



ecology and environment engineering, p.c.

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August 10, 2016

Mr. William Welling, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233 - 7013

Re: Mr. C's Dry Cleaners Site, Contract # D007617, Site # 915157
July 2016 Operations, Maintenance, and Monitoring Report

Dear Mr. Welling:

Ecology and Environment Engineering, P.C. (EEEP) is pleased to provide the July 2016 Operations, Maintenance, and Monitoring (OM&M) Report for the Mr. C's Dry Cleaners Site, NYSDEC Site # 915157, located in the Village of East Aurora, New York. A summary of field activities prepared by EEEPC's subcontractor, Iyer Environmental Group, PLLC (IEG), is provided in Attachment A. The site utility information is provided in Attachment B.

Per your request, the Mr. C's treatment system has been shutdown since February 4, 2016 and will continue to be offline until the Remedial Site Optimization (RSO) report is reviewed by the NYSDEC for determination of the future treatment requirements for the site.

No influent/effluent samples were performed during this time as a result of the treatment system shutdown. Monthly water depth measurements are taken at the site's groundwater monitoring wells, piezometers, and pumping wells during this shutdown period by IEG. Groundwater sampling was performed by EEEPC from April 25-May 2, 2016 to evaluate the potential for rebound of the volatile organic compounds around the Mr. C's site. The Groundwater Report was issued on June 16, 2016.

In review of the on-site treatment system operations, monitoring and maintenance for July 2016, EEEPC offers the following comments and highlights:

Operational Summary

Mr. C's Site – Remedial Operations and Maintenance Information

- The July 2016 summary of field activities performed between 6/27/2016 and 7/31/2016 from IEG are provided as Attachment A.

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- The soil vapor extraction systems, underground enclosures, monitoring wells, and piezometers were inspected as needed.
- The damaged bolt to piezometer PZ-7D was replaced on 07/07/2016.
- A leaking hose in the treatment building was replaced on 07/22/2016.

Subslab Depressurization Systems (SSDS)

- Property owner at 27 Whaley Ave. (David Dubois) has not returned EEEPC's calls for inspection of the SSDS unit. EEEPC will continue to contact to obtain access for inspection.
- Problems were encountered with moisture and freeze up in the fan system at the 586 Main Street "County Cupboard" SSDS unit. The SSDS is under review by GES and EEEPC.
- SSDS installation design at 31 Paine Street is currently in process.
- Discussion of new SSDS unit installation at 23 Paine Street is in progress. EEEPC needs to re-issue letter of determination of SSDS from NYSDOH to the new property owner. The new property owner of 23 Paine Street house as of November 2015 is David Dubois.

Status of Bioremediation Direct Push Injection Work

- Additional review of the recommendations in the summary report to be evaluated with the Remedial Site Optimization (RSO) program.
- The draft RSO was issued to NYSDEC on December 8, 2015.

Soil Vapor Intrusion Investigation Program (2015-2016)

- Discuss new property locations with NYSDEC / NYSDOH for SVII work in 2016.

Site Management Plan

- EEEPC submitted the updated/revised SMP to NYSDEC and NYSDEC Region 9 on March 2, 2015.
- This is an active site document, so future revisions will be performed once major changes to the management of the site are required after optimization evaluation is performed.

Annual Long-term Groundwater Monitoring Well Report

- Report of 2015 annual Groundwater results was issued to NYSDEC on December 21, 2015.
- The 2016 Groundwater sampling/analytical results report was submitted on June 16, 2016.

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Periodic Review Report (PRR)

- The 2015 Periodic Review Report was issued to NYSDEC on January 29, 2015.

If you have questions regarding the July 2016 OM&M report summary, please do not hesitate to contact me at 716-684-8060.

Very Truly Yours,
Ecology and Environment Engineering, P. C.



Michael G. Steffan
Project Manager

cc: D. Szymanski, Region 9, NYSDEC - Buffalo w/ attachments
D. Iyer, IEG – w/attachments
CTF - 10C3074.0011.07

Table 2
Mr. C's Dry Cleaners Site Remediation
Site #915157
Effluent Discharge Criteria & Analytical Compliance Results

Parameter/Analyte	Daily Maximum ¹	Units	July - Effluent Analytical Values - Compliance
Flow (Average)	N/A	gpd	No Sampling Performed
pH	6.0 - 9.0	standard units	
1,1 Dichloroethene	10	µg/L	
1,1 Dichloroethane	10	µg/L	
cis-1,2-dichloroethene	10	µg/L	
Trichloroethene	10	µg/L	
Tetrachloroethene	10	µg/L	
Vinyl Chloride	10	µg/L	
Benzene	5	µg/L	
Ethylbenzene	5	µg/L	
Methylene Chloride	10	µg/L	
1,1,1 Trichloroethane	10	µg/L	
Toluene	5	µg/L	
Methyl-t-Butyl Ether (MTBE)	NA	ug/L	
o-Xylene ²	5	µg/L	
m, p-Xylene ²	10	µg/L	
Total Xylenes	NA	ug/L	
Iron, total	600	µg/L	No Sampling Performed
Aluminum	4,000	µg/L	
Copper	48	µg/L	
Lead	11	µg/L	
Manganese	2,000	µg/L	
Silver	100	µg/L	
Vanadium	28	µg/L	
Zinc	230	µg/L	
Total Dissolved Solids	850	mg/L	
Total Suspended Solids	20	mg/L	
Hardness	N/A	mg/L	
Cyanide, Free	10	µg/L	

NOTES:

1. "Daily Maximum" excerpted from Attachment E of Addendum 1 to the Construction Contract Documents dated October 2000.
2. Analytical report did not differentiate between o-Xylene and m, p-Xylene. Total Xylene value reported is given in each line.
3. Shaded cells indicate that analytical value exceeds the "Daily Maximum."
4. "ND" indicates that the compound was not detected and lists the practical quantitation limit in parentheses.
5. "NA" indicates that analyses were not performed and data is unavailable.
6. Average flows based on effluent readings: **No treatment system operations in July 2016.**
7. "J" indicates an estimated value below the detection limit.
8. "B" indicates analyte found in the associated blank.
9. Removed from the required analysis list by NYSDEC Region 9 in February 2005.
10. "NS" indicates that the parameter analysis was not sampled.

40 Indicates non-compliance with the NYSDEC effluent discharge requirements
NR Indicates Not Reported by Lab

Table 3
Mr. C's Dry Cleaners Site Remediation
NYSDEC Site #915157
July 2016 VOC Analytical Summary

Compound	Based on the July Effluent Analytical Results		
	Influent Concentration*	Effluent Concentration**	Cleanup Efficiency***
	(ug/L)	(ug/L)	(%)
Acetone	No Sampling Performed in July 2016		
Benzene			
2-Butanone			
cis-1, 2-Dichloroethene			
Chloroform			
Chloromethane			
Methylene chloride			
Methyl tert-butyl ether (MTBE)			
Methyl acetate			
Tetrachloroethene (PCE)			
Toluene			
Trichloroethene (TCE)			
Carbon Disulfide			
1,1,2 Trichloro-1,2,2-trifluoroethane			
2-Hexanone			
4-Methyl-2-pentanone			
Cyclohexane			
trans-1,2-dichloroethene			
Chlorobenzene			
Methylcyclohexane			
Ethylbenzene			
Methyl acetate			
Vinyl Chloride			
Total Xylenes			
• The 1 st progress monitoring sampling of the groundwater wells associated with the "pilot" bioaugmentation program was performed on July 1-2, 2013.	0.0	0.00	

Notes:

1. "NA" = Not applicable
2. "U" = Compound analyzed, but was not detected. Detection limit in parentheses.
3. "DJ" or "J" indicates an estimated value below the practical quantitation limit but above the method detection limit.
4. Non-detect values are assumed to be equal to zero for calculation of monthly average concentrations.
5. "D" indicates the compound concentration was obtained from a secondary dilution analysis.
6. Acetone was not detected in the influent sample above the MDL but detected in the effluent sample. It is not a contaminant of concern for the Mr. C's site.

* Detection Limits (<10) and (<50)

** Detection Limits (<1) and (<5)

*** Contaminants of Concern only

Attachment A
IEG Summary of Field Activities
July 2016

Mr. C's CLEANERS OM&M

SUMMARY OF FIELD ACTIVITIES BY IEG - 7/2016

DATE	ACTIVITY
2-Jul	Inspect and drain SVE systems as needed. Inspect UEs and MWs. Respond to AutoDialer.
3-Jul	End of month summaries.
7-Jul	Inspect and drain SVE systems as needed. PZ-7D - replace damage bolt. Swept Library Parking Lot. Respond to complaint about hose leaking water.
8-Jul	OM&M office work
14-Jul	Inspect and drain SVE systems as needed. Inspect UEs and MWs. Put up procedure signs in Treatment Room.
21-Jul	Get Supplies
22-Jul	Inspect and drain SVE systems as needed. Inspect UEs and MWs. Replace leaking water hose.
31-Jul	Inspect and drain SVE systems as needed. Inspect Peizometers.

Mr. C's CLEANERS OM&M
STATUS OF FIELD ACTIVITIES BY IEG - 7/2016

ACTIVITY	DESCRIPTION	COMPLETION DATE/STATUS
Trim High Piezometer Risers	Some of the piezometer risers are so high that the riser cap interferes with the top cover. Either the inner ring has sunk or the risers have elevated since installation. Identify problem piezometers (PZ-4D) and trim a small amount off of the riser.	Apr-16
Concrete inside inner ring obstructs Riser Cap	The concrete base inside the inner ring is level with the riser and causing interference with the riser cap. Identify problem piezometers (MPI-1S). Removed concrete adjacent to riser.	Apr-16
Ground around PW-8 has sunk	The ground around PW-8 that was excavated to replace the pit-less adapter has sunk several inches. Add topsoil to level the area and add grass seed/mulch.	Apr-16
PW-4 UE Level	Asphalt around Underground Enclosure has sunk, leaving it vulnerable to damage. Bring parking lot up to level with asphalt patch.	in progress
Rebuild JAC Pump as needed	Jesco America Corp recommends rebuilding the Redux pump when needed. Purchased rebuild kit.	in progress
Brace Effluent Pipe	David Szymanski (NYSDEC) inspected Treatment Room and said that the effluent pipe should be braced in (3) places to the north wall.	in progress
Inspect and clean Manholes	Inspect manholes near operating pumps. Pump out water in manholes and clean out remaining sediment and other material.	in progress
Cool Treatment Room	Temperature in Treatment Room is well above 90 degrees during the summer months. Need to increase outside air inflow to the room.	in progress
Filter Housings are corroded	Flanges that seal filter baskets inside Rosedale Filter Housings are corroded. Sediment flows around filters instead of being trapped. Replace seals in existing housings (short term). Replace housings (long term).	in progress
Replace Air Stripper Latches	Around (6) latches on the Air Stripper trays are loose or broken. Reattach keepers with JB Weld. Replace broken latches and springs with new parts.	in progress
Repair Leaking Ball Valve	Influent ball valve east of EQ Tank drips. Inspect/clean & replace if necessary.	in progress
PZ-1B has damage	PZ-2B has surface concrete damage from severe winter conditions this year. Repair chipped concrete with epoxy material.	in progress
Redux usage rapidly increased	The rate of Redux usage increased rapidly during the past several months despite turning the Jesco Pump settings to their lowest levels. Clean pump and test. Adjust clamps on Redux line. Replace pump if necessary.	in progress
Reduce Influent Pump Rate	Lab Tests have shown high levels of VOCs. Try lengthening the time that the Influent Pump runs to increase the Air Sparging time inside the Air Stripper	in progress
Add Air Sparging System	Lab Tests have shown high levels of VOCs. Try adding an Air Sparging system to the sump box of the Air Stripper to increase the treatment of the effluent.	in progress
South Wall should be sealed	South Wall of Treatment Room has leaked into the neighboring unit several times when there have been water related problems. Trim wall insulation matting to reduce moisture retention. Seal base of wall with silicone caulking.	in progress
SVE Fan pipe collects water	The SVE Fan pipe on Building 586 collects water. There is a plug just below the fan to drain water out of the horizontal section of the pipe. Inspect system and make corrections to prevent the pipe from filling with water.	in progress
Repair PZ-4B	Inner ring of piezometer was severely damaged by Town's snowplow truck. Talked to Town - they will address problem in Spring. Inner ring must be replaced.	in progress
Remove Piezometer Lock	Some piezometers have padlocks on there riser caps which are defective or no longer have keys. Some of the caps are too tight to put back on the riser properly after removal. Identify problem piezometers (MPI-9SR, MPI-13BR). Remove lock.	May-16
Broken Bolt on PZ-7D	The bolt on this peizometer was bent and then broken by plow trucks during the winter. Tap damaged bracket threads and replace bolt.	Jul-16

**Mr. C's CLEANERS OM&M
SUMMARY OF WATER PUMP MAINTENANCE BY IEG - 2016**

as of Jul 2016

ID	CLEAN & INSPECT PUMP	REPLACED PUMP	REPAIR PUMP	PITLESS ADAPTER	INNER RING	HORIZONTAL PIPE	CHECK VALVE	CLEAN & INSPECT TRANSDUCER	REPLACE TRANSDUCER	REPLACE ANEROID BELLOWS	PUMP OUT WELL	CLEAN OUT & INSPECT ELECTRICAL BOX	ELECTRICAL BOX REPAIR
RW - 1	Jan 08, May 10, Jan 12, Oct 15	Feb 08, Jan 12	May 10, Nov 08					May 10, Jan 12, Oct 15					
PW - 2	Jun 08, Aug 09, May 10, Apr 13, Sep 15	Jul 08, Apr 13, Dec 15				Sep-15		Nov 11, May 10, Apr 13, Dec 15	Sep 09, Dec 11		Aug-09	Nov-11	Sep-09
PW - 3	Jun 08, Aug 09, May 10, Sep 15	Jul 08, Dec 11, Oct 15		Repair adapter		Sep-15		Aug 09, Nov 11, Oct 15	Dec 11, Sep 15		Aug-09	Nov 11, Sep 15	
PW - 4	Dec 07, May 08, Sep 09, May 10, Jan 12, Oct 15	Dec 07, Jan 12	Sep-13		Aug 13			May 10, Nov 11, Oct 15	Dec 11, Mar 08, Sep 08		Jul 09, Sep 09	Sep 09, Nov 11	Sep-09
PW - 5	Jan 12, May 08, Oct 15	Jul 08, Jan 12						Mar 11, Oct 15	Jan 12, Sep 08			Jan-12	
PW - 6	Jun 08, Jul 09, Jul 12, Nov 12, Aug 15	Jun 08, Jul 09, Aug 12, Nov 12, Sep 15		Replaced Aug 15		Jul 12, Nov 12, Sep 15	Aug 15	Aug 09, Jul 12, Dec 12, Apr 13, Aug 15	Sep 09, Sep 15	Aug 15	Aug-09	Aug 09, Sep 09, Sep 15	Jul 09, Sep 09
PW - 7	Jun 08, Jul 09, May 10, Oct 10, Aug 11, Mar 12, Jul 12, Nov 12, Aug 15	Nov 07, Jul 09, Oct 10, Nov 12		Replaced Aug 15		Jul 12, Nov 12	Aug 15	Oct 10, Aug 11, Mar 12, Jul 12, Dec 12, Aug 15			Aug 09, May 10, Aug 11		
PW - 8	Jun 08, Aug 09, May 10, Aug 11, Jul 12, Dec 12, Aug 15	Jul 08, Sep 09, Aug 11, Dec 12		Replaced Aug 15		Pipe 8/09, Jul 12, Sep 15	Aug 15	May 10, Aug 11, Jul 12, Dec 12, Apr 13, Aug 15		Aug 15	Aug 09, May 10, Aug 11	Apr 13, Aug 15	Apr-13

Mr. C's CLEANERS OM&M

SUMMARY OF WATER PUMP STATUS - 2016

as of Jul 2016

ID	NEEDS CLEANING & INSPECTION	NEEDS NEW PUMP	NEEDS NEW INNER RING	NEEDS P.A. OR PIPE	NEEDS WELL CLEAN-OUT	PITLESS ADAPTER	NEEDS HORIZONTAL LINE PURGE	NEEDS CHECK VALVE INSPECTION	NEEDS TRANSDUCER INSPECTION	NEEDS NEW TRANSDUCER	NEEDS ANEROID BELLOWS	NEEDS U.E. CLEANED	NEEDS U.E. REPAIR
RW-1	NO	NO	PZ-1B		YES				NO	NO	NO	NO	YES - bolts
PW-2	NO	NO	NO		NO				NO		NO	NO	YES - bolts
PW-3	NO	NO	NO						NO		NO	NO	NO
PW-4	NO	NO	PZ-4B						NO		NO	NO	YES - Asphalt patch
PW-5	NO	NO	NO		YES				NO			NO	NO
PW-6	NO	NO	NO				NO		NO	NO	NO	NO	DONE
PW-7	YES	NO	NO		NO		NO		NO	NO		NO	NO
PW-8	NO	NO	NO		NO		NO		NO	NO	NO	NO	NO

Attachment B
Summary of Site Utility Costs and Projections
January to December 2016

Mr. C's Dry Cleaners Site - Remedial Treatment Utility Costs
NYSDEC Work Assignment #11
12 Months of System Operation and Maintenance
July 2016 Report

ATTACHMENT B

Month	Optimum Operating Hours	Actual Operating Hours	Up-time Percentage	Capacity	Comments:	Electric:	Telephone:	Gas	Total:
January-16	672	672	100.00%	9.7%	Very mild winter - very little snow.				
February-16	0	0	0.00%	0.0%	System Shutdown				
March-16	0	0	0.00%	0.0%	System Shutdown				
April-16	0	0	0.00%	0.0%	System Shutdown				
May-16	0	0	0.00%	0.0%	System Shutdown				
June-16	0	0	0.00%	0.0%	System Shutdown				
July-16	0	0	0.00%	0.0%	System Shutdown				
August-16			#DIV/0!						
September-16			#DIV/0!						
October-16			#DIV/0!						
November-16			#DIV/0!						
December-16			#DIV/0!						
Totals to Date	672	672	100.00%						\$24,260.73

* Percent Capacity is based on initial operating groundwater flows from the eight installed pumps from 9/02. Evaluated on total gallons discharged for monthly operating time. Maximum pump discharges calculated as an average of 78 gpm as the total for all 8 pumps at the site if all pumps operate 100%. With the exception of groundwater pump RW-1, all others run on a batch basis.

Monthly Average Costs

Mr. C's Electric	\$	330.16							
Agway Electric	\$	-							
Mr. C's Gas	\$	28.97							
Mr. C's Telephone	\$	37.07							
Ave. Utility Cost Total	\$	396.20	times	12 Month Estimate	\$5,150.62				