FINAL

SITE CHARACTERIZATION REPORT
FOR THE CNY CAR CRUSHERS SITE
(NYSDEC SITE 738048)
HASTINGS, OSWEGO COUNTY, NEW YORK

Prepared for:

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SEPTEMBER 2018

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LIST OF ACRONYMS

ASR	Automobile shredder residue
bgs	Below ground surface
DER	Division of Environmental Remediation
ELAP	Environmental Laboratory Accreditation Program
IDW	Investigation-derived waste
NYCRR	New York State Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
PCB	Polychlorinated biphenyl
PFAS	Per- and polyfluoroalkyl substances
PID	Photoionization detector
ppm	parts per million
SVOC	Semi-volatile organic compound
TAL	Target Analyte List
TP	Test pit
VOC	Volatile organic compound

SECTION 1
INTRODUCTION

This Site Characterization Report presents the methods employed for and results from the site characterization conducted at the CNY Car Crushers Site in Hastings, New York. Polychlorinated biphenyls (PCBs), cadmium, lead and mercury had previously been identified at the site, part of which is adjacent to a residential area.

Parsons completed the site characterization during April and May 2018 under Work Assignment #34 of Contract No. D007623 with the New York State Department of Environmental Conservation (NYSDEC). Sampling and analyses were conducted pursuant to a work scope that had been approved by the NYSDEC (Parsons 2017). Data obtained during the site characterization have been compiled and evaluated and are summarized in this report.

SECTION 2
PROJECT BACKGROUND AND OBJECTIVES

The CNY Car Crushers site is within an undeveloped parcel on Hogs Back Road in the Town of Hastings, Oswego County, New York (Figure 1). The parcel is partially open fields and partially wooded. It is bound to the north by Hogs Back Road, to the west by US Route 11, to the east by Delta Road, and to the south by Belva Boulevard. The CNY Car Crushers site is in the northeastern corner of the parcel, with residences adjacent to the north and east of the site's waste disposal area. The area of concern that was characterized occupies approximately 6.5 acres of the 23-acre parcel. The NYSDEC site number is 738048.

The property was wholly owned by CNY Car Crushers. CNY Car Crushers formerly used the site to dispose of automobile shredder residue (ASR).

The primary contaminants of concern identified at the site are PCBs, cadmium, lead and mercury. These were first identified in soil and waste samples collected by InteGreyted Consultants on October 17, 2002. PCBs were present in concentrations up to 700 parts per million (ppm). Elevated concentrations of metals such as mercury, lead, and chromium were also detected in these samples.

The purpose of this site characterization was to determine the physical extent of the ASR waste, whether contamination is present in surface and subsurface soils, and if groundwater quality is being impacted.

Residences in the immediate vicinity of the site receive drinking water supplied by the Onondaga County Water Authority with water sourced from Lake Ontario. Municipal water is available to all surrounding residences, but it is not confirmed if all have hooked up to the supply or if there are still private wells being utilized in the area.

SECTION 3
SITE CHARACTERIZATION METHODS AND RESULTS

The 2018 site characterization scope of work, field methods and results are described in the following subsections.

3.1 2018 SITE CHARACTERIZATION SCOPE OF WORK

The scope of work for the 2018 site characterization consisted of the following activities:

1. Geophysical investigation to locate subsurface utilities
2. Test pit excavations to identify the lateral and vertical limits of the ASR fill material
3. Subsurface soil investigation
4. Surface soil investigation
5. Monitoring well installations and groundwater sampling
6. Determination of coordinates and elevations of the sample locations

Field activities were conducted in accordance with the Scope of Work (Parsons 2017) and the generic Health and Safety Plan (Parsons and OBG 2011b) prepared and approved for Parsons' contract D007623 with NYSDEC. Site-specific elements and specific job safety analyses for test pit excavations, soil sampling, and monitoring well installation were added to the Health and Safety Plan.

3.2 ANALYTICAL SERVICES

Analytical services for water, soil, and waste samples were provided by TestAmerica Laboratories of Buffalo, New York (TestAmerica). TestAmerica is accredited under the National Environmental Laboratory Approval Program and Department of Defense Environmental Laboratory Accreditation Program (ELAP) and is a New York State Department of Health ELAP-certified laboratory (Lab ID 11522).

3.3 GEOPHYSICAL INVESTIGATION

A geophysical survey was performed at the site to locate subsurface utility lines before subsurface borings and test pit excavations were begun. A combination of electrical tracing and magnetic techniques was used. No subsurface utilities were found at the site.

3.4 TEST PIT INVESTIGATION

As shown on Figures 2 and 3, 21 tests pits (TP-01 to TP-21) were excavated to visually identify automobile shredder fluff and determine the extent of the waste. Test pit locations were selected based on the site topography, which suggested the placement of waste was within an elevated area in the northeast corner of the property. Test pits were dug with a mini-excavator on April 9, 2018. Observations from visual inspection of the test pit excavations are summarized below:

- TP-01 through TP-09 were completed along the toe of the slope of the elevated area thought to be the primary ASR disposal area. Samples were collected at TP-01 and TP-08 for analysis to characterize the waste. These samples were analyzed for PCBs and Target Analyte List (TAL) metals.

  - Test pits TP-01 through TP-04 were completed along the south side of the slope. They consisted of shredder fluff immediately below the surface with medium brown sand underlying the shredder fluff at the bottom of the slope. The shredder fluff consisted of dark brown material containing wires, metal, plastic, and textiles.
  - TP-05 was completed on a mound next to the eastern toe of the slope. It consisted of medium brown sand with no shredder fluff. The purpose of this location was to assess whether numerous mounds in the area were waste or soil piles.
  - TP-06 and TP-07 were completed along the east toe of the slope. TP-06 consisted of household trash, including cans, bottles and tires. TP-07 contained dark brown shredder fluff in the top few inches, underlain by medium brown soil.
  - TP-08 and TP-09 were completed along the southwest toe of the slope and contained shredder fluff underlain by light brown soil.

- TP-10 was completed east of the slope, beyond the expected limits of the waste. No shredder fluff was found at this location.
- TP-11 through TP-14 were completed along the northeast portion of the fill, near the back yards of neighboring residences. Waste samples were collected for analysis at TP-11, TP-12, and TP-14. In test pits TP-11, TP-12, and TP-14, shredder fluff and mixed debris was found to extend more than 2 feet below ground surface (bgs). TP-13 contained soil and cobbles with no shredder fluff.
- TP-15 was completed on a large mound in the center of the ASR waste mass. The test pit contained medium brown sand with no automobile shredder fluff.
- TP-16 through TP-18 were completed along the northwest portion of the fill, near the back yards of neighboring residences. TP-16 consisted of medium brown sand from 0 to 5 feet bgs, underlain by shredder fluff and tires. TP-17 and TP-18 consisted of soil with no waste.
- TP-19 was completed along the western edge of the waste area. The test pit had 1 foot of clean soil underlain by shredder fluff. The test pit was stopped at 3 feet bgs. The bottom of the ASR waste was not encountered.
- TP-20 and TP-21 were completed west of the expected fill area. Neither test pit contained shredder fluff.

In general, the extent of the ASR waste is defined by elevated topography on the south, southeast and southwest sides of the waste mass. It is very close to the northern property line and adjacent to residential back yards. The waste appears to have been placed on top of the ground surface and covered with a layer of soil with varying thickness. Due to the limited reach of the mini-excavator, it was not possible to determine the lower extent of the waste in test pits excavated on top of the waste mass.

Table 1 summarizes the validated laboratory results. Test pit samples were analyzed for PCBs and TAL metals. Total PCBs exceeded Part 370-6.8(a) criteria for unrestricted and residential use in all sample locations. Additionally, concentrations of cadmium, chromium, copper, lead, mercury, nickel and zinc were above unrestricted and/or residential use criteria in all test pit samples. Various test pit sample concentrations exceeded unrestricted and/or residential use criteria for arsenic, barium, manganese, and silver. Note that the soil samples were analyzed for total chromium and there is no NYSDEC soil quality criterion for total chromium. To screen the sample results, the total chromium concentrations were compared to the hexavalent chromium unrestricted and residential use criteria. Sample concentrations for total chromium that exceed the hexavalent chromium criteria suggest further characterization may be warranted.

3.5 SUBSURFACE INVESTIGATION

3.5.1 SOIL BORINGS

As shown on Figure 4, six soil borings were drilled on site to assess the vertical extent of the ASR within the waste mass and to collect subsurface soil samples to characterize the presence of PCBs and TAL metals contamination. Borings were advanced with hollow-stem augers, and soil samples were collected using a 2-foot split spoon sampler. Soil from each sample was evaluated for moisture content, grain size and color. The sample headspace was screened using a photoionization detector (PID). Boring logs are included in Appendix A.

Two soil samples were collected from each boring and submitted for chemical analyses. One sample was collected from the waste, and one sample was collected from near the bottom of the boring, beneath the waste, to assess whether contamination from the waste is migrating from the waste downward through the soil column.

Table 2 summarizes the laboratory analytical results. Soil and waste samples were analyzed for PCBs and TAL metals. PCB concentrations in waste samples collected at all boring locations were higher than the unrestricted and residential use soil quality criteria. The PCB concentration in the soil sample collected at SB-02 at 14 to 15 feet bgs, beneath the waste, exceeded the unrestricted but not residential use soil quality criterion.

Several metals concentrations in each waste sample exceeded the applicable soil quality criteria. However, the soil samples collected from beneath the waste did not exceed any soil quality criteria. All borings had concentrations of cadmium, chromium copper, lead, mercury, nickel, and zinc that exceeded the unrestricted and/or residential soil quality criteria. In some samples, concentrations of arsenic, barium, selenium, and silver also exceeded soil quality criteria.

3.5.2 WELL INSTALLATION

As shown in Figure 5, three monitoring wells were installed to assess groundwater quality impacts at the site. Monitoring well locations were selected along the northern property line, close to the nearest residences, and on the southeast and southwest sides of the waste area. The borings for the monitoring wells were drilled with hollow-stem augers. The wells were constructed with 2-inch inside-diameter polyvinyl chloride casing with a 10-foot long, 10-slot screen. Following installation, the monitoring wells were developed to remove material that may have settled in and around the well screen and sand pack. Development water was contained in drums and stored on site for waste characterization. Well construction and development logs are included in Appendix A.

3.5.3 GROUNDWATER SAMPLING AND ANALYSIS

Once well installation and development was complete, the three new monitoring wells were sampled on May 14, 2018, using low-flow sampling techniques. Groundwater sampling logs are included in Appendix B. Prior to sampling, water levels were measured in each well. Those water level depths were converted to elevations and plotted to determine the groundwater flow direction. Figure 6 depicts the groundwater flow pattern for the July 2018 sampling event. Groundwater flow was in a northeasterly direction, toward the residences on Hogsback Road.

Groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, TAL metals, and per- and polyfluoroalkyl substances (PFAS). The analytical program used the data quality objectives and quality assurance objectives described in Section 3.2. Groundwater analytical results were compared to New York State groundwater quality standards and guidance values. Table 3 summarizes concentrations of detected organic compounds and metals in groundwater. The concentration of manganese and the combined concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in

the sample from MW-1 were the only cases in which NYSDEC Class GA Groundwater standards or guidance values were exceeded. MW-1 is located within the waste mass on the downgradient edge.

3.6 SURFACE SOIL INVESTIGATION

As shown in Figure 7, 10 surface soil samples were collected to assess surface soil quality. The sample locations were selected to characterize the waste mass and surrounding area.

Table 4 summarizes the analytical results. Soil samples were analyzed for PCBs and TAL metals. The analytical program used the data quality objectives and quality assurance objectives described in Section 3.2.

S6 was the only sample with a total PCB concentration that was higher than both the unrestricted and residential use soil quality criteria. Samples S1, S2, S3, S5, S7, S8, and S10 all had total PCB concentrations above the unrestricted use criterion, but all were below the residential use criterion. PCBs were not detected in samples S4 and S9.

S6, S8, and S10 were the only samples with metals concentrations exceeding soil quality criteria. Concentrations of cadmium, chromium, copper, lead, mercury, nickel, and zinc in samples S6 and S8 exceeded the unrestricted and/or residential land use criteria. In S1,0 the concentration of mercury was above the unrestricted use criterion but below the residential criterion.

3.7 SITE SURVEY

Following the site characterization fieldwork, the coordinates and elevations of the sample points, wells and test pits were determined by a subcontracted licensed surveyor. Horizontal survey data were based on the North American Datum of 1983 New York State Plane (Central Zone) coordinate system (in feet). Elevations were based on the North American Vertical Datum of 1988. Site survey information from the 2018 field effort is included in Appendix C.

3.8 WASTE CHARACTERIZATION

Investigation-derived waste (IDW), including excess soils, well development water and purge water, were placed in Department of Transportation-approved, 55-gallon, 17-H type drums. The IDW was evaluated as nonhazardous based on characterization sample results and will be disposed of in accordance with applicable NYSDEC regulations.

3.9 CONCLUSIONS AND RECOMMENDATIONS

The waste area of the CNY Car Crushers site appears to be concentrated in the northeast portion of the property, on and above the slope. No evidence of automobile shredder waste was found below the toe of the slope or in the mounds of soil scattered around the site.

All test pit and subsurface soil samples had PCB concentrations higher than either unrestricted or residential use soil quality criteria. There were also several metals concentrations above unrestricted or residential use soil quality criteria. Samples taken at the bottom of the borings (between 7 and 15 feet bgs) were less impacted. PCB and metals data show elevated concentrations throughout the waste area rather than concentrated areas of contamination.

The concentration of manganese and the combined concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in the sample from MW-1 exceeded the NYSDEC Class GA Groundwater

standards. MW-1 is within the waste mass, downgradient of MW-2 and MW-3. No other exceedances of Class GA standards or guidance values were detected in MW-1, MW-2 or MW-3.

All surface soil samples except for S4 and S9 had PCB concentrations above unrestricted or residential use soil quality criteria. Both S4 and S9 are outside the expected waste disposal area; however, they are not the only locations outside the area. S1, S8, and S10 are also outside the expected waste area. S6 and S8 had the highest number of parameters with concentrations above unrestricted or residential use soil quality criteria.

SECTION 4
REFERENCES

Cited References

Parsons. 2017. *Scope of Work* (Schedule 1) for: *Site Characterization For the CNY Car Crushers Site.* Prepared for the New York State Department of Environmental Conservation. October.

Parsons and OBG. 2011b. *Generic/Site-Specific Health and Safety Plan.* Prepared for the New York State Department of Environmental Conservation, Albany, NY. May.

Related References

NYSDEC. 2006. *6 NYCRR[1] Part 375 Environmental Remediation Programs. Subparts 375-1 to 375-4 & 375-6.* New York State Department of Environmental Conservation. September.

NYSDEC. 2010. *DEC Program Policy DER[2]-10 / Technical Guidance for Site Investigation and Remediation.* New York State Department of Environmental Conservation. May.

Parsons and OBG. 2011a. *Generic Quality Assurance Project Plan.* Prepared for the New York State Department of Environmental Conservation, Albany, NY. May.

[1] NYCRR – New York State Codes, Rules and Regulations
[2] DER – Division of Environmental Remediation

TABLES

Table 1
2018 Test Pit Data
Detected Compound Summary

NYSDEC-Car Crusher Site 2018 Site Investigation Test Pit Data SDG: 480-133903 Detected Compound Summary		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives[1]	Part 375-6.8(a) Residential Use Soil Cleanup Objectives[2]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	7-CAR-001-TP-01 7-CAR-001-06 480-133903-6 3 - 5 ft TALBUFF 4801339031 SO 4/9/2018 15:45	7-CAR-001-TP--08 7-CAR-001-05 480-133903-5 3 - 5 ft TALBUFF 4801339031 SO 4/9/2018 15:30	7-CAR-001-TP-11 7-CAR-001-02 480-133903-2 2 - 7 ft TALBUFF 4801339031 SO 4/9/2018 12:00	7-CAR-001-TP-12 7-CAR-001-01 480-133903-1 2 - 7 ft TALBUFF 4801339031 SO 4/9/2018 11:27
CAS NO.	COMPOUND			UNITS:				
	PCBs							
53469-21-9	PCB-1242 (Aroclor 1242)			mg/kg	ND	ND	ND	66
12672-29-6	PCB-1248 (Aroclor 1248)			mg/kg	180	1.6	20	ND
11097-69-1	PCB-1254 (Aroclor 1254)			mg/kg	ND	2.6	32	45
	Total PCBs	0.1	1	mg/kg	**180**	**4.2**	**52**	**111**
	METALS							
7429-90-5	Aluminum	NS	NS	mg/kg	9860 T	4700	5450	3690
7440-36-0	Antimony	NS	NS	mg/kg	63.6 T	7.5 J	16.6 J	9.2 J
7440-38-2	Arsenic	13	16	mg/kg	**19.8**	4.6	14.7	**22.2**
7440-39-3	Barium	350	350	mg/kg	**939**	262	**787**	**862**
7440-41-7	Beryllium	7.2	14	mg/kg	0.24 J	0.15 J	0.21 J	0.16 J
7440-43-9	Cadmium	2.5	2.5	mg/kg	**192 T**	**21.9**	**42.8**	**66.6**
7440-70-2	Calcium	NS	NS	mg/kg	33100	9400	13800	18500
7440-47-3	Chromium, Total*	1*	22*	mg/kg	**310 T**	**36.1**	**106**	**125**
7440-48-4	Cobalt	NS	NS	mg/kg	130 T	9.2	31.2	28.1
7440-50-8	Copper	50	270	mg/kg	**28600 T**	223	**2130**	**378**
7439-89-6	Iron	NS	NS	mg/kg	189000 BT	37900 B	73500 B	150000 B
7439-92-1	Lead	63	400	mg/kg	**5980**	327	**1850**	**2050**
7439-95-4	Magnesium	NS	NS	mg/kg	5110 T	1780 B	7520	5730
7439-96-5	Manganese	1600	2000	mg/kg	1920 B	455 B	487 B	802 B
7439-97-6	Mercury	0.18	0.81	mg/kg	**39.2 T**	**0.92**	**3.4**	**3.1**
7440-02-0	Nickel	30	140	mg/kg	**1120**	50.6	**208**	**395**
7440-09-7	Potassium	NS	NS	mg/kg	901	744	374	511
7782-49-2	Selenium	3.9	36	mg/kg	2.3 J	ND	ND	1.8 J
7440-22-4	Silver	2	36	mg/kg	**52.2 T**	0.57 J	4.6	3.8 J
7440-23-5	Sodium	NS	NS	mg/kg	1750 BT	138 BJ	263 B	351 B
7440-62-2	Vanadium	NS	NS	mg/kg	19.5	10.2	11.3	12.1
7440-66-6	Zinc	109	2200	mg/kg	**9760 T**	1380	**3690**	**5990**

[1]Criteria is 6 NYCRR PART 375-6.8(a) Unrestricted Use Soil Cleanup Objective, 2006.

[2]Criteria is 6 NYCRR PART 375-6.8(b) Restricted Use Soil Cleanup Objective, 2006.

* Data are compared to hexavalent chromium: unrestricted use is 1 mg/kg, residential use is 22 mg/kg

	Indicates concentration exceeds Unrestricted Use criteria.
Bold	Indicates concentration exceeds Unrestricted Use and Residential criteria.
ND	Indicates compound was not detected.
NS	No standard or guidance value available.
J	Indicates an estimated concentration.
B	Compound was found in the blank and sample
T	MS/MSD is outside acceptance limits

Table 1
2018 Test Pit Data
Detected Compound Summary

NYSDEC-Car Crusher Site 2018 Site Investigation Test Pit Data SDG: 480-133903 Detected Compound Summary		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives[1]	Part 375-6.8(a) Residential Use Soil Cleanup Objectives[2]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	7-CAR-001-TP-12 7-CAR-001-04 480-133903-4 2 - 7 ft TALBUFF 4801339031 SO 4/9/2018 0:00	7-CAR-001-TP-14 7-CAR-001-03 480-133903-3 3 - 6.5 ft TALBUFF 4801339031 SO 4/9/2018 13:27
CAS NO.	COMPOUND			UNITS:		
	PCBs					
53469-21-9	PCB-1242 (Aroclor 1242)			mg/kg	ND	ND
12672-29-6	PCB-1248 (Aroclor 1248)			mg/kg	43	5.8
11097-69-1	PCB-1254 (Aroclor 1254)			mg/kg	46	7.6
	Total PCBs	0.1	1	mg/kg	**89**	**13.4**
	METALS					
7429-90-5	Aluminum	NS	NS	mg/kg	4120	5880
7440-36-0	Antimony	NS	NS	mg/kg	36.9	19.5
7440-38-2	Arsenic	13	16	mg/kg	**18.6**	10.3
7440-39-3	Barium	350	350	mg/kg	**1740**	**629**
7440-41-7	Beryllium	7.2	14	mg/kg	0.18 J	0.28
7440-43-9	Cadmium	2.5	2.5	mg/kg	**58.6**	**18.8**
7440-70-2	Calcium	NS	NS	mg/kg	23100	19000
7440-47-3	Chromium, Total*	1*	22*	mg/kg	**118**	**58.5**
7440-48-4	Cobalt	NS	NS	mg/kg	23.5	14.5
7440-50-8	Copper	50	270	mg/kg	**645**	210
7439-89-6	Iron	NS	NS	mg/kg	133000 B	53300 B
7439-92-1	Lead	63	400	mg/kg	**2460**	**1160**
7439-95-4	Magnesium	NS	NS	mg/kg	5080	8160 B
7439-96-5	Manganese	1600	2000	mg/kg	701 B	644 B
7439-97-6	Mercury	0.18	0.81	mg/kg	**3.7**	**1.8**
7440-02-0	Nickel	30	140	mg/kg	**403**	121
7440-09-7	Potassium	NS	NS	mg/kg	589	1060
7782-49-2	Selenium	3.9	36	mg/kg	1.5 J	ND
7440-22-4	Silver	2	36	mg/kg	2 J	0.67 J
7440-23-5	Sodium	NS	NS	mg/kg	585 B	192 B
7440-62-2	Vanadium	NS	NS	mg/kg	13	14.5
7440-66-6	Zinc	109	2200	mg/kg	**6120**	1950

[1]Criteria is 6 NYCRR PART 375-6.8(a) Unrestricted Use Soil Cleanup Objective, 2006.

[2]Criteria is 6 NYCRR PART 375-6.8(b) Restricted Use Soil Cleanup Objective, 2006.

[*] Data are compared to hexavalent chromium: unrestricted use is 1 mg/kg, residential use is 22 mg/kg

	Indicates concentration exceeds Unrestricted Use criteria.
Bold	Indicates concentration exceeds Unrestricted Use and Residential criteria.
ND	Indicates compound was not detected.
NS	No standard or guidance value available.
J	Indicates an estimated concentration.
B	Compound was found in the blank and sample
T	MS/MSD is outside acceptance limits

Table 2
2018 Soil Boring Data
Detected Compound Summary

NYSDEC-Car Crusher Site 2018 Site Investigation Soil Borings SDG: 480-134200 Detected Compound Summary		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives[1]	Part 375-6.8(a) Residential Use Soil Cleanup Objectives[2]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled:	7-CAR-001-SB-01 7-CAR-001-002-01 480-134200-1 5 - 7 ft TALBUFF 4801342001 SO 4/11/2018 9:15	7-CAR-001-SB-01 7-CAR-001-002-02 480-134200-2 15 - 16 ft TALBUFF 4801342001 SO 4/11/2018 9:45	7-CAR-001-SB-02 7-CAR-001-002-03 480-134200-3 6 - 7 ft TALBUFF 4801342001 SO 4/11/2018 11:30	7-CAR-001-SB-02 7-CAR-001-002-04 480-134200-4 14 - 15 ft TALBUFF 4801342001 SO 4/11/2018 11:45
CAS NO.	COMPOUND			UNITS:				
	PCBs							
12674-11-2	PCB-1016 (Aroclor 1016)			mg/kg	120		16	0.18 J
11097-69-1	PCB-1254 (Aroclor 1254)			mg/kg	83		11	0.17 J
	Total PCBs	0.1	1	mg/kg	**203**		**27**	**0.35**
	METALS							
7429-90-5	Aluminum	NS	NS	mg/kg	5720 T	3180	4670	3920
7440-36-0	Antimony	NS	NS	mg/kg	17.3 J	ND	10.5 J	ND
7440-38-2	Arsenic	13	16	mg/kg	12.7 T	1 J	4.2	0.95 J
7440-39-3	Barium	350	350	mg/kg	**741**	42.2	257	39.2
7440-41-7	Beryllium	7.2	14	mg/kg	0.2 JT	0.12 J	0.18 J	0.15 J
7440-43-9	Cadmium	2.5	2.5	mg/kg	**66.5 T**	ND	**16.3**	0.27
7440-70-2	Calcium	NS	NS	mg/kg	22000 BT	796 B	4600 B	887 B
7440-47-3	Chromium, Total*	1*	22*	mg/kg	**1050**	3.6	**26**	4.9
7440-48-4	Cobalt	NS	NS	mg/kg	36.5 T	2.1	10	2.5
7440-50-8	Copper	50	270	mg/kg	**1790 T**	4.8	**844**	26.6
7439-89-6	Iron	NS	NS	mg/kg	112000 B	5790 B	28800 B	6720 B
7439-92-1	Lead	63	400	mg/kg	**1900**	1.3	**451**	10.1
7439-95-4	Magnesium	NS	NS	mg/kg	3890	1300	2100	1430
7439-96-5	Manganese	1600	2000	mg/kg	812 T	185 B	405 B	188 B
7439-97-6	Mercury	0.18	0.81	mg/kg	**7.5**	ND	**0.81**	0.17
7440-02-0	Nickel	30	140	mg/kg	**255 T**	4.3 J	62	6 J
7440-09-7	Potassium	NS	NS	mg/kg	701 T	857	816	930
7782-49-2	Selenium	3.9	36	mg/kg	3.7 J	ND	1.8 J	ND
7440-22-4	Silver	2	36	mg/kg	15 T	ND	1.6	ND
7440-23-5	Sodium	NS	NS	mg/kg	353 B	35.6 BJ	249 B	45.9 BJ
7440-62-2	Vanadium	NS	NS	mg/kg	57.6 T	6.5	9.6	7.8
7440-66-6	Zinc	109	2200	mg/kg	**5290**	10.3	1150	32.1

[1]Criteria is 6 NYCRR PART 375-6.8(a) Unrestricted Use Soil Cleanup Objective, 2006.

[2]Criteria is 6 NYCRR PART 375-6.8(b) Restricted Use Soil Cleanup Objective, 2006.

*Data are compared to hexavalent chromium: unrestricted use is 1 mg/kg, residential use is 22 mg/kg

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2018 Soil Boring Data
Detected Compound Summary

NYSDEC-Car Crusher Site 2018 Site Investigation Soil Borings SDG: 480-134200 Detected Compound Summary		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives[1]	Part 375-6.8(a) Residential Use Soil Cleanup Objectives[2]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled:	7-CAR-001-SB-03 7-CAR-001-002-05 480-134200-5 8 - 9 ft TALBUFF 4801342001 SO 4/11/2018 13:00	7-CAR-001-SB-03 7-CAR-001-002-06 480-134200-6 10 - 11 ft TALBUFF 4801342001 SO 4/11/2018 13:10	7-CAR-001-SB-04 7-CAR-001-002-07 480-134200-7 5 - 6 ft TALBUFF 4801342001 SO 4/11/2018 14:20	7-CAR-001-SB-04 7-CAR-001-002-08 480-134200-8 12 - 14 ft TALBUFF 4801342001 SO 4/11/2018 14:25
CAS NO.	COMPOUND			UNITS:				
	PCBs							
12674-11-2	PCB-1016 (Aroclor 1016)			mg/kg	5.1		1.8	
11097-69-1	PCB-1254 (Aroclor 1254)			mg/kg	7.8		5.6	
	Total PCBs	0.1	1	mg/kg	**12.9**		**7.4**	
	METALS							
7429-90-5	Aluminum	NS	NS	mg/kg	2660	3740	4880	4210
7440-36-0	Antimony	NS	NS	mg/kg	20.3 J	ND	85.2	ND
7440-38-2	Arsenic	13	16	mg/kg	13.5	1.1 J	**27.5**	1.7 J
7440-39-3	Barium	350	350	mg/kg	**1480**	13.7	**1110**	18
7440-41-7	Beryllium	7.2	14	mg/kg	0.097 J	0.16 J	0.18 J	0.17 J
7440-43-9	Cadmium	2.5	2.5	mg/kg	**26.7**	ND	**35.8**	ND
7440-70-2	Calcium	NS	NS	mg/kg	24300 B	933 B	14100 B	2750 B
7440-47-3	Chromium, Total*	1*	22*	mg/kg	**142**	4.3	**135**	5.9
7440-48-4	Cobalt	NS	NS	mg/kg	17.9	2.3	19.9	3
7440-50-8	Copper	50	270	mg/kg	**504**	6.7	**858**	10.7
7439-89-6	Iron	NS	NS	mg/kg	122000 B	6170 B	101000 B	8340 B
7439-92-1	Lead	63	400	mg/kg	**1950**	2.4	**24200**	2.2
7439-95-4	Magnesium	NS	NS	mg/kg	10000	1350	4540	2010
7439-96-5	Manganese	1600	2000	mg/kg	685	291 B	797	326 B
7439-97-6	Mercury	0.18	0.81	mg/kg	**2.1**	ND	**2.1**	ND
7440-02-0	Nickel	30	140	mg/kg	**216**	5.1 J	**210**	6.5
7440-09-7	Potassium	NS	NS	mg/kg	531	1030	656	990
7782-49-2	Selenium	3.9	36	mg/kg	ND	ND	1.3 J	ND
7440-22-4	Silver	2	36	mg/kg	1.2 J	ND	2.7	ND
7440-23-5	Sodium	NS	NS	mg/kg	593 B	52.7 BJ	227 B	38.8 BJ
7440-62-2	Vanadium	NS	NS	mg/kg	12.5	7.6	14	9.3
7440-66-6	Zinc	109	2200	mg/kg	**4340**	13.5	**3600**	16.7

[1]Criteria is 6 NYCRR PART 375-6.8(a) Unrestricted Use Soil Cleanup Objective, 2006.

[2]Criteria is 6 NYCRR PART 375-6.8(b) Restricted Use Soil Cleanup Objective, 2006.

*Data are compared to hexavalent chromium: unrestricted use is 1 mg/kg, residential use is 22 mg/kg

	Indicates concentration exceeds Unrestricted Use criteria.
Bold	Indicates concentration exceeds Unrestricted Use and Residential criteria.
ND	Indicates compound was not detected.
NS	No standard or guidance value available.
J	Indicates an estimated concentration.
B	Compound was found in the blank and sample
T	MS/MSD is outside acceptance limits

Table 2
2018 Soil Boring Data
Detected Compound Summary

NYSDEC-Car Crusher Site 2018 Site Investigation Soil Borings SDG: 480-134200 Detected Compound Summary		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives[1]	Part 375-6.8(a) Residential Use Soil Cleanup Objectives[2]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled:	7-CAR-001-SB-05 7-CAR-001-002-09 480-134200-9 10 - 10.5 ft TALBUFF 4801342001 SO 4/12/2018 8:35	7-CAR-001-SB-05 7-CAR-001-002-10 480-134200-10 15 - 16 ft TALBUFF 4801342001 SO 4/12/2018 8:50	7-CAR-001-SB-06 7-CAR-001-002-11 480-134200-11 4 - 5 ft TALBUFF 4801342001 SO 4/12/2018 9:45	7-CAR-001-SB-06 7-CAR-001-002-12 480-134200-12 7 - 9 ft TALBUFF 4801342001 SO 4/12/2018 9:55
CAS NO.	COMPOUND			UNITS:				
	PCBs							
12674-11-2	PCB-1016 (Aroclor 1016)			mg/kg	10		15	
11097-69-1	PCB-1254 (Aroclor 1254)			mg/kg	20		20	
	Total PCBs	0.1	1	mg/kg	**30**		**35**	
	METALS							
7429-90-5	Aluminum	NS	NS	mg/kg	1980	5520	4890	4560
7440-36-0	Antimony	NS	NS	mg/kg	32 J	ND	10.6 J	ND
7440-38-2	Arsenic	13	16	mg/kg	13.3	1.7 J	**18.1**	1.9 J
7440-39-3	Barium	350	350	mg/kg	**1850**	16.9	**1540**	17.6
7440-41-7	Beryllium	7.2	14	mg/kg	0.098 J	0.21 J	0.22 J	0.17 J
7440-43-9	Cadmium	2.5	2.5	mg/kg	**37.9**	ND	**64.1**	ND
7440-70-2	Calcium	NS	NS	mg/kg	28200 B	822 B	19600 B	697 B
7440-47-3	Chromium, Total*	1*	22*	mg/kg	**134**	6.4	**150**	5.4
7440-48-4	Cobalt	NS	NS	mg/kg	20.1	3.8	23.3	3.1
7440-50-8	Copper	50	270	mg/kg	**311**	14.6	**624**	9.1
7439-89-6	Iron	NS	NS	mg/kg	146000 B	10700 B	132000 B	8500 B
7439-92-1	Lead	63	400	mg/kg	**1910**	2.7	**1770**	2
7439-95-4	Magnesium	NS	NS	mg/kg	5160	2510	4560	1960
7439-96-5	Manganese	1600	2000	mg/kg	832	622 B	786	460 B
7439-97-6	Mercury	0.18	0.81	mg/kg	**3.9**	ND	**6.9**	ND
7440-02-0	Nickel	30	140	mg/kg	**192**	8.4	**294**	6.3
7440-09-7	Potassium	NS	NS	mg/kg	343	1160	658	1170
7782-49-2	Selenium	3.9	36	mg/kg	ND	ND	30.9	ND
7440-22-4	Silver	2	36	mg/kg	1.5 J	ND	1.2 J	ND
7440-23-5	Sodium	NS	NS	mg/kg	379 B	34.8 BJ	269 B	26 BJ
7440-62-2	Vanadium	NS	NS	mg/kg	12	10.9	17.2	9.6
7440-66-6	Zinc	109	2200	mg/kg	**6010**	21.9	**4140**	17.1

[1]Criteria is 6 NYCRR PART 375-6.8(a) Unrestricted Use Soil Cleanup Objective, 2006.

[2]Criteria is 6 NYCRR PART 375-6.8(b) Restricted Use Soil Cleanup Objective, 2006.

*Data are compared to hexavalent chromium: unrestricted use is 1 mg/kg, residential use is 22 mg/kg

	Indicates concentration exceeds Unrestricted Use criteria.
Bold	Indicates concentration exceeds Unrestricted Use and Residential criteria.
ND	Indicates compound was not detected.
NS	No standard or guidance value available.
J	Indicates an estimated concentration.
B	Compound was found in the blank and sample
T	MS/MSD is outside acceptance limits

Table 3
2018 Groundwater Data
Detected Commpound Summary

NYSDEC-Car Crusher Site 2018 Site Investigation Groundwater Data SDG: 480-135867 Detected Compound Summary		NYSDEC Class GA Groundwater Standards/Guidance Values [1]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	7-CAR-001-MW-01 7-CAR-001-003-01 480-135867-1 21 - 26 ft TALBUFF 4801358671 WATER 5/14/2018 8:45	7-CAR-001-MW-02 7-CAR-001-003-03 480-135867-3 9 - 14 ft TALBUFF 4801358671 WATER 5/14/2018 11:30	7-CAR-001-MW-02 7-CAR-001-003-04 480-135867-4 9 - 14 ft TALBUFF 4801358671 WATER 5/14/2018 0:00	7-CAR-001-MW-03 7-CAR-001-003-05 480-135867-5 12 - 19 ft TALBUFF 4801358671 WATER 5/14/2018 14:30
CAS NO.	COMPOUND		UNITS:				
	VOLATILES						
	NONE DETECTED						
	SEMIVOLATILES						
121-14-2	2,4-Dinitrotoluene	5	ug/l	2 J	ND	ND	ND
606-20-2	2,6-Dinitrotoluene	5	ug/l	1.7 J	ND	ND	ND
	PCBs						
	NONE DETECTED						
	METALS						
7440-39-3	Barium	1	mg/l	0.18	0.0059	0.0059	0.0078
7440-70-2	Calcium	NS	mg/l	103	27.7	28.3	5.3
7440-48-4	Cobalt	0.3	mg/l	0.0013 J	ND	ND	ND
7439-89-6	Iron	0.3	mg/l	0.042 J	0.052	0.035 J	ND
7439-95-4	Magnesium	35 (G)	mg/l	13.1	3.7	3.6	0.51
7439-96-5	Manganese	0.3	mg/l	4.4 B	0.016 B	0.016 B	0.0098 B
7440-02-0	Nickel	NS	mg/l	0.0059 J	ND	ND	ND
7440-09-7	Potassium	NS	mg/l	3.1	0.81 B	0.8 B	0.4 BJ
7440-23-5	Sodium	20	mg/l	10.6 B	1.1 B	1 B	1 B
7440-66-6	Zinc	2 (G)	mg/l	0.028	ND	ND	0.0016 J
	PFAs						
375-22-4	PERFLUOROBUTYRIC ACID (PFBA)		ng/l	260	2.4	2.5	ND
307-24-4	PERFLUOROHEXANOIC ACID (PFHxA)		ng/l	5	ND	ND	ND
375-85-9	PERFLUOROHEPTANOIC ACID (PFHpA)		ng/l	5	0.67 J	0.74 J	ND
335-67-1	PERFLUOROOCTANOIC ACID (PFOA)		ng/l	30	2.2	2	ND
375-95-1	PERFLUORONONANOIC ACID		ng/l	0.69 J	ND	ND	ND
375-73-5	PERFLUOROBUTANESULFONIC ACID		ng/l	2.3	0.62 J	0.72 J	ND
355-46-4	PERFLUOROHEXANESULFONIC ACID		ng/l	6.1 B	0.62 BJ	0.62 BJ	0.36 BJ
375-92-8	PERFLUOROHEPTANE SULFONATE (PFHpS)		ng/l	0.69 J	ND	ND	ND
1763-23-1	PERFLUOROOCTANE SULFONIC ACID (PFOS)		ng/l	44	2.2	2.3	0.84 J
27619-97-2	SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)		ng/l	ND	ND	ND	2.9 J
	PFOA + PFOS	70	ng/l	74	4.4	4.3	0.84

[1]Criteria are Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitation for the protection of drinking water (Water Class - GA), June 1998.

	Indicates concentration exceeds standard or guidance value.
(G)	Indicates guidance value.
ND	Indicates compound was not detected.
NS	No standard or guidance value available.
J	Indicates an estimated concentration.
B	Compound was found in the blank and sample.

Table 4
2018 Surface Soil Data
Detected Commpound Summary

NYSDEC-Car Crusher Site 2018 Site Investigation Surface Soil Data SDG: 480-135920 Detected Compound Summary		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives[1]	Part 375-6.8(a) Residential Use Soil Cleanup Objectives[2]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	7-CAR-001-S1 7-CAR-001-004-01 480-135920-1 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:00	7-CAR-001-S10 7-CAR-001-004-10 480-135920-10 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:45	7-CAR-001-S2 7-CAR-001-004-02 480-135920-2 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:05	7-CAR-001-S3 7-CAR-001-004-03 480-135920-3 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:10
CAS NO.	COMPOUND			UNITS:				
	PCBs							
11097-69-1	PCB-1254 (Aroclor 1254)			mg/kg	0.23 J	ND	0.12 J	ND
11096-82-5	PCB-1260 (Aroclor 1260)			mg/kg	ND	0.16 J	ND	0.2 J
	Total PCBs	0.1	1	mg/kg	0.23	0.16	0.12	0.2
	METALS							
7429-90-5	Aluminum	NS	NS	mg/kg	4540 T	5820	6510	7460
7440-36-0	Antimony	NS	NS	mg/kg	0.67 J	0.78 J	3.5 J	0.7 J
7440-38-2	Arsenic	13	16	mg/kg	1.7 J	2.5	2 J	2.4 J
7440-39-3	Barium	350	350	mg/kg	39.7	36.1	123	49.6
7440-41-7	Beryllium	7.2	14	mg/kg	0.13 J	0.21 J	0.14 J	0.16 J
7440-43-9	Cadmium	2.5	2.5	mg/kg	1.1	0.57	0.87	1.2
7440-70-2	Calcium	NS	NS	mg/kg	1100 B	937 B	7580 B	1110 B
7440-47-3	Chromium, Total*	1*	22*	mg/kg	6.5	8.7	7.9	8.1
7440-48-4	Cobalt	NS	NS	mg/kg	2.6	3.4	2.6	3.2
7440-50-8	Copper	50	270	mg/kg	25.9	31	19.6	24.4
7439-89-6	Iron	NS	NS	mg/kg	9230	13400	9590	10800
7439-92-1	Lead	63	400	mg/kg	42.1	39.1	22.3	31
7439-95-4	Magnesium	NS	NS	mg/kg	1300	1910	1770	1340
7439-96-5	Manganese	1600	2000	mg/kg	345 B	292 B	761 B	554 B
7439-97-6	Mercury	0.18	0.81	mg/kg	0.032	0.32	0.028	0.061
7440-02-0	Nickel	30	140	mg/kg	7.8 T	9.8	6.9	8.1
7440-09-7	Potassium	NS	NS	mg/kg	436 T	643	583	529
7440-22-4	Silver	2	36	mg/kg	ND	ND	ND	ND
7440-23-5	Sodium	NS	NS	mg/kg	16.9 J	24.8 J	29.6 J	25 J
7440-62-2	Vanadium	NS	NS	mg/kg	8.9	11.8	13.3	14.4
7440-66-6	Zinc	109	2200	mg/kg	104 T	93.9	71.2	96

[1]Criteria is 6 NYCRR PART 375-6.8(a) Unrestricted Use Soil Cleanup Objective, 2006.

[2]Criteria is 6 NYCRR PART 375-6.8(b) Restricted Use Soil Cleanup Objective, 2006.

*Data are compared to hexavalent chromium: unrestricted use is 1 mg/kg, residential use is 22 mg/kg

	Indicates concentration exceeds Unrestricted Use criteria.
Bold	Indicates concentration exceeds Unrestricted Use and Residential criteria.
ND	Indicates compound was not detected.
NS	No standard or guidance value available.
J	Indicates an estimated concentration.
B	Compound was found in the blank and sample
T	MS/MSD is outside acceptance limits

NYSDEC-Car Crusher Site 2018 Site Investigation Surface Soil Data SDG: 480-135920 Detected Compound Summary		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives[1]	Part 375-6.8(a) Residential Use Soil Cleanup Objectives[2]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	7-CAR-001-S4 7-CAR-001-004-04 480-135920-4 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:15	7-CAR-001-S5 7-CAR-001-004-05 480-135920-5 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:20	7-CAR-001-S6 7-CAR-001-004-06 480-135920-6 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:25	7-CAR-001-S7 7-CAR-001-004-07 480-135920-7 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:30
CAS NO.	COMPOUND			UNITS:				
	PCBs							
11097-69-1	PCB-1254 (Aroclor 1254)			mg/kg	ND	0.12 J	1.3	0.14 J
11096-82-5	PCB-1260 (Aroclor 1260)			mg/kg	ND	ND	ND	ND
	Total PCBs	0.1	1	mg/kg	ND	0.12	**1.3**	0.14
	METALS							
7429-90-5	Aluminum	NS	NS	mg/kg	6200	5490	4300	3570
7440-36-0	Antimony	NS	NS	mg/kg	ND	0.58 J	21.2 J	0.6 J
7440-38-2	Arsenic	13	16	mg/kg	1.7 J	1.8 J	7.5	1.3 J
7440-39-3	Barium	350	350	mg/kg	29.8	26.9	157	23.1
7440-41-7	Beryllium	7.2	14	mg/kg	0.12 J	0.16 J	0.14 J	0.14 J
7440-43-9	Cadmium	2.5	2.5	mg/kg	0.39	0.92	**25.1**	0.69
7440-70-2	Calcium	NS	NS	mg/kg	1010 B	1160 B	970 B	1130 B
7440-47-3	Chromium, Total*	1*	22*	mg/kg	5.7	7.1	**67.5**	5.1
7440-48-4	Cobalt	NS	NS	mg/kg	2.1	3.9	14.3	3
7440-50-8	Copper	50	270	mg/kg	7.5	12.5	**270**	12.5
7439-89-6	Iron	NS	NS	mg/kg	7940	11900	85900	7990
7439-92-1	Lead	63	400	mg/kg	12.9	13.4	350	24
7439-95-4	Magnesium	NS	NS	mg/kg	979	2190	1520	1630
7439-96-5	Manganese	1600	2000	mg/kg	449 B	422 B	876 B	299 B
7439-97-6	Mercury	0.18	0.81	mg/kg	0.037	0.041	0.24	0.034
7440-02-0	Nickel	30	140	mg/kg	4.2 J	9.1	**154**	6.6
7440-09-7	Potassium	NS	NS	mg/kg	359	470	452	542
7440-22-4	Silver	2	36	mg/kg	ND	ND	1.8	ND
7440-23-5	Sodium	NS	NS	mg/kg	17.8 J	17.7 J	42.6 J	22 J
7440-62-2	Vanadium	NS	NS	mg/kg	11.8	10.9	11.6	7.5
7440-66-6	Zinc	109	2200	mg/kg	38.3	77.7	964	48

[1]Criteria is 6 NYCRR PART 375-6.8(a) Unrestricted Use Soil Cleanup Objective, 2006.

[2]Criteria is 6 NYCRR PART 375-6.8(b) Restricted Use Soil Cleanup Objective, 2006.

*Data are compared to hexavalent chromium: unrestricted use is 1 mg/kg, residential use is 22 mg/kg

	Indicates concentration exceeds Unrestricted Use criteria.
Bold	Indicates concentration exceeds Unrestricted Use and Residential criteria.
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J	Indicates an estimated concentration.
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Table 4
2018 Surface Soil Data
Detected Commpound Summary

NYSDEC-Car Crusher Site 2018 Site Investigation Surface Soil Data SDG: 480-135920 Detected Compound Summary		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives[1]	Part 375-6.8(a) Residential Use Soil Cleanup Objectives[2]	Location ID: Sample ID: Lab Sample Id: Depth: Source: SDG: Matrix: Sampled: Validated:	7-CAR-001-S8 7-CAR-001-004-08 480-135920-8 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:35	7-CAR-001-S9 7-CAR-001-004-09 480-135920-9 0 - 0.1 ft TALBUFF 4801359201 SO 5/15/2018 9:40
CAS NO.	COMPOUND			UNITS:		
	PCBs					
11097-69-1	PCB-1254 (Aroclor 1254)			mg/kg	ND	ND
11096-82-5	PCB-1260 (Aroclor 1260)			mg/kg	0.49	ND
	Total PCBs	0.1	1	mg/kg	0.49	ND
	METALS					
7429-90-5	Aluminum	NS	NS	mg/kg	7130	5320
7440-36-0	Antimony	NS	NS	mg/kg	3.2 J	0.66 J
7440-38-2	Arsenic	13	16	mg/kg	5.9	2.2
7440-39-3	Barium	350	350	mg/kg	158	30
7440-41-7	Beryllium	7.2	14	mg/kg	0.49	0.19 J
7440-43-9	Cadmium	2.5	2.5	mg/kg	**6**	0.49
7440-70-2	Calcium	NS	NS	mg/kg	7890 B	534 B
7440-47-3	Chromium, Total*	1*	22*	mg/kg	16.3	6.7
7440-48-4	Cobalt	NS	NS	mg/kg	8.1	3.9
7440-50-8	Copper	50	270	mg/kg	93.9	22.5
7439-89-6	Iron	NS	NS	mg/kg	22900	11700
7439-92-1	Lead	63	400	mg/kg	368	16.1
7439-95-4	Magnesium	NS	NS	mg/kg	3200	1750
7439-96-5	Manganese	1600	2000	mg/kg	620 B	532 B
7439-97-6	Mercury	0.18	0.81	mg/kg	0.19	0.037
7440-02-0	Nickel	30	140	mg/kg	41.6	8.4
7440-09-7	Potassium	NS	NS	mg/kg	616	510
7440-22-4	Silver	2	36	mg/kg	ND	ND
7440-23-5	Sodium	NS	NS	mg/kg	89.9 J	28.6 J
7440-62-2	Vanadium	NS	NS	mg/kg	14.1	10.9
7440-66-6	Zinc	109	2200	mg/kg	713	46.3

[1]Criteria is 6 NYCRR PART 375-6.8(a) Unrestricted Use Soil Cleanup Objective, 2006.

[2]Criteria is 6 NYCRR PART 375-6.8(b) Restricted Use Soil Cleanup Objective, 2006.

*Data are compared to hexavalent chromium: unrestricted use is 1 mg/kg, residential use is 22 mg/kg

	Indicates concentration exceeds Unrestricted Use criteria.
Bold	Indicates concentration exceeds Unrestricted Use and Residential criteria.
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FIGURES

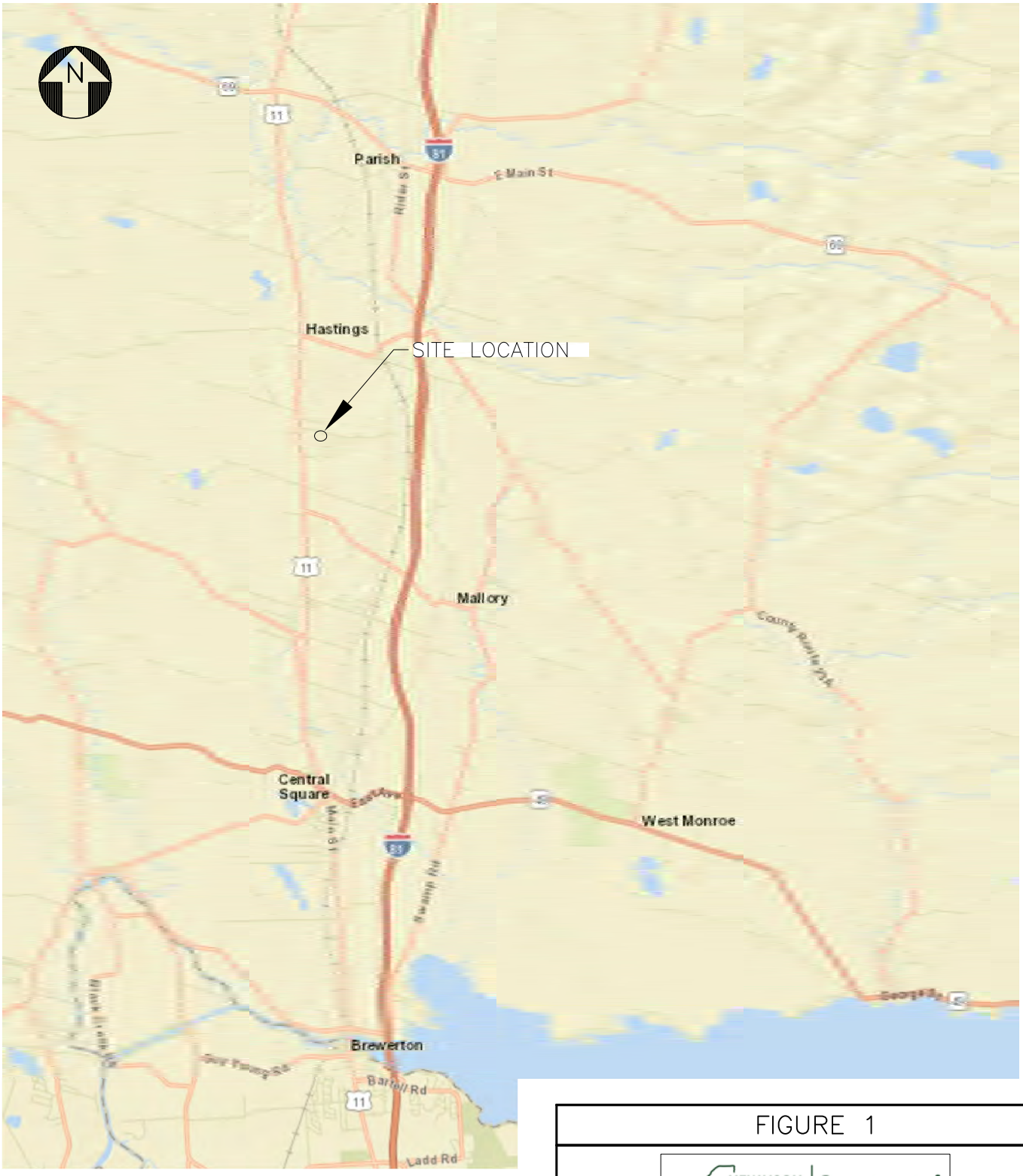


FIGURE 1

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

CNY CAR CRUSHERS

SITE LOCATION MAP

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\NYSDEC PROGRAM\450716 - WA #34 - CNY CAR CRUSHERS\10.0 TECHNICAL CATEGORIES\450716-SLM.DWG
PLOT DATE: 8/17/2018 3:38 PM PLOTTED BY: RUSSO, JILL

LEGEND

- MONITORING WELL
- TEST PIT
- SOIL BORING
- SURFACE SOIL SAMPLE

80 40 0 80 160

SCALE: 1"=80'

FIGURE 2

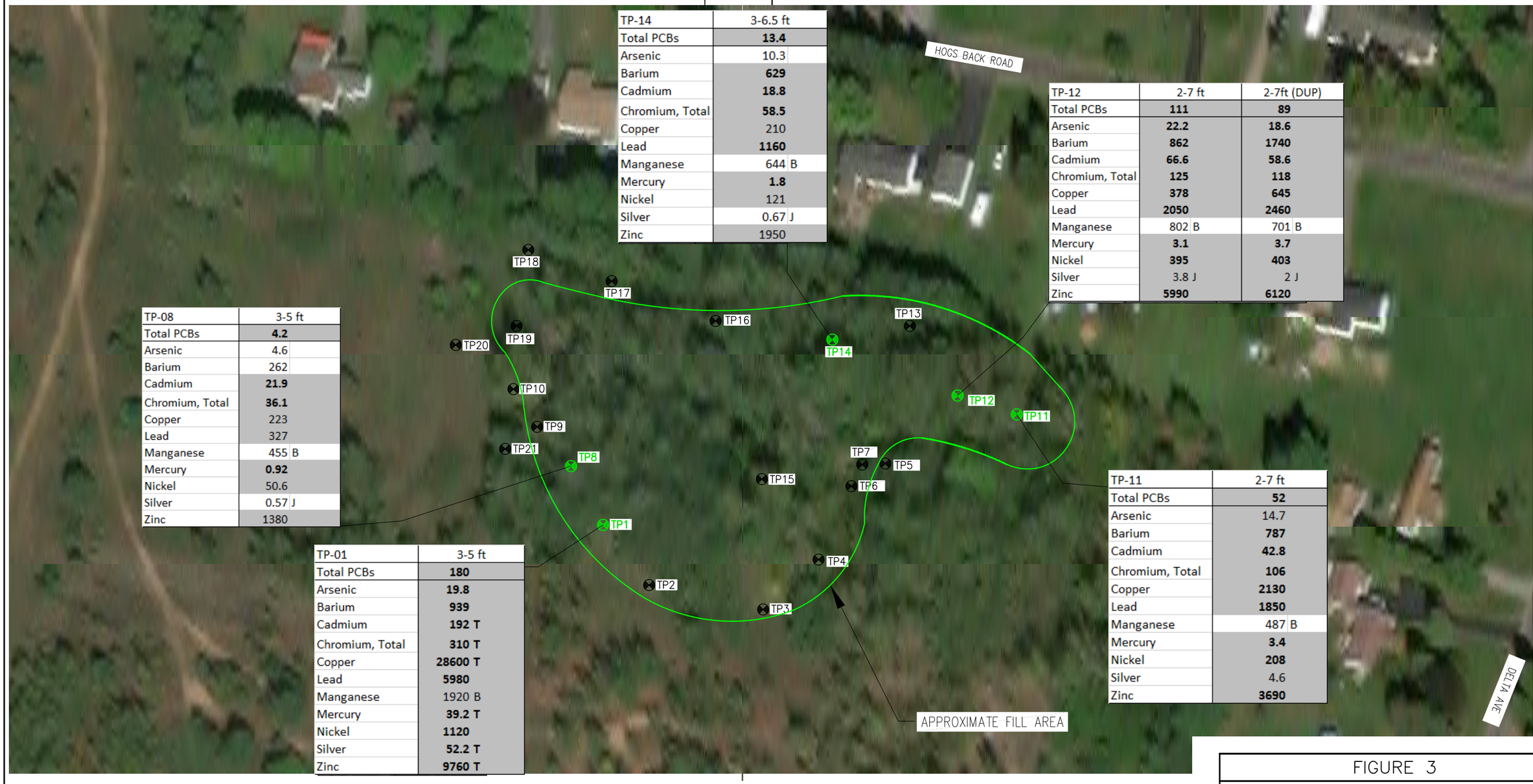
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

CNY CAR CRUSHERS

SAMPLE LOCATION MAP

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\NYSDEC PROGRAM\450716 - WA #34 - CNY CAR CRUSHERS\10.0 TECHNICAL CATEGORIES\FIGURE 001.DWG
PLOT DATE: 8/20/2018 1:59 PM PLOTTED BY: RUSSO, JILL



TP-14	3-6.5 ft
Total PCBs	**13.4**
Arsenic	10.3
Barium	**629**
Cadmium	**18.8**
Chromium, Total	**58.5**
Copper	210
Lead	**1160**
Manganese	644 B
Mercury	**1.8**
Nickel	121
Silver	0.67 J
Zinc	1950

TP-12	2-7 ft	2-7ft (DUP)
Total PCBs	**111**	**89**
Arsenic	**22.2**	**18.6**
Barium	**862**	**1740**
Cadmium	**66.6**	**58.6**
Chromium, Total	**125**	**118**
Copper	**378**	**645**
Lead	**2050**	**2460**
Manganese	802 B	701 B
Mercury	**3.1**	**3.7**
Nickel	**395**	**403**
Silver	3.8 J	2 J
Zinc	**5990**	**6120**

TP-08	3-5 ft
Total PCBs	**4.2**
Arsenic	4.6
Barium	262
Cadmium	**21.9**
Chromium, Total	**36.1**
Copper	223
Lead	327
Manganese	455 B
Mercury	**0.92**
Nickel	50.6
Silver	0.57 J
Zinc	1380

TP-01	3-5 ft
Total PCBs	**180**
Arsenic	**19.8**
Barium	**939**
Cadmium	**192 T**
Chromium, Total	**310 T**
Copper	**28600 T**
Lead	**5980**
Manganese	1920 B
Mercury	**39.2 T**
Nickel	**1120**
Silver	**52.2 T**
Zinc	**9760 T**

TP-11	2-7 ft
Total PCBs	**52**
Arsenic	14.7
Barium	**787**
Cadmium	**42.8**
Chromium, Total	**106**
Copper	**2130**
Lead	**1850**
Manganese	487 B
Mercury	**3.4**
Nickel	**208**
Silver	4.6
Zinc	**3690**

LEGEND

TEST PIT
(Sample Results in mg/kg)

TEST PIT (NOT SAMPLED)

CONCENTRATIONS COMPARED TO PART 375 RESTRICTED AND UNRESTRICTED RESIDENTIAL USE CRITERIA

INDICATES CONCENTRATION EXCEEDS UNRESTRICTED USE CRITERIA

Bold INDICATES CONCENTRATION EXCEEDS UNRESTRICTED USE AND RESIDENTIAL CRITERIA

80 40 0 80 160

SCALE: 1"=80'

FIGURE 3

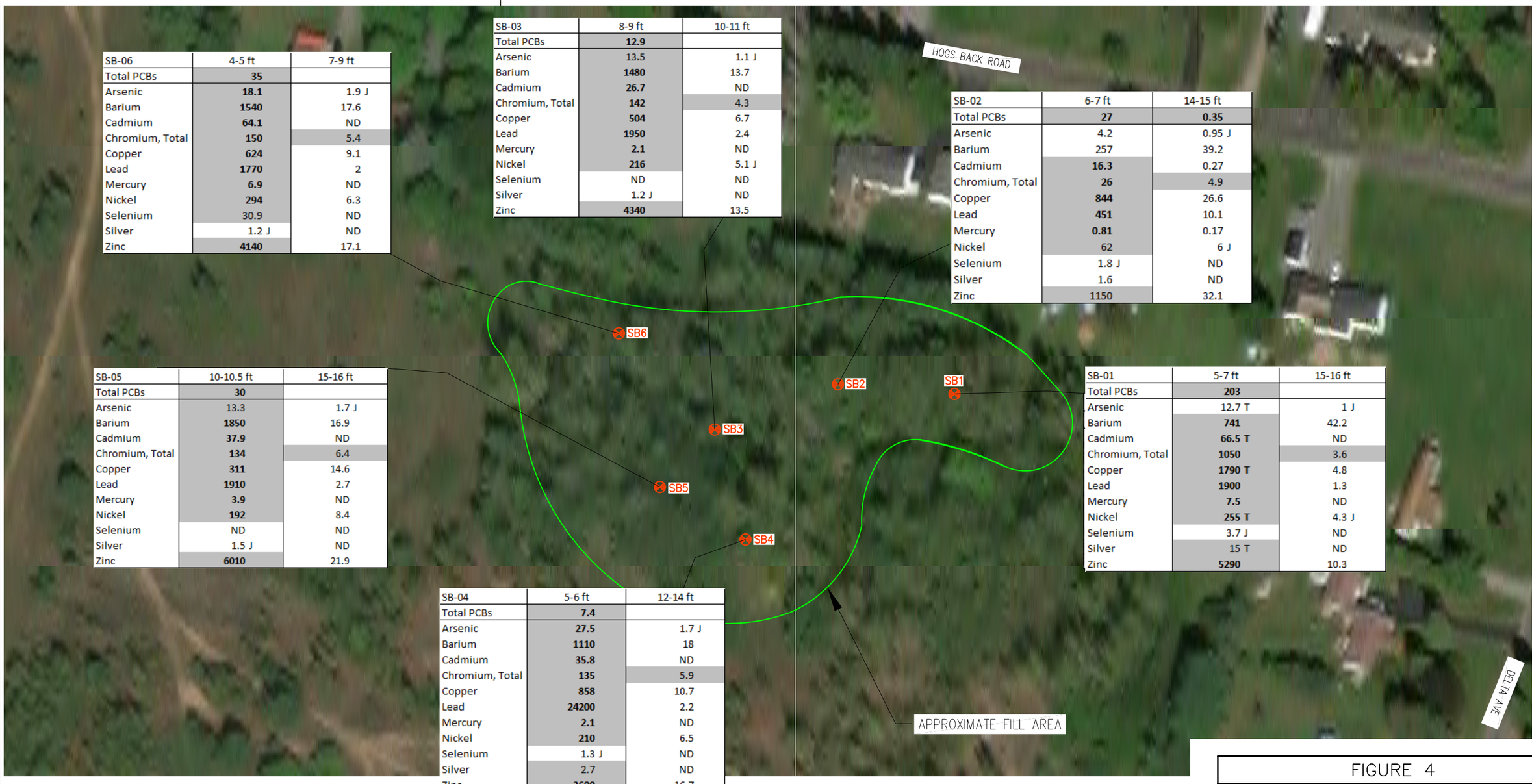
NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation

CNY CAR CRUSHERS

TEST PIT SAMPLE RESULTS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\NYSDEC PROGRAM\450716 – WA #34 – CNY CAR CRUSHERS\10.0 TECHNICAL CATEGORIES\FIGURE 002.DWG
PLOT DATE: 8/20/2018 1:55 PM PLOTTED BY: RUSSO, JILL



SB-06	4-5 ft	7-9 ft
Total PCBs	**35**	
Arsenic	**18.1**	1.9 J
Barium	**1540**	17.6
Cadmium	**64.1**	ND
Chromium, Total	**150**	5.4
Copper	**624**	9.1
Lead	**1770**	2
Mercury	**6.9**	ND
Nickel	**294**	6.3
Selenium	30.9	ND
Silver	1.2 J	ND
Zinc	**4140**	17.1

SB-03	8-9 ft	10-11 ft
Total PCBs	**12.9**	
Arsenic	13.5	1.1 J
Barium	**1480**	13.7
Cadmium	**26.7**	ND
Chromium, Total	**142**	4.3
Copper	**504**	6.7
Lead	**1950**	2.4
Mercury	**2.1**	ND
Nickel	**216**	5.1 J
Selenium	ND	ND
Silver	1.2 J	ND
Zinc	**4340**	13.5

SB-02	6-7 ft	14-15 ft
Total PCBs	**27**	**0.35**
Arsenic	4.2	0.95 J
Barium	257	39.2
Cadmium	**16.3**	0.27
Chromium, Total	**26**	4.9
Copper	**844**	26.6
Lead	**451**	10.1
Mercury	**0.81**	0.17
Nickel	62	6 J
Selenium	1.8 J	ND
Silver	1.6	ND
Zinc	1150	32.1

SB-05	10-10.5 ft	15-16 ft
Total PCBs	**30**	
Arsenic	13.3	1.7 J
Barium	**1850**	16.9
Cadmium	**37.9**	ND
Chromium, Total	**134**	6.4
Copper	**311**	14.6
Lead	**1910**	2.7
Mercury	**3.9**	ND
Nickel	**192**	8.4
Selenium	ND	ND
Silver	1.5 J	ND
Zinc	**6010**	21.9

SB-01	5-7 ft	15-16 ft
Total PCBs	**203**	
Arsenic	12.7 T	1 J
Barium	**741**	42.2
Cadmium	**66.5 T**	ND
Chromium, Total	**1050**	3.6
Copper	**1790 T**	4.8
Lead	**1900**	1.3
Mercury	**7.5**	ND
Nickel	**255 T**	4.3 J
Selenium	3.7 J	ND
Silver	15 T	ND
Zinc	**5290**	10.3

SB-04	5-6 ft	12-14 ft
Total PCBs	**7.4**	
Arsenic	**27.5**	1.7 J
Barium	**1110**	18
Cadmium	**35.8**	ND
Chromium, Total	**135**	5.9
Copper	**858**	10.7
Lead	**24200**	2.2
Mercury	**2.1**	ND
Nickel	**210**	6.5
Selenium	1.3 J	ND
Silver	2.7	ND
Zinc	**3600**	16.7

LEGEND

SOIL BORING
(Sample Results in mg/kg)

CONCENTRATIONS COMPARED TO PART 375 RESTRICTED AND UNRESTRICTED RESIDENTIAL USE CRITERIA

INDICATES CONCENTRATION EXCEEDS UNRESTRICTED USE CRITERIA

Bold INDICATES CONCENTRATION EXCEEDS UNRESTRICTED USE AND RESIDENTIAL CRITERIA

80 40 0 80 160

SCALE: 1"=80'

FIGURE 4

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation

CNY CAR CRUSHERS

SOIL BORING SAMPLE RESULTS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\NYSDEC PROGRAM\450716 – WA #34 – CNY CAR CRUSHERS\10.0 TECHNICAL CATEGORIES\FIGURE 002.DWG
PLOT DATE: 8/20/2018 1:54 PM PLOTTED BY: RUSSO, JILL

LEGEND

MONITORING WELL
(Manganese concentration is in mg/l)
(PFOA & PFOS concentration is ng/l)

CRITERIA ARE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES AND GROUNDWATER EFFLUENT LIMITATION FOR THE PROTECTION OF DRINKING WATER (WATER CLASS-GA), JUNE, 1998.

80 40 0 80 160

SCALE: 1"=80'

FIGURE 5

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

CNY CAR CRUSHERS

GROUNDWATER SAMPLE RESULTS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\NYSDEC PROGRAM\450716 - WA #34 - CNY CAR CRUSHERS\10.0 TECHNICAL CATEGORIES\FIGURE 002.DWG
PLOT DATE: 8/28/2018 3:37 PM PLOTTED BY: RUSSO, JILL

LEGEND

- MONITORING WELL
- (466.68') GROUNDWATER ELEVATION (NAVD88)
- GROUNDWATER CONTOUR
- GROUNDWATER CONTOUR (INTERPOLATED)

80 40 0 80 160

SCALE: 1"=80'

FIGURE 6

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

CNY CAR CRUSHERS

GROUNDWATER CONTOURS
JULY 2018

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\NYSDEC PROGRAM\450716 - WA #34 - CNY CAR CRUSHERS\10.0 TECHNICAL CATEGORIES\FIGURE 002.DWG
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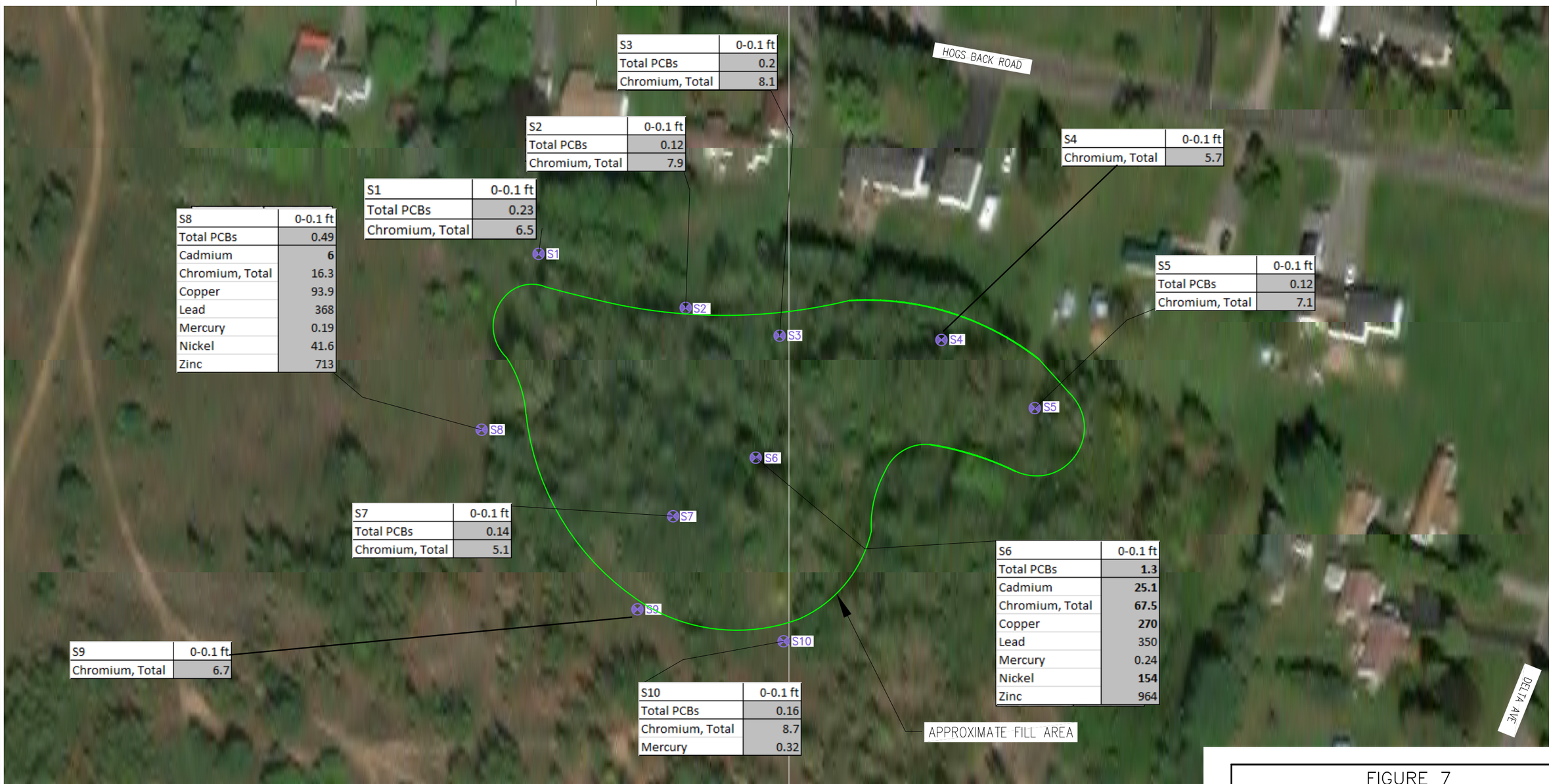


S3	0-0.1 ft
Total PCBs	0.2
Chromium, Total	8.1

S2	0-0.1 ft
Total PCBs	0.12
Chromium, Total	7.9

S1	0-0.1 ft
Total PCBs	0.23
Chromium, Total	6.5

S4	0-0.1 ft
Chromium, Total	5.7

S8	0-0.1 ft
Total PCBs	0.49
Cadmium	6
Chromium, Total	16.3
Copper	93.9
Lead	368
Mercury	0.19
Nickel	41.6
Zinc	713

S5	0-0.1 ft
Total PCBs	0.12
Chromium, Total	7.1

S7	0-0.1 ft
Total PCBs	0.14
Chromium, Total	5.1

S6	0-0.1 ft
Total PCBs	**1.3**
Cadmium	**25.1**
Chromium, Total	**67.5**
Copper	**270**
Lead	350
Mercury	0.24
Nickel	**154**
Zinc	964

S9	0-0.1 ft
Chromium, Total	6.7

S10	0-0.1 ft
Total PCBs	0.16
Chromium, Total	8.7
Mercury	0.32

LEGEND

SURFACE SOIL SAMPLE
(Sample Results in mg/kg)

CONCENTRATIONS COMPARED TO PART 375 RESTRICTED AND UNRESTRICTED RESIDENTIAL USE CRITERIA

INDICATES CONCENTRATION EXCEEDS UNRESTRICTED USE CRITERIA

Bold INDICATES CONCENTRATION EXCEEDS UNRESTRICTED USE AND RESIDENTIAL CRITERIA

80 40 0 80 160

SCALE: 1"=80'

FIGURE 7

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

CNY CAR CRUSHERS

SURFACE SOIL SAMPLE RESULTS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\NYSDEC PROGRAM\450716 – WA #34 – CNY CAR CRUSHERS\10.0 TECHNICAL CATEGORIES\FIGURE 002.DWG
PLOT DATE: 8/20/2018 1:54 PM PLOTTED BY: RUSSO, JILL

APPENDIX A

BORING LOGS AND WELL DEVELOPMENT LOGS

PARSONS
DRILLING RECORD

BORING/ WELL NO. SB-01 Page 1 of 1

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

Location Plan

GROUNDWATER OBSERVATIONS			
			ft bls
			ft bls
Total Depth of Boring:		17	ft bls
Additional Comments:			

Date/Time Start: 4/11/18 0900
Date/Time Finish: 4/11/18 1000

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL
					1	
					2	
HC					3	Automobile fluff
					4	
SS	6-14-36-10	25%	0.0	SP	5	Moist, medium dense,dark brown, F SAND, with some F Gravel, and some waste
					6	
SS	3-25-43-59	25%	0.0		7	Moist, dark brown-black WASTE fill with rubber and metal
					8	
SS	12-10-8-8	5%	0.0		9	Moist, dark brown, WASTE fill with fabric, rubber, and metal
					10	Moist, dark brown, WASTE fill, to 9.5ft
SS	9-14-15-14	60%	2.1	SW	11	Moist, medium dense medium brown , C-M SAND, with subrounded C-F GAVEL from 9.5 to 11ft
					12	
SS	6-7-7-11-12	100%		GW	13	Dry, loose, med brown-red, MF GRAVEL, with some MF Sand.
					14	
SS	12-12-11-11	0%			15	
				SW	16	Moist, loose, med brown, M SAND, with some med gray Gravel from 15-15.25ft Moist, loose med brown-gray, F SAND, with some Silt from 15.25-15.5ft
SS	6-7-11-12	100%		SW	17	Moist, medium dense, med brown, M SAND, with little Silt

SCHEMATIC
Drawing Not to Scale

COMMENTS

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:

PARSONS
DRILLING RECORD

BORING/ WELL NO. SB-02 Page 1 of 1

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:			ft bls
Measured Water Level:			ft bls
Total Depth of Boring		16	ft bls
Additional Comments:			

Date/Time Start: 4/11/17 1045
Date/Time Finish: 4/11/17 1135

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC Drawing Not to Scale	COMMENTS
					1			
					2			
					3			
HC					4	Automobile fluff		
					5			
SS	10-11-8-10	50%	0.0	SW	6	Moist, medium dense, med brown, FM SAND, with some M Gravel, trace organics		
					7			Foam blocking shoe
SS	4-3-2-2	0%			8			
				SW	9	Moist, loose, med-dark brown, FM SAND, with some Waste		
SS	4-4-4-26	50%		SW	10	Moist, loose, med brown-gray, FM SAND		
					11			
SS	9-12-15-14	50%		SW	12	Moist, medium dense, med brown, FM SAND, with some MC Gravel, trace waste		
				SW	13	Moist, medium dense, med brown, M SAND, with some MC Gravel		
SS	10-10-7-4	25%		SW	14	Moist, loose, light brown-gray, FM SAND		
					15			Debris from inside auger captured in spoon, slight chemical odor.
SS	6-7-6-7	30%			16	Moist, loose, light brown-grat, FM SAND		

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:

PARSONS
DRILLING RECORD

BORING/ WELL NO. SB-03 Page 1 of 1

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:			ft bls
Measured Water Level:			ft bls
Total Depth of Boring:		13ft	ft bls
Additional Comments:			

Date/Time Start: 4/11/18 1235
Date/Time Finish: 4/11/18 1309

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC Drawing Not to Scale	COMMENTS
					1			
					2			
					3			
					4			
HC					5	Automobile fluff		
					6			
SS	29-28-49-2	0%			7			
					8	Moist, dark-med brown WASTE fill, metal and plastic		
SS	14-15-37-4	100%	0.1	SW	9	Moist, dense, med brown, M SAND, with some FC Gravel		
					10	Moist, dark brown, WASTE		
SS	20-14-10-1	100%	0.7	SW	11	Moist, med dense, light brown- gray, FM SAND		
					12			
SS	3-4-5-7	100%		SM	13	Moist, loose, lt brown - gray, FM SAND, with some Silt		

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:

PARSONS
DRILLING RECORD

BORING/ WELL NO. SB-04 Page 1 of 1

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:			ft bls
Measured Water Level:			ft bls
Total Depth of Boring		16	ft bls
Additional Comments:			

Date/Time Start: 4/11/17 1400
Date/Time Finish: 4/11/18 1450

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC Drawing Not to Scale	COMMENTS
					1			
					2			
					3			
HC					4	Automobile fluff		
					5	Moist, med-dark brown, WASTE, from 4-4.25ft, Moist, dark brown WASTE, from		
SS	8-14-11-11	100%	0.0	SW	6	Moist, med dense, med brown, M SAND, with some ML Gravel, from 5.5-6ft		
					7			
SS	3-5-4-3	5%			8	Moist, dark brown-black WASTE		
					9			
SS	4-2-3-6	25%			10	Moist, dark brown- black, WASTE, mostly foam		
				SW	11	Moist, dark brown- black, WASTE, from 10-10.6ft, Moist, med dense, med brown, M SAND, with some FC Gravel from 10.6-11ft		
SS	26-26-25-19	100%		SW	12	Moist, med dense, lt brown-gray, FM SAND from 11-12ft		
					13			
SS	7-3-3-4	50%		SW	14	moist, loose, lt brown-gray, M SAND, with trace M gravel		
					15			
SS	4-4-2-4	100%		SM	16	Moist, very loose, med brown-gray, F SAND, with SILT, and little clay		

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:

PARSONS
DRILLING RECORD

BORING/ WELL NO. SB-05 Page 1 of 1

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:			ft bls
Measured Water Level:			ft bls
Total Depth of Boring		14	ft bls
Additional Comments:			

Date/Time Start: 4/12/18 0820
Date/Time Finish: 4/12/18 0855

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC Drawing Not to Scale	COMMENTS
					1			
					2			
					3			
HC					4	Automobile fluff		
					5			
SS	11-8-7-5	30%	0.0ppm		6	Moist, dark brown, WASTE		
					7			
SS	3-3-3-4	0%			8			
					9			
SS	11-14-15-3	75%	0.3ppm	SW	10	Moist, dark brown-black with some red, WASTE 8-9.5ft Moist, med dense, brown, M SAND, with some M Gravel from 9.5-10ft		Chemical odor
					11			
SS	21-26-19-14	100%		SW	12	Moist, medium dense, medium brown, M SAND, with some FM Gravel, 10-11.6ft, Moist, medium dense, lt brown, F SAND, trace C gravel, bottlon 11.6-12ft.		
					13	Moist, very loose, lt brown, F SAND from 12-12.5ft		
SS	4-3-3-4	50%		MH	14	Wet, soft, lt brown, SILT, with some F Sand from 13-13.5ft		

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:

PARSONS
DRILLING RECORD

BORING/ WELL NO. SB-06 Page 1 of 1

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:			ft bls
Measured Water Level:			ft bls
Total Depth of Boring:		9ft	ft bls
Additional Comments:			

Date/Time Start: 4/12/18 0925
Date/Time Finish: 4/12/18 0950

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL	SCHEMATIC Drawing Not to Scale	COMMENTS
					1			
					2			
HC					3	Automibile fluff		
					4			Cobble stuck in shoe preventing recovery
SS	8-8-7-22	50%	2.8		5	Moist, medium brown-black, WASTE,		
				SW	6	Moist, dark brown-black WASTE from 5-5.5ft, Moist, med dense, med brown, SAND with some FC Gravel, from 5.5-6ft		
SS	9-19-16-14	100%		SW	7	Moist, very stiff, yellow-gray, SILT from 6-6.1ft, Moist, med dense, lt brown-gray, F SAND, from 6.1-7ft		
					8			
SS	6-4-6-4	100%		SW	9	Moist, loose, lt brown-gray, FM Sand		

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:

PARSONS
DRILLING RECORD

BORING/ WELL NO. MW-1 Page 1 of 2

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

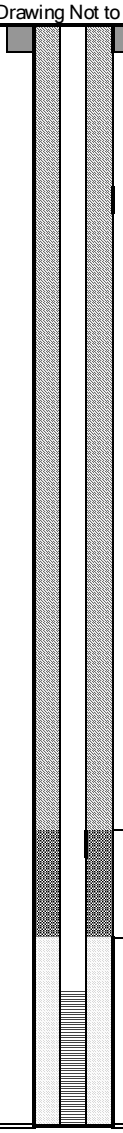
Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:		18.4ft	ft bls
Measured Water Level:		20.06ft	ft bls
Total Depth of Well:		28ft	ft bls
Additional Comments:			

Date/Time Start: April 13, 2018/0910
Date/Time Finish: April 13, 2018/1200

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL
					1	
					2	
					3	
					4	
HC			3.3		5	Moist, loose, dark brown-black, WASTE fill
					6	
					7	
					8	
					9	
					10	
				SM	11	Moist, loose, med-brown, M SAND , with some F-M Gravel, from 11-11.25', Wet, loose, lt brown - gray, F SAND, with low plasticity SILT, from 11.25-11.5'
SS	2-2-3-6	50%	2.2	SW	12	Wet, loose, lt brown F SAND, from 11.5-12'
					13	
SS	4-8-6-5	75%		SW	14	Moist, loose, lt brown with some rust color, F SAND
					15	
SS	4-5-5-8	60%		SW	16	Moist, loose, lt brown, F SAND
					17	
SS	5-6-5-6	50%		SW	18	Moist, loose, lt brown - gray, F-M SAND, with trace F Gravel, bottom 6in wet
					19	
SS	3-2-3-2	50%	4.8	SW	20	Wet, very loose, med brown, F SAND

SCHEMATIC
Drawing Not to Scale



COMMENTS

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:
Monitoring well constructed using 10-ft of 2" diameter PVC screen, and 18-ft of 2" diameter PVC riser. Grout composed of Portland cement and bentonite mix. Monitoring well secured with a stick up and concrete pad

PARSONS
DRILLING RECORD

BORING/ WELL NO. MW-1 Page 2 of 2

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

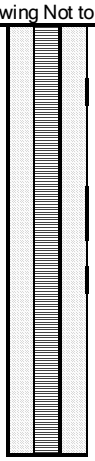
Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:		18.4ft	ft bls
Measured Water Level:		20.06ft	ft bls
Total Depth of Well:		28ft	ft bls
Additional Comments:			

Date/Time Start: April 13, 2018/0910
Date/Time Finish: April 13, 2018/1200

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL
					21	
SS	R-H-1-2	50%		SW	22	Wet, very loose, med brown, F SAND
					23	
SS	3-3-4-5-	100%		SW	24	Wet, very loose, med brown, F SAND
					25	
					26	
					27	
					28	

SCHEMATIC (Drawing Not to Scale)



COMMENTS

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:
Monitoring well constructed using 10-ft of 2" diameter PVC screen, and 18-ft of 2" diameter PVC riser. Grout composed of Portland cement and bentonite mix. Monitoring well secured with a stick up and concrete pad

PARSONS
DRILLING RECORD

BORING/ WELL NO. MW-2 Page 1 of 1

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

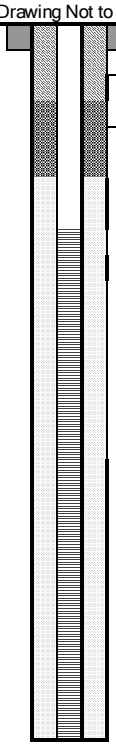
Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:		5ft	ft bls
Measured Water Level:		7.94ft	ft bls
Total Depth of Well:		14ft	ft bls
Additional Comments:			

Date/Time Start: April 16, 2018
Date/Time Finish: April 16, 2018

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL
					1	
					2	
					3	
					4	
HC					5	Moist, lt brown, F SAND
					6	
SS	2-3-3-3	50%	0.2	SW	7	Wet, very loose, lt-med brown, F SAND
				SW	8	Wet, very loose, lt brown, F SAND
SS	3-2-3-4	100%	0.2	ML	9	Wet, soft, lt brown SILT, with some F Sand
					10	
SS	1-1-1-2	0%			11	
				SM	12	Wet, very loose, lt brown, F SAND from 11.0-11.5, Wet, soft lt brown, fine SAND,
SS	4-6-6-7	100%	0.0	ML	13	Wet, very soft, lt brown, low plasticity, SILT, with some F Sand
					14	Wet, very loose, lt brown, F-M SAND
SS	R-R-3-3	100%	0.0		15	Wet, very loose, lt brown, F SAND, with low plasticity SILT

SCHEMATIC
Drawing Not to Scale



COMMENTS

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:
Monitoring well constructed using 10-ft of 2" diameter PVC screen, and 4-ft of 2" diameter PVC riser. Grout composed of Portland cement and bentonite mix. Monitoring well secured with a stick up and concrete pad

PARSONS
DRILLING RECORD

BORING/ WELL NO. MW-3 Page 1 of 1

Contractor: Northstar Drilling
Driller: Steve Laramee & Joe Menzel
Oversight: Casey Ftesko & Pete Scharfschwerdt
Rig Type: CME

PROJECT NAME: CNY Car Crushers
PROJECT Location: Hastings, NY

Location Description:

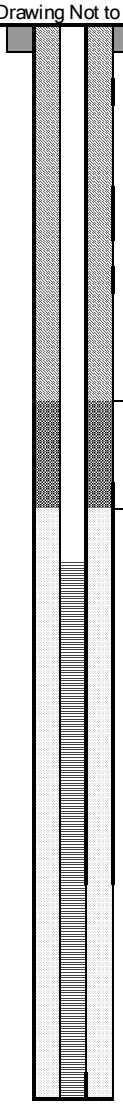
Location Plan

GROUNDWATER OBSERVATIONS			
Apparent Borehole DTW:		11.8ft	ft bls
Measured Water Level:		11.86ft	ft bls
Total Depth of Well:		20ft	ft bls
Additional Comments:			

Date/Time Start: April 16, 2018
Date/Time Finish: April 16, 2018

Sample Type	SPT	Recovery (%)	PID (PPM)	USCS Symbol	Depth (ft bls)	FIELD IDENTIFICATION OF MATERIAL
					1	
					2	
					3	
					4	
HC					5	Moist, lt brown, F SAND
					6	
SS	3-4-4-5	75%	0.0	SW	7	Moist, loose, lt brown, F SAND
					8	
SS	4-5-4-4	80%	0.0	SW	9	Moist, loose, lt brown, F SAND
				SW	10	Moist, very loose, lt brown, F SAND with waste metal scrap at 10.0ft
SS	3-4-2-5	100%	0.0	SW	11	Wet, very loose, lt brown, F SAND
					12	
SS	4-3-5-6	100%		SW	13	Wet, loose, med brown, F SAND
					14	
SS	H-1-2-2	0%			15	
					16	
SS	2-3-4-4	100%	0.0	SW	17	Wet, very loose, med brown, F SAND
					18	
SS	4-3-4-4-	100%		SW	19	Wet, very loose, med brown, F SAND
					20	

SCHEMATIC
Drawing Not to Scale



COMMENTS

SAMPLING METHOD
HC = Hand Cleared (post hole)
SS= Split Spoon

COMMENTS:
Monitoring well constructed using 10-ft of 2" diameter PVC screen, and 10-ft of 2" diameter PVC riser. Grout composed of Portland cement and bentonite mix. Monitoring well secured with a stick up and concrete pad

WELL DEVELOPMENT LOG

Well ID: MW-1

Date	4/17/18	Field Personnel	CF, PS	Weather	37°, Light Snow
Site Name	CNY Car Crushers	Contractor	Northstar Drilling	Project No.	450716
Site Location	Hastings NY	Evacuation Method	Waterra Pump		

Well information:

Depth to Bottom (Initial) *	28.03	ft.	Date(s) Installed	4/13		Date(s) Developed	4/17/18
Depth to Bottom (Final)*	28.03	ft.	Driller	Northstar Drilling		Development Time	Start: 1050
Depth to Water (Initial)*	20.06	ft.	Well Diameter	2	in.		Stop: 1250
Depth to Water (Final)*	20.64	ft.	Casing Volume	4.574	gal.		Total: 120 minutes
* Measuring point			Pump setting* (intake)				

Well Volumes	Volume of Water Removed (Gallons)	Temperature °C	pH s.u	Conductivity mS/cm	Turbidity (NTU)	Approximate Flow Rate (gal/min)	Depth to Water (ft.)	Appearance of Water
1.5	2	---	---	---	---	0.40	20.8	Brown
6.15	8	7.24	7.35	0.557	193	0.40	20.63	Brown
14.6	19	7.70	7.18	0.569	443	0.40	20.67	Brown
17.69	23	8.38	7.02	0.568	237	0.40	20.64	Light Brown
21.5	28	8.13	7.03	0.0558	179	0.40	---	Mostly Clear
25.38	33	8.30	7.11	0.552	148	0.40	---	Mostly Clear
29.2	38	8.12	7.02	0.552	104	0.40	---	Clear
33.1	43	---	---	---	84	0.40	---	Clear
36.9	48	---	---	---	59	0.40	20.63	Clear

Development Water Characteristics:

Total volume of Development water removed: 48 Gallons

Physical appearance at start		Physical appearance at end	
Color	Brown	Color	Clear
Odor	Slight Chemical Odor	Odor	None
Sheen/Free Product	Sheen	Sheen/Free Product	None

NOTES: Water was clear after 38 gallons with the exception of small amounts of fine sand.

Geologist Signature: Casey Fetsko

WELL DEVELOPMENT LOG

Well ID: MW-2

Date	4/17/18	Field Personnel	CF, PS	Weather	37°, Light Snow
Site Name	CNY Car Crushers	Contractor	Northstar Drilling	Project No.	450716
Site Location	Hastings NY	Evacuation Method	Waterra Pump		

Well information:

Depth to Bottom (Initial) *	16.29	ft.	Date(s) Installed	4/13		Date(s) Developed	4/17/18
Depth to Bottom (Final)*	16.29	ft.	Driller	Northstar Drilling		Development Time	Start: 0810
Depth to Water (Initial)*	7.94	ft.	Well Diameter	2	in.		Stop: 1045
Depth to Water (Final)*	9.07	ft.	Casing Volume	2.656	gal.		Total: 2hr35min
* Measuring point			Pump setting* (intake)				

Well Volumes	Volume of Water Removed (Gallons)	Temperature °C	pH s.u	Conductivity mS/cm	Turbidity (NTU)	Approximate Flow Rate (gal/min)	Depth to Water (ft.)	Appearance of Water
2.2	3	5.13	4.55	0.338	E-3	0.21	---	Brown
4.4	6	5.08	6.29	0.307	E-3	0.21	8.86	Brown
10.3	14	5.45	6.89	0.216	601	0.21	9.0	Brown
17.6	24	5.31	7.10	0.246	198	0.21	9.52	Light Brown
22.0	30	5.66	7.09	0.238	130	0.21	9.52	Almost Clear
27.9	38	5.85	7.17	0.203	87	0.21	9.06	Almost Clear
31.5	43	5.16	7.42	0.235	298	0.21	9.07	Almost Clear
34.5	47	---	---	---	193	---	---	Almost Clear

Development Water Characteristics:

Total volume of Development water removed: 47 Gallons

Physical appearance at start		Physical appearance at end	
Color	Brown	Color	Clear
Odor	None	Odor	None
Sheen/Free Product	None	Sheen/Free Product	None

NOTES: Turbidity was dropping then slightly increased again, well may not become clearer. Decision was made to stop at 47 gallons.

Geologist Signature: Casey Fetsko

WELL DEVELOPMENT LOG

Well ID: MW-3

Date	4/17/18	Field Personnel	CF, PS	Weather	37°, Light Snow
Site Name	CNY Car Crushers	Contractor	Northstar Drilling	Project No.	450716
Site Location	Hastings NY	Evacuation Method	Waterra Pump		

Well information:

Depth to Bottom (Initial) *	22.02	ft.	Date(s) Installed	4/13		Date(s) Developed	4/17/18
Depth to Bottom (Final)*	22.02	ft.	Driller	Northstar Drilling		Development Time	Start: 0855
Depth to Water (Initial)*	11.97	ft.	Well Diameter	2	in.		Stop: 1045
Depth to Water (Final)*	12.00	ft.	Casing Volume	3.658	gal.		Total: 1hr50min
* Measuring point			Pump setting* (intake)				

Well Volumes	Volume of Water Removed (Gallons)	Temperature ^{O}C	pH s.u	Conductivity mS/cm	Turbidity (NTU)	Approximate Flow Rate (gal/min)	Depth to Water (ft.)	Appearance of Water
1.8	3	6.91	6.79	0.111	E-3	0.37	---	Brown
4.9	8	5.45	6.89	0.216	100	0.37	---	Light Brown
7.9	13	5.90	7.42	0.198	270	0.37	11.86	Light Brown
12.2	20	6.49	7.56	0.117	87	0.37	12.05	Clear
16.5	27	5.96	7.36	0.186	42	0.37	12.00	Clear
18.9	31	5.94	7.60	0.183	41	0.37	---	Clear
22.6	37	---	---	---	---	0.37	---	Clear

Development Water Characteristics:

Total volume of Development water removed: 37 Gallons

Physical appearance at start		Physical appearance at end	
Color	Brown	Color	Clear
Odor	None	Odor	None
Sheen/Free Product	None	Sheen/Free Product	None

NOTES:

Geologist Signature: Casey Fetsko

APPENDIX B

GROUNDWATER SAMPLING LOGS

Low Flow Ground Water Sampling Log

Date	14-May	Personnel	PRS, MGC	Weather	75°F, sunny
Site Name	Car Crushers CNY	Evacuation Method	Peri Pump	Well #	MW-01
Site Location	Hastings, NY	Sampling Method	Peri Pump	Project #	450716.02000

Well information:

Depth of Well	28.04 ft.	*Measurements taken from:	
Depth to Water	21.09 ft.	X	Top of Well Casing
H_{wc}	6.95 ft.		Top of Protective Casing
Depth to Intake	26.04 ft.		(Other, Specify)

Start Purge Time: 0812

		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min
Elapsed Time (min)	**Depth to Water (ft)**	**Temperature (celsius)**	**pH**	**Conductivity (ms/cm)**	**Oxidation Reduction Potential**	**Dissolved Oxygen (mg/L)**	**Turbidity (NTU)**	**Flow Rate (mL/min)**
0	21.13	15.95	7.21	0.697	165	1.69	97.1	250
5	21.12	10.91	6.2	0.693	161	0	87.5	260
10	21.12	10.45	6.12	0.695	163	0	53.5	260
15	21.12	10.35	6.09	0.69	165	0	35.3	260
20	21.12	10.31	6.07	0.681	167	0	24.8	260
25	21.12	10.23	6.06	0.696	170	0	17.6	260
30	21.12	10.24	6.09	0.693	184	0	13.3	260
35	21.12	10.23	6.06	0.696	184	0	11.5	260
40	21.12	10.31	6.06	0.697	184	0	9.3	260
45	21.12	10.39	6.07	0.691	182	0	6.7	260
50	21.12	10.37	6.07	0.692	179	0	5.2	260
55	21.12	10.46	6.08	0.691	177	0	4.6	260
60	21.12	10.34	6.08	0.695	177	0	4.2	260
65	21.12	10.31	6.09	0.686	175	0	3.6	260

End Purge Time: 0930

Water Sample

Time Collected: 5/14/2018 8:45

Total volume of purged water removed: 6 (gallons)

Physical appearance at start:

Color clear

Odor none

Sheen/Free Product none

Physical appearance at start:

Color clear

Odor none

Sheen/Free Product none

Field Test Results:

Dissolved ferrous iron: n/a

Dissolved total iron: n/a

Dissolved total manganese: n/a

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
TAL Metals, Hg	250 mL Plastic	1	no	HNO3	-
TCL PCBs	250 cc Amber	2	no	none	-
VOCs	40 mL VOA vials	3	no	HCl	-
TCL SVOA	250 mL Amber	2	no	none	-
PFAs,	250 mL Plastic	2	no	none	-
1,4-Dioxane	1 L Amber	2	no	none	-

Low Flow Ground Water Sampling Log

Date	14-May	Personnel	PRS, MGC	Weather	75°F, sunny
Site Name	Car Crushers CNY	Evacuation Method	Peri Pump	Well #	MW-02
Site Location	Hastings, NY	Sampling Method	Peri Pump	Project #	450716.02000

Well information:

Depth of Well	16 ft.	*Measurements taken from:	
Depth to Water	8.76 ft.	[X]	Top of Well Casing
H_{wc}	7.24 ft.	[ ]	Top of Protective Casing
Depth to Intake	14 ft.	[ ]	(Other, Specify)

Start Purge Time: 1355

		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min
Elapsed Time (min)	**Depth to Water (ft)**	**Temperature (celsius)**	**pH**	**Conductivity (ms/cm)**	**Oxidation Reduction Potential**	**Dissolved Oxygen (mg/L)**	**Turbidity (NTU)**	**Flow Rate (mL/min)**
0	8.92	14.56	6.96	0.2	169	4.6	13.8	300
5	8.97	11.5	6.54	0.183	201	3.1	40.3	200
10	8.94	11.28	6.44	0.193	210	2.93	30.3	200
15	8.94	11.02	6.1	0.188	215	2.98	50.7	200
20	8.94	10.45	6.38	0.197	218	2.95	41.1	125
25	8.94	10.78	6.4	0.204	220	3.11	10.4	200
30	8.94	10.81	6.4	0.198	221	3.24	2.2	200
35	8.94	10.83	6.38	0.195	221	3.06	0.8	200
40	8.94	10.84	6.36	0.196	223	3.01	0.5	200
45	8.94	10.69	6.36	0.194	224	2.98	0	200

End Purge Time: 1215

Water Sample

Time Collected: 5/14/2018 11:30

Total volume of purged water removed: 3.5 (gallons)

Physical appearance at start:

Color clear
Odor none
Sheen/Free Product none

Physical appearance at start:

Color clear
Odor none
Sheen/Free Product none

Field Test Results:

Dissolved ferrous iron: n/a
Dissolved total iron: n/a
Dissolved total manganese: n/a

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
TAL Metals, Hg	250 mL Plastic	3	no	HNO3	-
TCL PCBs	250 cc Amber	6	no	none	-
VOCs	40 mL VOA vials	9	no	HCl	-
TCL SVOA	250 mL Amber	6	no	none	-
PFAs,	250 mL Plastic	6	no	none	-
1,4-Dioxane	1 L Amber	6	no	none	-

Low Flow Ground Water Sampling Log

Date	14-May	Personnel	PRS, MGC	Weather	75°F, sunny
Site Name	Car Crushers CNY	Evacuation Method	Peri Pump	Well #	MW-03
Site Location	Hastings, NY	Sampling Method	Peri Pump	Project #	450716.02000

Well information:

Depth of Well	21.61 ft.	*Measurements taken from:	
Depth to Water	12.47 ft.	[X]	Top of Well Casing
H_{wc}	9.14 ft.	[ ]	Top of Protective Casing
Depth to Intake	19.61 ft.	[ ]	(Other, Specify)

Start Purge Time: 1355

		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min
Elapsed Time (min)	**Depth to Water (ft)**	**Temperature (celsius)**	**pH**	**Conductivity (ms/cm)**	**Oxidation Reduction Potential**	**Dissolved Oxygen (mg/L)**	**Turbidity (NTU)**	**Flow Rate (mL/min)**
0	12.52	24.87	6.69	0.031	174	6.63	55	200
5	12.5	17.49	5.7	0.033	228	4.52	27.4	200
10	12.5	15.72	5.52	0.033	243	4.52	30.7	200
15	12.5	14.58	5.45	0.033	249	4.56	23.8	200
20	12.5	14.08	5.15	0.038	259	4.06	14.9	200
25	12.5	13.91	5.48	0.04	255	4	13.6	200
30	12.51	14.06	5.45	0.039	258	4.07	12.3	200
35	12.51	14.01	5.43	0.038	261	4.02	12.2	200
40	12.51	13.75	5.43	0.038	263	3.97	9.7	200
45	12.51	13.69	5.41	0.038	266	3.92	8	200
50	12.51	13.39	5.41	0.037	268	3.86	6.8	200
55	12.51	13.38	5.41	0.038	269	3.82	6.1	200
60	12.51	13.53	5.41	0.038	269	3.8	5.8	200
65	12.51	13.47	5.4	0.038	271	3.73	4.4	200
70	12.51	13.48	5.4	0.039	271	3.6	3.6	200
75	12.51	13.7	5.4	0.038	272	3.53	3.2	200
80	12.51	13.57	5.4	0.04	274	3.9	2.2	200
85	12.51	12.24	5.42	0.04	277	4.01	1.1	200
90	12.51	11.98	5.4	0.039	278	4.41	1.1	200
95	12.51	11.7	5.41	0.038	280	3.93	0.8	200

End Purge Time: 1550

Water Sample

Time Collected: 5/14/2018 14:30

Total volume of purged water removed: 6 (gallons)

Physical appearance at start:

Color clear
Odor none
Sheen/Free Product none

Physical appearance at start:

Color clear
Odor none
Sheen/Free Product none

Field Test Results:

Dissolved ferrous iron: n/a
Dissolved total iron: n/a
Dissolved total manganese: n/a

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
TAL Metals, Hg	250 mL Plastic	1	no	HNO3	-
TCL PCBs	250 cc Amber	2	no	none	-
VOCs	40 mL VOA vials	3	no	HCl	-
TCL SVOA	250 mL Amber	2	no	none	-
PFAs,	250 mL Plastic	2	no	none	-
1,4-Dioxane	1 L Amber	2	no	none	-

APPENDIX C

TOPOGRAPHICAL SURVEY INFORMATION

POPLI DESIGN GROUP
555 Penbrooke Drive • Penfield, NY 14526
main: 585.388.2060 • fax: 585.388.2070

CNY CAR CRUSH SITE

TOWN OF HASTINGS, OSWEGO COUNTY, NEW YORK

HORZ. DATUM: NAD 83(2011) - NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE
VERT. DATUM: NAVD 88
UNITS: U.S. SURVEY FEET

POINT ID	NORTHING	EASTING	GROUND ELEV.	CASING ELEV.	RISER ELEV.
MW1	1222689.4	936253.5	484.35	487.44	487.34
MW2	1222541.8	936290.1	473.24	476.38	476.30
MW3	1222605.8	936069.5	478.58	481.76	481.56
B1	1222665.8	936391.3	484.59	N/A	N/A
B2	1222673.6	936296.6	484.99	N/A	N/A
B3	1222636.8	936196.5	485.24	N/A	N/A
B4	1222547.5	936221.5	485.90	N/A	N/A
B5	1222590.1	936151.9	487.58	N/A	N/A
B6	1222715.0	936118.6	484.48	N/A	N/A
S1	1222781.8	936048.6	487.60	N/A	N/A
S2	1222738.5	936166.9	484.53	N/A	N/A
S3	1222716.1	936242.4	484.11	N/A	N/A
S4	1222712.6	936372.3	484.39	N/A	N/A
S5	1222657.8	936447.3	483.39	N/A	N/A
S6	1222618.1	936222.9	485.09	N/A	N/A
S7	1222570.9	936156.6	488.04	N/A	N/A
S8	1222640.4	936002.8	483.90	N/A	N/A
S9	1222496.0	936128.0	475.93	N/A	N/A
S10	1222470.3	936245.5	474.68	N/A	N/A
TP1	1222557.7	936102.9	477.47	N/A	N/A