

**EXHIBIT A
CONSTRUCTION & DEMOLITION DEBRIS CELL**

**Division of Solid Waste
New York State Department of Environmental Conservation**

**ACTIVE CONSTRUCTION & DEMOLITION DEBRIS LANDFILL
(Subject to 6 NYCRR Part 360-7, Construction and Demolition Debris Facilities,
Effective Date: November 24, 1999)**

QUARTERLY REPORT

A. Annual Report for the year of operation from 1 January to 31 December 2017

B. Quarterly Report for: Quarter 1 Quarter 2 X Quarter 3 X Quarter 4

**Section 1
Owner/Facility Information**

Facility Name - Delaware County Solid Waste Management Center
DEC Facility Code # 13-D-01 DEC Region IV Town of Walton
County of Delaware Part 360 Permit No 4-1256-00040/00004
Date of Issue - 10 June 1999 Date of Permit Expiration - 1 June 2019
DEC Registration # 13R22 (Construction and Demolition Debris Transfer Station)
Phone Number - (607) 746-2128 FAX - (607) 746-7212
Mailing Address - PO Box 311, Page Avenue, Delhi, NY 13753
Operator Name - Anthony Vespro Phone Number - (607) 865-5805
Mailing Address - PO Box 311, Page Avenue, Delhi, NY 13753

**Section 17
Signature and Date by Owner or Operator**

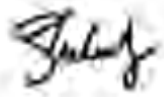
Owner or operator must sign, date and submit one completed form with an original signature to:

New York State Department of Environmental Conservation
Bureau of Solid Waste & Land Management
Division of Solid & Hazardous Materials
625 Broadway
9th Floor
Albany, NY 12233-7258

and one copy with an original signature to the appropriate Regional Solid Waste Engineer (RSWE).

I hereby swear or affirm that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief.

Susan McIntyre
Solid Waste Director
PO Box 311
Delhi, NY 13753



Date: February 2017
Tel: (607)746-2128
Fax: (607)746-7212

**Section 2
Quantity of C & D Debris Received**

Report the tonnages of solid waste received.

Tonnages were obtained by: X Scale Weight Truck Count Estimated Other:

-2017-	Table A.
Construction & Demolition (C&D) Debris Receipts	Weight (tons)
Quarter 1	673.01
Quarter 2	1,659.43
Quarter 3	1,570.09
Quarter 4	1,216.70
Year to Date Total Received	5,119.23

Has the landfill received pulverized C&D debris? Yes X No

If yes, what is the percentage of pulverized C&D debris received? %

What is the percentage of remaining approved design volume? %

Original Design Volume 69,950 CY
 Volume Used from 1 Oct 1991 to 8 July 2013 55,696 CY
 Volume Remaining 14,254 CY
 Estimated Remaining Life of Cell, 9,000 CY/Year 1 years 6 months

- 2017-	1 ST	2 ND	3 RD	4 th	YTD Total
Quarterly C&D Receipts	673.01	1,659.43	1,570.09	1,216.70	5,119.23
In-House Soil/C&D Blend ADC - Cell 6	1,503.17	2,802.38	506.52	2,131.10	6,943.17
C&D buried in Cell 6	0.00	0.00	0.00	0.00	0.00
C&D buried in C&D landfill	0.00	0.00	0.00	0.00	0.00
C&D exported by Tweedie Enterprises to ILES Seneca Meadows, Canadaga, NY	209.13	421.53	0.00	0.00	630.66
C&D exported by Tweedie Enterprises to Hakes Landfill, Painted Post, NY	425.33	0.00	0.00	0.00	425.33
Casella Waste Management of NY Ontario County Landfill, Seneca, NY	0.00	0.00	1,092.03	1,732.12	2,824.15
Casella Waste Management of NY Hakes Landfill, Painted Post, NY	0.00	0.00	0.00	0.00	0.00
C&D temporarily stockpiled on C&D landfill	(1,464.62)	(1,564.48)	(28.46)	(2,646.52)	(5,704.08)
Quarterly Total Managed	673.01	1,659.43	1,570.09	1,216.70	5,119.23
Total Export Tonnage	634.46	421.53	1,092.03	1,732.12	3,880.14

Note: Tonnages reported for C&D receipts are from the Delaware County Solid Waste Management Center truck scale records. Tonnages of C&D exports are from truck scale records of the other facilities. Slight deviations in from weight records reported from exports and by the receiving landfills may occur. Tonnages for C&D associated with FEMA related activities are excluded from this figures.



**Section 3
Unauthorized Solid Waste**

No unauthorized solid waste has ever been received at the C & D landfill.

**Section 4
Material Recovered**

Information on any materials recovered is reported in Section 5 of the main text.

**Section 5
Leachate**

All leachate collected in the C&D debris landfill cell is conveyed to the same storage facility as all leachates from all other sources at the site. These quantities are combined and are included in the totals as reported in Section 6 of the main text. Generation figures are reported below for the C&D debris cell:

C&D LEA CHATE (gallons)							TABLE M.
-2017-	JAN	FEB	MAR	APR	MAY	JUN	TOTAL (ytd)
C&D (gallons)	70,596	66,647	75,936	154,773	116,130	90,552	574,634

C&D LEACHATE (gallons)							TABLE N.
	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL (ytd)
C&D (gallons)	20,340	31,290	14,970	4,050	4,020	2,670	651,974

This is a 1.9 acre cell that has a constructed clay liner and leachate collection system.

Additional leachate data is included in Section 6 of the main text and the **Environmental Monitoring Report**.

**Section 6
Tipping Fee**

Tipping fees for C&D debris are as follows:

C&D Debris	\$87.00 per ton
Clean Wood	\$25.00 per ton

**Section 7
Cost Estimates and Financial Assurance Documents**

This information is reported in Section 9 of the main text.

**Section 8
Problems**

Details are reported in Section 10 of the Main Text. No operational problems currently exist at the C&D cell.



**Section 9
Changes**

This section is reported in Section 10 of the main text.

**Sections 10, 11, 12, 13, & 14
Water Quality Monitoring**

This data can be found with the, "Water Quality Data" in the **Environmental Monitoring Report**.

**Section 15
Surface Impoundments**

There are no surface impoundments at this site.

**Section 16
Permit/Consent Order Reporting Requirements**

There are no Permit/Consent Order reporting requirements.



EXHIBIT B WATER QUALITY DATA / ENVIRONMENTAL MONITORING REPORT

Leachate System Data
Groundwater Elevations for Monitoring Wells
Executive Summary: Groundwater Pollutant Overlimit Parameters

WATER QUALITY MONITORING

DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER

Water Quality Data reports for the previous 2nd, 3rd, and 4th quarters are compiled by Microbac Laboratories, Inc., Cortland, NY, and submitted attached to this report.

During baseline / expanded sampling events, data validation by qualified independent third party was provided by James Baldwin, DATAVAL Inc, Environmental Data Validation, Fayetteville, NY and is submitted as attachment to this report.

All testing and analyses are performed in accordance to the guidelines and requirements of 6 NYCRR Part 360-2.11 and as outlined in the *Environmental Monitoring & Site Analytical Plan for the Delaware County Solid Waste Management Center, revised January 2014*, and any special conditions as required by the Regional Office.

All hydrogeologic data is currently on file in the Regional Office.

ENVIRONMENTAL MONITORING REPORT DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER

Leachate Collection System

See Section 10 of the main text for details. Daily recorded leachate generation data are attached.

Leachate Generation and Rain Water

Year to date, a total of 5,333,270 gallons of leachate were handled the leachate collection system. During this same time period, there was an estimated 49,345,308 gallons of rain water falling on the total of 34.7 acres handled by the leachate collection system. The monthly average throughout this year of overall rain water becoming leachate ranges from a low of 6% in October 2017 to a high of 14% in September 2017.

Use of long term temporary geomembrane rain covers and diversion dams has demonstrated a measurable decrease in leachate generation. November 2016 was the installation date for the rain cover placed on the north west end of Cell 6. As reported in the 2015 annual report, the SWMC experienced a 28% decrease in leachate generation over 2014 comparable weather condition year. Comparing the ratio of leachate generation to rainfall annually from 2012 to 2014, the SWMC experienced a 45% decrease in leachate generation in 2016, attributable to rain diversion. October 2017 the original diversion storm water along the northern side liner of Cell 6 has been fully removed. New diversion dam upstream located on Cell 5 northern waste edge was installed at that time. The relative volume of rainwater diversion is anticipated to lessen with this work. Comparison of the ratio of leachate generation to rainfall from 2016 to 2017 for Cell 5 and Cell 6 showed a 10 point decrease in rainwater to leachate generation. Further evidence of the significant value in long term temporary geomembrane rain covers. Savings to Delaware County associated with leachate prevention from rainwater diversion are estimated at 2,000,000 gallons at a \$60,000 direct disposal cost savings and an additional \$60,000 in labor and trucking annually.

Leachate generation and rainfall data, including data for each pump station, is shown in the attachment titled LEACHATE GENERATION:RAINFALL.

Action Leakage Rates- Operational Cells

The 30 day average ALR for Cell 6 for the year ranged from a low of 0.55 g/a/d in October 2017 to a high of 4.30 g/a/d in



April 2017. The 30 day average ALR for Cell 5 for the period ranged from a low of 0.69 g/a/d in November 2017 to a high of 1.83 g/a/d in May 2017. Previous analytical comparative testing of secondary leachate for Cell 5 and Cell 6 suggest that the respectively joined liner systems for the two cells is allowing flow of leachate from Cell 5 secondary system in Cell 6 secondary system. Combined Cell 5 & Cell 6 ALRs range from a low of 0.86 g/a/d in October 2017 to a high of 1.88 g/a/d in March 2017.

Ground Water Monitoring

Groundwater continues to be monitored on a quarterly basis as is the quality of the upgradient wells in comparison to the down gradient wells. Sampling events occur consistent with annual scheduling identified in the facility Environmental Monitoring & Site Analytical Plan 2014.

Upgradient Water Quality

Seven wells are regularly monitored for upgradient water quality. For the 2, 3, and 4 quarter 2017 sampling of upgradient water quality continues to be characterized by elevated sodium levels, low pH values, along with intermittently elevated aluminum, iron and manganese levels. The 2nd and 3rd quarters showed the most activity with elevated levels of phenols, sulfate, TKN, TOC, and turbidity. This is consistent with historic upgradient water quality at the site. All other parameters tested below state and the Site EWQV Trigger levels.

Operational Water Quality Downgradient of Cell 6 (Operational in 4th Quarter 2007)

Four wells monitor downgradient of active Cell 6. For the 2nd, 3rd, and 4th quarters 2017 monitoring wells 7 and 171 showed the most activity with elevated levels of sodium, turbidity, and nitrate levels. Consistent with the upgradient water sampling results, the 2nd and 3rd quarters showed the most activity with elevated levels of sodium, iron, aluminum, low pH levels, and intermittently elevated nitrate, alkalinity, turbidity, BOD, and TOC levels. All other parameters tested below state and the Site EWQV Trigger levels.

Operational Water Quality Downgradient - Cell 5 (Intermediate Closure)

Five wells monitor downgradient of active Cell 5. For the 2nd, 3rd, and 4th quarters 2017 monitoring wells 6i and 6s showed the most activity with elevated levels of sodium and alkalinity levels, and low pH values. Consistent with the upgradient water sampling results, the 2nd and 3rd quarters showed the most activity with elevated levels of sodium, low pH levels, and intermittently elevated nitrate, TOC, manganese, and BOD levels. All other parameters tested below state and the Site EWQV Trigger levels.

Closed Cell Downgradient - Cell 4/4e

Three wells monitor downgradient of closed Cell 4/4e. Sampling schedule specified in the EM/SAP calls for annual analysis. The annual analysis originally scheduled for the 4th quarter of 2017 was missed by laboratory oversight. The missed sampling was discovered and samples taken during the 1st quarter 2018. There are no sampling results for these wells at the time of this report.

Closed Cell Downgradient - Cell 1, 2, 3

Five wells monitor downgradient of closed Cell 1, 2, & 3. Sampling schedule specified in the EM/SAP calls for annual analysis. The annual analysis originally scheduled for the 4th quarter of 2017 was missed by laboratory oversight. The missed sampling was discovered and samples taken during the 1st quarter 2018. There are no sampling results for these wells at the time of this report.

Downgradient of Future Airspace

For the 2nd, 3rd, and 4th quarters 2017 monitoring well 8 showed one instance of exceedance with elevated TOC during the 3rd quarter 2017. All other parameters are within both the NYS Groundwater Effluent Standard and the EWQV trigger.

Surface Water Monitoring

For the 2nd, 3rd, and 4th quarters 2017 both the River Upstream and River Downstream monitoring points showed elevated TOC levels. All other parameters for both the downstream and the upstream portions are within both the NYS Groundwater Effluent Standard and the EWQV trigger.



OVERLIMIT PARAMETERS - ROUTINE & MODIFIED ANALYSIS 2nd Quarter - 2017				TABLE Y.a.	
Well	NYS Ground Water	Site EWQV Trigger	Well	NYS Ground Water	Site EWQV Trigger
Upgradient Wells					
1d	sample only as needed	sample only as needed	Downgradient of Closed Cells 1, 2, 3		
1s	pH = 6.11 Fe = 1.47 ppm Na = 89.2 ppm	does not exceed	4d	sample only as needed	sample only as needed
2	pH = 6.11 Phenols = 0.0389 ppm Mn = 1.99 ppm Na = 48.6 ppm	Phenols = 0.0389 ppm Mn = 1.99 ppm	4i	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
12	Turbidity = 1020 NTUs Fe = 0.851 ppm Na = 49.9 ppm	Turbidity = 1020 NTUs TKN = 1.02 ppm Sulfate = 34.3 ppm	4s	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
13	Na = 53.4 ppm	does not exceed	5	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
14	pH = 6.49 Na = 55.6 ppm	does not exceed	Downgradient of Cell 5 (intermediate closure)		
15d	pH = 6.27 Na = 87.6 ppm	does not exceed	5xi	does not exceed	does not exceed
15s	pH = 6.02 Na = 105 ppm	does not exceed	5xs	pH = 6.26 Mn = 1.71 ppm	Mn = 1.71 ppm
Downgradient of Closed Cell 4/4e					
10	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	6d	sample only as needed	sample only as needed
11	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	6i	pH = 6.32 Na = 37.7 ppm	Nitrate = 4.04 ppm TOC = 1.47 ppm
16	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	6s	pH = 6.30 Na = 44.5 ppm	Alkalinity = 140 ppm
Surface Water					
River Upstream	does not exceed	TOC = 2.25 ppm	Downgradient of Cell 6 (operational 4th QT 2007)		
River Down	does not exceed	TOC = 1.89 ppm	7	Turbidity = 13.3 NTUs Na = 25.3 ppm	Nitrate = 5.25 ppm Alkalinity = 104 ppm
Downgradient of Future Airspace					
8	does not exceed	does not exceed	7i	pH = 6.48	does not exceed
			17i	Al = 4.57 ppm Fe = 7.90 ppm	Al = 4.57 ppm Fe = 7.90 ppm
			17s	does not exceed	does not exceed



OVERLIMIT PARAMETERS - ROUTINE & MODIFIED ANALYSIS 3rd Quarter - 2017				TABLE Y.b.	
Well	NYS Ground Water	Site EWQV Trigger	Well	NYS Ground Water	Site EWQV Trigger
Upgradient Wells					
1d	sample only as needed	sample only as needed	Downgradient of Closed Cells 1, 2, 3		
1s	pH = 6.00	does not exceed	4d	sample only as needed	sample only as needed
2	pH = 6.06 Mn = 1.03 ppm Na = 44.4 ppm	TOC = 2.02 ppm Mn = 1.03 ppm	4i	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
12	pH = 6.24 Turbidity = 14.7 NTUs Al = 2.61 ppm Fe = 5.18 ppm Na = 52.4 ppm	TOC = 1.83 ppm Al = 2.61 ppm Fe = 5.18 ppm	4s	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
13	pH = 6.44 Na = 45.4 ppm	does not exceed	5	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
14	Na = 74.0 ppm	TOC = 1.97 ppm	5i	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
15d	pH = 6.34 Mn = 0.763 ppm Na = 83.6 ppm	TOC = 3.63 ppm Mn = 0.763 ppm	Downgradient of Cell 5 (intermediate closure)		
15s	pH = 5.93 Na = 114 ppm	TOC = 2.17 ppm	5xi	does not exceed	does not exceed
Downgradient of Closed Cell 4/4e					
10	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	5xs	pH = 6.27 Mn = 0.722 ppm	TOC = 1.82 ppm Mn = 0.722 ppm
11	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	6d	sample only as needed	sample only as needed
16	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	6i	pH = 6.33 Na = 37.3 ppm	TOC = 4.54 ppm
Surface Water					
River Upstream	does not exceed	TOC = 2.42 ppm	6s	pH = 6.24 Fe = 1.28 ppm Na = 26.9 ppm	Alkalinity = 130 ppm TOC = 2.92 ppm
River Down	does not exceed	TOC = 2.47 ppm	Downgradient of Cell 6 (operational 4th QT 2007)		
Downgradient of Future Airspace					
8	does not exceed	TOC = 2.23 ppm	7	pH = 6.36 Na = 30.6 ppm	Nitrate = 7.71 ppm TOC = 2.70 ppm
Downgradient of Cell 6 (operational 4th QT 2007)					
7i					
pH = 6.38 Turbidity = 5.80 NTUs					
17i					
Turbidity = 60.6 NTUs Al = 2.67 ppm Fe = 4.46 ppm					
17s					
pH = 6.47 Fe = 0.662 ppm					



OVERLIMIT PARAMETERS - ROUTINE & MODIFIED ANALYSIS				TABLE Y.c.	
4th Quarter - 2017					
Well	NYS Ground Water	Site EWQV Trigger	Well	NYS Ground Water	Site EWQV Trigger
Upgradient Wells					
1d	sample only as needed	sample only as needed	4d	sample only as needed	sample only as needed
1s	pH = 6.10 Turbidity = 7.28 NTU's Al = 3.29 ppm Fe = 3.78 ppm Na = 79.8 ppm	Al = 3.29 ppm	4i	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
2	pH = 6.25 Mn = 0.997 ppm Na = 40.6 ppm	Alkalinity = 132 ppm Mn = 0.997 ppm	4s	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
12	Al = 2.01 ppm Fe = 2.88 ppm Na = 54.9 ppm	BOD = 48.8 Al = 2.01 ppm Sulfate = 33.6 ppm	5	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
13			5i	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017
14			Downgradient of Cell 5 (intermediate closure)		
15d	pH = 6.47 Na = 81.5		5xi	does not exceed	Fe = 1.69 ppm
15s			5xs	Mn = 1.20 ppm	Mn = 1.20 ppm BOD = 3.53 ppm
Downgradient of Closed Cell 4/4e					
10	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	6d	sample only as needed	sample only as needed
11	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	6i	pH = 6.37 Na = 29.4 ppm	BOD = 14.4 ppm
16	scheduled for 4 th QT 2017	scheduled for 4 th QT 2017	6s	pH = 6.26 Fe = 2.14 ppm Na = 37.2 ppm	Alkalinity = 108 ppm BOD = 26.9 ppm
Surface Water					
River Upstream	does not exceed	TOC = 1.51ppm	7	pH = 6.32 Al = 2.08 ppm Fe = 1.48 ppm Na = 36.4 ppm	Alkalinity = 100 ppm TOC = 1.78 ppm Al = 2.08 ppm BOD = 26.1 ppm
River Down	does not exceed	TOC = 1.45 ppm	7i	pH = 6.41	Nitrate = 6.30 ppm BOD = 14.1 ppm
Downgradient of Future Airspace					
8	does not exceed	does not exceed	17i	Turbidity = 7.97 NTUs Al = 5.80 ppm Fe = 8.32 ppm	Al = 5.80 ppm Fe = 8.32 ppm
			17s	does not exceed	does not exceed

