I. W. INDUSTRIES, INC. SITE 35 MELVILLE PARK ROAD MELVILLE, NEW YORK

Periodic Review Report

JANUARY 31, 2013 THROUGH JANUARY 31, 2016

NYSDEC Site No: 152102

For Submittal to: NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Prepared by:

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LIST OF ACRONYMS

Acronym	Definition
ASP	Analytical Services Protocol
DUSR	Data Usability Summary Report
ECs	Engineering Controls
EDDs	Electronic Data Deliverables
FPM	FPM Group, Ltd.
Fbg	feet below grade
ICs	Institutional Controls
IRM	Interim Remedial Measure
MS/MSD	Matrix spike/matrix spike duplicate
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	Operation and Maintenance
OU	Operable Unit
PID	Photoionization Detector
PPM	Parts per million
PRR	Period Review Report
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
SCO	NYSDEC Part 375 Soil Cleanup Objectives
Site	I. W. Industries, Inc. Site #152102
SMP	Site Management Plan
Standards	NYSDEC Class GA Ambient Water Quality Standards
ug/l	micrograms per liter
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

The findings in this Periodic Review Report (PRR) for the I.W. Industries Site (No. 152102), located at 35 Melville Park Road, Melville, New York, are summarized as follows:

- The Site was investigated and remediated by I. W. Industries, Inc. in accordance with a Record of Decision issued by the New York State Department of Environmental Conservation (NYSDEC). Metro Assets III, LLC (Metro) subsequently purchased the Site under a U.S. Bankruptcy Court Order and had continuing obligations with respect to the remedial program for the Site, including completion of the remedial program and implementation of any required institutional and engineering controls. Kailyn Realty I, LLC (Kailyn) subsequently purchased the Site from Metro. Kailyn presently leases the building to three tenants for offices and warehousing;
- The engineering controls (ECs) for the Site presently include a cover system over former leaching pools LP-1 through LP-3, and free-phase product monitoring (and removal, if necessary) at wells MW-1, MW-2 and MW-7. Site-wide inspections (including the cover system) were performed during this reporting period and shortly thereafter and documented that the ECs remained in place and effective. No changes to the cover system were noted;
- The institutional controls (ICs) for the Site include several site use restrictions. All Site use restrictions remained in place and were observed during this reporting period. The SMP also functions as an institutional control (IC) as it contains provisions for operating, monitoring and maintaining the ECs. The provisions of the SMP were implemented throughout the reporting period. All aspects of the Site use are in compliance with the applicable elements of the SMP;
- Product monitoring was not conducted during the reporting period, but was conducted shortly before this PRR was prepared and no floating product was detected in any of the product monitoring wells. Based on the absence of product at this time and the continual absence of product for the past 11 years to 2005, this gap in product monitoring is not a significant deficiency;
- As per April 29, 2013 correspondence from the NYSDEC, groundwater sampling has not been required at this Site since 2013 and no groundwater sampling was performed during the reporting period; and
- The Site has an Environmental Easement in place that dictates that the property must remain in compliance with all ICs. The Site has remained in compliance with the ICs throughout the reporting period.

Effectiveness of Remedial Program

• The remedial program for the Site has been effective at reducing groundwater contamination at the Site and eliminating exposure to residual Site materials. No free-phase product has been noted at the Site since 2005. Site-related groundwater constituent concentrations declined from historic levels to either below the NYSDEC Standards or low and asymptotic



levels by 2013, which groundwater monitoring was last required. Residual materials at the former LP-1 through LP-3 leaching pools remain effectively isolated by capping.

Recommendations

- Based on the absence of floating product since 2005, a time-frame that included high water levels, average water levels, and low water level conditions, and the continued absence of floating product in 2016 (a time of historic low water level conditions), free-phase product is no longer present at the Site. Therefore, free-phase product monitoring should be terminated.
- The groundwater monitoring wells should be abandoned in accordance with the SMP and NYSDEC requirements.



SECTION 1.0 INTRODUCTION AND SITE OVERVIEW

1.1 Introduction

This Periodic Review Report (PRR) was prepared to document site management activities at the I. W. Industries, Inc. Site (Site) #152102 conducted between January 31, 2013 and January 31, 2016 under the New York State (NYS) Inactive Hazardous Waste Disposal Site Program administered by New York State Department of Environmental Conservation (NYSDEC). The Site is located at 35 Melville Park Road, Melville, Town of Huntington, Suffolk County, New York. This PRR includes activities completed during and shortly following the reporting period.

Site management activities were conducted by FPM Group, Ltd. (FPM) in substantial accordance with the NYSDEC-approved Site Management Plan (SMP). The resumes of the FPM environmental professionals implementing the SMP are included in Appendix B. This PRR was prepared in accordance with guidelines provided by the NYSDEC in April 26, 2016 correspondence (45-day reminder notice) as well as additional follow-up correspondence with the NYSDEC, copies of which are included in Appendix A.

1.2 Site Overview

Detailed Site background information was provided in the SMP; summary background information is provided below. Detailed information pertinent to implementation of the SMP during and shortly following the reporting period is summarized herein. A plan showing the Site is presented in Figure 1.2.1 for reference.

1.2.1 Background Information

The Site was investigated and remediated by I. W. Industries, Inc. in accordance with a Record of Decision (ROD) issued by the NYSDEC on March 30, 2000. The selected remedy was implemented under a NYSDEC-approved Remedial Action Work Plan (June 2000). The remedial activities were completed in 2000 and documented in a Remedial Action Report (November 2000), which was approved by the NYSDEC on January 4, 2002. Annual monitoring of groundwater and free-phase product was initiated in 2000. Additional remedial work was conducted in 2006 during facility closure prior to new occupancy.

Metro Assets III, LLC (Metro) subsequently purchased the Site under a U.S. Bankruptcy Court Order. Under this Court Order, Metro had continuing obligations with respect to the remedial program for the Site. These obligations included completion of the remedial program and implementation of any required institutional and engineering controls. Metro entered into an Order on Consent (Index #W1-0725-04-09) with the NYSDEC to complete the implementation of the remedial program for the Site; this Order required Metro to complete the operation, maintenance and monitoring of the selected remedial alternative and implementation of institutional and/or engineering controls.





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Kailyn Realty I, LLC (Kailyn) subsequently purchased the Site from Metro and leases the building to three tenants for office and warehouse operations. Although Kailyn and its successors and assigns and Kailyn's tenants are not responsible for any of Metro's obligations under the Order on Consent or for any of the requirements in the SMP except as specifically noted in the SMP, FPM was recently retained through one of Kailyn's tenants to conduct site management activities and prepare this PRR.

After completion of the remedial work described in the Remedial Action Report, some contamination was left in the subsurface at this Site, which is hereafter referred to as 'residual contamination.' The residual contamination consists of soil at the bottom of former leaching pools LP-1, LP-2, and LP-3 (now abandoned); free-phase product on the groundwater at select Site wells (MW-1, MW-2 and MW-7) and within the soil matrix beneath former leaching pools LP-1, LP-2, and LP-3; and iron and/or manganese in groundwater in select Site wells. The SMP was prepared to identify and implement the institutional and/or engineering controls required for the Site and to provide for the necessary monitoring and/or operation and maintenance of the remedy.

An Institutional Control (IC) has been incorporated into the Site remedy to provide proper management of residual contamination in the future to ensure protection of public health and the environment. This IC is a Site-specific Environmental Easement recorded with the Suffolk County Clerk that provides an enforceable means to ensure the continued and proper management of residual contamination and protection of public health and the environment. It requires strict adherence to all Engineering Controls (ECs) and ICs placed on this Site by the NYSDEC, the grantor of the Environmental Easement, and any and all successors and assigns of the grantor. The ICs provide restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs.

1.2.2 General Site Conditions

The Site is located in the Town of Huntington, Suffolk County, New York. The Site is an approximately six-acre lot and is bounded by Melville Park Road and commercial/industrial buildings to the west, north, and east. The property immediately to the west is also an Inactive Hazardous Waste Disposal Site, the New York Twist Drill Site (Site No. 1-52-169). This adjoining site is impacted with chlorinated solvents.

The Site includes an approximately 97,000-square-foot masonry building, associated paved parking areas, and landscaped vegetation and was formerly used for manufacture of threaded metal parts. The Site was redeveloped starting in 2006 and is presently owned by Kailyn, which leases the building to three tenants for offices and warehousing. No manufacturing or industrial uses currently occur onsite. The current operations by Kailyn and its tenants are not related to the historic residual contamination present onsite, although Kailyn continues to utilize onsite leaching systems to manage and dispose stormwater runoff and sanitary waste.

IWI occupied the Site since it was developed in approximately 1966 and manufactured threaded metal parts onsite until approximately 2005. The manufacturing process produced scrap brass with associated lubrication and cutting oils. Washing of the finished parts produced wastewater, which was discharged to two leaching pools (LP-1 and LP-2) under a State Pollutant Discharge



Elimination System (SPDES) permit prior to 1984. Onsite management of scrap also resulted in some inadvertent discharges of scrap brass and oils to other onsite leaching pools.

In 1982 oil and/or oil emulsion were noted to be present in several leaching pools and IWI entered into an Order on Consent with the Suffolk County Department of Health Services (SCDHS) for the elimination of wastewater discharges and cleanout of the leaching pools. Oil was removed from the leaching pools in 1982 and 1984. Groundwater monitoring wells were installed in 1983 and 1985. By October 28, 1986 IWI had switched to a hold and haul operation and was no longer discharging to onsite leaching pools. However, in 1989 and 1990 oil was noted in several storm drains in loading bays.

Additional soil and groundwater investigations were conducted in 1993 and 1994 and the property was listed as a NYSDEC Inactive Hazardous Waste Disposal site in 1997 due to the leaching pool discharges and detected groundwater impacts. A Remedial Investigation (RI) was performed in 1997; the findings are summarized as follows:

- Several leaching pools were identified with sediments requiring remediation;
- No soil requiring remediation was identified;
- VOCs and metals were present in onsite groundwater and groundwater monitoring was required; and
- Free-phase product that appeared to have originated as lubrication and/or cutting oil found at wells downgradient of leaching pools LP-1 and LP-2.

Remediation activities were conducted in 2000 following the issuance of the ROD and were documented in a Remedial Action Report (November 2000). Remediation was conducted and verification samples documented that the VOCs formerly present in the leaching pools were successfully remediated and concentrations of semivolatile organic compounds (SVOCs) and metals were also significantly reduced, although residual contamination remained present in some leaching pools. No further remediation of the leaching pools was required at that time by the NYSDEC.

Removal of free-phase product from the top of the water table was implemented in 2000 and continued through 2005. Minor amounts of free-phase petroleum or visible sheen were noted at wells MW-1, MW-2, and/or MW-7 periodically during this time and were treated as necessary. No measurable accumulations (>0.01 foot) have been noted since 2005. Product monitoring is ongoing as an EC at the Site. Documentation of the inspection and maintenance of this EC is provided in Section 3.2 of this PRR.

IWI ceased operations and vacated the Site in early 2006. Resource Conservation and Recovery Act (RCRA) closure activities were subsequently conducted under a RCRA Closure Plan approved by the NYSDEC and were overseen by NYSDEC representatives. Additional facility closure activities were conducted under the oversight of the SCDHS. During RCRA closure activities, the remaining stored wastes at the Site were characterized, removed and properly disposed, all contaminated equipment and structures were decontaminated and/or properly disposed, and all



wastes generated during the closure process were disposed in accordance with applicable State and Federal regulations. Sampling and analyses performed in accordance with the Quality Assurance Project Plan (QAPP) demonstrated that the closure was complete; the completed work was approved by the NYSDEC on September 5, 2007.

Additional non-RCRA facility closure activities were conducted in 2007 under SCDHS oversight. These activities included additional decontamination of the facility interior; sampling and remediation of select leaching pools; and removal of non-RCRA storage tanks. Under the RCRA and non-RCRA closure activities all of the onsite storage tanks, including underground and aboveground storage tanks (USTs and ASTs) were properly removed from the Site under NYSDEC and/or SCDHS oversight. Documentation of the closure of the RCRA tanks was submitted to the NYSDEC in the RCRA Closure Report and documentation of the closure of the non-RCRA tanks was submitted to the SCDHS (November 13, 2007 correspondence). No further work has been required in any of the former tank areas and no tanks remain present at the Site.

After completion of the remedial work, it was determined that leaching pools LP-1, LP-2, and LP-3 required abandonment as a permanent EC to further reduce the potential for human contact and/or groundwater contamination; this EC was implemented in August 2009. This EC included disconnecting the leaching pools from their piping systems, backfilling the pools with clean soil, and sealing the top of each pool with a 12-inch-thick reinforced cover set between four and five feet below grade. The area above each abandoned leaching pool was capped by backfilling with approved materials and repaving. New leaching pools were also installed outside of the area of residual contamination to manage stormwater runoff previously directed to LP-1 through LP-3. A Soil Management Plan is included in the SMP and outlines the procedures required in the future. Documentation of the inspection and maintenance of this EC is provided in Section 3.1 of this PRR.

The Site also has a series of ICs in the form of Site restrictions as required by the Environmental Easement. The ICs for the Site are discussed in detail below.

1.3 Evaluation of Remedy Performance, Effectiveness and Protectiveness

The remedy has been implemented in compliance with NYSDEC requirements and was managed in general compliance with the SMP during the reporting period. The EC portion of the remedy (capping above residual soil) was effective at preventing human contact with residual materials, as evidenced by the compliance monitoring information summarized in Section 3.1 of this PRR.

Product monitoring and removal have been protective of public health and the environment as these activities have apparently eliminated the presence of free-phase product at the Site, as discussed in Section 3.2 of this PRR.

The IC portion of the remedy (restrictions on Site use) is also protective of human health and the environment as inappropriate uses that might result in human contact with residual materials are prevented.

I.W. Industries Site #152102 Periodic Review Report, January 31, 2013 through January 31, 2016

SECTION 2.0 ENGINEERING AND INSTITUTIONAL CONTROLS COMPLIANCE

Contamination identified at the Site includes residual contamination in the form of residual freephase petroleum in limited areas of the Site at the water table (approximately 50 feet below grade), iron and/or manganese in groundwater in select Site wells, and soil beneath former leaching pools LP-1 through LP-3 (at least 18.5 feet below grade). These areas of residual contamination are addressed by ECs and ICs.

As an EC, LP-1 through LP-3 were abandoned by backfilling and sealing them at a depth of four to five feet below grade; the areas above the abandoned leaching pools are capped by pavement. The abandonment of LP-1 through LP-3 is a permanent EC and the integrity of the completed abandonment is inspected at defined, regular intervals as required in the SMP.

Free-phase product removal and offsite disposal are conducted as an EC. Product removal materials are installed, if necessary, in affected wells (MW-1, MW-2, and/or MW-7) and are serviced in accordance with established operating and monitoring procedures. As documented in the most recent PRR (April 2013), free-phase product was not detected in any of these wells between 2005 and early 2013 and, in the NYSDEC's response to this PRR the frequency of free-phase product monitoring was reduced to annual.

Both of the ECs are monitored in general accordance with the NYSDEC-approved SMP, as described in detail below.

The Site has ICs in the form of Site restrictions. Adherence to these ICs is required under the Environmental Easement. Site restrictions that apply to the Site are:

- Vegetable gardens and farming on the Site are prohibited;
- Use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use;
- All future activities on the Site that will disturb the ECs are prohibited unless conducted in a manner approved by the NYSDEC; and
- The Site may be used for commercial or industrial use only, unless other usage is approved by the NYSDEC.

The Environmental Easement also requires compliance with ICs associated with site management. These ICs consist of the following:

- The ECs must be implemented as specified in the SMP;
- The ECs must be inspected and certified at a frequency and in a manner defined in the SMP;





- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;
- Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in the SMP;
- Onsite environmental monitoring devices, including but not limited to, groundwater monitor wells, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP.

The ECs and ICs for the Site should:

- Prevent contact with residual soils;
- Prevent exposure to groundwater with contamination levels that exceed drinking water standards;
- Allow groundwater to be restored to pre-disposal/pre-release conditions, to the extent practicable;
- Isolate potential sources of groundwater contamination; and
- Prevent migration of contaminants that would result in offsite groundwater contamination.

2.1 Engineering Control Components

The ECs for this Site include abandonment and capping of the former LP-1, LP-2 and LP-3 leaching pools, and free-phase product removal and disposal.

2.1.1 <u>Abandoned Leaching Pools LP-1 through LP-3</u>

Abandonment and capping of leaching pools LP-1 through LP-3 was implemented as an EC to further reduce the potential for human contact and/or groundwater contamination as described in Section 1.2. The area above each abandoned leaching pool was repaved. Figure 1.2.1 shows the former locations of LP-1 through LP-3 and a reduced copy of the Site survey showing the areas subject to this EC is shown in Appendix C.

The abandonment of leaching pools LP-1 through LP-3 is a permanent EC and the integrity of the completed abandonment is inspected in accordance with the Monitoring Plan included in the SMP. Inspection of this EC was conducted during and shortly following the reporting period, as discussed in Section 3.1.2 herein.

A Soil Management Plan is included in Attachment 1 to the SMP and outlines the procedures required in the event that residual contamination at the former locations of LP-1 through LP-3 is disturbed in the future. Soil management was not required during the reporting period as no activities resulting in disturbance of residual soil occurred.



2.1.2 Free-Phase Product Removal

Free-phase product removal and offsite disposal has been implemented at the Site as an EC. Product removal materials are installed, if necessary, in affected wells (MW-1, MW-2, and/or MW-7) and are serviced in accordance with established operating and monitoring procedures. Monitoring of the affected wells was conducted shortly after the reporting period, as discussed in detail in Section 3.2 herein. Free-phase product removal was not required as no free-phase product was observed.

2.2 Institutional Control Component

ICs are required to: (1) implement, maintain, and monitor ECs; (2) prevent future exposure to residual contamination by controlling disturbances of the ECs; and, (3) restrict the use of the Site to commercial and industrial uses only unless other uses are approved by the NYSDEC. Adherence to these ICs on the Site is required under the Environmental Easement and is implemented under the SMP. The Site has ICs in the form of Site restrictions. Restrictions that apply to the Site are:

- Vegetable gardens and farming on the Site are prohibited;
- Use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use;
- All future activities on the Site that will disturb the ECs are prohibited unless conducted in a manner approved by the NYSDEC; and
- The Site may be used for commercial or industrial use only, unless other usage is approved by the NYSDEC.

The Environmental Easement also requires compliance with ICs associated with site management. These ICs consist of the following:

- The ECs must be implemented as specified in the SMP;
- The ECs must be inspected and certified at a frequency and in a manner defined in the SMP;
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;
- Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in the SMP;
- Onsite environmental monitoring devices, including but not limited to, groundwater monitor wells, must be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP.



The site restrictions were in place and no contraventions occurred during the reporting period. The monitoring procedures and requirements in the SMP were conducted as discussed in Section 3.0 below.

The Site use is commercial, which is consistent with the uses listed on the EC/IC Certification.

2.3 EC/IC Certification

The EC/IC Certification Form provided by the NYSDEC has been completed in accordance with the associated general certification instructions. The completed certification form is included in Appendix D.

SECTION 3.0 MONITORING PLAN COMPLIANCE

The Monitoring Plan for the Site includes measures for evaluating the performance and effectiveness of the ECs. Monitoring of the leaching pool abandonment EC is performed by inspection and by evaluating groundwater monitoring data. Monitoring of the free-phase product removal EC is performed by evaluating product measurements.

3.1 Compliance Inspections of Abandoned Leaching Pools LP-1 though LP-3

Abandoned leaching pools LP-1 through LP-3 are monitored by visual inspection to confirm that the surface seals remain undisturbed. The required inspection frequency is once every five quarters. In the event that a severe condition occurs, such as a flooding event that may affect the seals above LP-1 through LP-3 occurs at the Site, or if it is suspected that some condition has occurred that may affect the LP-1 through LP-3 seals, then an inspection will be performed promptly following this event/condition. Any indicated corrective measures will be promptly undertaken.

3.1.1 <u>Summary of Compliance Inspection Monitoring Program</u>

Compliance inspection procedures for abandoned leaching pools LP-1 through LP-3 are included on the Site-wide Inspection Forms for this Site. The former locations of LP-1 through LP-3 are to be visually inspected by a qualified environmental professional to confirm that the pavement above the seals (seals are at four to five feet below grade) remains intact and undisturbed and that there is no visual or other evidence of potential discharges to the abandoned structures.

If large holes or other significant damage occurs to the pavement above the leaching pool seals, then these damaged areas will be promptly repaired in kind and documented in the PRR. If more significant damage or failures are noted or if the potential for discharges to these abandoned structures are noted, then the NYSDEC will be promptly notified and appropriate corrective measures will be implemented commensurate with the nature of the damage or failure.

All compliance inspection monitoring activities were in general accordance with the SMP and were recorded on Site-wide Inspection Forms. The completed forms are included in Appendix F.

3.1.2 <u>Compliance Inspection Monitoring Results</u>

The pavement above the LP-1 through LP-3 seals remained intact and undisturbed between January 31, 2013 and January 31, 2016. There was no visual or other evidence of potential discharges to the abandoned structures. The pavement above the former locations of LP-1 through LP-3 was inspected on June 19, 2015 during the reporting period and on November 7, 2016 shortly following the reporting period. No severe conditions occurred during the reporting period. The pavement above LP-1 through LP-3 was noted to be in good condition and undisturbed during each inspection event.



3.1.3 <u>Compliance Inspection Monitoring Deficiencies</u>

No significant compliance inspection monitoring deficiencies were noted during this reporting period. Although the compliance inspection was completed only once during the reporting period, no conditions were observed either during that inspection or the inspection performed shortly after the reporting period that would suggest that any conditions occurred that were not in compliance with the EC requirements.

3.1.4 Compliance Inspection Monitoring Conclusions and Recommendations

The compliance inspection monitoring results for the reporting period indicate that the seals above the former LP-1 through LP-3 locations remained intact and undisturbed during the reporting period and there was no visual or other evidence of potential discharges to the abandoned structures. This EC remains intact and effective. There are no recommendations for any changes to the compliance monitoring inspection for this EC.

3.2 Monitoring/Removal of Free-Phase Product

Free-phase product monitoring and removal are conducted as an EC at the Site. This EC may be discontinued upon approval by the NYSDEC. Product removal materials are installed in affected wells (MW-1, MW-2, and/or MW-7) if necessary and are serviced in accordance with operating and monitoring procedures established in the SMP.

3.2.1 <u>Summary of Free-phase Product Monitoring/Removal Program</u>

The affected wells are monitored on a periodic basis, including measuring the depth to groundwater and depth to any free-phase product that may be present with an interface probe. If free-phase product is noted, its apparent thickness is calculated. When free-phase product is noted, removal is conducted in accordance with the SMP.

No measurable free-phase product has been noted in these wells since 2005. In the event that freephase product returns and is removed, it will be contained as described in the SMP and disposed offsite in accordance with applicable regulations.

Water table relative elevations for Site wells MW-1, MW-2, and MW-7 are derived from each set of monitoring measurements and are used to evaluate whether groundwater levels have lowered sufficiently to ascertain whether any product remains trapped below the water table surface. To confirm that residual free-phase product is no longer present at the Site, product monitoring is scheduled to continue at the Site until groundwater relative elevations decline to at least average levels and free-phase product remains absent. Product monitoring and removal may be discontinued when the criteria for completion are met, as described in the SMP, and after approval by the NYSDEC.

A complete list of components to be checked during each monitoring event is provided in the Site-Wide Inspection Checklist. If any readings are not within their typical range, any equipment is observed to be malfunctioning, or the product removal equipment is not performing within specifications, then prompt maintenance and repair of the affected wells and/or equipment, as per



the Operation and Maintenance Plan is required to restore the product removal measures. Operational problems will be noted in the PRR.

3.2.2 <u>Product Monitoring Results</u>

Free-phase product monitoring activities were not conducted during the reporting period, but were conducted shortly after the reporting period. The monitoring procedures were in general accordance with the monitoring procedures included in the NYSDEC-approved SMP and were recorded on the product monitoring log. A copy of the monitoring log that includes the event shortly after the reporting period is included in Appendix E. No free-phase product, sheen or odor was noted during the monitoring event.

Water level measurements from the recent and historic monitoring events are depicted on Figure 3.2.2.1 and indicate that a historic low groundwater relative elevation for the site of approximately 47 feet was recorded in March 2002 following a significant drought period. The historic high groundwater relative elevation of approximately 57 feet was recorded in April 2010. The average groundwater relative elevation for the Site since monitoring was first performed in 1997 is approximately 52 feet. Following the historic high elevation recorded in April 2010, the elevation of groundwater at the Site has steadily declined and is now approximately 47 feet, which is equivalent to the historic low groundwater relative elevation observed in 2002. This low water level is consistent with recent water level measurements from the adjoining site at 25 Melville Park Road, which were provided to FPM by the NYSDEC (correspondence included in Appendix A).

3.2.3 <u>Product Monitoring Deficiencies</u>

Product monitoring was not conducted during the reporting period due to contractual issues between FPM and the Site owner. This condition was resolved shortly after the reporting period when FPM was contracted to continue the product monitoring activities and prepare this PRR. Based on the absence of product during all of the monitoring events between 2005 and 2013 and the continued absence of product during the most recent (November 2016) monitoring event, this data gap does not appear to be significant.

3.2.4 Product Monitoring Conclusions and Recommendations

The product monitoring results have shown no free-phase product in any of the formerly-affected wells since 2005 (approximately 11 years). The water level measurements document that water levels at the Site have declined approximately ten feet between April 2010 and November 2016 and are now at an historic low level. No indications suggestive of free-phase product were noted in any of the targeted monitoring wells, despite this decline in water level.

Based on these results, it appears that free-phase product is no longer present. It is recommended that free-phase product monitoring be discontinued.

I.W. Industries Site #152102 Periodic Review Report, January 31, 2013 through January 31, 2016



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3.3 Groundwater Monitoring System Components

Groundwater monitoring was previously performed to assess the performance of the remedy. Groundwater monitoring activities are outlined in the Monitoring Plan of the SMP and were continued, as determined by the NYSDEC, until permission to discontinue was granted in writing by the NYSDEC. The network of monitoring wells was designed to monitor both upgradient and downgradient groundwater conditions at the Site and is shown on Figure 1.2.1.

Monitoring of this network since 2000 provided sufficient data to evaluate impacts to onsite groundwater quality from offsite sources and to evaluate improvements in onsite groundwater quality following the remedial activities conducted in 2000. Accordingly, the scope of the monitoring program was reduced to include monitoring of select wells (MW-1, MW-2, MW-3, MW-5 and MW-7) downgradient of the former onsite source areas, with monitoring conducted once every five quarters so as to allow for evaluation of groundwater conditions at different times during the year.

Groundwater monitoring conducted during the previous reporting period (June 10, 2011 through January 31, 2013) demonstrated that the only remaining Site-related impacts included several SVOCs at very low concentrations in two wells, a low concentration of lead in one well, and iron and manganese in two wells. Based on these results and previous results, it was determined that no significant Site-related groundwater impacts remained present and it was recommended that groundwater monitoring be terminated. The NYSDEC, in an April 29, 2013 correspondence approving the PRR (copy in Appendix A) agreed that groundwater sampling was no longer warranted. Accordingly, groundwater monitoring has been discontinued.

3.3.1 <u>Summary of Groundwater Monitoring Program</u>

As noted above, groundwater monitoring for analytical purposes was not conducted during the reporting period as it is not presently required for this Site. However, depth-to-water measurements were obtained during the most recent Site-wide inspection and were used to assess the current direction of groundwater flow.

At each well that was accessed the depth to groundwater was measured using an interface probe. These data were integrated with the surveyed elevations of the top of each casing to determine the groundwater elevation.

3.3.2 Groundwater Flow Direction Results

A groundwater flow direction map was developed from the existing survey data and depth-togroundwater information obtained during the recent Site-wide inspection, as shown in Figure 3.3.2.1. The groundwater flow is to the south-southeast and is consistent with previous groundwater flow direction information presented in the SMP and the previous PRR.

3.3.3 Groundwater Monitoring Deficiencies

No groundwater monitoring deficiencies were noted during the reporting period as groundwater monitoring was not required.







LEGEND:

 MONITORING WELL LOCATION WITH
(46.83) GROUNDWATER RELATIVE ELEVATION, NOVEMBER 2016

() LP-1R WITH MANHOLE

() LEACHING POOL LOCATION WITH SUBGRADE ACCESS

• FORMER LEACHING POOL



3.3.4 <u>Groundwater Monitoring Conclusions and Recommendations</u>

Groundwater monitoring was conducted and reported to the NYSDEC, generally on an annual basis, from 2001 to 2013. Monitoring was performed during all four quarters of the year. As noted in previous reports, VOCs detected on the southwestern portion of the Site do not originate from the Site and, therefore, changes in VOC concentrations noted in previous reports do not reflect changes in Site groundwater quality related to the remediation of the Site leaching pools. SVOC concentrations in the Site wells during the most recent monitoring events were very low to nondetect and remained relatively unchanged when compared to previous sampling events; SVOCs do not present a significant concern in Site groundwater. Metals concentrations were noted to have declined in the majority of the Site wells. The remaining Site-related metals for which exceedances of NYSDEC Standards were observed included only iron and manganese in several wells, and a low concentration of lead in one well. Iron and manganese are often found at elevated concentrations in Long Island groundwater and their NYSDEC Standards are based on aesthetic considerations, and not health-related concerns. Sodium concentrations in the Site wells were not related to remediation of Site soil because this sodium originates from an offsite source and/or from winter road salt applications. Groundwater metals concentrations from the wells closest to the remediated leaching pools were noted to have decreased for those analytes associated with the leaching pools, and were no longer changing significantly.

In the April 2013 PRR it was recommended that groundwater monitoring be discontinued at the Site and the NYSDEC, in their April 29, 2013 correspondence, agreed with this recommendation. The groundwater flow direction determined from recent data continue to indicate a general south-southeast direction of groundwater flow at the Site. None of the more recent observations included in this PRR suggest that there is any reason to conduct further groundwater monitoring.

3.4 Site-Wide Inspection

Site-wide inspections are to be performed on a regular schedule at a minimum of once every five quarters. Site-wide inspections are also performed after all severe weather conditions that may affect ECs or monitoring devices. An abbreviated Site-wide inspection was performed once during the reporting period; additional inspections were not performed due to contractual issues. A full Site-wide inspection was performed shortly after the reporting period to confirm conditions for this PRR. No severe events occurred during the reporting period that would have triggered a Site-wide inspection.

During the full Site-wide inspection, the following were assessed:

- Compliance with all ICs, including Site usage;
- The condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- That Site Management activities being conducted including, where appropriate, groundwater sampling and health and safety inspections;



- Compliance with schedules included in the Operation and Maintenance Plan; and
- That Site records are up to date.

Copies of the completed Site-wide inspection forms for the inspections completed during and shortly after the monitoring period are included in Appendix F. These forms document that no out-of-compliance conditions were noted.



SECTION 4.0 OPERATION AND MAINTENANCE PLAN COMPLIANCE

The Site has operation and maintenance (O&M) requirements for the network of monitoring wells. The wells are to be operated and maintained in accordance with the Operation and Maintenance Plan in the SMP. In general, the monitoring wells that remain in use were checked during each monitoring event to evaluate whether maintenance (redevelopment, repair, etc.) was necessary.

4.1 Summary of O&M Activities

The groundwater monitoring wells were not checked during the reporting period. We note that groundwater monitoring is no longer required at this Site. All of the monitoring wells were checked shortly following the monitoring period during a November 2016 Site-wide inspection, which included product monitoring. Inspection included lowering a weighted measuring tape to the bottom of the wells to ensure that they have not been filled in with silt, and conducting a visual assessment of the well casing, cap, and protective standpipe/manhole.

No damage or sand/silt accumulation was noted for any of the Site's monitoring wells (with one exception) and no maintenance of the groundwater monitoring wells was necessary. Well MW-8, which is located adjoining an active truck roadway, could not be located during the Site-wide inspection and was not located during the previous reporting period. Because of its location this well is presumed to have been damaged by a snow plow. We note that during two site visits conducted in December 2012 and January 2013 (as previously reported), the location of well MW-6 and the area around the well were surveyed with a metal detector and partially excavated and fully probed using hand tools to a minimum depth of one foot below grade. No evidence of a well was detected by the metal detector or noted during excavation and probing. We conclude that the upper portion of this well may have been removed by a snow plow and that the area has been filled by the surrounding soil. The former location of this well is in a lawn area that does not receive stormwater runoff from the building or the parking lot.

4.2 Evaluation of O&M Activities

The O&M activities conducted during the recent Site-wide inspection confirmed that the groundwater monitoring system could be operated as intended. Although well MW-8 could not be located and is assumed to be destroyed, as this well was on the upgradient side of the Site and was no longer actively monitored, it does not present a significant concern.

4.3 **O&M Deficiencies**

No significant O & M deficiencies that could affect the effectiveness of the remedy were noted during the reporting period.

4.4 O&M Conclusions and Recommendations

O&M activities for the groundwater monitoring network confirmed that the network has been maintained during the reporting period. As noted above, groundwater monitoring was



discontinued prior to this reporting period, with NYSDEC approval. However, approval to properly abandon the monitoring wells was not obtained. FPM continues to recommend that the monitoring wells that are no longer in use be properly abandoned in accordance with the SMP and NYSDEC requirements.



SECTION 5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Compliance with SMP

Assessment of the overall Site condition and compliance with the SMP during and shortly following the reporting period are summarized as follows:

EC and IC Compliance

- The existing ECs for the Site currently include a cover system over former leaching pools LP-1 through LP-3, and free-phase product monitoring (with removal, if needed) for three wells on an annual basis. An abbreviated Site-wide inspection was performed during this reporting period in general accordance with the guidelines in the SMP. A full Site-wide inspection and product monitoring were performed shortly after this reporting period in general accordance with the guidelines in the SMP. Full Site-wide inspections and product monitoring were performed shortly after this reporting period in general accordance with the guidelines in the SMP. Full Site-wide inspections and product monitoring were not conducted during the reporting period due to contractual issues. Based on the absence of product between 2005 and the end of the last reporting period (January 31, 2013) and the continued absence of product during the most recent monitoring event (November 7, 2016), the gap in product monitoring is not a significant deficiency. The cover system over former leaching pools LP-1 through LP-3 was inspected once during this reporting period and again shortly following the reporting period; no changes were noted and the cover system was observed to be in good condition during both inspections. Based on these observations, the gap in inspections is not a significant deficiency.
- No product was noted during the November 2016 monitoring event conducted shortly following the reporting period; product has not been observed in any of the monitoring wells at this Site since 2005 (over 11 years ago). The water table elevation was noted to have decreased to an historic low level in November 2016. Despite this decline in the water table elevation, product was not observed in any of the wells and it is concluded that free-phase product is no longer present at this Site.
- The ICs for the Site include several site use restrictions outlined in Section 2.0 of this PRR. The Site use is commercial and is consistent with the approved uses. No changes in Site usage were noted during or shortly following this reporting period and the property continues to be in compliance of all Site use restrictions;
- The SMP also functions as an IC as it contains provisions for operating, monitoring and maintaining ECs. The ECs were maintained during the reporting period, as documented by the Site-wide inspections, and, therefore, were in general accordance with the IC requirements. With the exception of minor monitoring deficiencies noted in this PRR and the previous PRR (loss of one upgradient monitoring well) all aspects of the Site are in general compliance with the SMP.



• Groundwater monitoring was not conducted during the reporting period, which is in accordance with the NYSDEC's April 29, 2013 approval for discontinuing groundwater monitoring as the criteria for termination of monitoring had been met.

5.2 **Performance and Effectiveness of the Remedy**

- The remedy was managed during the reporting period in general compliance with the SMP, with minor monitoring deficiencies noted. The remedy has performed effectively to reduce groundwater impacts and eliminate exposure to residual soil contamination;
- The cover system above former leaching pools LP-1 through LP-3 was effective as it isolated residual materials remaining at the Site and reduced the potential for environmental impacts;
- The restrictions on Site use were also protective of human health and environment as inappropriate uses of the Site that might result in human contact with residual Site materials were prevented; and
- Free-phase product monitoring conducted shortly following the monitoring period documented the continued absence of any indications of free-phase product in the three targeted monitoring wells. A significant decrease in water levels was noted since the previous monitoring event, with water levels now at historically low levels. Despite this decline in water levels, free-phase product remained absent in the wells. We conclude that free-phase product is no longer present at the Site.

5.3 Recommendations

Based on the current Site conditions, FPM recommends the following site management activities for the next reporting period:

- Based on the absence of floating product since 2005 (an 11-year interval that includes high, average, and low water level conditions) and the recent (late 2016) observations, which document the continued absence of any indications of product in the Site monitoring wells at a time of historically low water levels, we conclude that free-phase product is no longer present onsite. Therefore, we recommend that free-phase product monitoring be terminated; and
- Termination of groundwater monitoring was approved in 2013 and free-phase product is no longer present at this Site. As the groundwater monitoring wells are no longer used, and assuming that the NYSDEC approves termination of product monitoring, we recommend that all of the Site monitoring wells be properly abandoned in accordance with the provisions in the SMP and NYSDEC requirements.



APPENDIX A

NYSDEC CORRESPONDENCE



New York State Department of Environmental Conservation Division of Environmental Remediation, 12th Floor

625 Broadway, Albany, New York 12233 Phone: (518) 402-9706 Fax: 518-402-9627 Website: www.dec.ny.gov



APR 29 2013

Kailyn Realty I, LLC Mr. Perry Youngwall 35 Melville Park Road Melville, NY 11747

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

I.W. Industries, Inc., Melville Suffolk County, Site No.: 152102

Dear Mr. Perry Youngwall (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: 01/04/2002 to 01/31/2013.

The Department hereby accepts the PRR and associated Certification. As requested in the PRR, groundwater sampling is no longer warranted at this time. The Department does require that monitoring wells MW-1, MW-2 and MW-7 be gauged annually to determine if free phase product is detected. The frequency of Periodic Reviews for this site is 3 years, your next PRR is due on March 1, 2016. You will receive a reminder letter and updated certification form 75-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9626 or e-mail: bfjankau@gw.dec.state.ny.us

Sincerely,

Ti Serkl

Brian Jankauskas Project Manager

ec:

Brian Jankauskas, Project Manager Renata Ockerby, DOH Project Manager Walter Parish, RHWRE Rosalie Rusinko, DEC Attorney

cc:

John A. Jakub, Esq., Norris Mclaughlin & Marcus, P.O. Box 1018, Sumerville, NJ 08876

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 11th Floor, Albany, NY 12233-7020 P: (518)402-9543 | F: (518)402-9547 www.dec.ny.gov

4/26/2016

Mr. Perry Youngwall President/CEO Kailyn Realty I, LLC 35 Melville Park Road Melville, NY 11747

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal Site Name: I.W. Industries, Inc. Site No.: 152102 Site Address: 35 Melville Park Road Melville, NY 11747

Dear Mr. Youngwall:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at

http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **June 01, 2016**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.



All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at: http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Brian Jankauskas, Project Manager, at the following address:

New York State Department of Environmental Conservation Division of Environmental Remediation, BURA 625 Broadway Albany, NY 12233-7015

Phone number: 518-402-9626. E-mail: brian.jankauskas@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance Certification Form Instructions Certification Forms

ec: w/ enclosures

Brian Jankauskas, Project Manager John Swartwout, Section Chief Walter Parish, Hazardous Waste Remediation Engineer, Region 1

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you <u>cannot</u> certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.
- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.



Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Sit	e No. 152102	Box 1	
Sit	e Name I.W. Industries, Inc.		
Site City Co Site	e Address: 35 Melville Park Road Zip Code: 11747 //Town: Melville unty: Suffolk e Acreage: 6.0		
Re	porting Period: January 31, 2013 to January 31, 2016		
		YES	NO
1.	Is the information above correct?		
	If NO, include handwritten above or on a separate sheet.		
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		
	If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5.	Is the site currently undergoing development?		
		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Commercial and Industrial		
7.	Are all ICs/ECs in place and functioning as designed?		
	IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.		
A C	corrective Measures Work Plan must be submitted along with this form to address these	e issues.	

SITE NO. 1521	02	Box 3
Descri	ntion of Institutional Controls	
Parcel 268-1-005	<u>Owner</u> Kailyn Realty I, LLC	Institutional Control Landuse Restriction Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
March 30, 2000 F - Site may be us - Use of ground - All future activi by the DEC. - Vegetable gard - Free-phase pro - Certifications of	Record of Decision: sed for commercial or industrial use o water underlying the Site is prohibited ties on the Site that will disturb the Ed dens and farming on the Site are proh oduct monitoring shall occur and mea of Institutional and Engineering Contro	hly. without treatment rendering it safe for the intended use. Cs are prohibited unless conducted in a manner approved ibited. sureable product shall be removed. Is shall be performed.
Descri	ption of Engineering Controls	Box 4
<u>Parcel</u> 268-1-005	<u>Engineerii</u> Cover Sys	ng Control tem
March 30, 2000 I Institutional Cor contamination re	Record of Decision: trols consisting of a deed notice and maining after implementation of the re	a deed restriction to prevent exposures to any residual emedy.

	Box 5
	Periodic Review Report (PRR) Certification Statements
1.	I certify by checking "YES" below that:
	a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
	b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted
	engineering practices; and the information presented is accurate and compete. YES NO
2.	If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:
	(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
	(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
	(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
	(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.
	YES NO
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.
	A Corrective Measures Work Plan must be submitted along with this form to address these issues.
	Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFIC SITE NO. 1	ATIONS 52102						
	Box 6						
SITE OWNER OR DESIGNATED RE I certify that all information and statements in Boxes 1 statement made herein is punishable as a Class "A" r Penal Law.	PRESENTATIVE SIGNATURE ,2, and 3 are true. I understand that a false nisdemeanor, pursuant to Section 210.45 of the						
Iat	print husiness address						
	(Owner or Remedial Party						
for the Site named in the Site Details Section of this for	(Owner of Remedial Party						
IC/EC CERTIFICATIONS							
------------------------------------------------	-----------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--	--	--
Environmental Pro	fessional Signature	Box 7					
l and 5 are true. I ur nor, pursuant to Sec	nderstand that a false stat tion 210.45 of the Penal L	tement made herein _aw.					
at							
print	business address						
iental Professional fo	or the (Owner or Remed	dial Party)					
1 r	IC/EC CERTIFICAT	IC/EC CERTIFICATIONS Environmental Professional Signature and 5 are true. I understand that a false state nor, pursuant to Section 210.45 of the Penal I at print business address ental Professional for the (Owner or Remed					

Enclosure 3 Periodic Review Report (PRR) General Guidance

- I. Executive Summary: (1/2-page or less)
 - A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
 - B. Effectiveness of the Remedial Program Provide overall conclusions regarding;
 - 1. progress made during the reporting period toward meeting the remedial objectives for the site
 - 2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
 - C. Compliance
 - 1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
 - 2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
 - D. Recommendations
 - 1. recommend whether any changes to the SMP are needed
 - 2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
 - 3. recommend whether the requirements for discontinuing site management have been met.
- II. Site Overview (one page or less)
 - A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
 - B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.
- III. Evaluate Remedy Performance, Effectiveness, and Protectiveness

Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

- IV. IC/EC Plan Compliance Report (if applicable)
 - A. IC/EC Requirements and Compliance
 - 1. Describe each control, its objective, and how performance of the control is evaluated.
 - 2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
 - 3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
 - 4. Conclusions and recommendations for changes.
 - B. IC/EC Certification
 - 1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).
- V. Monitoring Plan Compliance Report (if applicable)
 - A. Components of the Monitoring Plan (tabular presentations preferred) Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
 - B. Summary of Monitoring Completed During Reporting Period Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
 - C. Comparisons with Remedial Objectives Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
 - D. Monitoring Deficiencies Describe any ways in which monitoring did not fully comply with the monitoring plan.
 - E. Conclusions and Recommendations for Changes Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.
- VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
 - A. Components of O&M Plan Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
 - B. Summary of O&M Completed During Reporting Period Describe the O&M tasks actually completed during this PRR reporting period.
 - C. Evaluation of Remedial Systems Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

- D. O&M Deficiencies Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
- E. Conclusions and Recommendations for Improvements Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.
- VII. Overall PRR Conclusions and Recommendations
 - A. Compliance with SMP For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
 - 1. whether all requirements of each plan were met during the reporting period
 - 2. any requirements not met
 - 3. proposed plans and a schedule for coming into full compliance.
 - B. Performance and Effectiveness of the Remedy Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
 - C. Future PRR Submittals
 - 1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
 - 2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Davis, Stephanie

From:Jankauskas, Brian F (DEC) <brian.jankauskas@dec.ny.gov>Sent:Tuesday, November 22, 2016 3:18 PMTo:Davis, StephanieCc:Bukoski, John; Cancemi, BenSubject:RE: IW industries (152102) Periodic ReviewAttachments:GW elevation.pdf

Stephanie,

Thank you for the update. Attached is a figure of water level elevation trends at the adjacent 25 Melville Park Road site.

Regards, Brian

From: Davis, Stephanie [mailto:s.davis@fpm-group.com]
Sent: Monday, November 21, 2016 8:56 AM
To: Jankauskas, Brian F (DEC) <brian.jankauskas@dec.ny.gov>
Cc: Bukoski, John <j.bukoski@fpm-group.com>; Cancemi, Ben
b.cancemi@fpm-group.com>
Subject: RE: IW industries (152102) Periodic Review

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Brian – The draft of the PRR has been prepared and the site inspection, well gauging, etc. completed. The results are very good, as expected. We are presently in the process of preparing figures, tables, etc. and completing the report. Based on our current schedule, the PRR will not get to you this week, but we are hopeful that it can be transmitted next week.

Stephanie O. Davis, CPG Senior Project Manager Vice President

FPM group, Ltd. 909 Marconi Avenue Ronkonkoma, NY 11779 (631) 737-6200, ext. 228

From: Jankauskas, Brian F (DEC) [mailto:brian.jankauskas@dec.ny.gov]
Sent: Monday, November 21, 2016 8:50 AM
To: Davis, Stephanie <<u>s.davis@fpm-group.com</u>>; Bukoski, John <<u>j.bukoski@fpm-group.com</u>>
Subject: RE: IW industries (152102) Periodic Review

Stephanie,

Please provide an update regarding the PRR.

Regards, Brian From: Davis, Stephanie [mailto:s.davis@fpm-group.com] Sent: Thursday, October 27, 2016 2:27 PM To: Jankauskas, Brian F (DEC) <<u>brian.jankauskas@dec.ny.gov</u>>; Bukoski, John <<u>j.bukoski@fpm-group.com</u>> Subject: RE: IW industries (152102) Periodic Review

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Brian – Today we received authorization to prepare this PRR. We will be working on it in the next few weeks and anticipate being able to forward it to you at some point in November.

Stephanie O. Davis, CPG Senior Project Manager Vice President

FPM group, Ltd. 909 Marconi Avenue Ronkonkoma, NY 11779 (631) 737-6200, ext. 228

From: Jankauskas, Brian F (DEC) [mailto:brian.jankauskas@dec.ny.gov]
Sent: Friday, August 26, 2016 1:46 PM
To: Bukoski, John <<u>i.bukoski@fpm-group.com</u>>; Davis, Stephanie <<u>s.davis@fpm-group.com</u>>
Subject: IW industries (152102) Periodic Review

John/Stephanie,

Can you provide an update regarding the Periodic Review requested on April 26, 2016?

Regards,

Brian Jankauskas, P.E.

Environmental Engineer 2, Division of Environmental Remediation

New York State Department of Environmental Conservation 625 Broadway, Albany, NY 12233 P: 518-402-9626 | F: 518-402-9627 | brian.jankauskas@dec.ny.gov



APPENDIX B

RESUMES OF ENVIRONMENTAL PROFESSIONALS



Stephanie O. Davis, PG, CPG

Personal Data

Investigations/Feasibility Studies (RI/FS), and



Ms. Davis has diversified experience in geology and hydrogeology. Her professional technical experience includes groundwater, soil, and soil vapor investigations, design and management of soil and groundwater remediation projects, design and installation of groundwater containment systems, design and evaluation of soil vapor mitigation systems, groundwater flow modeling, aquifer testing and interpretation, evaluation of site compliance with environmental regulations, and personnel training. Ms. Davis presently manages several large-scale investigation and remedial programs, including program scopes, budgets, staffing, and schedules.

Functional Role	Title	Years of Experience
Senior Project Manager	Corporate Vice President	30+

Education

M.S./1984/Geology/University of Southern California B.S./1981/Geology/Bucknell University

Registration and Certifications

Certified Professional Geologist #9487, (AIPG) 1995 California Registered Geologist #5192, 1991 Pennsylvania Registered Geologist #PG-000529-G, 1994 OSHA – Approved 40 hour Health and Safety

Training Course (1990)

OSHA - Approved 8 hour Health and Safety Training Refresher Courses (1991-Present)

OSHA-Approved 8-hour Site Safety Supervisor Training Course (2008)

National Ground Water Association

Long Island Association of Professional Geologists USEPA Triad Training for Practitioners NYC OER Gold Certified Professional

Employment History

1993-Present	FPM G	roup
	<u>.</u> .	_

1992-1993Chevron Research and Technology Co.

1990-1992 Chevron Manufacturing Co.

1984-1990 Chevron Exploration, Land, and Production Company

Continuing Education

- o Treatment of Contaminated Soil and Rock
- Groundwater Pollution and Hydrology
- Environmental Law and Regulation
- Remedial Engineering
- Soil and Foundation Engineering
- o Environmental Geochemistry
- Project Management Professional (PMP) training

Detailed Experience

Site Investigations

• **Program Manager** for ongoing investigation and remedial projects at several New York State Inactive Hazardous Waste Disposal sites, Voluntary Cleanup Program (VCP) sites, and Brownfield Cleanup Program (BCP) sites, and NYC OER edesignated sites. Investigations have included site characterization, Remedial Resource Conservation and Recovery Act (RCRA) facility investigations and closures. Remedial services have included contaminated soil removal; in-situ chemical treatment; design, installation, and operation of air sparge/soil vapor extraction (AS/SVE) systems and sub-slab depressurization systems (SSDS), capping, and other remedial services.

- Program Manager, NYS Inactive Hazardous Waste Disposal Greenpoint, Site, NY. Responsible for project scoping, cost estimation, subcontracting, field services, report preparation, and agency negotiations for a former manufacturing facility. Services have included an RI, an FS, implementation of an Interim Remedial Measure (IRM), and an Underground Utility Survey. А Remedial Action Work Plan (RAWP) was also prepared for an associated petroleum spill and investigation services will be provided for an associated e-designated site.
- Program Manager, NYS BCP Site, Far Rockaway, NY. Managed all aspects of preapplication investigation, BCP application, RI Work Plan development and implementation, and Citizen Participation Plan (CPP) for a chlorinated solvent site. Responsible for scope development, NYSDEC and NYSDOH coordination, budget, schedule, staffing, and report management.
- Program Manager, Site Characterization (SC) for NYS Inactive Hazardous Waste Disposal Site, Flushing, NY. Responsible for SC scope development, budget, schedule, SC Work Plan and report review, staffing, and agency negotiations for a chlorinated solvent site undergoing residential redevelopment.
- Program Manager, Environmental Services for Senior Living Developer, Long Island, NY. Performs environmental analyses and directs investigation and remedial activities for property acquisition and redevelopment for senior residential facilities. Services included Phase I ESAs, investigation and remediation cost estimation, Phase II investigations, Site Management Plans,

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and transaction and regulatory agency negotiations.

- Program Manager for all Phase I ESA, Phase II • investigations, and remediation projects for a major commercial real estate developer on Long Island, New York. Projects have included environmental services associated with purchase and redevelopment of office buildings, aerospace facilities, former research and development facilities, and large manufacturing plants. Remedial services have included RCRA closures, UIC closures, tank removals, and large excavations.
- Program Manager, Remedial Investigation/ Study (RI/FS), Levittown, Feasibility NY. Managed all aspects of RI/FS for a Class 2 Inactive Hazardous Waste Disposal (Superfund) site involving chlorinated solvents. Responsibilities included RI/FS scope, budget and schedule development, RI/FS work plan, HASP, CAMP, and QAPP, coordination with client, tenants, and regulatory agencies, report review, remedial approach development, conceptual design, and cost estimation.
- Project Manager, RCRA Facilities Investigation (RFI), Barksdale AFB, LA. Responsible for all aspects of field program planning, solicitation and selection of subcontractors, mobilization and establishment of a field office, supervising multiple field crews, installation and sampling of monitoring wells, collection and soil samples, data tracking and management and preparation of an RFI report. The scope of work included characterization of the nature and extent of groundwater and soil contamination at thirteen Solid Waste Management Units (SWMUs), performing a Base-wide evaluation of background contaminant concentrations, and developing a long-term monitoring (LTM) program for the Base.
- Field Services Manager, UST Investigation, Plattsburgh AFB, NY, AFCEE. Responsible for field crew training, coordination of sampling crews at multiple sites, sample labeling, handling, tracking, and shipping, field data management and remote field office management. The scope of work included collection of over 450 groundwater samples to characterize groundwater conditions in the vicinity of 150 USTs using a Geoprobe sampling rig, well points, and rapid turnaround-time analysis.
- Project Manager Environmental Investigation and Property Transaction Support, Long Island, NY. Conducted site investigations, including soil vapor sampling, soil sampling and analysis, groundwater sampling and analysis, and geotechnical evaluation for numerous sites in Suffolk County, New York. The resulting data were utilized by a major supermarket company in the negotiations for the purchase of the properties and in the property remediation prior to development.

- Project Manager, Site Investigation, Bronx, NY, NYCT. Managed field sampling and data analysis activities, including soil vapor analysis, soil sample analysis, and groundwater sampling and analysis at an active commercial bus terminal. Made recommendations for site remediation, including UST removal, soil excavation and disposal, and free-phase product extraction.
- Project Manager, RCRA Facilities Investigation, City of Richmond, CA. Prepared RFI work plan, incorporating existing geologic, chemical, and historical data, evaluating newly-acquired site data, and developing recommendations for further investigation and remedial action at a former municipal landfill.
- Project Manager, Site Investigation, Bay Shore, NY, Manufacturing facility. Managed onsite and offsite soil and groundwater sampling program. Compiled and evaluated data and prepared a comprehensive report of the investigation results for the Suffolk County Department of Health Services (SCDHS) and NYS Department of Environmental Conservation (NYSDEC). Proposed remediation technologies for onsite soil contamination and onsite and offsite groundwater contamination.
- Project Manager, Site Investigation, Newark Airport, NJ, FAA. Managed and conducted a soil and groundwater sampling program adjacent to Runway 29. Analyzed chemical analytical data and developed recommendations.
- Project Manager, Remedial Investigation, Richmond Refinery, CA. Supervised and conducted drilling, soil sampling, cone penetrometer testing, and well installation at a refinery process water effluent treatment system and former municipal landfill.
- Senior Hydrogeologist, multiple sites, NY metro area. Supervised drilling, installation, development, and sampling of monitoring wells at numerous sites in the greater New York metro area. Utilized resulting stratigraphic, hydrologic, and chemical analytical data to evaluate site conditions.
- Program Manager, multiple sites, major New • York Metro area automobile dealer. Managed all investigation and remedial activities for a major automobile retailer with multiple facilities. Sites included tanks, petroleum spills, underground injection control (UIC) systems, soil vapor intrusion hazardous issues, and waste management. Responsible for work scope and budaet preparation, staffing and oversight, client and regulatory agency interactions, addressing insurance issues, reporting and certification, and project closeouts.
- Program Manager, SWTP groundwater monitoring program, Town of East Hampton. Managed groundwater monitoring and reporting for

the Scavenger Waste Treatment Plant (SWTP). Responsibilities included oversight of well installation, purging and sampling the SWTP groundwater monitoring wells, and providing data to the Town for reporting purposes.

- Program Manager, Site Assessments for Transportation Hub development, Suffolk County, NY. Manages Phase I ESAs, Phase II investigations, and remediation for acquisition of multiple parcels for redevelopment. Coordinates and oversees each project, interfaces with counsel and regulatory agency representatives, and develops comprehensive cost estimates.
- Environmental Expert Review Services, Nationwide Sites for Real Estate Developers. environmental investigation Reviews and remediation reports for several major real estate developers, advises clients regarding environmental concerns for property acquisition and redevelopment, develops comprehensive cost estimates. coordinates with construction contractors, architects, regulators and attorneys regarding environmental concerns.
- Expert Environmental Consulting Services, Multiple Sites, Town of Brookhaven, NY. Performed site inspections, investigations, and remedial cost estimation in response to Town Attorney requests. Assisted with Town Code revision and litigation. Coordinated with Town personnel, outside counsel, regulatory agency representatives, and law enforcement officers regarding environmental concerns.

Remediation

- Program Manager, NYSDEC BCP site, NY City, major real estate developer. In responsible charge of all investigation and remedial activities at a NYSDEC BCP site in New York City. Prepared the Remedial Investigation and Remedial Work Plan; coordinated with the owner, other contractors, and the NYSDEC; prepared for and conducted citizen participation activities; supervised all waste characterization, profile preparation, and waste management; developed the Final Engineering Report (FER) and Site Management Plan (SMP) for NYSDEC approval; and ensured that all remedial requirements were met such that the Certificate of Completion (COC) was issued. Continuing activities include coordination of the ongoing site management, communications with the NYSDEC and NYSDOH, and preparation of the annual Certification Report.
- Program Manager, Major Oil Storage Facility (MOSF) closure, Glen Harbor, NY. Responsibilities included coordination of the work scope with the NYSDEC and NCDOH, development of work plans for tanks, UIC, and petroleum spill closure, budget and schedule development, staffing and oversight, reporting and

Stephanie O. Davis, P.G., C.P.G.

certification, and closeout of all environmental issues such that residential redevelopment could proceed.

- Program Manager, Delineation and Remedial Services, NYS Spill Site, St. James, NY. Responsible for client and agency coordination, budget, schedule, staffing, remedial design and reporting for a petroleum release at a Service Station property with offsite impacts.
- Program Manager, RCRA Closure Site, Freeport, NY. Successfully managed all aspects of RCRA Closure of a former printing facility, including scope, budget and schedule development, Closure Plan, NYSDEC interactions, QAPP, specifications for contractor services, remediation, and Closure Report.
- Program Manager, Sub-slab depressurization system (SSDS), Brooklyn, NY. Managed all aspects of SSDS implementation, including delineation sampling, remedial design, budget and schedule, construction services testing, reporting, and O&M manual development for a former dry cleaner site in an active shopping center.
- Program Manager, SSDS, Bronx, NY. Responsible for all aspects of SSDS implementation for a former dry cleaner site in a mixed-use building, including delineation sampling, SSDS design, construction contractor services, testing, reporting, and O&M manual development.
- Manager, Investigation Program and Remediation for Nassau County, NY Subdivision Approval. Coordinated investigation and remediation of a former school facility for redevelopment with multi-family housing. Services included Phase I ESA, Phase II investigation, NCDOH Remedial Work Plan development and implementation, and Remedial Action Reports, Issues addressed included soil, USTs, UICs, transformer areas, and water supply well closure.
- Project Manager, Soil Remediation of metal plating facility, Hauppauge, NY. Planned remedial project and managed contractor support for soil remediation. Project was completed and approved by SCDHS.
- Remedial Design, AS/SVE projects. Developed pilot test plans, evaluated pilot test results, and prepared conceptual designs for several air sparge/soil vapor extraction (AS/SVE) systems to treat petroleum and/or chlorinated solvent VOCs. These systems were subsequently installed and Ms. Davis provides ongoing review of system operations and remedial monitoring results.
- Program Manager, Waste soil management, Brooklyn, NY. In responsible charge of several task orders for waste characterization of a 90,000cy construction soil stockpile at a municipal sewer facility. Responsibilities included development and implementation of Sampling and Analysis Plan

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(SAP), coordination of staffing, review of lab data, preparation of Field Sampling Summary Reports, coordination with disposal facilities, and preparation of waste profiles.

- Program Manager, NYS Inactive Hazardous Waste Disposal (Superfund) site, Hicksville, NY. Responsibilities included developing and implementing pre-demolition investigations, developing and implementing remedial actions (source removal) in conjunction with retail redevelopment, conceptual design and installation of sub-slab depressurization systems (SSDSs), maintaining ongoing OM&M programs.
- Project Manager, Remedial projects, Patchogue, NY. Designed and performed indoor underground storage tank abandonment program, leaching pool remediation plan, and managed contractor support for closure activities at a metal tape manufacturing facility. SCDHS provided oversight and approval.
- Senior Hydrogeologist, Remedial design for a landfill, Richmond, CA. Contributed to the design of a groundwater containment and remediation system for a former municipal landfill, including subsurface groundwater barrier walls and extraction wells.
- Project Manager, Soil remediation, Carle Place, NY. Designed remedial plan and supervised soil remediation activities at an active construction site involving excavation and disposal of 5,000 tons of PCB-, metal-, and petroleum-contaminated soil. NYSDEC oversaw and approved the completed remediation.
- Project Manager, Groundwater containment system, Richmond, CA. Coordinated technical aspects of groundwater barrier wall construction, including routing, permitting, design, material selection, and field activities.
- Project Manager, Multiple UIC investigations and closures, Suffolk and Nassau Counties, NY Responsible for investigation and remediation of contaminated cesspool and stormwater drain pool in systems. Fully conversant with SCDHS SOP 9-95 and USEPA UIC regulations for investigation and cleanup of leaching pool systems, including Action Levels and Cleanup Standards, groundwater monitoring criteria, and remedial requirements.
- Project Coordinator, UIC Closure, Hempstead, NY. Coordinated and supervised all aspects of waste management for a UIC closure, including disposal facility review, waste sampling and classification, manifesting, project closeout, and taxation issues.

Hydrogeologic Evaluations

• Project Manager, well permitting, East Hampton, NY. Private client. Prepared Engineer's Report for Long Island Well Permit for a 230-gpm irrigation supply well. Responsible for evaluation of well interference, salt water upconing, impacts from contaminants, and other factors affecting the proposed well. Performed well design (gravel pack size, screen size, etc.) for numerous groundwater wells on Long Island. Familiar with sieve analyses, well construction and development methods.

- Senior Hydrogeologist, groundwater modeling, East Hampton, NY. Utilized Visual Modflow to evaluate the impact of a contaminant plume on a proposed SCWA wellfield. Model development included evaluation of recharge, aquifer properties, subsurface stratigraphy, boundary conditions, plume source and concentration, and various wellfield locations and pumping rates.
- Hydrogeologist, aquifer testing, Manhattan, NY. NYCT. Participated in a multi-day, multi-well aquifer pumping test for NYCT subway extension. Responsible for operating and maintaining data logging equipment, coordinating manual water level measurements, and analyzing resulting drawdown data.
- Hydrogeologist, aquifer evaluation, Brooklyn, NY. NYCT. Evaluated subsurface geologic conditions for subway site utilizing existing boring logs, topographic, and historic map data.
- Hydrogeologist, aquifer testing, Queens, NY. NYCT. Performed slug tests on monitoring wells at an East Side Access site, and evaluated hydrologic properties using the HYDROLOGIC ISOAQX computer program.
- Hydrogeologist, remedial wells, Deer Park, NY. USEPA. Supervised drilling, installation and development of groundwater extraction, injection, and monitoring wells at a Superfund site. Interpreted aquifer and well performance from development data and recommended modification of drilling and development procedures.
- Hydrogeologist, aquifer testing, NYC, NYCT. Performed aquifer pumping and slug tests and evaluated hydrologic properties using the computer program AQTESOLV. Results were used to address dewatering and construction concerns for subway tunnels.
- Hydrogeologist, aquifer evaluation, Mattituck Airport, Mattituck, NY. Performed water level and water quality monitoring at a NYSDEC Superfund site. Constructed groundwater elevation contour maps and utilized chemical analytical data to predict contaminant plume migration.
- Senior Hydrogeologist, DEIS services, Lazy Point, NY. Town of East Hampton. Prepared a detailed evaluation of groundwater conditions and potential impacts for a water extension to Lazy Point for a draft Environmental Impact Statement (DEIS). Evaluated current and historic groundwater data and analytical models to

determine potential impacts for both Lazy Point and the drinking water source area and prepared associated portions of the DEIS.

Landfills

- Program Manager, Greenhouse gas monitoring program, Town of Islip, NY. Responsibilities include scope and budget management, staffing, client and USEPA coordination, reporting review, and troubleshooting.
- Project Manager, Landfill Closure Investigations, Town of East Hampton, NY. Prepared Closure Investigation work plans, including Hydrogeologic investigations, methane investigations, surface leachate investigations, and vector investigations. Prepared final Closure Investigation Reports, approved by the NYSDEC.
- Project Manager, Landfill monitoring networks, Town of East Hampton, NY. Supervised installation of groundwater and methane monitoring wells at the landfills, including hollow-stem auger and mud-rotary well installations, split-spoon soil sampling and boring log preparation, oversight and interpretation of wireline electric logging, and completion of initial baseline monitoring events.
- Hydrogeologist, Landfill groundwater monitoring, NJ. Performed groundwater sampling at a radio tower facility constructed on a landfill. Analyzed results and made recommendations.
- Hydrogeologist, Landfill groundwater and gas monitoring, Town of East Hampton, NY. Conducted groundwater and methane monitoring at two landfills over a multi-year period.
- Program Manager, Landfill • monitoring programs, Town of East Hampton, NY. Supervises ongoing groundwater and methane monitorina programs, includina field team coordination, communications with the Town, report scheduling, data review, and report review prior to distribution to the client and NYSDEC. Negotiated successfully with NYSDEC for reduced monitoring frequencies based on historic monitoring results.
- Senior Hydrogeologist, Landfill plume modeling, Town of East Hampton, NY. Conducted groundwater flow modeling to evaluate the nature and extent of a landfill plume and its fate. Findings were presented at public meetings and were used to determine the configuration of the landfill's groundwater monitoring network.
- Hydrogeologist, Septage lagoon Superfund site, Town of East Hampton, NY. Conducted sampling of former septage lagoons at a landfill. Evaluated the resulting data and prepared a delisting petition for this NYSDEC Superfund site.
- Hydrogeologist, containment system modeling, Richmond, CA. Used the FLOW PATH modeling program to predict groundwater flow directions and

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evaluate extraction well locations and pumping rates for a groundwater containment and remediation system at a former municipal landfill.

- Program Manager, Landfill gas monitoring program, Town of Islip, NY. Manages monthly methane monitoring for all landfills, including onsite and offsite monitoring wells, methane collection systems, and flare systems. Data is recorded electronically and downloaded to computer for formatting prior to expedited delivery to Town.
- Program Manager, Landfill monitoring reporting program, Town of Smithtown, NY. Supervised and reviewed production of quarterly and annual monitoring reports for all monitoring programs at the landfills for Town compliance with NYSDEC requirements, including tabulation and reporting of groundwater and methane monitoring data, solid waste and recycling collection data, yard waste composting operations, and landfill leachate collection and disposal data.
- Program Manager, Landfill remediation, Town of Huntington, NY. An historic landfill was removed from parkland under the NYSDEC's ERP. Responsibilities included work scope development, schedule and budget management, staffing, client and regulatory agency coordination and reporting, and report review and certification.
- **Program Manager, Landfill Financial Assurance** • Reporting, Town of Smithtown, NY. Prepares annual Financial Assurance Reports pertaining to Town landfill closure requirements. Services include summarizing landfill closure and monitoring costs, calculating total costs over a 30-year period, evaluating available Town funds using Comptroller's financial reports, assessing available funds using NYSDEC-required procedures, and preparing annual reports.

Environmental Data Analysis

Ms. Davis has participated in multiple sessions of geochemistry training provided by environmental geochemists, including environmental physical chemistry, thermodynamics, ionic interactions, complexation, biologic effects, and other basic principles. Training also included field sampling procedures and effects on chemical data, chemical analytical methods and equipment, and QA/QC procedures and interpretation. Attended periodic environmental chemistry training sessions hosted by environmental laboratories and participated in handson training in data and QA/QC evaluation.

• Data Evaluation, multiple projects. Reviewed and evaluated numerous soil, groundwater, product, indoor/ambient air, and soil vapor chemical analytical datasets, including evaluation of batch and site-specific QA/QC samples, laboratory narratives, comparison to regulatory agency criteria, historic data, and background data.

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- **QAPPs, multiple projects.** Developed and implemented numerous QAPPs, including QAPP design, sample delivery group (SDG) evaluations, sampling procedures and sequences, and QA/QC sample preparation/collection.
- DUSR Preparation, multiple projects. Prepared Data Usability Summary Reports (DUSRs) for numerous chemical analytical datasets for projects overseen by USEPA, NYSDEC and other regulatory agencies, including soil, groundwater, soil vapor, indoor air, and ambient air datasets.
- DUSR Preparation for Major RCRA Closure, Great Neck, NY. Prepared DUSRs for over 90 sites during RCRA closure of a major manufacturing facility. Coordinated with sampling personnel, laboratories and regulatory agency chemists to resolve QA/QC issues. Completed work under tight schedules to meet client deadlines.
- Electronic Data Deliverables, multiple projects. Implemented protocols and procedures for all FPM sites for which NYSDEC Electronic Data Deliverables (EDDs) are required. Responsibilities included staff training, data package QA/QC, client interactions, budget and schedule impact assessments, and dissemination of EDD training information.
- Data Evaluation, multiple sites. Performed forensic assessments of historic environmental chemical analytical data to resolve apparent discrepancies with modern data and other inconsistencies.
- Leachate test assessments. Assessed leachate test protocols and results to determine the most applicable methods to evaluate and develop soil cleanup objectives for non-regulated compounds.
- Organic parameter breakdown assessments. Interpreted numerous organic parameter datasets to evaluate breakdown sequences, likely original parameters, and rates of degradation.
- Insitu remediation assessments, multiple sites. Formulated numerous chemical treatment plans for insitu remediation, including assessment of contaminant concentrations and distribution. and indicators. chemical processes natural attenuation indicators, additional stociometric demands, and hydrogeologic factors.

Community Impacts

- Community Monitoring Plans, multiple hazardous waste sites. Developed Community Air Monitoring Plans (CAMP) for investigation and remediation projects. including monitoring procedures, action levels, and mitigation measures for odors, traffic, noise, dust, and/or vapors with the potential to affect surrounding communities. Each CAMP was reviewed and approved by the NYSDEC and NYSDOH and was implemented under agency oversight. Presented CAMP findings at numerous community meetings. Addressed community and agency questions and issues
- Vector Assessments, multiple landfill sites, Long Island, NY. Evaluated and implemented abatement for vectors (rodents, flies, and seagulls) in association with landfill closures, including inspection and reporting of vector populations, development of vector abatement plans, and assisting Town personnel with vector abatement.
- Odor Abatement, NYSDEC BCP site, NYC, NY. Major real estate developer. Developed and implemented an odor abatement plan for highlyodorous soil discovered during a remedial project.

The site was surrounded by three public schools; complaints following discovery of odorous soil resulted in a job shutdown until the nuisance was abated. The odor abatement plan was prepared and implemented within 24 hours and involved immediate covering of the odorous soil followed by spot excavation and removal during non-school hours (night work) and the use of odor-controlling foam. The removal was completed within one week without further incident. The NYSDEC and NYSDOH approved the completed work, allowing the job to recommence.

- Vector Assessment, transfer station, Town of East Hampton, NY. Conducted inspections of intense fly infestations at a Town transfer station building to identify the locations and migration pathways of flies inside the building and to develop an abatement plan. This plan was successfully implemented and abated the nuisance flies.
- Soil Vapor Intrusion Assessments, multiple sites. Developed and implemented air and soil vapor investigations of residential and commercial properties, as approved by the NYSDEC/NYSDOH, to evaluate potential air quality impacts and determine if mitigation or monitoring was necessary. Monitoring/mitigation designs were developed for NYSDEC/NYSDOH approval.
- CAMP Monitoring, multiple sites. Conducted odor, dust, noise, and organic vapor monitoring in communities surrounding environmental sites. Data were collected and interpreted in accordance with NYSDEC and/or NYSDOH guidance and the

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results were submitted to these agencies together with recommendations for mitigation, if appropriate.

• Project Manager, Environmental data assessment, Windmill Village, Town of East Hampton, NY. Evaluated environmental data obtained during due diligence testing for a proposed housing development. Recommended additional sampling and confirmed the absence of impacts.

Expert Witness/Technical Services

• Expert Witness/Technical Services, residential project, Glen Harbor, NY. Private client. Provided expert witness and technical services regarding environmental conditions and remedial procedures for residential redevelopment of a former oil terminal, including preparing and obtaining NYSDEC and NCDOH approval of remedial work plans, preparing remedial cost estimates and schedules, and providing testimony at a public hearing before the Town Board from which a change of zone was requested. proposed change of zone, although subject to considerable public opposition, was approved, allowing redevelopment and associated remediation of the property to move forward.

- Expert Witness/Technical Services, petroleum spill site, Westbury, NY. Private client. Provided expert witness and technical services to a petroleum company defending NYSDEC cost recovery claims for a petroleum spill. The spill site involved two very large petroleum releases at gasoline stations adjoining the defendant's property. Services provided included evaluating tank tests, groundwater, soil and soil vapor chemical analytical data, petroleum fingerprint data, remediation activities and costs. Prepared numerous detailed timelines of activities, large displays of site information and subsurface conditions, and cost allocation calculations. Conducted a detailed subsurface investigation to evaluate stratigraphic conditions.
- Expert Technical Services, chlorinated solvent site, Far Rockaway, NY. Provided expert witness services for federal court litigation, including Expert Reports, Affidavits, depositions, and counsel support. Oversaw supporting technical services, including conducting an RI and additional investigations and developing remedial approaches and cost estimates.
- Expert Technical Services, development site, Village of Larchmont, NY. Assisted the Village in successfully opposing the construction of a very large superstore in the adjoining community, including evaluating previous environmental investigations, developing cost estimates and scopes of work for a full environmental site assessment, preparing scoping cost estimates for likely remediation scenarios, preparing technical documents in support of the Village's position, and making a presentation at a public hearing. The proposed project was subsequently withdrawn.
- Expert Hydrogeologist Services, development • site, Town of Carmel, NY. Provided technical evaluation of a proposed water district. The proposed water district would impact existing residents due to limited available water supplies and likely impact on existing wells. The work included evaluation of aquifer pumping tests, determining impacts on nearby wells, assessment of likely increased water demand, preparation of supporting documents, and presentations at project hearings. The proposed project was subsequently conditionally approved by the NYSDEC with significant modifications to protect the water rights of existing residents.

- Expert Technical Services, solvent plume site, Nassau County, NY. Private client. Provided technical support to a property owner subject to a USEPA investigation as the potential source of a large chlorinated solvent plume, including evaluation of a plume-wide RI/FS, detailed review of property historic information, multiple meetings with the USEPA, client and counsel, and identification of additional potential source areas.
- Expert Witness Affidavits, multiple projects. Prepared affidavits regarding environmental conditions at client properties in support of pending legal actions, including landfill issues, wetlands and navigatable waterway issues, and petroleum spills.
- Expert Technical Services, road construction projects, Westchester County, NY. Croton Watershed Clean Water Coalition. Provided technical services to the CWCWC to assess impacts from proposed road construction projects on the Kensico Reservoir and other New York City water supply system facilities. This work included stormwater pollutant evaluating loading calculations, assessing impacts to wetlands, promoting application of more accurate stormwater runoff calculation methods, assessing proposed stormwater management techniques, presenting at public meetings, preparing technical statements for submittal to regulatory agencies, and participating in the NYSDOT SWPPP Guidance committee

Health and Safety

- Health and safety monitoring, multiple sites. Implemented HASP monitoring at investigation and remediation sites during intrusive activities, including calibration and operation of photoionization detector (PID) and flame ionization detector (FID) for organic vapors and combustible gas indicator (CGI) for methane. Compared results to applicable action levels and implemented protective measures as necessary.
- CAMP monitoring, multiple sites. Performed community monitoring, including monitoring for noise, particulates (dust), and organic vapors. Recorded observations and compared to applicable action levels. Calibrated and operated noise meters, particulate monitors, and PID/FID.
- Radiation screening, multiple sites. Performed screening for radiation at select sites, including operating Geiger counter in different radiation modes and obtaining background readings.

Miscellaneous Projects

- **Phase I ESAs**. Performed numerous Phase I Site Assessments for residential and industrial sites in the metropolitan New York area.
- Environmental Trainer. Conducted aquifer pumping and soil vapor extraction test training. Instructed classes for site investigation methods,

aquifer pumping test analysis, and risk assessment.

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- **Project Management.** Performs a wide range of project management functions, including development and management of project budgets and schedules, coordination of field and office staffing, document preparation, review, editing, and interaction with clients, regulatory, legal, real estate, consultant, and compliance personnel.
- Field Mapping Studies. Organized, supervised, and conducted field mapping studies in Alaska.
- **Downhole Logging**. Directed petroleum well site geophysical logging operations and interpreted geophysical well logs.
- **Geophysical Data Interpretation**. Processed and interpreted seismic reflection data and constructed seismic velocity models.
- **Regulatory Evaluations.** Assisted and reviewed regulator's revision of proposed risk assessmentbased UST cleanup guidelines. Reviewed proposed USEPA NPDES permits for remediation system effluent.
- **Geologic Mapping**. Constructed and interpreted structural and stratigraphic cross sections, and structure contour, fault surface, isochore, and isopach maps.

Regulatory Compliance

- RCRA compliance audits. Conducted inspections • underground and reporting regarding and aboveground storage tanks (USTs and ASTs), hazardous waste storage facilities, waste management and reporting requirements, and hazardous waste storage area closures in compliance with RCRA.
- CERCLA Compliance. Oversees and coordinates environmental site assessments (ESAs) for compliance with CERCLA requirements for a wide variety of facilities, including operating and historic industrial sites, manufacturing plants, abandoned facilities, and multi-property Brownfield sites.
- **Superfund Sites**. Managed multiple investigation and remedial projects at state and federal Superfund sites. Is very familiar with all phases of CERCLA projects, including PA/SI, RI, FS, RD and RA. Has overseen activities at many Superfund sites from investigation through closure.
- **CWA Projects.** Conducted investigation and remediation of Class V underground injection control (UIC) systems, investigation and acquisition of UIC discharge permits, and discharges into surface water bodies.
- CAA Compliance Projects. Conducted facility investigations for emissions sources, including paint booths, fume hoods, process discharges and other point sources. Sampled and evaluated remediation system discharges for CAA

Stephanie O. Davis, P.G., C.P.G.

compliance, and recommended emissions treatment when required.

Representative DOD Projects

- Barksdale RFI, Barksdale AFB, LA, \$520K-Lead Geologist for RFI for multiple Base-wide sites at Barksdale AFB, including landfills, petroleum spills, fire training areas, sewage treatment plans, and chemical spills. Managed field crews and sampling of soil, groundwater, and waste, performed sample and waste management, and coordinated with Base representatives. Prepared RFI Report, including analytical data reports, CS, and recommendations.
- Barksdale LTM Program, Barksdale AFB, LA, \$1.7M-Lead Geologist for LTM Program for Basewide Barksdale groundwater, including landfills, petroleum spills, fire training areas, sewage treatment plants, and chemical spills. Supervised field crews, managed samples and waste, prepared LTM Reports and made recommendations for LTM optimization.
- Site Characterization, Plattsburgh AFB, NY, \$720K-Field Team Leader for SC investigation of fuel oil USTs and petroleum spills at Base housing, officers' quarters, and support building prior to transition of these areas to other uses. Working for AFCEE, developed and conducted an SC for over 200 USTs, including soil and groundwater sampling to identify petroleum contamination. Supervised

several field crews in an accelerated sampling program to complete the SC prior to winter conditions. Prepared SC Report submitted to and approved by the NYSDEC.

MGP Site Experience

- Field Sampling Services. Soil Investigation, Brooklyn Union Greenpoint MGP site. Conducted soil sampling and screening activities during tank removal activities at this former MGP facility. Tasks included visual observations, screening with a calibrated PID, soil sampling, interfacing with the client, subcontractors and NYSDEC personnel, and report preparation.
- Program Manager. Soil Vapor Intrusion Investigation and Mitigation, Brooklyn MGP site. Developed and implemented a soil vapor intrusion (SVI) investigation following the discovery of chlorinated solvents in soil vapor beneath a shopping center constructed on an MGP site. Managed all scheduling, budget and contract issues. Reviewed results and developed an SVI mitigation plan to address the chlorinated solvent vapors. Oversaw design and installation of a subslab depressurization system (SSDS) to address SVI. This work was completed on time and within budget.
- Field Team Supervisor. Soil Remediation, Brooklyn Union Coney Island MGP site. Responsible for coordinating all field activities associated with segregation and removal of leadpaint impacted soil from MGP waste at this NYSDEC-listed MGP site. Conducted preexcavation waste characterization, implemented HASP, oversaw subcontractor and FPM staff, coordinated with client and NYSDEC, managed waste manifesting, conducted community air monitoring, and prepared remediation report.

FPM group

------ Engineering and Environmental Science



Mr. Bukoski is an Environmental Scientist with diversified experience in both the Federal and private sector, including groundwater and soil investigations and evaluation, soil remediation projects, soil vapor intrusion evaluation, aquifer testing and interpretation, design and management of soil and groundwater remediation projects, groundwater flow modeling, evaluation of site compliance with environmental regulations, and environmental permitting.

Functional Role	Title	Years of Experience	
Environmental Scientist	Project Manager	25	

Personal Data

Education

B.S./1998/Environmental Science/SUNY Buffalo

Registration and Certifications

- OSHA 40-hr and current 8-hr Health and Safety Training Course (1999-present)
- OSHA-Approved 8-hr Health and Safety Training Refresher Courses (2000-Present)
- OSHA-Approved 8-hr Site Safety Supervisor Training Course (2008)

MTA NYC Transit Track Safety Certification

National Groundwater Association

Long Island Association of Professional Geologists

Advanced Technologies for Natural Attenuation Certification

Employment History

1999-present	FPM Group
1991-1998	Sutherland's Office Centre
1985-1991	United States Marine Corps

Detailed Experience

Site Investigations

- Performed Phase I Environmental Site Assessments and Phase II Investigations for numerous sites in New York State, including office buildings, aerospace facilities, former research and development facilities, and large manufacturing plants.
- Provided oversight and coordination for ongoing investigation and remedial projects at numerous New York State Inactive Hazardous Waste Disposal (Superfund) Sites, Voluntary Cleanup Program (VCP) Sites, and Brownfield Cleanup Program (BCP) Investigations Sites. included Site Characterization (SC), Remedial Investigation/ Feasibility Studies (RI/FS), and RCRA Facility Investigations. Remedial services have included contaminated soil removals: UIC closures. ORC and HRC injections; design, installation and operation of air sparge/soil vapor extraction (AS/SVE) systems; sub-slab depressurization systems (SSDS) and, capping.

- Managed site investigation activities, including soil vapor and air sampling, soil sampling and analysis, groundwater sampling and analysis, and geotechnical evaluation for numerous sites in New York State in support of negotiations for property purchases and redevelopment.
- Investigated several petroleum-contaminated spill sites at Griffiss AFB, Rome, NY. Performed soil and groundwater sampling via Geoprobe, installed groundwater wells for monitoring and assessment of attenuation. Proposed remediation technologies for soil and groundwater contamination. Analyzed chemical data and prepared Site Investigation (SI) Reports and closure reports.
- Investigated several chlorinated solventcontaminated sites at Griffiss AFB, Rome, NY. Performed aquifer testing to establish direction of groundwater flow. Collected groundwater samples and analyzed the chemical data to identify the constituents of concern. Proposed remediation technologies for groundwater contamination.
- Supervised drilling installation, development, and sampling of monitoring wells at numerous sites throughout New York State. Utilized resulting stratigraphic, hydrologic, and chemical analytical data to evaluate site conditions. Prepared investigation reports identifying site history, contaminant characteristics, sampling methods, and site-specific lithology.
- Managed landfill monitoring projects at several landfills in Suffolk County. Collected and evaluated methane and groundwater monitoring data. Prepared reports documenting monitoring results and provided recommendations regarding methane collection, stormwater runoff, capping, and other landfill management strategies.
- Performed long-term monitoring projects at several landfills at Griffiss AFB. Collected groundwater, leachate, and surface water samples. Evaluated resulting data and prepared monitoring reports for state and federal agency review.

FPM group

- Engineering and Environmental Science

Remediation

- Performed investigation and remedial activities at several NYSDEC BCP sites in New York City.
 Prepared Remedial Investigation and Remedial Work Plans; coordinated with the owner, contractors, and the NYSDEC; conducted citizen participation activities; performed waste characterization, waste profiles, and waste management; developed Site Management Plans for NYSDEC approval.
- Performed waste characterization of a 90,000-cy construction soil stockpile at a municipal sewer facility. Responsibilities included development and implementation of Sampling and Analysis Plan (SAP), evaluation of lab data, preparation of Field Sampling Summary Reports (FSSR), coordination with disposal facilities, and preparation of waste profiles.
- Developed pilot test plans, evaluated pilot test results, and prepared conceptual designs for several air sparge/soil vapor extraction (AS/SVE) systems to treat petroleum and/or chlorinated solvent VOCs. Provided construction oversight for system installation. Performed routine system operation monitoring and evaluated system performance. Prepared system installation and monitoring reports.
- Assisted in the design of a soil remediation plan and performed construction and soil remediation oversight for a metal parts plating and manufacturing facility in Suffolk County, New York. Remediated numerous leaching pools impacted with petroleum compounds and metals. Prepared a UIC Closure Report for USEPA approval.
- Assisted in the design and oversight of indoor underground storage tank abandonment program, leaching pool remediation plan, and managed contractor support for several manufacturing facilities in Suffolk County, New York.

Hydrogeologic Evaluations

- Performed well design (gravel pack size, screen size, etc.) for numerous groundwater wells and variable depths on Long Island. Experience includes sieve analyses, well construction and development methods.
- Performed aquifer pumping and slug tests and evaluated hydrologic properties using the computer program AQTESOLV for several sites in New York City and Long Island.
- Participated in multi-day, multi-well aquifer pumping test for New York City Transit (NYCT). Responsible for operating and maintaining data logging

equipment, coordinating manual water level measurements, and analyzing resulting drawdown data.

- Performed water level and water quality monitoring at several sites in Nassau and Suffolk Counties. Constructed groundwater elevation contour maps and utilized chemical analytical data to predict contaminant plume migration.
- Supervised drilling, installation and development of groundwater monitoring wells at three sites within Griffiss AFB, NY and numerous sites in New York City and Long Island. Performed aquifer testing and constructed groundwater elevation contour maps to delineate plumes and predict contaminant plume migration.

Landfills

- Managed ongoing groundwater and methane monitoring programs for Town of East Hampton landfills. Responsibilities included field team coordination, communications with the Town, report scheduling, data package review, and report preparation for distribution to the client and NYSDEC.
- conducted quarterly methane Managed and monitoring at Springs-Fireplace Road and Montauk Landfills for the Town of East Hampton. Tabulated resulting data, evaluated historic methane monitoring results, and recommended appropriate actions including methane monitoring well installations and a methane extraction system. Performed off-site methane monitoring on private property confirm methane containment. Prepared quarterly monitoring reports for submittal to the Town and NYSDEC.
- Performed monthly methane monitoring and prepared monitoring reports for all Town of Islip Landfills. Monitoring program included onsite and offsite methane wells, methane collection systems, and flare systems. Data was recorded electronically and downloaded to computer for formatting prior to delivery to Town. Prepared monthly monitoring reports for submittal to the Town and NYSDEC.
- Produced quarterly and annual monitoring reports for all monitoring programs at Town of Smithtown landfill. Project included tabulation and reporting of groundwater and methane monitoring data, solid waste and recycling collection data, yard waste composting operations, and landfill leachate collection and disposal data.

FPM group

- Engineering and Environmental Science

Water Quality Monitoring

- Conducted groundwater monitoring for the Town of Riverhead, including sampling a multi-depth monitoring well network, analysis and interpretation of analytical and hydrogeologic data, and monitoring reporting in accordance with NYSDEC requirements. Responsibilities including sampling, communications with the Town, laboratory data package review, and report preparation for distribution to the client and NYSDEC.
- Conducted investigation and remedial projects at several New York State BCP Sites. Tasks included contaminated soil removal, groundwater remediation and long-term monitoring, groundwater plume evaluation, and preparation and submittal of annual reports to the NYSDEC.
- · Coordinated and performed onsite and offsite groundwater monitoring at various petroleum release sites on Long Island, the New York metropolitan area and in Westchester County in accordance with NYSDEC requirements. Utilized resulting stratigraphic, hydrologic, and chemical analytical data to evaluate site conditions. Prepared work plans identifying site history, contaminant characteristics, sampling methods, and site-specific lithology. Monitoring programs generally included installation and sampling of a multi-depth monitoring well network utilizing standard or low flow sampling techniques, analysis and interpretation of analytical and hydrogeologic data, and reporting.
- Performed water level and water quality monitoring at an industrial site in Mattituck, NY. Constructed groundwater elevation contour maps and utilized chemical analytical data to predict contaminant plume migration. Prepared reports, coordinated with the property owner and NYSDEC, and developed a closure plan.
- Conducted numerous investigations and remediation of contaminated cesspool and stormwater drain pool systems in Nassau and Suffolk County. Fully conversant with County regulations for investigation and cleanup of leaching pool systems, including Action Levels and Cleanup Standards, groundwater monitoring criteria, and remedial requirements.

Griffiss Air Force Base

• Conducted several Site Investigations for AFCEE. Performed soil and groundwater sampling, aquifer testing, and recommended cleanup procedures necessary for the closure and conversion of the Base. Responsible for compliance with all applicable laws including CERCLA, SARA, RCRA, and NCP.

Roslyn Air National Guard Station

 Conducted several Site Investigations for Roslyn ANGS. Performed soil and groundwater sampling, aquifer testing, and mold evaluations. Prepared reports documenting recommended cleanup procedures necessary for the closure and conversion of the Base. Responsible for compliance with all applicable laws including CERCLA, SARA, RCRA, and NCP.

Health and Safety

- Performed health and safety monitoring at investigation and remediation sites during intrusive activities. Monitoring included calibration and operation of photoionization detectors (PIDs), flameionization detectors (FIDs), dust monitors, and combustible gas indicators (CGI). Compared results to applicable action levels and undertook preventative/protective measures as necessary.
- Performed community monitoring, including monitoring for noise, particulates (dust), and organic vapors at several sites throughout New York State. Recorded observations and compared to applicable action levels. Implemented calibration and operation programs and training for noise meters, particulate monitors, PIDs, and FIDs.
- Performed screening for radiation at several sites. Operated Geiger counters in different radiation modes and compared data to background readings.

Miscellaneous Projects

- Performed unexploded ordnance evaluations and mapping for the United States Marine Corps at several munitions ranges in 29 Palms, California, and Camp Lejeune, North Carolina.
- Conducted land survey and mapping for the United States Marine Corps at several artillery ranges in 29 Palms, California and Camp LeJeune, North Carolina.

APPENDIX C

SITE SURVEY





- DEGREES 31 MINUTES 00 SECONDS WEST A DISTANCE OF 430.72

- THE FOLLOWING COURSES FROM THE POINT OF BEGINNING OF ABOVE
- BEGINNING AT A POINT IN BLOCK 1, LOT 5 SAID POINT BEING DISTANT

- SCHEDULE A: A. ALONG THE NORTHERLY LINE OF MELVILLE PARK ROAD SOUTH 83

- "SOIL MANAGEMENT AREA 1"



CONC. MONUMENT

(POSSIBLE GORE AREA)

FOUND

1.0'W



N76•40'26"E

– GRASS –



CONC. CURB

GRASS

(MH)

INLE7

ARFA

PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

ROAD AND THE WESTERLY SIDE OF MAXESS ROAD;

OF BEGINNING.

NORTHERLY SIDE OF MELVILLE PARK ROAD, 478.52 FEET;

THENCE NORTH 6 DEGREES 29 MINUTES WEST, 517.57 FEET;

ROAD DISTANT 519.73 FEET WESTERLY MEASURED ALONG THE NORTHERLY SIDE OF MELVILLE PARK ROAD FROM THE WESTERLY END

AND BEING AT MELVILLE, TOWN OF HUNTINGTON, COUNTY OF SUFFOLK

OF THE CURVE CONNECTING THE NORTHERLY SIDE OF MELVILLE PARK

RUNNING THENCE SOUTH 83 DEGREES 31 MINUTES WEST ALONG THE

THENCE NORTH 76 DEGREES 40 MINUTES 26 SECONDS EAST, 481.95

THENCE SOUTH 6 DEGREES 29 MINUTES EAST 575.00 FEET TO THE NORTHERLY SIDE OF MELVILLE PARK ROAD AND THE POINT OR PLACE



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APPENDIX D

EC/IC CERTIFICATION





Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Sit	e No.	Site Details	Box 1						
Sit	Site Name I.W. Industries, Inc.								
Sit Cit Co Sit	Site Address: 35 Melville Park Road Zip Code: 11747 City/Town: Melville County: Suffolk Site Acreage: 6.0								
Re	porting P	Period: January 31, 2013 to January 31, 2016							
			YES	NO					
1.	Is the in	nformation above correct?							
	lf NO, ir	nclude handwritten above or on a separate sheet.							
2.	Has sor tax map	me or all of the site property been sold, subdivided, merged, or undergone a amendment during this Reporting Period?		E/					
3.	Has the (see 6N	ere been any change of use at the site during this Reporting Period IYCRR 375-1.11(d))?		D					
4.	Have ar for or at		R						
	lf you a that doo	nswered YES to questions 2 thru 4, include documentation or evidence cumentation has been previously submitted with this certification form.							
5.	Is the si	ite currently undergoing development?							
			Box 2						
			YES	NO					
6.	ls the cu Comme	urrent site use consistent with the use(s) listed below? ercial and Industrial	¥						
7.	Are all I	Cs/ECs in place and functioning as designed?	þ						
	IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.								
AC	orrective	e Measures Work Plan must be submitted along with this form to address these	issues.						
Sigr	nature of (Owner, Remedial Party or Designated Representative Date							

SITE NO. 1521	02	Box 3					
Descri	ption of Institutional Controls						
<u>Parcel</u> 268-1-005	<u>Owner</u> Kailyn Realty I, LLC	Institutional Control Landuse Restriction Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan					
March 30, 2000 F - Site may be us - Use of groundy - All future activi by the DEC. - Vegetable gard - Free-phase pro - Certifications of	 March 30, 2000 Record of Decision: Site may be used for commercial or industrial use only. Use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use. All future activities on the Site that will disturb the ECs are prohibited unless conducted in a manner approved by the DEC. Vegetable gardens and farming on the Site are prohibited. Free-phase product monitoring shall occur and measureable product shall be removed. Certifications of Institutional and Engineering Controls shall be performed. 						
Descri	ption of Engineering Controls	Box 4					
Parcel 268-1-005	<u>Engineerin</u> Cover Syst	<u>g Control</u> em					
March 30, 2000 Record of Decision: Institutional Controls consisting of a deed notice and a deed restriction to prevent exposures to any residual contamination remaining after implementation of the remedy.							

	Box 5
	Periodic Review Report (PRR) Certification Statements
1.	I certify by checking "YES" below that:
2	a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
	b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.
	YES NO
2.	If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:
	 (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
	(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
	(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
	(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.
	YES NO
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.
,	A Corrective Measures Work Plan must be submitted along with this form to address these issues.
3	Signature of Owner, Remedial Party or Designated Representative Date

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IC CERTIFICATIONS SITE NO. 152102	
	Box 6
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE I certify that all information and statements in Boxes 1,2, and 3 are true. I understand statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section Penal Law.	d that a false on 210.45 of the
I Jone O Councer at 35 Melville Rd. Melville, print name print business address	NY 11747
am certifying as Owner (Owner	or Remedial Party)
for the Site named in the Site Details Section of this form.	4/16
Rendering Certification	

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

1 Stephenie O. Davis CP6 at FPM Group, 909 Marconi Ave, Ronkon home, My print name print business address 11779 I,40 am certifying as a Qualified Environmental Professional for the <u>Owner</u>, <u>Keilyn Keelf</u> (Owner or Remedial Party) 11-28-16 Signature of Qualified Environmental Professional, for Stamp Date the Owner or Remedial Party, Rendering Certification (Required for PE)

APPENDIX E

PRODUCT MONITORING LOG



PRODUCT REMOVAL MONITORING LOG I.W. INDUSTRIES, INC. SITE 35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
	MW-7	NA	46.00	0	No sheen noted.
8/22/11	MW-2	NA	46.31	0	No sheen noted.
	MW-1	NA	46.83	0	No sheen noted.
	MW-7	NA	46.19	0	No sheen noted.
9/7/11	MW-2	NA	46.51	0	No sheen noted.
	MW-1	NA	47.01	0	No sheen noted.
	MW-7	NA	46.17	0	No sheen noted.
10/5/11	MW-2	NA	46.50	0	No sheen noted.
	MW-1	NA	47.00	0	No sheen noted.
	MW-7	NA	46.44	0	No sheen.
12/13/11	MW-2	NA	46.79	0	No sheen.
	MW-1	NA	47.27	0	No sheen.
	MW-7	NA	46.60	0	No visible sheen.
1/24/12	MW-2	NA	46.67	0	No visible sheen.
	MW-1	NA	47.46	0	No visible sheen.
	MW-7	NA	46.58	0	No visible sheen.
2/16/12	MW-2	NA	46.63	0	No visible sheen.
	MW-1	NA	47.18	0	No visible sheen.
	MW-7	NA	46.79	0	No visible sheen.
3/9/12	MW-2	NA	46.85	0	No visible sheen.
	MW-1	NA	47.31	0	No visible sheen.
	MW-7	NA	46.96	0	No visible sheen.
5/18/12	MW-2	NA	47.00	0	No visible sheen.
	MW-1	NA	47.59	0	No visible sheen.

PRODUCT REMOVAL MONITORING LOG I.W. INDUSTRIES, INC. SITE 35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
	MW-7	NA	47.09	0	No sheen or odor noted.
6/6/12	MW-2	NA	47.13	0	No sheen or odor noted.
	MW-1	NA	47.65	0	No sheen or odor noted.
	MW-7	NA	47.20	0	No visible sheen.
7/20/12	MW-2	NA	47.26	0	No visible sheen.
	MW-1	NA	47.76	0	No visible sheen.
	MW-7	NA	47.45	0	No visible sheen.
12/26/12	MW-2	NA	47.50	0	No visible sheen.
	MW-1	NA	47.95	0	No visible sheen.
	MW-7	NA	47.62	0	No sheen observed.
1/31/13	MW-2	NA	47.68	0	No sheen observed.
	MW-1	NA	48.18	0	No sheen observed.
	MW-7	NA	52.26	0	No sheen or odor observed.
11/7/16	MW-2	NA	52.27	0	No sheen or odor observed.
	MW-1	NA	52.84	0	No sheen or odor observed.

APPENDIX F

SITE INSPECTION FORMS



Site-Wide Inspection List I.W. Industries Site 35 Melville Park Road, Melville, New York

Date of Inspection: Tone 19, 2015

Site-wide inspections will be performed once per five quarters, at a minimum. A sitewide inspection shall also be performed after severe events that may affect the Engineering Controls (ECs) or monitoring wells.

The following inspection form shall be completed during each site-wide inspection. Supporting documentation shall be attached, as necessary. The completed site-wide inspection checklist and supporting documentation shall be included in the associated Periodic Site Management Report.

Compliance with Institutional Controls

Institutional Controls (ICs) are required at this Site to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to residual contamination by controlling disturbances of the subsurface residual materials; and, (3) restrict the use of the Site to commercial uses only. Adherence to these ICs on the Site (Controlled Property) is required under the Environmental Easement. These ICs are described in Section 2.3 of the Site Management Plan (SMP). Please complete the following checklist to confirm compliance with the Site ICs:

- The Controlled Property may be used for commercial or industrial use. Confirm whether commercial or industrial use is occurring: <u>Communestee</u>
- The Controlled Property may not be used for non-commercial (residential) use. Confirm that inappropriate use is not occurring: <u>No residential use</u>

FPM

- All Engineering Controls (seals over abandoned leaching pools LP-1 through LP-3, and free-phase product removal system) must be operated and maintained as specified in the Site Management Plan for the Controlled Property until approval to discontinue is obtained from the NYSDEC. Confirm operation and maintenance of ECs:
- Periodic inspections and certifications must be conducted in accordance with the SMP (Section 3.7). Confirm compliance with periodic inspections and certifications: [hspection/cert performed for LP seals
- Groundwater and other environmental or public health monitoring, and reporting of information thus obtained, must be performed in a manner specified in the SMP (Section 3.7). Confirm that the required monitoring and reporting are in accordance with the SMP: Not Confirmed no monitoring for product
- Onsite environmental monitoring devices (groundwater monitoring and product recovery wells), will be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP until permission to discontinue is obtained from the NYSDEC. Confirm that monitoring devices have been protected and/or replaced if necessary: <u>Not Confirmed monitorn wells not</u>.
- Vegetable gardens are prohibited. Confirm the absence of vegetable gardens: ______
 Confirmed



- All soil disturbance activities that will impact residual contamination as defined in the SMP, including building renovation/expansion, subgrade utility line repair/relocation, and new construction, must be conducted in accordance with the NYSDEC-approved SMP. Confirm that these activities are in compliance with the SMP: <u>Confirmed No Soil disturbance noted</u>
- Use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for the intended purpose. Confirm that groundwater use has not occurred or that appropriate treatment is in place: <u>No usage of groundwater</u> noted.
- The Controlled Property may not be used for a higher level of use, such as unrestricted use, and the above-stated ECs may not be discontinued without proper notification of the NYSDEC of the change and approval of that use by the NYSDEC, and an amendment of the SMP approved by the NYSDEC. Confirm continued compliance with the Environmental Easement: $\underline{ConFinition}$
- Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 to Article 71 of the Environmental Conservation Law.

- Confirm that property deed and all subsequent instruments of conveyance are in compliance:
- Grantor covenants and agrees that the Environmental Easement shall be incorporated in full or by reference in any leases, license, or other instruments granting a right to use the Controlled Property. Confirm that leases, licenses or other right-to-use documents incorporate or reference the Environmental Easement:
- Grantor covenants and agrees that it shall periodically in accordance with site management reporting requirements, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and SMP for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls. Confirm the submittal of the Periodic Certification Statement: lo belacted in PKR



Compliance with Engineering Controls

Engineering Controls (ECs) at this Site include the abandonment of leaching pools LP-1 through LP-3 and free-phase product recovery. Each of these ECs is addressed below:

LP-1 through LP-03 Compliance Inspection

Leaching pools LP-1 through LP-3 were abandoned and the former locations of these structures were sealed by placement of a one-foot concrete seal above the backfill. The areas above the seals were backfilled with approved materials and repaved. A site plan showing the former LP-1 through LP-3 locations is included at the end of this checklist.

Activities that have the potential to disrupt the LP-1 through LP-3 seals must be reported in advance to the property owner and Respondent such that they can be monitored and documented by the Remedial Engineer and any necessary repairs made. Examples of activities that may disturb the LP-1 through LP-3 seals include:

- Cutting or removal of pavement in these areas to the depth of the seals (four to five feet below grade)
- Breakup or significant deterioration of pavement in these areas
- Construction within the backfill material above the seals
- Planting or removal of vegetation (trees/shrubs) through the seals
- Excavations for subsurface utilities or other purposes
- Any activities that may disturb the ground in the area of the former LP-1 through LP-3 structures

The areas above the LP-1 through LP-3 seals must be inspected at least once during each five-quarter reporting period. More frequent inspections may be conducted during construction activities with the potential to affect these areas. An inspection shall also be conducted following a severe condition (flood, fire, etc.) with the potential to affect the LP-1 through LP-3 seals. The following checklist shall be used during each inspection.

FPM
A visual inspection of the areas above the seals over the former locations of LP-1, LP-2 and LP-3 at the Site must be conducted, to include the visible overlying materials (pavement). Representative digital photographs must be taken showing the nature and condition of these areas. The following questions must be answered. Please attach supporting information as necessary.

- If pavement is present over the former LP-1 through LP-3 locations, note and describe its appearance and continuity: <u>Pavement continuous and in excellent</u> <u>Condition</u> over LPs
- The seals above LP-1 through LP-3 are covered by backfill and pavement. Is any of the backfill material visible? Are the seals visible? <u>Nr backfill/seals visible</u>; <u>Covered by asphalt</u>
- Asphalt and/or concrete pavement cover the seals over the former locations of LP-1, LP-2 and LP-3. Are these materials continuous or are there significant penetrations? Describe:
 <u>Pavement continuous</u>; no significant cracks
- The seals above LP-1 through LP-3 consist of at least one foot of concrete above each former structure. Is any of this concrete visible? If so, describe the condition:
- If the concrete seals are visible, then corrective measures are indicated. Describe the nature and timing of the necessary corrective measures. <u>NA</u>
- Provide any other pertinent information regarding the condition of the LP-1 through LP-3 seals here:

Free-Phase Product Removal System Compliance Inspection

This property is equipped with a free-phase product monitoring and removal system, including monitoring wells MW-1, MW-2 and MW-7 and associated free-phase product removal materials, when necessary. Free-phase product monitoring and removal procedures are documented in Section 2.2.1.2 and 3.2.2 of the Site Management Plan (SMP). A site plan showing wells MW-1, MW-2 and MW-7 is included at the end of this checklist.

Activities that have the potential to disrupt the free-phase product monitoring and recovery must be reported in advance to the property owner and Respondent such that they can be monitored and documented by the Remedial Engineer and any necessary repairs made. Examples of activities that may disturb the monitoring and recovery system include:

- Cutting or removal of pavement in the well areas
- Breakup or significant deterioration of pavement in the well areas
- Paving in the well areas
- Planting or removal of vegetation (lawn/trees/shrubs) in the well areas
- Excavations for subsurface utilities or other purposes
- Any activities that may disturb the ground in the well areas

Free-phase product monitoring and removal will be conducted on a monthly basis until the criteria for completion/termination are met and permission to discontinue monitoring/removal is provided in writing by the NYSDEC (Section 2.2.1.2 of SMP). During the monthly monitoring events, the Monthly Free-Phase Product Monitoring Log (attached) will be updated. A complete inspection of the product monitoring and recovery system must be performed at least once during each five-quarter reporting period. More frequent inspections may be conducted during construction activities with the potential to affect this system. A complete inspection shall also be conducted following a severe condition (flood, fire, etc.) with the potential to affect the product monitoring/recovery system. The following checklist shall be used during each complete inspection. Supplemental information should be attached to the checklist, if needed. Copies of completed checklists, the product monitoring log, and any supplemental information will be included in the Periodic Site Management Report.



A visual inspection of the product monitoring/recovery wells (MW-1, MW-2 and MW-7) must be conducted. Representative digital photographs must be taken showing the condition of the wells and their immediately vicinity. The following questions must be answered. Please attach supporting information as necessary.

• Describe the condition of each well and its vicinity:

Each well and surrounding area in good condition based on visual observations. No photos taken

- Each well is protected with a bolt-down flush-mounted manhole and a locked expansion-fit plug. Are these protective devices in place and properly operating? <u>Yes</u>. If not, explain the corrective measures to be taken. <u>Plug 3 not</u> checked
- Product removal materials should be installed in the wells with noted free-phase product. Is product present in any of the wells? _____. If so, are the product removal materials properly installed and serviced? _____. Product not previous k
 <u>observed</u> (2013) no product femoval materials materials motalled.
- Comment on the condition of any installed product removal materials:
- Are there any indications of potential damage to the wells from ongoing facility operations or maintenance? <u>No</u>. If yes, then describe the potential for damage and corrective measures to be implemented:

• Is the Monthly Free-Phase Product Monitoring Log up to date? <u>No</u>. Provide any comments concerning product monitoring/recovery during the inspection period: _____

Product monitoring not conducted - no contract.

Using the above-described completed checklists, provide a written evaluation of the condition and continued effectiveness of the ECs:



General Site Conditions

Provide a written description of the Site conditions at the time of the site-wide inspection. Attach digital photographs or other supporting information as needed:

Site in good to excellent condition: no changes to property observed.

Site Management Activities

Provide a discussion and assessment of ongoing site management activities including, but not limited to, residual contamination management, groundwater monitoring, product monitoring/recovery community air monitoring, nuisance control, well replacement/repair, health and safety monitoring, and other applicable and pertinent activities. Attach supporting documentation as necessary: ______NA





Compliance with Permits and Schedules

The Operation and Maintenance Plan included in Section 4 of the Site Management Plan does not include any permit requirements but does include a schedule for groundwater monitoring well maintenance. Discuss compliance with the groundwater monitoring well maintenance schedule: No memfeyance performed - no confrect.

Site Records

The Site records may include, but are not limited to, groundwater monitoring reports, the site-wide inspection checklist product monitoring log, soil management documents, community air monitoring documents, non-routine notifications to the NYSDEC, regulatory agency correspondence, reports, and the Periodic Site Management Report. Confirm that each type of Site record is up to date and provide comments: <u>- Checklist completed</u>



Inspector Information

Name and Affiliation of Inspector	John	Bukosk. F	Pm Co.	rsultant	
Date of Inspection: $6/(9/)$	5				
Reason for Inspection: EC/1C	inspech	on - no	contract	for mo	ntoring
List additional inspections or activ	vities conduc	ted in associatio	on with this ir	spection:	
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Site-Wide Inspection List I.W. Industries Site 35 Melville Park Road, Melville, New York

Date of Inspection: Nov 7, 2016

Site-wide inspections will be performed once per five quarters, at a minimum. A sitewide inspection shall also be performed after severe events that may affect the Engineering Controls (ECs) or monitoring wells.

The following inspection form shall be completed during each site-wide inspection. Supporting documentation shall be attached, as necessary. The completed site-wide inspection checklist and supporting documentation shall be included in the associated Periodic Site Management Report.

Compliance with Institutional Controls

Institutional Controls (ICs) are required at this Site to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to residual contamination by controlling disturbances of the subsurface residual materials; and, (3) restrict the use of the Site to commercial uses only. Adherence to these ICs on the Site (Controlled Property) is required under the Environmental Easement. These ICs are described in Section 2.3 of the Site Management Plan (SMP). Please complete the following checklist to confirm compliance with the Site ICs:

- The Controlled Property may be used for commercial or industrial use. Confirm whether commercial or industrial use is occurring:
- The Controlled Property may not be used for non-commercial (residential) use. Confirm that inappropriate use is not occurring: <u>No ces. use occurring</u>.

- All Engineering Controls (seals over abandoned leaching pools LP-1 through LP-3, and free-phase product removal system) must be operated and maintained as specified in the Site Management Plan for the Controlled Property until approval to discontinue is obtained from the NYSDEC. Confirm operation and maintenance of ECs: <u>Confirmed - LP EC is property operated</u> <u>T Maintained</u>.
- Periodic inspections and certifications must be conducted in accordance with the SMP (Section 3.7). Confirm compliance with periodic inspections and certifications:
 <u>Confirmed This moperations and certification</u>
 <u>Confirmed This moperations and certification</u>
 <u>Confirmed This moperations and certification</u>
- Groundwater and other environmental or public health monitoring, and reporting of information thus obtained, must be performed in a manner specified in the SMP (Section 3.7). Confirm that the required monitoring and reporting are in accordance with the SMP: tinned 52 .7 on monitoring red 10 . : < monton UYMI Rection plich ce 15 0 wit 8 0

Onsite environmental monitoring devices (groundwater monitoring and product recovery wells), will be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP until permission to discontinue is obtained from the NYSDEC. Confirm that monitoring devices have been protected and/or replaced if necessary: <u>Centismed monitor</u> wells

Vegetable gardens are prohibited. Confirm the absence of vegetable gardens: <u>Confirmed</u> - no vegetable gardens are present.

- All soil disturbance activities that will impact residual contamination as defined in the SMP, including building renovation/expansion, subgrade utility line repair/relocation, and new construction, must be conducted in accordance with the NYSDEC-approved SMP. Confirm that these activities are in compliance with the SMP: <u>Confirmed - up Soil distry bance</u> <u>Way evident or reported</u>.
- Use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for the intended purpose. Confirm that groundwater use has not occurred or that appropriate treatment is in place:

No usage of groundwater is occurry.

- The Controlled Property may not be used for a higher level of use, such as unrestricted use, and the above-stated ECs may not be discontinued without proper notification of the NYSDEC of the change and approval of that use by the NYSDEC, and an amendment of the SMP approved by the NYSDEC. Confirm continued compliance with the Environmental Easement: Confirmed Use is made the Easement.
- Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 to Article 71 of the Environmental Conservation Law. • Confirm that property deed and all subsequent instruments of conveyance are in compliance:

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- Grantor covenants and agrees that the Environmental Easement shall be incorporated in full or by reference in any leases, license, or other instruments granting a right to use the Controlled Property. Confirm that leases, licenses or other right-to-use documents incorporate or reference the Environmental Easement: <u>The Easement</u> <u>B</u> seferenced <u>M</u> <u>He leases</u>
- Grantor covenants and agrees that it shall periodically in accordance with site management reporting requirements, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and SMP for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls. Confirm the submittal of the Periodic Certification Statement: lincledic PRR

Compliance with Engineering Controls

Engineering Controls (ECs) at this Site include the abandonment of leaching pools LP-1 through LP-3 and free-phase product recovery. Each of these ECs is addressed below:

LP-1 through LP-03 Compliance Inspection

Leaching pools LP-1 through LP-3 were abandoned and the former locations of these structures were sealed by placement of a one-foot concrete seal above the backfill. The areas above the seals were backfilled with approved materials and repaved. A site plan showing the former LP-1 through LP-3 locations is included at the end of this checklist.

Activities that have the potential to disrupt the LP-1 through LP-3 seals must be reported in advance to the property owner and Respondent such that they can be monitored and documented by the Remedial Engineer and any necessary repairs made. Examples of activities that may disturb the LP-1 through LP-3 seals include:

- Cutting or removal of pavement in these areas to the depth of the seals (four to five feet below grade)
- Breakup or significant deterioration of pavement in these areas
- Construction within the backfill material above the seals
- Planting or removal of vegetation (trees/shrubs) through the seals
- Excavations for subsurface utilities or other purposes
- Any activities that may disturb the ground in the area of the former LP-1 through LP-3 structures

The areas above the LP-1 through LP-3 seals must be inspected at least once during each five-quarter reporting period. More frequent inspections may be conducted during construction activities with the potential to affect these areas. An inspection shall also be conducted following a severe condition (flood, fire, etc.) with the potential to affect the LP-1 through LP-3 seals. The following checklist shall be used during each inspection.

A visual inspection of the areas above the seals over the former locations of LP-1, LP-2 and LP-3 at the Site must be conducted, to include the visible overlying materials (pavement). Representative digital photographs must be taken showing the nature and condition of these areas. The following questions must be answered. Please attach supporting information as necessary.

- If pavement is present over the former LP-1 through LP-3 locations, note and describe its appearance and continuity: <u>Pasement Cantinuous and in</u> <u>great condition</u>
- The seals above LP-1 through LP-3 are covered by backfill and pavement. Is any of the backfill material visible? Are the seals visible?
- Asphalt and/or concrete pavement cover the seals over the former locations of LP-1, LP-2 and LP-3. Are these materials continuous or are there significant penetrations? Describe: <u>Continuous pavement in good condition</u>
- The seals above LP-1 through LP-3 consist of at least one foot of concrete above each former structure. Is any of this concrete visible? If so, describe the condition:
- If the concrete seals are visible, then corrective measures are indicated. Describe the nature and timing of the necessary corrective measures.
- Provide any other pertinent information regarding the condition of the LP-1 through LP-3 seals here:

Free-Phase Product Removal System Compliance Inspection

This property is equipped with a free-phase product monitoring and removal system, including monitoring wells MW-1, MW-2 and MW-7 and associated free-phase product removal materials, when necessary. Free-phase product monitoring and removal procedures are documented in Section 2.2.1.2 and 3.2.2 of the Site Management Plan (SMP). A site plan showing wells MW-1, MW-2 and MW-7 is included at the end of this checklist.

Activities that have the potential to disrupt the free-phase product monitoring and recovery must be reported in advance to the property owner and Respondent such that they can be monitored and documented by the Remedial Engineer and any necessary repairs made. Examples of activities that may disturb the monitoring and recovery system include:

- Cutting or removal of pavement in the well areas
- Breakup or significant deterioration of pavement in the well areas
- Paving in the well areas
- Planting or removal of vegetation (lawn/trees/shrubs) in the well areas
- Excavations for subsurface utilities or other purposes
- Any activities that may disturb the ground in the well areas

Free-phase product monitoring and removal will be conducted on a monthly basis until the criteria for completion/termination are met and permission to discontinue monitoring/removal is provided in writing by the NYSDEC (Section 2.2.1.2 of SMP). During the monthly monitoring events, the Monthly Free-Phase Product Monitoring Log (attached) will be updated. A complete inspection of the product monitoring and recovery system must be performed at least once during each five-quarter reporting period. More frequent inspections may be conducted during construction activities with the potential to affect this system. A complete inspection shall also be conducted following a severe condition (flood, fire, etc.) with the potential to affect the product monitoring/recovery system. The following checklist shall be used during each complete inspection. Supplemental information should be attached to the checklist, if needed. Copies of completed checklists, the product monitoring log, and any supplemental information will be included in the Periodic Site Management Report.

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A visual inspection of the product monitoring/recovery wells (MW-1, MW-2 and MW-7) must be conducted. Representative digital photographs must be taken showing the condition of the wells and their immediately vicinity. The following questions must be answered. Please attach supporting information as necessary.

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Describe the condition of each well and its vicinity: ______ Each well and surrounding area in good ______ Condition.

- Each well is protected with a bolt-down flush-mounted manhole and a locked expansion-fit . plug. Are these protective devices in place and properly operating? the corrective measures to be taken. ____
- Product removal materials should be installed in the wells with noted free-phase product. Is . product present in any of the wells? Na. If so, are the product removal materials properly installed and serviced? _______
- Comment on the condition of any installed product removal materials: NA-.
- Are there any indications of potential damage to the wells from ongoing facility operations • or maintenance? No. If yes, then describe the potential for damage and corrective measures to be implemented:

• Is the Monthly Free-Phase Product Monitoring Log up to date? Updated 11/7/16 comments concerning product monitoring/recovery during the inspection period:

No indications product N An NO 11-7 m Provide any other pertinent information regarding the condition of the product • monitoring/removal system here: Using the above-described completed checklists, provide a written evaluation of the condition and continued effectiveness of the ECs: The ECs me pondition and continue food lectin

General Site Conditions

Provide a written description of the Site conditions at the time of the site-wide inspection. Attach digital photographs or other supporting information as needed:

Site Management Activities

Provide a discussion and assessment of ongoing site management activities including, but not limited to, residual contamination management, groundwater monitoring, product monitoring/recovery community air monitoring, nuisance control, well replacement/repair, health and safety monitoring, and other applicable and pertinent activities. Attach supporting documentation as necessary: <u>No second value control monitoring monitoring</u> management needed. Groundwater monitoring woo d. 3 continues to Show no product <u>monitoring</u> comunity air monitory wissence <u>control</u> well replacement/second monitoring monitoring not headed.

Compliance with Permits and Schedules

The Operation and Maintenance Plan included in Section 4 of the Site Management Plan does not include any permit requirements but does include a schedule for groundwater monitoring well maintenance. Discuss compliance with the groundwater monitoring well maintenance schedule: <u>Groundwater monitoring is</u> <u>No longer cequited Monitor</u> well <u>Monetaria well</u> <u>Monetaria well</u> <u>Monetaria well</u> <u>Monetaria well</u>

Site Records

The Site records may include, but are not limited to, groundwater monitoring reports, the site-wide inspection checklist product monitoring log, soil management documents, community air monitoring documents, non-routine notifications to the NYSDEC, regulatory agency correspondence, reports, and the Periodic Site Management Report. Confirm that each type of Site record is up to date and provide comments: <u>Most Site ye hads</u> <u>are no longer needed (Gw montor) and on not</u> <u>applicable duving the reporting period (Soil)</u> <u>management, (AMP). NfSTEC covverspondence</u> <u>recorded of the magential of montor</u> <u>period but not deemed to be</u> <u>applicant</u>.

Inspector Information

Name and Affiliation of Inspector: John Bukoski FPM consultan	t
Date of Inspection: $11/7/16$	
Reason for Inspection: EC/IC Cert.	
List additional inspections or activities conducted in association with this inspection:	

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