ND	U	ND	U	ND	U

Units - mg/kg
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted critearia, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 2E: Soil Sampling Results – Pesticides (Dec 2015 / Jan 2016)

			Sampling Location:	SP 12		SP 12		SP 12	
			Sample Depth:	0'-8' bgs		10.5'-16' bgs		18' bgs	
			CLIENT ID:	SP12-0-8-20151218		SP12-10.5-16-20151218		SP12-18-20151218	
			LAB ID:	AC88849-024		AC88849-025		AC88849-028	
			COLLECTION DATE:	12/18/2015		12/18/2015		12/18/2015	
			SAMPLE MATRIX:	Soil		Soil		Soil	
	Part375 Unrestricted	Part375 Restricted Residential	*Protection of Ground-Water*	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent									
Aldrin	0.005	0.097	0.19	ND	U	ND	U	ND	U
Alpha-BHC	0.02	0.48	0.02	ND	U	ND	U	ND	U
beta-BHC	0.036	0.36	0.09	ND	U	ND	U	ND	U
Chlordane (Technical)	NA	NA	NA	ND	U	ND	U	ND	U
delta-BHC	0.04	100	0.25	ND	U	ND	U	ND	U
Dieldrin	0.005	0.2	0.1	ND	U	ND	U	ND	U
Endosulfan I	2.4	24	102	ND	U	ND	U	ND	U
Endosulfan II	2.4	24	102	ND	U	ND	U	ND	U
Endosulfan Sulfate	2.4	24	1,000	ND	U	ND	U	ND	U
Endrin	0.014	11	0.06	ND	U	ND	U	ND	U
Endrin Aldehyde	NA	NA	NA	ND	U	ND	U	ND	U
Endrin Ketone	NA	NA	NA	ND	U	ND	U	ND	U
gamma-BHC	0.1	1.3	NA	ND	U	ND	U	ND	U
Heptachlor	0.042	2.1	0.38	ND	U	ND	U	ND	U
Heptachlor Epoxide	NA	NA	NA	ND	U	ND	U	ND	U
Methoxychlor	NA	NA	NA	ND	U	ND	U	ND	U
p,p'-DDD	0.0033	NA	NA	ND	U	ND	U	ND	U
p,p'-DDE	0.0033	NA	NA	ND	U	ND	U	ND	U
p,p'-DDT	0.0033	NA	NA	ND	U	ND	U	ND	U
Toxaphene	NA	NA	NA	ND	U	ND	U	ND	U

Units - mg/kg
Qualifiers - NA - Criteria or standard not available
U - Compound was analyzed but not detected.
R - Rejected
B – Also detected in associated method blank
J – Estimated value; ND – Not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – Soil/Sed – NYS DEC 6 NYCRR PART 375
Bold = exceedance of Unrestricted critearia, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria

Table 3A: Groundwater Sampling Results – VOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW1		MW2	
	LAB ID:	BJ71098		BJ71103	
	COLLECTION DATE:	8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier
Chloroform	7	ND	U	0.81	J
Chloromethane	NS	ND	U	ND	U
Cis-1,2-Dichloroethylene	5	ND	U	ND	U
Tetrachloroethylene (PCE)	5	ND	U	**21**	
Trans-1,2-Dichloroethene	5	ND	U	ND	U
Trichloroethylene (TCE)	5	ND	U	ND	U
Vinyl Chloride	2	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3A: Groundwater Sampling Results – VOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW3		MW3-DUP	
	LAB ID:	BJ71099		BJ71100	
	COLLECTION DATE:	8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier
Chloroform	7	0.35	J	0.34	J
Chloromethane	NS	ND	U	ND	U
Cis-1,2-Dichloroethylene	5	**36**		**36**	
Tetrachloroethylene (PCE)	5	**130**		**130**	
Trans-1,2-Dichloroethene	5	0.61	J	0.62	J
Trichloroethylene (TCE)	5	**35**		**36**	
Vinyl Chloride	2	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3A: Groundwater Sampling Results – VOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW3-20160126		MW4	
	LAB ID:	AC89365-002		BJ71102	
	COLLECTION DATE:	1/26/2016		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier
Chloroform	7	ND	U	ND	U
Chloromethane	NS	ND	U	ND	U
Cis-1,2-Dichloroethylene	5	**17**		ND	U
Tetrachloroethylene (PCE)	5	**110**	J	0.67	J
Trans-1,2-Dichloroethene	5	ND	U	ND	U
Trichloroethylene (TCE)	5	**24**		ND	U
Vinyl Chloride	2	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3A: Groundwater Sampling Results – VOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW5		MW6-20160127	
	LAB ID:	BJ71101		AC89365-005	
	COLLECTION DATE:	8/6/2015		1/26/2016	
	SAMPLE MATRIX:	Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier
Chloroform	7	ND	U	ND	U
Chloromethane	NS	ND	UJ	ND	U
Cis-1,2-Dichloroethylene	5	0.26	J	ND	U
Tetrachloroethylene (PCE)	5	ND	U	**9,600**	
Trans-1,2-Dichloroethene	5	ND	U	ND	U
Trichloroethylene (TCE)	5	ND	U	**85**	
Vinyl Chloride	2	0.37	J	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3A: Groundwater Sampling Results – VOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	DUPE-20160127		MW7-20160112	
	LAB ID:	AC89365-006		AC89150-007	
	COLLECTION DATE:	1/26/2016		1/12/2016	
	SAMPLE MATRIX:	Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier
Chloroform	7	ND	U	ND	U
Chloromethane	NS	ND	U	ND	U
Cis-1,2-Dichloroethylene	5	ND	U	ND	U
Tetrachloroethylene (PCE)	5	**11,000**		ND	U
Trans-1,2-Dichloroethene	5	ND	U	ND	U
Trichloroethylene (TCE)	5	**74**		ND	U
Vinyl Chloride	2	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3A: Groundwater Sampling Results – VOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW8-20160126	
	LAB ID:	AC89365-001	
	COLLECTION DATE:	1/26/2016	
	SAMPLE MATRIX:	Aqueous	
Constituent	Criteria	Result	Qualifier
Chloroform	7	ND	U
Chloromethane	NS	ND	U
Cis-1,2-Dichloroethylene	5	ND	U
Tetrachloroethylene (PCE)	5	ND	U
Trans-1,2-Dichloroethene	5	ND	U
Trichloroethylene (TCE)	5	ND	U
Vinyl Chloride	2	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3B: Groundwater Sampling Results – SVOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW1		MW2	
	LAB ID:	BJ71098		BJ71103	
	COLLECTION DATE:	8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous	
	Criteria	Result	Qualifier	Result	Qualifier
Constituent					
Benzo(b)fluoranthene	0.002 GV	ND	U	ND	U
Benzo(k)fluoranthene	0.002 GV	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
CriteCriteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3B: Groundwater Sampling Results – SVOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW3		MW3-DUP	
	LAB ID:	BJ71099		BJ71100	
	COLLECTION DATE:	8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous	
	Criteria	Result	Qualifier	Result	Qualifier
Constituent					
Benzo(b)fluoranthene	0.002 GV	**0.03**		ND	U
Benzo(k)fluoranthene	0.002 GV	**0.03**		ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
CriteCriteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3B: Groundwater Sampling Results – SVOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW3-20160126		MW4	
	LAB ID:	AC89365-002		BJ71102	
	COLLECTION DATE:	1/26/2016		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous	
	Criteria	Result	Qualifier	Result	Qualifier
Constituent					
Benzo(b)fluoranthene	0.002 GV	ND	U	ND	U
Benzo(k)fluoranthene	0.002 GV	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
CriteCriteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3B: Groundwater Sampling Results – SVOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW5		MW6-20160127	
	LAB ID:	BJ71101		AC89365-005	
	COLLECTION DATE:	8/6/2015		1/26/2016	
	SAMPLE MATRIX:	Aqueous		Aqueous	
	Criteria	Result	Qualifier	Result	Qualifier
Constituent					
Benzo(b)fluoranthene	0.002 GV	ND	U	ND	U
Benzo(k)fluoranthene	0.002 GV	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
CriteCriteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3B: Groundwater Sampling Results – SVOCs (Aug 2015 / Jan 2016)

	CLIENT ID:	DUPE-20160127	
	LAB ID:	AC89365-006	
	COLLECTION DATE:	1/26/2016	
	SAMPLE MATRIX:	Aqueous	
	Criteria	Result	Qualifier
Constituent			
Benzo(b)fluoranthene	0.002 GV	ND	U
Benzo(k)fluoranthene	0.002 GV	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA.
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses
CriteCriteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3C: Groundwater Sampling Results – Total Metals (Aug 2015 / Jan 2016)

	CLIENT ID:	MW1		MW2		MW3	
	LAB ID:	BJ71098		BJ71103		BJ71099	
	COLLECTION DATE:	8/6/2015		8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	**11,400**		**2,560**		**13,300**	J
Antimony	3	ND	U	ND	U	ND	U
Arsenic	25	NA	NA	NA	NA	NA	NA
Arsenic - LDL	25	17		4		11	J
Barium	1,000	245	J	104	J	264	J
Beryllium	NA	ND	U	ND	U	ND	U
Cadmium	5	ND	U	ND	U	1	J
Calcium	NA	178,000		109,000		188,000	
Chromium	50	13		4		15	J
Cobalt	NA	7		ND	U	21	J
Copper	200	29		4	J	57	J
Iron	300	**19,200**	U	**2,230**		**27,000**	J
Lead	25	8		3		24	J
Magnesium	NA	44,100		16,100		32,000	
Manganese	300	**528**		30		**4,010**	
Mercury	0.7	ND	U	ND	U	ND	U
Nickel	100	16		2	J	32	J
Potassium	NA	9,900	J	4,300	J	15,800	J
Selenium	10	ND	U	ND	U	ND	U
Silver	50	ND	U	ND	U	ND	U
Sodium	20,000	**700,000**		**260,000**		**76,600**	
Thallium - LDL	NA	ND	U	ND	U	ND	U
Vanadium	NA	21		4	J	23	J
Zinc	NA	46		11		109	J

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3C: Groundwater Sampling Results – Total Metals (Aug 2015 / Jan 2016)

	CLIENT ID:	MW3-DUP		MW3-20160126		MW4	
	LAB ID:	BJ71100		AC89365-002		BJ71102	
	COLLECTION DATE:	8/6/2015		1/26/2016		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent							
Aluminum	NA	**26,700**	J	ND	U	**13,600**	
Antimony	3	ND	U	ND	U	ND	U
Arsenic	25	NA	NA	2.1		NA	NA
Arsenic - LDL	25	20	J	NA	NA	11	
Barium	1,000	489	J	63		169	J
Beryllium	NA	1		ND	U	ND	U
Cadmium	5	2	J	ND	U	1	J
Calcium	NA	217,000		170,000	J	156,000	
Chromium	50	31	J	ND	U	21	
Cobalt	NA	38	J	2.2		10	
Copper	200	118	J	ND	U	16	
Iron	300	**62,000**	J	ND	U	**16,200**	
Lead	25	**49**	J	ND	U	15	
Magnesium	NA	42,100		26,000		43,100	
Manganese	300	**5,350**		**1,700**	J	**3,590**	
Mercury	0.7	ND	U	ND	U	ND	U
Nickel	100	60	J	ND	U	18	
Potassium	NA	19,500	J	8,400		5,800	J
Selenium	10	ND	U	ND	U	ND	U
Silver	50	2	J	ND	U	1	J
Sodium	20,000	**61,800**		**72,000**		**138,000**	
Thallium - LDL	NA	ND	U	ND	U	ND	U
Vanadium	NA	45	J	ND	U	24	
Zinc	NA	233	J	ND	U	54	

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3C: Groundwater Sampling Results – Total Metals (Aug 2015 / Jan 2016)

	CLIENT ID:	MW5		MW6-20160127		DUPE-20160127	
	LAB ID:	BJ71101		AC89365-005		AC89365-006	
	COLLECTION DATE:	8/6/2015		1/26/2016		1/26/2016	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent							
Aluminum	NA	**15,300**		ND	U	ND	U
Antimony	3	ND	U	ND	U	ND	U
Arsenic	25	NA	NA	2.7		2.7	
Arsenic - LDL	25	**63**		NA	NA	NA	NA
Barium	1,000	273	J	51		ND	
Beryllium	NA	ND	U	ND	U	ND	U
Cadmium	5	1	J	ND	U	ND	U
Calcium	NA	171,000		91,000	J	89,000	J
Chromium	50	21		ND	U	ND	U
Cobalt	NA	8		ND	U	ND	U
Copper	200	34		ND	U	ND	U
Iron	300	**35,700**		ND	U	ND	U
Lead	25	14		ND	U	ND	U
Magnesium	NA	37,600		21,000		20,000	
Manganese	300	**659**		180	J	170	J
Mercury	0.7	ND	U	ND	U	ND	U
Nickel	100	17		ND	U	ND	U
Potassium	NA	10,300	J	ND	U	ND	U
Selenium	10	ND	U	ND	U	ND	U
Silver	50	1	J	ND	U	ND	U
Sodium	20,000	**662,000**		**52,000**		**50,000**	
Thallium - LDL	NA	ND	U	ND	U	ND	U
Vanadium	NA	30		ND	U	ND	U
Zinc	NA	68		ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Former RKO Dry Cleaners
NYSDEC #401065

Table 3C: Groundwater Sampling Results – Dissolved Metals (Aug 2015 / Jan 2016)

	CLIENT ID:	MW1		MW2		MW3	
	LAB ID:	BJ71098		BJ71103		BJ71099	
	COLLECTION DATE:	8/6/2015		8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum (Dissolved)	NA	ND	U	ND	U	ND	U
Antimony, (Dissolved)	3	ND	U	ND	U	ND	U
Arsenic, (Dissolved)	25	8		6		6	
Barium (Dissolved)	1,000	181	J	91	J	66	J
Beryllium (Dissolved)	NA	ND	U	ND	U	ND	U
Cadmium (Dissolved)	5	ND	U	ND	U	ND	U
Calcium (Dissolved)	NA	176,000		117,000		182,000	
Chromium (Dissolved)	50	ND	U	2		ND	U
Cobalt, (Dissolved)	NA	ND	U	ND	U	4	J
Copper, (Dissolved)	200	2	J	ND	U	ND	U
Iron, (Dissolved)	300	ND		ND	U	ND	U
Lead (Dissolved)	25	ND	U	ND	U	1	J
Magnesium (Dissolved)	NA	**43,800**		17,100		29,700	
Manganese, (Dissolved)	300	207		ND	U	**3,570**	
Mercury (Dissolved)	0.7	ND	U	ND	U	ND	U
Nickel, (Dissolved)	100	2	J	ND	U	5	
Potassium (Dissolved)	NA	4,300	J	2,900	J	11,300	J
Selenium, (Dissolved)	10	ND	U	ND	U	ND	U
Silver (Dissolved)	50	ND	U	ND	U	1	J
Sodium (Dissolved)	20,000	**777,000**		**203,000**		**60,900**	
Thallium , (Dissolved)	NA	ND	U	ND	U	ND	U
Vanadium, (Dissolved)	NA	ND	U	ND	U	ND	U
Zinc, (Dissolved)	NA	ND	U	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Former RKO Dry Cleaners
NYSDEC #401065

Table 3C: Groundwater Sampling Results – Dissolved Metals (Aug 2015 / Jan 2016)

	CLIENT ID:	MW3-DUP		MW4		MW5	
	LAB ID:	BJ71100		BJ71102		BJ71101	
	COLLECTION DATE:	8/6/2015		8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum (Dissolved)	NA	ND	U	ND	U	480	
Antimony, (Dissolved)	3	ND	U	ND	U	ND	U
Arsenic, (Dissolved)	25	5		6		7	
Barium (Dissolved)	1,000	65	J	24	J	88	J
Beryllium (Dissolved)	NA	ND	U	ND	U	ND	U
Cadmium (Dissolved)	5	ND	U	ND	U	ND	U
Calcium (Dissolved)	NA	191,000		150,000		152,000	
Chromium (Dissolved)	50	ND	U	ND	U	ND	U
Cobalt, (Dissolved)	NA	3	J	ND	U	ND	U
Copper, (Dissolved)	200	ND	U	ND	U	ND	U
Iron, (Dissolved)	300	ND	U	ND	U	ND	U
Lead (Dissolved)	25	ND	U	ND	U	ND	U
Magnesium (Dissolved)	NA	30,200		42,700		31,100	
Manganese, (Dissolved)	300	**3,140**		2	J	195	
Mercury (Dissolved)	0.7	ND	U	ND	U	ND	U
Nickel, (Dissolved)	100	5		ND	U	ND	U
Potassium (Dissolved)	NA	10,800	J	2,700	J	4,400	J
Selenium, (Dissolved)	10	ND	U	ND	U	ND	U
Silver (Dissolved)	50	1	J	ND	U	ND	U
Sodium (Dissolved)	20,000	**59,900**		**132,000**		**809,000**	
Thallium , (Dissolved)	NA	ND	U	ND	U	ND	U
Vanadium, (Dissolved)	NA	ND	U	ND	U	ND	U
Zinc, (Dissolved)	NA	ND	U	ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3D: Groundwater Sampling Results – PCBs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW1		MW2		MW3	
	LAB ID:	BJ71098		BJ71103		BJ71099	
	COLLECTION DATE:	8/6/2015		8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent							
PCB-1016	1	ND	U	ND	U	ND	U
PCB-1221	1	ND	U	ND	U	ND	U
PCB-1232	1	ND	U	ND	U	ND	U
PCB-1242	1	ND	U	ND	U	ND	U
PCB-1248	1	ND	U	ND	U	ND	U
PCB-1254	1	ND	U	ND	U	ND	U
PCB-1260	1	ND	U	ND	U	ND	U
PCB-1262	1	ND	U	ND	U	ND	U
PCB-1268	1	ND	U	ND	U	ND	U
Total PCBs		NA	NA	NA	NA	NA	NA

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3D: Groundwater Sampling Results – PCBs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW3-DUP		MW3-20160126		MW4	
	LAB ID:	BJ71100		AC89365-002		BJ71102	
	COLLECTION DATE:	8/6/2015		1/26/2016		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Constituent							
PCB-1016	1	ND	U	ND	U	ND	UJ
PCB-1221	1	ND	U	ND	U	ND	UJ
PCB-1232	1	ND	U	ND	U	ND	UJ
PCB-1242	1	ND	U	ND	U	ND	UJ
PCB-1248	1	ND	U	ND	U	ND	UJ
PCB-1254	1	ND	U	ND	U	ND	UJ
PCB-1260	1	ND	U	ND	U	ND	UJ
PCB-1262	1	ND	U	ND	U	ND	UJ
PCB-1268	1	ND	U	ND	U	ND	UJ
Total PCBs		NA	NA	ND	U	NA	NA

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3D: Groundwater Sampling Results – PCBs (Aug 2015 / Jan 2016)

	CLIENT ID:	MW5		MW6-20160127		DUPE-20160127	
	LAB ID:	BJ71101		AC89365-005		AC89365-006	
	COLLECTION DATE:	8/6/2015		1/26/2016		1/26/2016	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
PCB-1016	1	ND	U	ND	U	ND	U
PCB-1221	1	ND	U	ND	U	ND	U
PCB-1232	1	ND	U	ND	U	ND	U
PCB-1242	1	ND	U	ND	U	ND	U
PCB-1248	1	ND	U	ND	U	ND	U
PCB-1254	1	ND	U	ND	U	ND	U
PCB-1260	1	ND	U	ND	U	ND	U
PCB-1262	1	ND	U	ND	U	ND	U
PCB-1268	1	ND	U	ND	U	ND	U
Total PCBs		0.27		ND	U	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3E: Groundwater Sampling Results – Pesticides (Aug 2015 / Jan 2016)

	CLIENT ID:	MW1		MW2		MW3	
	LAB ID:	BJ71098		BJ71103		BJ71099	
	COLLECTION DATE:	8/6/2015		8/6/2015		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Alachlor	0.5	ND	U	ND	UJ	ND	U
Aldrin	ND	ND	U	ND	UJ	ND	U
a-BHC	0.01	ND	U	ND	UJ	ND	U
b-BHC	0.04	ND	U	ND	UJ	ND	U
Chlordane	0.05	ND	U	ND	UJ	ND	U
d-BHC	0.04	ND	U	ND	UJ	ND	U
Dieldrin	ND	ND	U	ND	UJ	ND	U
Endosulfan I	NS	NA	NA	NA	NA	NA	NA
Endosulfan II	NS	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NS	ND	U	ND	UJ	ND	U
Endrin	ND	ND	U	ND	UJ	ND	U
Endrin Aldehyde	5	ND	U	ND	UJ	ND	U
Endrin ketone	5	ND	U	ND	UJ	ND	U
g-BHC (Lindane)	0.05	ND	U	ND	UJ	ND	U
Heptachlor	0.04	ND	U	ND	UJ	ND	U
Heptachlor epoxide	0.03	ND	U	ND	UJ	ND	U
Methoxychlor	35	ND	U	ND	UJ	ND	U
4,4' -DDD	0.3	ND	U	ND	UJ	ND	U
4,4' -DDE	0.2	ND	U	ND	UJ	ND	U
4,4' -DDT	0.2	ND	U	ND	UJ	ND	U
Toxaphene	0.06	ND	U	ND	UJ	ND	U
Alpha Endosulfan	NS	ND	U	ND	UJ	ND	U
Beta Endosulfan	NS	ND	U	ND	UJ	ND	U
cis-Chlordane	NS	ND	U	ND	UJ	ND	U
trans-Chlordane	NS	ND	U	ND	UJ	ND	U

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3E: Groundwater Sampling Results – Pesticides (Aug 2015 / Jan 2016)

	CLIENT ID:	MW3-DUP		MW3-20160126		MW4	
	LAB ID:	BJ71100		AC89365-002		BJ71102	
	COLLECTION DATE:	8/6/2015		1/26/2016		8/6/2015	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Alachlor	0.5	ND	U	NA	NA	ND	UJ
Aldrin	ND	ND	U	ND	U	ND	UJ
a-BHC	0.01	ND	U	ND	U	ND	UJ
b-BHC	0.04	ND	U	ND	U	ND	UJ
Chlordane	0.05	ND	U	ND	U	ND	UJ
d-BHC	0.04	ND	U	ND	U	ND	UJ
Dieldrin	ND	ND	U	ND	U	ND	UJ
Endosulfan I	NS	NA	NA	ND	U	NA	NA
Endosulfan II	NS	NA	NA	ND	U	NA	NA
Endosulfan Sulfate	NS	ND	U	ND	U	ND	UJ
Endrin	ND	ND	U	ND	U	ND	UJ
Endrin Aldehyde	5	ND	U	ND	U	ND	UJ
Endrin ketone	5	ND	U	ND	U	ND	UJ
g-BHC (Lindane)	0.05	ND	U	ND	U	ND	UJ
Heptachlor	0.04	ND	U	ND	U	ND	UJ
Heptachlor epoxide	0.03	ND	U	ND	U	ND	UJ
Methoxychlor	35	ND	U	ND	U	ND	UJ
4,4' -DDD	0.3	ND	U	ND	U	ND	UJ
4,4' -DDE	0.2	ND	U	ND	U	ND	UJ
4,4' -DDT	0.2	ND	U	ND	U	ND	UJ
Toxaphene	0.06	ND	U	ND	U	ND	UJ
Alpha Endosulfan	NS	ND	U	NA	NA	ND	UJ
Beta Endosulfan	NS	ND	U	NA	NA	ND	UJ
cis-Chlordane	NS	ND	U	NA	NA	ND	UJ
trans-Chlordane	NS	ND	U	NA	NA	ND	UJ

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers - NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Table 3E: Groundwater Sampling Results – Pesticides (Aug 2015 / Jan 2016)

	CLIENT ID:	MW5		MW6-20160127		DUPE-20160127	
	LAB ID:	BJ71101		AC89365-005		AC89365-006	
	COLLECTION DATE:	8/6/2015		1/26/2016		1/26/2016	
	SAMPLE MATRIX:	Aqueous		Aqueous		Aqueous	
Constituent	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Alachlor	0.5	ND	UJ	NA	NA	NA	NA
Aldrin	ND	ND	UJ	ND	U	ND	U
a-BHC	0.01	ND	UJ	ND	U	ND	U
b-BHC	0.04	ND	UJ	ND	U	ND	U
Chlordane	0.05	ND	UJ	ND	U	ND	U
d-BHC	0.04	ND	UJ	ND	U	ND	U
Dieldrin	ND	ND	UJ	ND	U	ND	U
Endosulfan I	NS	NA	NA	ND	U	ND	U
Endosulfan II	NS	NA	NA	ND	U	ND	U
Endosulfan Sulfate	NS	ND	UJ	ND	U	ND	U
Endrin	ND	ND	UJ	ND	U	ND	U
Endrin Aldehyde	5	ND	UJ	ND	U	ND	U
Endrin ketone	5	ND	UJ	ND	U	ND	U
g-BHC (Lindane)	0.05	ND	UJ	ND	U	ND	U
Heptachlor	0.04	ND	UJ	ND	U	ND	U
Heptachlor epoxide	0.03	ND	UJ	ND	U	ND	U
Methoxychlor	35	ND	UJ	ND	U	ND	U
4,4' -DDD	0.3	ND	UJ	ND	U	ND	U
4,4' -DDE	0.2	ND	UJ	ND	U	ND	U
4,4' -DDT	0.2	ND	UJ	ND	U	ND	U
Toxaphene	0.06	ND	UJ	ND	U	ND	U
Alpha Endosulfan	NS	ND	UJ	NA	NA	NA	NA
Beta Endosulfan	NS	ND	UJ	NA	NA	NA	NA
cis-Chlordane	NS	ND	UJ	NA	NA	NA	NA
trans-Chlordane	NS	ND	UJ	NA	NA	NA	NA

Units - ug/L Bold/highlighted cell – exceedance of 6 NYCRR Part 703 Class GA

Qualifiers -
NA - criteria or standard not available
R - rejected
B – also detected in associated method blank
J – estimated value; ND – not detected
NDJ – not detected, estimated reporting limit
NJ – positive identification of tentatively identified compound, estimated value
P – greater than 40% difference between primary and confirmation analyses

Criteria – 6 NYCRR Part 703 NYSDEC Class GA groundwater quality standards, and NY Division of water TOGS 1.1.1 Ambient water quality standards and guidance values and groundwater effluent limitations.

Former RKO Dry Cleaners
NYSDEC Site # 401065

Table 4: Soil Vapor Intrusion Sampling Results (Apr 2016)

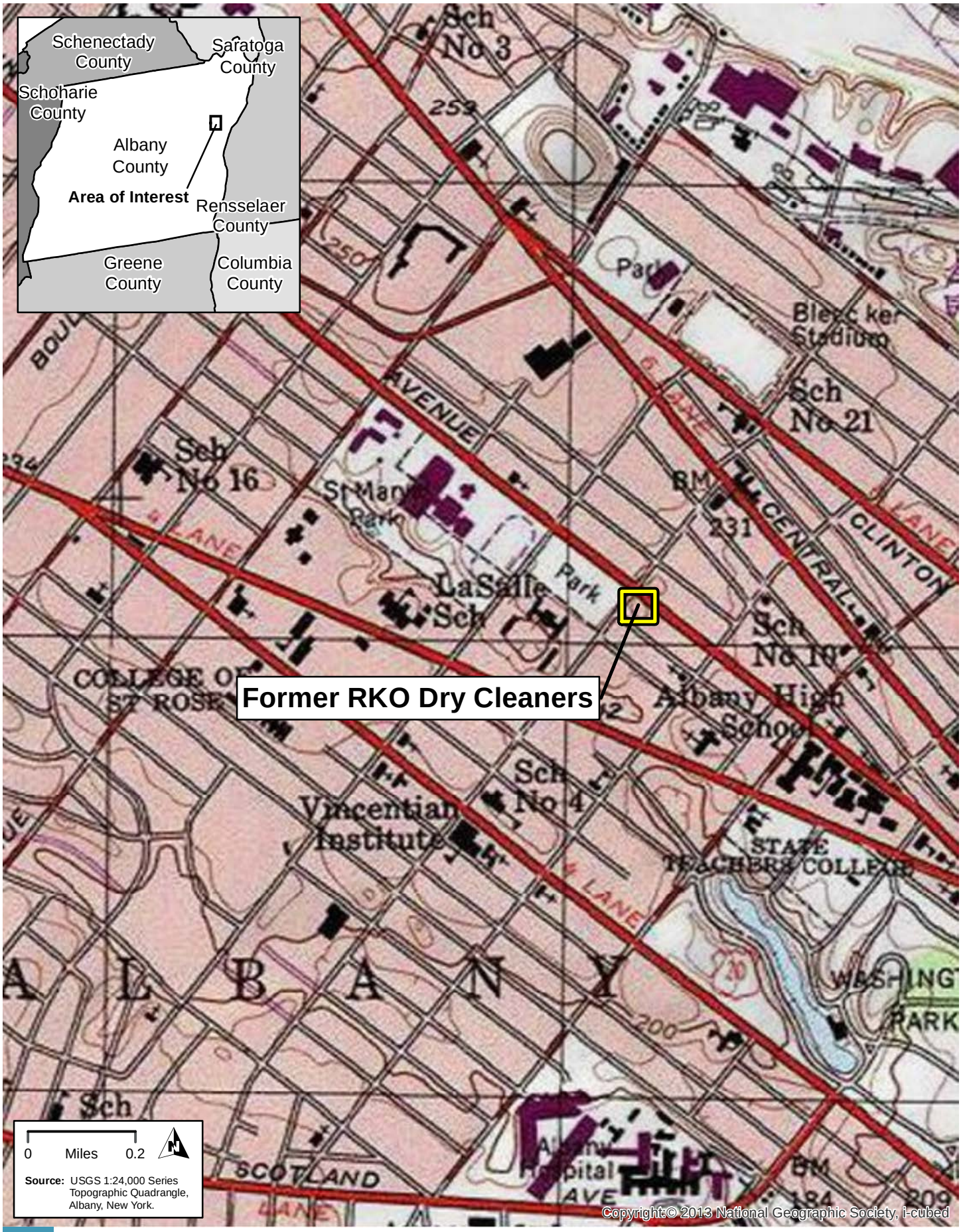
	Sample Location:	560-WASH		560-WASH		562-WASH	
	Sample Depth:	Sub-Slab		Inside Air		Sub-Slab	
	CLIENT ID:	560SS20160331		560IA20160331		562SS20160331	
	LAB ID:	R0257-01		R0257-02		R0257-03	
	COLLECTION DATE:	04/01/2016 12:45		04/01/2016 12:42		04/01/2016 13:43	
	SAMPLE MATRIX:	Air		Air		Air	
Constituent							
1,4-Dichlorobenzene		ND	U	ND	U	4.27	
2-Butanone		2.24		1.50		1.59	
4-Methyl-2-pentanone		28.40		ND	U	13.10	
Benzene		1.24	J	ND	U	0.70	J
Chloromethane		ND	U	1.03	J	ND	U
Cyclohexane		2.41		ND	U	ND	U
Dichlorodifluoromethane		3.26		3.31		3.41	
Ethanol		14.50	J	31.70	J	6.05	J
Hexane		3.14		ND	U	1.55	J
Methylene chloride		1.63	J	ND	U	ND	U
Tetrachloroethene		ND	U	ND	U	22.40	
Toluene		3.39		0.98	J	4.14	
Trichloroethene		ND	U	ND	U	1.18	J
Trichlorofluoromethane		1.85	J	1.80	J	2.42	J

Notes:
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Units - µg/m^3
U - The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J - The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.

Table 4: Soil Vapor Intrusion Sampling Results (Apr 2016)

	Sample Location:	562-WASH		562-WASH		WASH-OA	
	Sample Depth:	Sub-Slab		Inside Air		Outside Air	
	CLIENT ID:	DUPE20160331		562IA20160331		562OA20160331	
	LAB ID:	R0257-05		R0257-04		R0257-06	
	COLLECTION DATE:	04/01/2016 13:42		04/01/2016 13:41		04/01/2016 13:09	
	SAMPLE MATRIX:	Air		Air		Air	
Constituent							
1,4-Dichlorobenzene		ND	U	ND	U	ND	U
2-Butanone		1.56		1.06	J	1.95	
4-Methyl-2-pentanone		15.20		ND	U	ND	U
Benzene		ND	U	ND	U	0.64	J
Chloromethane		ND	U	ND	U	1.36	J
Cyclohexane		ND	U	2.24		ND	U
Dichlorodifluoromethane		3.96		3.56		3.21	
Ethanol		7.37	J	73.90	J	14.30	J
Hexane		1.48	J	ND	U	1.02	J
Methylene chloride		ND	U	ND	U	1.32	J
Tetrachloroethene		22.00		ND	U	ND	U
Toluene		1.66	J	ND	U	2.52	
Trichloroethene		1.07	J	ND	U	ND	U
Trichlorofluoromethane		2.70	J	2.53	J	2.08	J

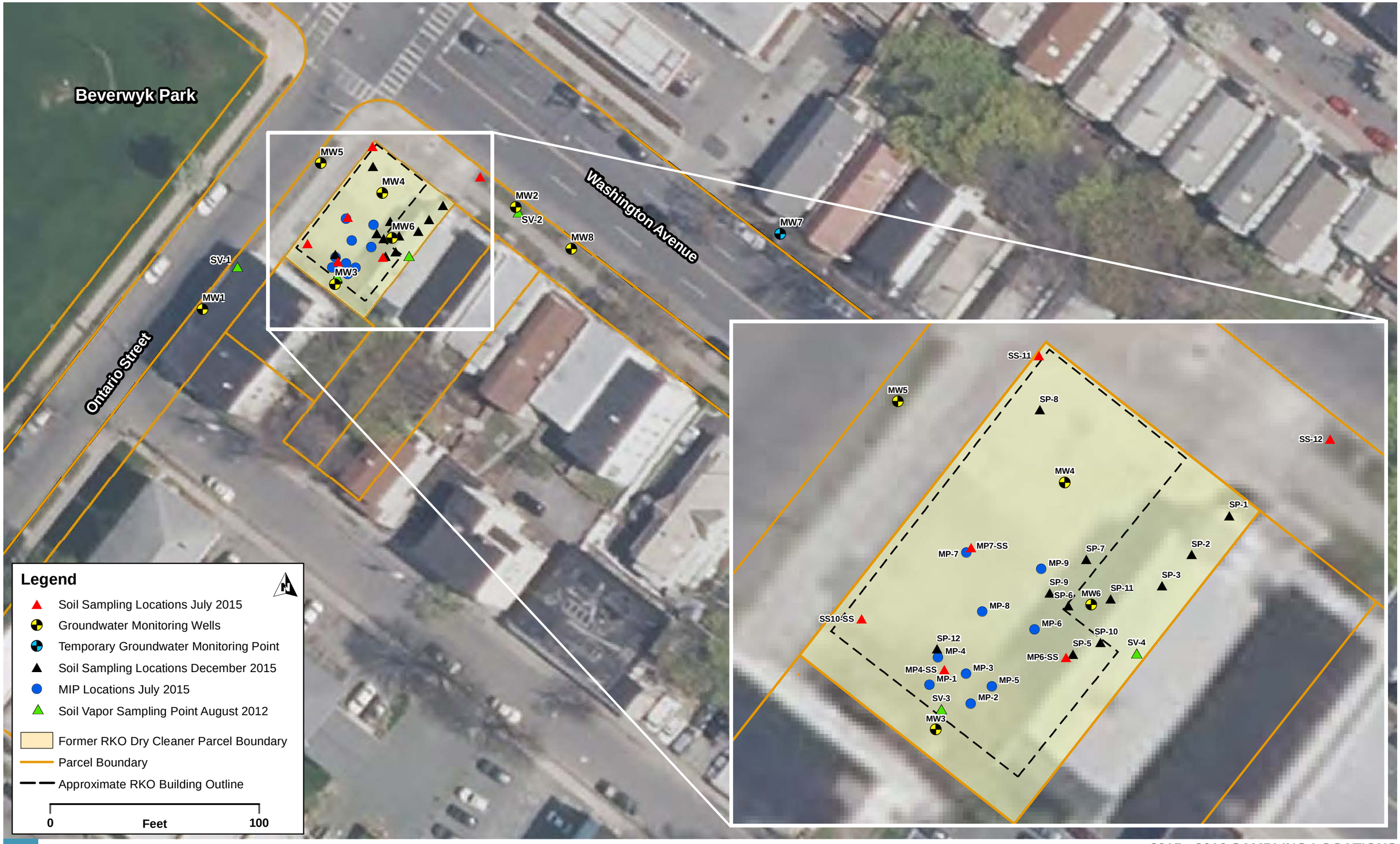
Notes:
Only compounds with at least one detection are shown, all analytes are listed in the EDDs and Laboratory Data Packages.
Units - µg/m^3
U - The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J - The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.



SITE LOCATION MAP

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

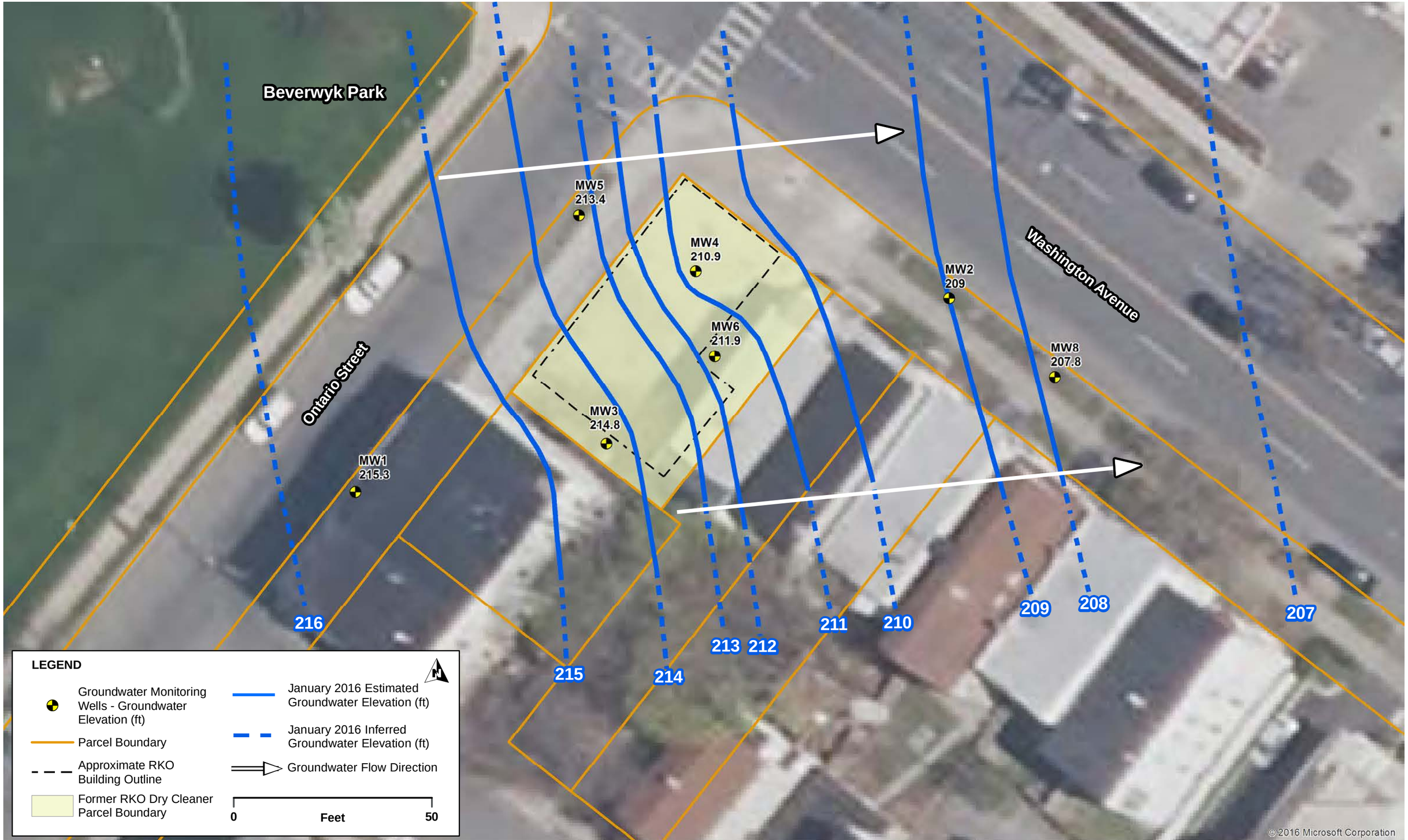
FIGURE 1



2015 - 2016 SAMPLING LOCATIONS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 2



GROUNDWATER CONTOUR MAP

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 3

SP9-0-1-20151218	
12/18/2015	
Methylene chloride	0.027 J
Tetrachloroethene	0.014 J
SP9-9-10-20151218	
12/18/2015	
cis-1,2-Dichloroethene	0.044
Methylene chloride	0.0079 J
Tetrachloroethene	0.37 J
Trichloroethene	0.12

SP8-0-1-20151218	
12/18/2015	
Methylene chloride	0.013
Tetrachloroethene	0.021
SP8-9-11-20151218	
12/18/2015	
Methylene chloride	0.0033 J
Tetrachloroethene	0.0029 J

SS11-0-1-20150701	
7/1/2015	
Methylene chloride	0.0044
Tetrachloroethene	0.0078

SP7-3-4-20151217	
12/17/2015	
Methylene chloride	0.0034
Tetrachloroethene	0.012
SP7-10-20151217	
12/17/2015	
cis-1,2-Dichloroethene	0.018
Methylene chloride	0.013
Tetrachloroethene	0.34
Trichloroethene	0.041

SS12-0-1-20150701	
7/1/2015	
Methylene chloride	0.0022

SP1-0-1-20151217	
12/17/2015	
Tetrachloroethene	0.0089
SP1-15-16-20151217	
12/17/2015	
Methylene chloride	0.0039

SP2-3-4-20151217	
12/17/2015	
Methylene chloride	0.0039 J
Tetrachloroethene	0.0054
SP2-15-16-20151217	
12/17/2015	
Methylene chloride	0.0037

MP7-SS-10-14-20150701	
7/1/2015	
cis-1,2-Dichloroethene	***0.46***
Tetrachloroethene	0.90
Trichloroethene	***3.5***

SP3-3-4-20151217	
12/17/2015	
Methylene chloride	0.0048
Tetrachloroethene	0.0040
SP3-9-10-20151217	
12/17/2015	
Tetrachloroethene	***44***
Trichloroethene	***0.92***

SS10-SS-10-20150701	
7/1/2015	
cis-1,2-Dichloroethene	0.018
Methylene chloride	0.014
Tetrachloroethene	0.084
Trichloroethene	0.026
SS10-SS-26-20150701	
7/1/2015	
Methylene chloride	0.0084

SP12-0-8-20151218	
12/18/2015	
Methylene chloride	0.012 J
Tetrachloroethene	0.0038
SP12-10.5-16-20151218	
12/18/2015	
Methylene chloride	0.011 J
SP12-18-20151218	
12/18/2015	
Chloroform	0.0031
Methylene chloride	0.0062

MW7-19-20160111	
1/12/2016	
Methylene chloride	0.0052 J

MW8-21-20160111	
1/11/2016	
Methylene chloride	0.0055

MP4-SS-10-12-20150701	
7/1/2015	
Benzene	0.0030
m&p-Xylenes	0.0014
Methylene chloride	0.0044
o-Xylene	0.0012
Tetrachloroethene	0.0072
Toluene	0.0025
Trichloroethene	0.0029
Xylenes (Total)	0.0026
MP4-SS-20-20150701	
7/1/2015	
Methylene chloride	0.011

MP6-SS-0-1-20150701	
7/1/2015	
Tetrachloroethene	0.010
MP6-SS-10-12-20150701	
7/1/2015	
Tetrachloroethene	***24 J***
Trichloroethene	***0.53***
MP6-SS-23-24-20150701	
7/1/2015	
Methylene chloride	0.012

SP5-2-4-20151217	
12/17/2015	
Acetone	***0.11***
Chloroform	0.0024
Methylene chloride	0.015
Tetrachloroethene	0.054
SP5-8-12-20151217	
12/17/2015	
Tetrachloroethene	0.72

SP6-5-7-20151217	
12/17/2015	
Tetrachloroethene	0.028
SP6-10-11-20151217	
12/17/2015	
Tetrachloroethene	1.1
Trichloroethene	0.051

SP10-0.5-1.3-20151218	
12/18/2015	
Methylene chloride	0.015 J
Tetrachloroethene	0.019 J
SP10-8-12-20151218	
12/18/2015	
Chloroform	***0.38***
Tetrachloroethene	***110***
Trichloroethene	***0.74***

MW6-11-20160111	
1/11/2016	
Tetrachloroethene	***41***
Trichloroethene	0.44

SP11-6-8-20151218	
12/18/2015	
Chloroform	0.18
Tetrachloroethene	***15***
Trichloroethene	0.39
SP11-11-12-20151218	
12/18/2015	
Chloroform	0.19
Tetrachloroethene	***17***
Trichloroethene	0.36
SP11-15-16-20151218	
12/18/2015	
cis-1,2-Dichloroethene	0.0035
Methylene chloride	0.0035
Tetrachloroethene	0.0044
Trichloroethene	0.0038

Ontario Street

Washington Avenue

SS-11 SP-8 MW5 SS-12 MW4 SP-1 MW2 MP7-SS SP-7 SP-2 SP-9 SP-3 SP-6 SP-11 MW7 SS10-SS MW6 MW8 SP-12 MP6-SS SP-10 MP4-SS SP-5 MW3

LEGEND

- Groundwater Monitoring Wells
- Temporary Groundwater Monitoring Point
- Approximate RKO Building Outline
- Soil Sampling Locations December 2015
- Soil Sampling Locations July 2015
- Parcel Boundary
- Former RKO Dry Cleaner Parcel Boundary

SP9 - 0 - 1 - 20151218
Location Depth (ft) Date (yyyymmdd)

0 Feet 40

Notes:
(1) Results shown are detects only
(2) Units: mg/kg
(3) Criteria: NYSDEC 6 NYCRR Part 375. Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria
(4) Qualifier "J" - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

SOIL SAMPLING RESULTS – VOCS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 4

SP12-0-8-20151218	
12/18/2015	
Metals	
Aluminum	16000 J
Arsenic	5.5
Barium	110 J
Beryllium	0.42 J
Calcium	17000 J
Chromium	23 J
Cobalt	14
Copper	40 J
Iron	39000 J
Lead	17 J
Magnesium	11000 J
Manganese	780 J
Nickel	29 J
Potassium	1400 J
Vanadium	23 J
Zinc	100 J

SP12-10.5-16-20151218	
12/18/2015	
Metals	
Aluminum	24000 J
Arsenic	**13**
Barium	200 J
Beryllium	0.9 J
Calcium	83000 J
Chromium	**34 J**
Cobalt	22
Copper	**55 J**
Iron	55000 J
Lead	22 J
Magnesium	24000 J
Manganese	1100 J
Mercury	0.16
Nickel	**46 J**
Potassium	4000 J
Selenium	3.5
Sodium	640 J
Vanadium	47 J
Zinc	**130 J**

SP12-18-20151218	
12/18/2015	
SVOC	
Di-n-butylphthalate	0.025
Metals	
Aluminum	24000 J
Arsenic	**13**
Barium	140 J
Beryllium	0.73 J
Calcium	100000 J
Chromium	**32 J**
Cobalt	23
Copper	**57 J**
Iron	60000 J
Lead	21 J
Magnesium	31000 J
Manganese	1200 J
Mercury	0.12
Nickel	**46 J**
Potassium	3700 J
Selenium	3.1
Sodium	490 J
Vanadium	47 J
Zinc	**120 J**

SS11-0-1-20150701	
7/1/2015	
SVOC	
Benzo[a]anthracene	0.35
Benzo[a]pyrene	0.36
Benzo[b]fluoranthene	0.49
Benzo[g,h,i]perylene	0.35
Benzo[k]fluoranthene	0.14
bis(2-Ethylhexyl)phthalate	2.0
Butylbenzylphthalate	0.56
Chrysene	0.44 J
Di-n-butylphthalate	0.062
Fluoranthene	0.51
Indeno[1,2,3-cd]pyrene	0.23
Phenanthrene	0.27
Pyrene	0.58
Metals	
Aluminum	14000
Arsenic	8.6
Barium	140 J
Beryllium	0.37
Cadmium	2.4
Calcium	100000 J
Chromium	27 J
Cobalt	6.4 J
Copper	**92 J**
Iron	40000
Lead	**83 J**
Magnesium	7700
Manganese	560 J
Nickel	**31**
Potassium	1400
Vanadium	24
Zinc	**280**
Mercury	**0.36**
PCBs	
Aroclor (Total)	**0.68**
Aroclor-1254	**0.68**
Pest	
Chlordane	0.18

MP6-SS-0-1-20150701	
7/1/2015	
SVOC	
bis(2-Ethylhexyl)phthalate	0.43 J
Metals	
Aluminum	14000
Arsenic	10
Barium	59 J
Beryllium	0.54
Calcium	31000 J
Chromium	23 J
Cobalt	12 J
Copper	41 J
Iron	37000
Lead	16 J
Magnesium	12000
Manganese	1300 J
Nickel	**34**
Potassium	1400
Sodium	430
Vanadium	20
Zinc	100

SP10-8-12-20151218	
12/18/2015	
Metals	
Aluminum	30000 J
Arsenic	9.6
Barium	180 J
Beryllium	0.89 J
Calcium	190000 J
Chromium	**39 J**
Cobalt	27
Copper	**62 J**
Iron	67000 J
Lead	20 J
Magnesium	45000 J
Manganese	**1900 J**
Mercury	0.12
Nickel	**55 J**
Potassium	5000 J
Selenium	3.3
Sodium	540 J
Vanadium	52 J
Zinc	**140 J**

SP8-9-11-20151218	
12/18/2015	
Metals	
Aluminum	25000 J
Arsenic	12
Barium	160 J
Beryllium	0.75 J
Calcium	93000 J
Chromium	**33 J**
Cobalt	24
Copper	**58 J**
Iron	59000 J
Lead	21 J
Magnesium	29000 J
Manganese	1100 J
Nickel	**49 J**
Potassium	3400 J
Selenium	3.5
Sodium	750 J
Vanadium	49 J
Zinc	**130 J**

SS12-0-1-20150701	
7/1/2015	
SVOC	
Benzo[a]anthracene	0.52 J
Benzo[a]pyrene	0.42 J
Benzo[b]fluoranthene	0.66 J
Benzo[g,h,i]perylene	0.32 J
Benzo[k]fluoranthene	0.25 J
bis(2-Ethylhexyl)phthalate	1.6 J
Butylbenzylphthalate	0.24 J
Chrysene	0.52 J
Di-n-butylphthalate	0.12 J
Fluoranthene	0.93 J
Indeno[1,2,3-cd]pyrene	0.26 J
Phenanthrene	0.40 J
Pyrene	0.90 J
Metals	
Aluminum	12000
Arsenic	7.3
Barium	140 J
Beryllium	0.43
Cadmium	**4.6**
Calcium	35000 J
Chromium	**35** J
Cobalt	8.3 J
Copper	**66** J
Iron	35000
Lead	***1900 J***
Magnesium	9500
Manganese	600 J
Nickel	**33**
Potassium	1700
Vanadium	40
Zinc	**440**
Mercury	**0.75**
PCBs	
Aroclor (Total)	**0.38**
Aroclor-1254	**0.38**
Pest	
p,p'-DDT	**0.010 J**

Ontario Street

Washington Avenue

SS-11 SS-12 SP-8 SP-1 SP-2 SP-3 SP-7 SP-9 SP-6 SP-11 SP-10 SP-5 SP-12 MW1 MW2 MW3 MW4 MW5 MW6 MW8 MP4-SS MP6-SS MP7-SS SS10-SS

LEGEND

- Groundwater Monitoring Wells
- Temporary Groundwater Monitoring Point
- Approximate RKO Building Outline
- Soil Sampling Locations December 2015
- Soil Sampling Locations July 2015
- Former RKO Dry Cleaner Parcel Boundary

SP9 - 0 - 1 - 20151218
Location Depth (ft) Date (yyyymmdd)

0 Feet 30

Notes:
(1) Results shown are detects only
(2) Units: mg/kg
(3) Criteria: NYSDEC 6 NYCRR Part 375. Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria
(4) Qualifier "J" - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

SOIL SAMPLING RESULTS - SVOCS, PESTS, PCBS, METALS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 5

MW5	
8/6/2015	
cis-1,2-Dichloroethene	0.26 J
Vinyl chloride	0.37 J

MW4	
8/6/2015	
Tetrachloroethene	0.67 J

MW2	
8/6/2015	
Chloroform	0.81 J
Tetrachloroethene	**21**

Beverwyk Park

Ontario Street

Washington Avenue

MW1

MW2

MW3

MW4

MW5

MW6

MW7

MW8

MW3	
8/6/2015	
Chloroform	0.35 J
cis-1,2-Dichloroethene	**36**
Tetrachloroethene	**130**
trans-1,2-Dichloroethene	0.61 J
Trichloroethene	**35**

MW3	
1/26/2016	
cis-1,2-Dichloroethene	**17**
Tetrachloroethene	**110**
Trichloroethene	**24**

MW6	
1/26/2016	
Tetrachloroethene	**9600**
Trichloroethene	**85**

LEGEND

- Groundwater Monitoring Wells
- Temporary Groundwater Monitoring Point
- Approximate RKO Building Outline
- Former RKO Dry Cleaner Parcel Boundary
- Parcel Boundary

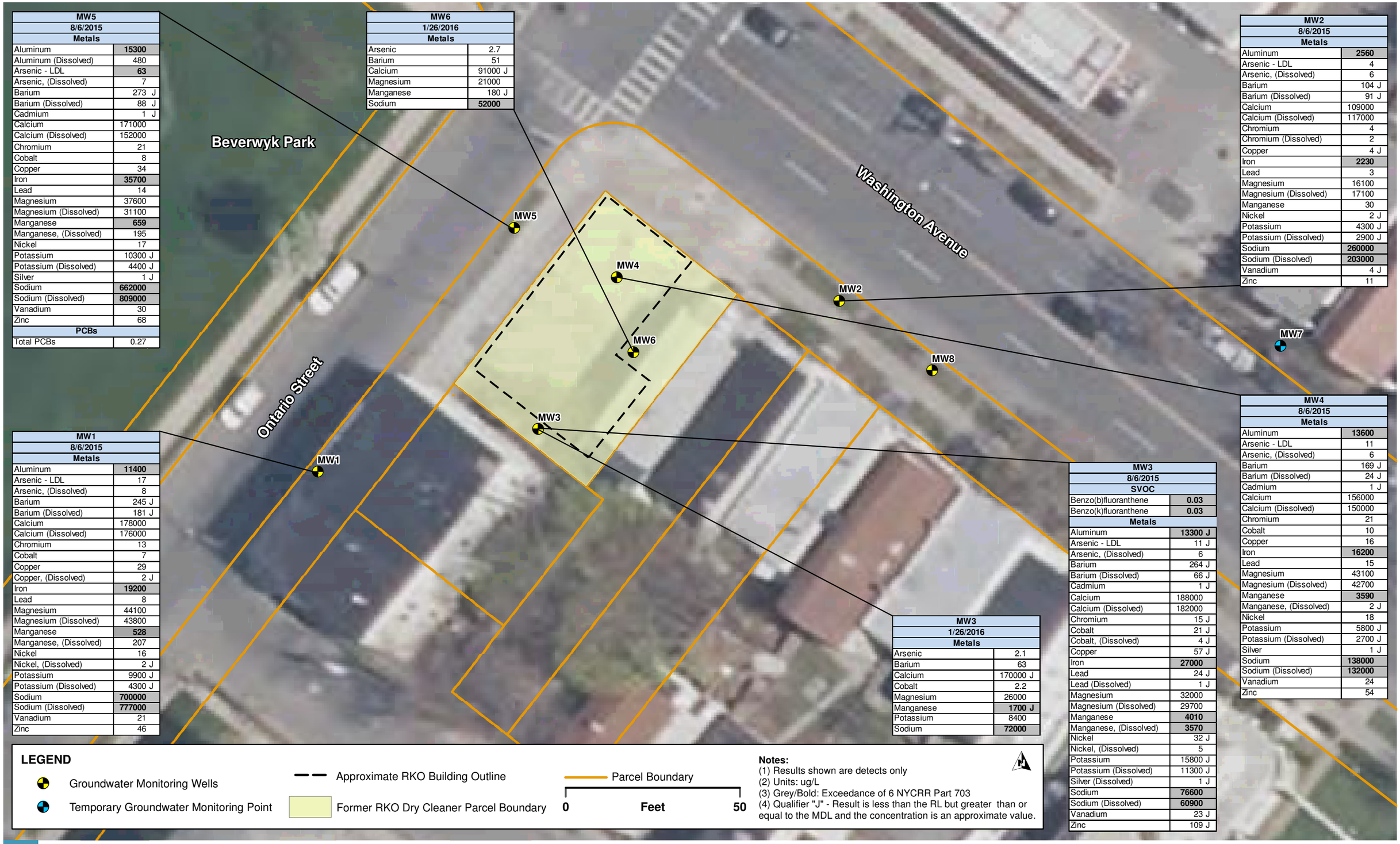
0 Feet 50

Notes:
(1) Results shown are detects only
(2) Units: ug/L
(3) Grey/Bold: Exceedance of 6 NYCRR Part 703
(4) Qualifier "J" - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GROUNDWATER SAMPLING RESULTS – VOCS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 6



MW5	
8/6/2015	
Metals	
Aluminum	**15300**
Aluminum (Dissolved)	480
Arsenic - LDL	**63**
Arsenic, (Dissolved)	7
Barium	273 J
Barium (Dissolved)	88 J
Cadmium	1 J
Calcium	171000
Calcium (Dissolved)	152000
Chromium	21
Cobalt	8
Copper	34
Iron	**35700**
Lead	14
Magnesium	37600
Magnesium (Dissolved)	31100
Manganese	**659**
Manganese, (Dissolved)	195
Nickel	17
Potassium	10300 J
Potassium (Dissolved)	4400 J
Silver	1 J
Sodium	**662000**
Sodium (Dissolved)	**809000**
Vanadium	30
Zinc	68
PCBs	
Total PCBs	0.27

MW6	
1/26/2016	
Metals	
Arsenic	2.7
Barium	51
Calcium	91000 J
Magnesium	21000
Manganese	180 J
Sodium	**52000**

MW2	
8/6/2015	
Metals	
Aluminum	**2560**
Arsenic - LDL	4
Arsenic, (Dissolved)	6
Barium	104 J
Barium (Dissolved)	91 J
Calcium	109000
Calcium (Dissolved)	117000
Chromium	4
Chromium (Dissolved)	2
Copper	4 J
Iron	**2230**
Lead	3
Magnesium	16100
Magnesium (Dissolved)	17100
Manganese	30
Nickel	2 J
Potassium	4300 J
Potassium (Dissolved)	2900 J
Sodium	**260000**
Sodium (Dissolved)	**203000**
Vanadium	4 J
Zinc	11

MW1	
8/6/2015	
Metals	
Aluminum	**11400**
Arsenic - LDL	17
Arsenic, (Dissolved)	8
Barium	245 J
Barium (Dissolved)	181 J
Calcium	178000
Calcium (Dissolved)	176000
Chromium	13
Cobalt	7
Copper	29
Copper, (Dissolved)	2 J
Iron	**19200**
Lead	8
Magnesium	44100
Magnesium (Dissolved)	43800
Manganese	**528**
Manganese, (Dissolved)	207
Nickel	16
Nickel, (Dissolved)	2 J
Potassium	9900 J
Potassium (Dissolved)	4300 J
Sodium	**700000**
Sodium (Dissolved)	**777000**
Vanadium	21
Zinc	46

MW3	
8/6/2015	
SVOC	
Benzo(b)fluoranthene	**0.03**
Benzo(k)fluoranthene	**0.03**
Metals	
Aluminum	**13300 J**
Arsenic - LDL	11 J
Arsenic, (Dissolved)	6
Barium	264 J
Barium (Dissolved)	66 J
Cadmium	1 J
Calcium	188000
Calcium (Dissolved)	182000
Chromium	15 J
Cobalt	21 J
Cobalt, (Dissolved)	4 J
Copper	57 J
Iron	**27000**
Lead	24 J
Lead (Dissolved)	1 J
Magnesium	32000
Magnesium (Dissolved)	29700
Manganese	**4010**
Manganese, (Dissolved)	**3570**
Nickel	32 J
Nickel, (Dissolved)	5
Potassium	15800 J
Potassium (Dissolved)	11300 J
Silver (Dissolved)	1 J
Sodium	**76600**
Sodium (Dissolved)	**60900**
Vanadium	23 J
Zinc	109 J

MW3	
1/26/2016	
Metals	
Arsenic	2.1
Barium	63
Calcium	170000 J
Cobalt	2.2
Magnesium	26000
Manganese	**1700 J**
Potassium	8400
Sodium	**72000**

MW4	
8/6/2015	
Metals	
Aluminum	**13600**
Arsenic - LDL	11
Arsenic, (Dissolved)	6
Barium	169 J
Barium (Dissolved)	24 J
Cadmium	1 J
Calcium	156000
Calcium (Dissolved)	150000
Chromium	21
Cobalt	10
Copper	16
Iron	**16200**
Lead	15
Magnesium	43100
Magnesium (Dissolved)	42700
Manganese	**3590**
Manganese, (Dissolved)	2 J
Nickel	18
Potassium	5800 J
Potassium (Dissolved)	2700 J
Silver	1 J
Sodium	**138000**
Sodium (Dissolved)	**132000**
Vanadium	24
Zinc	54

LEGEND

- Groundwater Monitoring Wells
- Temporary Groundwater Monitoring Point
- Approximate RKO Building Outline
- Former RKO Dry Cleaner Parcel Boundary
- Parcel Boundary

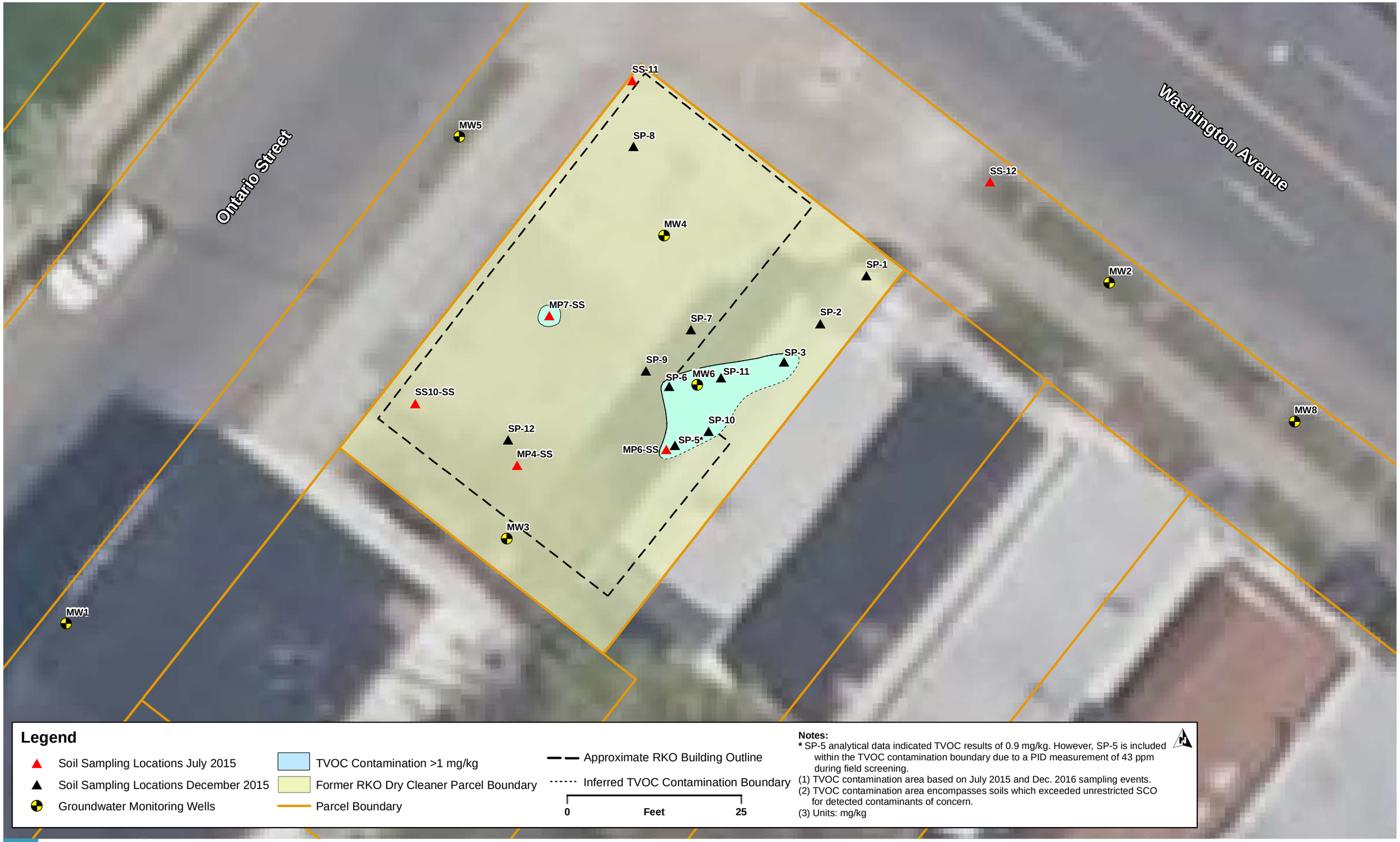
0 Feet 50

Notes:
(1) Results shown are detects only
(2) Units: ug/L
(3) Grey/Bold: Exceedance of 6 NYCRR Part 703
(4) Qualifier "J" - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GROUNDWATER SAMPLING RESULTS – SVOCS, PESTS, PCBS, METALS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

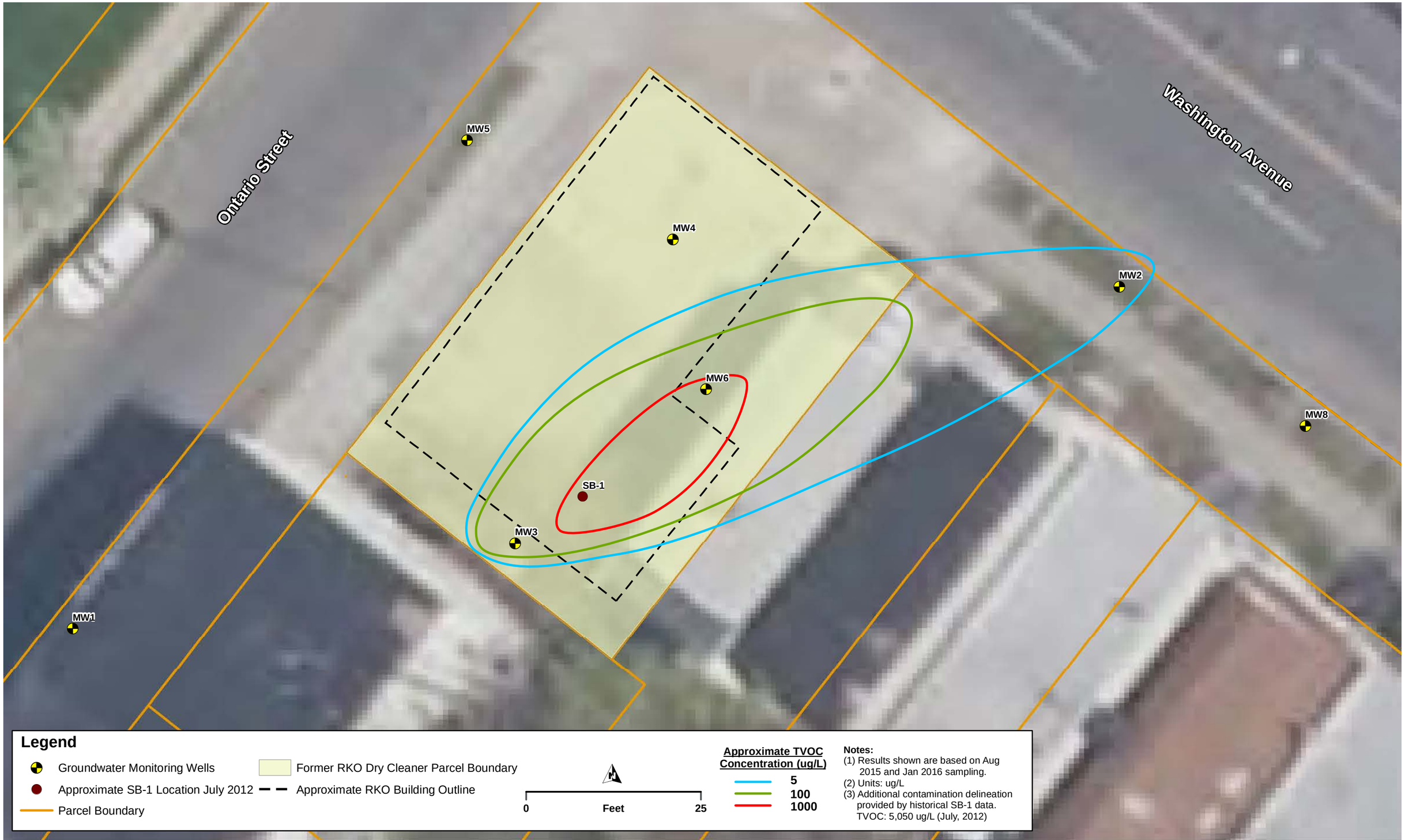
FIGURE 7



APPROXIMATE LIMITS OF TVOC CONTAMINATION IN SOILS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 8



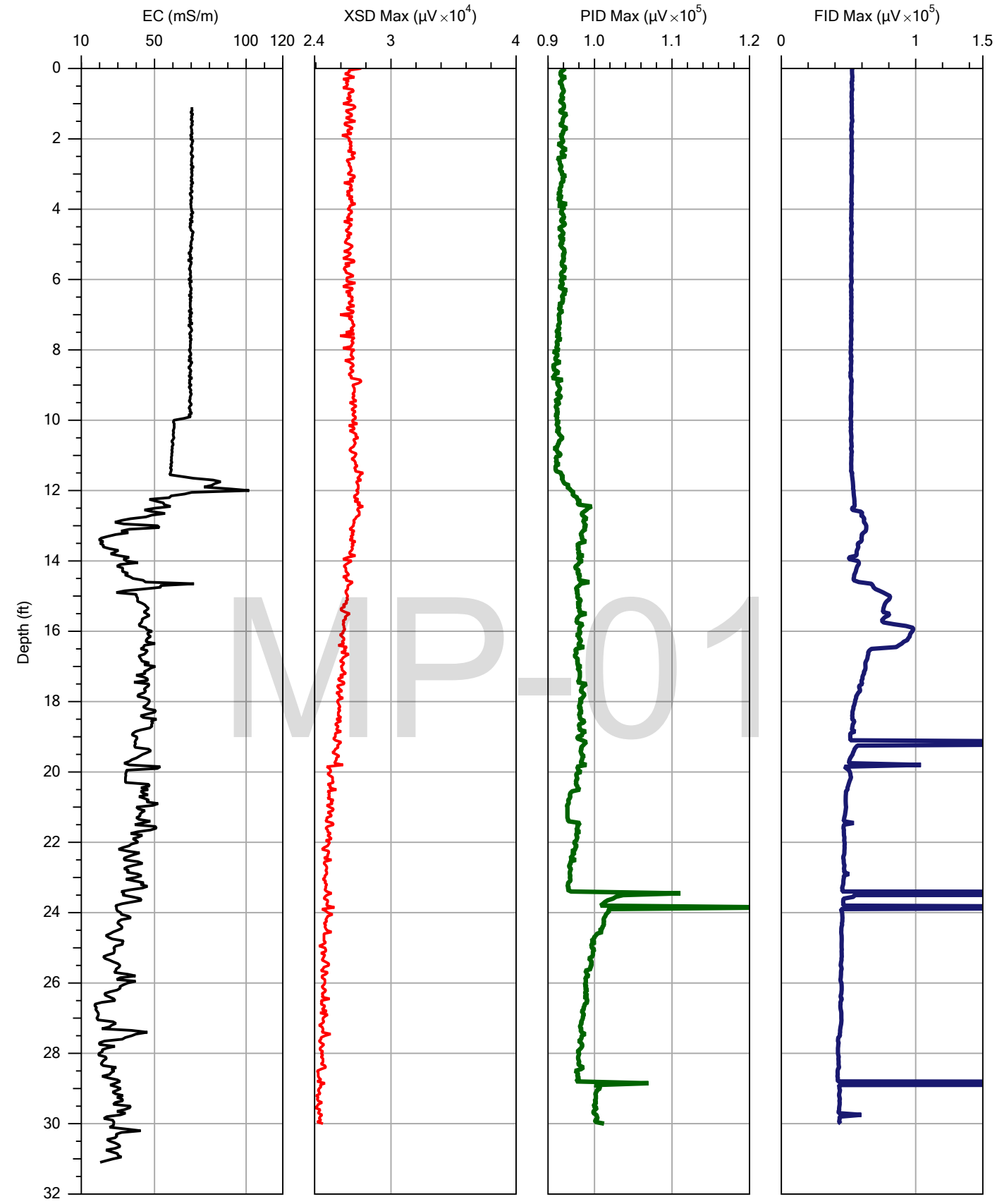
APPROXIMATE LIMITS OF TVOC CONTAMINATION IN GROUNDWATER

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 9

PATH: Z:\D007625 NYSDEC STANDBY CONTRACTWORK ASSIGNMENT FOLDERS\WA#20 RKO DRY CLEANER\GIS\MAP_DOCS\FINAL\FIGURE_9_RKO_VOC_GW_RESULTS_20160920.MXD - USER: JUSTARR - DATE: 12/20/2016

Appendix A
MIPHT Investigation Documentation



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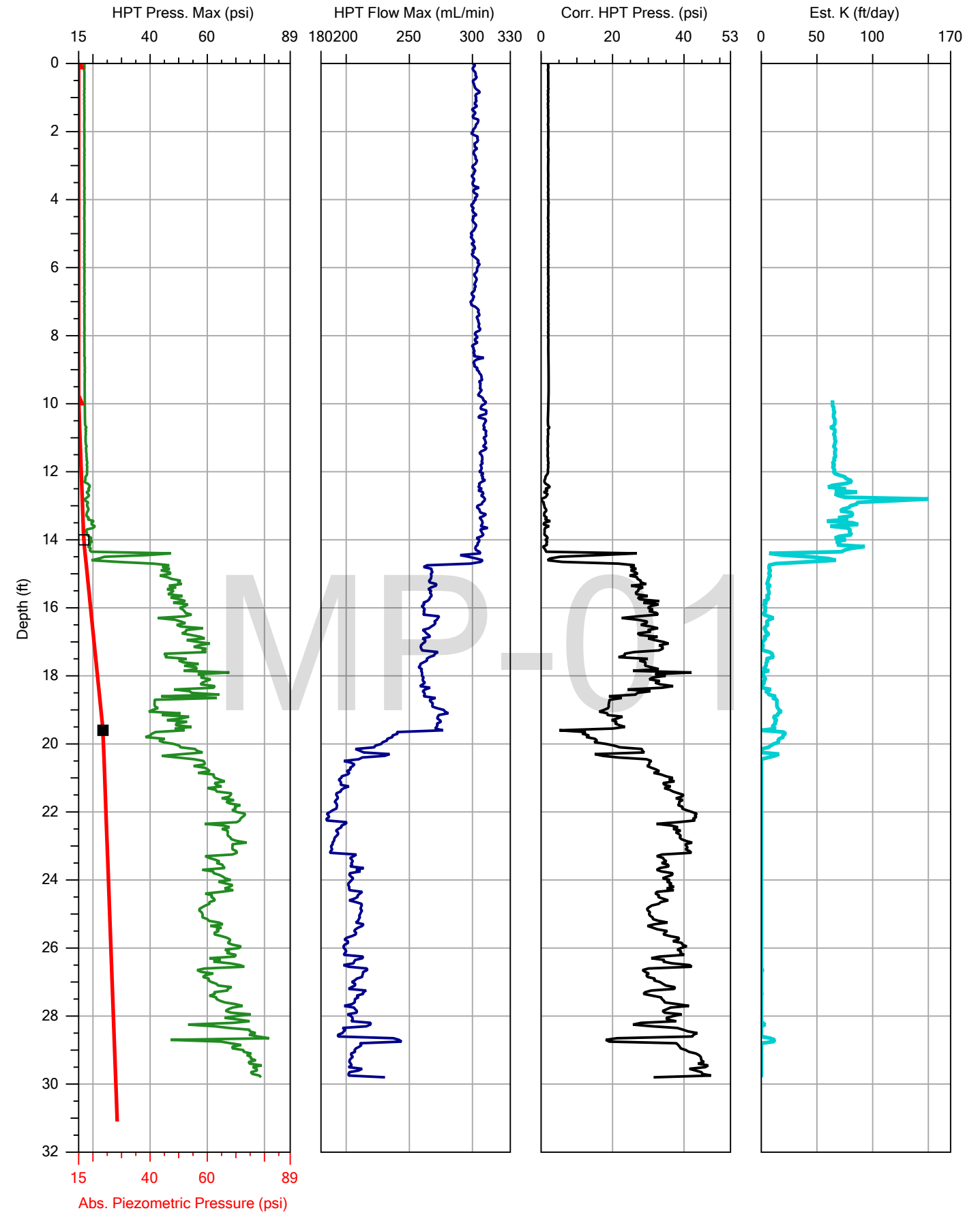
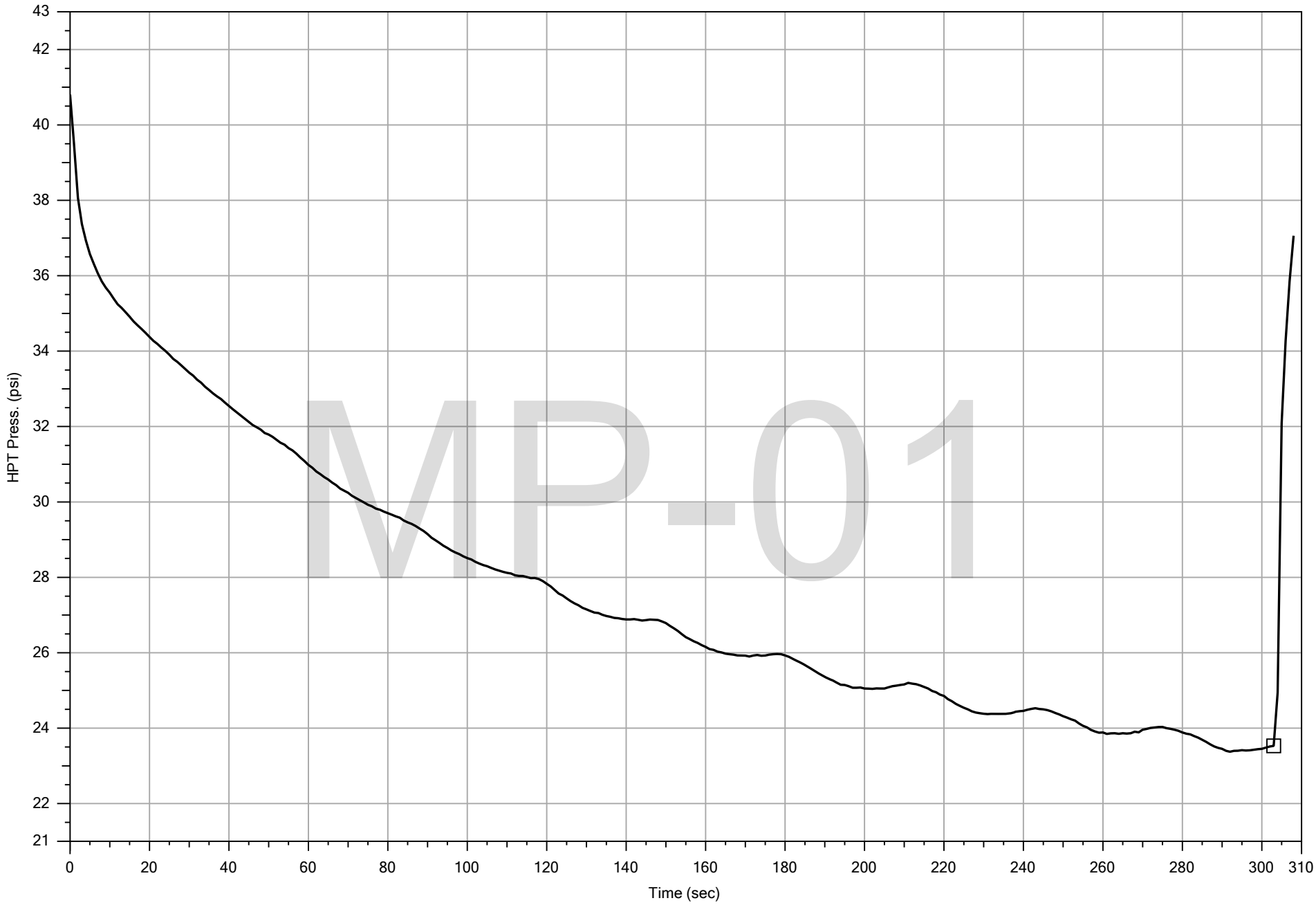
Company: ZEBRA Technical Services		Operator: NK	Date: 6/30/2015
Project ID: 26230		Client: HDR	Location:

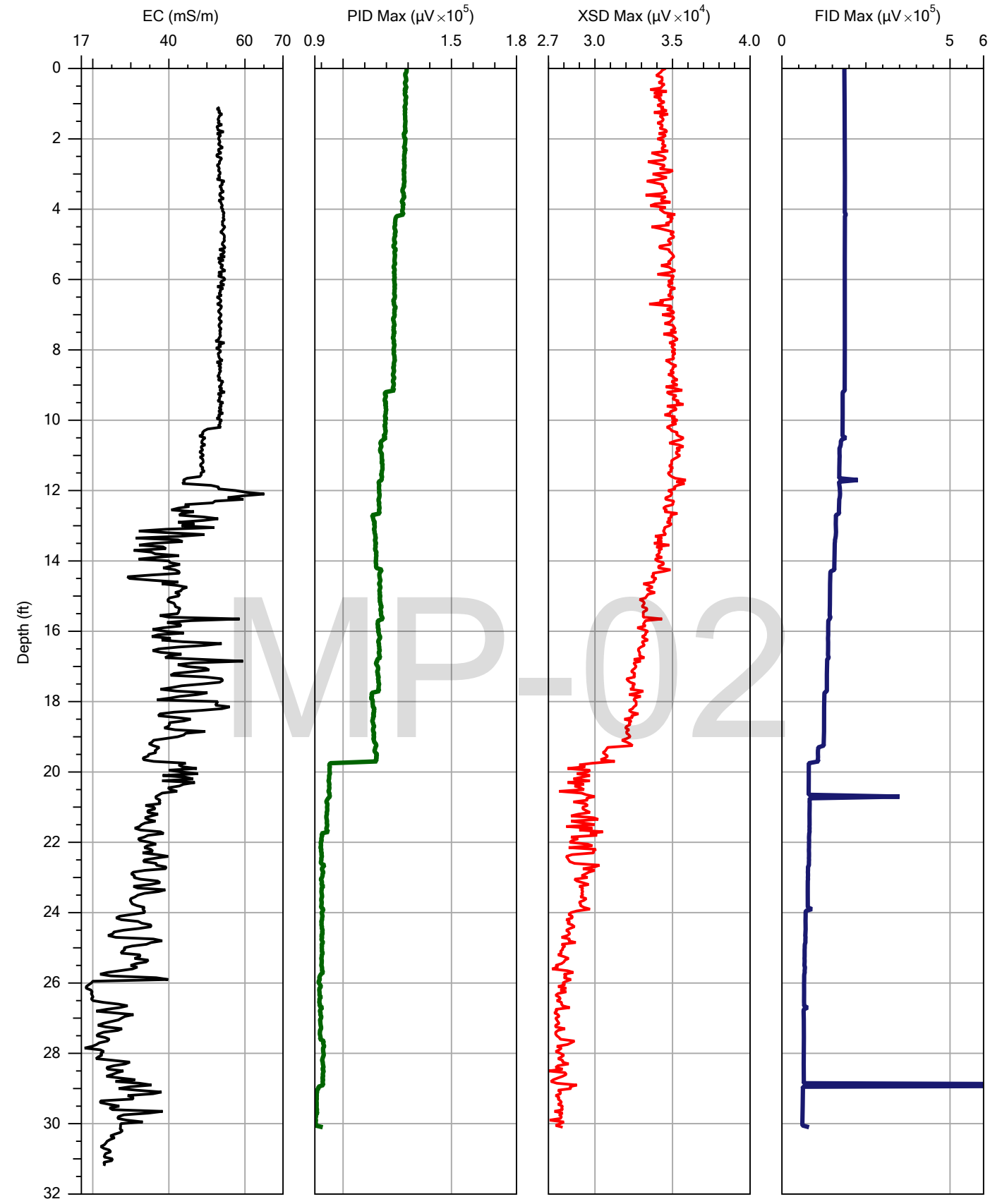


		File: MP-01.MHP
Company: ZEBRA Technical Services	Operator: NK	Date: 6/30/2015
Project ID: 26230	Client: HDR	Location:

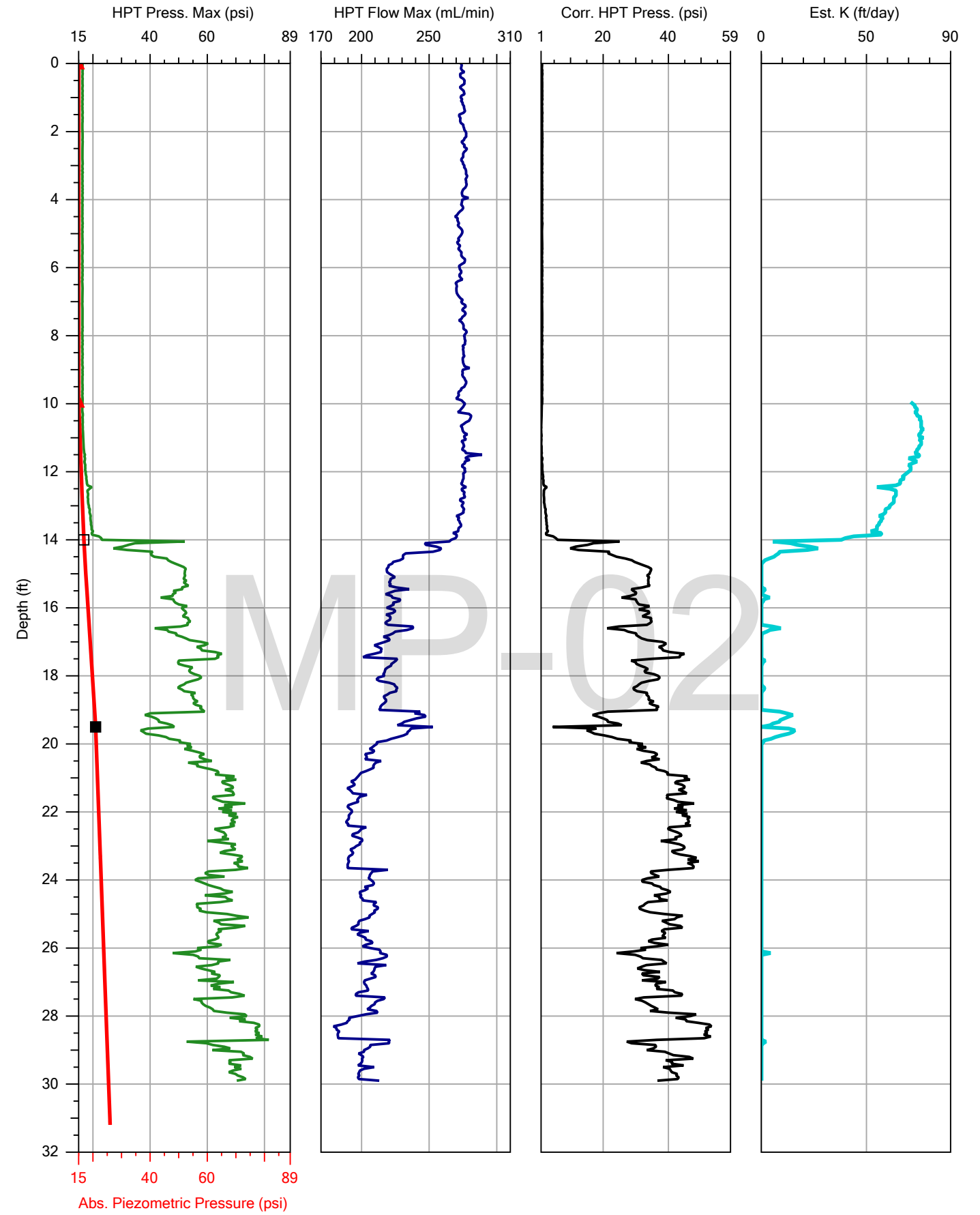


HPT DISSIPATION (SINGLE CASE)

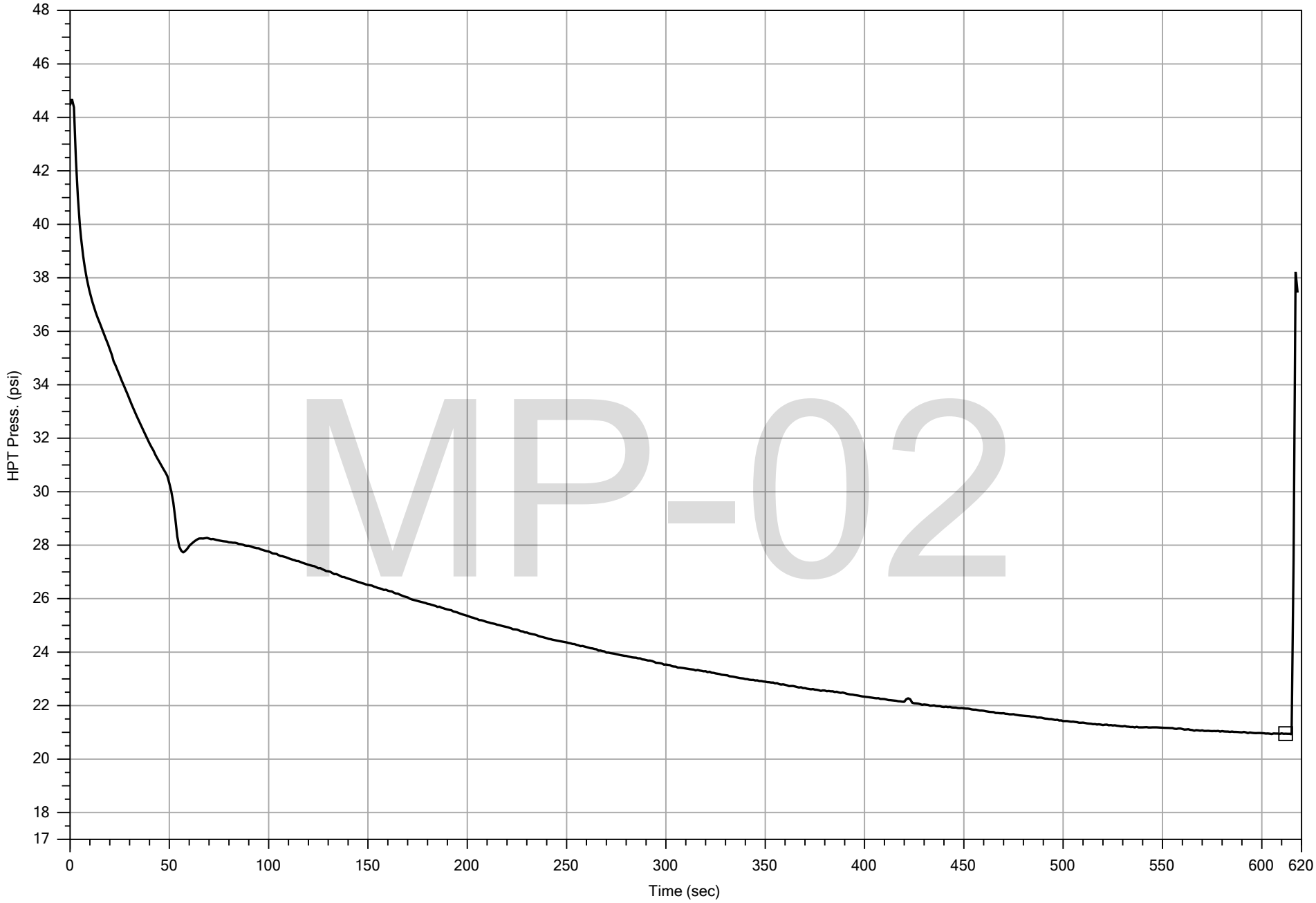
Company: ZEBRA Technical Services	Operator: NK	File: MP-01.TIM	Date: 6/30/2015
Project ID: 26230	Client: HDR	Location:	Sensor: HPT Press.
		Depth: 19.61 ft	Test: 1



			File: MP-02.MHP
Company: ZEBRA Technical Services		Operator: NK	Date: 6/30/2015
Project ID: 26230		Client: HDR	Location:

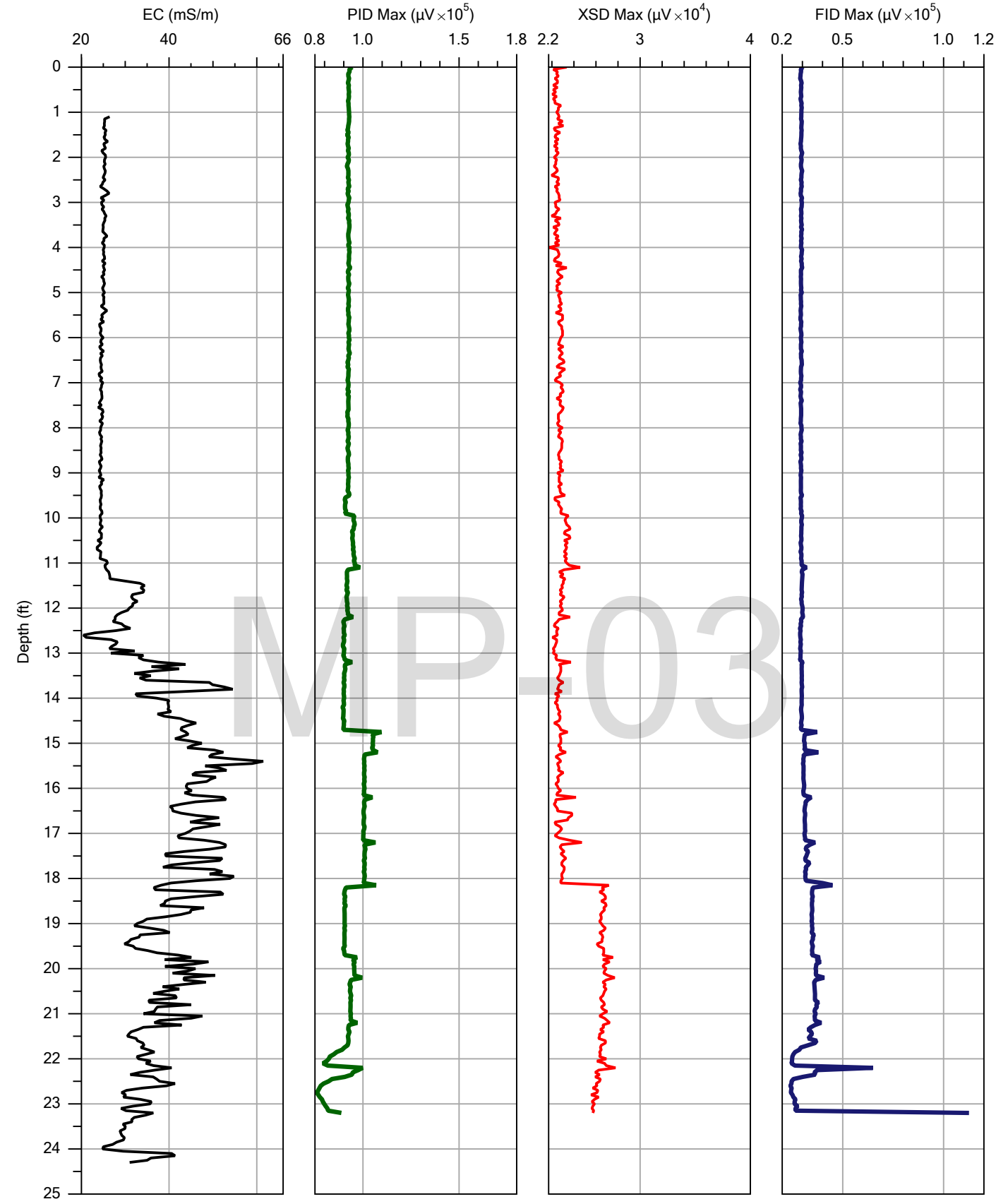


		File: MP-02.MHP
Company: ZEBRA Technical Services	Operator: NK	Date: 6/30/2015
Project ID: 26230	Client: HDR	Location:

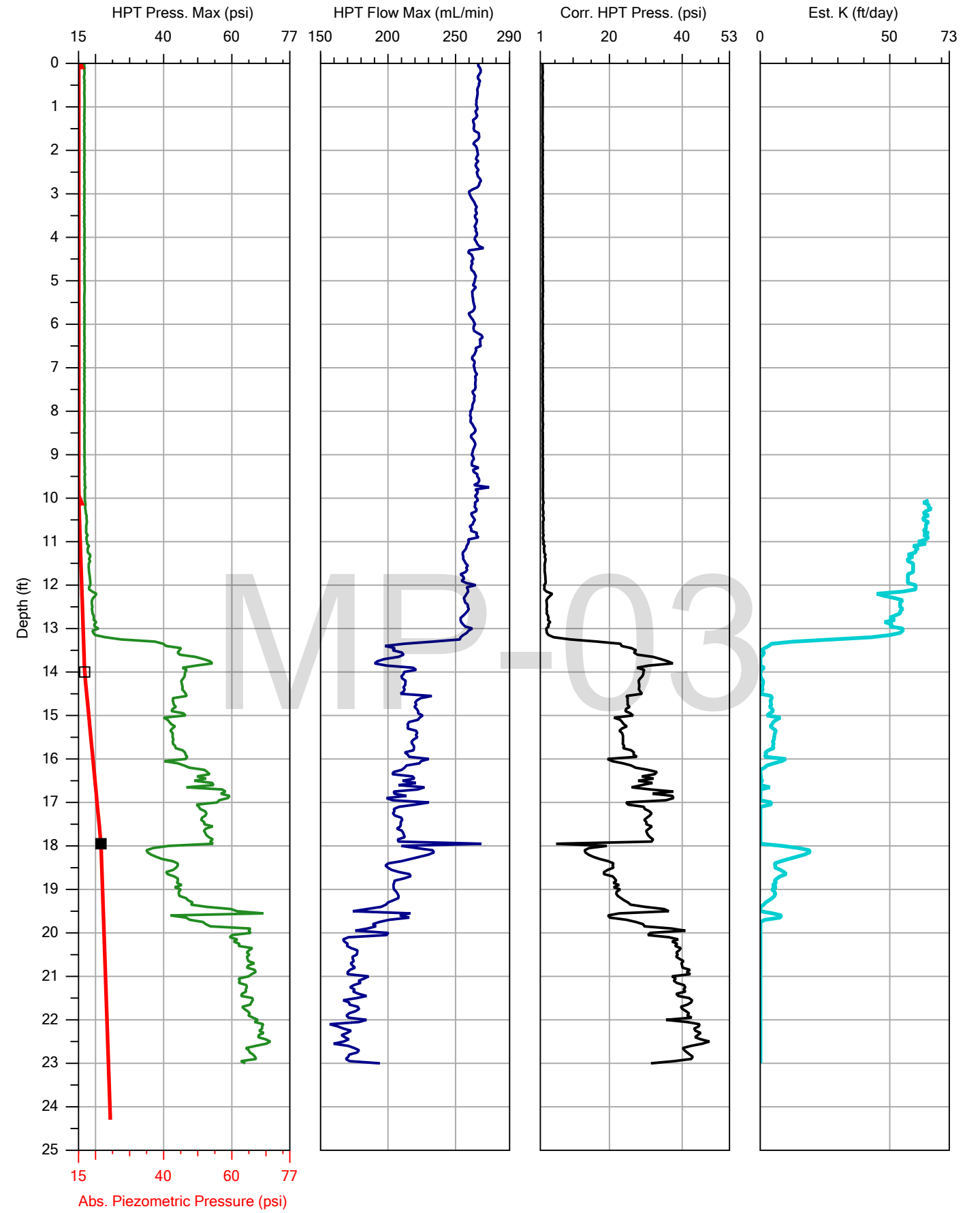


HPT DISSIPATION (SINGLE CASE)

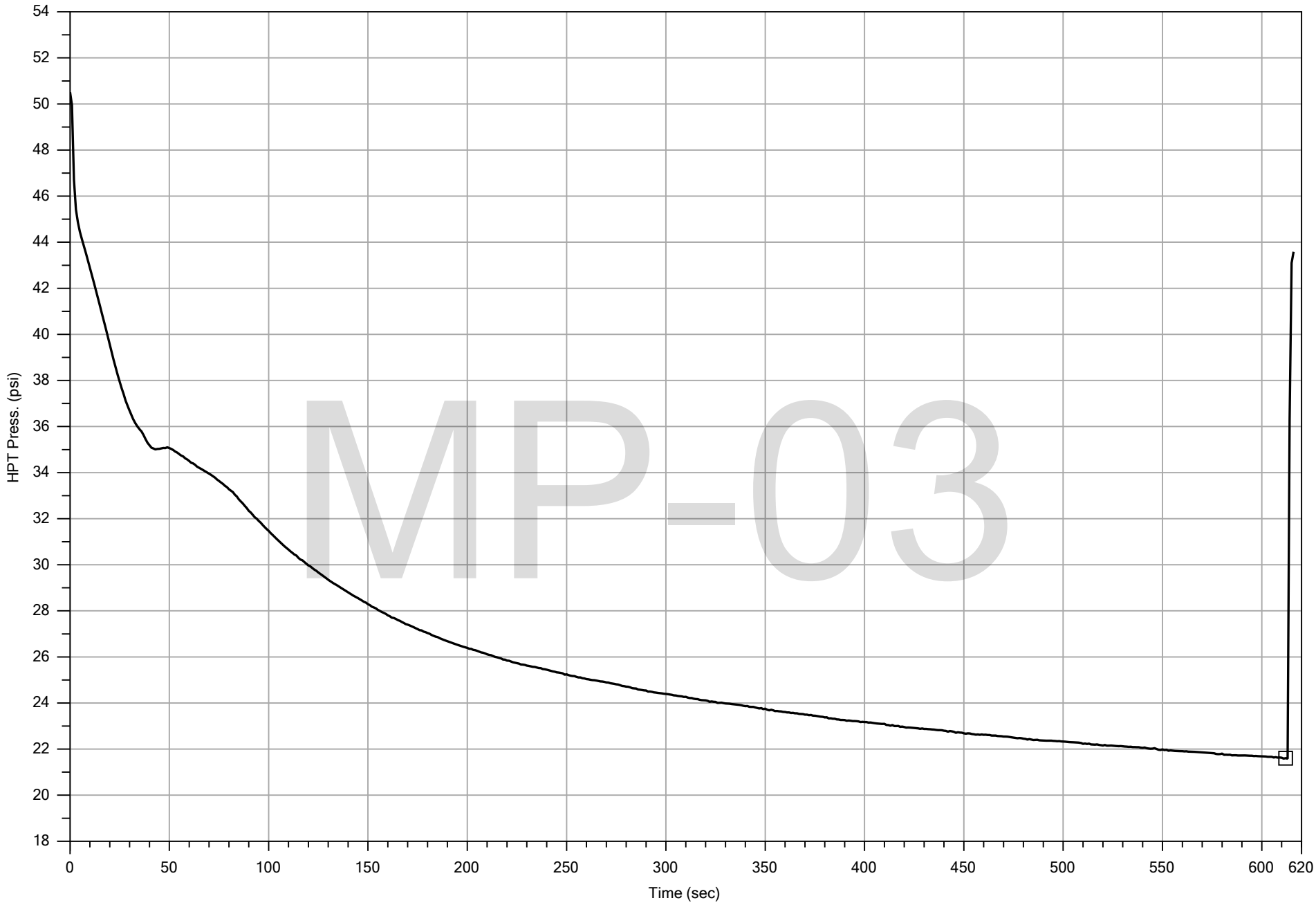
Company: ZEBRA Technical Services	Operator: NK	Location:	Sensor: HPT Press.
Project ID: 26230	Client: HDR	Depth: 19.52 ft	Test: 1
		File: MP-02.TIM	Date: 6/30/2015



			File: MP-03.MHP
Company: ZEBRA Technical Services		Operator: NK	Date: 6/30/2015
Project ID: 26230		Client: HDR	Location:

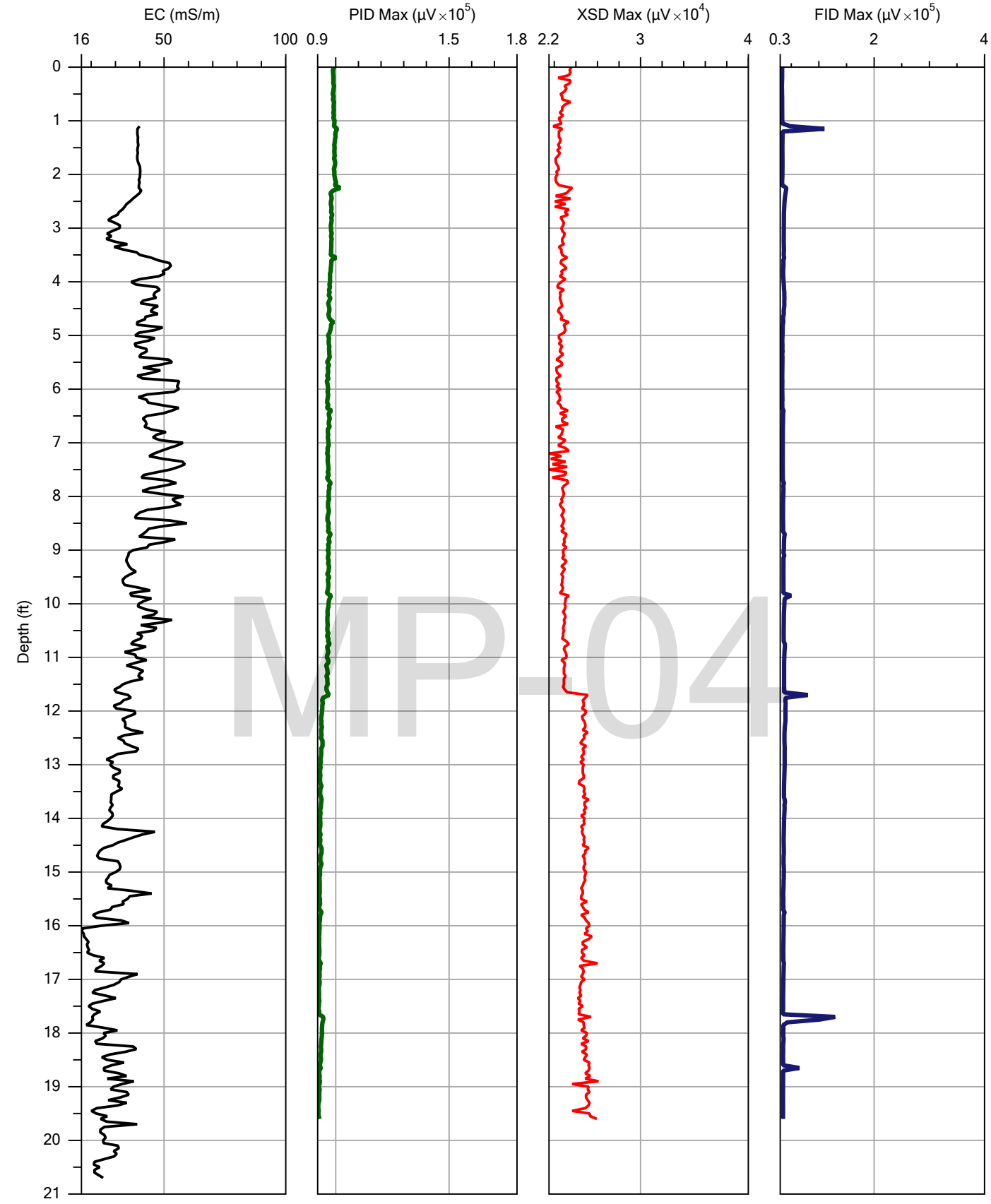


		File: MP-03.MHP
Company: ZEBRA Technical Services	Operator: NK	Date: 6/30/2015
Project ID: 26230	Client: HDR	Location:

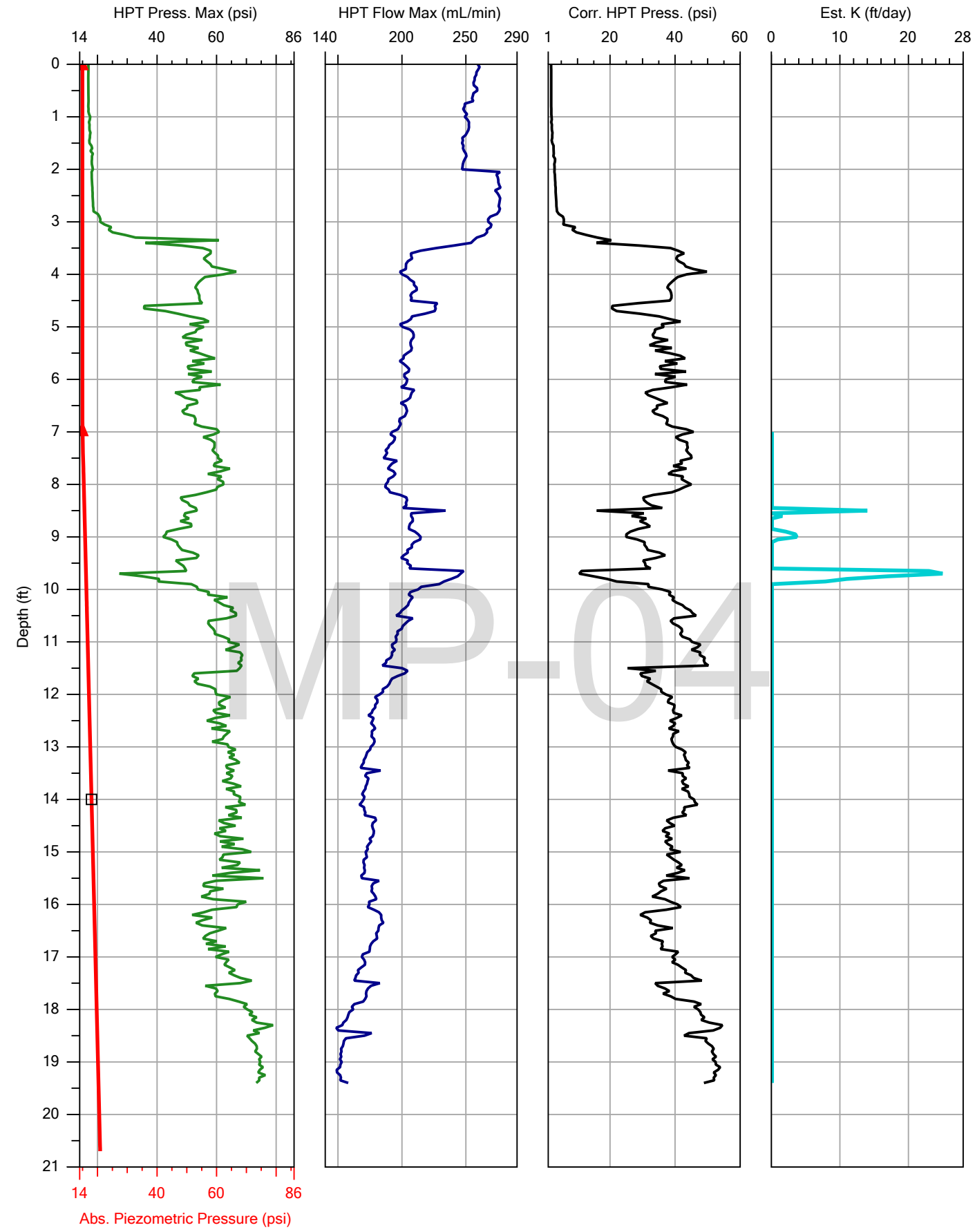


HPT DISSIPATION (SINGLE CASE)

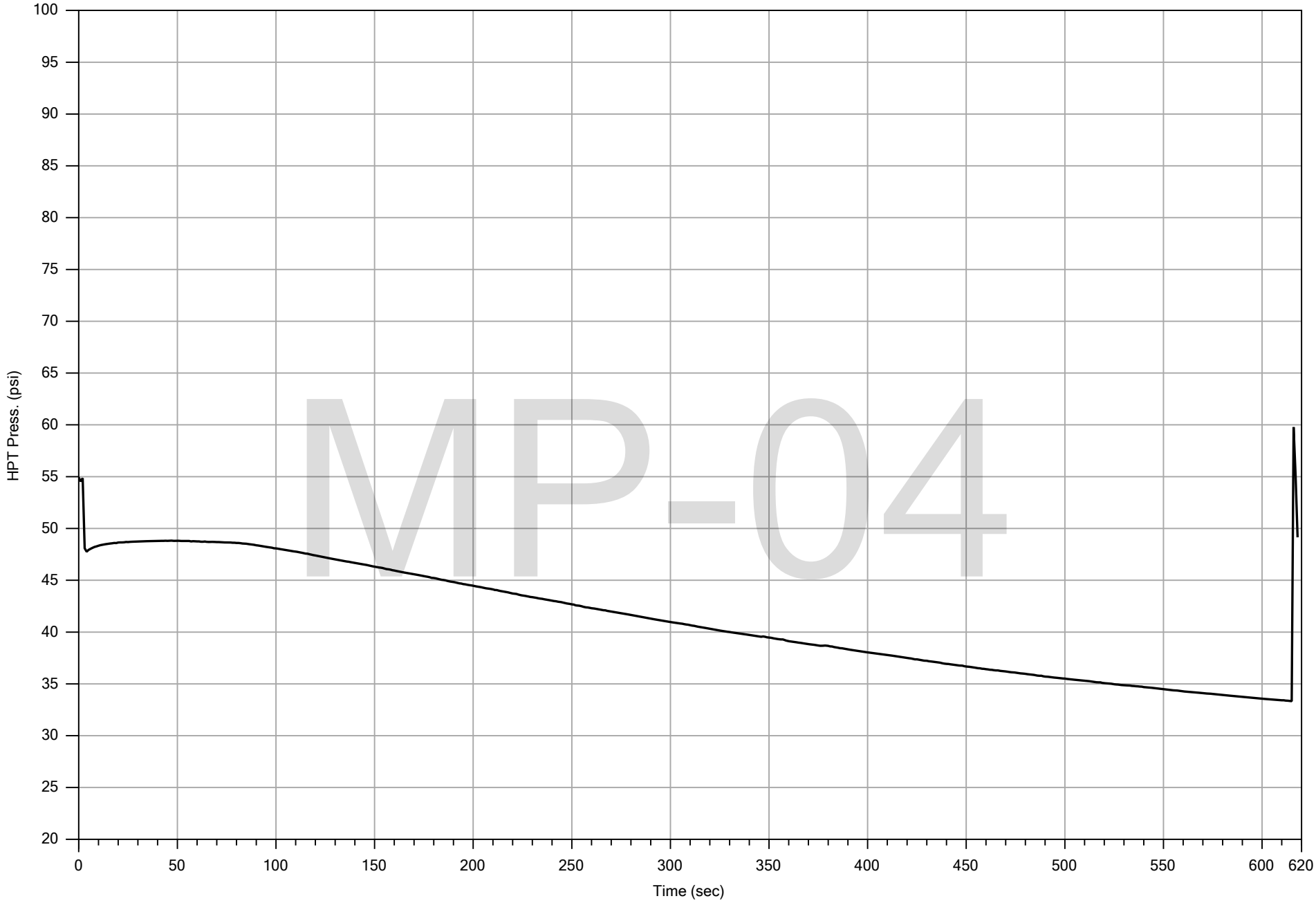
Company: ZEBRA Technical Services	Operator: NK	Location:	Sensor: HPT Press.
Project ID: 26230	Client: HDR	Depth: 17.97 ft	Test: 1
File: MP-03.TIM			Date: 6/30/2015



			File: MP-04.MHP
Company: ZEBRA Technical Services		Operator: WM	Date: 7/1/2015
Project ID: 26230		Client: HDR	Location:

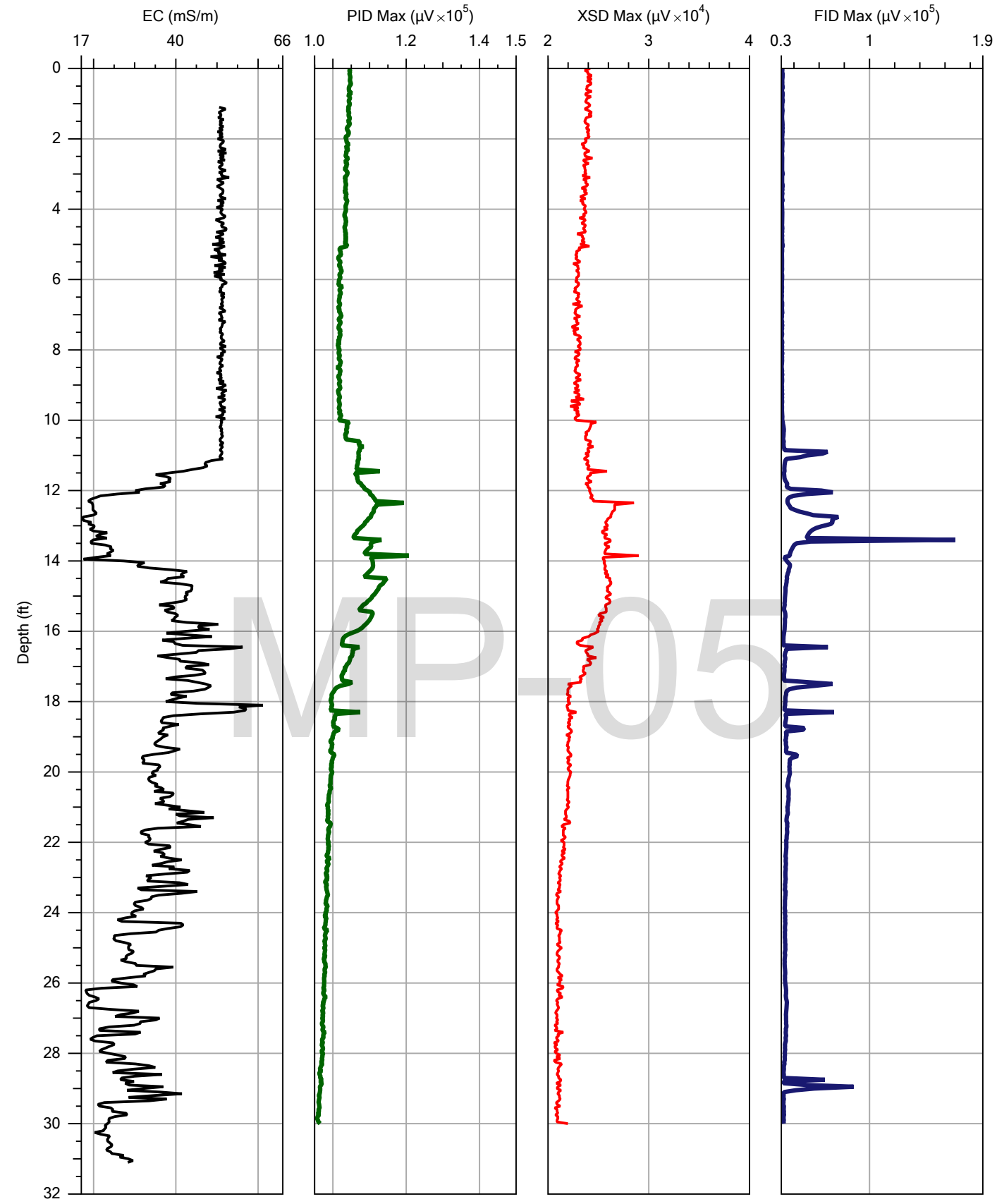


		File: MP-04.MHP
Company: ZEBRA Technical Services	Operator: WM	Date: 7/1/2015
Project ID: 26230	Client: HDR	Location:

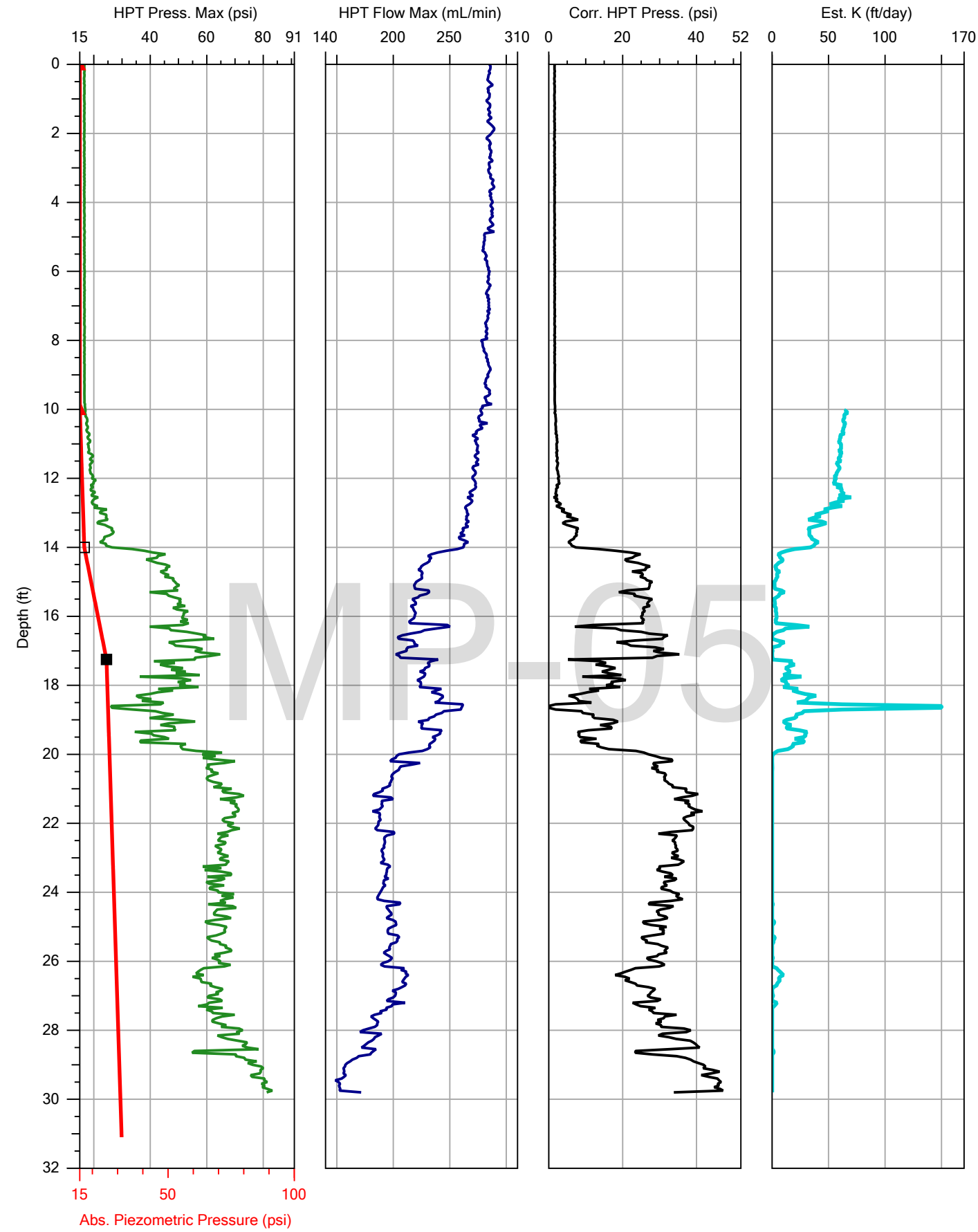


HPT DISSIPATION (SINGLE CASE)

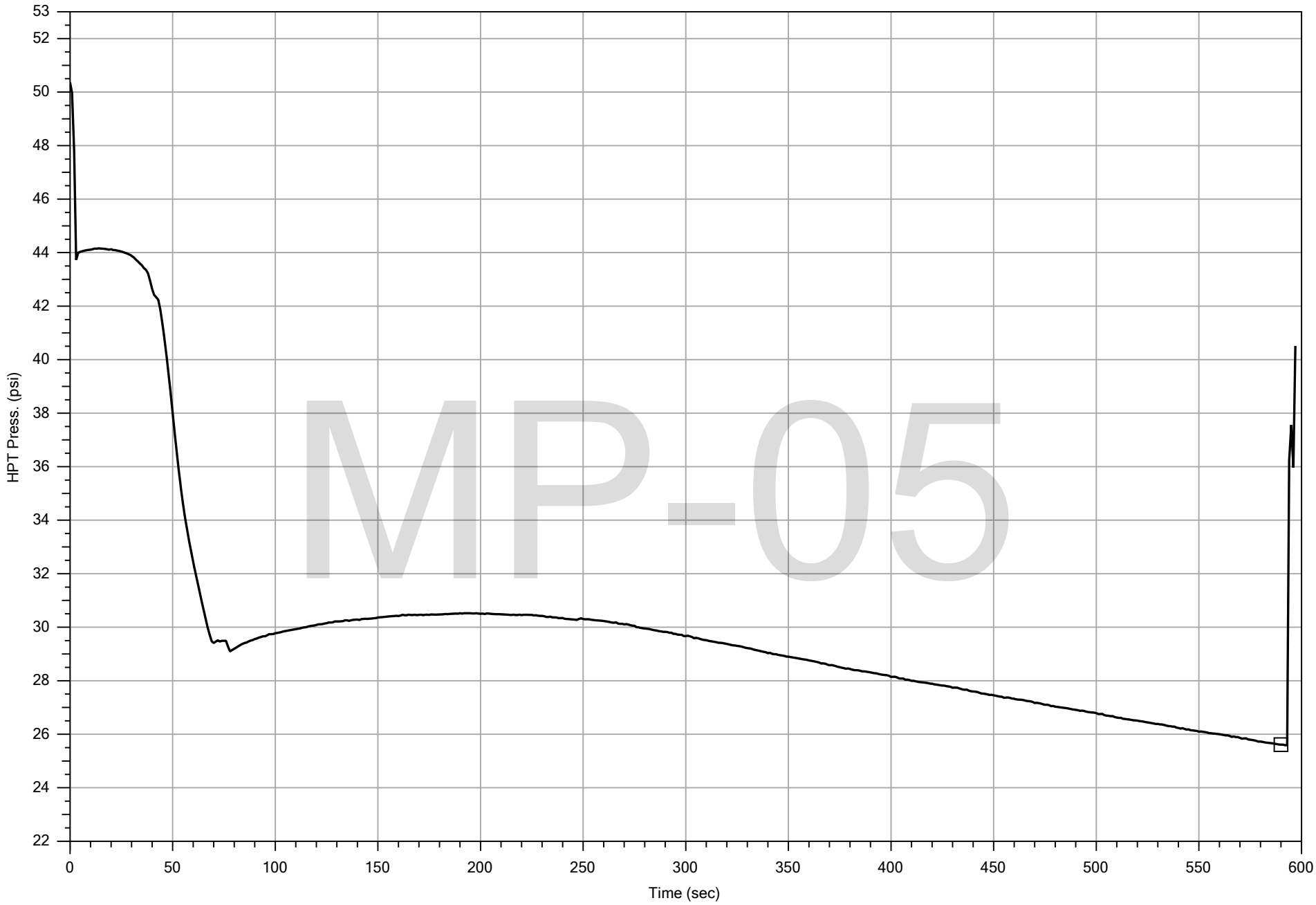
Company: ZEBRA Technical Services	Operator: WM	File: MP-04.TIM	Date: 7/1/2015
Project ID: 26230	Client: HDR	Location:	Sensor: HPT Press.
		Depth: 11.51 ft	Test: 1



			File: MP-05.MHP
Company: ZEBRA Technical Services	Operator: NK		Date: 6/30/2015
Project ID: 26230	Client: HDR		Location:

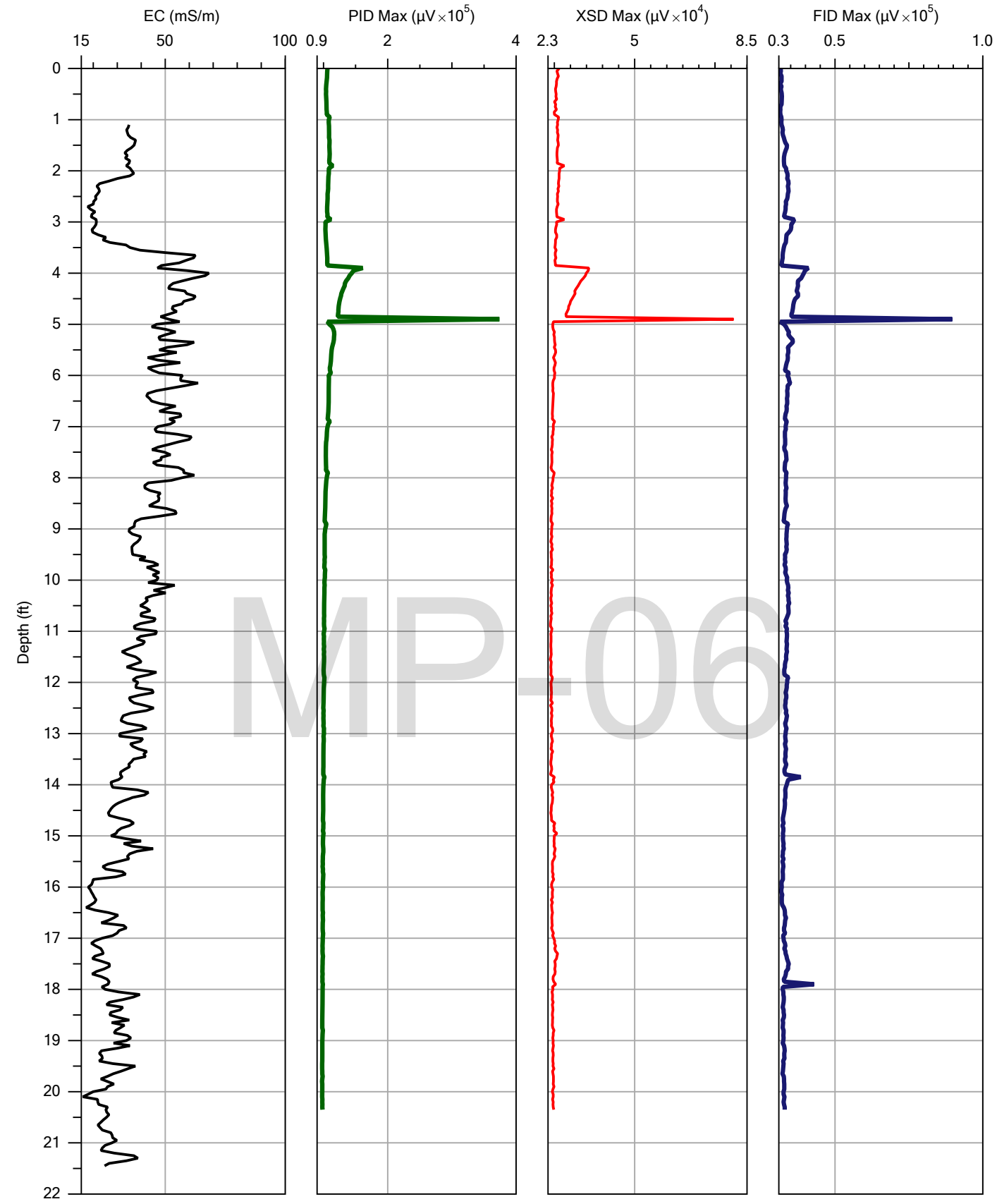


		File: MP-05.MHP
Company: ZEBRA Technical Services	Operator: NK	Date: 6/30/2015
Project ID: 26230	Client: HDR	Location:

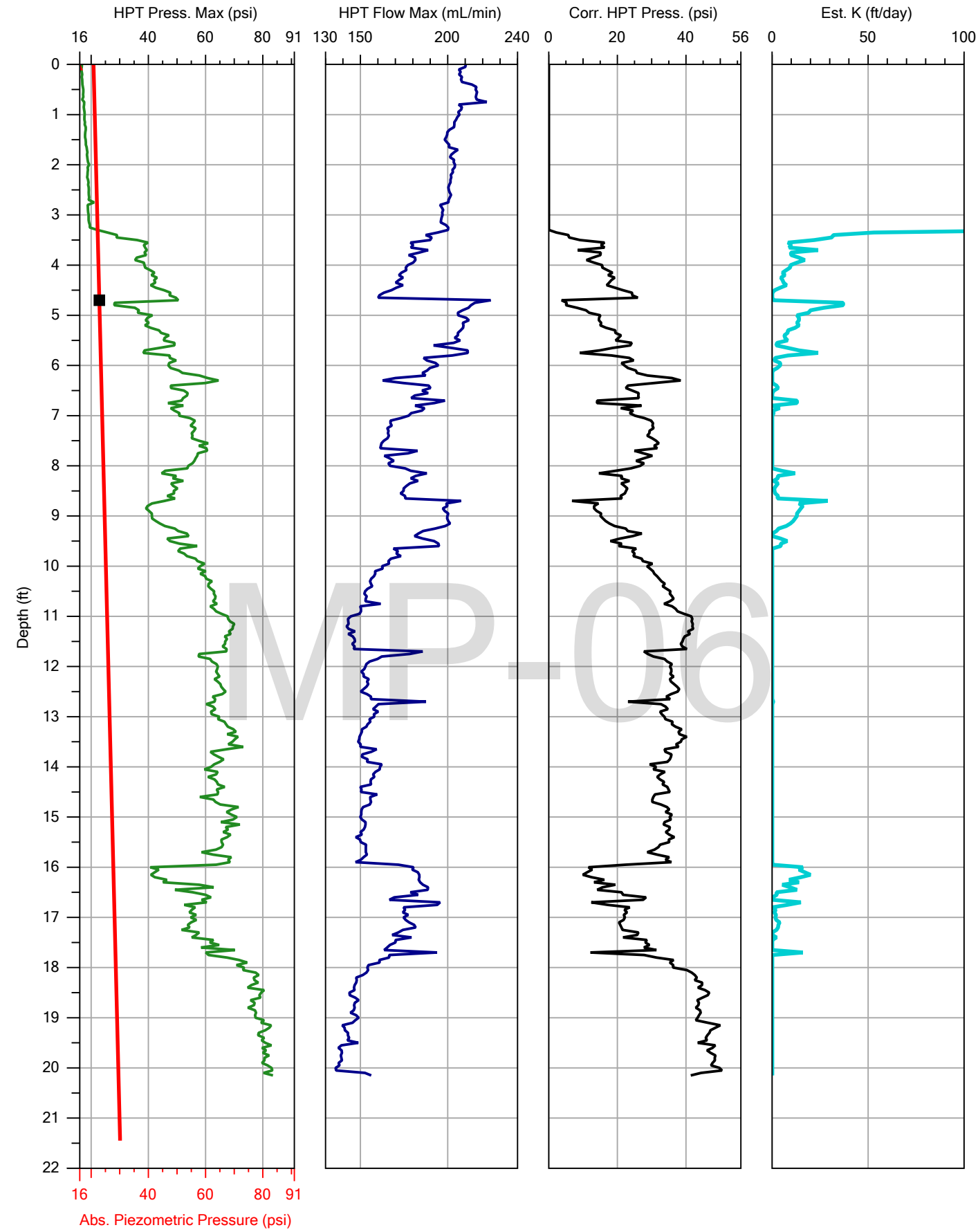


HPT DISSIPATION (SINGLE CASE)

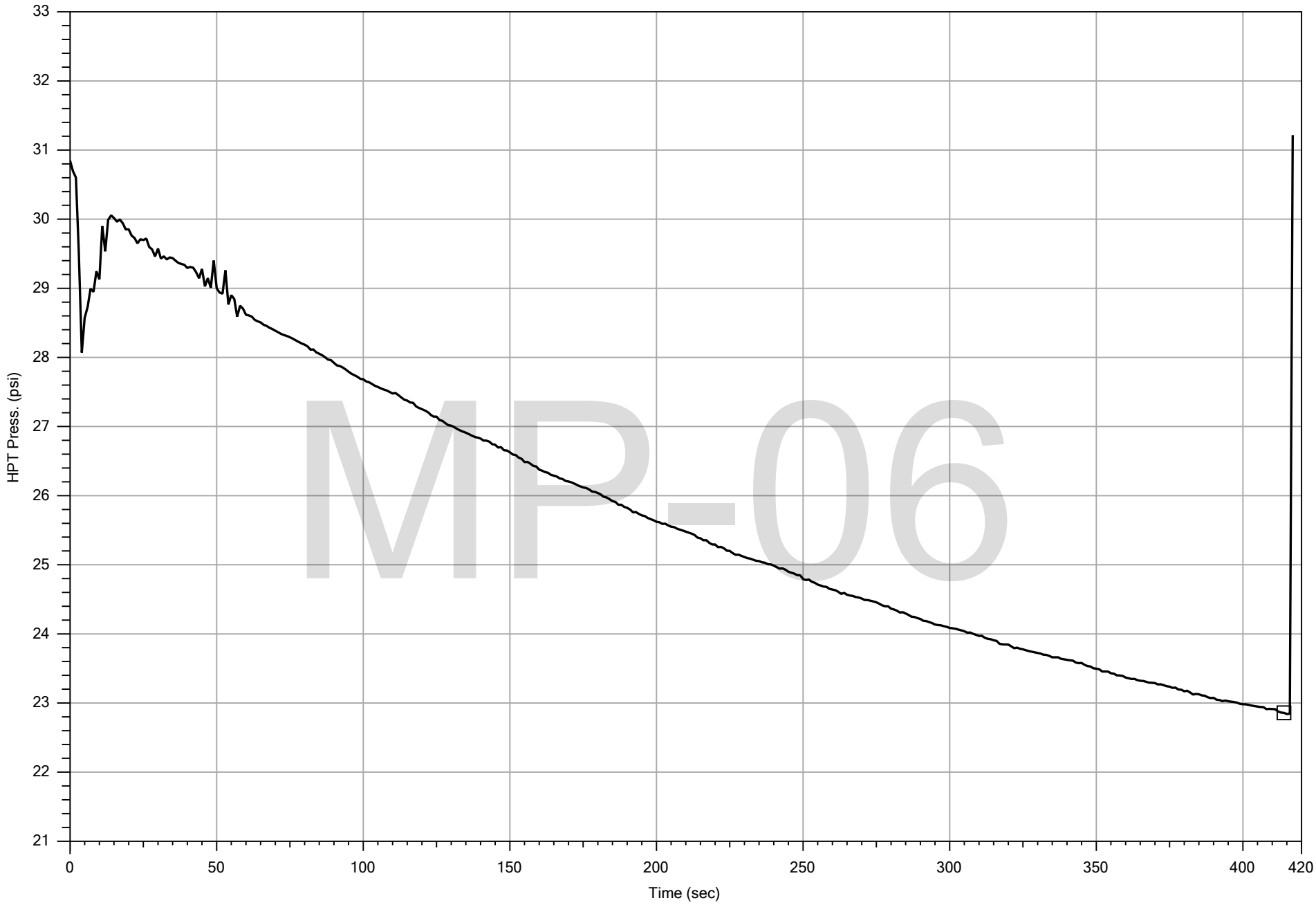
Company: ZEBRA Technical Services	Operator: NK	Location:	Sensor: HPT Press.
Project ID: 26230	Client: HDR	Depth: 17.27 ft	Test: 1
File: MP-05.TIM			Date: 6/30/2015



			File: MP-06.MHP
Company: ZEBRA Technical Services		Operator: WM	Date: 7/1/2015
Project ID: 26230		Client: HDR	Location:

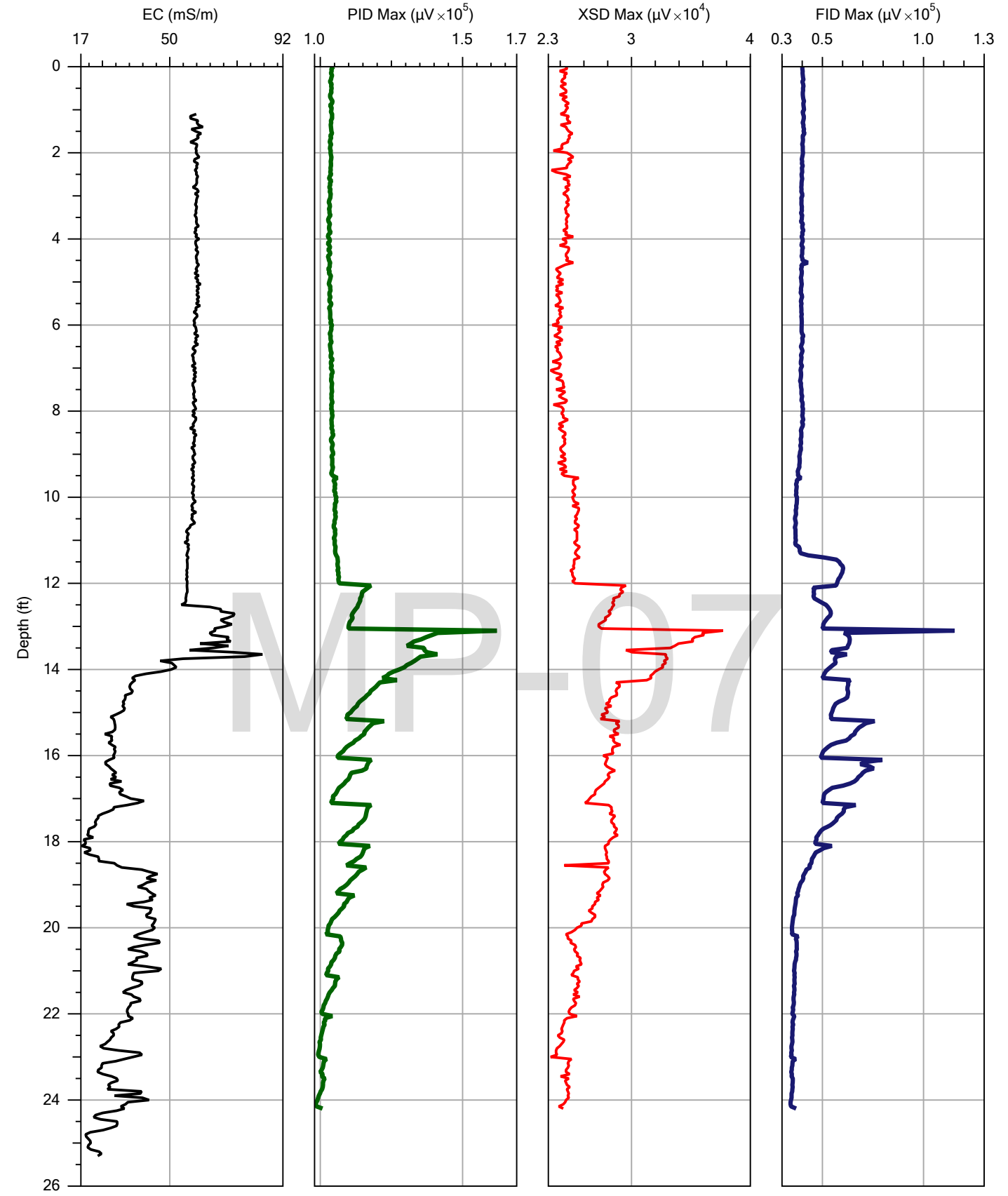


		File: MP-06.MHP
Company: ZEBRA Technical Services	Operator: WM	Date: 7/1/2015
Project ID: 26230	Client: HDR	Location:

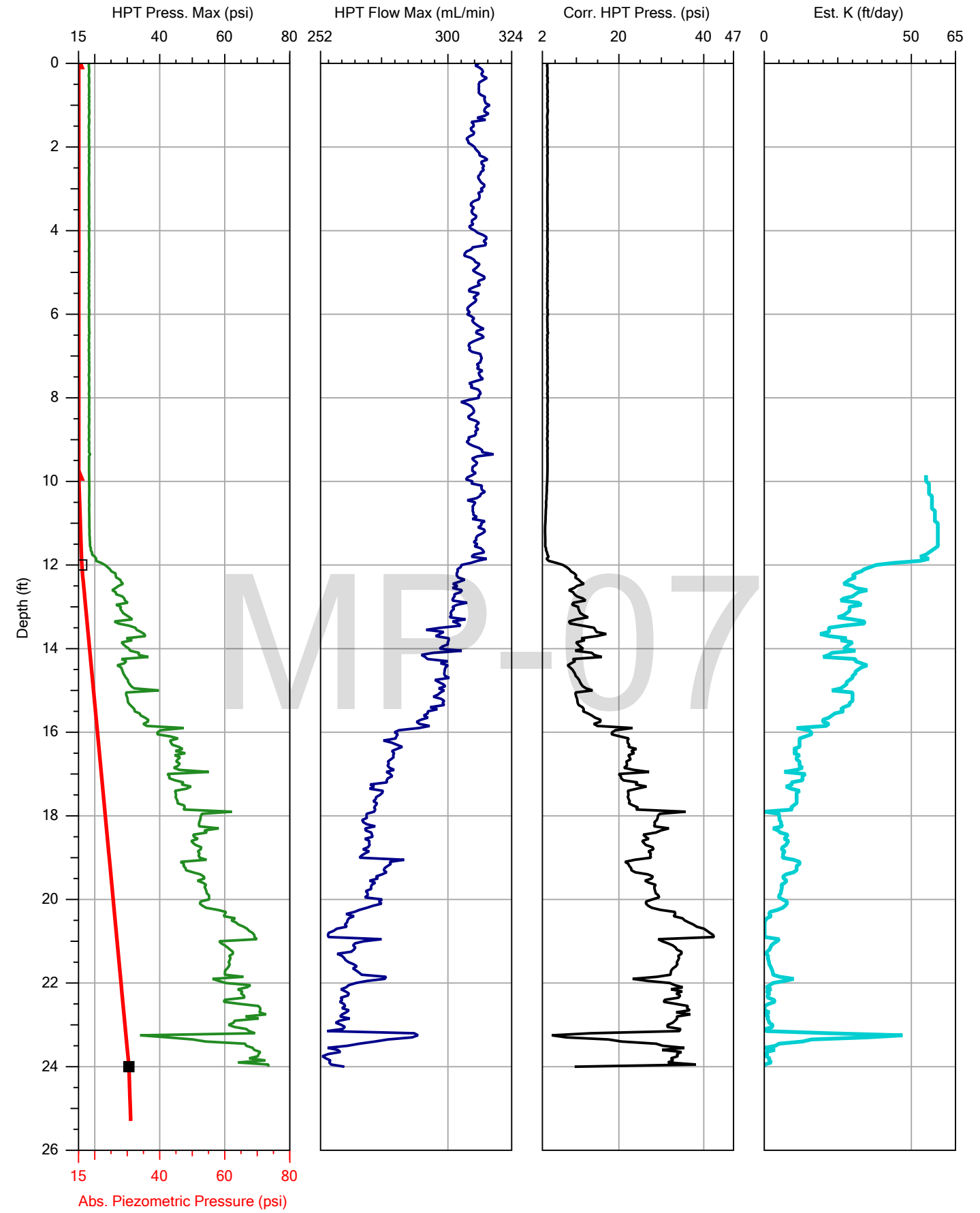


HPT DISSIPATION (SINGLE CASE)

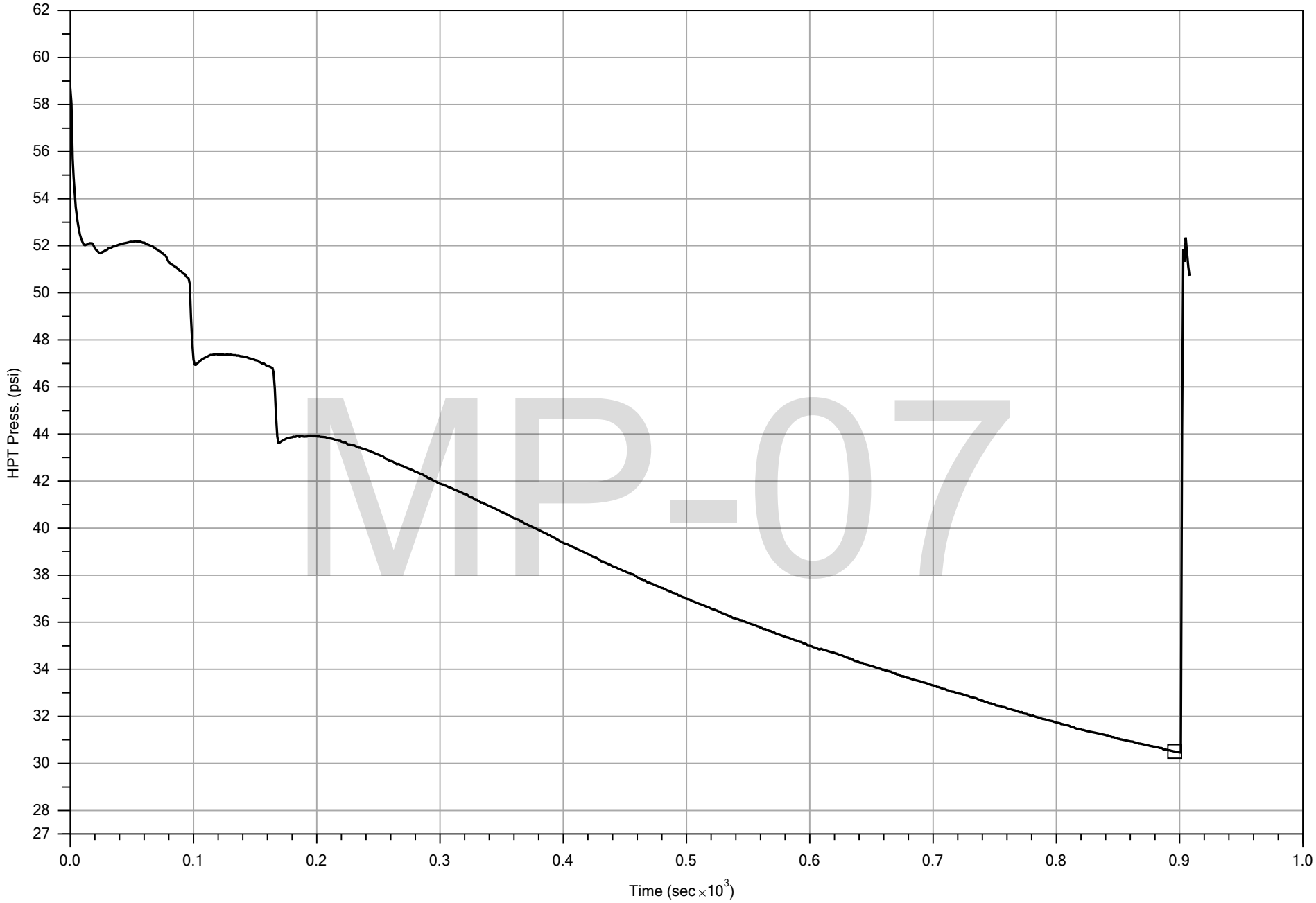
Company: ZEBRA Technical Services	Operator: WM	Location:	Sensor: HPT Press.
Project ID: 26230	Client: HDR	Depth: 4.72 ft	Test: 1
File: MP-06.TIM			Date: 7/1/2015



		File: MP-07.MHP
Company: ZEBRA Technical Services	Operator: NK	Date: 6/30/2015
Project ID: 26230	Client: HDR	Location:

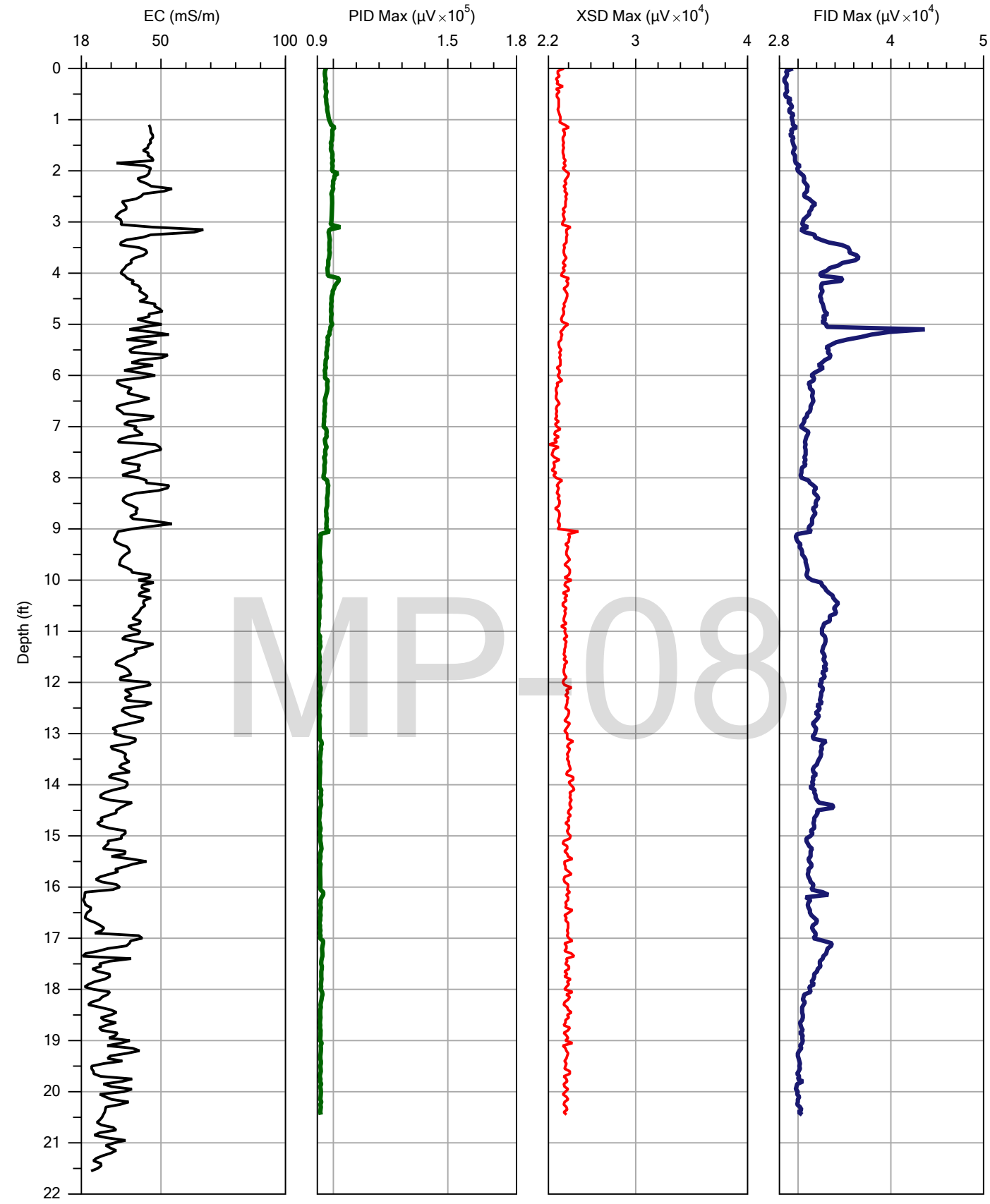


			File: MP-07.MHP
Company: ZEBRA Technical Services		Operator: NK	Date: 6/30/2015
Project ID: 26230		Client: HDR	Location:

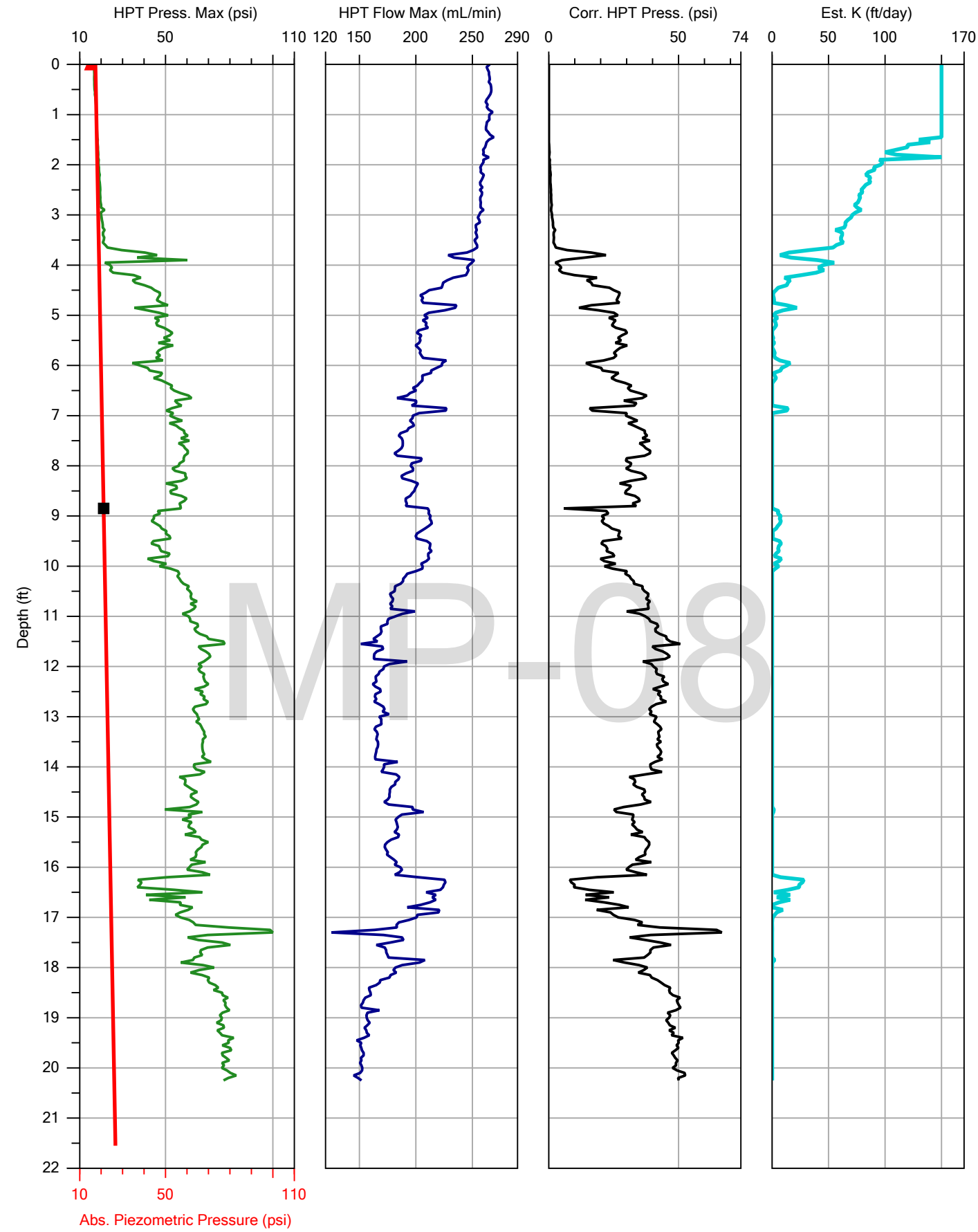


HPT DISSIPATION (SINGLE CASE)

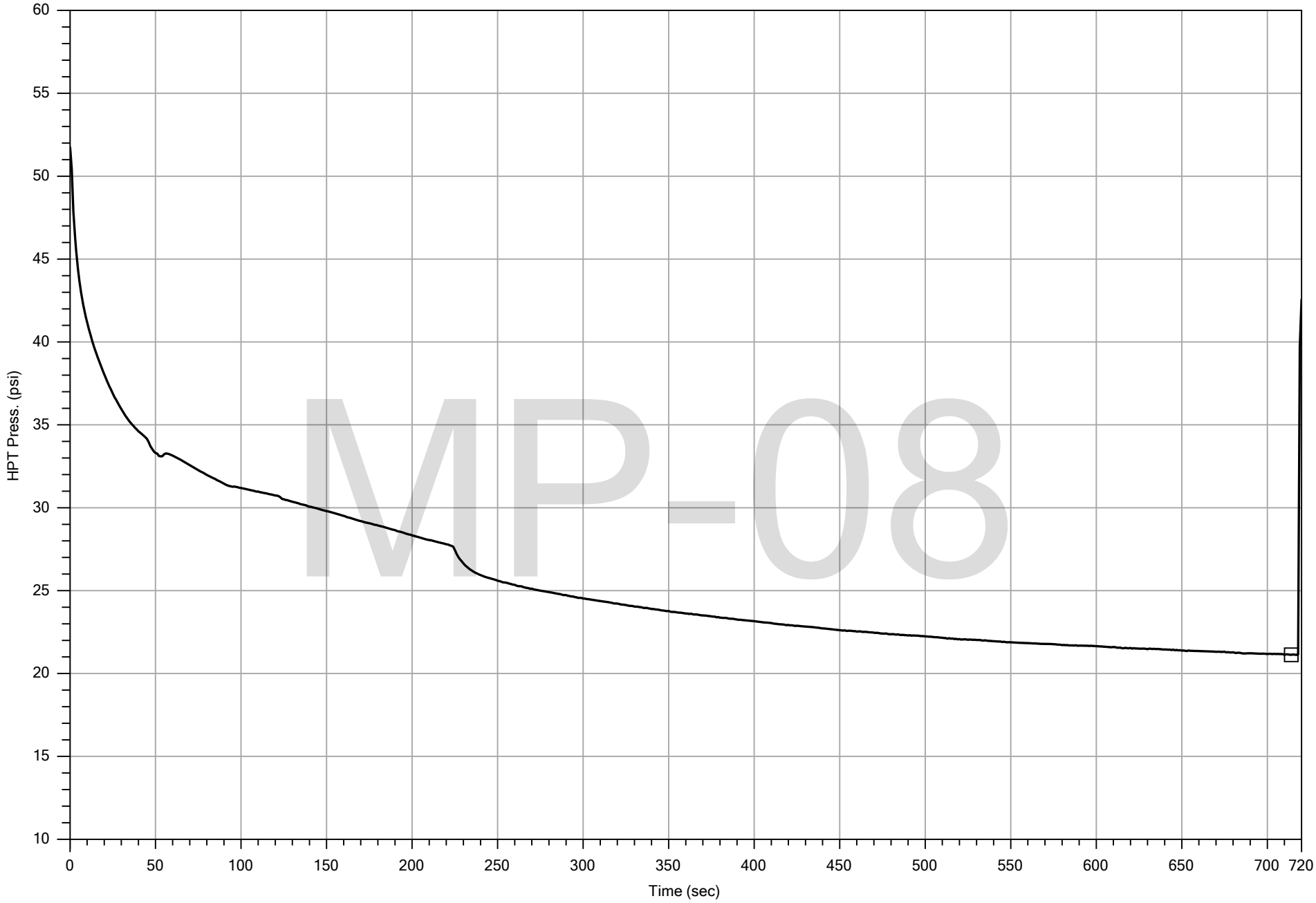
Company: ZEBRA Technical Services	Operator: NK	File: MP-07.TIM	Date: 6/30/2015
Project ID: 26230	Client: HDR	Location:	Sensor: HPT Press.
		Depth: 24.02 ft	Test: 1



			File: MP-08.MHP
Company: ZEBRA Technical Services		Operator: WM	Date: 7/1/2015
Project ID: 26230		Client: HDR	Location:

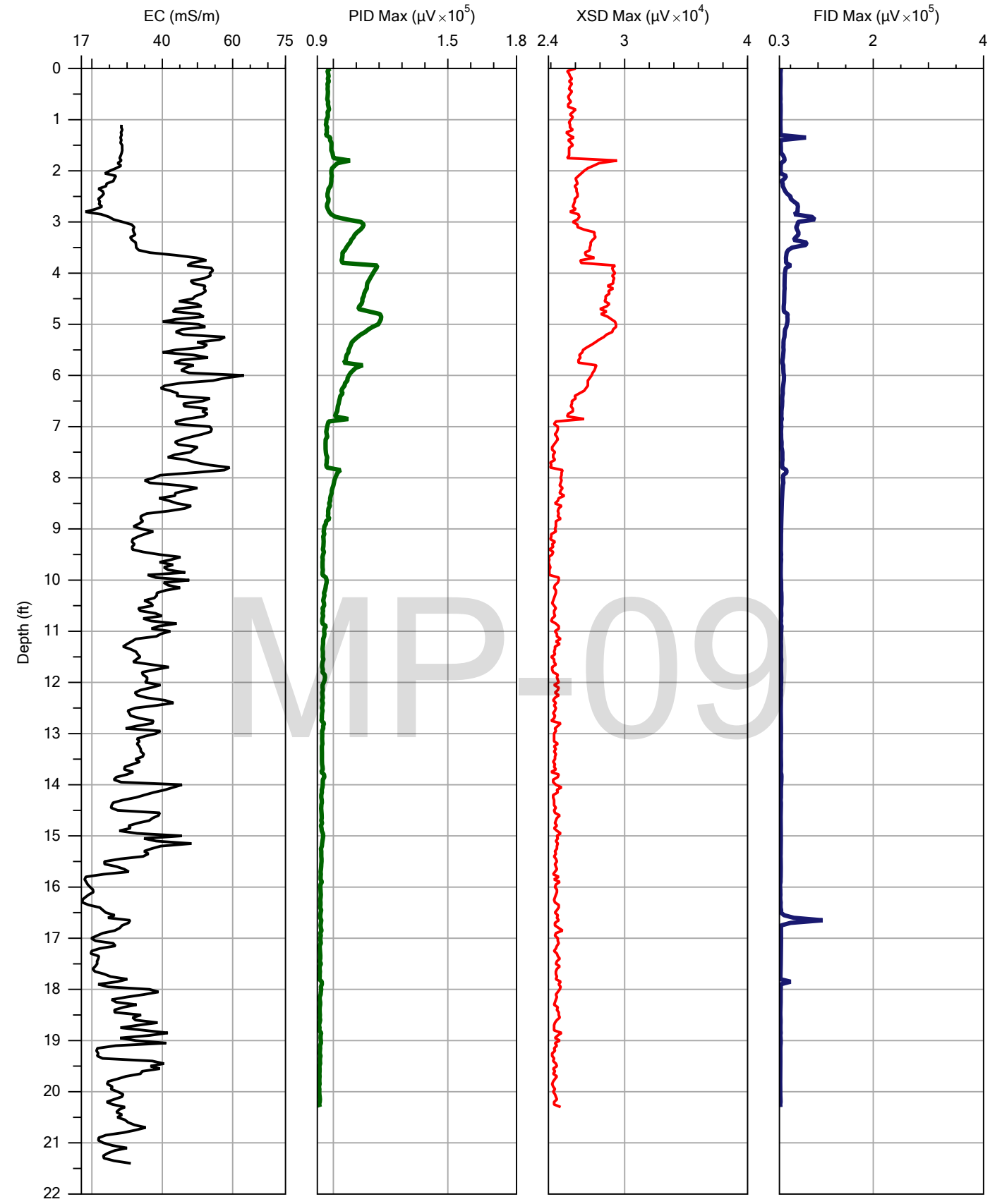


		File: MP-08.MHP
Company: ZEBRA Technical Services	Operator: WM	Date: 7/1/2015
Project ID: 26230	Client: HDR	Location:

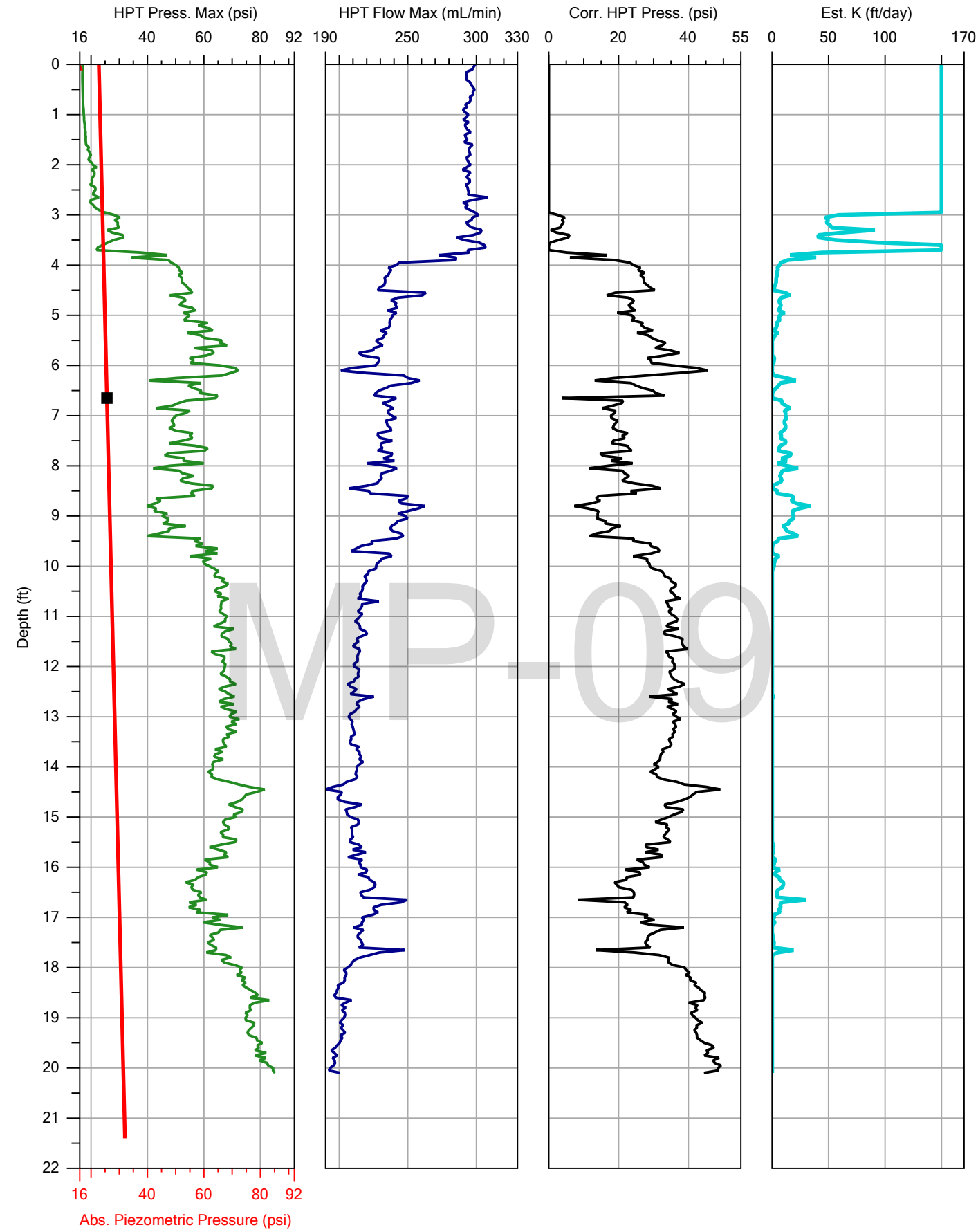


HPT DISSIPATION (SINGLE CASE)

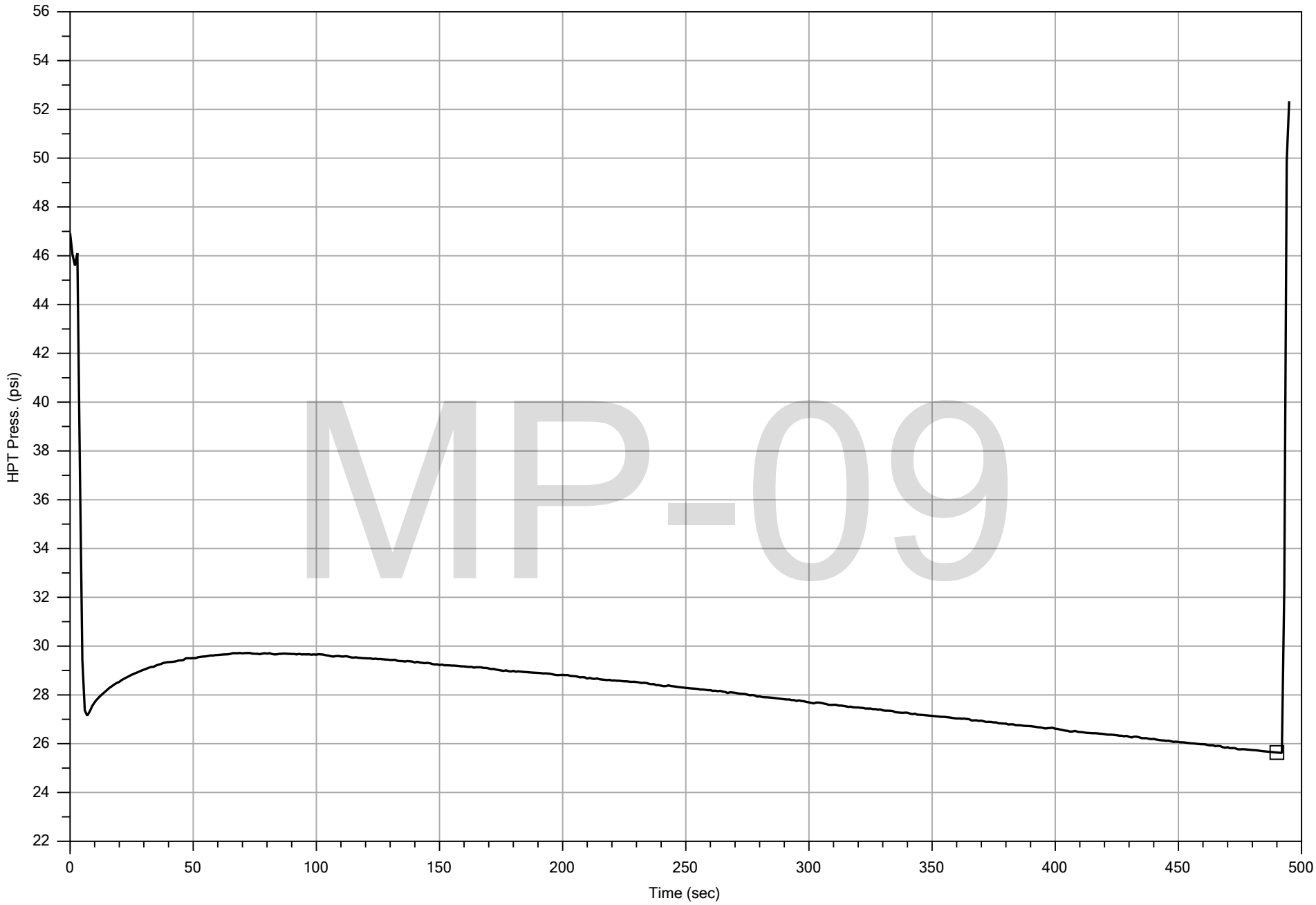
Company: ZEBRA Technical Services	Operator: WM	File: MP-08.TIM	Date: 7/1/2015
Project ID: 26230	Client: HDR	Location:	Sensor: HPT Press.
		Depth: 8.86 ft	Test: 1



			File: MP-09.MHP
Company: ZEBRA Technical Services		Operator: WM	Date: 7/1/2015
Project ID: 26230		Client: HDR	Location:



			File: MP-09.MHP
Company: ZEBRA Technical Services		Operator: WM	Date: 7/1/2015
Project ID: 26230		Client: HDR	Location:



HPT DISSIPATION (SINGLE CASE)

Company: ZEBRA Technical Services	Operator: WM	Location:	Sensor: HPT Press.
Project ID: 26230	Client: HDR	Depth: 6.66 ft	Test: 1
		File: MP-09.TIM	Date: 7/1/2015

Appendix B
Soil Sampling
Logs

FIELD BORING LOG

Boring	**MP-7-SS**
SURFACE ELEV	
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 1-Jul-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF - JCS

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
10	1	10-14	2.8	7.8 ppm	0.2' gravelly, fill material 2.1' tight, grey clay	MP7-SS-10-14-20150701 10-12' selected for lab
14	2	14-18	1	1.1 ppm	0.2' grey clay- very wet 0.8' medium grained sand- very poorly sorted	MP7-SS-14-18-20150701
18	3	18-22	4	0.5 ppm	0.3' clay to sandy clay- grey 3.5' of grey clay- soft/firm inbedded	MP7-SS-18-22-20150701
22	4	22-26	None		No Recovery	
26						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring MP-4-SS
SURFACE ELEV
DATUM
SHEET 1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 1-Jul-2015 **DRILLER NAME / COMPANY** Parrat Wolff
MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF - JCS

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
10	1	10-14	3.8	0.1 ppm	0.2' sandy clay- possible fill material 0.3' brown silt- very wet 2.8' clay- very soft with interbedded silty-clay layers. Medium brown.	MP4-SS-10-14-20150701 10-12' selected for lab
14	2	14-18	None		No Recovery	
18	3	18-22	4	0.1 ppm	0.3'- sandy/gravel- possible cave-in 0.3' silty sandy- dense, firm, slight orange color 1.1' grey clay 0.4' silty clay 1.6' clay	MP4-SS-18-22-20150701 20-22' selected for lab sample
22	4	22-26	None		No Recovery	
26						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring MP-6-SS
SURFACE ELEV
DATUM
SHEET 1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 1-Jul-2015 **DRILLER NAME / COMPANY** Parrat Wolff
MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF - JCS

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	2.2	0.1 ppm	0.4' brown, medium sand with pebble inclusions 0.6' brownish-grey clay 0.4' silty clay 0.7' very dense clay- brown	MP6-SS-0-4-20150701
4	2	4-8	4	0.1 ppm	0.7' clay 0.3' silty clay 2' interbedded soft/firm clay 0.3' silty clay 1' clay All are brownish in color	MP6-SS-4-8-20150701
8	3	8-12	4	1.7 ppm	1.5' soft, wet clay 2.5' hard silt with occasional pebble inclusions and varying layers of clayey silt	MP6-SS-8-12-20150701 10-12' selected for lab sample
12	4	12-16	4	0.1 ppm	4' of greyish clay, with silty clay interbedded layers	MP6-SS-12-16-20150701
16	5	16-20	3.7	2.8 ppm	0.2' medium sandy clay- light brown 3.5' clay with minor layers of interbedded silty clay- very wet on upper portion	MP6-SS-16-20-20150701
20	6	20-24	3.5	0.1 ppm	0.3' Pebbles, woody debris- possible roots 1.7' wet. Soft clay with silty 0.7' GAP- no recovery in this 0.7' section- possibly drained out 0.9' Silty clay- very wet	MP6-SS-20-24-20150701 23-24' selected for lab sample
24						

NOTES:

WOR - Weight of Rods
WOH - Weight of Hammer
BOH - Bottom of Hole
NS - No Split Spoon Sample
S___ - Split Spoon Sample
U___ - Undisturbed Sample

Proportions
And - Equal
Sandy - 31 - 49%
Some - 13 - 30%
Trace - 1 - 12%

Blows per 1' Compaction
0 - 10 - Loose
11 - 29 - Med. Compact
30 - 50 - Compact
> 50 - V. Compact
50/6" - Refusal

Pocket Pen. (Clays only)
< 0.5 - Soft
0.5 - 1.0 - Medium
1.0 - 4.0 - Stiff
> 4.0 - Hard

Strata Descriptions
F - Fill
O - Organic Deposits
S - Predominantly Sand
M - Predominantly Silt
C - Predominantly Clay

FIELD BORING LOG

Boring	**SS10-SS**
SURFACE ELEV	
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 1-Jul-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF - JCS

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
10	1	10-14	4	0.1 ppm	0.5' silty clay. Dark brown color with pebble inclussions 0.3's coarse pebble- concrete 0.7' coarse gravelly sand with silt- very wet 2.5' clay- soft/firm interbedded wit silty clay layers	SS10-SS-10-14-20150701 10-12' selected for lab
14	2	14-18	3.6	0 ppm	1.4' soft wet clay, grey 0.3' slightly harder, wet grey clay 1.9' grey, clay	SS10-SS-14-18-20150701
18	3	18-22	4		4' soft, grey clay with minor interbedded firm layers. The top few inches has a slight siltiness.	SS10-SS-18-22-20150701
22	4	22-26	4		4' all clay- minor interbedded soft/firm layeres but mostly all homoegenous grey, clay.	SS10-SS-22-26-20150701 25-26' selected for lab sample
26						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP1**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 17-Dec-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	1.8'		1" concrete dust 1" sandy/silty fill - dark brown 1.5" clay med soft - med brown	SP1-01-20151217 1050
4	2	4-8	4'	0	Clay bagged 7-8	
8	3	8-12	4'	0	1.2' med to firm silty clay 1.2'-4' gray soft clay bagged 8-9	
12	4	12-16	4'	0	Gray soft clay silty at bottom	SP1-15-16-201512 1205
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-2**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 17-Dec-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	2 ft	0	6" fill 1.5' med brown clay. Soft, minor silt	SP2-3-4-20151217 1231
4	2	4-8	4 ft	0	Med brown - med soft to med firm clay with some silt bagged 7-8'	
8	3	8-12	4'	0	2' dark brown silty clayey grading to siltu with minor clay bagged 11-12' 2' dark gray soft clay	
12	4	12-16	4'	0	Dark gray soft clay bagged 15-16'	SP02-15-16-20151217 1300
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-3**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 17-Dec-2016 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-2	1.7'	0.2-0.3	Gravel Fill - coarse	SP3-0-4-20151217 1322
2	2	2-4			Silty sandy gravel - fine	
4	3	4-8	photo	0	Clay + fine gravel / fill med brown	
8	4	8-12	3.6'	2.5	8-10' clayey silty grading to silt 10-12' soft gray clay	
12	5	12-16	4	0	12-16' Soft gray clay, as above	SP3-9-10-20151217 1340
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-4**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 17-Dec-2016 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample: Recov. (ft.)	Geoprobe Sample: PID	Sample Description	Remarks
0					Refusal in 4 locations stepping toawrd the foundation - 2' thick slab present (side visible in first hole)	
2						
4						
8						
12						
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-5**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 17-Dec-2016 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	2.5'	0.1	Near refusal, very slow movement 0-4 (3-4 easier) 2.5' broken concrete + coarse fill material	SP05-2-4-20151217 1435
4	2	4-8	0			
8	3	8-12	1.2	43	Silt med brown	
12	4	12-16	4'	0	4' soft gray clay	SP05-8-12-20151215 1450
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-6**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 17-Dec-2016 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	<1 ft		0-4' pound through slab recovery is less than 1 ft and all concrete dust 4-4.5' concrete dust - refusal 0-5' auger	
4	2	5-7	1.8'	0	silty clay and brown med firm	SP6-5-7-20151217 1550
7	3	7-11	4 ft	0.2	2' soft beige clay 2' med brown silt	SP6-10-11-20151217 1600
11	4	11-15	4 ft	0.1-0.2	med brownish gray clay soft - some minor silt	
15						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-7**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 17-Dec-2016 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	1.55'		med soft brown clay	SP7 3-4 20151217 1620
4	2	4-8	4 ft	0	Soft brown clay	
8	3	8-12	2ft	0.2	med firm brown clay and silt 1' silt med brown 1' soft clay med brown to gray	
12	4	12-16	4ft	0	brown to gay soft clay with pockets of silt	SP7-10-20151217 1650
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-8**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 18-Dec-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	1.25'	0	0.7' dark brown fill-sand with some gravel 0.7-1.25' brown clay, soft 0.9' bottom is firm, more silt	SP8-0-1-20151218 0835
4	2	4-8	4'	0	Brown firm clay	
8	3	8-12	4'	0	2' brown silt 2' soft gray clay	SP8-9-11-20151218 0840
12	4	12-16	4'	0	Sofy gray clay	
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-9**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 18-Dec-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	1.8	0	0.9 fill 3" wet brown clay + dirt 8" sand med brown 0.8' firm brown clay	SP9-0-1-20151218 0910
4	2	4-8	4	0	med firm brown clay grading to soft brown clay	
8	3	8-12	4	0	1' soft brown clay 1.2' silt brown 1.8' med soft gray clay	SP9-9-10-20151218 0920
12	4	12-16	4	0	Soft to med firm gray clay	
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-10**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 18-Dec-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	1.75	0	1.3' fill, brown soil/snad 0.4' clay firm brown	SP10-0.5-1.3-20151218 0930
4	2	4-8	4	0	Brown clay - silty clay at bottom (6-8)	
8	3	8-12	4	5.6	Bagged 8-11 Firm brown silt 3' 1' med firm gray clay	SP10-15-16-20151218 1015
12						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-11**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 18-Dec-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
6		6-8	1.35'	0	Slab at 5' - Auger through Brown med firm clay - silty	
8		8-12	2ft	0.2-1	Soft brown clay ponding to silt brown	SP11-11-12-20151218 1050
12		12-16	4'	0	1" of silt at top followed firm to soft gray clay	SP11-15-16-20151218 1055
16						

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**SP-12**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 18-Dec-2015 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0	1	0-4	2.25	0	Fill- fine to med brown sand, moist. Top 1' is gravel gray to med coarse	
4	2	4-8	1.3		Fill, sand - as above, wet	SP12-0-8-20151218 1112
8	3	8-10	1.25	0	Fill, sand - as above Slab at 10'	
10	4	10.5-12	1.2	0	Silt, brown firm	
12	5	12-16	4'	0	Gray clay, minor silt at top	SP12-10.5-16-20151218 1200 MS/MSD volume
16	6	16-20	4'	0	Gray med soft clay	SP12-18-20-20151218 1215
20						

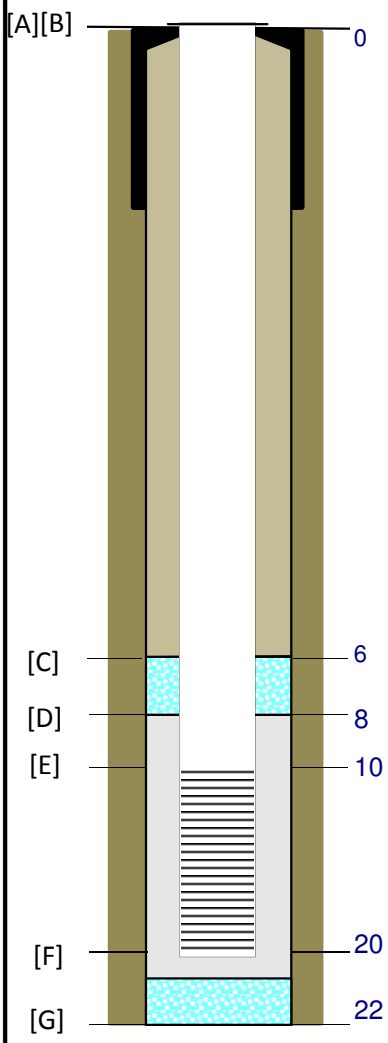
NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

Appendix C
Monitoring Well
Boring and
Construction Logs

MONITORING WELL COMPLETION LOG

PROJECT NUMBER:	147-253059
PROJECT NAME:	Former RKO Dry Cleaners
WELL No.:	**MW6**
CLIENT:	NYSDEC
LOCATION:	Albany, NY
DATE DRILLED:	11-Jan-16
DATE DEVELOPED:	27-Jan-16
CONSTRUCTION COMPLETED:	12-Jan-16
DEVELOPING METHOD:	Geotech Geopump II AC/DC Peristalic Pump



NOT TO SCALE

KEY:
- A - Top of Casing
- B - Grade
- C - Top of Seal
- D - Top of Sand Pack
- E - Top of Screen
- F - Bottom of Screen
- G - Bottom of Borehole

INSPECTOR: B. Firebaugh

DRILLING CONTRACTOR: Parratt-Wolff
TYPE OF WELL: Overburden
STATIC WATER LEVEL: 8.6' DATE: 01/11/16
MEASURING POINT: Top of PVC
TOTAL DEPTH OF WELL: 20' TOTAL DEPTH OF BORING: 22'

DRILLING METHOD TYPE: Hollow Stem Auger
DIAMETER: 4.25" CASING:

SAMPLING METHOD TYPE: Split Spoon
DIAMETER: WEIGHT:
FALL: INTERVAL: 2'

RISER PIPE LEFT IN PLACE MATERIAL: PVC
DIAMETER: 2 inch LENGTH: 10 JOINT TYPE: Flush Thread

SCREEN MATERIAL: PVC
INTERVAL: 10' - 20' DIAMETER: 2 inch
STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.010

FILTER PACK GRADE:
SAND: #00 GRAVEL: NATURAL:
AMOUNT: INTERVAL: 8' - 20'

SEAL(s)

Portland Cement	INTERVAL:	0' - 6'	AMOUNT:
Bentonite Slurry	INTERVAL:		AMOUNT:
Bentonite Pellets	INTERVAL:	6' - 8'	AMOUNT:
Other:	INTERVAL:		AMOUNT:

LOCKING CASING: ☐ YES ■ NO KEY NO:

FIELD BORING LOG

Boring	**MW-6**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 11-Jan-2016 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

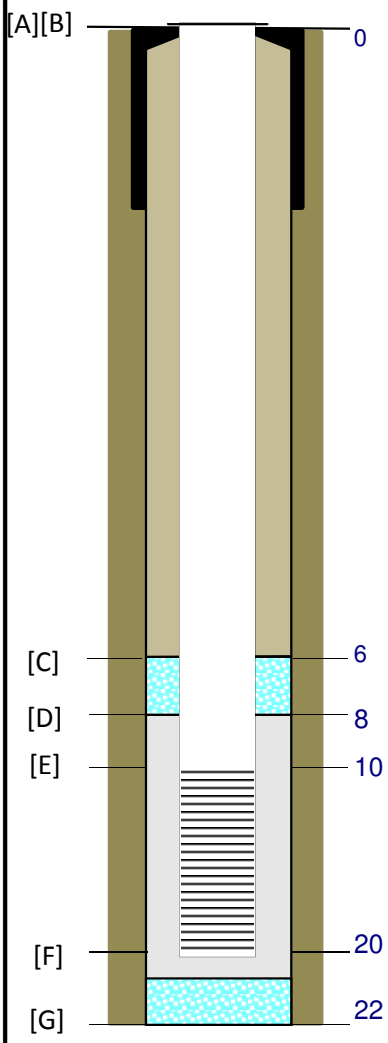
Depth (ft.)	Sample No.	Sample Depth (ft)	Recov. (ft.)	PID	Sample Description	Remarks
0		0-2	1.2	0	Gravel fill gray LS Soil/Fill brown med	
5		5-7	1.75	0	6-8" Silt firm, medium+ brown soft brown clay	
10		10-12	1.2	0.3	Clay med brown some fine firm silt med brown	MW-6-11-20160111 1350 DUPE-20160111
15		15-17	2	0	Soft brown gray clay	
20		20-22	2	0	soft gray brown clay	
					10' screen set at 20' 3 bags grade 00 sand to 2' above screen well complete except conrete @ 1630	

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

MONITORING WELL COMPLETION LOG

PROJECT NUMBER:	147-253059
PROJECT NAME:	Former RKO Dry Cleaners
WELL No.:	**MW8**
CLIENT:	NYSDEC
LOCATION:	Albany, NY
DATE DRILLED:	11-Jan-16
DATE DEVELOPED:	26-Jan-16
CONSTRUCTION COMPLETED:	12-Jan-16
DEVELOPING METHOD:	Geotech Geopump II AC/DC Peristalic Pump



NOT TO SCALE

KEY:
- A - Top of Casing
- B - Grade
- C - Top of Seal
- D - Top of Sand Pack
- E - Top of Screen
- F - Bottom of Screen
- G - Bottom of Borehole

INSPECTOR: B. Firebaugh

DRILLING CONTRACTOR: Parratt-Wolff
TYPE OF WELL: Overburden
STATIC WATER LEVEL: 9.95' DATE: 01/11/16
MEASURING POINT: Top of PVC
TOTAL DEPTH OF WELL: 20' TOTAL DEPTH OF BORING: 22'

DRILLING METHOD TYPE: Hollow Stem Auger
DIAMETER: 4.25" CASING:

SAMPLING METHOD TYPE: Split Spoon
DIAMETER: WEIGHT:
FALL: INTERVAL: 2'

RISER PIPE LEFT IN PLACE MATERIAL: PVC
DIAMETER: 2 inch LENGTH: 10 JOINT TYPE: Flush Thread

SCREEN MATERIAL: PVC
INTERVAL: 10' - 20' DIAMETER: 2 inch
STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.010

FILTER PACK GRADE:
SAND: #00 GRAVEL: NATURAL:
AMOUNT: 3 bags INTERVAL: 8' - 20'

SEAL(s)

Portland Cement	INTERVAL:	0' - 6'	AMOUNT:
Bentonite Slurry	INTERVAL:		AMOUNT:
Bentonite Pellets	INTERVAL:	6' - 8'	AMOUNT:
Other:	INTERVAL:		AMOUNT:

LOCKING CASING: ☐ YES ■ NO KEY NO:

FIELD BORING LOG

Boring	**MW-8**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 11-Jan-2016 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Recov. (ft.)	PID	Sample Description	Remarks
0	1	0-2	1.75'	0	Soil med to dark brown	
2	2	2-4	1.55		Clay med brown-firm grading to med firm	
5	3	5-7	1.85	0	Moist med brown silt minor clay 2" dark brown soil at top	
10	4	10-12	2.3	0	Beds of silt med brown at top otherwise soft to med soft gray clay	
15	5	15-17	2.3	0	Soft gray clay 1 minor bed of brown clay at 15.5'	
20	6	20-22	2	0	Soft gray clay	MW8-21-20160111 1100
					10' screen set at 20' 3 bags grade 00 sand to 2' above screen well complete except conrete @ 1242	

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay

FIELD BORING LOG

Boring	**MW-7**
SURFACE ELEV	TBD
DATUM	
SHEET	1 **OF** 1

PROJECT NAME RKO Dry Cleaners

SITE LOCATION Albany, NY **DATE** 12-Jan-2016 **DRILLER NAME / COMPANY** Parrat Wolff

MONITORING INSTRUMENTATION **HDR FIELD INSPECTOR** BAF

Depth (ft.)	Sample No.	Sample Depth (ft)	Geoprobe Sample Recov. (ft.)	Geoprobe Sample PID	Sample Description	Remarks
0		0-4		0	Soil- firm dry 4" asphalt 4" wood/tree root 2" firm dry clayey soil	
4		4-8	4'	0	6" silt, firm, moist 3.5' clay firm to med firm med brown dry to moist	
8		8-12	4'	0	6" soft med brown clay firm clay med brown followed by 1.6" med brown firm moist silt bottom is firm clay brown grading to gray	
12		12-16	4'	0	6" soft gray clay with silt layers, moist 2' med soft gray clay moist 1.5' soft clay gray grading to med brown moist	
16		16-20			2' med soft gray clay with silt - moist 1 ft med gray clay - med firm 1 ft silt with soft grey and brown clay	MW-7-19-20160112 1320 GW MW7-20160112 1420
20					Temporary well screen set at 20 feet.	

NOTES:

WOR - Weight of Rods	Proportions	Blows per 1' Compaction	Pocket Pen. (Clays only)	Strata Descriptions	
WOH - Weight of Hammer	And - Equal	0 - 10 - Loose	< 0.5 - Soft	F - Fill	
BOH - Bottom of Hole	Sandy - 31 - 49%	11 - 29 - Med. Compact	0.5 - 1.0 - Medium	O - Organic Deposits	
NS - No Split Spoon Sample	Some - 13 - 30%	30 - 50 - Compact	1.0 - 4.0 - Stiff	S - Predominantly Sand	
S___ - Split Spoon Sample	Trace - 1 - 12%	> 50 - V. Compact	> 4.0 - Hard	M - Predominantly Silt	
U___ - Undisturbed Sample		50/6" - Refusal		C - Predominantly Clay	

Appendix D
Groundwater
Sampling Logs

Well Sampling Log

Well ID No. MW-3

Well Casing Type	PVC	Start SWL	7.0'	Project	Former RKO Dry Cleaners RI
Well Depth	17' bgs	Water Column Ht.	10.0'	Date	1/26/2016
Screened Interval	7' - 17'	Well Volume (gallons)	9.3	Crew	HDR (BAF & JCS)
Well Elevation	221.76	SWL During Sampling	7.0'	Purge Method	Low-Flow
Ground Elevation	221.77	Sample Time	1305	Meters Used	Geopump II Peri Pump with L/S 15, Horiba U-53, Heron Dipper-T
Well Condition	Good	Sample Method	Low-Flow	PID Headspace	-
Weather Conditions	Cloudy, 30°F	Sample Analysis	VOC, SVOC, TAL Metals, Pest, PCB		

Time	Est. Gal Purged	Purge Rate (L/min)	pH	Cond. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp (C)	Salinity (PPT)	TDS (g/L)	ORP (mV)	Depth to Water	Comments
1305	0.0	0.4	7.36	1.34	237.0	0.64	9.56	0.7	0.860	102	7.00	
1315	0.6	0.4	7.26	1.37	93	0.55	9.60	0.7	0.878	109	7.00	
1325	1.5	0.4	7.25	1.36	38	0.06	9.59	0.7	0.871	108	7.00	
1335	2.4	0.4	7.26	1.34	18.8	0.00	9.55	0.7	0.860	104	7.00	
1345	3.5	0.4	7.27	1.33	8.9	0.00	9.49	0.7	0.853	98	7.00	
1355	4.3	0.4	7.27	1.33	4.6	0.00	9.44	0.7	0.852	95	7.00	
1405	5.0	0.4	7.27	1.33	1.1	0.00	9.40	0.7	0.850	93	7.00	
1415	6.0	0.4	7.27	1.32	0.0	0.00	9.35	0.7	0.848	92	7.00	
1425	7.3	0.4	7.27	1.32	0.0	0.00	9.27	0.7	0.847	91	7.00	
												Samples taken @ 1430

Comments:

Notes: Volume is measured in Gallons. Depth to Water measured from Top of Casing.

Well Sampling Log

Well ID No. MW-6

Well Casing Type	PVC	Start SWL	8.6	Project	Former RKO Dry Cleaners RI
Well Depth	20' bgs	Water Column Ht.	11.4'	Date	1/26 - 1/27, 2016
Screened Interval	10-20'	Well Volume (gallons)	10.6	Crew	HDR (BAF & JCS)
Well Elevation	220.54	SWL During Sampling	8.6	Purge Method	Low-Flow
Ground Elevation		Sample Time	1305	Meters Used	Geopump II Peri Pump with L/S 15, Horiba U-53, Heron Dipper-T
Well Condition	New	Sample Method	Low-Flow	PID Headspace	-
Weather Conditions	Cloudy, Windy 30°F	Sample Analysis	VOC, SVOC, TAL Metals, Pest, PCB		

Time	Est. Gal Purged	Purge Rate (L/min)	pH	Cond. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp (C)	Salinity (PPT)	TDS (g/L)	ORP (mV)	Depth to Water	Comments
1551	0.0	0.5	7.81	0.644	30.7	10.36	9.59	0.3	0.409	137	9.90	Pump running for 1-2 minutes before WL taken
1602	2.0	0.45	7.76	0.728	14	5.60	9.85	0.3	0.465	128	11.45	
1615	3.5	0.4	7.67	0.756	9	4.82	9.41	0.4	0.484	114	12.30	
1625	4.3		7.66	0.763	9.1	4.29	9.45	0.4	0.488	91	12.80	Time ran out to complete purge and sampling.
0730	0.0	0.5	7.90	0.686	48.6	5.24	15.67	0.3	0.439	148	8.65	
0740	0.8	0.3	7.78	0.676	21.0	3.97	15.87	0.3	0.433	150	10.85	RPM manually reduced
0750	1.5	0.125	7.56	0.716	21.8	2.39	13.85	0.4	0.458	151	11.13	RPM automatically decreasing
0800	2.0	0.125	7.53	0.720	19.9	2.38	13.19	0.4	0.461	152	11.18	
0813	2.5	0.1	7.50	0.734	17.8	2.48	11.71	0.4	0.469	153	11.25	Battery died @ 0807. Now powered by car battery
0823	3.0	0.1	7.47	0.773	18.4	2.63	10.45	0.4	0.493	153	11.30	See below
0833	3.5	0.1	7.49	0.797	17.8	2.63	9.90	0.4	0.509	151	11.36	
0844	4.0	0.1	7.58	0.821	13.9	2.48	9.46	0.4	0.525	142	11.42	
0854	4.4	0.1	7.60	0.833	11.6	2.39	9.58	0.4	0.533	139	11.46	
0904	4.8	0.1	7.61	0.840	9.9	2.32	9.30	0.4	0.537	136	11.55	
0914	5.1	0.1	7.61	0.851	9.5	2.32	8.63	0.4	0.544	134	11.62	
0924	5.5	0.1	7.60	0.870	9.0	2.23	9.18	0.4	0.556	130	11.70	
0934	6.0	0.125	7.58	0.882	9.2	2.20	7.93	0.4	0.564	128	11.76	
0940	6.3	0.12	7.57	0.840	8.7	2.19	7.78	0.4	0.569	126	11.80	
0946	6.4	0.125	7.56	0.896	8.4	2.11	7.75	0.4	0.573	123	11.82	
0951	6.8	0.125	7.56	0.896	6.2	2.08	7.93	0.4	0.574	122	11.88	Samples taken @ 1000

Comments: The pump RPM was initially set higher to account for its decreasing strength due to the battery dying. When the car battery was hooked up, the pump operated at the high rpm momentarily before being manually reduced.

Notes: Volume is measured in Gallons. Depth to Water measured from Top of Casing.

Well Sampling Log

Well ID No. MW-8

Well Casing Type	PVC	Start SWL	9.95'	Project	Former RKO Dry Cleaners RI
Well Depth	20' bgs	Water Column Ht.	10.05'	Date	1/26/2016
Screened Interval	10-20'	Well Volume (gallons)	9.3465	Crew	HDR (BAF & JCS)
Well Elevation	217.72	SWL During Sampling		Purge Method	Low-Flow
Ground Elevation		Sample Time	920	Meters Used	Geopump II Peri Pump with L/S 15, Horiba U-53, Heron Dipper-T
Well Condition	New	Sample Method	Low-Flow	PID Headspace	-
Weather Conditions	Cloudy, 30°F	Sample Analysis	VOC		

Time	Est. Gal Purged	Purge Rate (L/min)	pH	Cond. (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temp (C)	Salinity (PPT)	TDS (g/L)	ORP (mV)	Depth to Water	Comments
0920	0.0	0.4	6.43	1.49	40.3	4.97	10.15	0.7	0.953	-	11.50	Pump running for several minutes before WL taken
0930	1.5	0.25	6.92	2.83	21	3.55	10.33	1.4	1.81	211	11.80	
0950	2.5	0.1	6.98	2.82	22	3.47	10.02	1.5	1.81	202	12.10	
1000	2.8	0.1	7.12	2.83	31.6	4.17	9.27	1.4	1.81	186	12.25	
1045	3.0	0.15	7.20	2.58	15.2	3.51	9.35	1.3	1.66	140	12.15	Pump paused for ~40 min to test recharge
1055	3.8	0.15	7.31	2.29	13.7	2.02	9.18	1.2	1.47	79	12.18	
1105	4.0	0.1	7.31	2.28	10.6	1.96	9.06	1.1	1.46	77	12.18	
1115	4.3	0.1	7.32	2.24	9.0	1.81	8.73	1.1	1.44	73	12.18	
1125	4.5	0.1	7.31	2.22	10.0	1.76	8.69	1.1	1.42	68	12.25	
1135	5.0	0.125	7.31	2.16	8.4	1.71	8.66	1.1	1.38	59	12.34	
1147	5.5	0.1	7.30	2.10	9.1	1.66	8.79	1.1	1.34	51	12.41	
1159	6.0	0.1	7.29	2.07	9.0	1.59	8.98	1.0	1.22	48	12.49	Pump RPM manually increased by 1/8
1210	7.0	0.125	7.28	2.04	8.9	1.50	9.21	1.0	1.3	43	12.62	Pump RPM manually increased by 1/8
1235	8.3	0.35	7.28	2.03	10.2	1.39	9.97	1.0	1.3	30	13.15	Sampled @1245

Comments:

Notes: Volume is measured in Gallons. Depth to Water measured from Top of Casing.

Appendix E
SVI Sampling
Logs

SOIL VAPOR SAMPLING LOG

Project Name:	Former RKO Cleaners
Client:	NYSDEC
Drilling/Boring Method:	Hammer Drill
Purging Method:	PAS pump
Boring Location:	Basement
Monitoring Instrument:	PPB RAE

Crew:	BF, MP, JS		
Sheet:	1	of	1
Project No.:	253059		
Date:	3/31/2016	Start Time	
		Finish Time	
Pump ID #:			
DTW:	NA		
Surf. Elev.:			
Hole Dia.:	1"		

Sample ID	Start Time (24 hr)	End Time (24 hr)	Total Time (hr:mins.) / (tot. min.)	Start Vacuum (in Hg)	End Vacuum (in Hg)	Sample Rate (LPM)	Sample Depth (ft above/ below g.s.)	Cannister ID No.	Regulator ID No.	Remarks and Observations	
562SS20160331	1413	1343	23:30	-31	-8		-5" bgs	0700	02851	point background 175 ppb inside bucket during point purge/leak test	3.1 % He 0 ppb detected
562IA20160331	1415	1341	23:34	-28	0		4.5' ags	0703	2848		
DUPE 20150331	1413	1342	23:31	-30	-3		-5" bgs	0682	2860		
562OA20160331	1420	1309	22:49	-30	-8		4' ags	718	2936		

General Notes:

1. Start Time end Time refers to Start and end time for sample collection only.
2. All sub-slab sampling locations purged into 1-liter Tedlar bag prior to sampling
3. All sub-slab vapor and indoor air samples collected with 6-liter summa canisters.

SS - Sub-slab vapor sample

IA - Indoor air sample

SOIL VAPOR SAMPLING LOG

Project Name:	Former RKO Cleaners
Client:	NYSDEC
Drilling/Boring Method:	Hammer Drill
Purging Method:	PAS pump
Boring Location:	Basement
Monitoring Instrument:	PPB RAE

Crew:	BF, MP, JS
Sheet:	1 of 1
Project No.:	253059
Date:	3/31/2016 Start Time
	Finish Time
Pump ID #:	
DTW:	NA
Surf. Elev.:	
Hole Dia.:	1"

Sample ID	Start Time (24 hr)	End Time (24 hr)	Total Time (hr:mins.) / (tot. min.)	Start Vacuum (in Hg)	End Vacuum (in Hg)	Sample Rate (LPM)	Sample Depth (ft above/ below g.s.)	Cannister ID No.	Regulator ID No.	Remarks and Observations
560SS20160331	1318	1245	23:33	-31	-6		-5" bgs	0219	2927	point background 74 ppb 5000 ppm He inside bucket 0 ppb detected during point purge/leak test
560IA20160331	1317	1242	23:35	-30	-6		4.5' ags	0498	60	

General Notes:

1. Start Time end Time refers to Start and end time for sample collection only.
2. All sub-slab sampling locations purged into 1-liter Tedlar bag prior to sampling
3. All sub-slab vapor and indoor air samples collected with 6-liter summa canisters.

SS - Sub-slab vapor sample
IA - Indoor air sample

Appendix I
Contained
in Approval

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau A
625 Broadway, 12th Floor, Albany, NY 12233-7015
P: (518) 402-9625 I F: (518) 402-9627
www.dec.ny.gov

May 6, 2016

Ms. Barbara Firebaugh
Geologist
HDR
16 Corporate Woods Blvd., First Floor
Albany, NY 12211

RE: REVISED - Request for a Contained-In Rule Determination Letter
WA#20 - Former RKO Dry Cleaners
Site No. 401065

Dear Ms. Firebaugh:

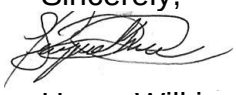
We have completed our review of the soil and groundwater sampling data (Lab Report ID: BK75503) submitted with your April 27, 2016 request for a “contained-in” determination for the referenced project. Concentrations detected for individual VOCs were all significantly less than their current “contained-in” soil and groundwater action levels, and Land Disposal Restriction concentrations.

Water (well development water, purge water, well sampling and decon water), collecting during the well sampling and well development, met "contained-in" groundwater action levels and Land Disposal Restriction concentrations. Three (3) 55-gallon Drums containing water generated during well sampling and well development at the referenced project site do not have to be managed as hazardous waste and can be transported off-site to commercial wastewater facility for treatment and subsequent disposal. Please provide the name and address of the facility that will receive it.

Concentrations for Tetrachloroethene were below the soil “contained-in” action level and the Land Disposal Restriction concentration. Four (4) 55-gallon drums of soil, containing soil cuttings from the well installation, do not have to be managed as hazardous waste and can be transported off-site to permitted solid waste landfill with a liner and leachate collection system, for disposal. Please provide the name and address of the facility that will receive it.

Should you have any questions regarding the content of this letter, please do not hesitate to contact me at (518) 402-9622 or email me at henry.wilkie@dec.ny.gov.

Sincerely,



Henry Wilkie
Environmental Engineer 1
Remedial Section B

ecc: J. Brown
S. Quandt

Appendix J
Enlarged
Figures

SP12-0-8-20151218	
12/18/2015	
Metals	
Aluminum	16000 J
Arsenic	5.5
Barium	110 J
Beryllium	0.42 J
Calcium	17000 J
Chromium	23 J
Cobalt	14
Copper	40 J
Iron	39000 J
Lead	17 J
Magnesium	11000 J
Manganese	780 J
Nickel	29 J
Potassium	1400 J
Vanadium	23 J
Zinc	100 J

SP12-10.5-16-20151218	
12/18/2015	
Metals	
Aluminum	24000 J
Arsenic	**13**
Barium	200 J
Beryllium	0.9 J
Calcium	83000 J
Chromium	**34 J**
Cobalt	22
Copper	**55 J**
Iron	55000 J
Lead	22 J
Magnesium	24000 J
Manganese	1100 J
Mercury	0.16
Nickel	**46 J**
Potassium	4000 J
Selenium	3.5
Sodium	640 J
Vanadium	47 J
Zinc	**130 J**

SP12-18-20151218	
12/18/2015	
SVOC	
Di-n-butylphthalate	0.025
Metals	
Aluminum	24000 J
Arsenic	**13**
Barium	140 J
Beryllium	0.73 J
Calcium	100000 J
Chromium	**32 J**
Cobalt	23
Copper	**57 J**
Iron	60000 J
Lead	21 J
Magnesium	31000 J
Manganese	1200 J
Mercury	0.12
Nickel	**46 J**
Potassium	3700 J
Selenium	3.1
Sodium	490 J
Vanadium	47 J
Zinc	**120 J**

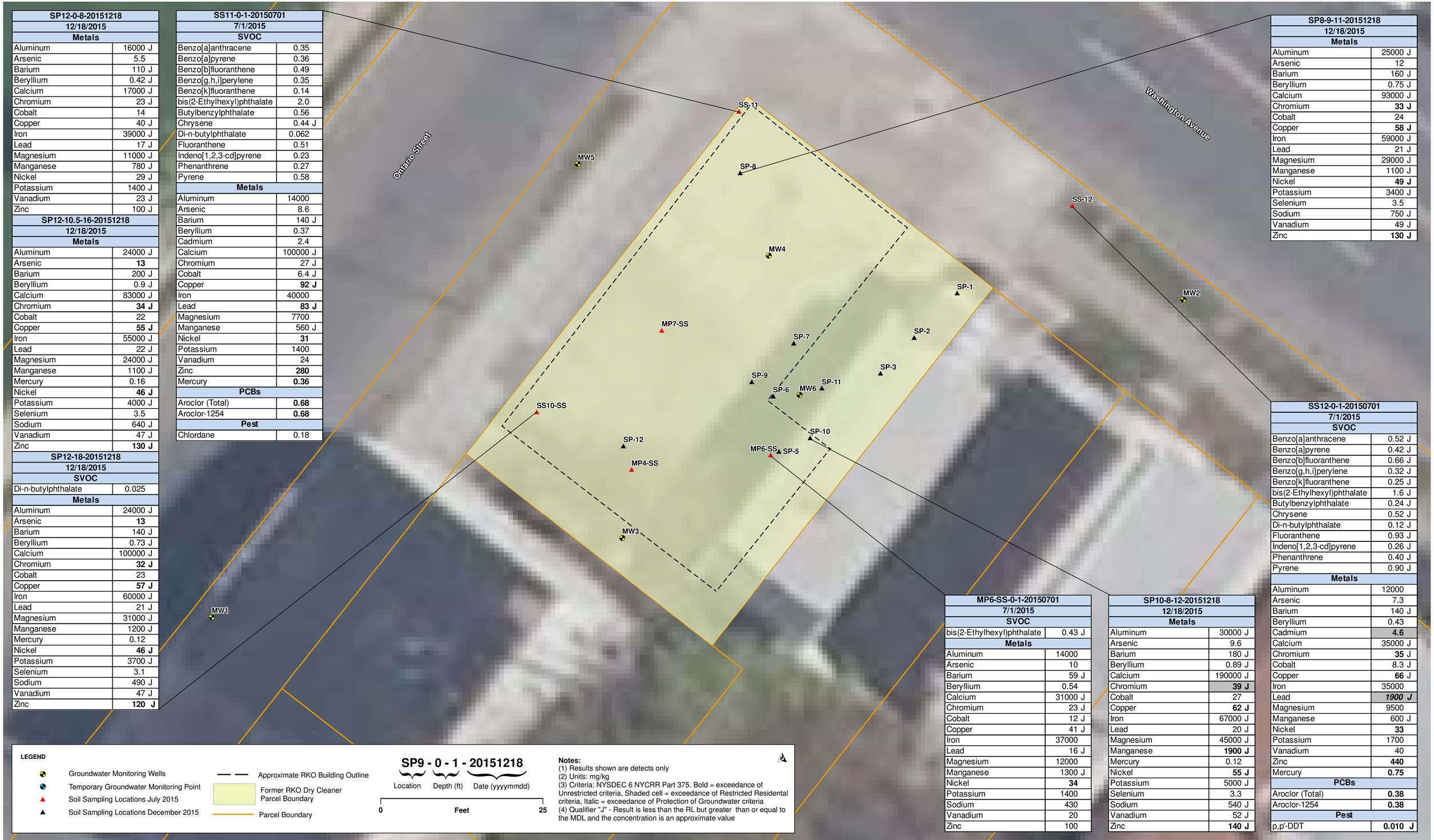
SS11-0-1-20150701	
7/1/2015	
SVOC	
Benzo[a]anthracene	0.35
Benzo[a]pyrene	0.36
Benzo[b]fluoranthene	0.49
Benzo[g,h,i]perylene	0.35
Benzo[k]fluoranthene	0.14
bis(2-Ethylhexyl)phthalate	2.0
Butylbenzylphthalate	0.56
Chrysene	0.44 J
Di-n-butylphthalate	0.062
Fluoranthene	0.51
Indeno[1,2,3-cd]pyrene	0.23
Phenanthrene	0.27
Pyrene	0.58
Metals	
Aluminum	14000
Arsenic	8.6
Barium	140 J
Beryllium	0.37
Cadmium	2.4
Calcium	100000 J
Chromium	27 J
Cobalt	6.4 J
Copper	**92 J**
Iron	40000
Lead	**83 J**
Magnesium	7700
Manganese	560 J
Nickel	**31**
Potassium	1400
Vanadium	24
Zinc	**280**
Mercury	**0.36**
PCBs	
Aroclor (Total)	**0.68**
Aroclor-1254	**0.68**
Pest	
Chlordane	0.18

SP8-9-11-20151218	
12/18/2015	
Metals	
Aluminum	25000 J
Arsenic	12
Barium	160 J
Beryllium	0.75 J
Calcium	93000 J
Chromium	**33 J**
Cobalt	24
Copper	**58 J**
Iron	59000 J
Lead	21 J
Magnesium	29000 J
Manganese	1100 J
Nickel	**49 J**
Potassium	3400 J
Selenium	3.5
Sodium	750 J
Vanadium	49 J
Zinc	**130 J**

SS12-0-1-20150701	
7/1/2015	
SVOC	
Benzo[a]anthracene	0.52 J
Benzo[a]pyrene	0.42 J
Benzo[b]fluoranthene	0.66 J
Benzo[g,h,i]perylene	0.32 J
Benzo[k]fluoranthene	0.25 J
bis(2-Ethylhexyl)phthalate	1.6 J
Butylbenzylphthalate	0.24 J
Chrysene	0.52 J
Di-n-butylphthalate	0.12 J
Fluoranthene	0.93 J
Indeno[1,2,3-cd]pyrene	0.26 J
Phenanthrene	0.40 J
Pyrene	0.90 J
Metals	
Aluminum	12000
Arsenic	7.3
Barium	140 J
Beryllium	0.43
Cadmium	**4.6**
Calcium	35000 J
Chromium	**35** J
Cobalt	8.3 J
Copper	**66** J
Iron	35000
Lead	***1900 J***
Magnesium	9500
Manganese	600 J
Nickel	**33**
Potassium	1700
Vanadium	40
Zinc	**440**
Mercury	**0.75**
PCBs	
Aroclor (Total)	**0.38**
Aroclor-1254	**0.38**
Pest	
p,p'-DDT	**0.010 J**

MP6-SS-0-1-20150701	
7/1/2015	
SVOC	
bis(2-Ethylhexyl)phthalate	0.43 J
Metals	
Aluminum	14000
Arsenic	10
Barium	59 J
Beryllium	0.54
Calcium	31000 J
Chromium	23 J
Cobalt	12 J
Copper	41 J
Iron	37000
Lead	16 J
Magnesium	12000
Manganese	1300 J
Nickel	**34**
Potassium	1400
Sodium	430
Vanadium	20
Zinc	100

SP10-8-12-20151218	
12/18/2015	
Metals	
Aluminum	30000 J
Arsenic	9.6
Barium	180 J
Beryllium	0.89 J
Calcium	190000 J
Chromium	**39 J**
Cobalt	27
Copper	**62 J**
Iron	67000 J
Lead	20 J
Magnesium	45000 J
Manganese	**1900 J**
Mercury	0.12
Nickel	**55 J**
Potassium	5000 J
Selenium	3.3
Sodium	540 J
Vanadium	52 J
Zinc	**140 J**



SOIL SAMPLING RESULTS - SVOCS, PESTS, PCBS, METALS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 5L

REMEDIAL INVESTIGATION REPORT

PATH: Z:\D007625 NYSDEC STANDBY CONTRACT\WORK ASSIGNMENT FOLDERS\WA#20 RKO DRY CLEANER\GIS\MAP_DOCS\FINAL\FIGURE_5_RKO_FULL_SUITE_SOIL_RESULTS_BLOW_UP_20160920.MXD - USER: JUSTARR - DATE: 2/13/2017

SP9-0-1-20151218	
12/18/2015	
Methylene chloride	0.027 J
Tetrachloroethene	0.014 J
SP9-9-10-20151218	
12/18/2015	
cis-1,2-Dichloroethene	0.044
Methylene chloride	0.0079 J
Tetrachloroethene	0.37 J
Trichloroethene	0.12

SP8-0-1-20151218	
12/18/2015	
Methylene chloride	0.013
Tetrachloroethene	0.021
SP8-9-11-20151218	
12/18/2015	
Methylene chloride	0.0033 J
Tetrachloroethene	0.0029 J

SS11-0-1-20150701	
7/1/2015	
Methylene chloride	0.0044
Tetrachloroethene	0.0078

SP7-3-4-20151217	
12/17/2015	
Methylene chloride	0.0034
Tetrachloroethene	0.012
SP7-10-20151217	
12/17/2015	
cis-1,2-Dichloroethene	0.018
Methylene chloride	0.013
Tetrachloroethene	0.34
Trichloroethene	0.041

SS12-0-1-20150701	
7/1/2015	
Methylene chloride	0.0022

SP1-0-1-20151217	
12/17/2015	
Tetrachloroethene	0.0089
SP1-15-16-20151217	
12/17/2015	
Methylene chloride	0.0039

SP2-3-4-20151217	
12/17/2015	
Methylene chloride	0.0039 J
Tetrachloroethene	0.0054
SP2-15-16-20151217	
12/17/2015	
Methylene chloride	0.0037

MP7-SS-10-14-20150701	
7/1/2015	
cis-1,2-Dichloroethene	***0.46***
Tetrachloroethene	0.90
Trichloroethene	***3.5***

SP3-3-4-20151217	
12/17/2015	
Methylene chloride	0.0048
Tetrachloroethene	0.0040
SP3-9-10-20151217	
12/17/2015	
Tetrachloroethene	***44***
Trichloroethene	***0.92***

SS10-SS-10-20150701	
7/1/2015	
cis-1,2-Dichloroethene	0.018
Methylene chloride	0.014
Tetrachloroethene	0.084
Trichloroethene	0.026
SS10-SS-26-20150701	
7/1/2015	
Methylene chloride	0.0084

SP12-0-8-20151218	
12/18/2015	
Methylene chloride	0.012 J
Tetrachloroethene	0.0038
SP12-10.5-16-20151218	
12/18/2015	
Methylene chloride	0.011 J
SP12-18-20151218	
12/18/2015	
Chloroform	0.0031
Methylene chloride	0.0062

MP4-SS-10-12-20150701	
7/1/2015	
Benzene	0.0030
m&p-Xylenes	0.0014
Methylene chloride	0.0044
o-Xylene	0.0012
Tetrachloroethene	0.0072
Toluene	0.0025
Trichloroethene	0.0029
Xylenes (Total)	0.0026
MP4-SS-20-20150701	
7/1/2015	
Methylene chloride	0.011

MP6-SS-0-1-20150701	
7/1/2015	
Tetrachloroethene	0.010
MP6-SS-10-12-20150701	
7/1/2015	
Tetrachloroethene	***24 J***
Trichloroethene	***0.53***
MP6-SS-23-24-20150701	
7/1/2015	
Methylene chloride	0.012

SP5-2-4-20151217	
12/17/2015	
Acetone	***0.11***
Chloroform	0.0024
Methylene chloride	0.015
Tetrachloroethene	0.054
SP5-8-12-20151217	
12/17/2015	
Tetrachloroethene	0.72

SP6-5-7-20151217	
12/17/2015	
Tetrachloroethene	0.028
SP6-10-11-20151217	
12/17/2015	
Tetrachloroethene	1.1
Trichloroethene	0.051

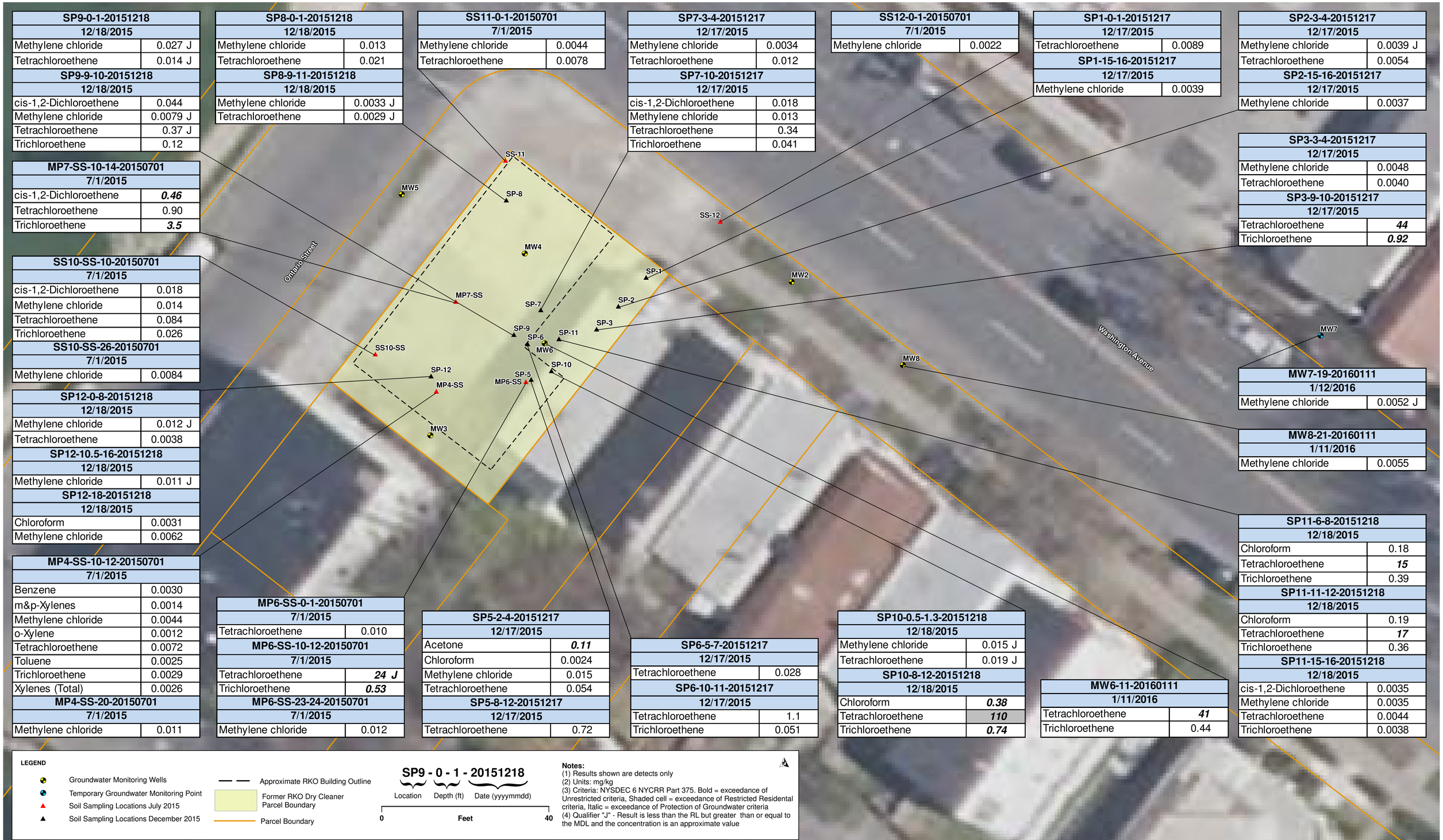
SP10-0.5-1.3-20151218	
12/18/2015	
Methylene chloride	0.015 J
Tetrachloroethene	0.019 J
SP10-8-12-20151218	
12/18/2015	
Chloroform	***0.38***
Tetrachloroethene	***110***
Trichloroethene	***0.74***

MW6-11-20160111	
1/11/2016	
Tetrachloroethene	***41***
Trichloroethene	0.44

MW7-19-20160111	
1/12/2016	
Methylene chloride	0.0052 J

MW8-21-20160111	
1/11/2016	
Methylene chloride	0.0055

SP11-6-8-20151218	
12/18/2015	
Chloroform	0.18
Tetrachloroethene	***15***
Trichloroethene	0.39
SP11-11-12-20151218	
12/18/2015	
Chloroform	0.19
Tetrachloroethene	***17***
Trichloroethene	0.36
SP11-15-16-20151218	
12/18/2015	
cis-1,2-Dichloroethene	0.0035
Methylene chloride	0.0035
Tetrachloroethene	0.0044
Trichloroethene	0.0038



LEGEND

- Groundwater Monitoring Wells
- Temporary Groundwater Monitoring Point
- Soil Sampling Locations July 2015
- Soil Sampling Locations December 2015
- Approximate RKO Building Outline
- Former RKO Dry Cleaner Parcel Boundary
- Parcel Boundary

SP9 - 0 - 1 - 20151218

Location (SP9) Depth (ft) (0 - 1) Date (yyyymmdd) (20151218)

0 Feet 40

Notes:
(1) Results shown are detects only
(2) Units: mg/kg
(3) Criteria: NYSDEC 6 NYCRR Part 375. Bold = exceedance of Unrestricted criteria, Shaded cell = exceedance of Restricted Residental criteria, Italic = exceedance of Protection of Groundwater criteria
(4) Qualifier "J" - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

HDR

SOIL SAMPLING - VOCS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 4L

REMEDIAL INVESTIGATION REPORT

Beverwyk Park

Ontario Street

Washington Avenue

MW1
MW2
MW3
MW4
MW5
MW6
MW7
MW8
SV-1
SV-2
SV-3
SV-4

SS-11
SS-12
SS10-SS
MP4-SS
MP6-SS
MP7-SS
SP-1
SP-2
SP-3
SP-4
SP-5
SP-6
SP-7
SP-8
SP-9
SP-10
SP-11
SP-12
MP-1
MP-2
MP-3
MP-4
MP-5
MP-6
MP-7
MP-8
MP-9

Legend

- Soil Sampling Locations July 2015
- Groundwater Monitoring Wells
- Temporary Groundwater Monitoring Point
- Soil Sampling Locations December 2015
- MIP Locations July 2015
- Soil Vapor Sampling Point August 2012
- Former RKO Dry Cleaner Parcel Boundary
- Parcel Boundary
- Approximate RKO Building Outline

0 Feet 50

2015 - 2016 SAMPLING LOCATIONS

FORMER RKO DRY CLEANERS (NYSDEC SITE #401065)

FIGURE 2L

REMEDIAL INVESTIGATION REPORT

PATH: Z:\D007625 NYSDEC STANDBY CONTRACT\WORK ASSIGNMENT FOLDERS\WA#20 RKO DRY CLEANER\GIS\MAP_DOCS\FINAL\FIGURE_2_RKO_SAMPLING_LOCATIONS_BLOW_UP_20160920.MXD - USER: JUSTARR - DATE: 12/20/2016