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November 10, 2014

Payson Long
New York State
Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Subject: Korkay, Inc. Site #5-18-014
July 2014 Investigation Summary

Dear Mr. Long,

This letter has been prepared to report the results of the direct push groundwater investigation completed at the Korkay Site ("the Site") (NYSDEC ID: 5-18-014) in July 2014. The work was completed in accordance with the work plan submitted to the New York State Department of Environmental Conservation (NYSDEC) in May 2014. This work was performed under New York State Superfund Standby Contract Work Assignment number D007626-20. The purpose of this investigation was to further delineate and characterize the dissolved-phase groundwater impacts, and to collect soil samples for analysis of natural oxidation demand (NOD) to evaluate the effectiveness of using an oxidant for in situ remediation of contaminated soil and groundwater at the Site.

Site Background

Korkay, Incorporated (Korkay) located in Broadalbin, NY (Figure 1), was a supplier of detergents, solvents, and degreasers to the automotive industry from 1969 to 1980. Korkay purchased bulk quantities of chemicals stored on-Site for repackaging and/or blending into commercial products including automobile wax, and hand cleaners. In addition to the commercial products being produced, Korkay also operated as a drum reclamation facility. Drums were accepted containing a variety and quantity of unknown chemicals. The drums were emptied of any remaining chemicals, washed, rinsed and relined. This process was conducted without appropriate containment of the chemicals, and with chemical laden rinsate being discharged through the facilities septic system or directly to the ground surface. The NYSDEC and NYSDOH inspected the Site in 1979 and documented the occurrence of these activities. In 1980, Korkay installed a 4,000 gallon above ground storage tank (AST) to appropriately contain the residual chemicals and rinsate generated from drum reclamation. Reports and Site documentation indicate that the drums contained acetone, isopropyl alcohol, degreasers, pesticides, and perfumes as well as other chemicals. Additionally three underground storage tanks (USTs) were used for storage of fuel oil and chemicals. The approximate locations of the USTs are shown in a figure taken from the 1988 Remedial Investigation (RI) report (Appendix A).

Methods

A total of 23 (GW-1 to GW-23) direct push borings were installed from July 7, 2014 through July 9, 2014. The locations of the borings are presented on Figure 2. Soil was collected in 5 foot intervals in 1.5 inch core barrel with acetate liners. The cores were examined by an AECOM geologist and were screened with a photo ionization detector (PID) for the presence of volatile organic compounds (VOCs). Observations and PID readings were recorded on boring logs (Appendix B). The borings were advanced below the groundwater table, typically found 8 to 10 feet below ground surface (bgs). Once at the desired depth, a 4 foot retractable screen (SP-10) was set to straddle the water table to collect grab groundwater samples utilizing a peristaltic pump. The SP-10 sampler was decontaminated by washing with a non-phosphate cleanser, and rinsing with potable water between samples. Dedicated tubing was used for the collection of each sample.

Groundwater samples were analyzed for VOCs (Method 8260B), semivolitile organic compounds SVOCs (Method 8270C) and organochlorine pesticides (Method 8081A).The samples were put on ice and were shipped under chain of custody for analysis at Test America in Buffalo, NY. Additionally, a soil sample was collected from boring GW-2 for analysis of persulfate soil oxidant demand (SOD). This sample was sent to Regenisis for analysis.

Soil Observations

The geology observed was consistent with the other investigations conducted at the Site. The subsurface soil is a fine to coarse sand with some silt that becomes finer with depth. The sand and silt grades to a clay unit which generally dips from north to south with some variability. The clay was generally encountered at 12 ft bgs in high spots to a maximum depth of 18 ft bgs near the south and southeast boundaries of the Site. Historically, shallow groundwater has been reported to flow from north to south. Results of this investigation suggests that the groundwater may flow southwest and west. The RI report characterized the clay unit as an aquitard which prevents or limits downward migration of impacted groundwater.

Black and gray staining was observed in 15 of the 23 borings and typically corresponded to elevated PID readings. This finding is consistent with historical observations of soil cores at the Site. Figure 3 presents the highest PID reading for each of the borings. Elevated readings were detected both on-Site and off-Site. The highest PID reading of 2,163 parts per million (ppm) was detected in the soil at 10 to 11 feet bgs collected from off-Site boring GW-19. This boring is located in the right of way south of the Site.

Laboratory Results

VOCs

The groundwater results are presented in Table 1 with total VOCs shown on Figure 4. On-Site, dissolved phase VOCs were detected above NYSDEC ambient water quality standards (AWQS) in 10 of 12 groundwater. The detected constituents exceeding the AWQS include primarily petroleum hydrocarbon VOCs and to a lesser extent chlorinated hydrocarbon VOCs such as 1,2,4-dichlorobenzene, 1,2,3-tricloropropane (TCE), tetrachloroethene (PCE), and associated breakdown compounds. The highest detection of dissolved phase VOCs was 3,995 μg/L in the sample collected from point GW-7 located within the foot print of the former building. No exceedances were detected in samples collected from points GW-9 and GW-16 which were located on the eastern portion of the property.

Off-Site, VOCs were detected above the AWQS in all of the samples collected at the property located west of the Site (GW-10, -11, and -12), two of the four samples (GW-19 and -20) in the right of way southwest of the Site, and in two of the three samples (GW-21 and -22) collected north of the Site. The same constituents found to exceed the AWQS on-Site were detected in the off-Site samples. The highest total concentration of VOCs was 2,209 μg/L from the GW-10 sample collected on the western property line. This location is near the former fuel oil UST near the property line. Slight exceedances of petroleum related VOCs were detected in samples from GW-21 and GW-22 installed approximately north of the Site. No VOCs were detected above AWQS in the sample collected from boring GW-1 on the property east of the Site.

SVOCs

Dissolved phase SVOC detections are reported on Table 2. The common lab contaminants bis-phthalate, and di-n-butyl phthalate were detected in all of the samples. This compound was also detected in the laboratory blank and is not considered a Site-related contaminant of concern. Dissolved SVOCs, primarily naphthalene, were detected above AWQS in 13 samples from 13 borings. The SVOC impacts are similar in aerial extent to the VOC impacts.

Pesticides

Pesticide results are reported on Table 3. Pesticides were detected above AWQS in 18 of the samples collected during this investigation. A majority of the pesticide detections were flagged with a "J" indicating that the result is less than the recording limit but greater than the detection limit and the result is considered estimated. This adds a level of uncertainty in comparing these data to the AWQS. The pesticide results may be biased high due to the fact that these were temporary sampling points and the samples were relatively turbid and that the pesticides may more likely be adsorbed onto the soil particles. Chlordane (Alpha-chlordane and gamma-chlordane) was detected at an order of magnitude or greater above the AWQS of 0.005 μg/L at several locations both on-Site and off-Site. The highest concentration of chlordane (9.3 μg/L) was detected in the off-Site sample GW-10 installed at the property to the west of the Site. Similar concentrations were detected on-Site including 5.2 μg/L at location GW-7.

Persulfate Soil Oxidant Demand

A soil sample was collected from boring GW-2 for analysis of persulfate soil oxidant demand (PSOD). The PSOD results are reported in Appendix C. The measurement of the PSOD is used to estimate the concentration of perfsulfate that will be consumed in 48 hours by the naturally-occurring reducing agents present in soil. The result is used to determine the persulfate loading for in-situ chemical oxidation (ISCO) remediation and to evaluate the cost risk of soil contribution to persulfate demand. In general a PSOD result less than 10 g oxidant/kg soil indicates that ISCO will be a cost effective remedial alternative. The result for the sample collected at this Site was 1.72 g/kg indicating that ISCO will be a cost effective remedial alternative for the Site.

Conclusions and Recommendations

The extent of dissolved-phase groundwater impacts on-Site and off-Site appear to be greater than previous groundwater investigations and monitoring suggested. The groundwater and soil impacts off-Site still have not been fully defined. Soil impacts observed during this investigation appear to be consistent with the previous investigation conducted in 2011. The area of impacted groundwater is approximately 2,100 square feet and is shown on Figure 5. The source areas including the three former USTs, drywells, septic tanks, and the perimeter drainage swale. The top 5 feet of soil is

generally not impacted except where staining and/or odors were noted in borings installed near the source areas. In the borings completed to the top of the clay, the staining and odors were noted through the saturated soil to the top of the clay.

The following recommendations consider the results of this investigation:

- A remedial alternative utilizing ISCO be considered for the remediation of on-Site groundwater and soil. The PSOD results and the sandy soil at the Site are favorable for in-situ remediation. The ISCO process is minimally intrusive and does not rely on equipment operating at the Site. Reduction of the source in soil and dissolved groundwater impacts will limit additional migration off-Site.

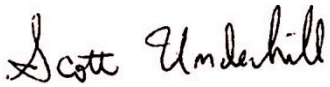
- Additional monitoring wells should be installed at the Site to better monitor Site conditions and any future remedial activities. Proposed well locations are included on Figure 6.

- The areal extent of off-Site impacts to downgradient groundwater has not been fully defined. Results from this investigation suggest impacts west and southwest of the Site are related to the source areas at the Site. An additional investigation should be performed to define the off-Site impacts. Additional monitoring wells should be installed off-Site once the extent of the plume has been defined.

Should you have any questions, please do not hesitate to contact John Santacroce at John.Santacroce@aecom.com or (518) 951-2265 or Scott Underhill at Scott.Underhill@aecom.com or (518) 951-2208.

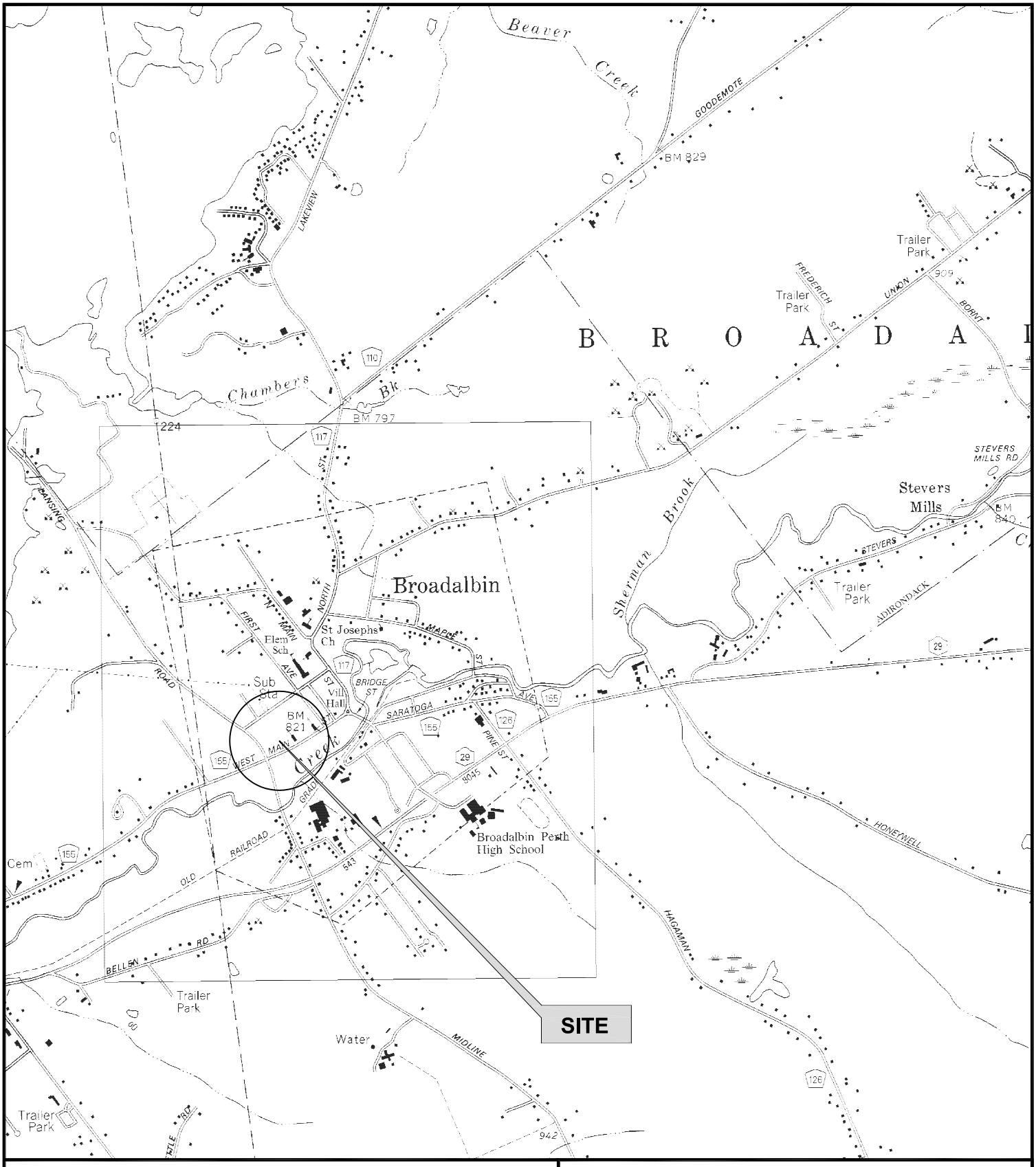
Yours sincerely,

John Santacroce
Project Manager



Scott Underhill, PE
Program Manager

Figures



MAP REFERENCE: NYSDOT 7.5 MIN. QUADRANGLE
BROADALBIN SERIES

PLAN

NORTH

Scale in Feet

0 1000' 2000'

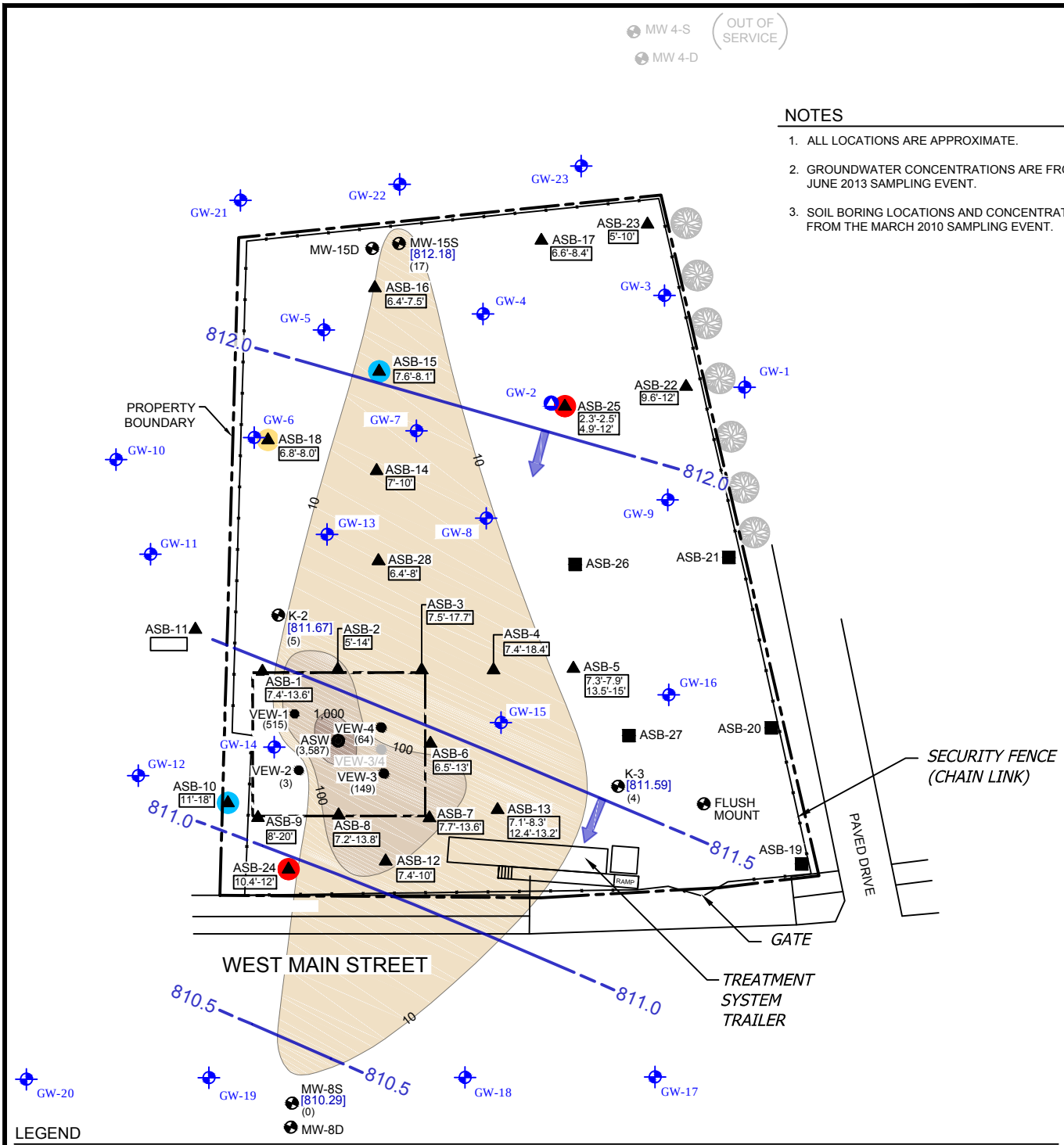
EarthTech
A tyco International Ltd. Company

FIGURE 1
SITE LOCATION PLAN

KORKAY INC.
BROADALBIN, NEW YORK

DATE: NOVEMBER, 2007

PROJECT NO.: 99165



NOTE:
FOR MAP REFERENCE INFORMATION, SEE FIGURE 1 "SITE LAYOUT".

PLAN

NORTH

Approx. Scale in Feet

0 25' 50'

AECOM

FIGURE 2

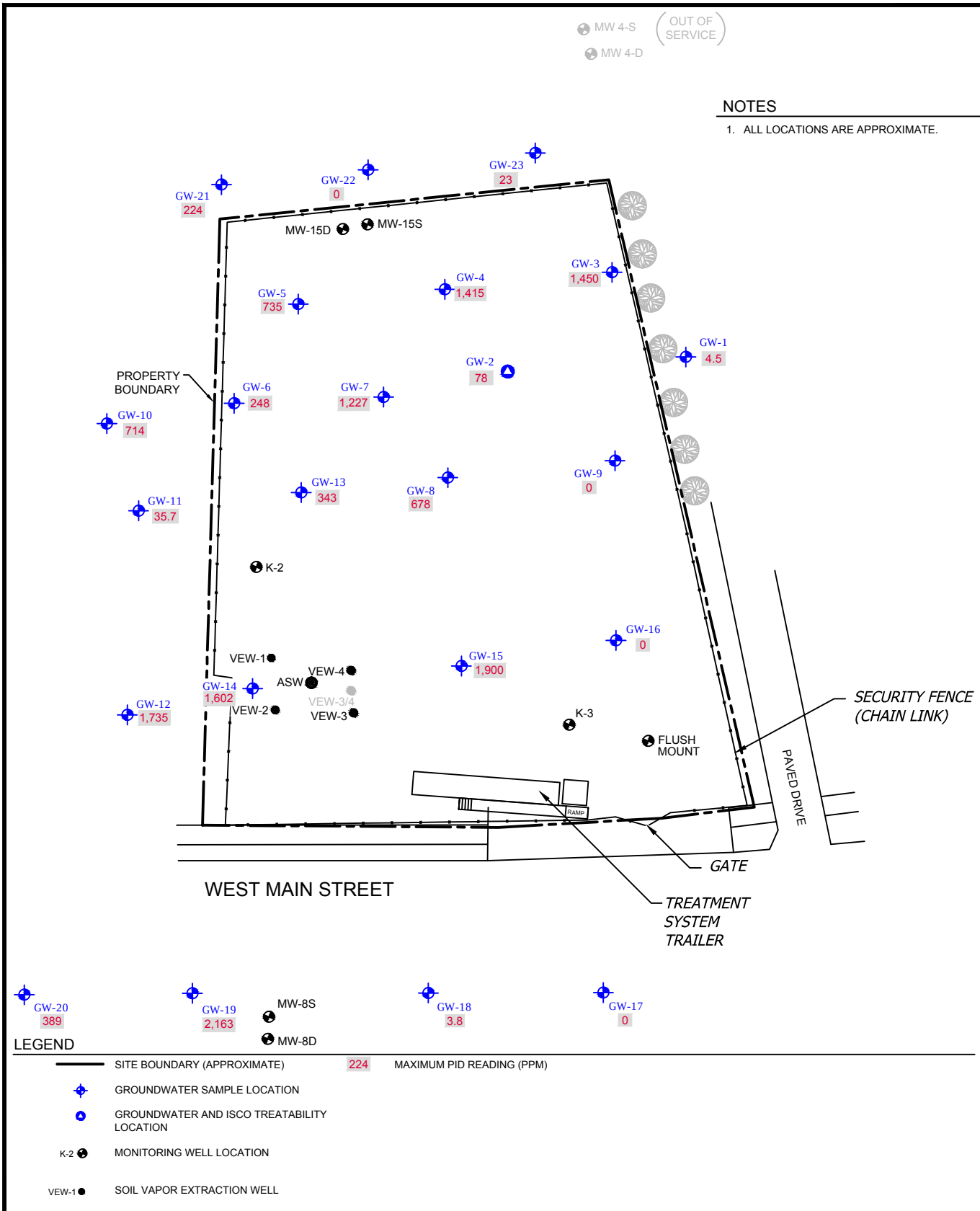
GROUNDWATER AND TREATABILITY LOCATION MAP

NYSDEC SITE ID: 5-18-014

KORKAY INC.

70 WEST MAIN STREET
BROADALBIN, NEW YORK

DATE: OCTOBER 2014 | PROJECT NO.: 60273289



NOTE:
FOR MAP REFERENCE INFORMATION, SEE FIGURE 1 "SITE LAYOUT".

PLAN

NORTH

Approx. Scale in Feet

0 25' 50'

AECOM

FIGURE 3

PID READING IN SUBSURFACE SOIL LOCATION MAP

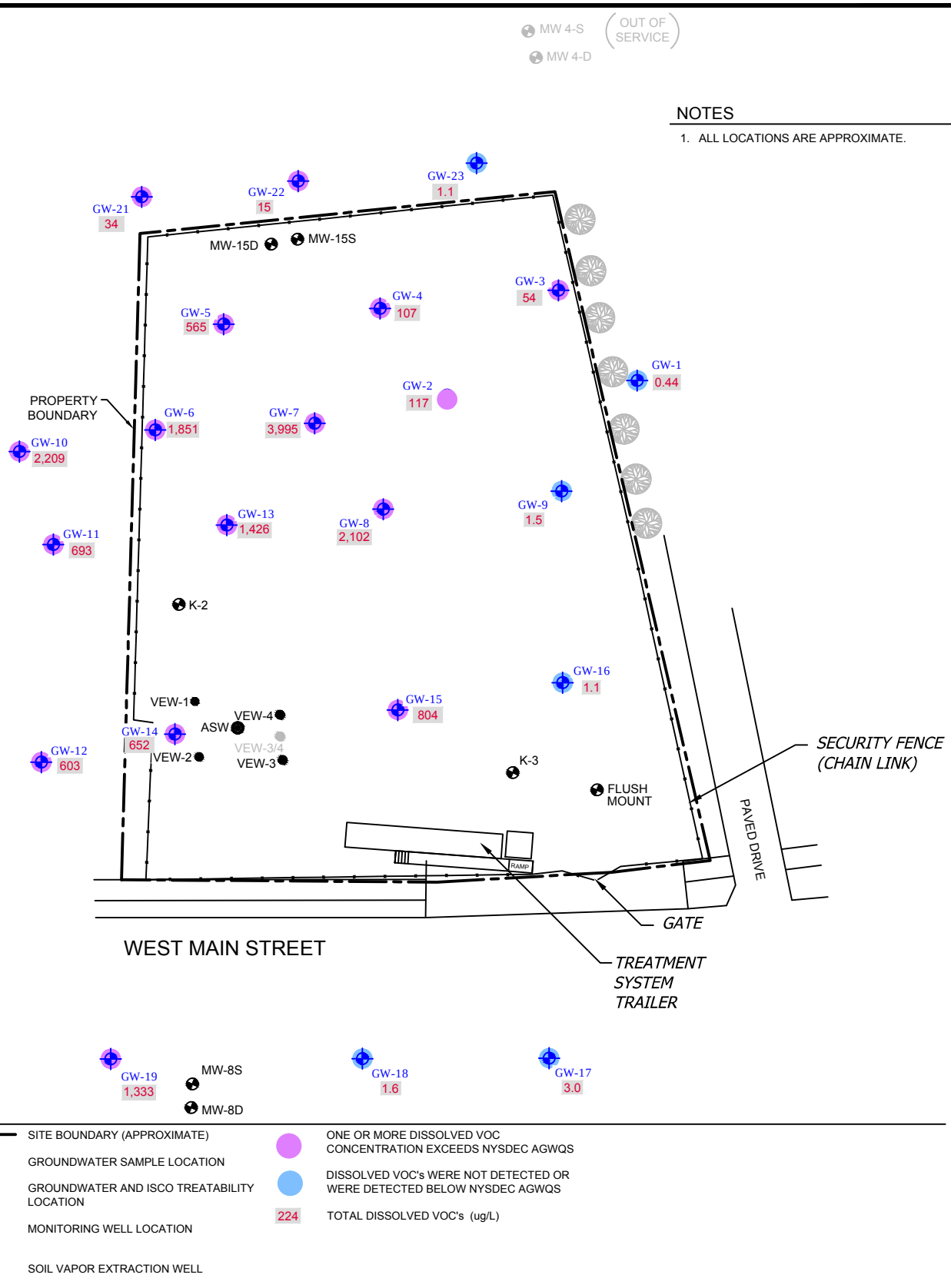
NYSDEC SITE ID: 5-18-014

KORKAY INC.

70 WEST MAIN STREET
BROADALBIN, NEW YORK

DATE: OCTOBER 2014

PROJECT NO.: 60273289



NOTE:
FOR MAP REFERENCE INFORMATION,
SEE FIGURE 1 "SITE LAYOUT".

PLAN

NORTH

Approx. Scale in Feet

0 25' 50'

AECOM

FIGURE 4

TOTAL VOC's IN GROUNDWATER
LOCATION MAP

NYSDEC SITE ID: 5-18-014

KORKAY INC.

70 WEST MAIN STREET
BROADALBIN, NEW YORK

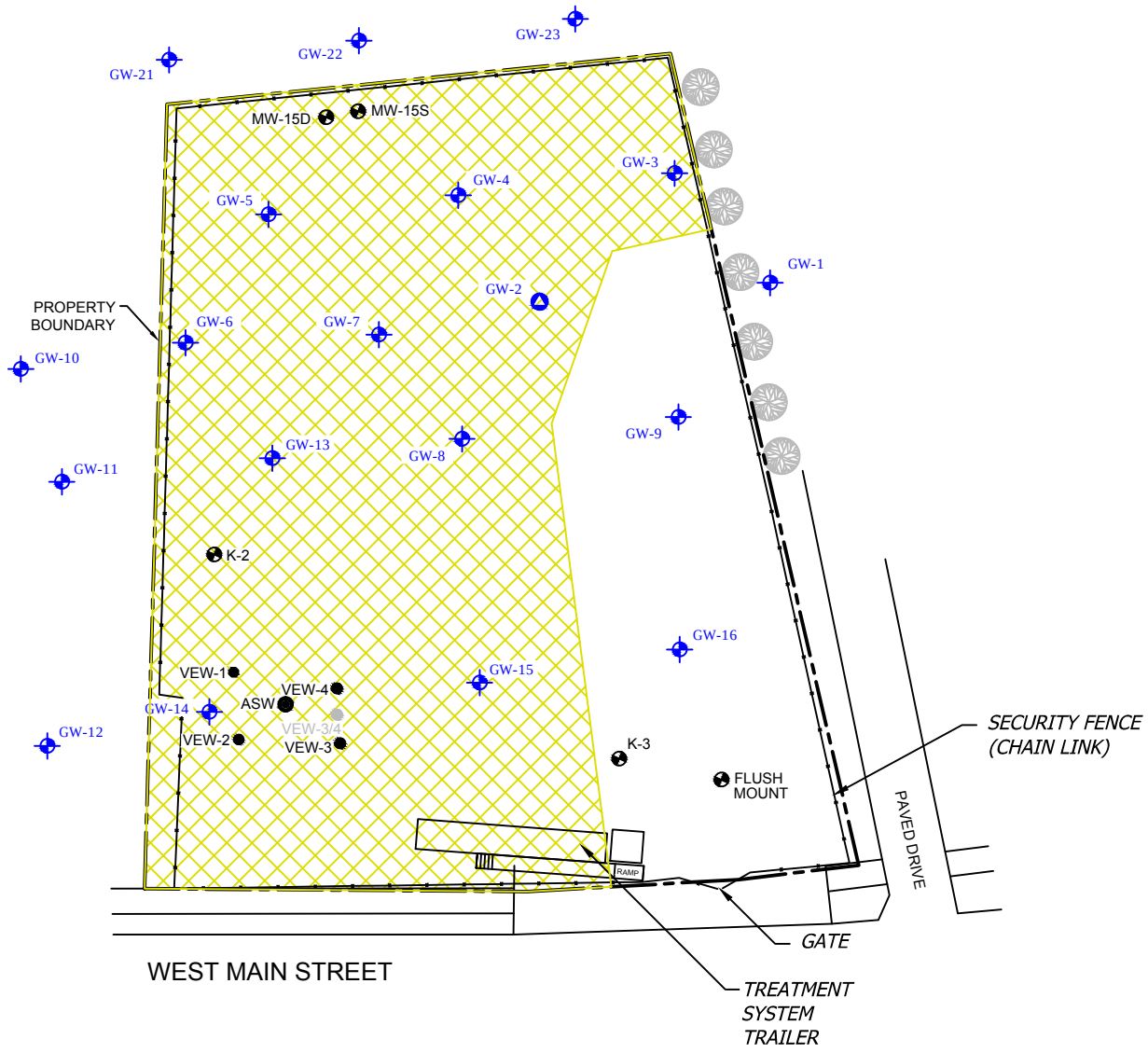
DATE: OCTOBER 2014

PROJECT NO.: 60273289

MW 4-S
OUT OF SERVICE
MW 4-D

NOTES

1. ALL LOCATIONS ARE APPROXIMATE



LEGEND

- SITE BOUNDARY (APPROXIMATE)
- LATERAL EXTENTS OF PROPOSED TREATMENT
- GROUNDWATER SAMPLE LOCATION
- GROUNDWATER AND ISCO TREATABILITY LOCATION
- K-2 MONITORING WELL LOCATION
- VEW-1 SOIL VAPOR EXTRACTION WELL

NOTE:
FOR MAP REFERENCE INFORMATION, SEE FIGURE 1 "SITE LAYOUT".

PLAN

NORTH

Approx. Scale in Feet

0 25' 50'

AECOM

FIGURE 5

TREATMENT AREA LOCATION MAP

NYSDEC SITE ID: 5-18-014

KORKAY INC.

70 WEST MAIN STREET
BROADALBIN, NEW YORK

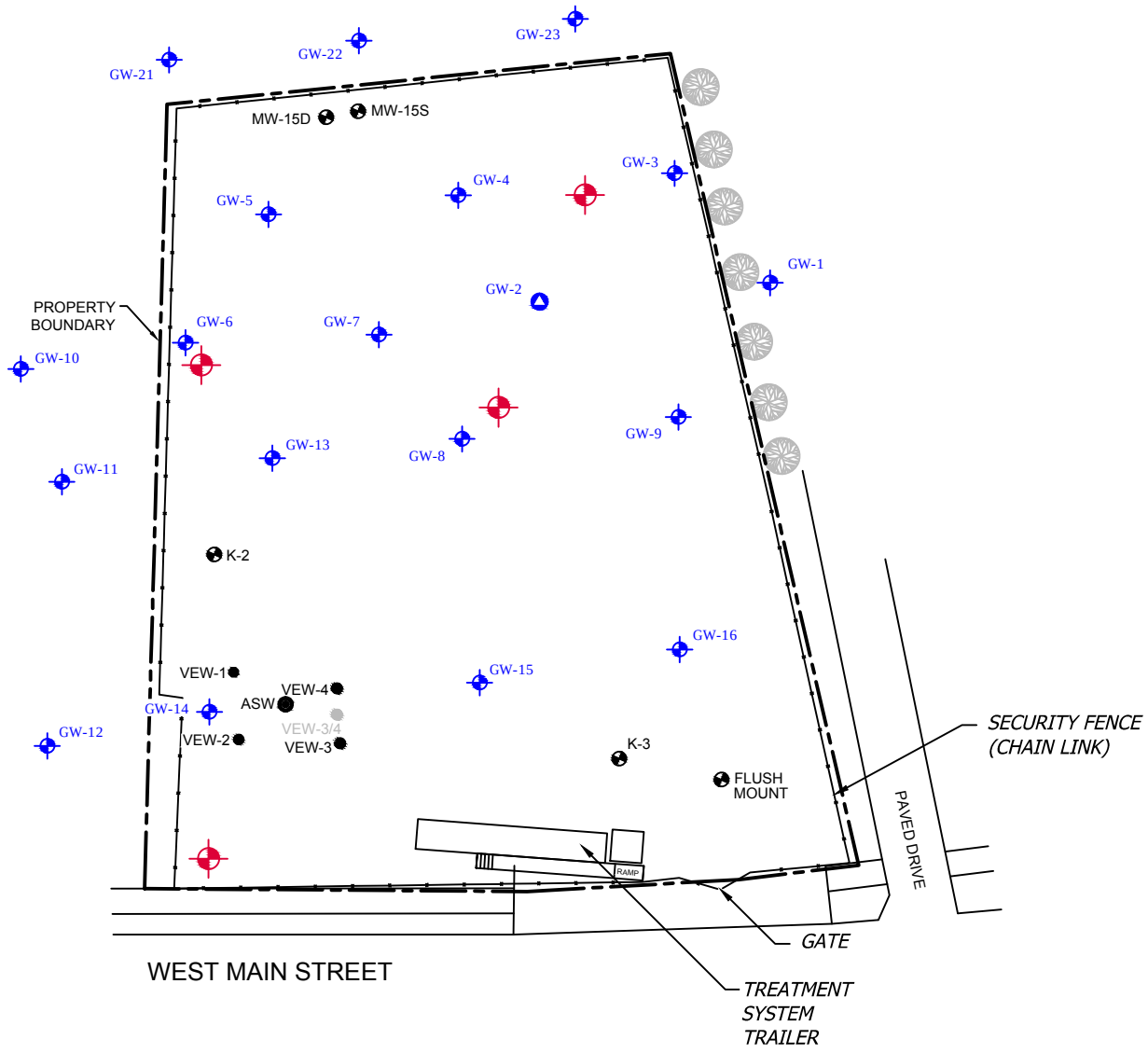
DATE: OCTOBER 2014

PROJECT NO.: 60273289

MW 4-S
MW 4-D
OUT OF SERVICE

NOTES

1. ALL LOCATIONS ARE APPROXIMATE



LEGEND

- SITE BOUNDARY (APPROXIMATE)
- GROUNDWATER SAMPLE LOCATION
- GROUNDWATER AND ISCO TREATABILITY LOCATION
- K-2 MONITORING WELL LOCATION
- VEW-1 SOIL VAPOR EXTRACTION WELL
- PROPOSED MONITORING WELL LOCATION

NOTE:
FOR MAP REFERENCE INFORMATION, SEE FIGURE 1 "SITE LAYOUT".

PLAN

NORTH

Approx. Scale in Feet

0 25' 50'

AECOM

FIGURE 6

PROPOSED MONITORING WELL LOCATION MAP

NYSDEC SITE ID: 5-18-014

KORKAY INC.

70 WEST MAIN STREET
BROADALBIN, NEW YORK

DATE: OCTOBER 2014

PROJECT NO.: 60273289

Tables

Table 1
VOC Results
Korkay July 2014 Groundwater Ivstigation

Sample Location		Off Site East	On-Site												Off Site West			Off Site Right of Way South				Off Site North		
Sample ID	NYSDEC	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-I3	GW-14	GW-15	GW-16	GW-I0	GW-11	GW-12	GW-17	GW-18	GW-19	GW-20	GW-21	GW-22	GW-23
Sample Date	AWQS & GV	7/7/2014	7/7/2014	7/7/2014	7/7/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/9/2014	7/8/2014	7/8/2014	7/8/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014
Sample Time	ug/L	1:18 PM	3:00 PM	4:00 PM	4:30 PM	7:45 AM	8:10 AM	8:40 AM	9:00 AM	10:00 AM	1:45 PM	2:45 PM	4:30 PM	7:45 AM	10:45 AM	11:00 AM	11:35 AM	8:30 AM	8:55 AM	9:20 AM	9:45 AM	10:25 AM	10:50 AM	11:30 AM
VOCs ug/L																								
STARS List VOCs (Petroleum)																								
1,2,4-Trimethylbenzene	5	ND	35	33	540	240	490	1300	710	0.82 J	220	70	230	1.1	670	180	180	ND	ND	360	200	5.5	1.1	ND
1,3,5-Trimethylbenzene	5	ND	16	21	220	120	220	390	250	ND	54	35	73	ND	290	53	110	ND	ND	110	35	0.92 J	ND	ND
Ethylbenzene	5	ND	0.87 J	ND	49	2.1	48	69	46	ND	82	22	33	ND	63	17	8.2	ND	ND	53	63	2.9	2.7	1.1
N-Propylbenzene	5	ND	3.8	7.1	63	30	44	76	55	ND	20	7.2	25	ND	92	23	20	ND	ND	46	30	1.1	0.76 J	ND
n-Butylbenzene	5	ND	22	67	110	47	93	110	72	ND	27	23	30	ND	110	25	59	ND	ND	62	27	1.1	ND	ND
sec-Butylbenzene	5	ND	ND	34	50	30	35	47	33	ND	15	7.6	18	ND	36	12	25	ND	ND	31	18	ND	ND	ND
tert-Butylbenzene	5	ND	ND	3.2	6.1	4.4	4.7 J	ND	3.9	ND	ND	ND	ND	ND	ND	1.6 J	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	1.8	1.4	28	7.4	24	30	24	ND	13	3.8	14	ND	35	11	6.8	ND	ND	24	17	ND	ND	ND
Toluene	5	ND	ND	ND	7.2	ND	3.6 J	16	7.3	ND	2.8 J	11	ND	ND	ND	ND	ND	ND	ND	ND	4.2 J	ND	ND	ND
4-Isopropyltoluene	5	ND	14	47	70	44	52	69	47	ND	21	15	24	0.31 J	50	16	35	ND	ND	32	8.2	0.35 J	ND	ND
o-Xylene	5	ND	3.7	ND	140	6.8	140	340	140	ND	180	95	55	0.76 J	150	34	35	1	ND	100	120	4.8	3.2	0.99 J
m,p-Xylene	5	ND	4.1	ND	210	5.3	230	490	230	ND	260	85	92	0.86 J	180	58	24	1.0 J	ND	170	110	4.6	2.4	0.72 J
Xylenes, Total	5	ND	7.8	ND	350	12	370	830	370	ND	440	180	150	1.6 J	330	92	59	2	ND	270	230	9.4	5.6	1.7 J
Naphthalene	10	ND	4.3	1.6	65	6.6	64	130	76	1.5	67	22	42	0.56 J	190	160	22	0.43 J	ND	44	22	1	0.89 J	0.48 J
TCL List VOCs Non-STARs List																								
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.96 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	2.2	ND	23	ND	8.3	35	12	ND	ND	ND	12	ND	ND	ND	5.3	ND	ND	16	9.1	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.04	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.7 J	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	4.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	NS	ND	5.2 J	2.5 J	ND	5.0 J	20 J	ND	16	ND	10 J	20	5.5 J	1.4 J	ND	2.8 J	ND	1.4 J	ND	ND	ND	ND	ND	ND
Acetone	50	11	27	11	22 J	19	48 J	31 J	24	6.0 J	21 J	52	12 J	16	ND	9.1 J	16 J	11	4.9 J	ND	20 J	9.6 J	4.5 J	12
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.99 J	ND
Carbon disulfide	60	0.44 J	1.1	1.3	1.5 J	1.3	ND	3.7 J	2.2	0.50 J	ND	ND	ND	ND	ND	ND	1.5 J	ND	1.6	ND	ND	3.3	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.69 J	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	8	11	5.5	ND	ND	39	ND	ND	ND	ND	8.2	ND	ND	ND	17	ND	ND	ND
Cyclohexane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.6 J	ND	3.2 J	ND	ND	2.4	ND	ND	ND	7.0 J	4.3 J	ND	ND	ND
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.79 J	ND	ND	ND	ND	ND
Methylcyclohexane	NS	ND	2.8	16	16	10	16	4.4 J	7.6	ND	10	3.1	6.1	0.78 J	13	5.8	5	ND	ND	15	7.7	0.82 J	0.76 J	ND
Tetrachloroethene	5	ND	1.2	ND	14	3.6	16	52	15	ND	8.5	ND	3.6 J	0.69 J	7.6 J	1.8 J	ND	0.85 J	0.61 J	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	1.8	8.8	ND	1.2	ND	8.3	2.3	ND	ND	ND	5.7	ND	ND	ND	ND	ND	ND	ND	ND

Bold- Analyte was detected in laboratory analysis
Highlight- Analyte was detected above the NYSDEC AWQS or Guidance Value
NS- No Standard
ND- Not detected above MDL
J - Result is estimated, detection was below the RL but above the MDL

Table 2
SVOC Results
Korkay July 2014 Groundwater Ivstigation

Sample Location		Off Site East	On-Site													Off Site West		Off Site Right of Way South					Off Site North	
Sample ID	NYSDEC	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-I3	GW-14	GW-15	GW-16	GW-I0	GW-11	GW-12	GW-17	GW-18	GW-19	GW-20	GW-21	GW-22	GW-23
Sample Date	AWQS & GV	7/7/2014	7/7/2014	7/7/2014	7/7/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/9/2014	7/8/2014	7/8/2014	7/8/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014
Sample Time	ug/L	1:18 PM	3:00 PM	4:00 PM	4:30 PM	7:45 AM	8:10 AM	8:40 AM	9:00 AM	10:00 AM	1:45 PM	2:45 PM	4:30 PM	7:45 AM	10:45 AM	11:00 AM	11:35 AM	8:30 AM	8:55 AM	9:20 AM	9:45 AM	10:25 AM	10:50 AM	11:30 AM
SVOCs ug/L																								
2,4-Dimethylphenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**30** J	ND	ND	ND	ND	ND	**7**	ND	ND	ND
2-Methylnaphthalene	NS	ND	ND	**4.1**	**11**	**4.8**	**13**	**50**	**9.8**	ND	**7.1**	**2.9**	**1.3**	**9**	ND	**3.2**	ND	ND	ND	**14**	**1**	ND	ND	ND
2-Methylphenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2** J	ND	ND	ND
Acetophenone	NS	**2.6** J B	ND	ND	ND	ND	ND	ND	ND	**2.0** B	ND	ND	ND	ND	ND	ND	**2.7** J B	**2.1** B	**2.0** B	ND	**62** B	**1.7** B	**1.7** B	**2.2** B
Benzaldehyde	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**9.1** J B	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ND	ND	ND	**0.19** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.1** J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	Non-Detect	ND	ND	ND	**0.14** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	ND	ND	ND	**0.32**	ND	ND	ND	ND	ND	ND	**0.30** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NS	ND	ND	ND	**0.24**	ND	ND	ND	ND	ND	ND	**0.37** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	ND	ND	ND	**0.31**	ND	ND	ND	ND	ND	ND	**0.34** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Biphenyl	5	ND	ND	ND	ND	ND	**1**	ND	**0.67** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	5	**100** B	**410** B	**350** B	**39** B	**31** B	**18** B	**69** B	**10** B	**20** B	**6.3** B	**81** B	**12** B	**5.6** B	**34** J B	**25** B	**90** B	**27** B	**32** B	**36** B	**50** B	**20** B	**19** B	**11** B
Butyl benzyl phthalate	50	ND	ND	ND	**0.80** J B	**0.46** J B	ND	ND	**0.59** J B	**0.39** J B	**0.51** J B	**0.69** J B	ND	ND	ND	ND	ND	ND	**0.27** J B	**0.33** J B	ND	ND	ND	ND
Caprolactam	NS	**2.3** J	**7.0** J	ND	ND	ND	ND	ND	ND	**1.7** J	ND	**2.5** J	ND	ND	ND	ND	**1.6** J	**1.3** J	ND	ND	ND	ND	**1.1** J B	**3.0** J B
Chrysene	0.002	ND	ND	ND	**0.24**	ND	ND	ND	ND	ND	ND	**0.32** J	ND	ND	**1.9** J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	5	**0.64** J B	ND	ND	ND	ND	ND	ND	ND	**0.50** J B	ND	ND	ND	ND	ND	ND	ND	ND	**0.39** J B	ND	ND	**0.47** J	ND	**0.59** J
Di-n-butyl phthalate	50	**3.2** J B	**6.1** J B	**4.6** J B	**4.3** B	ND	ND	ND	**4.2** B	**4.0** B	**9.2** B	**4.3** B	**12** B	**4.3** B	**93** B	**5.1** B	**4.9** B	**3.3** B	**3.0** B	**4.8** B	**3.9** B	**3.1** B	**1.9** B	**3.4** B
Di-n-octyl phthalate	5	ND	ND	ND	**0.50** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	**0.13** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.19**	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	ND	ND	ND	ND	**1.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ND	ND	ND	**0.22**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	**31**	**3.9**	**39**	**88**	**25**	ND	**46**	**76**	**5.8**	**16**	**7.4**	**18**	**0.48** J	**0.14** J	**0.14** J	**31**	**17**	**0.26**	**0.3**	**0.4**
Phenanthrene	50	ND	ND	ND	ND	ND	ND	**1.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	1*	**0.72** J	ND	ND	ND	ND	ND	ND	ND	**0.42** J	ND	ND	ND	ND	**35**	ND	ND	ND	**0.56** J	ND	ND	**1.4**	ND	**1.6**
Pyrene	50	ND	ND	ND	**0.11** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.19**	ND	ND	ND	ND	ND	ND	ND	ND

Bold- Analyte was detected in laboratory analysis
Highlight- Analyte was detected above the NYSDEC AWQS or Guidance Value
*Sum of all Phenols
NS- No Standard
ND- Not detected above MDL
B-Compound detected in laboratory control blank.
J - Result is estimated, detection was below the RL but above the MDL

Table 3
Pesticides Results
Korkay July 2014 Groundwater Investigation

Sample Location	NYSDEC	Off Site East	On-Site												Off Site West			Off Site Right of Way South				Off Site North		
Sample ID	AWQS & GV	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-I3	GW-14	GW-15	GW-16	GW-I0	GW-11	GW-12	GW-17	GW-18	GW-19	GW-20	GW-21	GW-22	GW-23
Sample Date	ug/L	7/7/2014	7/7/2014	7/7/2014	7/7/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/8/2014	7/9/2014	7/8/2014	7/8/2014	7/8/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014
Sample Time		1:18 PM	3:00 PM	4:00 PM	4:30 PM	7:45 AM	8:10 AM	8:40 AM	9:00 AM	10:00 AM	1:45 PM	2:45 PM	4:30 PM	7:45 AM	10:45 AM	11:00 AM	11:35 AM	8:30 AM	8:55 AM	9:20 AM	9:45 AM	10:25 AM	10:50 AM	11:30 AM
Pesticides ug/L																								
4,4'-DDD	0.3	**0.52**	**0.14** J	**0.093** J	**0.012** J	**0.10** J	**0.071** J	**0.88**	**0.050** J	**0.45**	**0.042** J	**0.092** J	**0.42**	**0.19**	**0.41** J	ND	**0.036** J	**0.76**	**0.11**	**0.27**	**0.21** J	**0.073**	**0.12**	**0.023** J
4,4'-DDE	0.2	**0.11** J	**0.13** J	ND	**0.021** J	ND	ND	**0.39** J	ND	**0.067**	**0.043** J	**0.057** J	**0.16** J	**0.062**	**0.50** J	**0.24**	ND	**0.14**	**0.026** J	**0.067**	ND	**0.026** J	**0.025** J	ND
4,4'-DDT	0.2	ND	ND	ND	ND	ND	ND	**0.26** J	ND	ND	ND	**0.10** J	ND	ND	ND	ND	**0.013** J	**0.015** J	ND	**0.035** J	ND	**0.021** J	ND	ND
Aldrin	Non-Detect	ND	ND	ND	**0.028** J	**0.056** J	**0.059** J	ND	ND	ND	**0.036** J	**0.18** J	ND	ND	ND	**0.10** J	**0.043** J	ND	ND	ND	ND	ND	ND	ND
alpha-BHC	0.01	ND	ND	**0.047** J B	**0.061** B	**0.058** J B	ND	**0.48** J B	**0.088** J B	**0.010** J B	ND	ND	ND	**0.011** J B	**0.23** J B	**0.096** J B	ND	**0.0089** J B	**0.0080** J B	ND	ND	**0.022** J	**0.012** J	ND
alpha-Chlordane	0.05**	**0.20** J	**1.6**	**0.78**	**0.44**	**0.36**	**1.1**	**3**	ND	ND	**0.12**	ND	ND	**0.018** J	**6.2**	**1.7**	**0.016** J	ND	ND	**0.014** J	ND	**0.21**	**0.014** J	ND
beta-BHC	0.04	ND	ND	ND	ND	ND	ND	**0.36** J	ND	ND	**0.066**	**0.13** J	ND	ND	ND	ND	ND	ND	ND	**0.041** J	ND	ND	ND	ND
Dieldrin	0.004	ND	ND	ND	**0.077**	ND	**0.083** J	**0.18** J	ND	ND	**0.026** J	**0.059** J	ND	**0.027** J	ND	**0.18** J	ND	ND	ND	ND	ND	**0.032** J	ND	ND
Endosulfan I	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.032** J	ND	ND	ND	ND	ND	ND	ND	**0.038** J	ND	ND
Endosulfan II	NS	ND	ND	ND	**0.014** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.095** J	ND	ND	ND	ND	ND	**0.023** J	ND	ND
Endosulfan sulfate	NS	ND	ND	ND	ND	ND	ND	ND	ND	**0.026** J	ND	ND	ND	**0.072**	ND	**0.14** J	ND	ND	ND	**0.028** J	ND	**0.020** J	**0.016** J	ND
Endrin	Non-Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.023** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.083** J	ND	**0.058**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin ketone	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.025** J	ND	ND	ND	ND	ND	ND	ND	ND	**0.027** J	ND	ND	ND	ND
delta-BHC	0.04	ND	ND	ND	ND	ND	ND	**0.48** J	ND	ND	**0.13**	**0.060** J	ND	ND	ND	ND	ND	ND	ND	**0.011** J	ND	ND	ND	ND
gamma-BHC (Lindane)	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.015** J	**0.072** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	0.05**	**0.12** J	**0.72**	**0.23** J	**0.18**	**0.13** J	**0.67**	**2.2**	**0.10** J	**0.027** J	**0.051**	ND	ND	**0.034** J	**3.1**	**1.4**	ND	**0.021** J	**0.018** J	**0.020** J	ND	**0.23**	**0.035** J	ND
Heptachlor	0.04	ND	ND	ND	ND	ND	ND	**0.12** J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	0.03	ND	ND	ND	ND	ND	ND	**0.91**	**1.7**	ND	ND	ND	ND	ND	**0.45** J	**0.98**	ND	ND	ND	ND	ND	**0.016** J	ND	ND
Methoxychlor	35	ND	ND	ND	**0.23**	ND	ND	ND	ND	ND	**0.15**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	0.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Bold- Analyte was detected in laboratory analysis

Highlight- Analyte was detected above the NYSDEC AWQS or Guidance Value

** Sum of all Chlordanes

NS- No Standard

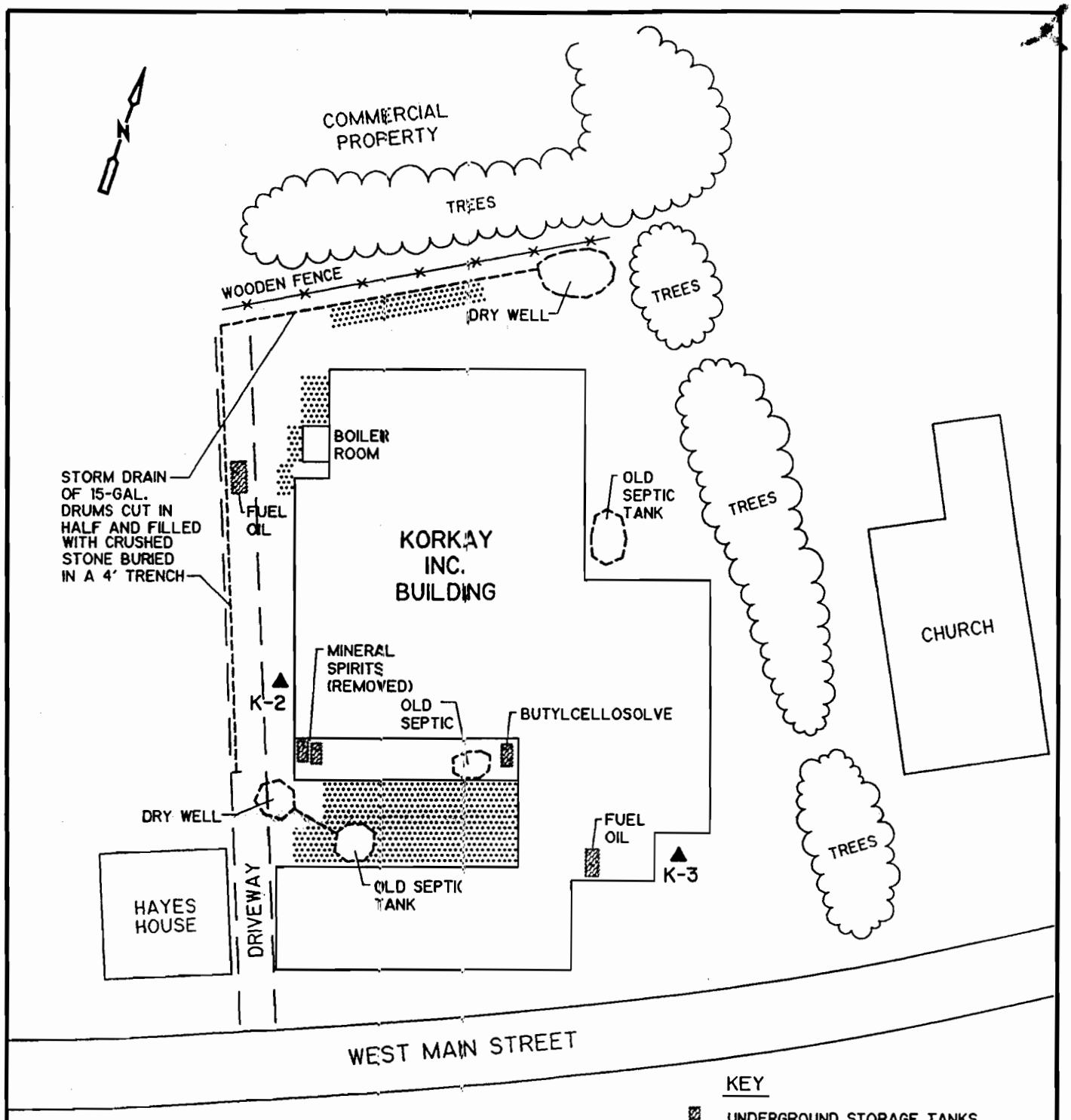
ND- Not detected above MDL

B-Compound detected

J - Result is estimated, detection was below the RL but above the MDL

Appendix A

Historical Site Map



Source of base map: EA Phase II Investigation Report. April 1988

Not to Scale.

Figure 1-2

Site Map

CDM

environmental engineers, scientists, planners, & management consultants

Korkay Inc. Site - Broadalbin, New York
NYSDEC Site #5-18-014

Appendix B

Boring Logs

AECOM

AECOM, Inc.
40 British American Boulevard
Latham, New York 12110
Phone: (518) 951-2200
Fax: (518) 951-2300

BOREHOLE LOG

BORING ID #: GW-I1

START DATE: 7/7/14 END DATE: 7/7/14

PROJECT NAME: Kerkay
SITE LOCATION: Brandalbin, NY
DRILLING CO.: Parratt Wolf
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60279286
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER:
DRILLING METHOD:
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0			HS=0				0-1: Topsoil (Hand- Cleared)					Dry	
							1-3: L. Brown FMC SAND, dry						
2.0													
4.0													
		2.5	HS=0										
6.0							4-6.5: L. Brown CMF SAND, moddied @ 5'					Wet/Loose	
8.0							7.5-9.5: SAA						
							9.5-9.8: Dark gray/→ Black SILT and SAND, Top inch greenish						
		4.5	HS=				9.8-12: Brown fine SANDY SILT w/ Trace clay						
10.0			0.1				* Collected GW-I1 @ 13:18						
							Set Screen 8-12'						
12.0													
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I2

START DATE: 7/7/14 END DATE:

PROJECT NAME: Kerkay
SITE LOCATION:
DRILLING CO.: PW
BOREHOLE DIAMETER: 3"
TOTAL DEPTH REACHED: 12'
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: RSM
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED: 12'
WEATHER CONDITIONS: Sunny/80°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2.7	HS: 0				0-.6: Topsoil/overburden .6-2': Dark Brown FM. SAND					Dry/Loose	
2.0							2-2.7: L. Brown FMC SAND					Dry/Loose	
4.0		3'	HS: 0				4-5.5: SAA 5.5-6.0: L Gray/Brown Fine SAND					wet/firm	
6.0			72				6-7: Dark Gray MF SAND, no odor						
8.0			HS: 70				8-12: ~~No Recovery~~ 6" Recovered Stained silty Sand wet gray					wet s/odor	
10.0							Set Screen from 6'-10'						
12.0			*				* collected GW-I2 @ 15:00						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I3

START DATE: 7/7/14 END DATE: 7/7/14

PROJECT NAME: Korkay
SITE LOCATION: Bandelbia
DRILLING CO.: PW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60278286
BORING LOCATION: Near culvert garage
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: Ryan
LONGITUDE:

PROJECT MANAGER:
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0	2.8		0ppm				0-1.5: Top Soil & overburden 1.5-2.8: Brown FMC SAND, moist no odor					Dry/Loose	
2.0													
4.0	2.5		1.4				4-5.5: SAA 5.5-6.5: Black/Gray Fine SAND, odor					Moist/Loose	
6.0													
8.0	3'		[redacted]				8-8.5: SAA, more wet 8.5-11: Brown Fine SAND w/ SILT, wet					wet/firm	
10.0			1450				* Collected GW-I3 @ 16:00 Set Screen 8'-12'						
12.0													
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I4

START DATE: 7/7 END DATE: 7/7

PROJECT NAME: Kirkway
SITE LOCATION: Broadalbin
DRILLING CO.: PW
BOREHOLE DIAMETER: 3"
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60278286
BORING LOCATION:
DRILLER: PW
DEPTH TO BEDROCK: N/A
INSPECTOR: RSM
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny, 80°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1: DATE 2:	DEPTH 1: DEPTH 2:	TIME 1: TIME 2:
							WEIGHT(S)						
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		1.5	0				0-1: Topsoil Overburden 1-1.5: Orangish-Brown FCM SAND					Dry/Loose	
2.0													
4.0		2.5	7.5				4-5: SAA, more Brown 5-5.75: Grayish fine SAND, odor, 5.75-6.5: Black fine SAND, odor					moist Wet	
6.0													
8.0		0	1415				8-12: NO Recovery, Shoe Showed Similar Material to GW-I3						
10.0													
12.0							* Collected GW-I4 @ 16:30						
14.0													
16.0													
18.0													
20.0													

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Phone: (518) 951-2200
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BOREHOLE LOG

BORING ID #: GW-15

START DATE: 7/8 END DATE: 7/8

PROJECT NAME: Korkay
SITE LOCATION: Broadalbin
DRILLING CO.: DW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.:
BORING LOCATION: Back Section near pool
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER:
DRILLING METHOD:
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		3.2'	0.0				0-2: Dark Brown, Rich organics, wet Trace gravel					moist/Loose	
2.0							2-3.2: L. Brown FMC SAND w/ Trace gravel						
4.0		2'	7.5				4-5.5: SAA 5.5 - 5.8: Black FMC SAND 5.8 - 6.2: Black fine SAND w/ SILT						
6.0							6.2 - 7: Greyish Black FMC SAND					wet	
8.0		4'	1.2				8-9: Greyish-Brown FM SAND 9-11: Brown fine SILT w/ SAND 11-12: CLAYEY-SILT, Brown					wet/firm	
10.0													
12.0							* collected GW-15 @ 7:45 Set Screen @ 8-12'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I6

START DATE: END DATE:

PROJECT NAME:
SITE LOCATION:
DRILLING CO.:
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.:
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER:
DRILLING METHOD:
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		1'	0				0-1: Overburden/Topsoil						
2.0													
4.0		0	1.2				4-8: No Recovery						
6.0													
8.0		4'	248 6.7				8-8.8: Black fine SAND, odor 8.8-10.7: Brown fine SAND w/ silt 10.7-12: Brown Clayey-SILT					wet/firm	
10.0													
12.0							* Collected GW-I6 @ 8:10 Set Screen 8-12'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW - I7

START DATE: 7/8/14 END DATE:

PROJECT NAME: Kodak
SITE LOCATION:
DRILLING CO.:
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.:
BORING LOCATION: 2nd row from back, in center
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER:
DRILLING METHOD:
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:	
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:	
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUC	FALL			CASING	TUBE	CORE		RIG TYPE:
							TYPE							
							ID/OD							
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE		WATER LEVEL
0.0		2'	0				0-1: Organic Topsoil w/ gravel 1-2: L. Brown FMC SAND					Loose/ Dry		
2.0														
4.0		2.8'	3.6 691				4-5.6: SAA 5.6-6.8: Black FMC SAND, odor					Loose/dry		
6.0														
8.0		3.5'	1227 1266				8-9.5: SAA, odor 9.5-11.5: L. Brown fine SAND w/ SILT 11.5-12: L. Brown CLAYEY-SILT					wet/firm		
10.0														
12.0							* Collected GW-I7 @ 8:40 # Collected DUP-1 Set Screen @ 8-12'							
14.0														
16.0														
18.0														
20.0														

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BOREHOLE LOG

BORING ID #: GW-I8

START DATE: 7/8/14 END DATE:

PROJECT NAME: Kodak
PROJECT NO.:
PROJECT MANAGER:
SITE LOCATION:
BORING LOCATION:
DRILLING CO.:
DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER:
DEPTH TO BEDROCK:
TOTAL DEPTH DRILLED:
TOTAL DEPTH REACHED:
INSPECTOR:
WEATHER CONDITIONS: cloudy, 80°
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUC	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2.5'	0				0-2.5: Topsoil / Organic matter					Dry	
2.0													
4.0		2.5'	0.7 28.9				4-5.5: L. Brown FMC SAND 5.5-L. Brown / Grayish FMC SAND					moist	
6.0													
8.0		3'	678 20.0				8-9.2: Gray / Brown FM SAND, slight odor 9.2-11: Gray / Brown SILTY SAND, wet					wet	
10.0							* Collected GW-I8 @ 9:00 Screen 8-12						
12.0													
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I9

START DATE: 7/8 END DATE: 7/8

PROJECT NAME: Kerley
SITE LOCATION: Broadalbin NY
DRILLING CO.: PW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION: Near fence @ church
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER: J. Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Cloudy
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2'	0				0-1: Organic Topsoil w/ gravel 1-2: L. Brown FMC SAND w/ Trace gravel					Dry/Loose	
2.0													
4.0		3'	0 0				4-7: L. Brown FMC SAND					Dry/Loose	
6.0													
8.0		4'	0 0				8-12: L. Brown FM SAND, Wet					wet/loose	
10.0													
12.0		4'	0				12-13: SAA 13-16: L Brown fine CLAYEY-SILT - High plasticity					wet/firm	
14.0							* Collected GW-I9 @ 10:00 * Collected MS/MSD Set Screen [redacted]' 7.5-11.5'						
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW - I10

START DATE: 7/8 END DATE: 7/8

PROJECT NAME: Kerka ✓
SITE LOCATION: Bin
DRILLING CO.:
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.:
BORING LOCATION: on Harris Property near pool
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER:
DRILLING METHOD:
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUC	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		7.5	0				0-.6: Topsoil 6-2.5: L. Brown FMC SAND, moist					moist/Loose	
2.0													
4.0		3	0 7.4				4-5: SAA 5-7.5: Black fM SAND, Odor					wet/moist wet/moist	
6.0													
8.0			4.1				8-9.5: Brown SILTY-SAND, no odor 9.5-12: CLAYEY-SILT, Brown					wet wet/firm	
10.0													
12.0							* collected GW-I10 @ 10:45 Set Screen 4'-8'						
14.0													
16.0													
18.0													
20.0													

Acked DEC

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BOREHOLE LOG

BORING ID #: GW-111

START DATE: 7/8/14 END DATE: 7/8/14

PROJECT NAME: Korkay
SITE LOCATION:
DRILLING CO.:
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.:
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER:
DRILLING METHOD:
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2'	0				0-1: Organic Black Topsoil 1-2: L→D Brown FMC SAND, Dry					Dry	
2.0													
4.0		3'	0				4-5.8: SAA, Wet 5.8-6.1: Brown fine SILT w/ SAND (Confining) 6.1-7: Black FM SAND						
6.0													
8.0		4'	35.7 1.4				8-10.5: Brown fine SILT w/ SAND 10.5-12: L. Brown CLAYEY-SILT					wet/firm	
10.0							* Collected GW-111@ 11:00 * collected Soil Sample (S)-11@ 11:00						
12.0							Sat Screen ~~1'~~ 5'-9'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I12

START DATE: 7/8/14 END DATE: 7/8/14

PROJECT NAME: Kodak
SITE LOCATION:
DRILLING CO.:
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.:
BORING LOCATION: Between Tower & Harris House
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD:
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1: DATE 2:	DEPTH 1: DEPTH 2:	TIME 1: TIME 2:
							WEIGHT(S)						
							FALL			CASING	TUBE	CORE	RIG TYPE:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2.5	0				0-1.3: Topsoil/Organic Overburden 1.3-2.5: L. Brown FMC SAND					Dry/Loose	
2.0													
4.0		3.0	.4				4-7: SAA, Trace Gravel					Moist	
6.0													
8.0		3'	1735 * 1086 *				8-8.6: L. Brown fine SILT w/ SAND 8.6-10: Black FM SAND, Strong odor 10-11: Gray/Sk/Brown fine SAND, odor					Wet	
10.0													
12.0							* Collected GW-I12 @ 11:35 Slt Screen 8-12'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW - I13

START DATE: 7/8/14 END DATE:

PROJECT NAME: Korky
SITE LOCATION:
DRILLING CO.: PW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60275286
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR:
LONGITUDE:

PROJECT MANAGER: John Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny 80°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						
ID/OD						

DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2'	0				0-1: Topsoil / overburden 1-2: L. Brown FMC SAND	Dry/Loose	
2.0									
4.0		1.5	8.9 2.4				4-4.5: SAA 4.5-5.5: Black FMC SAND, Strong odor	wet/Loose	
6.0									
8.0		4'	343 180				8-9.5: Very black Fine SAND, Strong odor 9.5-11.5: Gray/~~Black~~ Brown fine SILT w/ SAND 11.5-12: Brown/Gray CLAYEY-SILT	wet/firm	
10.0									
12.0							* Collected GW-I13 @ 13:45 Set Screen 5-9'		
14.0									
16.0									
18.0									
20.0									

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BOREHOLE LOG

BORING ID #: GW-I14

START DATE: 7/8/14 END DATE: 7/8/14

PROJECT NAME: Kortright
SITE LOCATION: Brandalbin, NY
DRILLING CO.: PW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER: J. Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Cloudy, 80°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		.2	0 ppm				No Recovery 0-4'						
2.0													
4.0		1.2'	1558	X			4-5: L. Brown FMC SAND, trace gravel 5-5.2: Black FMC SAND, odor						
6.0													
8.0			1602	X			8-8.5: Little Recovery, but what was recovered Black fM SAND, odorous					Moist	
10.0													
12.0							Set Screen @ 8-12' *Collected GW-I14 @ 14:45						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I15

START DATE: 7/8 END DATE: 7/8

PROJECT NAME: Korkay
SITE LOCATION: Broadalbin
DRILLING CO.: PW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60278606
BORING LOCATION: Center nearest road
DRILLER:
DEPTH TO BEDROCK:
INSPECTOR:
LONGITUDE:

PROJECT MANAGER: John Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny 80°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUC	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2'					0'-0.5' TopSoil 0.5'-1.5' Brown fine to m. Sand, trace Subang. gravel 1.5'-2.0' Concrete chips						
2.0													
4.0							4-5: Gravelly SAND, Coarse, dry					Dry/Tight	
6.0		1'											
8.0		3'	168 1900 51				8-9: L. Brown/Gray fine SILTY-SAND 9-10: Black fine SAND w/ Trace silt, odor 10-11: Gray/Black FM SAND, odor					wet/firm Wet/Loose wet/loose	
10.0													
12.0							▶ Collected GW-I15 @ 16:30 Set Screen 8-12'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I16

START DATE: 7/9/14 END DATE: 7/9/14

PROJECT NAME: Kerkow
PROJECT NO.: 60279206
PROJECT MANAGER: John Santacroce
SITE LOCATION:
BORING LOCATION:
DRILLING CO.: PW
DRILLER:
DRILLING METHOD: Geoprobe
BOREHOLE DIAMETER:
DEPTH TO BEDROCK:
TOTAL DEPTH DRILLED:
TOTAL DEPTH REACHED:
INSPECTOR: RM
WEATHER CONDITIONS: Sunny 65°
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2.5'	0				0-.6' Organic Topsoil/Overburden .6-2.5: L. Brown FM SAND w/ gravel					Dry/firm	
2.0													
4.0		3.2	0 0				4-6.2: SAA, no gravel 6.2-7.2: L. Brown SAND w/ Black bedding layers, no odor					wet/loose	
6.0													
8.0		3'	0				8-11: L. Brown FM SAND					wet/Loose	
10.0													
12.0							* Collected GW-I16 @ 7:45 Set Screen 8-12'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I17

START DATE: 7/9 END DATE: 7/9

PROJECT NAME: Kortay
SITE LOCATION: Broadalbin
DRILLING CO.: PW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION: Across street
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: RSM
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny, 70°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		3.5'	0 0				0-1: Concrete overburden 1-2: Dark Brown FM SAND, firm 2-3.5: L. Brown FM SAND, Loose					Dry/Tight Loose/Dry	
2.0													
4.0		3.5'	0 0				4-4.5: SAA 4.5-5.8: L. Brown fine → Medium SAND 5.8-6.8: L. Brown fine SAND w/ SILT 6.8-7.1: L. Brown FM SAND, Black layers (Thin)					wet/Loose	▽ 5.8
6.0													
8.0		4'					8-12: L. Brown FM SAND, becoming finer w/ depth					wet/firm	
10.0													
12.0							* Collected GW-I17 @ 8:30 Set Screen 8-12'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I/8
START DATE: 7/9 END DATE: 7/9

PROJECT NAME: Karkay
SITE LOCATION: Broadalbin
DRILLING CO.: PW
BOREHOLE DIAMETER: 3"
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: RM
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny 70°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUC	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2.5	0 0				0-.6: Concrete overburden .6-2.5: L. Brown FM SAND w/ gravel					Dry/Tight	
2.0													
4.0		3.5	0 0 0				4-5: SAA 5-6 SAA, moist 6-7.5: L. Brown fine SAND w/ Trace SILT clay lens @ 6.2'					wet/firm	▽
6.0													
8.0		4'	3.8				8-11: L. Brown FMC SAND 11-11.5: Grayish/Brown FMC SAND, no odor 11.5-12: Grayish/Brown fine SAND & SILT					wet/Loose wet	
10.0													
12.0							* Collected GW-I19 @ 8:55 Set Screen 8-12'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I19

START DATE: 7/9/14 END DATE: 7/9

PROJECT NAME: Kortay
SITE LOCATION:
DRILLING CO.: PW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION: In Right-of-way in front of house
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: RM
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny 75°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
							GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		4'	0 ppm				0-4: L. Brown fine → medium SAND (Hand-cleared)					Dry/Loose	
2.0													
4.0		2'	0 0				4-6: L. Brown FM SAND, wet					wet	▽ 6.5
6.0													
8.0		4'	7.9 2163				8-10: Grayish-Brown FM SAND, no odor 10-11: Blackish-Grey FM SAND, odor					wet	
10.0			186				11-11.5: Greyish/Brown FM SAND, odor 11.5-12: Brown/Grey Fine SAND w/ Trace SILT					wet	
12.0							* Collected GW-IH @ 9:20 Set Screen @ 8-12'						
14.0													
16.0													
18.0													
20.0													

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BOREHOLE LOG

BORING ID #: GW-I20

START DATE: 7/9 END DATE: 7/9

PROJECT NAME: Kerkar
SITE LOCATION:
DRILLING CO.: PW
BOREHOLE DIAMETER:
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60277286
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: RM
LONGITUDE:

PROJECT MANAGER: Santacruce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny 75°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUC	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		4'					0-4: L. Brown FMC SAND w/ Trace Gravel (Hand-cleared)					Dry	
2.0													
4.0		2'	13.2				4-5: SAA 5-6: L. Brown FMC SAND, wet					wet/Loose	▽ 5'
6.0													
8.0		3'	11.6 389	X			8-10: Greyish / Brown FMC SAND 10-10.5: Blackish/ Grey FM SAND, Soupy, odor 10.5-11': Brown Fine SAND w/ Trace SILT					wet/Loose	
10.0							Slight odor						
12.0							* Collected GW-I20 @ 9:45 Set Screen @ 8-12'						
14.0													
16.0													
18.0													
20.0													

AECOM

AECOM, Inc.
40 British American Boulevard
Latham, New York 12110
Phone: (518) 951-2200
Fax: (518) 951-2300

BOREHOLE LOG

BORING ID #: GW-I21

START DATE: 7/9 END DATE: 7/9

PROJECT NAME: Korkay
SITE LOCATION: Brooklyn, NY
DRILLING CO.: AW
BOREHOLE DIAMETER: 3"
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION:
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: RM
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny 75°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION														
							WEIGHT(S)	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1: DATE 2:	DEPTH 1: DEPTH 2:	TIME 1: TIME 2:	
							FALL			CASING	TUBE	CORE	RIG TYPE:	
							TYPE							
							ID/OD							
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUC	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL	
0.0		1.5'	0				0-1: Organic Topsoil 1-2.5: L. Brown FMC SAND					Dry/Loose		
2.0														
4.0		4'	0 224				4-6.5: L. Brown FMC SAND 6.5-7.5: Grayish/Brown FMC SAND, slight odor 7.5-8: L. Brown fine SAND, compact					Wet/Loose		
6.0														
8.0		4'	.2				8-10: SAA 10-12: Brown CLAYEY-SILT					Wet/Loose Wet/Firm		
10.0														
12.0							* Collected GW-I21 @ 10:25 Set Screen @ 6'-10'							
14.0														
16.0														
18.0														
20.0														

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40 British American Boulevard
Latham, New York 12110
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Fax: (518) 951-2300

BOREHOLE LOG

BORING ID #: GW-I22

START DATE: 7/9 END DATE: 7/9

PROJECT NAME: Korkay
SITE LOCATION: Broadalbin
DRILLING CO.: PW
BOREHOLE DIAMETER: 3"
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION: center behind fence
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: RM
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Sunny 70°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						
							ID/OD						
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
0.0		2.5'	0 0				0-1' Dark Brown Organic Soil 1-2: L. Brown FMC SAND					Dry	
2.0													
4.0		4'	0 0				4-6: SAA, Wet 6-7: Thin Black (rus, no odor (N5) organic matter 7-8: L. Brown fine SAND, wet, no odor					wet/loose	Dry
6.0													
8.0		4'	0 0				8-10: SAA, Soupy, no odor 10-12: L. Brown fine SILT w/ clAY, Confining layer					wet/loose wet/stiff	
10.0													
12.0							* collected GW-I22 @ 10:50 Set Screen 6'-10'						
14.0													
16.0													
18.0													
20.0													

AECOM

AECOM, Inc.
40 British American Boulevard
Latham, New York 12110
Phone: (518) 951-2200
Fax: (518) 951-2300

BOREHOLE LOG

BORING ID #: GW - I23

START DATE: 7/9 END DATE: 7/9

PROJECT NAME: Kinkay
SITE LOCATION: Brandalbin, NY
DRILLING CO.: TW
BOREHOLE DIAMETER: 3"
TOTAL DEPTH REACHED:
LATITUDE:

PROJECT NO.: 60273286
BORING LOCATION: NE point behind fence
DRILLER:
DEPTH TO BEDROCK: N/A
INSPECTOR: RM
LONGITUDE:

PROJECT MANAGER: Santacroce
DRILLING METHOD: Geoprobe
TOTAL DEPTH DRILLED:
WEATHER CONDITIONS: Cloudy 75°
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:	
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:	
							FALL			CASING	TUBE	CORE		RIG TYPE:
							TYPE							
							ID/OD							
DEPTH (feet bgs)	Blow Count	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE		WATER LEVEL
0.0		3'	6				0-1: Dark Brown Organic Topsoil 1-3: L. Brown FMC SAND					Dry/Loose		
2.0														
4.0		3.5	0 0				4-7: SAA 7-7.5: L. Brown fine SAND w/ Trace SILT No odors					wet/Loose		▽ 4
6.0														
8.0		4'	0 0				8-9: SAA 9-12: L. Brown CLAYEY-SILT, Tight					wet/Loose wet/Tight		
10.0														
12.0							* collected GW-I23 @ 11:30 Set Screen @ 6'-10'							
14.0														
16.0														
18.0														
20.0														

Appendix C

Persulfate Soil Oxidant Demand Results

REGENESIS

P. 949-366-8000
F. 949-366-8090
Hours: M-F 8-5 pm, PST

PersulfOx™

CATALYZED PERSULFATE

Persulfate Soil Oxidant Demand (SOD) Testing

To: John Santacroce
AECOM
40 British American Blvd.
Latham, NY 12110

From: Melinda Pham, Regenesis
Cc: Maureen Dooley, Regenesis

Site Name: Korkay

Site Location: 70 W. Main Street
Broadalbin, NY

OXIDANT DEMAND RESULTS

Soil Oxidant Demand of the Site

Sample Name	SOD ($g_{oxidant}/kg_{soil}$)
Korkay GW-I2	**1.72**

After forty eight hours, the oxidant demand of the soil and water was measured and the results are shown in the above table.

DESCRIPTION OF EXPERIMENTAL METHODS

The oxidant demand test is typically performed to determine the amount of oxidant consumed in the presence of site soil. Samples of soil and groundwater are collected in the field. If site water is not provided, distilled water will be used in its place. In this case, the oxidant demand test was performed with distilled water. Reactor was set up with 250 grams of site soil and 250 grams of distilled water. A known amount of sodium persulfate (10 $g_{oxidant}/kg_{soil}$) was added to the reaction vessel and the oxidant concentration was measured as an initial time point. After 48 hours, a filtered sample of the supernatant was measured by potassium permanganate titration and the remaining persulfate concentration was calculated.

P: 949-366-8000
F: 949-366-8090
Hours: M-F 8-5pm, PST

REGENESIS

CHAIN OF CUSTODY FORM

1) Alert your Regenesis Sales Representative of the shipping and arrival information of your samples.
2) Send this completed Chain of Custody form along with the samples.

Ship samples to:

Regenesis
1011 Calle Sombra
San Clemente, CA
92673
949.366.8000

Consulting Firm AECOM
Project name Korkay
Project location 70 W. Main Street Broadalbin, NY
Primary contact (name, phone #, email) John Santacroce (518) 951-2265
Consultant address 40 British American BLVD Latham, NY
Regenesis technical manager or contact

Sample Name	Date	Type	Analysis	Notes
Korkay GW-I2	7/10/14	Soil	SOD	Samples were shipped ground + not on ice.

+ specify "S" for soil or "W" for water

Please send a copy of this COC by fax or email to Joy Gravitt at Regenesis.
jgravitt@regenesis.com
Fax: 949.366.8090

For lab use only:

Condition upon receipt (includes completeness of COC):
- ☑ Acceptable
- ☐ Unacceptable

Received by: Melinda Pham Melinda Pham Date received: 7/17/2014