2017 ANNUAL REPORT Lockwood Ash Disposal Site Facility No. 62N01 Town of Torrey, Yates County, New York

Prepared on behalf of:

Lockwood Hills LLC 590 Plant Road P.O. Box 187 Dresden, New York 14441

Prepared by:



2620 Grand Island Blvd. Grand Island, New York 14072-2131

March 2018

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1 INTRODUCTION

Lockwood Hills LLC (Lockwood Hills) manages the Lockwood Ash Disposal Site (Lockwood or the Landfill), a primarily coal ash monofill associated with the Greenidge Power Generating Station, an electric generating plant that used to burn coal in the Town of Torrey, Yates County, New York. Lockwood is located on Swarthout Road, across NYS Route 14 from the power plant. The Landfill was placed in protective layup in the spring of 2011 in general accordance with the Layup Plan prepared by Daigler Engineering, PC (DE) and submitted to the New York State Department of Environmental Conservation (NYSDEC) in May 2011.

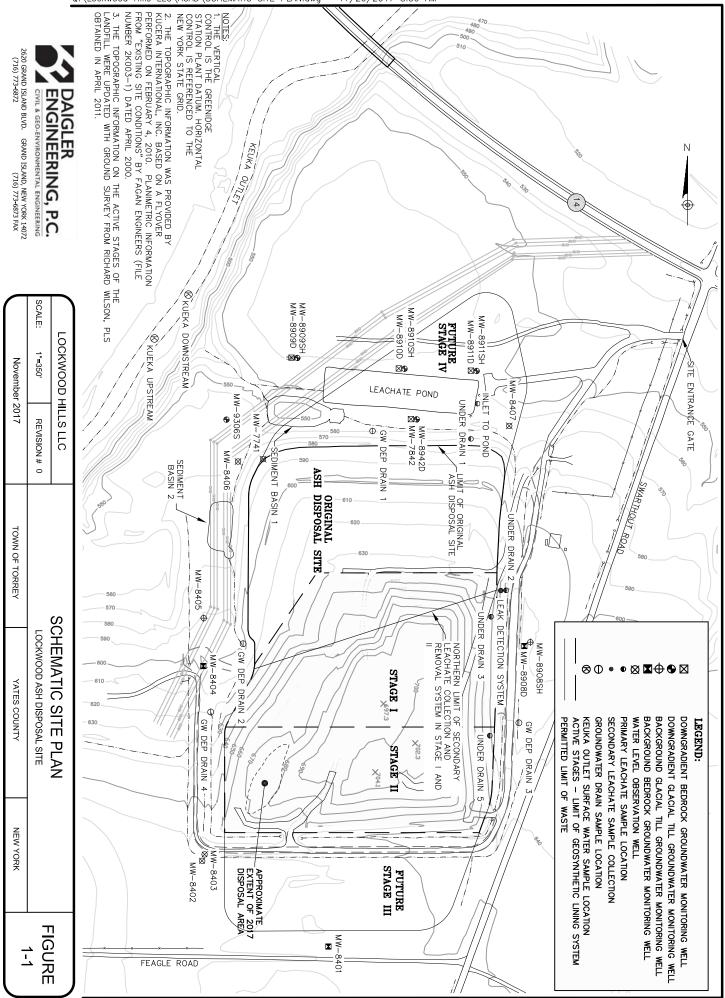
Lockwood Hills agreed to execute a Consent Order (Case No. R8-20140710-47) with the NYSDEC to, in part, segregate stormwater from leachate and treat and dispose of the leachate onsite or at an appropriate offsite facility. The effective date of the Consent Order was February 18, 2015, an amendment to the schedule was issued by the NYSDEC on February 24, 2016. As part of the Consent Order amendment, leachate flow monitoring and stormwater separation construction activities took place at the Lockwood Ash Disposal Site during 2016. Construction of the site's stormwater management system was completed in 2017 as described in Section 2.

This Annual Report has been prepared in accordance with the requirements of 6 NYCRR Part 360 regulations and the facility's current NYSDEC Solid Waste Management Facility Permit No. 8-5736-00005/00003-0. Lockwood is approved by the NYSDEC for the disposal of fly ash, bottom ash, water/wastewater sludge, and mill rejects. The permitted 44.2-acre landfill, as shown in Figure 1-1, consists of the original soil lined ash disposal site, and a four-staged, lined expansion of this original footprint. To date, ash has been placed within about 29.83 acres of the permitted acreage, including the Original Ash Disposal Site (OADS), Stage I, and Stage II. The OADS is closed with final cover and the majority of the Landfill Stages I and II have been covered with intermediate cover as defined by Lockwood's Operations & Maintenance Manual.

The regulations and the permit require Lockwood Hills to submit an annual report no later than 60 days after the first day of January of each year of operation. This report must summarize:

• The quantity and types of solid waste disposed;





- The remaining site life and capacity as allowed by the permit;
- An estimate of the actual in situ waste density for the reporting year;
- A review of water and leachate quality data;
- Total amounts of leachate managed;
- The amount of leachate collected in the secondary leachate collection and removal system;
- Changes from the approved report, plans, and specifications or permit conditions;
- Tipping fee and cost information;
- Amount of solid waste recovered from disposal; and,
- Updated closure and post-closure care cost estimates.

The following sections of this report provide the remaining required information. The 2017 NYSDEC Annual Report form has been completed and is included in Attachment 1.

2 **OPERATIONS**

2.1 GENERAL

According to the monthly site inspection reports, mowing of the landfill slopes occurred during June 2017. Some erosion was noted along berms, dikes, and slopes on the monthly reports between May and December requiring corrective action. Should earthwork repairs or maintenance be required, City Hill Construction, Inc. of Penn Yan, New York (City Hill) is contacted and generally responds within a day or two to conduct the repairs. A continuous service contract is maintained with City Hill to help ensure Lockwood remains in good working order. The dust issues noted as needing corrective actions in September through December were minor and consisted of pockets of potential dust sources in the roadways as a result of exposed roadway subgrade. These areas were repaired by adding rock filler on top of the access roads. Overall, road maintenance is conducted several times per year. Based on conversation with Lockwood Hills staff in February 2018, no major issues were noted in 2017 and all minor corrective actions noted in the monthly inspection reports were addressed by City Hill within a day or two following identification during the monthly inspection. The monthly site inspection reports are provided in Attachment 2.

City Hill was contracted to conduct the remaining work described in the stormwater separation plan during 2017. This work included modifications to Sediment Basin 2 and associated drainage channels along the west side of the Landfill. Construction was completed by November 1, 2017 in conformance with an amendment to the Consent Order which was approved by the Department and dated October 13, 2016. The construction was documented with periodic construction observations by Daigler Engineering, PC (DE). Details of the construction, including a construction report and record drawings were provided to the NYSDEC in one report per cover letter dated January 23, 2017.

Following construction efforts in 2016 to separate leachate from stormwater, it was discovered that lowering the ground surface elevation in the vicinity of MW-7842 resulted in a nearly fully exposed concrete seal and a significantly loose protective casing upon final site inspection. It was agreed upon by City Hill and Lockwood Hills that MW-7842 would be repaired in 2017. A drawing titled *Monitoring Well MW-7842 Repair* (February 2017) documented the repair plan which excavated a portion of the existing PVC riser and steel casing, extending both approximately

three feet above the proposed concrete pad. Repair work was conducted on June 19, 2017 in accordance with the drawing and extreme care was taken during the repair to avoid compromising the integrity of the well; however, the repair was unsuccessful. Subsequently, Lockwood Hills decided to decommission and replace this glacial till (shallow) downgradient well. A MW-7842 Decommissioning and Replacement Plan was submitted to the Department and was approved on December 22, 2017. The proposed work was completed in early 2018.

Leachate flow monitoring, which began July 1, 2016, continued throughout 2017 based on the *Leachate Flow Monitoring Plan* (January 2016) prepared by DE. The initial four months of the data collection period coincided with historical drought conditions. The measured leachate flowrates were quite low as compared to the average leachate flowrate of 9.35 gallon per minute obtained from quarterly measurements taken between 2003 and 2014. This prompted Lockwood Hills to request an extension of the leachate flow data collection period aimed at capturing a more typical cyclic seasonal pattern of leachate generation. A second amendment to the Consent Order was issued by the Department on July 10, 2017 that extended the data collection timeframe until November 30, 2017 which included a submission deadline for a Leachate Flow Monitoring and Analysis report 45 days after the completion of data collection (i.e., January 12, 2018).

2.2 QUANTITY AND TYPES OF SOLID WASTE DISPOSED

The landfill is approved for the disposal of fly ash, bottom ash, water/wastewater treatment sludge and mill rejects from various locations including the Greenidge Station. During the 2017 calendar year, the excavation of Sediment Basin 2 and re-construction of the stormwater channels associated with the stormwater separation plan construction produced a mixture of soil and ash which was disposed in the Landfill. As a result, approximately 70 cubic yards, or 91 tons of material were disposed in the southwest corner of Stage II of the Landfill in October 2017. Cover soil was stripped from the disposal area in Stage II, and stockpiled onsite prior to the mixture of soil and ash being disposed in the Landfill. The stockpiled cover soil was replaced, graded, and seeded, as such, no available airspace was consumed with the addition of cover soil. Waste quantities were estimated based on truck counts and a historic waste density. No waste materials were accepted from offsite during 2017.

2.3 Ash Density, Capacity, and Site Life

No field testing of ash density was completed during calendar year 2017. Historic in-place ash density testing at Lockwood indicates a typical density of 96 pounds per cubic foot (pcf), equivalent to 1.3 tons per cubic yard.

The remaining capacity for the currently constructed synthetically lined area has been updated based on the estimated waste disposed in 2017. As of December 31, 2017, the remaining airspace is approximately 421,867 cubic yards. Conservatively assuming a waste disposal rate of 100,000 tons per year (or 86,957 cubic yards per year, assuming an effective waste density of 1.15 tons per cubic yard that accounts for cover soils and other materials placed in the landfill) the projected life of the remaining lined area is slightly less than five years.

Beyond the capacity of the currently constructed landfill, an additional 2.45 million cubic yards of permitted, but not yet constructed capacity still remains on the site.

2.4 LEACHATE MANAGEMENT

2.4.1 Primary Leachate

Leachate is collected from two separate and distinct base areas of the landfill, including the soil lined OADS, and the synthetic lined areas of Stage I and II. The total landfilled area at this time is approximately 29.83 acres, including the OADS which is assumed to be closed. The portion of the landfill without final cover, but under protective layup, Stage I and II, has a synthetic liner system that encompasses an approximate 19.3-acre area.

Leachate from the site is collected and treated in the Leachate Pond, a 130-foot wide, 550-foot long (1.6 acre) basin that can contain up to about 5.5 feet of liquid, with a corresponding capacity of just under 3,000,000 gallons. The Pond has a single, eight-inch diameter leachate inlet pipe on the east bank, and an outlet structure on the west bank.

A time-series plot illustrating daily maximum, minimum, and average flow rates between July 1, 2016, when the leachate flow monitoring system was brought online, through December 31, 2017 is presented in Attachment 3. Maximum flow rates recorded on July 1st, 5th, and 6th of 2016 are likely due to maintenance and calibration efforts carried out during the first week of operation.

A spike in the daily average leachate flowrate on October 21st and 22nd of 2016 appears to be in direct response to a significant rainfall event of 4.55 inches reported at the nearest official National Oceanic and Atmospheric Administration (NOAA) weather station (NOAA 5.1, approximately 7.2 miles northwest of the site near the Village of Penn Yan) over these two days. Following this initial spike, a more gradual increase in daily average leachate flowrates continued largely without exception through May 2017. Since late-May 2017, the daily average flowrates have decreased and remained largely constant.

The average daily leachate flow rate for 2017 was 12.0 gallons per minute (\pm 3.0 std. dev.; n = 365 days) with a daily maximum and daily minimum of 120.3 and 5.9 gallons per minute, respectively. A total of 6.3 million gallons of leachate was discharged to the Leachate Pond during 2017.

All leachate is held within the Pond until the water surface reaches approximately 2.0 feet below the spillway. Once this level is reached, a pre-discharge sample of the stored water is analyzed to confirm SPDES effluent limitations will not be exceeded during pond discharge. Treated water from the pond is directed to the Keuka Outlet via an approximate 600-foot long natural channel.

A total of approximately 6.3 million gallons of primary and secondary leachate were treated in the pond between January and December 2017. Four discharge events were authorized during 2017, beginning on March 6th, May 10th, July 26th, and November 8th. Documentation of the Pond Discharge events are including with their respective months in Attachment 2. The March and May events both lasted 12 days, releasing approximately 2.1 million gallons at an average rate of 175,000 gallons per day and 1.45 million gallons at a rate of 120,800 gallons per day, respectively. The July and November events lasted 14 days. The July event released at an average rate of 139,000 gallons per day resulting in a discharge of 1.95 million gallons. The November event totaled approximately 1.67 million gallons and released at an average rate of 119,000 gallons per day.

The primary leachate values in Section 3 of the NYSDEC Annual Report Form (Attachment 1) were calculated from the total leachate per month as measured by the leachate flow metering equipment, minus the secondary leachate volume. The volume of secondary leachate was

estimated from instantaneous manual measurements of the flow rate from the Leak Detection System (LDS) which are performed on a monthly basis in conjunction with the monthly inspections. These manual measurements are typically recorded on the monthly site inspection reports (see Attachment 2)¹.

JAMKO Technical Solutions, Inc. of Lyons, New York, was hired to perform the annual primary leachate pipe jetting which was completed without incident in late 2017. The proof of payment to JAMKO can be found in Attachment 2 with the Monthly Site Inspection Form for December.

2.4.2 Secondary Leachate

The Stage I and II liner system includes a secondary leachate collection and removal system or a LDS to monitor the performance of the primary geomembrane liner. The quantity of liquid removed from the LDS has historically been determined by quarterly measurement of the flow rate by the field crew from Adirondack Environmental Services, Inc. (ADK) of Albany, New York during the quarterly groundwater sampling event. Quarterly instantaneous flow measurements reported in gallons per day (gpd) were taken from the LDS as reported in the quarterly laboratory reports (see Attachment 4). These instantaneous flow rates are used to compute a secondary leakage rate by dividing by the total acreage of the double liner system. The leakage rate computed in this fashion during the first, second, third and fourth quarter of this year was 15.9, 6.0, 3.6, and 3.6 gpad, respectively.

Starting in 2015, following an unusually high quarterly measurement, instantaneous flow measurements from the LDS have been taken monthly by Lockwood personnel. This practice continued during all of 2017. The monthly and quarterly flow measurements were all well below the 20 gpad allowed by the regulations. The monthly and quarterly instantaneous flow measurements and water quality analysis for the LDS is discussed in more detail in Section 4.4. The monthly flow measurements were used to calculate monthly secondary leachate volumes for the year as reported in Section 4 of the NYSDEC Annual Report Form (Attachment 1). The resulting volume of secondary leachate for 2017 is approximately 28,401 gallons.

¹ Manual LDS flow measurements for April and May were reportedly 1200 mL in 180 sec and 1000 mL in 180 sec, respectively. These measurements were inadvertently not reported on their respective monthly site inspection form.

3 UPDATED CLOSURE/POST-CLOSURE COST ESTIMATE

3.1 CLOSURE COST

The site closure cost consists of the cost to install a final cover system over the largest active portion of the landfill. The final cover system incorporates various geosynthetic and overlying soil layers, as well as drainage features. The final cover system consists of the following layers in descending order:

- Six-inch topsoil layer with vegetation;
- 24-inch barrier protection layer;
- Geocomposite drainage layer;
- Geomembrane liner;
- Geosynthetic clay liner on slopes less than 25 percent;
- Six-inch minimum soil cover; and,
- Prepared subgrade surface.

Assuming closure of the original ash disposal site has been previously accepted by the NYSDEC, 19.3 acres of active landfill area will require final cover at this time. This area was increased by five percent for items placed on 3H:1V slopes to account for slope area adjustments. The landfill was placed in protective layup in general accordance with the Layup Plan prepared by Daigler Engineering, PC (DE) and submitted to the NYSDEC in May 2011. As detailed in the 2012 Closure/Post-Closure Memo submitted to Dale Irwin (of GMMM, LLC at that time) on March 4, 2013, the volume of soil cover required for site closure was adjusted downward by approximately 25% for areas already at final grade which received the minimum six inches of soil cover under the Layup Plan.

Drainage feature quantities include the construction of approximately 2,620 linear feet of geocomposite infiltration outlet drains that lead to nearly 6,100 linear feet of compacted stormwater diversion sideslope swales which finally drain to 2,268 linear feet of rip-rap lined downchutes.

3-1

The cost of extending 44 cleanout pipes around the perimeter of the disposal site to match the final cover also is estimated, as well as third party construction quality assurance and quality control (QA/QC). General administrative costs were assumed to be three percent of the total closure cost prior to third party QA/QC.

Purchase and installation pricing on a per square foot unit basis for the geosynthetic materials was confirmed with the manufacturer in January 2018. All other unit prices including soils, subgrade preparation, extension of the cleanout risers, installation of drainage features, and establishing vegetation are from pricing received from City Hill Construction in February 2018. Third party QA/QC was also confirmed using RSMeans Site Work & Landscape Cost Data, 36th Annual Edition (2017), adjusted by 3% for inflation to convert 2017 dollars to 2018 dollars. It was assumed that three QA/QC laborers would be required consistent with typical landfill operations, and construction of the 20.2-acre final cover system would require approximately one construction season, or five months. Based on the above, the total final cover closure cost was estimated as \$2,844,307 in 2018 dollars.

3.2 POST-CLOSURE COST

A model was developed to calculate the required funding to account for post-closure costs. The model assumes 30 years of the following post-closure costs; environmental monitoring, leachate management, repair and maintenance, and labor or personnel. The model assumes a three percent inflation rate on all of the post-closure costs and a five percent annual interest rate on allocated funds. The required funding to account for the full 30-year post-closure period was calculated as \$2,093,443 in 2018 dollars. The initial costs for each post-closure item in 2018 dollars are summarized in Table 3-1 and the rationale for the estimates is discussed below.

Item	Annual Cost in 2018
Environmental Monitoring	\$71,838
Leachate Management	\$27,791
Repair and Maintenance	\$9,963
Monthly Inspections	\$7,125
TOTAL	\$116,717

 TABLE 3-1: POST-CLOSURE COST ITEMS

Post-closure environmental monitoring costs include costs associated with quarterly sampling, laboratory analysis and data validation, and reporting. Currently, sampling activities and laboratory analysis are completed by ADK. According to recent information provided by ADK via email on January 23, 2018, the annual cost of sampling and laboratory work is approximately \$45,000. Data validation and quarterly environmental reporting are currently provided by DE for approximately \$26,838. The total annual cost for environmental monitoring is therefore \$71,838 in 2018. For the post-closure cost estimate, it was assumed that Contingency Monitoring will not be required, and that quarterly monitoring will be reduced to semi-annual monitoring five years after the landfill closes. Semi-annual monitoring is assumed to reduce the environmental monitoring costs by half.

Currently there is no cost associated with leachate management as it is treated passively via an onsite sedimentation basin. This practice will change in the future based on the Consent Order (Case No. R8-20140710-47) Lockwood Hills agreed to execute with the New York State Department of Environmental Conservation (NYSDEC), effective February 18, 2015 and amended in February 2016 and July 2017. The Consent Order will require, in part, the segregation of stormwater from leachate and the treatment and disposal of the leachate onsite or at an appropriate offsite facility. The annual leachate management cost is a placeholder cost at \$27,791. This cost will eventually be replaced with a more realistic estimate based on the approved leachate management practice.

Post-closure repair and maintenance costs for the disposal site include annual pipe jetting of the leachate collection system, keeping the stormwater drainage system clear of debris, erosion repair, vegetation replacement, leachate and stormwater collection system repairs, occasional replacement of mechanical/electrical equipment or parts associated with the onsite leachate treatment system, and minor unforeseen problems. Maintenance and repair of landfill structures was estimated, assuming ten percent of the leachate management and environmental monitoring costs.

Post-closure monthly inspection costs assume a one day per month visit by a qualified individual to inspect all features of the 44.2-acre disposal site plus supporting facilities, such as the leachate pond, for verification of proper performance and to prepare and file a site inspection log. Labor is

valued at 2018 Daigler Engineering, PC technician rates. Travel costs are also included. If any features are not functioning properly the inspector must coordinate with the owner to remediate the problem. The current cost for this program is estimated at \$594 per month.

3.3 FINANCIAL SURETY

According to discussion above, the calculations indicate a combined closure and post-closure cost for the Lockwood Ash Disposal Site of \$4,937,750 in 2018 dollars. According to the requirements of 6 NYCRR Part 360-2.19, financial surety must be established to cover closure and post-closure costs. The parent company of Lockwood Hills possesses an active Letter of Credit issued by Silicon Valley Bank of Santa Clara, California with the Region 8, Regional Director of the NYSDEC as the beneficiary. A copy of the Letter of Credit will be forwarded under separate cover to the NYSDEC upon receipt. At the time of this report, the letter of credit had not been finalized. The available credit will be sufficient to cover the estimated closure and post-closure costs.

4 LEACHATE AND WATER QUALITY DATA ASSESSMENT

4.1 GENERAL

The Lockwood Ash Disposal Site's Environmental Monitoring Plan (EMP) defines the monitoring points of compliance and outlines the sampling and analysis requirements. During 2017, sampling and laboratory analysis of the environmental samples was completed by ADK.

Sampling for environmental monitoring is typically performed on a quarterly basis for site specific routine (three times per year), and baseline (annually, rotating quarter) water quality analyses. The measured parameters are summarized in Table 4-1.

Field Parameters	Wet Chemical	Metals		
рН	Alkalinity	Aluminum	Iron	
Turbidity	Ammonia	Antimony*	Magnesium	
Static Water Level	Chloride	Arsenic	Manganese	
Specific Conductivity	Color*	Barium*	Mercury	
Dissolved Oxygen**	Hardness	Boron	Nickel*	
	Total Dissolved Solids	Cadmium	Potassium	
	Total Organic Carbon*	Calcium	Selenium	
	Sulfate	Chromium*	Sodium	
		Copper	Zinc*	

TABLE 4-1: WATER QUALITY PARAMETERS ESTABLISHED FOR LOCKWOOD ASH DISPOSAL SITE'S ENVIRONMENTAL MONITORING PROGRAM

*Baseline sampling only.

**For surface water samples only.

Baseline sampling occurred during the first quarter in 2017. This baseline event was third-party validated as required by the Lockwood EMP, Section 3.3.8. Routine sampling was performed during the second, third, and fourth quarters. Data from all quarterly sampling events along with their case narratives are provided in Attachment 4. The Data Validation Report for the first quarter's event is including in Attachment 4, as well.

4-1

4.2 FOURTH QUARTER SAMPLING

Results from the fourth quarter sampling event are presented herein rather than in a separate report. ADK completed sampling activities for the fourth quarter on December 27th and 28th, 2017. The locations of the facility's sampling points are illustrated on Figure 1-1. Fourth quarter samples were analyzed for the routine parameter set.

Groundwater suppression system monitoring points, Groundwater Depression Drains 2 and 4, were not sampled during the fourth quarter event; both drains were reported dry. MW-8405 and Under Drain 5 were not sampled this quarter. Both were reportedly dry as is typical for these locations. Further, no sample was taken from MW-8910SH due to poor recovery as is generally reported for this location in recent years. MW-7842, a shallow, glacial till well and MW-8407, a water level observation well, were also reported as dry during the fourth quarter. These wells will be discussed further in Section 4.5.

As required by the Site's EMP, Section 3.3.8, the data package for this routine sampling event was reviewed internally by the laboratory. The results for ammonia in MW-8911SH and Under Drain 3 and selenium in GW Dep Drain 3 were flagged by the laboratory for a matrix spike percent recovery being outside the acceptable range. The affected ammonia data should be estimated as bias high. For simplicity, data evaluation of the fourth quarter results has been incorporated into the annual review of leachate, groundwater, and surface water data presented in the following sections.

4.3 PRIMARY LEACHATE

Primary leachate is sampled or observed at five separate locations, as follows:

- Discharge from leachate collection system under the original ash disposal site (Under Drain 1);
- Discharge from the northern overfill liner in Stage I (Under Drain 2);
- Discharge from the at grade liner system in Stage I (Under Drain 3);
- Discharge from Stage II (Under Drain 5); and,

• Leachate Pond influent, combined leachate from all Stages of the Landfill including the original ash disposal site (Inlet to Pond).

The locations of the leachate sampling points are illustrated on Figure 1-1. Parameters analyzed are the same as those for the groundwater samples, as described above with the exception that flow rate replaces static water level. Time-series plots for all monitored parameters in the leachate are presented in Attachment 5.

For the purpose of highlighting those compounds that can act as leachate indicators, and as a measure of leachate quality and strength, Table 4-2 through Table 4-5 summarize the leachate sample results that exceed the corresponding Part 703 GA groundwater quality standards or TOGS 1.1.1 Guidance Values. As shown on those summary tables, primary leachate consistently exceeds the standard for boron, magnesium, sodium, sulfate, and TDS for all monitoring points. Iron, manganese, and turbidity concentrations also routinely exceed their GA Standard or TOGS 1.1.1 Guidance Value at most leachate monitoring points. Less frequent and/or less widespread exceedances of the arsenic, selenium, and chloride standards were observed during nearly every quarter. The only unique excursion from the standards observed during 2017 is that of pH in Under Drain 3 in the second quarter. However, occasional values of pH below the lower limit of the standard are not unusual at this location.

Upon review of the time-series plots for the leachate data a few observations can be made. Generally, a relatively small number of intra-location minima and maxima were observed during 2017 as discussed below. An exception to this is the Inlet to Pond sampling location which experienced 12 intra-location maxima or minima throughout the year. This is not unexpected as the data points for Inlet to Pond are only inclusive of those collected both before and after the modification of leachate discharge pipes in 2016, which combined the OADS leachate with that from Stages I and II. Prior to the modification leachate from the OADS entered the Leachate Pond separately and the 24" Inlet to Pond location included only leachate from Stages I and II.

The leachate quality was consistent with previously recorded data with no notable upward or downward trending in concentrations for the majority of parameter-location combinations. One sample was obtained from Under Drain 5 during the first quarter of 2017. This is the first sample

available for this location in nearly a decade (i.e., since the first quarter of 2012). Alkalinity, boron, iron, manganese, sodium, and sulfate were considerably lower in Under Drain 5 compared to historic levels, while calcium, chloride, and hardness were elevated. The concentration of selenium was also lower compared to historic data, yet considerably elevated compared to other leachate locations. As reported last year, selenium concentrations in the primary leachate appear to have leveled off near the standard following a slow but steady decline during previous years. This observation continues to be true.

Table 4-2 LOCKWOOD ASH DISPOSAL SITE LEACHATE QUALITY SUMMARY 2017 FIRST QUARTER EXCEEDANCES OF 6 NYCRR PART 703 GA STANDARDS (3/29-30/2017)								
	6 NYCRR Part 703			MONITOR	ING POINT			
Parameter	GA Standard (TOGS 1.1.1 GA Guidance Value)	Leak Detection System	Under Drain 1	Under Drain 2	Under Drain 3	Inlet to Pond	Under Drain 5	
Color*	< 15 C.U.							
рН	6.5 < pH < 8.5							
Turbidity	< 5 NTU	26	255	150	10	10	10	
Total Dissolved Solids, TDS	500 mg/L	1,820	1,250	2,850	3,790	2,480	3,600	
Ammonia, NH₃	2,000 ug/L							
Antimony*, Sb	3 ug/L							
Arsenic, As	25 ug/L							
Barium*, Ba	1,000 ug/L							
Boron, B	1,000 ug/L	1,190	3,800	24,100	8,850	12,500	12,400	
Cadmium, Cd	5 ug/L							
Chloride, Cl ₂	250,000 ug/L			264,000	832,000	276,000	825,000	
Chromium*, Cr	50 ug/L							
Copper, Cu	200 ug/L							
Iron, Fe	300 ug/L		3,740	4,460	4,950	2,160		
Magnesium, Mg	(35,000 ug/L)	109,000	75,700	70,600	87,500	74,800	81,600	
Manganese, Mn	300 ug/L		766	782	504	411		
Fe + Mn	500 ug/L		4,506	5,242	5,454	2,571		
Mercury, Hg	0.7 ug/L							
Nickel*,Ni	100 ug/L							
Selenium, Se	10 ug/L		20	30	22	38	72	
Sodium, Na	20,000 ug/L	44,800	48,000	211,000	187,000	180,000	226,000	
Sulfate, SO4	250,000 ug/L	1,080,000	468,000	1,470,000	1,480,000	1,120,000	1,380,000	
Zinc*, Zn	(5,000 ug/L)							

Baseline only; baseline parameters were analyzed for during this quarter's sampling event.

Table 4-3LOCKWOOD ASH DISPOSAL SITELEACHATE QUALITY SUMMARY2017 SECOND QUARTER EXCEEDANCES OF 6 NYCRR PART 703 GA STANDARDS(6/28-29/2017)								
	6 NYCRR Part 703		-	MONITOR	ING POINT	-		
Parameter	GA Standard (TOGS 1.1.1 GA Guidance Value)	Leak Detection System	Under Drain 1	Under Drain 2	Under Drain 3	Inlet to Pond	Under Drain 5**	
Color*	< 15 C.U.							
pH	6.5 < pH < 8.5				6.0			
Turbidity	< 5 NTU	20	75	50		22		
Total Dissolved Solids, TDS	500 mg/L	2,570	1,480	3,320	4,480	2,470		
Ammonia, NH₃	2,000 ug/L							
Antimony*, Sb	3 ug/L							
Arsenic, As	25 ug/L		44			39		
Barium*, Ba	1,000 ug/L							
Boron, B	1,000 ug/L	1,150	3,960	38,600	18,100	17,400		
Cadmium, Cd	5 ug/L							
Chloride, Cl ₂	250,000 ug/L			314,000	996,000			
Chromium*, Cr	50 ug/L							
Copper, Cu	200 ug/L							
Iron, Fe	300 ug/L		7,400	5,380	706	6,690		
Magnesium, Mg	(35,000 ug/L)	159,000	64,100	72,200	85,200	71,200		
Manganese, Mn	300 ug/L		674	920	321	560		
Fe + Mn	500 ug/L		8,074	6,300	1,027	7,250		
Mercury, Hg	0.7 ug/L							
Nickel*,Ni	100 ug/L							
Selenium, Se	10 ug/L		16	36	20	37		
Sodium, Na	20,000 ug/L	93,900	29,900	145,000	177,000	118,000		
Sulfate, SO4	250,000 ug/L	1,510,000	556,000	1,750,000	1,720,000	1,260,000		
Zinc*, Zn	(5,000 ug/L)							

* Baseline only, routine sampled collected this quarter. ** Insufficient flow

2017 THI	LEAC RD QUARTER EXCE	Table WOOD ASH E CHATE QUALI EDANCES OI (9/20-21/2	DISPOSAL TY SUMM 6 NYCRR	ARY PART 703	-	RDS	
Parameter	6 NYCRR Part 703 GA Standard (TOGS 1.1.1 GA Guidance Value)	Leak Detection System	Under Drain 1	MONITOR Under Drain 2	ING POINT Under Drain 3	Inlet to Pond	Under Drain 5**
Color* pH Turbidity Total Dissolved Solids, TDS	< 15 C.U. 6.5 < pH < 8.5 < 5 NTU 500 mg/L	65 2.620	6.5 200 1,490	25 3,410	25 4,290	75 2.660	
Ammonia, NH ₃ Antimony*, Sb Arsenic, As Barium*, Ba Boron, B	2,000 ug/L 3 ug/L 25 ug/L 1,000 ug/L 1,000 ug/L	2,720	56	41.200	25,500	31	
Cadmium, Cd Chloride, Cl₂ Chromium*, Cr Copper, Cu	5 ug/L 250,000 ug/L 50 ug/L 200 ug/L	2,720		307,000	745,000		
Iron, Fe Magnesium, Mg Manganese, Mn Fe + Mn Mercury, Hg Nickel*,Ni	300 ug/L (35,000 ug/L) 300 ug/L 500 ug/L 0.7 ug/L 100 ug/L	216,000	6,640 80,500 815 7,455	2,430 93,900 1,140 3,570	115,000 317	3,540 88,300 668 4,208	
Selenium, Se Sodium, Na Sulfate, SO4 Zinc*, Zn * Baseline only, routine sample colle	10 ug/L 20,000 ug/L 250,000 ug/L (5,000 ug/L)	125,000 1,440,000	40,200 521,000	14 227,000 1,760,000	12 337,000 1,720,000	22 173,000 1,280,000	

2017 FOU	LEAC RTH QUARTER EXCI	Table WOOD ASH E CHATE QUALI EEDANCES ((12/27-28/	DISPOSAL TY SUMMA OF 6 NYCR	ARY R PART 703		RDS	
	6 NYCRR Part 703			MONITOR	ING POINT		
Parameter	GA Standard (TOGS 1.1.1 GA Guidance Value)	Leak Detection System	Under Drain 1	Under Drain 2	Under Drain 3	Inlet to Pond	Under Drain 5**
Color*	< 15 C.U.						
pH	6.5 < pH < 8.5						
Turbidity	< 5 NTU	57		28	35	24	
Total Dissolved Solids, TDS	500 mg/L	3,100	1,320	3,360	4,090	2,530	
Ammonia, NH₃	2,000 ug/L						
Antimony*, Sb	3 ug/L						
Arsenic, As	25 ug/L	26				21	
Barium*, Ba	1,000 ug/L						
Boron, B	1,000 ug/L	26,600	3,860	39,500	19,300	20,400	
Cadmium, Cd	5 ug/L						
Chloride, Cl ₂	250,000 ug/L	271,000		341,000	853,000		
Chromium*, Cr	50 ug/L						
Copper, Cu	200 ug/L						
Iron, Fe	300 ug/L	17,200		5,860	1,530	2,420	
Magnesium, Mg	(35,000 ug/L)	129,000	78,600	92,000	110,000	89,000	
Manganese, Mn	300 ug/L	716	726	984	542	553	
Fe + Mn	500 ug/L	17,916	987	6,844	2,072	2,973	
Mercury, Hg	0.7 ug/L						
Nickel*,Ni	100 ug/L						
Selenium, Se	10 ug/L					23	
Sodium, Na	20,000 ug/L	198,000	43,800	219,000	262,000	249,000	
Sulfate, SO4	250,000 ug/L	1,560,000	442,000	1,640,000	1,610,000	1,240,000	
Zinc*, Zn	(5,000 ug/L)						

* Baseline only, routine sampled collected this quarter. **Dry

Three parameters were measured at notable maximum concentrations during 2017 in Under Drain 3, namely in chloride (inter-location), potassium (intra-location), and conductivity (intra-location) in the second, third, and fourth quarters, respectively. These maxima appear to be associated with increasing trends at Under Drain 3 as described herein. The previously reported stagnation of an increasing trend in chloride is no longer supported, with all four quarters of 2017 being the highest on record at Under Drain 3. In fact, the annual average for 2017 is approximately 1.5 times greater than the mean for the previous three years, and even greater for years prior. Under Drain 2 also appears to have an increasing trend with respect to chloride. Concentrations greater than the Part 703 GA standard of 250 mg/L were observed in Under Drain 2 for the first time during the first quarter of 2017. Concentrations remained elevated above the standard during all four quarters with an intra-location maximum occurring in the fourth quarter. Conversely, Inlet to Pond concentrations were less than the standard for the latter three quarters of the year. Addition of the flow from Under Drain 1, which has remained consistently low in chloride in Inlet to Pond.

The increasing trends in potassium and conductivity in Under Drain 3 have been relatively steady for the available data set. Under Drain 2 and Inlet to Pond also display trending with respect to potassium and conductivity similar to that described for chloride; that is, an increasing trend at Under Drain 2 and a leveling off of the previously reported upward trend at Inlet to Pond. The fourth quarter result for conductivity in Under Drain 2 is the second highest on record with the intrawell maximum recorded in 2008 appearing to be an outlier.

Concentrations of manganese in Under Drain 3 still appear to be on a downward trend; however, all four quarters were just greater than the standard following last year's three consecutive quarters less than the standard. One other intra-location minima occurred in 2017 that does not appear to be part of an overall trend, that is, pH in the third quarter in Under Drain 1.

4.4 Secondary Leachate

The LDS sample is representative of the liquid found in the SLCRS. Flow rates in the secondary system are generally over an order of magnitude less than that of the primary system.

Secondary leachate sampling data is included in Table 4-2 through Table 4-5, as well as in the leachate quality time-series analysis presented in Attachment 5. Compared to the standards in Table 4-2 through Table 4-5, secondary leachate quality in calendar year 2017 continued to be characterized by elevated levels of TDS, magnesium, sodium, and sulfate throughout the year, as well as, turbidity and boron which were detected above the Part 703 GA standard every quarter this year. Isolated elevated levels of arsenic, chloride, iron, and manganese in the fourth quarter were also detected, similar to that of the primary leachate. The fourth quarter exceedances of arsenic and chloride standards are the first ever recorded at this location. Typically, the concentrations of these parameters are low relative to the primary leachate associated with Stages I and II of the landfill. An exception to this is magnesium which is generally higher in the secondary leachate than all other leachate sampling locations. Magnesium concentrations were measured at an inter-location leachate maximum in the third quarter's LDS sample.

Nine intra-location maximum concentrations were measured in the LDS samples during 2017. Although the quantity is not unusual, all but two of the intra-location maxima occurred in the fourth quarter. These fourth quarter maxima included ammonia (tied), arsenic, boron, chloride, conductivity, iron, and potassium. Hardness and one of its ions, magnesium, were intra-location maxima at LDS in the third quarter.

Based on analytical data available for the 2015 annual report, upward trending between the beginning of 2011 and the beginning of 2015 associated with leachate indicators TDS, boron, sodium, and sulfate, had reportedly ended. While the LDS results from the first three quarters of 2017 were consistent with this 2015 conclusion, the elevated concentrations in the fourth quarter of 2017 in boron (intra-location maximum), TDS (third highest), and sodium (second highest) are not. These four parameters will continue to be monitored and trending evaluated to determine if the 2015 conclusions regarding trending remain valid for the LDS.

4.5 GROUNDWATER

4.5.1 Samples

As described by the EMP, two water bearing units identified at the site comprise the critical stratigraphic section; including a water table in the unconsolidated glacial deposits; and groundwater in the fractures of the underlying bedrock. Typically, bedrock and overburden wells

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that are part of a couplet are distinguished by the letters D and SH for deep and shallow, respectively. Groundwater quality monitoring at the Lockwood Ash Disposal Site is carried out through quarterly sampling of five upgradient/background and nine downgradient monitoring wells. If water is present, groundwater samples are also collected from groundwater depression drains installed below the liner systems in the OADS and the lined Stage I and Stage II areas. The locations of the groundwater monitoring points are illustrated in Figure 1-1.

MW-7842, a shallow, glacial till well was reported as dry during the third and fourth quarters. MW-7842 was first blocked during both the first and second quarter sampling events, however, samples were successfully collected for these quarters using a peristaltic pump. Unusual water quality concentrations generally not associated with any trending were reported for these two sampling events. The results appeared to support possible intrusion from surface water. Following the unsuccessful repair effort, Lockwood Hills decommissioned MW-7842 with NYSDEC's approval and installed a new well MW-1842 immediately adjacent. Details on this effort will be provided under a separate cover.

4.5.2 Exceedances of Part 703 GA Standards

Table 4-6 through Table 4-9 summarize the sample results that exceed the corresponding Part 703 GA groundwater quality standards. As shown on those summary tables, background and downgradient wells in both the overburden and bedrock routinely exceed the standards for turbidity, total dissolved solids, iron, magnesium, sodium, and sulfate. The natural groundwater at this site can be characterized as very hard (generally > 300 mg/L as CaCO₃). In addition to the high concentrations of calcium and magnesium, hard waters are typically found to have high concentrations of iron, aluminum, manganese, and sulfates. Thus, these concentrations are considered indicative of natural water quality and are consistent with previous results for groundwater monitoring activities at the site.

Other less widespread exceedances of the groundwater standards during the 2017 calendar year include:

• pH in MW-8909D – This parameter is historically elevated in MW-8909D, as it was for all but the third quarter this year. The pH at this well averages around 9.0 S.U.;

- pH in MW-8911SH Levels at this well are generally elevated compared to the other shallow and deep wells on site, averaging around 8.1 S.U (± 0.22 S.U. standard deviation). The pH observed during the fourth quarter was just greater than the upper limit of the Part 703 GA standard at 8.6 S.U. This is the first time this well has experienced an exceedance of this standard;
- Manganese in MW-8942D It is not unusual for this well to sporadically exceed the standard for manganese. The third quarter is the only concentration greater than the Part 703 GA standard this year.
- Boron in MW-8910D and MW-8911D Exceedances of the Part 703 GA standard for boron in these two downgradient bedrock wells are noteworthy since boron is a leachate indicator, but typical of the water quality normally observed at these sampling points.

			LOCK 2017 FIR\$	WOOD A: ST QUART	SH DISPC TER EXCE	Ta SAL SITE EEDANCE (3/2	Table 4-6 SITE GROUNE VCES OF 6 N (3/29-30/2017)	DWATER	Table 4-6 Table 4-6 LOCKWOOD ASH DISPOSAL SITE GROUNDWATER QUALITY SUMMARY 2017 FIRST QUARTER EXCEEDANCES OF 6 NYCRR PART 703 GA STANDARDS (329-302017)	UMMARY STANDAR	SQ						
	6 NYCRR Part 703 GA		400H	Bockaround Malle	<u> </u>					NG POINT	OINT	<u>e</u>					200 MO
rarameter	GA Guidance Value)	8401D	8404D	84055**	8908D	89085	7842S	06068	89095	8910D	8910S ⁺	8911D	8911S	8942D	9306S	Drain 1	Drain 3
Color* pH Turbidity Total Dissolved Solids, TDS	 < 15 C.U. 6.5 < pH < 8.5 < 5 NTU 500 ma/L 				820	13 730	61 575	9.3 > 999 505		069		615		23 645	25	300 1,280	10 545
Ammonia, NH3 Antimony*, Sb Arsenic, As Berium*, Ba Boron. B	2,000 ug/l 3 ug/L 25 ug/L 1,000 ug/L 1.000 ug/L						5			2.830		1.590				2, 190	
Cadmium, Cd Chloride, Cl₂ Chromium*, Cr Copper, Cu	5 ug/L 250,000 ug/L 50 ug/L 200 ug/L 300 ug/L	362			994		1.060	3.540					363	522		382	
Magnesium, Mg	(35,000 ug/L)				65,600	57,400	51,900							65,700	58,400	84,200	
Manganese, Mn Fe + Mn Mercury, Hg Nickel*, Ni	300 ug/L 500 ug/L 0.7 ug/L 100 ug/L				1,096		1,153	3,630						630			
Selenium, Se Sodium, Na Sulfate, S04 Zinc* Zn	10 ug/L 20,000 ug/L 250,000 ug/L 75 000 ug/L	000'68			33,700 330,000	32,100 254,000		226,000	72,300	105,000 363,000		131,000 305,000	94,500	41,200 280,000	21,600	43,700 654,000	
Taseline only, baseline parameters were analyzed for during this quarter's sampling event "Dry +Poor Recovery	were analyzed for during this c	luarter's sam	pling event.	=		1	1										_
		0	LOCK	WOOD AS	SH DISPC RTER EX(Ta SAL SITE SEEDANC (6/2	Table 4-7 SITE GROUNE ANCES OF 6 R (6/28-29/2017)	DWATER	Table 4-7 LOCKWOOD ASH DISPOSAL SITE GROUNDWATER QUALITY SUMMARY 2017 SECOND QUARTER EXCEEDANCES OF 6 NYCRR PART 703 GA STANDARDS (628-292017)	UMMARY A STANDA	RDS						
,	6 NYCRR Part 703 GA			- 101					MONITORING POINT	NG POINT	101 to a la com						0.000
Parameter	GA Guidance Value)	8401D	8404D	Dackground wells ID 8405S** 80	ells 8908D	8908S	7842S ⁺⁺	8909D	8909S	8910D	10D 8910S ⁺ 80	ells 8911D	8911S	8942D	9306S	GW Dep Drain 1	Drain 3
Color* pH Turbidity Total Dissolved Solids, TDS	< 15 C.U. 6.5 < pH < 8.5 < 5 NTU 500 ma/L		ω		203 805	805	510	8.5 565		7 635		140 620	7	10 610	6	1,850	1,170
Ammonia, NH₃ Antimony*, Sb Arsenic. As	2,000 ug/l 3 ug/L 25 ua/L															•	

 Arsenic, A.
 25 ugr.

 Arsenic, A.
 25 ugr.

 Boron, B.
 1,000 ugr.

 Boron, B.
 1,000 ugr.

 Cadmium. Cd
 5 ugr.

 Cadmium. Cd
 5 ugr.

 Chornium., Cl.
 25 000 ugr.

 Chornium., Cd
 50 ugr.

 Chornium., Cd
 25 000 ugr.

 Chornium., Mg
 300 ugr.

 Magnesium., Mg
 300 ugr.

 Matter. So.,
 10 ugr.

 Sodium., Na
 20000 ugr.

 Sodium., Na
 20000 ugr.

 Sodium., Na
 250,000 ugr.

 Solins on ugr.
 10 ugr.

 Solins on ugr.
 10 ugr.

 Sodium., Na
 250,000 ugr.

 Applicantion.
 10 ugr.

 Solins on ugr.
 10 ugr.

 Solins on ugr.
 10 ugr.

 Solins on ugr.
 10 ugr.

 Solon ugr.
 10 ugr.

 Solon ugr.
 10 ugr.

54,900

98,900

53,800

316 60,100

1,370

3,460

56,400

711 296,000

3,524

788

560

382 1,752

3,440

1,940

3,160

383,000

34,400 967,000

30,900 285,000

63,700 271,000

104,000 3 318,000 2

88,300 368,000

51,500

177,000

23,500 341,000

27,100 285,000

56,100

						Ţ	Table 4-9	9									
		Ν	017 FOUF	RTH QUA	NSH DISP	OSAL SIT CEEDAN (12/	. SITEGROUNDV DANCES OF 6 N° (12/27-28/2017)	NYCRR F 17)	LOCKWOOD ASH DISPOSAL SITEGROUNDWATER QUALITY SUMMARY 2017 FOURTH QUARTER EXCEEDANCES OF 6 NYCRR PART 703 GA STANDARDS (12/27-28/2017)	SUMMAR) A STAND	ARDS						
	6 NYCRR Part 703 GA								MONITOR	MONITORING POINT							
Parameter	Standard (TOGS 1.1.1		Bach	Background Wells	slla					Dov	Downgradient Wells	/ells				GW Dep	GW De
	GA Guidance Value)	8401D	8404D	8405S**	8908D	S8068	7842S ⁺⁺	D6068	S6068	8910D	8910S⁺	8911D	8911S	8942D	9306S		Drain 3
Color*	< 15 C.U.																
pH	6.5 < pH < 8.5							9.0					8.6				
Turbidity	< 5 NTU		68			47		>999				28			57		
Total Dissolved Solids, TDS	500 mg/L	505			825	740		535		675		560		555		1,380	
Ammonia, NH ₃	2,000 ug/l																
Antimony*, Sb	3 ug/L																
Arsenic, As	25 ug/L																
Barium*, Ba	1,000 ug/L																
Boron, B	1,000 ug/L									2,840		1,410				2,640	
Cadmium, Cd	5 ug/L																
Chloride, Cl ₂	250,000 ug/L																
Chromium*, Cr	50 ug/L																
Copper, Cu	200 ug/L																
Iron, Fe	300 ug/L				1,010			2,200				467		735	813		
Magnesium, Mg	(35,000 ug/L)				67,000	64,800								66,300	62,000	104,000	42,800
Manganese, Mn	300 ug/L																
Fe + Mn	500 ug/L				1,131			2,314				559		917	893		
Mercury, Hg	0.7 ug/L																
Nickel*, Ni	100 ug/L																
Selenium, Se	10 ug/L																
Sodium, Na	20,000 ug/L	90,400			33,300	28,900		180,000	68,600	109,000	0	95,200	60,400	39,700	20,400	42,000	
Sulfate, S0 ₄	250,000 ug/L				260,000					343,000	0					-	284,000
Zinc*, Zn	(5,000 ug/L)																
* Baseline only, routine sampled collected this quarter.	cted this quarter.																
Dry																	
+Poor Recovery																	
++ Ubstructed																	

Zinc*, Zn * Baseline only, r ** Dry + Poor Recovery ++ Obstructed	Selenium, Se Sodium, Na	re + mn Mercury, Hg Nickel*, Ni	Magnesium, Mg Manganese, Mn	Iron, Fe	Chromium*, Cr	Cadmium, Cd	Boron, B	Arsenic, As	Antimony*, Sb	Ammonia, Nł	Total Dissolv	pH Turbidity	Color*	Ра	,		
Time: 2n (5000) Saseline only, routine sample collected this quarer Por Poor Recovery +- Obstructed			Mg		Q.,				σ	43	Total Dissolved Solids, TDS			Parameter			
(<u>5,000 ug/L</u> (<u>5,000 ug/L</u>) cred this quarter.	10 ug/L 20,000 ug/L	0.7 ug/L 100 ug/L	(35,000 ug/L) 300 ug/L	200 ug/L 300 ug/L	50 ug/L	250 000 uz/l	1,000 ug/L	1 000 ug/L	3 ug/L	2,000 ug/l	500 mg/L	6.5 < pH < 8.5 < 5 NTU	< 15 C.U.	GA Guidance Value)	6 NYCRR Part 703 GA		
	70,100										520	20		8401D			
				348							535	75		8404D	7	2017 TH	
														4D 8405S** 8		RD QUAR	
311,000		1,121	67,100	1,540							885	62		eiis 8908D	-	TER EXC	
317,000	29,000		64,200								955			8908S		EEDANCE (9/2	
														7842S ⁺⁺		(9/20-21/2017)	Table 4-8
	172,000	990	8	962								189		8909D		YCRR PA	ראי אדבם
	55,200													S6068	MONITORING POINT	2017 THIRD QUARTER EXCEEDANCES OF 6 NYCRR PART 703 GA STANDARDS (9/20-21/2017)	
366,000	006,66						3,280				745			8910D	NG POINT	STANDAR	
														10D 8910S ⁺ 8		DS	
304,000	130,000			326			1,920				610	27		ells 8911D	-		
252,000	71,400													8911S			
261,000	40,000	949	66,800 426	523							670			8942D			
	20,800		59,700	463								500		9306S			
000,898	35,700		115,000				3,150	_			1,770		_	Gw Dep Drain 1			
420,000	25,900										1,080	20		GW Dep Drain 3			

4.5.3 Time-Series Plots

Time-series plots are used as a visual aid in evaluating trends in the data and can be found in Attachment 5. The time-series plots are updated through the end of the fourth quarter 2017. The trends are discussed below.

Groundwater quality during 2017 was mostly typical with the exception of several wells which exhibited unusual concentrations generally not associated with any trending. Downgradient well MW-7842, which was discussed in Section 4.5.1, was atypical during the first and second quarters when samples were able to be collected. Numerous intrawell minima and maxima for nine different parameters were reported. It was surmised that this well's surface seal was compromised from damage sustained during nearby stormwater construction efforts in 2016 and that the unusual concentrations obtained in the first half of 2017 may have been the result of surface water intrusion. Consequentially, MW-7842 was decommissioned and a new, homologous well was installed in an adjacent location in early 2018.

MW-8908D also exhibited several intrawell minima concentrations during the second quarter 2017; namely, hardness and its constituent's calcium and magnesium, as well as, potassium. Notably, however, the turbidity at MW-8908D was nearly three times the previous intrawell maximum. All five parameters appear to have returned to normal during the latter half of the year. Through the third quarter of 2016 a possible upward trend in manganese was noted at MW-8908SH during 2016; however, concentrations since then have been low. A plot of the annual averages at this well with respect to manganese depicts the lowest annual average on record in 2017 reinforced by a first quarter 2017 intrawell minimum.

Several parameters at MW-8908SH (i.e., calcium, chloride, conductivity, hardness, iron, magnesium, manganese, sulfate, and TDS) and sulfate in MW-8908D have declined or leveled off since late 2015. Perhaps the most striking decrease is the fourth quarter result for sulfate, which was less than the Part 703 GA standard. This has not occurred since around 1994. Prior to 2015, slow and steady increasing trends were generally observed. By the latter portion of 2017, increasing trends with respect to these parameters are no longer evident.

Sulfate concentrations have been steadily increasing at wells MW-8911SH and MW-7842SH (prior to the well being damaged). A second quarter intrawell maximum was observed at MW-8911SH, which is only the fourth time this well has been greater than the Part 703 GA standard. Notably, the concentrations at MW-8911SH are nearing the Part 703 GA standard with two of this year's samples detected greater than the standard.

Four intrawell maxima and one minimum were observed in 2017 with respect to pH. The first quarter maxima at MW-8401 surpassed the former maximum from the previous quarter. Intrawell maxima at MW-8911SH (fourth quarter), MW-7842 (first quarter), and MW-8942D (third quarter) are not atypical sitewide and do not coincide with any trending. Similarly, the intrawell minimum pH observed in the third quarter of 2017 at MW-8909D was not unusual sitewide.

Background, bedrock well MW-8401 had several intrawell minima during 2017 in calcium and manganese in the second quarter and in iron during the fourth quarter. Both iron and manganese support a long-standing decreasing trend with respect to these parameters. Calcium has been relatively constant with one of the smallest standard deviations across all wells of \pm 8.8 and a mean of 79 mg/L. Average annual chloride levels in well MW-8401 were again lower than the previous year, and nearly half the average annual peak which occurred in 2015. The decreases in concentration over the last two years no longer supports the increasing trend observed between 2006 and 2015.

In nearly all glacial till and bedrock wells across the site, conductivity levels were on the rise with small increase each quarter between the first and fourth quarters of the year, with the first quarter being relatively low compared to historic data. Fourth quarter results generally coincide with typical levels observed at their respective wells. While strikingly consistent, there is no cause for concern regarding the conductivity across the site.

Boron concentrations in MW-8910D were lower this year compared to recent history with an average concentration of 3,028 mg/L near 2011 levels. Conversely, boron was an intrawell maximum during the second quarter at MW-8911D, and the third quarter concentration was a close second supporting a slow, but consistently increasing, trend at this bedrock well. Further, concentrations greater than the standard have been observed since the beginning of 2011. Boron

does not appear to be impacting the shallow glacial till wells onsite. In fact, the average concentration at MW-8911D's shallow counterpart, MW-8911SH, was more than four times less than the average concentration at MW-8911D.

A few other instances of intrawell maxima and minima were recorded during the 2017 calendar year. A summary of these more isolated incidences are as follows:

- Alkalinity in MW-8911D An intrawell minimum in alkalinity (170 mg/L) in the first quarter was atypical for the well as the concentration was more than one standard deviation from the mean.
- Alkalinity at MW-8909SH An intrawell maximum in alkalinity in the second quarter could support a very shallow increasing trend since around 2012.
- Ammonia in MW-8911D An intrawell maximum concentration of ammonia was reported for this downgradient bedrock well in the second quarter. There is no evidence of trending and the concentrations are still well under the Part 703 GA standard.
- Chloride in MW-8911SH An intrawell maximum concentration of chloride during the second quarter supports a slow but steady increasing trend at this well.
- Manganese in MW-8908D An intrawell maximum during the third quarter was observed with no apparent trending at this time. Further, the fourth quarter concentration returned to within one standard deviation of the mean for the entire data set.
- Sodium in MW-8911SH Sodium in MW-8911SH was an intrawell maximum in the first quarter for the second consecutive year. Sodium concentrations in this well have become extremely variable since around 2012. There is no evidence of trending.
- Turbidity in MW-8908D An intrawell maximum level of turbidity was reported for this bedrock well during the second quarter. No trending is apparent at this time.

4.6 SURFACE WATER

Surface water samples are collected from points in the Keuka Outlet 100 feet upstream (Keuka Upstream) and downstream (Keuka Downstream) of the Leachate Pond discharge location. Table 4-10 summarizes the surface water quality in the Keuka Outlet for the four quarters of 2017. Most

parameters showed similar concentrations between the upstream and downstream during all four sampling events.

The most significant differences (greater than 25%) in the water quality between upstream and downstream samples include increases in arsenic during the first quarter, aluminum and dissolved oxygen in the second quarter, and alkalinity in the third quarter. A significant decrease between up and downstream samples occurred during the fourth quarter in copper at 25.4%. Other notable differences (greater than 10%) between upstream and downstream samples during the 2017 sampling events include increases in alkalinity, iron, and dissolved oxygen in the first, second, and fourth quarters, respectively. Notable decreases between the upstream and downstream samples include dissolved oxygen in the third quarter and iron in the fourth quarter.

The Leachate Pond was not actively discharging during any of the quarterly surface water samples in 2017. However, the relatively small number of significant and notable differences between the upstream and downstream locations support a lack of sustained impact on the Keuka Outlet from activity at the site.

4.7 STATIC GROUNDWATER LEVEL MEASUREMENTS

Static groundwater levels are taken on a quarterly basis as directed by the Site's EMP, Section 3.3.6.1. Water level data has been analyzed since the first quarter of 2003. The potentiometric surfaces of representative minimum and maximum groundwater elevations and the fourth quarter measurements are shown on Figure 4-1 and Figure 4-2 for the bedrock and glacial till water bearing units, respectively. An intrawell minimum water level was reported during the first quarter; however, the well was reported as dry during the rest of 2017. MW-8407 has never been reported as dry prior to the fourth quarter of 2016. During construction activity in 2016 related to the stormwater separation project, MW-8407 was raised to accommodate changes in the surrounding ground surface elevation and the Geomon sampler installed in MW-8407 was removed. Since then water level readings have been atypical. Downhole camera video in March 2017 revealed that a section of the ³/₄-inch PVC Geomon riser pipe had broken off and was left in MW-8407 approximately 15 feet below the top of the riser. Therefore, it is believed that the first quarter's intrawell minimum water level is erroneous and likely due to interference from the abandoned Geomon riser pipe. After several attempts, retrieval of the ³/₄-inch PVC pipe from the well were

unsuccessful. Given that the well was only used for water level observations and sufficient bedrock groundwater level coverage across the site remains without MW-8407, Lockwood Hills requests that this be permanently removed from the sampling program.

The groundwater heads during 2017 were generally within one standard deviation of the mean for the entire data set. Figure 4-3 is a comparison between current bedrock and glacial till potentiometric surfaces. Groundwater flow appears to be predominately north in the southern half of the site. In the northern half of the site, groundwater flow takes on a stronger downward gradient and shows a distinct angle towards the Keuka Outlet in the northwestern corner, especially in the glacial till. Vertical gradients for 2017 were generally typical for the site, with one exception in the fourth quarter. The vertical gradient at the MW-8911 couplet was unusually low resulting from the second lowest groundwater level recorded in the shallow, glacial till well of this couplet. This vertical gradient is expected to rebound during 2018, as there is no apparent trend.

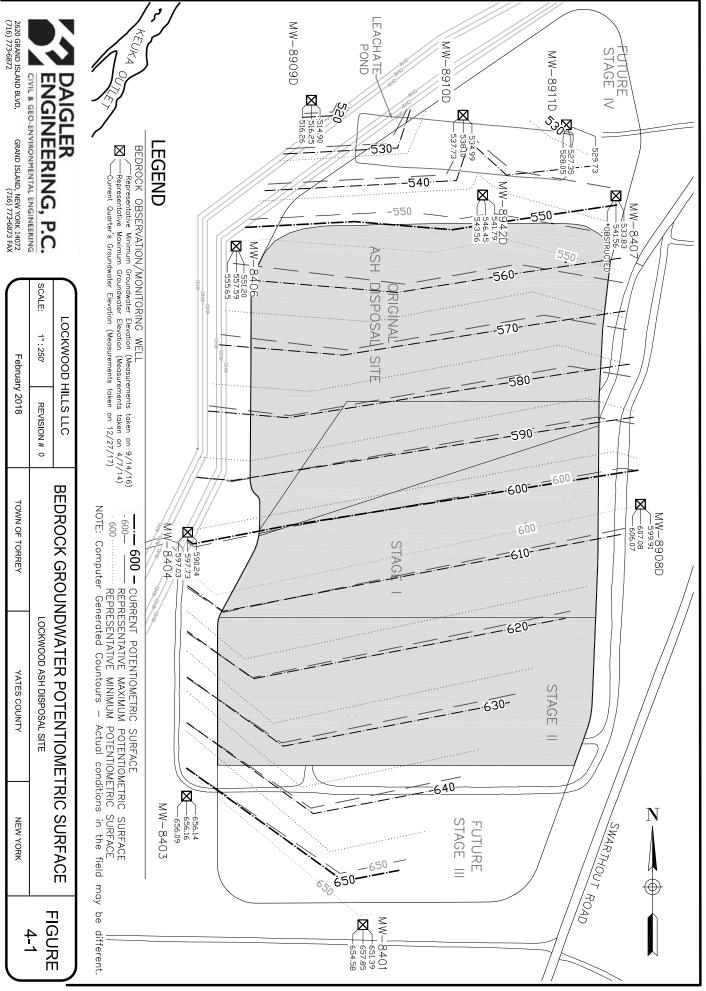
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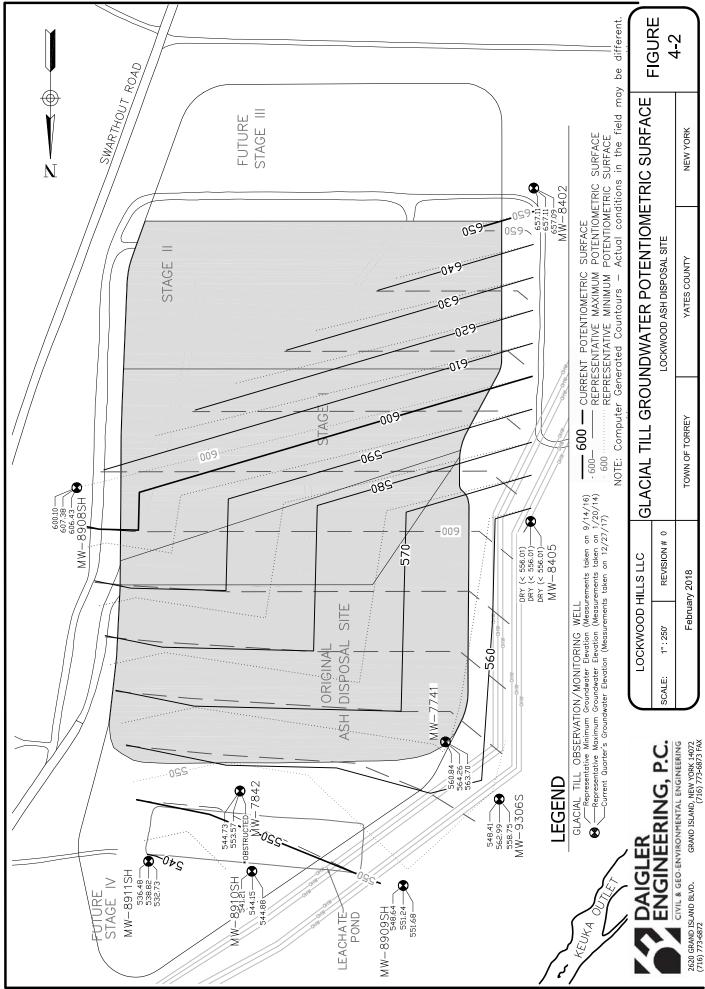
		N	Table 4-10 LOCKWOOD ASH DISPOSAL SITE 2017 SURFACE WATER EVALUATION FOR THE KEUKA	Table DCKWOOD ASH VATER EVALUA	Table 4-10 LOCKWOOD ASH DISPOSAL SITE WATER EVALUATION FOR THE K	E KEUKA OUTLET	4		
			First Quarter (3/30/2016)	tuarter 2016)			Second Quarter (6/29/2017)	Quarter 1017)	
Parameter	Units	Kueka Upstream	Kueka Downstream	Difference	% Increase	Kueka Upstream	Kueka Downstream	Difference	% Increase
Alkalinity	mg/l	95	105	10	10.5%	120	130	10	8.3%
Aluminum	l/bn	<16.6	<16.6			111	140	29	26.1%
Ammonia	/l/gm	<0.1	<0.1			<0.1	<0.1		
Antimony	l/Bn	<2.7	<2.7			BO	BO		
Arsenic	l/Bn	3.4	4.4	1.0	29.4%	<5.0	<5.0		
Barium	l/Bn	<200	<200			BO	BO		
Boron	l/bn	<50	<50			66.3	64.8	-1.5	-2.3%
Cadmium	l/bn	<0.37	<0.37			<5.0	<5.0		
Calcium	l/Bn	40,000	39,400	-600	-1.5%	31,100	30,400	-700	-2.3%
Chloride	/l/gm	38.9	38.9			46.3	46.0	-0.3	-0.6%
Chromium	l/bn	<6.9	<6.9			BO	BO		
Color	C.U.	ഗ	ഗ			BO	BO		
Conductivity	µmhos/cm	337	336	<u>'</u>	-0.3%	371	370	<u>'</u>	-0.3%
Copper	l/bn	4.0	3.9	-0.1	-2.5%	<5.0	<5.0		
DO	ng/l	7.37	7.88	0.5	6.9%	4.25	8.18	3.93	92.5%
Hardness	ng/l	146	144	' 2	-1.4%	128	127	<u>'</u>	-0.8%
Iron	l/Bn	200	216	16	8.0%	72.0	79.4	7.4	10.3%
Magnesium	l/Bn	11,300	11,200	-100	-0.9%	12,300	12,400	100	0.8%
Manganese	l/bn	21	22.4	1.4	6.7%	<20.0	<20.0		
Mercury	l/Bn	<0.03.	<0.03			<0.2	<0.2		
Nickel	l/bn	<40	<40			BO	BO		
рН	SU	7.9	7.5	-0.4	-5.1%	8.5	8.1	-0.4	-4.7%
Potassium	l/bn	<5,000	<5,000			2,980	3,140	160	5.4%
Selenium	l/bn	<3.4	<3.4			<5.0	<5.0		
Sodium	l/bn	19,500	19,300	-200	-1.0%	16,900	17,700	800	4.7%
Sulfate	ng/l	23.4	23.5	0.1	0.4%	27.0	27.0		
TDS	ng/l	175	165	-10	-5.7%	225	220	եր	-2.2%
TOC	ng/l	2.31	2.41	0.1	4.3%	во	BO		
Turbidity	NTU	712	686	-26	-3.7%	<1.0	<1.0		
	ug/l	<20	<20			BO	BO		
BO = Baseline Events Only	nts Onlv								

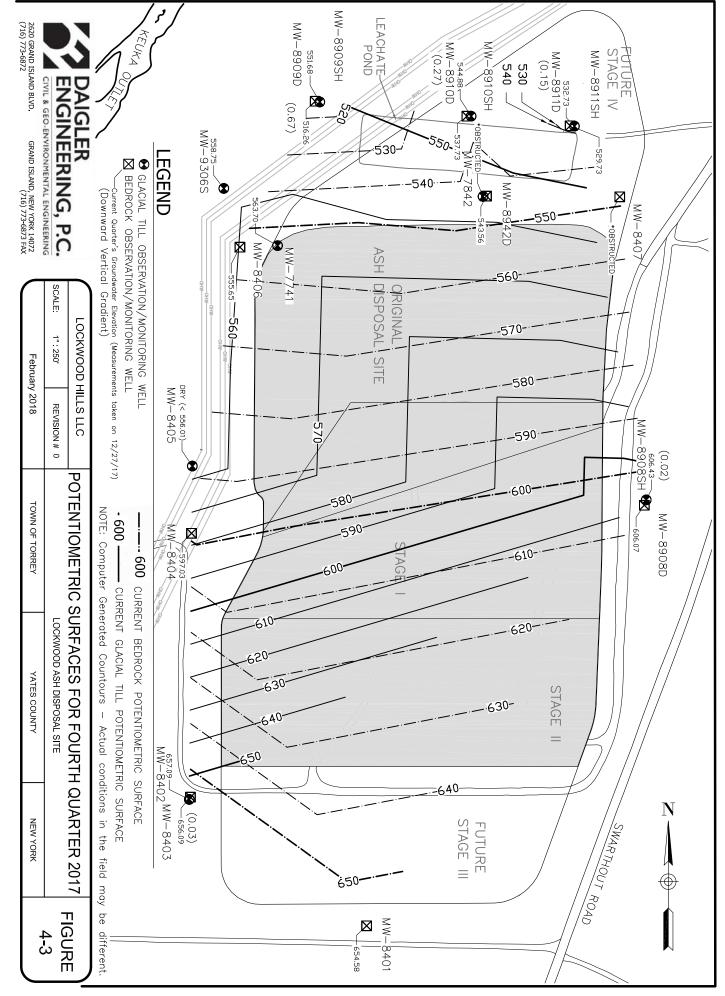
BO = Baseline Events Only

2017 SURFACE NULLION DAT INE FOULD AND INSPORTAL SITE 2017 SURFACE NULLION DAT INSPORTAL SITE Parameter United Quarter Fourh Quarter Parameter United Quarter Parameter Currensee Kueka Difference % Increase Attainity mg/l 1/22772017) Fourh Quarter Fourh Quarter Attainity mg/l 1/20 30 25.0% 1/30 25.0% 1/30 25.0% 1/30 25.0% 1/30 25.0% 1/30 25.0% 1/30 25.0% 1/30 25.0% 1/30 25.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 1/30 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0%						Table 4-10				
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eff Units Kueka Kueka Kueka Kueka Kueka Kueka Kueka Kueka Kueka Difference Horstream Downstream Difference Kueka Kueka Kueka Kueka Difference Horstream Downstream Difference Kueka Kueka Difference Horstream Downstream Difference Horstream Difference Horstream Downstream Difference Horstream Difference Horstream Downstream Difference Horstream Difference Horstream Downstream Downstream Difference Horstream Downstream Downstream Downstream Downstream Downstream Downstream Downstream Dittttttttttttttttttttttttttttttttttt				Third C (9/21/	Quarter 2017)			Fourth (12/27	Quarter //2017)	
	Parameter	Units	Kueka Upstream	Kueka Downstream	Difference	% Increase	Kueka Upstream	Kueka Downstream	Difference	% Increase
um ug/l <100	Alkalinity	mg/l	120	150	30	25.0%	190	190		
Iai mg/l < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 <	Aluminum	l/gu	< 100	< 100			< 100	< 100		
my ug/l B/O B/O <td>Ammonia</td> <td>l/gm</td> <td>< 0.1</td> <td>< 0.1</td> <td></td> <td></td> <td>< 0.1</td> <td>< 0.1</td> <td></td> <td></td>	Ammonia	l/gm	< 0.1	< 0.1			< 0.1	< 0.1		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Antimony	l/gu	BO	BO			BO	BO		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Arsenic	l/gu	5.13	< 5.0	-0.13	-2.5%	< 5.0	< 5.0		
	Barium	l/gu	BO	BO			BO	BO		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Boron	l/gu	< 50.0	< 50.0			< 50.0	< 50.0		
ug/l $42,900$ $43,700$ 800 19% $73,300$ $75,000$ $1,700$ m ug/l 44.5 44.7 0.2 0.4% 79.8 81.7 1.9 m ug/l 14.5 44.7 0.2 0.4% 79.8 81.7 1.9 ivity µmhos/cm 395 403 8 2.0% 745 752 7 s mg/l 1.56 3.85 -0.59 -13.3% 9.8 11.8 2.00 s mg/l 117% 5.4 -7.7% 77.5 66.8 -10.7 u ug/l 69.7 64.3 5.4 -7.7% 77.5 66.8 -10.7 u ug/l 69.7 64.3 5.4 -7.7% 77.5 66.8 -10.7 u ug/l 60.7 60.2 0.20 20.2 20.6 $6.5.00$ 77.6 77.5	Cadmium	l/gu	< 5.0	< 5.0			< 5.0	< 5.0		
$ \begin{array}{l c c c c c c c c c c c c c c c c c c c$	Calcium	l/gu	42,900	43,700	800	1.9%	73,300	75,000	1,700	2.3%
$ \begin{array}{l c c c c c c c c c c c c c c c c c c c$	Chloride	l/gm	44.5	44.7	0.2	0.4%	79.8	81.7	1.9	2.4%
C.U. BO SO CO CO <thc< td=""><td>Chromium</td><td>l/gu</td><td>BO</td><td>BO</td><td></td><td></td><td>BO</td><td>BO</td><td></td><td></td></thc<>	Chromium	l/gu	BO	BO			BO	BO		
ivity Immos/cm 395 403 8 2.0% 745 752 7 wg/l 5.0 < 5.0	Color	C.U.	BO	BO			BO	BO		
ug/l < 5.0 < 5.0 < 5.0 < 5.0 < 5.0 < 5.0 < 5.34 -2 mg/l 156 156 156 159 3.85 -0.59 -13.3% 9.8 11.8 2.00 ug/l 156 156 5.4 -7.7% 77.5 66.8 -10.7 um ug/l 11,800 12,000 200 -7.7% 77.5 66.8 -10.7 um ug/l < 20.0 $< 2.0.0$ -7.7% 277.5 66.8 -10.7 um ug/l < 20.0 < 20.0 2.00 50.0 50.0 50.0 see ug/l < 0.2 6.2 0.5 -7.1% 20.0 2100 500 500 500 500 500 500 500 500 66.8 -10.7 mu ug/l 8.3 8.3 8.3 0.6 8.3 8.9 0.6 mu	Conductivity	hmhos/cm	395	403	ω	2.0%	745	752	7	0.9%
$ \begin{array}{l c c c c c c c c c c c c c c c c c c c$	Copper	l/bn	< 5.0	< 5.0			7.16	5.34	7	-25.4%
s mg/l 156 159 3 1.9% 267 274 7 um ug/l 11,800 12,000 200 1.7% 20,500 21,000 500 see ug/l 11,800 12,000 200 1.7% 20,500 21,000 500 see ug/l <20.0	O	l/gm	4.44	3.85	-0.59	-13.3%	9.8	11.8	2.00	20.4%
ug/l69.764.3-5.4-7.7%77.566.8-10.7umug/l11,80012,0002001.7%20,50021,000500eseug/l< 20.0	Hardness	mg/l	156	159	ო	1.9%	267	274	7	2.6%
umug/l11,80012,000200 1.7% 20,50021,000500eseug/l< 20.0	Iron	l/gu	69.7	64.3	-5.4	-7.7%	77.5	66.8	-10.7	-13.8%
ese ug/l < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0 < 20.0	Magnesium	l/gu	11,800	12,000	200	1.7%	20,500	21,000	500	2.4%
ug/l< 0.2< 0.2< 0.2< 0.2< 0.2< 0.2< 0.2ug/lBOBOBOBOBOBOBOBOBOSU7.06.5 -0.5 -7.1% 8.38.9 0.6 nug/l2,7902,83040 1.4% 4,2604,140 -120 nug/l< <5.0	Manganese	l/bn	< 20.0	< 20.0			< 20.0	< 20.0		
al ug/l b0	Mercury	, I/bn	< 0.2	< 0.2			< 0.2	< 0.2		
SU7.0 6.5 -0.5 -1.5 -7.1% 8.3 8.9 0.6 ssiumug/l $2,790$ $2,830$ 40 1.4% $4,260$ $4,140$ -120 nimug/l < 5.0 < 5.0 < 5.0 < 5.0 < 5.0 < 5.0 < 1.700 amug/l $26,300$ $27,300$ $1,000$ 3.8% $38,900$ $40,600$ $1,700$ amug/l 26.1 26.0 -0.1 -0.4% 42.9 44.1 1.2 idityNTU < 1 26.0 -0.1 -0.4% 42.9 44.1 1.2 idityNTU < 1 26.0 -0.1 -0.4% 42.9 44.1 1.2 idityNTU 80 $B0$ $B0$ $B0$ $B0$ $B0$ $B0$ $B0$	Nickel	/bn	Э Э Я	ВО г	1		D G G	D 0 0		
ssium ug/l 2,790 2,830 40 1.4% 4,260 4,140 -120 nium ug/l $< 5.0 < 5.0 < 5.0 < 5.0 < 5.0$ arm ug/l 26,300 27,300 1,000 3.8% 38,900 40,600 1,700 te mg/l 26.1 26.0 -0.1 -0.4% 42.9 44.1 1.2 mg/l BO BO 15 7.3% 415 390 -25 dity NTU < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1	Hd	SU	7.0	6.5	-0.5	-7.1%	8.3	8.9	0.6	7.2%
niumug/l< 5.0< 5.0< 5.0< 5.0amug/l26.30027,3001,000 3.8% $38,900$ $40,600$ $1,700$ itemg/l26.126.0-0.1-0.4\% 42.9 44.1 1.2 itemg/l20522015 7.3% 415 390 -25 idityNTU<1<1 -1.2 -0.4% 415 390 -25 idityNTU<1<1<1 -1.2 -0.4% 415 390 -25 idityNTU<1<1<1 -1.2 -0.4% 415 390 -25 idityNTU<1<1<1<1 -1.2 -0.4% 415 390 -25 idityNTU<1<1<1<1<1<1 -25 -0.4% -0.4% -0.4% -25 idityNTU<1<1<1<1<1 -1.2% -0.4% -0.4% -0.4% -0.4% -0.5% -0.5% idityNTU<1<1<1<1<1<1<1<1idityNTU<1<1<1<1<1<1<1idityNTU<1<1<1<1<1<1idityNTU<1<1<1<1<1idityNTU<1<1<1<1idity<1<1<1<1<1idity <th< td=""><td>Potassium</td><td>l/gu</td><td>2,790</td><td>2,830</td><td>40</td><td>1.4%</td><td>4,260</td><td>4,140</td><td>-120</td><td>-2.8%</td></th<>	Potassium	l/gu	2,790	2,830	40	1.4%	4,260	4,140	-120	-2.8%
Jm ug/l 26,300 27,300 1,000 3.8% 38,900 40,600 1,700 te mg/l 26.1 26.0 -0.1 -0.4% 42.9 44.1 1.2 mg/l 205 220 15 7.3% 415 390 -25 idity NTU <1 <1 <1 <12 <26 <25 <26 <25 <26 <25 <26 <25 <26 <25 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <26 <th<26< th=""> <th<26< th=""> <th<<26< th=""></th<<26<></th<26<></th<26<>	Selenium	l/bn	< 5.0	< 5.0			< 5.0	< 5.0		
te mg/l 26.1 26.0 -0.1 -0.4% 42.9 44.1 1.2 mg/l 205 220 15 7.3% 415 390 -25 mg/l BO BO BO -25 b0 BO BO BO -25 BO BO B	Sodium	l/gu	26,300	27,300	1,000	3.8%	38,900	40,600	1,700	4.4%
mg/l 205 220 15 7.3% 415 390 -25 mg/l BO BO BO BO BO BO BO U -25 ug/l BO BO BO BO BO BO BO BO ug/l BO BO BO BO BO BO BO	Sulfate	l/gm	26.1	26.0	-0.1	-0.4%	42.9	44.1	1.2	2.8%
mg/l BO B	TDS	l/gm	205	220	15	7.3%	415	390	-25	-6.0%
idity NTU <1 <1 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TOC	l/gm	BO	BO			BO	BO		
ug/l BO BO BO	Turbidity	NTU	v t	, v			v	× V		
	Zinc	l/gu	BO	BO			BO	BO		

Q:\Lockwood Hills LLC\31-0118 Environmental Monitoring\01 Annual 2017 & Q4 EMR\2017 Annual Report Tables . Tbl 5-SW Exceedance







ATTACHMENT 1

NYSDEC 2017 Annual Report Form

MSW, INDUSTRIAL OR ASH LANDFILL ANNUAL/QUARTERLY REPORT

Submit the Annual Report no later than March 1, 2018.

A. This annual/quarterly report is for the year of operation from January 01, 2017 to December 31, 2017

B. Quarterly Report for: ___Quarter 1 ___Quarter 2 ___Quarter 3 ___Quarter 4

			CILITY INFORMATIO			
		FACILITY	INFORMATION			
FACILITY NAME:						
FACILITY LOCATION ADDRESS:		FACILITY	CITY:		STATE:	ZIP CODE:
FACILITY TOWN:		FACILITY	COUNTY:	FACI	LITY PHON	IE NUMBER:
FACILITY NYS PLANNING UNIT: this report).	(A list of N	IYS Plannin	g Units can be found at	the end		SDEC GION #:
360 PERMIT #:	DATE IS	SUED:	DATE EXPIRES:		DEC ACTIV	ITY CODE OR NUMBER:
FACILITY CONTACT:		□ public□ private	CONTACT PHONE NUMBER:	(CONTACT	FAX NUMBER:
CONTACT EMAIL ADDRESS:						
		OWNER	INFORMATION			
OWNER NAME:		OWNER P	HONE NUMBER:	OWN	ER FAX NU	JMBER:
OWNER ADDRESS:		OWNER C	ITY:		STATE:	ZIP CODE:
OWNER CONTACT:		OWNER C	ONTACT EMAIL ADDRE	SS:		
		OPERATO	R INFORMATION			
OPERATOR NAME: Sar	ne as owne	ər			□public □private	
			ERENCES			
Preferred address to receive corres	spondence.	: 🗆 Fa	acility location address	□ On	ner addres	S
Preferred email address:		□ Fa	acility Contact	🗆 Ои	vner Contac	ct
Preferred individual to receive correction Other (provide):	espondence	e: 🗆 Fa	acility Contact	🗆 Ои	vner Contac	ct
	; Complete	with this solid		vity, als	o complete	the "Inactive Solid

SECTION 2 - SITE LIFE

a.	What is the estimated landfill capacity that was utilized during the re	eporting year?
		_ Cubic Yards of Airspace
b.	What is the estimated in-situ waste density for the reporting year?	Please do not repor units as pounds per cubic yard.
		Tons/Cubic Yard
Rem	aining Constructed Capacity	
a.	What is the remaining capacity of the landfill that is already constru-	cted?
		_ Cubic Yards of Airspace
b.	What is the estimated remaining life of the constructed capacity?	
0.	Years Months	
	at Tours Tons/Year.*	
	* Please note that this tonnage rate must include all materials place	d in the landfill i.e. waste soil
	cover, alternative daily covers, etc.	
	cover, alternative daily covers, etc.	
C.	The tonnage rate reported under 2.b. is based on (select one):	
	The amount of materials placed in the landfill in the rep	orting year
	Estimated future disposal	0.7
	Permit limit	
	Permit limit Other (explain):	
	Other (explain):	
Perm		
Perm a.	Other (explain):	
	Other (explain):	
a.	Other (explain):	
a.	Other (explain):	
a.	Other (explain):	s authorized by a Part 360
a.	Other (explain):	s authorized by a Part 360
a. b.	Other (explain):	s authorized by a Part 360
a.	Other (explain):	s authorized by a Part 360 sed in the landfill, i.e., waste, and
a. b.	Other (explain):	s authorized by a Part 360 sed in the landfill, i.e., waste, and
a. b.	Other (explain):	s authorized by a Part 360 sed in the landfill, i.e., waste, and
a. b.	Other (explain):	s authorized by a Part 360 sed in the landfill, i.e., waste, and

4. Capacity Proposed in a Part 360 Permit Application

What is the capacity of any expansion proposed in a Part 360 permit application that has been submitted to the Department but not authorized by a permit as of the end of the reporting period?

_____ Cubic Yards of Airspace

5. Estimated Potential Future Capacity Not Permitted or in an Application (optional)

What is the estimated capacity of any potential future expansion at the facility that is not yet authorized by a permit or proposed in a Part 360 permit application that has been submitted to the Department?

Cubic Yards of Airspace
-

SECTION 3 - PRIMARY LEACHATE

Name of off-site leachate treatment facility(s) utilized: ______

Does the landfill have a constructed liner and a leachate collection system? _____Yes _____No

Enter the quantity of primary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding Acreage, by Cell: (Note: For double-lined landfills this should not include the volume of leachate collected from secondary leachate collection and removal systems.)

For **each cell**, please report the **acreage** and the **primary leachate** amount.

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		PRIMARY LI	PRIMARY LEACHATE COLLECTED (GALLONS)	OLLECTED (GALLONS)	Cell 6	Cell 1 PRI	MARY LEAC		PRIMARY LEACHATE TREATED OFF SITE (GALLONS)	TE (GALL
	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
January											
February											
March											
April											
Мау											
June											
July											
August											
September											
October											
November											
December											
ANNUAL											
		PRIMARY LEACHATE RECIRCULATED (GALLONS)	ACHATE REC) (GALLONS		Call 1 PRI		CALL 3	PRIMARY LEACHATE TREATED ON SITE (GALLONS)	FE (GA
	Cell 1 Acres	Cell 2 Acres	Cell 3 Acres	Cell 4 Acres	Cell 5 Acres	Cell 6 Acres	Cell 1 Acres	Cell 2 Acres	Cell 3 Acres	Cell 4 Acres	Cell 5 Acres
January											
February											
March											
April											
Мау											
June											
July											
August											
September											
October											
November											
December											

Submit (attached to this form) a copy of the maintenance logs which document compliance with the Operation and Maintenance Manual's schedule for the routine annual flushing and inspection of the primary leachate collection and removal system. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

Submit (attached to this form) a tabulated compilation of the semi-annual primary leachate quality data collected throughout the year including a summary comparing this year's data with the previous year's data and a summary discussion of results. This list should identify sample location(s) and method of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

SECTION 4 - SECONDARY LEACHATE

Does landfill have a double liner system with a secondary leachate collection and removal system? _____Yes _____No

Submit (attached to this form) a tabulated compilation of the semi-annual secondary leachate quality data collected throughout the year including a summary comparing this year's data with all previous years' data and a summary discussion of results. This list should identify sample location(s) and methods of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

	Please report total cost for the year, not cost/gal.	
Leachate Cost: (including transportation if appropriate) during the calendar year for leachate treatment:		
Total quantity treated: gal		

Enter the quantity of secondary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding Acreage, by Cell:

For each cell, please report the acreage and the secondary leachate amount.

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SECONDARY LEACHATE RECIRCULATED (GALLONS) SECONDARY LEACHATE TREATED ON SITE (GALLONS) Cell 1 Cell 2 Cell 3 Cell 4 Cell 5 Cell 6 Cell 1 Cell 2 Cell 3 Cell 4 Cell 5 Cell 6 Acres Acres <t< th=""></t<>
Cell 1 Cell 2 Cell 3 Cell 4 Cell 5 Cell 6 Cell 7 Acres
Acres Acres Acres Acres Acres Acres Acres Acres Acres y
January Image: Constraint of the second
February March
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ANNUAL

	S	ECONDARY	LEACHATE	SECONDARY LEACHATE COLLECTED (GALLONS)) (GALLONS	3	SECC	NDARY LE	ACHATE TRE	EATED OFF	SECONDARY LEACHATE TREATED OFF SITE (GALLONS))NS)
	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
January												
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SECTION 5 – BENEFICIAL USE DETERMINATION MATERIALS

For each type of waste material that the Department has approved for use as alternative daily cover, intermediate cover, or other landfill material, provide the annual weight in tons, use (i.e., daily cover, intermediate cover, etc.), and source of material. (If material is from a solid waste facility also provide facility name, address, NYS Planning Unit, County/ Province, and State/Country.) Refer to the list of NYS Planning Units that can be found at the end of this report.

Type of Solid Waste	Weight (tons/year)	Use	NYS Planning Unit (See Attached List of NYS Planning Units)	County or Province	State or Country	Source (Facility and Address)
Aggregate/Concrete						
Contaminated Soil						
Foundry Sand						
Glass						
Industrial Waste (specify)						
MSW/Wood Ash						
Paper Mill Sludge						
Processed C&D						
Shredder Fluff						
Tire Chips						
Wood/Wood Chips						
Other (specify)						
Total ADC				·		
Total Beneficial Use Determination Materials						

Percent Alternative Daily Cover (ADC) Calculation

ADC Calculations: Total Tons ADC/Total Tons Waste Disposed x 100 = $_{-}$

Please note the calculation is: Tons ADC (from table above)/Tons Solid Waste (from table in Section 6) x 100 and Not: Tons ADC / (Tons Solid Waste + ADC) x 100

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SECTION 6 - SOLID WASTE DISPOSED

Provide the tonnages of solid waste disposed. Exclude Beneficial Use Material amounts reported in Section 5 and Recyclable Material amounts reported in Section 8. Specify the methods used to measure the quantities disposed and the percentages measured by each method:

% Scale Weight		%	_% Estimated				
% Truck Count		%	% Other (Specify:				
Type of Solid Waste	January (tons)	February (tons)	March (tons)	April (tons)	May (tons)	June (tons)	July (tons)
Asbestos							
Ash (Coal)							
Ash (MSW Energy Recovery)							
Construction & Demolition Debris (mixed)							
Industrial Waste (Including Industrial Process Sludges)							
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)							
Oil/Gas Drilling Waste							
Petroleum Contaminated Soil							
Sewage Treatment Plant Sludge							
Treated Regulated Medical Waste							
Emergency Authorization Waste (Storm Debris)							
Other (specify)							
Total Tons Disposed							

SECTION 6 - SOLID WASTE DISPOSED (continued)

Type of Solid Waste	Tip Fee (\$/Ton)	August (tons)	September (tons)	October (tons)	November (tons)	December (tons)	Total Year (tons)	Daily Avg. (tons)
Asbestos								
Ash (Coal)								
Ash (MSW Energy Recovery)								
Construction & Demolition Debris (mixed)								
Industrial Waste (Including Industrial Process Sludges)								
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)								
Oil/Gas Drilling Waste								
Petroleum Contaminated Soil								
Sewage Treatment Plant Sludge								
Treated Regulated Medical Waste								
Emergency Authorization Waste (Storm Debris)								
Other (specify)								
Total Tons Disposed								

*Facility is a captive landfill with no tipping fees **Daily average reflects that waste was disposed all within one day in October 2017

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Identify the service area of the waste. The Total Tons Received reported below should equal the Total Tons Disposed in Section 6 (Solid Waste Disposed). DO NOT REPORT IN CUBIC YARDS!

and planning unit where it was generated; or establishments, etc.), "Direct Haul" is the appropriate response in Column 2 under "Service Area." Please report the tonnage by waste type and identify the state, county 1) Direct hauled from the generator of the waste. In the case where the waste is hauled to your facility from the generator (i.e. hauled from residences, commercial

where the sending facility is located. please report the tonnage by waste type from each sending solid waste management facility, as well as the sending facility's name, address, county, and the planning unit 2) Sent to your facility from another solid waste management facility. Waste may be sent to your transfer station from another solid waste management facility. In this case,

Specify transport method and percentages of total waste transported by each:

% Road	
% Rail	
% Water	

____% Other (specify:______

Explain which waste types and service areas below are included in these transport methods

	SERVICE AREA OF SOLID WASTE		RECEIVED		
TYPE OF SOLID WASTE	SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"	SERVICE AREA STATE OR COUNTRY	SERVICE AREA COUNTY OR PROVINCE	SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECEIVED
Asbestos					
Ash (Coal)					
Ash (MSW Energy Recovery)					
Construction &					
Demolition Debris					
Reprinted (12/17)					

TYPE OF SOLID	SERVICE AREA OF SOLID WASTE RECEIVED SOLID WASTE MANAGEMENT FACILITY FROM AREA A WHICH IT WAS RECEIVED (Name & Address) STATE OR COLI	WASTE REC SERVICE AREA STATE OR	EIVED SERVICE AREA COINTY OR	SERVICE AREA NYS PLANNING UNIT	
E OF SOLID WASTE	WHICH II WAS RECEIVED (Name & Address) OR "Direct Haul"	SIAIE OK COUNTRY	PROVINCE	(See Attached List of NYS Planning Units)	TONS RECEIVED
Industrial Waste (Including Industrial Process Sludges)					
Mixed Municipal					
Commercial)					
Oil/Gas Drilling					
Contaminated Soil					
Sewage Treatment					
Plant Sludge					
Treated Regulated					
216					
Emergency Authorization Waste					
(Storm Debris)					
Other (specify)					
			.OT	TOTAL RECEIVED (tons):	

 * List generators that provide you Certificates of Treatment forms and quantities of TRMW from each $_{-}$

Is your facility also a permitted or registered Recyclables Handling & Recovery Facility?

material received as source separated. The RHRF form is located at: http://www.dec.ny.gov/chemical/52706.html . Yes; Complete Section 9 for material recovered from the mixed solid waste stream. Complete a Recyclables Handling & Recovery Facility (RHRF) form for

No; Complete Section 9 for material recovered from the mixed solid waste stream and for material received as source separated

A. Service Area of Recyclable Material Received

Identify the service area of the material. DO NOT REPORT IN CUBIC YARDS

1) <u>Direct hauled from the generator of the recyclables</u>. In the case where the recyclables are hauled to your facility from the generator (i.e. hauled from residences, commercial establishments, etc.), "Direct Haul" would be the appropriate response in Column 2 under "Service Area". Please report the tonnage by material type and identify the state, county and planning unit where it was generated; or

2) Sent to your facility from another solid waste management facility. Recyclables may be sent to your facility from another solid waste management facility. In this case, please report the tonnage by material type from each sending solid waste management facility, as well as the sending facility's name, address, county, and the planning unit where the sending facility is located

Explain which materials and service areas below are included in these transport methods

	Other (specify)	(curbside)	Yard Waste	Food Scraps	Trees, & Stumps	Brush, Branches,	Single Sireani (total)	Sincle Streem total	(all grades)	Commingled Paper	Containers (metal, glass, plastic)	Commingled	MATERIAL		
													WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"	SOLID WASTE MANAGEMENT FACILITY FROM	SERVICE AREA OF RECYCLABLE MATERIAL RECEIVED
													STATE OR COUNTRY	SERVICE AREA	LE MATERIAL
TOTAL													COUNTY OR PROVINCE	SERVICE AREA	RECEIVED
TOTAL RECEIVED (tons):													(See Attached List of NYS Planning Units)	SERVICE AREA NYS	
													TONS RECEIVED		

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS B. Material Recovered

Identify the name of the destination facility to which the material was sent from your facility, the corresponding State/Country, the County/Province, the NYS Planning Unit, and the amount of material transported. Refer to the list of NYS Planning Units that can be found at the end of this report. DO NOT REPORT IN CUBIC YARDS!

% Other (specify:

Specify transport method and percentages of total material transported by each:

____% Road ____% Rail ____% Water

Explain which materials and destinations below are included in these transport methods.

	PAPER RECOVERED	COVERED			
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Commingled Paper (all grades)					
Corrugated Cardboard					
Junk Mail					
Magazines					
Newspaper					
Office Paper					
Paperboard / Boxboard					
Other Paper (specify)					
			TOTAL PAPER	TOTAL PAPER RECOVERED (tons):	

	TOTAL METAL RECOVERED (tons):	TOTAL METAL RI			
					Other Metal (specify)
					Tin & Aluminum Containers
					Industrial Scrap Metal
					Enameled Appliances / White Goods
					Bulk Metal (from CD debris)
					Bulk Metal (from MSW)
					Aluminum Foil / Trays
TONS RECOVERED (out of facility)	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	DESTINATION COUNTY OR PROVINCE	DESTINATION STATE OR COUNTRY	DESTINATION (Name & Address)	RECOVERED MATERIAL
			METAL RECOVERED	METAL RE	
	TOTAL GLASS RECOVERED (tons):	TOTAL GLASS RE			
					Other Glass (specify)
					Industrial Scrap Glass
					Container Glass
TONS RECOVERED (out of facility)	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	DESTINATION COUNTY OR PROVINCE	DESTINATION STATE OR COUNTRY	DESTINATION (Name & Address)	RECOVERED MATERIAL
			GLASS RECOVERED	GLASS RE	

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued) B. Material Recovered

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued) B. Material Recovered
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	PLASTIC RECOVERED	COVERED			
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Mixed Plastic (#1 - #7)					
PET (plastic #1)					
HDPE (plastic #2)					
Other Rigid Plastics (#3 - #7)					
Industrial Scrap Plastic					
Plastic Film & Bags					
Other Plastics (specify)					
		T	DTAL PLASTIC RE	TOTAL PLASTIC RECOVERED (tons):	

SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued) B. Material Recovered

TOTAL MIXED MATERIAL		Other (specify)	(total)		Containers	(metal, glass, plastic)	Containers	COUNTRY	RECOVERED DESTINATION DESTINATION DESTINATION		
OTAL MIXED MATERI									-		
AL MIXED MATERIAL RECOVERED (tons):								NYS Planning Units)		DESTINATION	
):								(out of facility)	TONS		

	MISCELLANEOUS MATERIAL RECOVERED	TERIAL RECOVER	RED		
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Electronics					
Textiles					
Brush, Branches, Trees, & Stumps					
Food Scraps					
Yard Waste (curbside)					
Other (specify)					
		OTAL MISCELLAN	LEOUS MATERIA	TOTAL MISCELLANEOUS MATERIAL RECOVERED (tons):	

S O T C T C T VOLUME TO WEIGHT CONVERSI

			VOLUME TO WEIGHT CONVERSION FACTORS	HI CONVERSI	ON FACIO	OKS		
MATERIAL	EQUIVALENT	VLENT	MATERIAL	EQUIVALENT	.ENT	MATERIAL	EQUIVALENT	LENT
GLASS – whole bottles	1 cubic yard 0.35 tons	0.35 tons	GLASS - crushed mechanically 1 cubic yard		0.88 tons	0.88 tons ALUMINUM – cans – whole	1 cubic yard 0.03 tons	0.03 tons
GLASS - semi crushed	1 cubic yard	0.70 tons	1 cubic yard 0.70 tons GLASS - uncrushed manually		0.16 tons	55 gallon drum 0.16 tons ALUMINUM – cans – flattened	1 cubic yard 0.125 tons	0.125 tons
PAPER - high grade loose	1 cubic yard 0.18 tons	0.18 tons	PLASTIC – PET – whole	1 cubic yard	0.015 tons			
PAPER - high grade baled	1 cubic yard 0.36 tons		PLASTIC – PET – flattened	1 cubic yard	0.04 tons			
PAPER - mixed loose	1 cubic yard	0.15 tons	1 cubic yard 0.15 tons PLASTIC – PET – baled	1 cubic yard	0.38 tons	0.38 tons WHITE GOODS - uncompacted 1 cubic yard 0.10 tons	1 cubic yard	0.10 tons
NEWSPRINT - loose	1 cubic yard	0.29 tons	1 cubic yard 0.29 tons PLASTIC – styrofoam	1 cubic yard	0.02 tons	0.02 tons WHITE GOODS - compacted	1 cubic yard 0.5 tons	0.5 tons
NEWSPRINT - compacted 1 cubic yard 0.43 tons	1 cubic yard	0.43 tons	PLASTIC – HDPE – whole	1 cubic yard	0.012 tons			
CORRUGATED – loose	1 cubic yard	0.015 tons	1 cubic yard 0.015 tons PLASTIC – HDPE – flattened 1 1 cubic yard	1 cubic yard	0.03 tons			
CORRUGATED - baled	1 cubic yard	0.55 tons	1 cubic yard 0.55 tons PLASTIC – HDPE – baled	1 cubic yard	0.38 tons	0.38 tons FERROUS METAL - cans whole 1 cubic yard 0.08 tons	1 cubic yard	0.08 tons
			PLASTIC – mixed (grocery bags) 45 gallon bag 0.01 tons FERROUS METAL - cans	45 gallon bag	0.01 tons	FERROUS METAL - cans	1 cubic yard 0.43 tons	0.43 tons

SECTION 9 – UNAUTHORIZED SOLID WASTE

Has unauthorized solid waste been received at the facility during the reporting period?

□Yes \Box No If yes, give information below for each incident (attach additional sheets if necessary):

Disposal Method & Location	Date Disposed	Type Received	Date Received

Radiation Monitoring

If the radiation monitors have been triggered give information below for each incident:	Identify Manufacturer of portable unit.	Does your facility use a portable radiation monitor? Yes No	Identify Manufacturer of fixed unit.	Does your facility use a fixed radiation monitor? Yes No
---	---	---	--------------------------------------	--

		Number	Incident
		Date	Received
		Date Time	ived
		Hauler	
		Origin	
		Number	Truck
			Reading
		Status	Disposal
		Date	Rem
		Time	Removed

SECTION 10 - WASTE IN PLACE

Summary by Waste Type and Year

Include all active and inactive sections of the landfill. Report waste disposed annually by type, if known, in tons per year. Report total waste disposed, if breakdown of types the quantities for a range of years. If you include amounts from old, closed landfills then clearly identify them on the table and explain below. In each row, report quantities disposed each year (or group of years if individual years unknown) for each waste type. Report cumulative WIP at bottom (sum of annual quantities disposed). Add is not available. In the case where more than one landfill section operated in a given year identify each separately, if known. If the annual amount is not available, report additional sheets as necessary.

Year	MSW (tons)	Asbestos Waste (tons)	Ash (tons)	C&D Debris (tons)	Industrial Waste (tons)	Petroleum Contaminated Soil (tons)	Sewage Treatment Plant Sludge (tons)	Other (tons)	Year(s) Total (tons)	ldentify Landfill Section(s) Used
WIP Cumulative Total										

cubic yards	
Overall in place volume	
ll in place	
Overa	

Method for determining waste composition, if known.

Explain if closed landfills are included above $_$

**OADS = Original Ash Disposal Site

SECTION 10 - WASTE IN PLACE

Summary by Waste Type and Year

the quantities for a range of years. If you include amounts from old, closed landfills then clearly identify them on the table and explain below. In each row, report quantities disposed each year (or group of years if individual years unknown) for each waste type. Report cumulative WIP at bottom (sum of annual quantities disposed). Add additional sheets as necessary. is not available. In the case where more than one landfill section operated in a given year identify each separately, if known. If the annual amount is not available, report Include all active and inactive sections of the landfill. Report waste disposed annually by type, if known, in tons per year. Report total waste disposed, if breakdown of types

		-					-				1		
WIP Cumulative Total	(1999-1979)	(2000	2001	2002	2003	2004	2005	2006	2007	2008	Year		
	9)										(tons)	MSM	
											(tons)	Waste	Asbestos
	Unknown	60,057	53,513	58,581	68,687	42,483	49,216	43,779	103.359	97,145	(tons)	Ash	
											(tons)	Debris	C&D
					394	317	826	447	250	198	(tons)	Waste	Industrial
											(tons)	Soil	Petroleum Contaminated
											(tons)	Plant Sludge	Sewage Treatment
											(tons)	Other	
	1,246,091	60,057	53,513	58,581	69,081	42,800	50,042	44,226	103,609	97,343	(tons)	Total	Year(s)
	I & II and OADS	&	&	&	&	&	&	&	&	& II	Used	Section(s)	Identify Landfill

Overall in place volume _____ cubic yards

Method for determining waste composition, if known. _

Explain if closed landfills are included above

Number of landfill sections:	
Jsed (years) from to to	d (years) from
nacres proved final cover system YesNo	Section Footprint
Percent capped	Percent capped
Waste in Place: Tons Cubic Yards, if known	Waste in Place: Tons Cubic Yards, if known
* If there are additional landfill sections, phases or cells, please provide the same waste in place information on additional sheets and attach to form.	n place information on additional sheets and attach to form.
SECTION 11 - LANDFILL GAS	NDFILL GAS
Does the landfill have a landfill gas collection & control system? Yes No	sive
Number of gas wells:	
Total landfill footprint acreage	
Total landfill acreage from which gas is collected	
Landfill sections from which gas is collected	
Landfill acreage from which gas is collected for energy recovery	
Measured Methane Generation Rate*, k	
Measured Potential Methane Generation Capacity*, Lom³/Mg	
NMOC Concentration* ppmv as hexane	
Does the landfill require a Title V Permit? Yes No	
Name of Landfill Gas Recovery (gas to energy or other use) Facility:	
* Note: If Concentration NMOC, Lo and k are not known or included, default values will be	default values will be used to calculate the NMOCs emissions from the Landfill.

Waste Summary by Landfill Section

Provide waste in place information for all landfill sections.

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<u>Flare</u>

Open and Enclosed Flares located at the Landfill and the Landfill Gas Recovery Facility: Number of Flares:	
Type of Flare: Opened Flare Enclosed Flare	Please report units in cubic feet
Quantity of Gas Collected and Flared Annually cubic fe Flare Hours of Operation per Year hours/year Methane Percentage in Landfill Gas before flaring % Methane Destruction efficiency %	eet
Candlestick Flares: Number of Candlestick Flares Estimate of Gas Flared Candlestick Flare cubic feet	
<u>Gas To Energy</u>	Please report units
Number of Internal Combustion Engines:	in cubic feet
Quantity of Gas collected for Internal Combustion Engine Annually Methane Destruction efficiency % Methane Percentage in Landfill Gas before combustion % Utility Company Receiving Electricity	cubic feet
Gas Processed for Use (Other than gas to electricity)	
Quantity of Gas Collected for Processing cubic feet Methane Percentage in Landfill Gas before processing % On-site or Off-site User of Gas	
Landfill Gas Recovery Facility/Landfill Data	
Facility Contact Phone # ()	
Contact e-mail address Fax # ()	
Operation and maintenance cost for calendar year: \$	
Does the LGRF experience shut downs:YesNo	
If yes, indicate reasons for shut downs. List required submissions that have been attached to t the reasons for not attaching a required piece of information:	his form or
Year landfill opened: Anticipated landfill closure date:	
Reprinted (12/17)	

Results of Condensate Sampling

Submit (attached to this form) condensate quality monitoring results accomplished in accordance with condensate sampling. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Landfill Gas Utilized For Energy Recovery

Provide the following information for the landfill gas recovered for energy. **DO NOT INCLUDE THE GAS FLARED!**

	Landfill Gas Collected for Energy Recovery (Cubic Feet)	Steam* Generated (Cubic Feet)	Total Electricity* Generated for onsite and offsite use (K.W.H.)	Total Gas Processed for use other than electricity generation (Cubic Feet)	Condensate Generated (Gallons)	Facility Operation (Hours)
January						
February						
March						
April						
Мау						
June						
July						
August						
September						
October						
November						
December						
ANNUAL TOTAL						

* Provide where applicable.

Normal Weekdays of Operation ______ Normal Hours of Operation_____

Electricity Generated and used/marketed offsite	KWH
Electricity Generated and used onsite	KWH

Gas Processed and used/marketed offsite _____ cubic feet

Gas Processed and used onsite _____ cubic feet

Describe the collection, storage, treatment and disposal techniques used in managing the condensate:

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SECTION 12 - COST ESTIMATES AND FINANCIAL ASSURANCE DOCUMENTS

Are there required cost estimates and financial assurance documents for closure and post-closure care?

Yes No If yes, attach additional sheets reflecting annual adjustments for inflation and any changes to the Closure Plan? See 2017 Annual Report, Section 3 and attached letter of credit

SECTION 13 – PROBLEMS Were any problems encountered during the reporting period (e.g., specific occurrences which have led to changes in facility procedures)?

SECTION 14 – CHANGES

Were there any changes from approved reports, plans, specifications, and permit conditions?

 \Box Yes \Box No If yes, attach additional sheets identifying changes with a justification for each change.

SECTION 15 - ANALYTICAL RESULTS

Submit (attached to this form) tables showing the sample collection date, the analytical results [including all peaks even if below the Method Detection Limits (MDL)], designation of upgradient wells and location number for each environmental monitoring point sampled, applicable water quality standards, and groundwater protection standards if established, MDL's, and Chemical Abstracts Service (CAS) numbers on all parameters. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

SECTION 16 - COMPARING DATA

Submit (attached to this form) tables or graphical representations comparing current water quality with existing water quality and with upgradient water quality. These comparisons may include Piper diagrams, Stiff diagrams, tables, or other analyses. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

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SECTION 17 - DISCUSSION OF RESULTS

Submit (attached to this form) a summary of any contraventions of State water quality standards, significant increases in concentrations above existing water quality, any exceedances of groundwater protection standards, and discussion of results, and any proposed modifications to the sampling and analysis schedule necessary to meet the Existing, Operational and Contingency water quality monitoring requirements. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

SECTION 18 - DATA QUALITY ASSESSMENT

Submit (attached to this form) any required data quality assessment reports. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

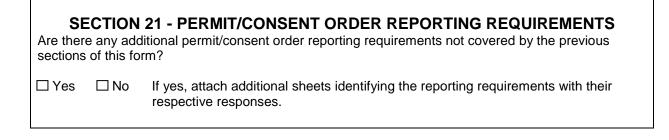
SECTION 19 - SUMMARIES OF MONITORING DATA

Submit (attached to this form) a summary of the water quality information presented in Sections 16 and 17 for the year of operation for which the Annual Report is made, noting any changes in water quality which have occurred throughout the year. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

SECTION 20 - SURFACE IMPOUNDMENTS

Does this landfill have a surface impoundment?

□ Yes □ No If yes, repeat Sections 15 through 18 above for Quarterly Reports and Section 19 above for Annual report. Attach additional submissions required by this section.



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SECTION 22 - SIGNATURE AND DATE BY OWNER OR OPERATOR

Owner or Operator must sign, date and submit the completed form by email or mail to the appropriate Regional Office (See attachment for Regional Office email & mailing addresses and Solid Waste Contacts.)

The Owner or Operator must also submit one copy by email, fax or mail to:

New York State Department of Environmental Conservation Division of Materials Management Bureau of Permitting and Planning 625 Broadway Albany, New York 12233-7260 Fax 518-402-9041 Email address: SWMFannualreport@dec.ny.gov

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits was prepared by me or under my supervision and direction and is true to the best of my knowledge and belief, and that I have the authority to sign this report form pursuant to 6 NYCRR Part 360. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Dale Irwin

Signature

Name (Print or Type)

2/28/2018

President/CEO

Title (Print or Type)

dirwin@greenidgellc.com

Email (Print or Type)

590 Plant Road

Address

New York, 14441

State and Zip

ATTACHMENTS: <u>YES</u> NO (Please check appropriate line)

		••
	(City
(315)	536	2359 ext. 3423

Dresden

Phone Number

ATTACHMENT 2

Monthly Inspection Logs

LOCKWOOD ASH LANDFILL MONTHLY ASH SITE INSPECTION

	GEM312-ALOW			
Inspector_ /tarco (2 Sexter				
Date of inspection $\frac{1/9}{17}$ Time <u>11:45</u>				
Weather Conditions Snew flurnies				
OK = Condition Met NO = Not Observed CA = Corrective Action Required NOTE: For any item marked CA, a description of the problem and its proposed or implemented resolution should be noted in the corrective action section of this form.				
OK NO CA FACILITY MANAGEMENT				
permits to operate/construct, SPDES permit, P	 Required permits and operational records are filed on-site (Part 360 permits to operate/construct, SPDES permit, Part 364 transport permits, stormwater permit, compaction tests and monthly inspection records). 			
<u> </u>	vith Part 364.6(b) and are			
OPERATION CONTROL				
3. Dust is effectively controlled and does not cons (If water from sedimentation pond is used for o section including quantity).				
4. Berms, dikes, and slopes are free of channeling potentially damaging vegetation and damage of				
WATER				
5. Solid waste is prevented from entering surface	waters and/or groundwater.			
6. Leachate collection system appears to be funct water on active site, no obstructions in piping of	tioning properly (no ponded or manholes).			
 X 7. Perimeter drainage ditches are sufficiently clear freely. 	r to allow water to flow			
8. Sedimentation pond is free of potentially damage exhibit no apparent damage from wildlife.	ging vegetation and banks			
ACCESS				
9. Access to site and sedimentation pond discharge controlled by means of fencing, gates, locks, si	ge mechanisms are gns or other suitable means.			

<u>X</u> ____ 10. Access roads are passable.

Lockwood Ash Landfill Monthly Ash Site Inspection - Continued

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		WA	STE HANDLING
K		11.	Coal combustion by-products (CCBP's) are placed in accordance with operating procedures (6-8" lifts, well-compacted, in designated areas).
at the site.	Note:		Only authorized material generated at Greenidge Station has been placed horized or permitted waste from any other source has been placed, notification to FSG and lab must be made to ensure analysis for arsenic and selenium. Please also note source and quantity in comment section.
		MO	NITORING
X		13.	Monitoring wells are intact.
		OTH	IER
<u> </u>		14.	All required equipment is on-site and operational.
<u> </u>		15.	Contractual sweeping requirements appear to have been performed (roads and ash unloading areas are clear of CCBP materials and debris).
<u>×</u> _		16.	Compaction tests have been performed during the last month. Note: If tests have been performed, dates and results should be listed in comment section.
<u>× </u>		17.	There are no apparent unsafe site or operational conditions.
CORRECTIVE (Note Item #'s)	ACTIO	<u>NS:</u>	

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Lockwood Ash Landfill Monthly Ash Site Inspection - Continued

OTHER COMMENTS:

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(Include compaction test dates and results, any known complaints, incidents or violations)

C Signature of Inspector

cc: Dan matias, ECD, Greenidge Station Site File

LOCKWOOD ASH LANDFILL MONTHLY ASH SITE INSPECTION

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	GEM312-ALOW			
Inspector Hand Sent				
Date of inspection 2/22/17 Time				
Weather Conditions <u>Survey</u>				
OK = Condition Met NO = Not Observed CA = Corrective Action Required NOTE: For any item marked CA, a description of the problem and its proposed or implemented resolution should be noted in the corrective action section of this form.				
OK NO CA FACILITY MANAGEMENT				
permits to operate/construct, SPDES permit, Part 3	. Required permits and operational records are filed on-site (Part 360 permits to operate/construct, SPDES permit, Part 364 transport permits, stormwater permit, compaction tests and monthly inspection records).			
2. Transport vehicles are marked in accordance with F covered during transit.	Part 364.6(b) and are			
OPERATION CONTROL				
3. Dust is effectively controlled and does not constitute (If water from sedimentation pond is used for dust of section including quantity).	Dust is effectively controlled and does not constitute an off-site nuisance. (If water from sedimentation pond is used for dust control, note in comment section including quantity).			
4. Berms, dikes, and slopes are free of channeling, slupotentially damaging vegetation and damage cause	imping, erosion, d by wildlife.			
WATER				
X 5. Solid waste is prevented from entering surface wate	rs and/or groundwater.			
 A Construction of the second se	g properly (no ponded inholes).			
 7. Perimeter drainage ditches are sufficiently clear to a freely. 	llow water to flow			
8. Sedimentation pond is free of potentially damaging vertibilit no apparent damage from wildlife.	vegetation and banks			
ACCESS				
9. Access to site and sedimentation pond discharge me controlled by means of fencing, gates, locks, signs of	echanisms are or other suitable means.			
10. Access roads are passable.				

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•		WASTE HANDLING
<u> </u>		 Coal combustion by-products (CCBP's) are placed in accordance with operating procedures (6-8" lifts, well-compacted, in designated areas).
at the site.	Note:	12. Only authorized material generated at Greenidge Station has been placed If authorized or permitted waste from any other source has been placed, notification to FSG and lab must be made to ensure analysis for arsenic and selenium. Please also note source and quantity in comment section.
		MONITORING
<u>× </u>		13. Monitoring wells are intact.
		OTHER
<u>× </u>		14. All required equipment is on-site and operational.
<u>×</u>	******	 Contractual sweeping requirements appear to have been performed (roads and ash unloading areas are clear of CCBP materials and debris).
		 Compaction tests have been performed during the last month. Note: If tests have been performed, dates and results should be listed in comment section.
<u> </u>		17. There are no apparent unsafe site or operational conditions.
CORRECTIVE	ACTIO	<u>NS:</u>

(Note Item #s)

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OTHER COMMENTS:

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(Include compaction test dates and results, any known complaints, incidents or violations)

Raw Calibrale 0 l Mel Signature of Inspector

AES-ASH POND MANAGEMENT

DOCUMENTATION OF SEDIMENTATION POND DISCHARGE

FACILITY: LOCKWOOD ASH LANDFILL

DATE: 3/6/17

DETERMINATION OF POND WATER QUALITY PRIOR TO DISCHARGE

SAMPLE DATE: 2/23/17 SAMPLE TYPE: GRAB SAMPLER: Kevin Ambra Adinon dade Environmental FIELD PH: (6-9) 8.1 Fe-T: (<4) .21 Mn-T: (<3) ND Zn-T: (<2) ND As-T: (<.1) ND TSS: (<50) ND Se-T: (<.07) ,006 NH3: AUTHORIZATION TO DRAIN POND NAME: Hanold Sexton DATE: 3/5/17 OTHER DIRECTION:

POND DISCHARGE INFORMATION START DATE AND TIME: LEVEL: 5.0 3/6 9:02 VOLUME: 2,680,000 FIELD PH: 8.2 END DATE AND TIME: LEVEL: 3/17/17 10:45 - 1.4 VOLUME: 575,000 FIELD PH: 8.0

SITE OPERATOR (S): DLI GALLONS DISCHARGED: 2,105,000

OF DAYS OF DISCHARGE: 12 MAXIMUM GALLONS PER DAY: /78,000 AVERAGE GALLONS PER DAY: 175,000 FLOW RATE FOR RECEIVING BODY OF WATER: - 230 cls. COMPOSITE SAMPLE START -3/c/17 - 3/9/17 COMPOSITE SAMPLE END: 3/9/17

COMMENTS: Summary of weekly pH's:

3/14 - 8.0 3/8/17 8.1 3/10/17 8.0

				GEM312-ALOW
Inspec	tor	Han	ll	2 Satur
Date o	of inspe	ection_		2/21/17Time0.00
Weath	ier Cor	ditions	5	Cloudy.
OK = C		For any	/ item	 Not Observed CA = Corrective Action Required marked CA, a description of the problem and its proposed or implemented mould be noted in the corrective action section of this form.
OK	NO	CA	FAC	ILITY MANAGEMENT
_X			1.	Required permits and operational records are filed on-site (Part 360 permits to operate/construct, SPDES permit, Part 364 transport permits, stormwater permit, compaction tests and monthly inspection records).
	\times		2.	Transport vehicles are marked in accordance with Part 364.6(b) and are covered during transit.
			OPE	RATION CONTROL
<u> </u>			3.	Dust is effectively controlled and does not constitute an off-site nuisance. (If water from sedimentation pond is used for dust control, note in comment section including quantity).
<u>X</u> _			4.	Berms, dikes, and slopes are free of channeling, slumping, erosion, potentially damaging vegetation and damage caused by wildlife.
,			WA	TER
\times			5.	Solid waste is prevented from entering surface waters and/or groundwater.
\mathbf{X}			· 6.	Leachate collection system appears to be functioning properly (no ponded water on active site, no obstructions in piping or manholes).
<u> </u>			7.	Perimeter drainage ditches are sufficiently clear to allow water to flow freely.
<u>×</u>			8.	Sedimentation pond is free of potentially damaging vegetation and banks exhibit no apparent damage from wildlife.
			AC	CESS
<u>_X</u> _	<u></u>		9.	Access to site and sedimentation pond discharge mechanisms are controlled by means of fencing, gates, locks, signs or other suitable means.
X			10.	Access roads are passable.

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	WASTE HANDLING
X	 Coal combustion by-products (CCBP's) are placed in accordance with operating procedures (6-8" lifts, well-compacted, in designated areas).
at the site. Note:	12. Only authorized material generated at Greenidge Station has been placed If authorized or permitted waste from any other source has been placed, notification to FSG and lab must be made to ensure analysis for arsenic and selenium. Please also note source and quantity in comment section.
	MONITORING
<u> </u>	13. Monitoring wells are intact.
	OTHER
<u> </u>	14. All required equipment is on-site and operational.
<u>× </u>	 Contractual sweeping requirements appear to have been performed (roads and ash unloading areas are clear of CCBP materials and debris).
	 Compaction tests have been performed during the last month. Note: If tests have been performed, dates and results should be listed in comment section.
<u>× </u>	17. There are no apparent unsafe site or operational conditions.
CORRECTIVE ACTION	<u>S:</u>

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(Note Item #'s)

OTHER COMMENTS:

(Include compaction test dates and results, any known complaints, incidents or violations)

Signature of Inspector

, ,

	GEM312-ALOW
Inspector_Harold Sexton	
Date of inspection $\frac{4}{24/17}$ Tir	ne_/0:20
Weather Conditions <u>Summ</u>	
OK = Condition Met NO = Not Observed CA = Condition Met NO = Not Observed CA = Condition NOTE: For any item marked CA, a description of resolution should be noted in the correct	orrective Action Required of the problem and its proposed or implemented tive action section of this form.
OK NO CA FACILITY MANAGEMENT	
permits to operate/construct	tional records are filed on-site (Part 360 t, SPDES permit, Part 364 transport permits, ion tests and monthly inspection records).
2. Transport vehicles are mark covered during transit.	ed in accordance with Part 364.6(b) and are
OPERATION CONTROL	
3. Dust is effectively controlled (If water from sedimentation section including quantity).	and does not constitute an off-site nuisance. pond is used for dust control, note in comment
4. Berms, dikes, and slopes are potentially damaging vegeta	e free of channeling, slumping, erosion, tion and damage caused by wildlife.
WATER	
5. Solid waste is prevented from	m entering surface waters and/or groundwater.
6. Leachate collection system a water on active site, no obst	appears to be functioning properly (no ponded ructions in piping or manholes).
7. Perimeter drainage ditches a freely.	are sufficiently clear to allow water to flow
 8. Sedimentation pond is free o exhibit no apparent damage 	f potentially damaging vegetation and banks from wildlife.
ACCESS	
 X 9. Access to site and sedimenta controlled by means of fencion 	ation pond discharge mechanisms are ng, gates, locks, signs or other suitable means.
X	

_____ 10. Access roads are passable.

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		WA	STE HANDLING
<u> </u>		11.	Coal combustion by-products (CCBP's) are placed in accordance with operating procedures (6-8" lifts, well-compacted, in designated areas).
at the site.	Note:	12. If aut	Only authorized material generated at Greenidge Station has been placed horized or permitted waste from any other source has been placed, notification to FSG and lab must be made to ensure analysis for arsenic and selenium. Please also note source and quantity in comment section.
		MO	NITORING
<u>×</u>		13.	Monitoring wells are intact.
		OTH	IER
×		14.	All required equipment is on-site and operational.
<u>× </u>		15.	Contractual sweeping requirements appear to have been performed (roads and ash unloading areas are clear of CCBP materials and debris).
<u>X</u>		16.	Compaction tests have been performed during the last month. Note: If tests have been performed, dates and results should be listed in comment section.
\times —		17.	There are no apparent unsafe site or operational conditions.
CORRECTIVE (Note Item #'s)	ACTION	<u> NS:</u>	

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OTHER COMMENTS:

(Include compaction test dates and results, any known complaints, incidents or violations)

16.13 gpm Flow CI ma hea 00 on Rem. 0 FLOW necessary. nst enico CA 60 ß Signature of Inspector

AES-ASH POND MANAGEMENT

DOCUMENTATION OF SEDIMENTATION POND DISCHARGE

FACILITY: LOCKWOOD ASH LANDFILL

DATE: 5/10/17

DETERMINATION OF POND WATER QUALITY PRIOR TO DISCHARGE SAMPLE DATE: $\frac{3}{2}/17$ SAMPLE TYPE: **GRAB** SAMPLER: Adding dack FIELD PH: (6-9) 8.4 Fe-T: (<4) .168 Mn-T: (<3) .02 Zn-T: (<2) ND NH3: As-T: (<.1) ND TSS: (<50) 3.5 Se-T: (<.07) .01 AUTHORIZATION TO DRAIN POND NAME: $\frac{1}{2}$ and $\frac{1}{2}$ Sector DATE: $\frac{5}{10}/17$ OTHER DIRECTION:

POND DISCHARGE INFORMATION

START DATE AND TIME: LEVEL: 5/10/17 /0:00 Am VOLUME: 5.3' 2,350,000 FIELD PH: 8.3 END DATE AND TIME: LEVEL: 5/22/17VOLUME: /.8 900,000 FIELD PH: 8.1

SITE OPERATOR (S): DLI GALLONS DISCHARGED: 1, 450,000

OF DAYS OF DISCHARGE: 12 MAXIMUM GALLONS PER DAY: 125,000 AVERAGE GALLONS PER DAY: 120,800 FLOW RATE FOR RECEIVING BODY OF WATER: 550 C&s. COMPOSITE SAMPLE START 5/10/17 COMPOSITE SAMPLE END: 5/11/17

Sent to Bethany 6/3/17

COMMENTS: Summary of weekly pH's:

8.2 - 5/14 8.0 - 5/17

1918 -•

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· · ·	GEM312-ALOW
Inspector Harold Sexton	
Distriction Statistics The Provide	
Date of Inspection $\frac{5/z_{1}/17}{17}$ Time $\frac{9:95}{1}$	
Weather Conditions <u>Cloudy</u>	
OK = Condition Met NO = Not Observed CA = Corrective Action Requir NOTE: For any item marked CA, a description of the problem and its resolution should be noted in the corrective action section of the	proposed or implemented
OK NO CA FACILITY MANAGEMENT	
1. Required permits and operational records are filed permits to operate/construct, SPDES permit, Part stormwater permit, compaction tests and monthly	364 transport permits,
<u> </u>	Part 364.6(b) and are
OPERATION CONTROL	
 X 3. Dust is effectively controlled and does not constitut (If water from sedimentation pond is used for dust section including quantity). 	
4. Berms, dikes, and slopes are free of channeling, s potentially damaging vegetation and damage cause	
WATER	
5. Solid waste is prevented from entering surface wa	ters and/or groundwater.
K 6. Leachate collection system appears to be function water on active site, no obstructions in piping or not structions in piping or not struction.	• • • • •
X 7. Perimeter drainage ditches are sufficiently clear to freely.	allow water to flow
 8. Sedimentation pond is free of potentially damaging exhibit no apparent damage from wildlife. 	g vegetation and banks
ACCESS	
9. Access to site and sedimentation pond discharge controlled by means of fencing, gates, locks, sign	

 $\underline{\times}$ _____ 10. Access roads are passable.

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•		WASTE HANDLING
<u>X</u>		 Coal combustion by-products (CCBP's) are placed in accordance with operating procedures (6-8" lifts, well-compacted, in designated areas).
at the site.	Note:	12. Only authorized material generated at Greenidge Station has been placed authorized or permitted waste from any other source has been placed, notification to FSG and lab must be made to ensure analysis for arsenic and selenium. Please also note source and quantity in comment section.
		MONITORING
<u>× </u>		13. Monitoring wells are intact.
		OTHER
<u>×</u>		14. All required equipment is on-site and operational.
<u>×</u>		15. Contractual sweeping requirements appear to have been performed (roads and ash unloading areas are clear of CCBP materials and debris).
<u> </u>		 Compaction tests have been performed during the last month. Note: If tests have been performed, dates and results should be listed in comment section.
<u>× </u>		17. There are no apparent unsafe site or operational conditions.
CORRECTIVE	ACTIO	S:

(Note Item #'s)

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- repair wheat	his permitting
	U J

OTHER COMMENTS:

(Include compaction test dates and results, any known complaints, incidents or violations)

Signature of Inspector

				GEM312-ALOW
Inspe	ector	Sco	, H Gibson	
Date	of Insp	ection	6-27-17 Time 15:30	
Weat	her Co	ndition	s pt. Cloupy 75-°F	
OK =	Conditior NOTE:	For an	NO = Not Observed CA = Corrective Action Require ny item marked CA, a description of the problem and its p tion should be noted in the corrective action section of the	proposed or implemented
OK	NO	CA	FACILITY MANAGEMENT	
\times			 Required permits and operational records are filed permits to operate/construct, SPDES permit, Part 3 stormwater permit, compaction tests and monthly i 	364 transport permits,
	\times		 Transport vehicles are marked in accordance with covered during transit. 	Part 364.6(b) and are NA
			OPERATION CONTROL	
\times			 Dust is effectively controlled and does not constitut (If water from sedimentation pond is used for dust section including quantity). 	
		$\underline{\lambda}$	 Berms, dikes, and slopes are free of channeling, sl potentially damaging vegetation and damage cause 	umping, erosion, ed by wildlife.
			WATER	
\overline{X}			5. Solid waste is prevented from entering surface wate	ers and/or groundwater.
\times			Leachate collection system appears to be functioning water on active site, no obstructions in piping or m	
\times			 Perimeter drainage ditches are sufficiently clear to a freely. 	allow water to flow
$\underline{\lambda}$			 Sedimentation pond is free of potentially damaging exhibit no apparent damage from wildlife. 	vegetation and banks
			ACCESS	
$\underline{\times}$			 Access to site and sedimentation pond discharge m controlled by means of fencing, gates, locks, signs 	
$\boldsymbol{\lambda}$			10. Access roads are passable.	

WASTE HANDLING



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12. Only authorized material generated at Greenidge Station has been placed at the site. Note: If authorized or permitted waste from any other source has been placed, notification to FSG and lab must be made to ensure analysis for arsenic and selenium. Please also note source and quantity in comment section.

MONITORING



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OTHER

- 14. All required equipment is on-site and operational.
- 15. Contractual sweeping requirements appear to have been performed (roads and ash unloading areas are clear of CCBP materials and debris).
- 16. Compaction tests have been performed during the last month. Note: If tests have been performed, dates and results should be listed in comment

17. There are no apparent unsafe site or operational conditions.

CORRECTIVE ACTIONS:

(Note Item #'s)

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OTHER COMMENTS:

(Include compaction test dates and results, any known complaints, incidents or violations)

Signature of Inspector

LEACHATE COLL DISCHARGE REP			COLLABORE			GENE	RATION
				OND WATER C			
SAMPLE DATE:	7/21/17	SAMPLE TYPE	charge	SAMPLING CO	DMPANY: A MPLER: Ke	dironda un Anb	ra
FIELD pH: (6-9) NH3:			•08		110	Tot Zn: (<2.0) Tot Se: (<0.07	ND
		PON	ID DRAINAG	GE AUTHORIZA	TION		
					DATE: 7	7-26-17	7
SIGNATURE:	ant	A			OTHER/NO	res:	
			POND DIS	CHARGE DATA			
			1	[1		
START OF DISCH	<u>ARGE</u>						
DATE:	7-26-1	2			TIME:	2:00-pm	
POND LEVEL (FT	1: 4'091	1			POND VOLU	JME (GAL):	2:65
FIELD pH:	8.42	/					
END OF DISCHA	RGE						
DATE:	8-9-1	7			TIME:	1:45p	m
POND LEVEL (FT	1:103				POND VOLU	JME (GAL):	7/000
FIELD pH	7.51						10)
COMPOSITE SAN COMPOSITE SAN			26-17 .7-17				
			•	GE SUMMARY			
TOTAL DISCHARGE (GAL): 1,950,000				()W	EEKLY pH SUMN	-
# OF DISCHARGE DAYS 14 MAX GAL/DAY: / 39285 AVG GAL/DAY: / 39285						Date	pH
AVG GAL/DAY:	1 (39.	285		#DIV/0!			1
AVG CUFT/DAY			#DIV/0!				
FLOW RATE OF I	KEUKA OUTL	ET (CFS) 🖌	127				

Inspector KEN Scott	GEM312-ALOW
Date of Inspection $7 - 26 - 17$ Time 1.30	
Weather Conditions CLear	

OK = Condition Met NO = Not Observed CA = Corrective Action Required NOTE: For any item marked CA, a description of the problem and its proposed or implemented resolution should be noted in the corrective action section of this form.

NO CA F

OK

FACILITY MANAGEMENT

- 1. Required permits and operational records are filed on-site (Part 360 permits to operate/construct, SPDES permit, Part 364 transport permits, stormwater permit, compaction tests and monthly inspection records).
- 2. Transport vehicles are marked in accordance with Part 364.6(b) and are covered during transit.

OPERATION CONTROL

- Dust is effectively controlled and does not constitute an off-site nuisance. (If water from sedimentation pond is used for dust control, note in comment section including quantity).
- 4.)Berms, dikes, and slopes are free of channeling, slumping, erosion, potentially damaging vegetation and damage caused by wildlife.

WATER

- 5. Solid waste is prevented from entering surface waters and/or groundwater.
- 6. Leachate collection system appears to be functioning properly (no ponded water on active site, no obstructions in piping or manholes).
- 7. Perimeter drainage ditches are sufficiently clear to allow water to flow freely.
- 8. Sedimentation pond is free of potentially damaging vegetation and banks exhibit no apparent damage from wildlife.

ACCESS

- X- —
- Access to site and sedimentation pond discharge mechanisms are controlled by means of fencing, gates, locks, signs or other suitable means.
- 10. Access roads are passable.

WASTE HANDLING



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at the site. Note: If authorized or permitted waste from any other source

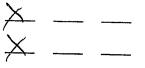
has been placed, notification to FSG and lab must be made to ensure analysis for arsenic and selenium. Please also note source and quantity in comment section.

MONITORING



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OTHER



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- 16. Compaction tests have been performed during the last month. **Note:** If tests have been performed, dates and results should be listed in comment section.

17. There are no apparent unsafe site or operational conditions.

CORRECTIVE ACTIONS: (Note Item #'s)

s-minor "unshouts" do to PAIN 205 ed TUAILI 6 0 int) is have re Weeks MAX OR RUSANJe!

OTHER COMMENTS:

(Include compaction test dates and results, any known complaints, incidents or violations)

Signature of Inspector

Inspector	Sery	
Date of Inspection	8/30/17	Time <u>/. 3</u> 0
Weather Conditions_	MEAN	

OK = Condition Met NO = Not Observed CA = Corrective Action Required NOTE: For any item marked CA, a description of the problem and its proposed or implemented resolution should be noted in the corrective action section of this form.

CA FACILITY MANAGEMENT

1. Required permits and operational records are filed on-site (Part 360 permits to operate/construct, SPDES permit, Part 364 transport permits, stormwater permit, compaction tests and monthly inspection records).

GEM312-ALOW

2. Transport vehicles are marked in accordance with Part 364.6(b) and are covered during transit.

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ACCESS

- 9. Access to site and sedimentation pond discharge mechanisms are controlled by means of fencing, gates, locks, signs or other suitable means.
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- 16. Compaction tests have been performed during the last month. **Note:** If tests have been performed, dates and results should be listed in comment section.

17. There are no apparent unsafe site or operational conditions.

CORRECTIVE ACTIONS: (Note Item #'s)

MARA GOL CROSER

- Holene - 12:408 gne/2m-- Poard Level - 2.4 55

OTHER COMMENTS:

(Include compaction test dates and results, any known complaints, incidents or violations)

Signature of Inspector

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					GEM312-ALOW
Inspector_F_Scott					
Date	of Insp	ection_	9- 8	28-17 Time 3:00	
Weat	her Cor	nditions	<u> </u>	nucly	
OK = (Condition NOTE:	For any	item marke	Observed CA = Corrective Action Require ed CA, a description of the problem and its p e noted in the corrective action section of thi	roposed or implemented
ок	NO	CA	FACILITY	MANAGEMENT	
¥			permit	ed permits and operational records are filed is to operate/construct, SPDES permit, Part 3 water permit, compaction tests and monthly in	64 transport permits,
	X		2. Transp covere	port vehicles are marked in accordance with F ed during transit.	Part 364.6(b) and are
	1 -		OPERATIO	ON CONTROL	
	Y	Ý	(If wat	effectively controlled and does not constitute er from sedimentation pond is used for dust n including quantity).	e an off-site nuisance. control, note in comment
		$\not \!$	4. Berms, potenti	, dikes, and slopes are free of channeling, slu ially damaging vegetation and damage cause	umping, erosion, ed by wildlife.
			NATER		
Σ			5. Solid w	vaste is prevented from entering surface wate	ers and/or groundwater.
\checkmark			6. Leacha water (ate collection system appears to be functionir on active site, no obstructions in piping or ma	ag properly (no ponded anholes).
¥			7. Perime freely.	ter drainage ditches are sufficiently clear to a	allow water to flow
			8. Sedime exhibit	entation pond is free of potentially damaging no apparent damage from wildlife.	vegetation and banks
.8			ACCESS		
X		A		s to site and sedimentation pond discharge m lled by means of fencing, gates, locks, signs	
Ý			0. Access	s roads are passable.	

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F.			W/	ASTE HANDLING
X			11.	. Coal combustion by-products (CCBP's) are placed in accordance with operating procedures (6-8" lifts, well-compacted, in designated areas).
	at the site	Note:	12. If au	Only authorized material generated at Greenidge Station has been placed uthorized or permitted waste from any other source has been placed, notification to FSG and lab must be made to ensure analysis for arsenic and selenium. Please also note source and quantity in comment section.
			MO	DNITORING
\rightarrow	•1		13.	Monitoring wells are intact.
	~		ΟΤ	HER
$\frac{}{}$	·	<u> </u>	14.	All required equipment is on-site and operational.
			15.	Contractual sweeping requirements appear to have been performed (roads and ash unloading areas are clear of CCBP materials and debris).
	×		16.	Compaction tests have been performed during the last month. Note: If tests have been performed, dates and results should be listed in comment section.
X			17.	There are no apparent unsafe site or operational conditions.
<u>CORF</u> (Note	RECTIVE Item #'s)	ACTION	<u> NS:</u>	
			··	

525 ml in 180 sec.

10.1 gal/min 3.1 Pard

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OTHER COMMENTS:

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(Include compaction test dates and results, any known complaints, incidents or violations)

Signature of Inspector

Inspector	GEM312-ALOW
Date of Inspection $10-30-1$ Time $3-95$	
Weather Conditions RAIN	

OK = Condition Met NO = Not Observed CA = Corrective Action Required NOTE: For any item marked CA, a description of the problem and its proposed or implemented resolution should be noted in the corrective action section of this form.

CA FACILITY MANAGEMENT

OK

NO

- 1. Required permits and operational records are filed on-site (Part 360 permits to operate/construct, SPDES permit, Part 364 transport permits, stormwater permit, compaction tests and monthly inspection records).
- 2. Transport vehicles are marked in accordance with Part 364.6(b) and are covered during transit.

OPERATION CONTROL

- 3. Dust is effectively controlled and does not constitute an off-site nuisance. (If water from sedimentation pond is used for dust control, note in comment section including quantity).
- 4. Berms, dikes, and slopes are free of channeling, slumping, erosion, potentially damaging vegetation and damage caused by wildlife.

WATER

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ACCESS

- 9. Access to site and sedimentation pond discharge mechanisms are controlled by means of fencing, gates, locks, signs or other suitable means.
- 10. Access roads are passable.

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WASTE HANDLING

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- 16. Compaction tests have been performed during the last month. **Note:** If tests have been performed, dates and results should be listed in comment section.

17. There are no apparent unsafe site or operational conditions.

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CORRECTIVE ACTIONS: (Note Item #'s)

OTHER COMMENTS:

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(Include compaction test dates and results, any known complaints, incidents or violations)

Signature of Inspector

AES-ASH POND MANAGEMENT

DOCUMENTATION OF SEDIMENTATION POND DISCHARGE

FACILITY: LOCKWOOD ASH LANDFILL

DATE: 11-8-2017

DETERMINATION OF POND WATER QUALITY PRIOR TO DISCHARGE
SAMPLE DATE: 10/13/17 SAMPLE TYPE: GRAB SAMPLER: Adurondack
FIELD PH: (6-9) 8.0 Fe-T: (<4) 0.056 Mn-T: (<3) ND Zn-T: (<2) ND
NH3: As-T: (<.1) ND TSS: (<50) Z·3 Se-T: (<.07) ND
AUTHORIZATION TO DRAIN POND
NAME: Kan Scott DATE: 10/08/2017
OTHER DIRECTION:
POND DISCHARGE INFORMATION
START DATE AND TIME: LEVEL: 11/8/17 - 44 4 39 methes
VOLUME: 2.750,000 FIELD PH: 3.
END DATE AND TIME: LEVEL: 11/22/17
VOLUME: 580,000 FIELD PH: 8.0 - 6 Tuches)
SITE OPERATOR (S): DLI GALLONS DISCHARGED: / 670,000
OF DAYS OF DISCHARGE: 14^{\prime} MAXIMUM GALLONS PER DAY: $119, 285^{\prime}$ AVERAGE GALLONS PER DAY: $119, 285^{\prime}$ FLOW RATE FOR RECEIVING BODY OF WATER: COMPOSITE SAMPLE START $10^{\prime}-12^{\prime}17^{\prime}$ COMPOSITE SAMPLE END: $10^{\prime}-13^{\prime}17^{\prime}$

COMMENTS: Summary of weekly pH's:

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		1-	GEN	1312-ALOW
Insp	ector_	$\sum_{i=1}^{n}$	- Seatt	
Date of Inspection $\frac{1-29-17}{1-29-17}$ Time $\frac{11:05}{105}$ Am Weather Conditions $\frac{100}{100}$ Counter Cou				
Wea	ther Co	onditio	ons CLEAR- Cold	
0K =		on Met E: For a resol	NO = Not Observed CA = Corrective Action Required any item marked CA, a description of the problem and its propose lution should be noted in the corrective action section of this form.	d or implemented
ок	NO	CA	FACILITY MANAGEMENT	
<u> </u>			 Required permits and operational records are filed on-site permits to operate/construct, SPDES permit, Part 364 transformwater permit, compaction tests and monthly inspection 	snort permite
	<u>X</u>		 Transport vehicles are marked in accordance with Part 36- covered during transit. 	4.6(b) and are
			OPERATION CONTROL	
	4.4559.455	×	 Dust is effectively controlled and does not constitute an off (If water from sedimentation pond is used for dust control, section including quantity). 	-site nuisance. note in comment
		<u> </u>	 Berms, dikes, and slopes are free of channeling, slumping, potentially damaging vegetation and damage caused by with 	erosion, Idlife.
			WATER	
X			5. Solid waste is prevented from entering surface waters and/	or groundwater.
X			Leachate collection system appears to be functioning proper water on active site, no obstructions in piping or manholes)	rly (no ponded).
<u>}</u>			Perimeter drainage ditches are sufficiently clear to allow wa freely.	ter to flow
		<u> </u>	 Sedimentation pond is free of potentially damaging vegetati exhibit no apparent damage from wildlife. 	on and banks
. (ACCESS	
×			 Access to site and sedimentation pond discharge mechanisk controlled by means of fencing, gates, locks, signs or other 	ms are suitable means.
4			10. Access roads are passable.	

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17. There are no apparent unsafe site or operational conditions.

CORRECTIVE ACTIONS:

(Note Item #'s)

8.81 Gal. Per Minuten	
1.9 -ft-Powd Cevel	
220 m/L. Flow in 180 Sect.	
hpt. Thou in 180 Sect.	····

OTHER COMMENTS:

9 9

(Include compaction test dates and results, any known complaints, incidents or violations)

Signature of Inspector

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	GEM312-ALOW
Inspector	
Date of Inspection 12-30-17 Time 1.50	
Weather Conditions Country	
OK = Condition Met NO = Not Observed CA = Corrective Action Requi NOTE: For any item marked CA, a description of the problem and its resolution should be noted in the corrective action section of t	proposed or implemented
OK NO CA FACILITY MANAGEMENT	
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WASTE HANDLING



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MONITORING

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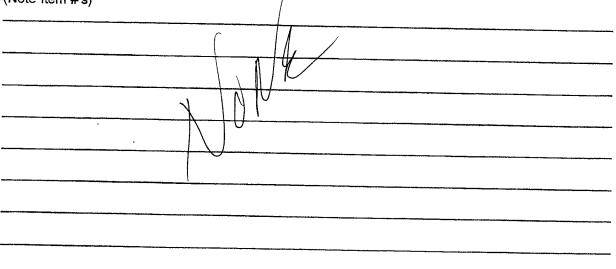
OTHER

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CORRECTIVE ACTIONS:

(Note Item #'s)



OTHER COMMENTS: (Include compaction test dates and results, any known complaints, incidents or violations)

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Signature of Inspector

Kenneth Scott

From: Sent: To: Subject: Mark Swinnerton Wednesday, December 13, 2017 9:11 AM Kenneth Scott RE: Inv. 2463 PO 17-0156

Bill Payment Information

PAYMENT CONFIRMATION	P17120901 - 2429367
VENDOR	JamKo
PROCESS DATE	12/12/17
PAYMENT AMOUNT	\$4,546.80
PAYMENT METHOD	Bill.com
STATUS	Paid
PAYMENT ACCOUNT	1072 Bill.com Money Out Clearing
MEMO	Inv #2463a
PAID FROM	Silicon Valley Bank *****9576
Check Information	
CHECK NUMBER	21748058
CHECK DATE	12/12/17
ESTIMATED ARRIVAL DATE	12/15/17
CLEARED DATE	
CHECK AMOUNT	\$4,546.80
MEMO	Inv #2463a
EXPIRATION DATE	03/12/18

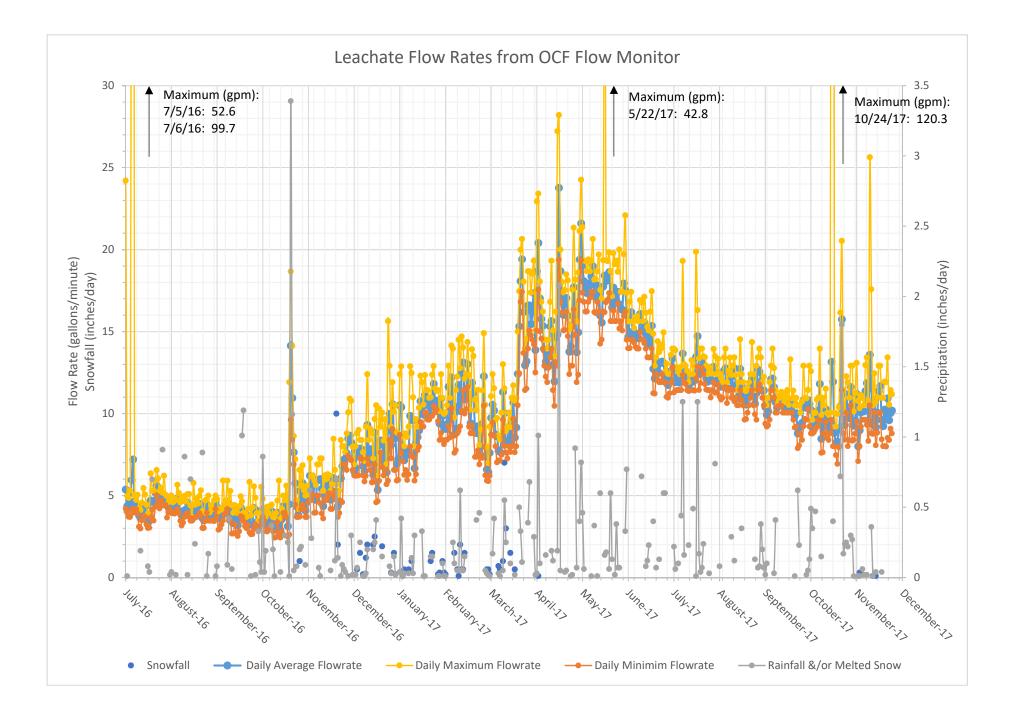
From: Kenneth Scott [mailto:kscott@greenidgellc.com] Sent: Tuesday, December 12, 2017 2:04 PM To: Mark Swinnerton <<u>mswinnerton@greenidgellc.com</u>> Subject: FW: Inv. 2463 PO 17-0156 Importance: High

Mark. Let me know if you have processed the payment for JAMKO and I'll notify them that payment is enroute.

Ken Scott

ATTACHMENT 3

Leachate Flow Metering Time-Series Plot



ATTACHMENT 4

Analytical Results & Water Quality Laboratory Analysis, Usability, and Validation Reports

FIRST QUARTER

DATA VALIDATION REPORT

Review of Baseline Parameter Analytical Data

LOCKWOOD ASH DISPOSAL SITE

Prepared on behalf of:

Lockwood Hills LLC 590 Plant Road Dresden, New York 14441

Prepared by:

DAIGLER ENGINEERING P.C.

2620 Grand Island Blvd. Grand Island, New York 14072-2131

June 2017

DATA VALIDATION REPORT

Review of Baseline Parameter Analytical Data

LOCKWOOD ASH DISPOSAL SITE

Prepared on behalf of:

Lockwood Hills LLC

590 Plant Road Dresden, New York 14441

Prepared by:

DAIGLER ENGINEERING P.C.

2620 Grand Island Blvd. Grand Island, New York 14072-2131

June 2017

Site Name: Lockwood Ash Disposal Site

Laboratory Receipt Date: <u>3/31/17</u>

Sample Data Group: 7842

Client Sample ID	Laboratory Sample ID	Sample Matrix	Analyte Types					
7842	170331010-001	Water	Total Metals, Field Parameters, Conventional Parameters					
8401	170331010-002	Water	Total Metals, Field Parameters, Conventional Parameters					
8404	170331010-003	Water	Total Metals, Field Parameters, Conventional Parameters					
8908-D	170331010-004	Water	Total Metals, Field Parameters, Conventional Parameters					
8908-SH	170331010-005	Water	Total Metals, Field Parameters, Conventional Parameters					
8909-D	170331010-006	Water	Total Metals, Field Parameters, Conventional Parameters					
8909-SH	170331010-007	Water	Total Metals, Field Parameters, Conventional Parameters					
8910-D	170331010-008	Water	Total Metals, Field Parameters, Conventional Parameters					
8911-D	170331010-010	Water	Total Metals, Field Parameters, Conventional Parameters					
8911-SH	170331010-011	Water	Total Metals, Field Parameters, Conventional Parameters					
8942-D	170331010-012	Water	Total Metals, Field Parameters, Conventional Parameters					
9306-SH	170331010-013	Water	Total Metals, Field Parameters, Conventional Parameters					
GW Dup 8909D	170331010-014	Water	Total Metals, Field Parameters, Conventional Parameters					
GW Dep Drain 1	170331010-015	Water	Total Metals, Field Parameters, Conventional Parameters					
Leak Detection System	170331010-016	Water	Total Metals, Field Parameters, Conventional Parameters					
Under Drain 1	170331010-017	Water	Total Metals, Field Parameters, Conventional Parameters					
Under Drain 2	170331010-018	Water	Total Metals, Field Parameters, Conventional Parameters					
Under Drain 3	170331010-019	Water	Total Metals, Field Parameters, Conventional Parameters					

Site Name: Lockwood Ash Disposal Site

Laboratory Receipt Date: <u>3/31/17</u>

Sample Data Group: <u>GW Dep Drain 3</u>

Client Sample ID	Laboratory Sample ID	Sample Matrix	Analyte Types
Inlet to Pond	170331010-020	Water	Total Metals, Field Parameters, Conventional Parameters
Keuka Upstream	170331010-021	Water	Total Metals, Field Parameters, Conventional Parameters
Keuka Downstream	170331010-022	Water	Total Metals, Field Parameters, Conventional Parameters
Surface Water Dup	170331010-023	Water	Total Metals, Field Parameters, Conventional Parameters
Pond Grab	170331010-024	Water	Total Metals, Field Parameters, Conventional Parameters
Field Blank	170331010-025	Water	Total Metals, Field Parameters, Conventional Parameters
GW Dep Drain 3	170331010-026	Water	Total Metals, Field Parameters, Conventional Parameters
Under Drain 5	170331010-027	Water	Total Metals, Field Parameters, Conventional Parameters

DATA VALIDATION REPORT Review of Baseline Parameter Analytical Data

Lockwood Ash Disposal Site

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- Attachment 2 Sample Data Group 7842
 - A. Sample Results
 - B. Quality Control Documentation
- Attachment 3 Sample Data Group GW Dep Drain 3
 - A. Sample Results
 - B. Quality Control Documentation

1 DATA PACKAGE ASSESSMENT

Two data packages containing the results for a total of 26 samples, including one field blank¹ and two duplicate samples, were prepared by Adirondack Environmental Services, Inc. (ADK) of Albany, New York for a sampling event that took place at the Lockwood Ash Disposal Site in the Town of Torrey, New York between March 29th and 30th, 2017. The sampling event was for an abbreviated set of 6 NYCRR Part 360 baseline parameters as specified in the site's approved Environmental Monitoring Program (Daigler Associates, February 2007). The site's baseline parameters include standard field measurements, conventional wet chemistry parameters, and select total metals. Data from the field measurements and wet chemistry parameters are here within reviewed using data quality objectives laid out in the Lockwood Ash Disposal Site's Site Analytical Plan (SAP) prepared by KR Applin & Associates in March 2007. The SAP specifies the use of the US EPA Region 2 Standard Operating Procedure (SOP) # HW-2, Evaluation of Metals for the Contract Laboratory Program (Version 11, January 1992). This document has since been revised and separated by method into three documents. The metals data have been reviewed using the two most recent and appropriate guidance protocols, US EPA SOP #HW-3a, ICP-AES Data Validation (Revision 1, September 2016) and US EPA SOP #HW-3c, Mercury and Cyanide Data Validation (Revision 1, September 2016). These documents are referred to as HW-3a and HW-3c, respectively, herein.

According to the Chain of Custody forms, presented in Attachment 1, the sampling event started with 15 environmental samples taken on March 29th, including the groundwater field duplicate. The remaining 11 samples were taken on March 30th, 2017. These samples included a field blank, up and downstream surface water samples from the Keuka Outlet, and a surface water field duplicate. One field blank for each analytical method and one field duplicate per matrix type is required by the SAP per sampling event. These quality control requirements were met. No quality control samples were missing. Three required client sampling locations were observed to be dry and one required client sample location was listed as having poor recovery. Dry locations were not counted against completeness, thereby the 85% completeness requirement for sample

¹ The field blank and low-level mercury field blank were counted as separate samples on the Chain of Custody form, but are considered one sample for the purpose of this report.

collection per the SAP was exceeded; 29 samples collected or observed dry out of 30 required samples.

All samples for the event were shipped together and received by the laboratory on March 31st, 2017. Proper cooler temperatures and sample preservation was confirmed upon receipt as indicated on the Chain of Custody forms. Once received at the laboratory, the 26 samples were divided into two sample data group (SDGs). The GW Dep Drain 3 SDG contains eight samples including two leachate samples, the up and downstream surface water samples from the Keuka Outlet, the surface water field duplicate, GW Dep Drain 3, the field blank, and the Pond Grab. The remaining 18 samples, including all groundwater samples and four leachate samples were included in SDG 7842. Cover pages, case narratives, formal data summary reports, chain of custody forms, raw data printouts, and all necessary quality control and other supporting information was present between the two packages. However, for total organic carbon (TOC), the raw results associated with data for SDG GW Dep Drain 3 were mistakenly reported in the data package for SDG 7842 and not in the data package for GW Dep Drain 3, even though no client sample results for SDG 7842 were associated with this TOC run. Otherwise, client samples and associated quality control samples were easily trackable through the packages.

All samples were received and analyzed within the proper holding times, with the exception of color (as discussed in Section 4.3). The accuracy of the summary data sheets was evaluated by examination of all data values against raw data printouts for the following samples; 8911SH and Under Drain 1 for the 7842 SDG and Keuka Upstream and Under Drain 5 for the GW Dep Drain 3 SDG. Data were examined for completeness, computation and transcriptional errors, and application of program QA/QC data.

Two errors were noted, both related to samples from SDG 7842. The concentration reported for potassium in Under Drain 3 was from a $10 \times$ dilution, but the potassium concentration measured in the undiluted sample (88.3 mg/L) was not greater than the linear range (0 – 100 mg/L). As long as the analyte concentration is not within 90% of the linear range it is not justified to use the concentration from the diluted sample. Therefore, the potassium concentration for Under Drain 3 was corrected to be consistent with the results from the undiluted sample on Form I. Also, hardness was miscalculated for Under Drain 1. The hardness concentration was corrected on the summary

sheet as shown on Page 286 of Attachment 2A. One omission of data was noted. The field logs show that the required field measurements for the groundwater and surface water duplicates were not independently collected. Rather the data reported for these samples in Attachment 1 are the same as those reported for the original sample.

Application of program QA/QC data is discussed by parameter group in the following Sections.

2 FIELD MEASUREMENTS

Field measurements were made for pH, temperature, and turbidity for all samples. Flow and dissolved oxygen measurements were reported for the two groundwater drains (GW Dep Drain 1 and GW Dep Drain 3) and five of the six leachate sampling locations (Leak Detection System, Under Drain 1, Under Drain 2, Under Drain 3, and the Inlet to Pond). Flow measurement was not obtained on one of the leachate sampling locations, Under Drain 5. Dissolved oxygen measurements were obtained for Under Drain 5 and for surface water samples per the SAP and as requested by the Chain of Custody.

Field observation sheets were not originally provided with the data packages but were provided by the laboratory's field crew upon request. The pH meter, dissolved oxygen meter, and turbidimeter were calibrated daily and recorded on Field Meter Calibration Data sheets as required by the SAP. The pH meter is to be calibrated within the limits of 6.95 and 7.05 for the 7.0 standard solution. The field observation sheets reported calibrations above this range (7.08 and 7.09) for both days of sampling. No pH data were qualified based on this observation.

According to the SAP, one check standard or reference should be run and documented before initial use for the day and at a continuing frequency of one for every ten client samples for the turbidity and pH meters. Since reference check information was not provided, proper meter performance and accuracy cannot be verified and check standard results have not been validated for the field measurements.

Duplicate field measurements are to be taken at a frequency of one in every twenty samples or once per day whichever is greater according to the SAP. Field duplicate samples were taken on both days of the sampling event. While duplicate measurements and duplicate samples are not technically equivalent, in the absence of duplicate field measurements, the field duplicate samples could provide data for this QC analysis. In the future, field measurements on the duplicate samples should be performed to comply with this requirement.

Due to the missing check standards and missing duplicate measurements, all field measurements are flagged as usable estimates. A sample event trip report and/or field sampling sheets, including

all required QC measurements, should be prepared for all future sampling events under this contract.

No field measurements were rejected, but since independent field measurements for the GW Dup and Surface Water Dup samples and flow measurement on Under Drain 5 were not obtained, the percent completeness for this sampling event for field measurements is 96%. This exceeds the 85% completeness requirement.

3 METALS

Metals were analyzed using inductively-coupled plasma, atomic emission spectroscopy (ICP-AES), with the exception of mercury which was analyzed using cold vapor atomic adsorption (AA). One ICP-AES run and one AA run were included in both SDGs. The metals data were evaluated against the associated quality control checks as defined by HW-3a, HW-3c, and the SAP. The majority of data were validated without any qualification. Deficiencies are discussed below.

3.1 CALIBRATIONS

3.1.1 Initial Instrument Calibration

Revision 1 of HW-3a directs the validator to verify that the instrument is calibrated at the start of each run using one blank and at least five standards. One of these five standards should be at or below the analyte's Contract Required Detection Limit (CRDL). According to the site's SAP these standards are to be prepared fresh the day of the analysis. Should less than five standards per analyte be used, the validator is to use professional judgment on whether to qualify the data. However, if the second criteria (i.e., one standard must be at or below the CRDL) is not met, then the validator is to qualify all results greater than or equal to the Instrument Detection Limit (IDL), but less than two times the CRDL as J and non-detects as UJ, plus note the deficiency in the data review narrative. Further, according to HW-3a the validator must verify the correlation coefficient of the instrument's calibration curve. Qualification of the data is required for correlation coefficients that are less than 0.995, percent differences on any individual point of greater than 30%, and a y-intercept on a calibration curve that is greater than or equal to the CRDL.

From the information provided, it appears the ICP-AES instrument calibration was based on a blank and one standard per analyte. Information on when the standards were prepared and the true concentrations of the standards was not provided with the data package. Since the curve is only a line between two points the correlation coefficient is exactly one and the y-intercept of the calibration curve is simply the measured concentration in the calibration blank. In no case was the measured concentration of the calibration blank equal to or greater than the CRDL. The percent differences on any individual point will all be zero since the calibration curve is simply a line between the blank and the concentration of the one standard. Without knowing the true concentrations of the standards, whether or not the concentration of the standard was at or below

the CRDL could not be positively assessed. However, upon review of the raw data sheet from the instrument calibration standards, it was noted that a number of the analyte concentrations likely or possibly do not meet this requirement as shown in Table 3-1.

CALIDRATION STANDARDS										
Analyta	Measured Co									
Analyte	SDG 7842	SDG GW Dep Drain 3	CRDL (µg/L)							
Antimony	87.6	91.1	60							
Barium	884	929	200							
Cadmium	79.4	73.8	5							
Chromium	19.4	19.6	10							
Copper	26.5	28.5	25							
Iron	2,476	2,196	100							
Manganese	344/761*	313	15							
Nickel	380	363	40							
Selenium	10.0	12.9	5							
Zinc	989	1,003	20							

TABLE 3-1: CONCENTRATIONS OF SELECT METALS IN THE INSTRUMENT CALIBRATION STANDARDS

*Initial calibration blank and single standard repeated for manganese in SDG 7842 only.

According to the laboratory, the initial instrument calibration procedure followed is in compliance with the actual method (EPA 200.7) as required by New York State Analytical Services Protocol (NYS ASP) which was not updated to conform with the revised federal guidelines. Therefore, while the initial instrument calibration for the ICP-AES run was not fully in compliance with HW-3a, the data was accepted unqualified.

The initial instrument calibration protocols in HW-3c for mercury are the same as that in HW-3a. All initial instrument calibration information was provided for the AA instrument and all criteria were met.

3.1.2 Initial and Continuing Calibration Verification

Initial and continuing calibration verification (ICV and CCV) standards are required to verify the calibration curve of the instrument and check for drift in the calibration. ICV standards are run immediately after constructing the calibration curve and CCV standards must be run after every ten analytical samples or every two hours, whichever is more frequent, and at the end of the sample analysis run. The federal mercury guidance, HW-3c, calls for an additional CCV to be run immediately after the initial calibration blank (ICB). Further, according to the Lockwood SAP,

the ICV and CCV true concentrations should not be at a concentration used during the construction of the calibration curve.

ICV and CCV samples were run at the proper position in the analysis run sequences and at the proper frequencies for the ICP-AES run. The concentrations used were not the same as the standards used to generate the calibration curves. The concentration used for the ICV/CCVs was 2,000 μ g/L for all analytes, except for potassium which was 10,000 μ g/L as specified by the method used (EPA 200.7). All ICV/CCV recoveries were within the acceptable limits (90% - 110%).

The mercury analysis used 2.0 μ g/L as one of the six points in the calibration curve and for the ICV/CCV samples. According to the site's SAP, the ICV and CCVs should be independently prepared and at a concentration not used to construct the calibration curve for AA analysis. No sample data were flagged as a result, but this practice of using the same concentration for the ICV and CCVs as was used to construct the calibration curve should be discontinued, especially since doing so will not disrupt construction of a proper calibration curve because HW-3c requires only five points not six. All ICV/CCV recoveries were within acceptable limits (85-115%) for mercury.

A CRDL check standard (CRI or CRA sample) is no longer required by the EPA as indicated by its absence from HW-3a and HW-3c, respectively. However, the site's SAP calls for the CRI check sample to be run at the beginning and end of every sample analysis run and after every 20 analytical samples or every eight hours, whichever is more frequent, to verify linearity of the instrument at the low end of its range. The CRI sample is to include every analyte with the exception of aluminum, barium, calcium, iron, magnesium, potassium, and sodium. CRI samples were included at the proper position in the run and at the proper frequency; however, one non-excluded analyte, boron, was missing from the CRI check sample. Boron results less than two times the CRDL were flagged as useable estimates as a result of this deficiency.

The *New York State Department of Environmental Conservation's Analytical Services Protocol* (ASP, September 1989, Rev 7/2005) calls for analyte concentrations in the CRDL check standard to be near the CRDL. The concentrations used for the CRI samples were two times the CRDL. To accurately test the CRDL as is the purpose of this sample, the concentrations should be decreased to reflect each analyte's CRDL.

The recovery criteria are rather loose for the CRDL check standard. Per the site's SAP, the percent recoveries must be "reasonable". During this analysis "reasonable" was taken to be between 85% and 115%. Two failing results were observed in the CRDL check standard prepared for SDG GW Dep Drain 3. The results for selenium and chromium were below the acceptable percent recovery range for the initial CRI at 82.1 and 82.0%, respectively. However, only the chromium concentrations in Pond Grab and Field Blank were qualified as bias low (J-) based on these results. All other chromium results and all selenium results for SDG GW Dep Drain 3 did not fall within the applicable range of greater than the IDL but less than five times the CRDL.

The site's SAP calls for the mercury CRA check standard to be run at the beginning of every sample analysis run and after every eight hours. A CRA check standard for mercury was not reported on the Analysis Run Log nor on Form IIB-IN. However, a review of the raw data shows that two additional standards were run immediately following the ICB; one at $0.2 \mu g/L$ and one at 2.0 $\mu g/L$. The proper concentration for the CRA standard according to the method used (EPA 245.1) is greater than 10 times the IDL but less than the midpoint of the curve, i.e., between 0.3 and 5.0 $\mu g/L$. Therefore, the 2.0 $\mu g/L$ was taken to be the CRA and had a reasonable percent recovery.

3.2 BLANKS

Initial and continuing calibration blanks (ICBs and CCBs) were run during the ICP-AES analyses at the proper positions in the analysis run sequence (after ICV and each CCVs, before the first analytical sample, and after the last analytical sample) and at the correct frequencies of after every ten analytical samples or every two hours, whichever is more frequent. The federal mercury guidance, HW-3c, calls for an additional CCV/CCB set to be run immediately after the ICB during AA analysis. A number of QC samples and several client samples were analyzed in between the ICB and first CCV/CCB set. This sequencing failure should be corrected prior to the next event analyzed under this contract.

All ICB/CCB and preparation blank quality control samples produced negative instrument readings that were less than or equal to the -IDL, but greater than the -CRDL for mercury in the AA run. As a result, all client sample results for mercury, which were all reported to be less than the IDL were qualified as usable estimates (UJ).

In the ICP-AES analytical run for SDG 7842, concentrations greater than the IDL, but less than the CRDL were reported for boron in the ICB and all of the six following CCBs. Also, barium, cadmium, calcium, copper, magnesium, manganese, nickel, potassium, sodium, and zinc all had at least one CCB with a detection above the IDL, but below the CRDL in SDG 7842. Per HW-3a, client sample results associated with these failing blanks with measured concentrations greater than or equal to the IDL, but less than the CRDL must be reported on Form I as the CRDL concentration with a qualification of "U". Many results fell into the applicable range and the change in reported concentration was noted on Form I in Attachment 2a.

In SDG GW Dep Drain 3, concentrations of barium, boron, magnesium, nickel, potassium, and sodium were detected above the IDL but below the CRDL in one or more CCBs. Again, a number of results in client samples were within the applicable range and were qualified as CRDL with a "U".

Criteria for evaluation of negative bias using negative results found in the raw data for ICB and CCB samples are detailed in HW-3a. All sample results which are less than ten times the CRDL that are associated with an ICB or CCB whose raw data result is less than –CRDL, should be qualified as J- indicating an estimated, bias-low result. No blanks reported with SDG 7842 had a measured result less than it's –CRDL. One blank reported with SDG GW Dep Drain 3 fell into this category; selenium in CCB-4. No client samples were associated with this blank.

For an ICB or CCB whose raw data result is less than –IDL, but greater than or equal to –CRDL, professional judgment should be used to qualify any sample results that are non-detect or greater than the IDL. For this analysis, the threshold for qualification was taken to be two times the absolute value of the most negative failing blank result.

In the ICP-AES analytical run for SDG 7842, chromium and antimony had at least one ICB/CCB result observed in the raw data which was less than the –IDL, but greater than the –CRDL. Nearly all client samples for chromium and antimony in SDG 7842 were qualified as "UJ" or "J-" as a result. In the ICP-AES analytical run for SDG GW Dep Drain 3, aluminum, calcium, chromium, copper, selenium, and zinc all had at least one ICB/CCB result observed in the raw data which was less than the –IDL, but greater than the –CRDL. Aluminum and chromium results were largely qualified as result of this failing QC criterion.

One preparation blank or method blank was prepared with each SDG as required. All analytes in the preparation blank for SDG 7842 were less than the IDL, but not less than -CRDL, i.e., within the acceptable range. Measurable concentrations of calcium, magnesium, potassium, and zinc where found in the preparation blank for SDG GW Dep Drain 3. All failing preparation blank values were greater than the IDL, but less than their respective CRDL. All associated analytical sample results for these analytes with measured concentrations less than the CRDL but greater than the IDL should be reported on Form I as the CRDL concentration with a qualification of "U" per HW-3a. This change was noted on the Form Is in Attachments 2a and 3a, where applicable.

The requirement to adjust the reported concentrations of samples with measured concentrations between the CRDL and the IDL when the concentration of an associated blank is within the same range is not present in the state protocol. However, since the EPA protocol is specified in the site's SAP, this more stringent requirement is followed herein.

3.3 INTERFERENCE CHECK SAMPLES

One set of interference check samples (ICSs) consisting of an interferent solution (ICS-A) and analyte-interferent mix solution (ICS-AB) was run at the start and end of the ICP-AES sample analysis run as required. The ICS-A and ICS-AB solutions contain known concentrations of four proven interfering compounds, aluminum, calcium, iron, and magnesium. It is of note that the composition of the ICS-AB solution is not inclusive of the analytes measured as part of this sampling program. The ICS-AB solution should be expanded to include antimony, arsenic, boron, potassium, selenium, and sodium in future cases under this contract.

Results of the four analytes in the ICS-A sample should be within \pm CRDL of the true concentration according to HW-3a or within \pm 2×CRDL according to the NYS ASP. No result in any of the four ICS-A samples (Initial and final for SDG 7842 and initial and final for SDG GW Dep Drain 3), for any of the four interfering compounds met even the less stringent state criterion. It is noted by the laboratory that the true concentrations for these compounds in both solutions are double the maximum concentration of the instrument's linear range as reported on Form XII. Therefore, while noted, no results are qualified base on these failing QC results.

Analytical results for the ICS-AB solution results for iron were outside the acceptable percent recoveries (80% - 120%) in the all four ICS samples, with reported percent recoveries between 68.2 and 74.4%.

Five client samples in the 7842 SDG (GW Dep Drain 1, Leak Detection System, Under Drain 1, Under Drain 2, and Under Drain 3) were reported as having an interferent concentration, specifically calcium, at similar interfering levels (i.e., 250 mg/L for aluminum, calcium, magnesium, and 100 mg/L for iron). Therefore, the iron results were qualified as estimated low (J-) in all five client samples. Similarly, three client samples in SDG GW Dep Drain 3 had concentrations of interferents within range; Pond Grab, Under Drain 5, and Inlet to Pond. The iron results in these three samples also were qualified as estimated low (J-).

In addition to analysis of the results presented on the summary form for the ICS check samples (Form IV), the EPA guidance in HW-3a includes steps for reviewing the ICS-A and ICS-AB raw data for analytes *not* present in the true solutions. Any analyte not present in the true solution that produces an instrument reading greater than its IDL indicates the possibility of a false positive created by the presence of interferents. Conversely, any analyte not present in the true solution that produces an instrument reading lower than its negative IDL indicates the possibility of a false negative due to the presence of interferents.

Barium, potassium, and sodium raw data in one or more of the interference check samples in both SDGs was greater than their IDL. The potassium and sodium results for Under Drain 2, Under Drain 3, Under Drain 5, and Inlet to Pond, and the sodium results for the Leak Detection System, Under Drain 1, and the Pond Grab were above the linear range for these analytes. Therefore, the reported results are from a 1:10 dilution. The interferent (calcium) concentration in the 1:10 dilution is no longer at an interfering level. Thus, these results do not require qualification. The remaining barium, potassium and sodium results were qualified as bias high (J+) for a possible false positive effect due to calcium interference.

Ten analytes not present in the ICS solutions, antimony, arsenic, boron, cadmium, chromium, copper, manganese, nickel, selenium, and zinc, produced a result that was less than –IDL in one or more ICS samples run with the SDG 7842. The same analytes, with the exception of chromium, produced a result that was less than –IDL in one or more ICS samples run with the SDG GW Dep

Drain 3. Associated client sample results less than 10 times the absolute value of the lowest negative ICS sample results were qualified as bias low (J-) or estimated (UJ).

3.4 MATRIX SPIKES

One pre-digestion matrix spike was performed per analytical run. Matrix spikes are not required for calcium, magnesium, potassium, and sodium and these analytes were excluded from the matrix spike. Boron was also excluded from the matrix spike, yet this analyte is required for this quality assurance check and should be added to future analyses. The 7842 sample and Inlet to Pond sample were used to prepare the matrix spikes for the 7842 SDG and the GW Dep Drain 3 SDG, respectively. Qualifications based on matrix spikes that do not meet technical criteria are only to be applied to the sample used to prepare the matrix spike per HW-3a protocol.

According to the ICP-AES method, EPA 200.7, the spike is to be made at a concentration equal to 0.2 mg/L for all analytes, or 100 times the IDL, whichever is greater. The spike concentrations for arsenic (0.04 mg/L), cadmium (0.05 mg/L), chromium (0.02 mg/L), and selenium (0.01 mg/L) were made too low. While spike concentrations for aluminum (2.0 mg/L), antinomy (0.5 mg/L), barium (2.0 mg/L), copper (0.25 mg/L), iron (1.0 mg/L), manganese (0.05 mg/L), nickel (0.5 mg/L), and zinc (0.5 mg/L) were too high. No qualifications were made based on this observation, but spike concentrations should be adjusted for future work under this contract.

Boron concentrations in 7842 and Inlet to Pond client sample results were qualified as usable estimates due to the omitted matrix spikes. One analyte in each of the analytical runs failed to meet the acceptable percent recovery criteria of between 75 and 125% in the pre-digestion matrix spike when the unspiked sample concentration was less than four times that of the spike. In the matrix spike made with 7842, the percent recovery for iron was 127.2%, but the post-digestion spike recovery was less than 125%. The iron result in 7842 was qualified as estimated based on this failing QC result. In the matrix spike made with Inlet to Pond, the percent recovery for selenium was 70.4%, and the post-digestion spike's percent recovery was also less than 75%, at 68.4%. The selenium result for the Inlet to Pond sample was qualified as estimated low (J-) per HW-3a protocol. The "N"s reported for iron or selenium in all other client samples were stricken without qualification.

The 8401 and Keuka Upstream client samples were used for the AA matrix spikes. Both mercury matrix spikes were acceptable.

3.5 DUPLICATE SAMPLES

One duplicate was prepared in the laboratory per SDG. For SDG 7842, client sample 7842 was used for the ICP-AES laboratory duplicate sample and 8401 was used for the AA laboratory duplicate. For the GW Dep Drain 3 SDG, the Inlet to Pond client sample was used for the ICP-AES laboratory duplicate sample and Keuka Upstream was used for the AA laboratory duplicate. All appropriate criteria with respect to the duplicate samples were met.

In addition to the laboratory duplicate, the Lockwood SAP stipulates a field duplicate be taken at a frequency of one duplicate per sampling event per matrix. The surface water duplicate was analyzed with the GW Dep Drain 3 SDG, while the groundwater duplicate was analyzed with the SDG 7842. A form (A.4) evaluating the field duplicates was appended to both SDG packages in their respective attachments.

Two analytes, iron and aluminum, were qualified in the groundwater field duplicate pair (GW Dup and 8909-D) based on the field duplicate results. For iron the relative percent difference (RPD) between the original sample and its field duplicate was greater than 20% and both results were greater than five times the CRDL for iron. For aluminum, one or both samples were less than five times the CRDL and the absolute difference between the original sample and its field duplicate was greater than the CRDL. All field surface water duplicate results are acceptable.

3.6 LABORATORY CONTROL SAMPLE

One ICP-AES laboratory control sample (LCS) was ran with each SDG at proper concentrations. One mercury LCS was also ran with each SDG. All percent recoveries were within acceptable limits.

3.7 SERIAL DILUTIONS

Serial dilutions were made at a 1:5 ratio to reduce concentrations of interfering analytes within the matrix to evaluate possible matrix effects. One serial dilution was prepared per ICP-AES run. The data must be qualified as usable estimates if the diluted sample is not within 10% of the original

sample for all analytes with initial concentrations greater than 50 times the IDL. If the diluted concentration is greater than 100% different than the original concentration, all associated data must be rejected. Analytes with initial concentrations less than 50 times their IDL are not evaluated.

In the 7842 SDG, the client sample 7842 was subject to serial dilution. Barium, boron, calcium, iron, magnesium, and manganese concentrations in the undiluted samples were over 50 times the IDL and the percent differences of the serially diluted samples were over 10%, but under 100%. The results for these six analytes are flagged with an "E" on Form IX and all Form Is in SDG 7842 as required.

In the GW Dep Drain 3 SDG, the Inlet to Pond sample was subject to serial dilution. Calcium, potassium, and sodium concentrations in the undiluted samples were over 50 times the IDL and the percent differences of the serially diluted samples were over 10%, but under 100%. The results for these three analytes are flagged with an "E" on Form IX and all Form Is in SDG GW Dep Drain 3 as required. However, it is noted that all three of these parameters were either over (calcium and sodium) or within 95% (potassium) of their respective linear ranges. Therefore, the results from the initial sample are not valid. In the case of calcium, even the 1:5 dilution result was within 95% of the linear range and the result from the serial dilution was also not valid. Therefore, the failing calcium results were disregarded. For sodium and potassium, results from the 1:10 dilution on the initial sample can be substituted for the initial sample results on Form IX-IN and the 1:5 dilution difference between the initial sample and the serial dilution is still maintained. After making the substitution, the % difference for potassium drops to 8.8% and result is no longer failing. The percent difference on the sodium result also decreases to 12.6%, but still qualifies as a valid failing result.

Based on the HW-3a protocol, analytes failing the technical criteria result in the qualification of that analyte only in the sample from which the serial dilution was made. Thus, the barium, boron, calcium, iron, magnesium, and manganese results in 7842 and the sodium results in Inlet to Pond were flagged as usable estimates. The "E"s reported on Form I for all other client samples were stricken without qualification.

3.8 INSTRUMENT DETECTION LIMITS AND LINEAR RANGES

Instrument detection limits are to be verified on a regular basis. The frequency with which the laboratory is to verify the IDLs is unclear. The state guidance stipulates IDLs be verified annually. The heading on Form X, indicates the IDLs be verified quarterly. The Lockwood Ash Disposal Site's SAP indicates that the IDLs be determined within six months of the analysis. The federal guidance HW-3a has no guidance on the frequency with which IDLs should be verified. The ICP-AES IDL certification (dated 7/26/16 on Form X provided with both SDGs) was performed approximately eight months prior to the sampling event and, therefore, is acceptable per state guidance and but not the SAP. The date of IDL certification for AA, 12/27/2016, is acceptable, as analysis was completed within one year.

Another non-compliance issue of note is the IDLs for selenium and chromium are not less than half their corresponding CRDL. This is a requirement of both the state and EPA guidance documents. No data are flagged as a result of this observation.

ICP-AES linear range determinations were reported on Form XII provided with both SDGs. The federal guidance, HW-3a, does not specify the frequency at which the instrument's linear ranges should be verified. The linear range determination is to be made quarterly per state guidance and as indicated by the heading on Form XII, and within six months of the analysis according to the SAP. The date of linear range determination (6/23/15) is significantly out-of-date per state guidance and SAP requirements. Again, while no data have been flagged due to this oversight, it should be corrected for future data packages under this contract.

4 WET CHEMISTRY

Wet chemistry results for alkalinity, ammonia, color, conductivity, chloride, sulfate, total dissolved solids (TDS), and total organic carbon (TOC) were included in the data package. There was one field duplicate analyzed per matrix (surface water and groundwater) with this event. Data from the field duplicate and its sample results were compared using Form A.4. Unlike metals, CRQLs are not established for conventional parameters, therefore, RPD is calculated for all comparisons where at least one of the results is greater than the reporting limit. The absolute difference is not calculated for any comparison. The completed Form A.4s are included in the attachments following the non-metals standard IA-IN Forms. There were no failing field duplicate results for the wet chemistry parameters in either SDG.

The majority of quality control checks were within acceptable limits for the wet chemistry analytical data. The exceptions are detailed in the subsections below.

4.1 ALKALINITY

The site's SAP calls for one reference standard and one duplicate in every ten client samples for alkalinity analyses. The laboratory performed what appears to be one LCS, or reference standard, per day and one duplicate per SDG, not every ten client samples, as required. One matrix spike was also performed per SDG. All quality control samples were within acceptable limits. No qualifications were made based on the discrepancies in frequency.

4.2 Ammonia

All samples for this event were analyzed within one ammonia run. The site's SAP calls for one duplicate per SDG for ammonia analyses. EPA method 350.1 for ammonia also requires initial and continuing calibration verifications and blanks at the beginning and end of each run, as well as, after every tenth client sample for instrument calibration quality control checks. Additionally, one method blank, one LCS, and one reference sample are required per batch of samples and one matrix spike on a minimum of 10% of client samples per EPA method 350.1. All required quality control checks were performed; however, the matrix spike/matrix spike duplicate pairs were used as the duplicate samples in lieu of a client sample. The SAP is not specific whether this is an

acceptable practice. No data were flagged based on this observation. Also, initial and final CRI samples were reported on Summary Form IIB-IN.

Reported quality control results were acceptable except for the CRI samples. The percent recoveries on both the initial and final CRI samples were less than the acceptable range of 80 - 115%, with an initial percent recovery of 59% and a final percent recovery of 62%. The same CRI samples apply to both SDGs. All ammonia results greater than the IDL (0.1 mg/L), but less than five times the IDL (0.5 mg/L), were qualified as estimate low (J-) based on this failing QC result.

4.3 COLOR

All samples for this event were analyzed in a single run for color. The color analysis was performed on April 3rd, six days after the first samples were collected on March 29th, and therefore, outside the recommended holding time of 48 hours. All color results were qualified as usable estimates (J).

One duplicate sample was performed per SDG and two blanks, one opening prior to any samples and one closing following all samples, were performed. The reported QC results were acceptable and the duplicate frequency was as required. Color blanks are to be run after every ten samples according to the site's SAP. Therefore, the frequency of blanks was low.

4.4 CONDUCTIVITY

The event's samples were analyzed for conductivity on two separate days, but were not divided by SDG. One LCS was analyzed per day/run. The site's SAP requires the LCS to be positioned one in every ten client samples. Also, one duplicate was performed for the entire event instead of one in 20 client samples as required per the site's SAP. No data were qualified as a result of these deficiencies in frequency. The percent recoveries of both LCS samples and the RPD of the one duplicate analysis were acceptable.

No blank was reported for conductivity measurements. The site's SAP stipulates one blank be analyzed daily with a resulting concentration of less than 2 μ mhos/cm. No results were flagged based on this observation, but a conductivity blank should be analyzed and reported on Form III in the future.

4.5 CHLORIDE AND SULFATE

Chloride and sulfate were measured using ion chromatography EPA method 300.0. The event's samples were all analyzed in three analytical runs. The instrument calibration, initial and continuing calibration verifications, initial and continuing calibration blanks, and method blank were performed as required. It was observed that the concentration of the ICV/CCVs used, 10 mg/L, was not mid-range of the calibration curve (0 to 100 mg/L) as required by EPA method 300.0. In the future, the concentration of the ICV/CCVs should be closer to 50 mg/L. No qualifications were made based on this observation.

The site's SAP calls for one duplicate in every 20 client samples for chloride and sulfate analyses while the EPA method used specifies one matrix spike for a minimum of 10% of client samples. The laboratory performed three matrix spike/matrix spike duplicate pairs, all three of which were associated with SDG 7842. Therefore, technically the frequency requirements were satisfied, but ideally one of the three matrix spike/matrix spike duplicate pairs should have been performed on a sample from SDG GW Dep Drain 3. The SAP is not specific on whether use of a matrix spike/matrix spike duplicate pair as the duplicate samples in lieu of a client sample is an acceptable practice. Also, the EPA method 300.0 stipulates that the concentration of the spike added be the same as that used for the LCS. The laboratory used different concentrations for these quality control samples. No data were flagged based on these observations.

The percent recovery for the all six matrix spikes and the RPD for each of the three pairs were all within acceptable range.

4.6 TOTAL DISSOLVED SOLIDS

Similar to conductivity, no blank was reported for TDS measurements. The site's SAP stipulates one blank be analyzed daily with a result less than the reporting limit. No results were flagged based on this observation, but a TDS blank should be analyzed and reported on Form III in the future.

The site's SAP calls for one duplicate sample analysis to be performed on a minimum of one sample per SDG. The event's samples were analyzed on two different days, but not split between SDGs. Only one passing duplicate analysis was performed for the event. The duplicate was performed on a sample from SDG 7842, no duplicate analyses were associated with SDG GW Dep

Drain 3. The Site's SAP also calls for one reference sample in ten client samples. One passing reference sample (LCS) was performed each day/run. No data was qualified based on the lower than required frequencies of these QC samples.

4.7 TOTAL ORGANIC CARBON

All client samples were analyzed within a single run; however, failing LCS and CCV samples towards the end of that run resulted in re-analysis of all samples not bracketed by passing CCVs, which coincidently split the data by SDGs. While no data from the SDG 7842 is associated with the second run both runs are included in the raw data package provided with SDG 7842. Conversely, while no data reported for the samples in SDG GW Dep Drain 3 was taken from the failing end of the initial run, only that run was provided in the raw data package for SDG GW Dep Drain 3. When contacted, the laboratory readily identified the misplacement of the raw data.

Per the Lockwood Ash Disposal Site's SAP, a matrix spike sample, a LCS, and a duplicate sample is to be performed at the frequency of one per ten samples. One matrix spike/matrix spike duplicate pair was performed with SDG 7842 and one duplicate analysis was performed on a sample from SDG GW Dep Drain 3. Two LCSs were reported per run. No results were qualified based on deviation from the required frequencies of these quality control samples. The percent recoveries are RPDs of the matrix spikes and duplicates, respectively, and were all within acceptable limits. In both runs, one of the two LCS samples reported on the summary sheets were above the acceptable range of 90 - 110%. The failing LCS reported with SDG 7842 was not reported at the proper concentration as seen in the raw data, this LCS result should be 33.9 not 33.4 mg/L. All TOC data in both SDGs greater than the IDL was qualified as a useable estimate based on the failing LCS data.

An initial and a mid-run CRI check standard were performed as part of each run prior to each of the LCSs. Both CRI check standards associated with SDG 7842 resulted in greater than acceptable percent recoveries at 215 and 125%. The acceptable range is between 90 and 110%. The mid-run CRI check standard associated with the SDG GW Dep Drain 3 also was recovered high at 118%, while the initial CRI check standard was recovered low with a percent recovery of only 52%. As a result, all TOC sample results above, but less than five times the reporting limit are qualified as estimated high (J+) in SDG 7842 and simply as useable estimates (J) in SDG GW Dep Drain 3.

5 CORRECTNESS AND USABILITY SUMMARY

A summary of all flagged data is presented in Table 5-1. Most data for these two SDGs are considered usable in their current form. Data flagged with a J, BJ, or UJ are considered usable with caution. Rejected data are considered unreliable and should not be used in any data tables or data analyses. No data was rejected.

Completeness of the laboratory analysis as defined by the Lockwood SAP is the percentage of baseline data that have not been rejected as a result of validation. Therefore, the completeness for laboratory analyses is 100% for this sample event. This exceeds the completeness goal stated in the SAP of 85% of the required laboratory analyses.

Table 5 1: Summary of Qualified Data for Lockwood Ash Disposal Site March 2017 Baseline Event

Client Sample ID	Field Measurements ¹	Al	As	В	Ba	Ca	Cd	Cr	Cu	Fe	Hg	К	Mg	Mn	Na	Ni	Sb	Se	Zn	Color	NH ₄	тос
UNITS		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	C.U.	mg/L	mg/L
7842	All J ²			86.8J ^{9,10}	62.3J ¹⁰	109,000J ¹⁰		6.9UJ ⁴	25U ³	1,060J ^{8,10}	0.03UJ ⁴	$5,000U^{3}$	51,900J ¹⁰	93.4J ¹⁰		$40U^{3}$			20U ³	5UJ ¹⁷		$2.90J + {}^{14,18}$
8401	All J ²				200U ³			6.9UJ ⁴	25U ³		0.03UJ ⁴	$5,000U^{3}$					2.7UJ^4			5UJ ¹⁷		
8404	All J ²				200U ³			6.9UJ ⁴	25U ³		0.03UJ ⁴	5,000U ³				$40U^{3}$	2.7UJ^4		20U ³	5UJ ¹⁷		$1.53J+^{14,18}$
8908-D	All J ²				200U ³			6.9UJ ⁴	25U ³		0.03UJ ⁴	$5,000U^{3}$				$40U^{3}$	2.7UJ^4			5UJ ¹⁷	0.398J- ¹³	$1.15J + {}^{14,18}$
8908-SH	All J ²				200U ³			11.3J- ⁴	25U ³		0.03UJ ⁴	5,000U ³				$40U^{3}$	2.7UJ^4		20U ³	5UJ ¹⁷		$1.11J+^{14,18}$
8909-D	All J ²	1,430J ¹²			200U ³			6.9UJ ⁴	25U ³	3,540J ¹¹	$0.03UJ^4$	$5,000U^{3}$				$40U^{3}$	2.7UJ^4		$20U^{3}$	$15J^{17}$	0.475J- ¹³	$3.01J + {}^{14,18}$
8909-SH	All J ²				200U ³			6.9UJ ⁴	25U ³		0.03UJ ⁴	$5,000U^{3}$				$40U^{3}$	2.7UJ^4		20U ³	5UJ ¹⁷		
8910-D	All J ²				200U ³			6.9UJ ⁴	25U ³		$0.03UJ^4$	$5,000U^{3}$				$40U^{3}$	2.7UJ^4			5UJ ¹⁷		
8911-D	All J ²				200U ³			6.9UJ ⁴	25U ³		0.03UJ^4	5,000U ³				$40U^{3}$	2.7UJ^4		20U ³	5UJ ¹⁷	0.240J- ¹³	
8911-SH	All J ²				200U ³			6.9UJ ⁴	25U ³		0.03UJ ⁴	$5,000U^{3}$					2.7UJ^4		20U ³	5UJ ¹⁷	0.226J- ¹³	
8942-D	All J ²				200U ³			6.9UJ ⁴	25U ³		0.03UJ^4	5,000U ³				$40U^{3}$	2.7UJ^4		20U ³	5UJ ¹⁷		
9306-SH	All J ²				200U ³			6.9UJ ⁴	25U ³		0.03UJ ⁴	5,000U ³				40U ³	2.7UJ^4		20U ³	5UJ ¹⁷		
GW Dep Drain 1	All J ²		4.4BJ- ⁷		200UJ ^{3,6}		0.37UJ ⁷	6.9UJ ^{4,7}	25UJ ^{3,7}	382J- ⁵	0.03UJ^4	5,000UJ+ ^{3,6}		24.4J- ⁷	$43,700 \text{J}+^{6}$	40UJ ^{3,7}	2.7UJ^7	3.4UJ ⁷	20UJ ^{3,7}	5UJ ¹⁷		$1.26J+^{14,18}$
GW Dup (8909-D)	All J ²	905J ¹²			200U ³			6.9UJ ⁴	25U ³	2,630J ¹¹	$0.03 UJ^4$	5,000U ³	$5,000U^3$			$40U^{3}$			20U ³	$15J^{17}$	0.467J- ¹³	$2.92J+^{14,18}$
Leak Detect Syst	All J ²		7.1BJ- ⁷	1,190J- ⁷	200UJ ^{3,6}		0.37UJ ⁷	6.9UJ ^{4,7}	25UJ ^{3,7}	47.7J- ⁵	0.03UJ^4	5,000U ^{3,6}		15UJ ^{3,7}		40UJ ^{3,7}	2.7UJ^7	3.4UJ ⁷	0.29UJ ⁷	5UJ ¹⁷		$2.68J + {}^{14,18}$
Under Drain 1	All J ²		5.4BJ- ⁷		200U ^{3,6}		0.37UJ ⁷	6.9UJ ^{4,7}	25UJ ^{3,7}	3,740J- ⁵	0.03UJ^4	$16,600J+^{6}$				40UJ ^{3,7}	2.7UJ^7	20.3J- ⁷	0.29UJ ⁷	5UJ ¹⁷		
Under Drain 2	All J ²		2.8UJ ⁷		200U ^{3,6}		0.37UJ ⁷	6.9UJ ^{4,7}	25UJ ^{3,7}	4,460J- ⁵	0.03UJ^4	,				40UJ ^{3,7}	2.7UJ^7	30.0J- ⁷	20UJ ^{3,7}	5UJ ¹⁷		
Under Drain 3	All J ²		2.8UJ ⁷		200U ^{3,6}		0.94BJ- ⁷	6.9UJ ^{4,7}	25UJ ^{3,7}	4,950J- ⁵	$0.03 UJ^4$					41.7J- ⁷	2.7UJ ⁷	21.9J- ⁷	66.1J- ⁷	5UJ ¹⁷	0.228J- ¹³	
GW Dep Drain 3	All J ²	16.6UJ ⁴			200U ³			6.9UJ ⁴			0.03UJ^4	5,000U ^{3,15}				$40U^{3}$			20U ¹⁵	$5J^{17}$		2.84J ^{13,14,18}
Inlet to Pond	All J ²	16.6UJ ⁴	6.7J- ⁷	12,500J ⁹	200UJ ^{3,6}		0.37UJ ⁷	6.9UJ ⁴	2.7J- ⁷		0.03UJ ⁴				180,000J ¹⁰	40U ^{3,7}	2.7UJ ⁷	37.8J- ^{7,16}	20UJ ^{7,15}	5UJ ¹⁷	0.168J- ¹³	
Keuka Downstream	All J ²	16.6UJ ⁴		50U ³	200U ³			6.9UJ ⁴			$0.03UJ^4$	5,000U ^{3,15}				$40U^{3}$			20UJ ¹⁵	$5J^{17}$		2.41J ^{13,14,18}
Keuka Upstream	All J ²	16.6UJ ⁴		50U ³	200U ³			6.9UJ ⁴			0.03UJ^4	5,000U ^{3,15}				$40U^{3}$			20U ¹⁵	$5J^{17}$		2.31J ^{13,14,18}
Surface Water Dup	All J ²	16.6UJ ⁴		50U ³	200U ³			6.9UJ ⁴			$0.03 UJ^4$	5,000U ^{3,15}				40U ³			20U ¹⁵	$5J^{17}$		2.33J ^{13,14,18}
Pond Grab	All J ²	16.6UJ ⁴	9.9J- ⁷		200UJ ^{3,6}		0.37UJ ⁷	9.3BJ- ^{13,4}	1.7UJ- ⁷		0.03UJ^4	$41,600J+^{6}$				40U ^{3,7}	2.7UJ ⁷	3.4UJ ⁷	20UJ ^{7,15}	$5J^{17}$		3.42J ^{13,14,18}
Under Drain 5	All J ²	16.6UJ ⁴	10.0J- ⁷		200UJ ^{3,6}		0.37UJ ⁷	6.9UJ ⁴	2.9J- ⁷		0.03UJ^4	7		1.6J- ⁷		40U ^{3,7}	2.7UJ ⁷	71.9J- ⁷	20UJ ^{7,15}	5UJ ¹⁷		
Field Blank/LLHG	All J ²	31.5J- ⁴		50U ³	200U ³	5000U ¹⁵		7.9BJ- ^{13,4}			0.03UJ ⁴	5,000U ^{3,15}	5,000U ^{3,15}		$5,000U^{3}$				20U ¹⁵	5UJ ¹⁷		

FOOTNOTES: (When more than one qualification applies, the most stringent qualification or combination of qualifications is used, as shown.)

¹Includes temperature, pH, & turbidity ²No Reference Standard Measurements ³ICB or Associated CCB \geq IDL, but < CRDL ⁴Associated ICB or CCB \leq -IDL but > -CRDL

⁵ICS between 50 - 79% Recovery ⁶ICS-A or ICS-AB Indicates False Positive ⁷ICS-A or ICS-AB Indicates False Negative ⁸Matrix Spike Recovery >125%; Post-digestion $%R \le 125\%$

⁹No Matrix Spike ¹⁰Serial Dilution > 10%, but < 100% ¹¹Field Duplicate RDP > 20% ¹²Field Duplicate Difference > CRDL

¹³CRI/CRA Check Standard Recovery < 85% ¹⁴CRI Check Standard Recovery > 115% ¹⁵Preparation Blank \geq IDL, but < CRDL

¹⁶Matrix Spike Recovery btw 30-74%; Post Digestion Spike Recovery < 75%

¹⁷Analyzed outside holding time

¹⁸Laboratory Check Standard % R > 110%

ATTACHMENT 1

Field Data Report & Chain of Custody



Experience is the solution 314 North Pearl Street Albany, New York 12207 (800) 848-4983 (518) 434-4546 Fax (518) 434-0891

May 18, 2017

Dale Irwin Lockwood Hills LLC 590 Plant Road, PO Box 187 Dresden, NY 14441

Work Order No: 170331010

TEL: (315) 536-2359 FAX:

RE: Lockwood Ash Landfill Annual

Dear Dale Irwin:

Adirondack Environmental Services, Inc received 31 samples on 3/31/2017 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Christopher Hess QA Manager

Adirondack Environmental Services, Inc

CASE NARRATIVE

CLIENT:	Lockwood Hills LLC	Date: 18-May-17
Project:	Lockwood Ash Landfill	
Lab Order:	170331010	

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

		C - Details are above in Case Narrative
Qualifiers:	ND - Not Detected at reporting limit	S - LCS Spike recovery outside acceptable limits(+ is over $\ -$ is under)
	J - Analyte detected below quantitation limit	R - Duplication outside acceptable limits
	B - Analyte detected in Blank	T - Tentatively Identified Compound-Estimated
	X - Exceeds maximum contamination limit	E -Above quantitation range-Estimated
	H - Hold time exceeded	M - Matrix Spike outside acceptable limits(+ is over - is under)
Note : All Re	esults are reported as wet weight unless n	oted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 7842

 Collection Date:
 3/29/2017 5:20:00 PM

 Lab Sample ID:
 170331010-001

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMF	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
pH (E150.1)	8.1		S.U.		3/29/2017 5:20:00 PM
Temperature (E170.1)	9		deg C		3/29/2017 5:20:00 PM
Turbidity (E180.1)	61	1.0	NTU		3/29/2017 5:20:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8401

 Collection Date:
 3/30/2017 9:30:00 AM

 Lab Sample ID:
 170331010-002

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMF	PARE NOT ELAP CEI	RTIFIABLE			Analyst: FLD
pH (E150.1)	8.0		S.U.		3/30/2017 9:30:00 AM
Temperature (E170.1)	8		deg C		3/30/2017 9:30:00 AM
Turbidity (E180.1)	< 1	1.0	NTU		3/30/2017 9:30:00 AM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8404

 Collection Date:
 3/30/2017 10:55:00 AM

 Lab Sample ID:
 170331010-003

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMF	ARE NOT ELAP CEI	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.3		S.U.		3/30/2017 10:55:00 AM
Temperature (E170.1)	8		deg C		3/30/2017 10:55:00 AM
Turbidity (E180.1)	10	1.0	NTU		3/30/2017 10:55:00 AM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8908-D

 Collection Date:
 3/30/2017 11:35:00 AM

 Lab Sample ID:
 170331010-004

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	ARE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.4		S.U.		3/30/2017 11:35:00 AM
Temperature (E170.1)	9		deg C		3/30/2017 11:35:00 AM
Turbidity (E180.1)	3	1.0	NTU		3/30/2017 11:35:00 AM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8908-SH

 Collection Date:
 3/30/2017 12:20:00 PM

 Lab Sample ID:
 170331010-005

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qı	ual Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	ARE NOT ELAP CEI	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.4		S.U.		3/30/2017 12:20:00 PM
Temperature (E170.1)	8		deg C		3/30/2017 12:20:00 PM
Turbidity (E180.1)	13	1.0	NTU		3/30/2017 12:20:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8909-D

 Collection Date:
 3/29/2017 1:30:00 PM

 Lab Sample ID:
 170331010-006

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	P ARE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	9.3		S.U.		3/29/2017 1:30:00 PM
Temperature (E170.1) Turbidity (E180.1)	12 > 999	1.0	deg C NTU		3/29/2017 1:30:00 PM 3/29/2017 1:30:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8909-SH

 Collection Date:
 3/29/2017 1:15:00 PM

 Lab Sample ID:
 170331010-007

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
pH (E150.1)	8.2		S.U.		3/29/2017 1:15:00 PM
Temperature (E170.1)	11		deg C		3/29/2017 1:15:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		3/29/2017 1:15:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8910-D

 Collection Date:
 3/29/2017 2:45:00 PM

 Lab Sample ID:
 170331010-008

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qı	ual Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
pH (E150.1)	8.0		S.U.		3/29/2017 2:45:00 PM
Temperature (E170.1)	12		deg C		3/29/2017 2:45:00 PM
Turbidity (E180.1)	3	1.0	NTU		3/29/2017 2:45:00 PM

Adirondac	k Environmental Services,	Inc Date:	18-Ma	8-May-17		
CLIENT:	Lockwood Hills LLC	Client Sample ID:	8910-5	SH		
Work Order:	170331010	Collection Date:	3/29/2	017		
Reference:	Lockwood Ash Landfill / Annual	Lab Sample ID:	17033	1010-009		
PO#:		Matrix	GROU	INDWATER		
Analyses	Result	PQL Qual Units	DF	Date Analyzed		
FIELD-PH, RES	CL2, AND TEMP ARE NOT ELAP CEF	RTIFIABLE		Analyst: FLD		
Observation	Poor Recovery	NA		3/29/2017		

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8911-D

 Collection Date:
 3/29/2017 3:40:00 PM

 Lab Sample ID:
 170331010-010

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.9		S.U.		3/29/2017 3:40:00 PM
Temperature (E170.1)	11		deg C		3/29/2017 3:40:00 PM
Turbidity (E180.1)	2	1.0	NTU		3/29/2017 3:40:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8911-SH

 Collection Date:
 3/30/2017 10:15:00 AM

 Lab Sample ID:
 170331010-011

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	ARE NOT ELAP CEI	RTIFIABLE			Analyst: FLD
pH (E150.1)	8.4		S.U.		3/30/2017 10:15:00 AM
Temperature (E170.1)	10		deg C		3/30/2017 10:15:00 AM
Turbidity (E180.1)	< 1	1.0	NTU		3/30/2017 10:15:00 AM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 8942-D

 Collection Date:
 3/29/2017 5:50:00 PM

 Lab Sample ID:
 170331010-012

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.8		S.U.		3/29/2017 5:50:00 PM
Temperature (E170.1)	10		deg C		3/29/2017 5:50:00 PM
Turbidity (E180.1)	23	1.0	NTU		3/29/2017 5:50:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 9306-SH

 Collection Date:
 3/30/2017 10:15:00 AM

 Lab Sample ID:
 170331010-013

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMF	PARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.6		S.U.		3/30/2017 10:15:00 AM
Temperature (E170.1)	7		deg C		3/30/2017 10:15:00 AM
Turbidity (E180.1)	25	1.0	NTU		3/30/2017 10:15:00 AM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 GW DUP 8909-D

 Collection Date:
 3/29/2017 1:30:00 PM

 Lab Sample ID:
 170331010-014

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEM	P ARE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	9.3		S.U.		3/29/2017 1:30:00 PM
Temperature (E170.1) Turbidity (E180.1)	12 > 999	1.0	deg C NTU		3/29/2017 1:30:00 PM 3/29/2017 1:30:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

Client Sample ID: GW Dep Drain 1 Collection Date: 3/29/2017 4:45:00 PM Lab Sample ID: 170331010-015 Matrix: GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	6.50	0.10	mg/L		3/29/2017 4:45:00 PM
Flow, GPD	476		gal/day		3/29/2017 4:45:00 PM
pH (E150.1)	7.4		S.U.		3/29/2017 4:45:00 PM
Temperature (E170.1)	8		deg C		3/29/2017 4:45:00 PM
Turbidity (E180.1)	300	1.0	NTU		3/29/2017 4:45:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 Leak Detection Syst.

 Collection Date:
 3/29/2017 12:40:00 PM

 Lab Sample ID:
 170331010-016

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	6.50	0.10	mg/L		3/29/2017 12:40:00 PM
Flow, GPD	251		gal/day		3/29/2017 12:40:00 PM
pH (E150.1)	7.7		S.U.		3/29/2017 12:40:00 PM
Temperature (E170.1)	12		deg C		3/29/2017 12:40:00 PM
Turbidity (E180.1)	26	1.0	NTU		3/29/2017 12:40:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 Under Drain 1

 Collection Date:
 3/29/2017 4:00:00 PM

 Lab Sample ID:
 170331010-017

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE N	OT ELAP CEI	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	8.15	0.10	mg/L		3/29/2017 4:00:00 PM
Flow, GPD	5326		gal/day		3/29/2017 4:00:00 PM
pH (E150.1)	8.2		S.U.		3/29/2017 4:00:00 PM
Temperature (E170.1)	11		deg C		3/29/2017 4:00:00 PM
Turbidity (E180.1)	255	1.0	NTU		3/29/2017 4:00:00 PM
LOW LEVEL MERCURY - EPA 1631E					Analyst: SM
(Prep: Method - 4/10/20	17)				
Mercury	11	0.5	ng/L	1	4/11/2017

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 Under Drain 2

 Collection Date:
 3/29/2017 12:45:00 PM

 Lab Sample ID:
 170331010-018

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	7.33	0.10	mg/L		3/29/2017 12:45:00 PM
Flow, GPD	4946		gal/day		3/29/2017 12:45:00 PM
pH (E150.1)	7.7		S.U.		3/29/2017 12:45:00 PM
Temperature (E170.1)	12		deg C		3/29/2017 12:45:00 PM
Turbidity (E180.1)	150	1.0	NTU		3/29/2017 12:45:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 Under Drain 3

 Collection Date:
 3/29/2017 12:25:00 PM

 Lab Sample ID:
 170331010-019

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	7.39	0.10	mg/L		3/29/2017 12:25:00 PM
Flow, GPD	816		gal/day		3/29/2017 12:25:00 PM
pH (E150.1)	6.7		S.U.		3/29/2017 12:25:00 PM
Temperature (E170.1)	13		deg C		3/29/2017 12:25:00 PM
Turbidity (E180.1)	10	1.0	NTU		3/29/2017 12:25:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 Inlet To Pond

 Collection Date:
 3/29/2017 4:15:00 PM

 Lab Sample ID:
 170331010-020

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	7.63	0.10	mg/L		3/29/2017 4:15:00 PM
Flow, GPD	18,642		gal/day		3/29/2017 4:15:00 PM
pH (E150.1)	8.2		S.U.		3/29/2017 4:15:00 PM
Temperature (E170.1)	10		deg C		3/29/2017 4:15:00 PM
Turbidity (E180.1)	10	1.0	NTU		3/29/2017 4:15:00 PM
LOW LEVEL MERCURY - EPA 163	31E				Analyst: SM
(Prep: Method - 4	/10/2017)				
Mercury	2.0	0.5	ng/L	1	4/11/2017

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

Client Sample ID:Keuka UpstreamCollection Date:3/30/2017 9:15:00 AMLab Sample ID:170331010-021Matrix:SURFACE WATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CEF	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	7.37	0.10	mg/L		3/30/2017 9:15:00 AM
pH (E150.1)	7.9		S.U.		3/30/2017 9:15:00 AM
Temperature (E170.1)	4		deg C		3/30/2017 9:15:00 AM
Turbidity (E180.1)	712	1.0	NTU		3/30/2017 9:15:00 AM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 Keuka Downstream

 Collection Date:
 3/30/2017 8:40:00 AM

 Lab Sample ID:
 170331010-022

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	7.88	0.10	mg/L		3/30/2017 8:40:00 AM
pH (E150.1)	7.5		S.U.		3/30/2017 8:40:00 AM
Temperature (E170.1)	4		deg C		3/30/2017 8:40:00 AM
Turbidity (E180.1)	686	1.0	NTU		3/30/2017 8:40:00 AM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 Surface Water Dup

 Collection Date:
 3/30/2017 9:15:00 AM

 Lab Sample ID:
 170331010-023

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	7.37	0.10	mg/L		3/30/2017 9:15:00 AM
pH (E150.1)	7.9		S.U.		3/30/2017 9:15:00 AM
Temperature (E170.1)	4		deg C		3/30/2017 9:15:00 AM
Turbidity (E180.1)	712	1.0	NTU		3/30/2017 9:15:00 AM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

Client Sample ID: Pond Grab Collection Date: 3/29/2017 3:10:00 PM Lab Sample ID: 170331010-024 Matrix: GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE N	OT ELAP CEI	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	8.80	0.10	mg/L		3/29/2017 3:10:00 PM
pH (E150.1)	8.3		S.U.		3/29/2017 3:10:00 PM
Temperature (E170.1)	11		deg C		3/29/2017 3:10:00 PM
Turbidity (E180.1)	74	1.0	NTU		3/29/2017 3:10:00 PM
LOW LEVEL MERCURY - EPA 1631E					Analyst: SM
(Prep: Method - 4/10/20	17)				
Mercury	0.7	0.5	ng/L	1	4/11/2017

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

Client Sample ID:Field BlankCollection Date:3/30/2017 12:35:00 PMLab Sample ID:170331010-025Matrix:GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	ARE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	6.16	0.10	mg/L		3/30/2017 12:35:00 PM
pH (E150.1)	7.0		S.U.		3/30/2017 12:35:00 PM
Temperature (E170.1)	18		deg C		3/30/2017 12:35:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		3/30/2017 12:35:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

Client Sample ID: GW Dep Drain 3 Collection Date: 3/29/2017 12:55:00 PM Lab Sample ID: 170331010-026 Matrix: GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	8.43	0.10	mg/L		3/29/2017 12:55:00 PM
Flow, GPD	827		gal/day		3/29/2017 12:55:00 PM
pH (E150.1)	7.3		S.U.		3/29/2017 12:55:00 PM
Temperature (E170.1)	7		deg C		3/29/2017 12:55:00 PM
Turbidity (E180.1)	10	1.0	NTU		3/29/2017 12:55:00 PM

CLIENT:Lockwood Hills LLCWork Order:170331010Reference:Lockwood Ash Landfill / AnnualPO#:

Date: 18-May-17

 Client Sample ID:
 Under Drain 5

 Collection Date:
 3/30/2017 12:15:00 PM

 Lab Sample ID:
 170331010-027

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CEP	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	6.65	0.10	mg/L		3/30/2017 12:15:00 PM
pH (E150.1)	8.0		S.U.		3/30/2017 12:15:00 PM
Temperature (E170.1)	9		deg C		3/30/2017 12:15:00 PM
Turbidity (E180.1)	10	1.0	NTU		3/30/2017 12:15:00 PM

CLIENT:	Lockwood Hills LLC			Client Sample	ID: LLHG	Field blank
Work Order:	170331010			Collection D	ate: 3/29/2	017 4:25:00 PM
Reference:	Lockwood Ash Landfill	/ Annual		Lab Sample	ID: 17033	1010-028
PO#:				Mat	rix: FIELD) BLANK
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
	ERCURY - EPA 1631E Prep: Method - 4/10/2017		PQL	Qual Units	DF	Date Analyzed Analyst: SN

Date: 18-May-17

	R Environmental Services,			-
CLIENT:	Lockwood Hills LLC	Client Sample I	D: GW D	ep Drain 2
Work Order:	170331010	Collection Dat	e: 3/29/2	017
Reference:	Lockwood Ash Landfill / Annual	Lab Sample II): 17033	1010-029
PO#:		Matri	x: GROU	INDWATER
Analyses	Result	PQL Qual Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NOT ELAP CER	TIFIABLE		Analyst: FLD
Observation	Dry	NA		3/29/2017

Date: 18-May-17

Adirondack Environmental Services, Inc

CLIENT:	Lockwood Hills LLC	Client Sample 1	D: GWD	ep Drain 4
Work Order:	170331010	Collection Da		1
Reference:	Lockwood Ash Landfill / Annual	Lab Sample I	D: 17033	1010-030
PO#:		Matr	ix: GROU	JNDWATER
Analyses	Result	PQL Qual Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NOT ELAP CEI	RTIFIABLE		Analyst: FLI

Date: 18-May-17

Adirondack Environmental Services, Inc

- Tun onuuc				-
CLIENT:	Lockwood Hills LLC	Client Sample ID	: 8405	
Work Order:	170331010	Collection Date	: 3/29/2	017
Reference:	Lockwood Ash Landfill / Annual	Lab Sample ID:	17033	1010-031
PO#:		Matrix	: GROU	JNDWATER
Analyses	Result	PQL Qual Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NOT ELAP CER	TIFIABLE		Analyst: FLD
Observation	Dry	NA		3/29/2017

Date: 18-May-17



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CHAIN OF CUSTODY RECORD

AES Work Order#: 170331070

EXPERIENCE IS THE SOLUTION

A full service analytical research laboratory offering solutions to environmental concerns

Client Na		Address:										
Lockw	rood Hills LLC											
Send Repo	ort to:	Project Nam	e (Location	ı):				Samplers Name:				
Dale Ir		T 1	1 . 1	rm	1				\mathcal{D} , \mathcal{D} , \mathcal{D}			
Client Pho	one No:	Lockwo	od Ash	LF	Annual			Paul Buist				
·		PO #:						Samplers Signature: Vanl Bist				
Client Fax	« No:				1				Plenk Birn			
AES Sample	Client Sample ID:	Date	Time A=am		Sample	е Тур	e	# of	Analysis			
ID	Chem Bample 1D.	Sampled	P=pm		<u>Matrix</u>	<u>C</u>	<u>G</u>	Cont's Analysis				
100	7842	3/29/17	5:20	A D	GW		G	5	Lockwood Ash LF Annu	al		
102	8401	3/30/17		Ø P	GW		G	5	Field pH, Temp, Turbidi	ty		
003	8404	3/30/17	10:55	A) P	GW		G	5				
774	8908-D	3/30/17	11:35	(A) P	GW		G	5				
DUST	8908-SH	3/30/17	12:20	A (P)	CW		G	5				
206	8909-D	3 29/17		A Ø	GW		G	5	· ·			
207	8909-SH	3/29/17	1:15	A	GW		G	5				
005	8910-D	3/29/17	2:45	A Ø	GW		G	5				
009	8910-SH	3/29/17	/	A GW G				\$0	Observation Only			
010	8911-D	3/29/17		A P			G	5				
611	8911-SH	3/30/17	10)15	Ø P			G	5				
012	8942-D	3/29/17	5,50	A P			G	5				
Shipmen	t Arrived Via:			Sp	ecial Instruc	ctions	/Rem	arks:				
FedEx	UPS Client AES Oth	er:		Ра	age 1 of 3							
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🗌 1 Day	🗆 3 Day 🛛 Normal											
	y 🗌 5 Day											
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Relinquis	hed by: (Signature)	Date	Time		Received f	or La	borat	ory by:	Date Tin	ne		
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CHAIN OF CUSTODY RECORD

AES Work Order#:

170331010

EXPERIENCE IS THE SOLUTION

A full service analytical research laboratory offering solutions to environmental concerns

	A full service analytic		1 14001		y onem	16 0						
lient Nam		Address:										
Lockwa	ood Hills LLC											
Send Report	rt to:	Project Nam	e (Location	n):				Samplers Name:				
Dale Ir	win	Lockwood Ash LF Annual							Paul Buist			
Client Phot	ne No:		Ju Asii	LT.	Alifuai				amplers Signature:			
		PO #:						Samplers S	and Bant	and a second		
Client Fax	No:		Time		r				ent seas			
AES Sample ID	Client Sample ID:	Date Sampled	Time A=an P=pn	1	Sample <u>Matrix</u>	: Тур <u>С</u>	• <u>G</u>	# of Cont's	Ana	lysis		
213	9306-SH	3/30/17	10:15	(A) P	GW		G	5	Lockwood A			
214	GW Dup <u>8909-0</u>	3/29/17	1:30	A D	GW		G	5	Field pH, Ter			
>15	GW Dep Drain 1	3/29/17	4:45	A P	GW		G	5	+ Field Flow			
)16	Leak Detection Syst.	3/29/17	12;40	A D			G	5	+ Field Flow			
)17	Under Drain 1	3/29/17	4:00	A P			G	6	+ Field Flow			
18	Under Drain 2	3/29/7	12:45	A P			G	5	+ Field Flow			
219	Under Drain 3	3/29/17 12:25 A GW				G		+ Field Flow Reading, DO + Field Flow Reading, DO				
$d\dot{o}$	Inlet to Pond	3/29/17	4:15	A C O O O			G		+ Field Flow			
つみ川	Keuka Upstream	3/30/07	9:15	P			G					
ODD	Keuka Downstream	3/30/17	8:40	P			G		Lockwood Annual +DO Lockwood Annual +DO Lockwood Annual +DO			
023	Surface Water Dup	3/30/17	9:15	· 1			G					
224	Pond Grab	3/29/17	3710	A CP	7		G		Lockwood	Annual	+DO	
Shipmen	tt Arrived Via:			S	pecial Instru	iction	s/Ren	narks:				
FedEx	UPS Client AES Oth	ner:		P	age 2 of 3	3						
Turnar	ound Time Requested:											
🗌 l Day	y 🗌 3 Day 🗍 Normal											
-	ay 🗌 5 Day										Time	
Relingui	shed by: (Signature)	Date 3/31/17	Time 9.00		Received	by: (S	ignati	ure)		Date	Time	
	shed by: (Signature)	Date	Tim	e	Received	by: (S	ignat	ure)		Date	Time	
										Date	Time	
Relinqui	ished by: (Signature)	Date	Tim	e	Received	for L	abor:	atory by:	3/	3//17	9:491	
	Sample Temperature			Pro	perly Prese	rved	General		Received With	in Holding	Fimes	
	Ambient Chilled			1	~				(v) N		
	Chilling Process begun				Y N				Ċ	/		
Notes: Notes:				<u> </u>				Notes:				
N	otes: 7 °	Note	es:						Notes			



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AES Work Order#:

170331010

EXPERIENCE IS THE SOLUTION

A full se	ervice an	alytical	research	laboratory	offering	solutions to	environmental	concerns

Field Blank $3/3b/7$ $x35$ A P GWG5Lockwood Ash Lf Annual Field pH, Temp, Turbidity, D.O. $A \in$ GW Dep Drain 3 $3/3c/17$ 12.55 $A \in$ GW G 5+Field Flow Reading $A =$ $Under Drain 5$ $3/3c/17$ 12.55 $A \oplus$ GW G 5+Field Flow Reading $A =$ Mer Mer Mer Mer GW G 5 $Herebrain 5$ $A =$ Mer Mer Mer GW G G G $A =$ Mer Mer Mer Mer Mer $A =$ Mer Mer Mer Mer	Client Nan	ne:	Address:										
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Lockwood Ash LF Annual Pote for the sumplex signature of the sum of the	Send Repo	ort to:	Project Nam	ne (Locatio	n):				Samplers	Samplers Name:			
Licer House No: Dote for the lar number of the lar num	Dale Ir	win	. T. 1	- J A - 1-	hIEAnnual Paul Bist								
Item Fax No: Junc Junc </td <td>Client Pho</td> <td>one No:</td> <td></td> <td>od Asn</td> <td></td> <td>Annua</td> <td colspan="5"></td>	Client Pho	one No:		od Asn		Annua							
ABS maple D Client Sample ID: Date Sampled Ppm Time Amain Ppm Sample Type Matrix C # of Cont's Analysis Field Blank $3/D l7$ 335 Δ GW G 5 Lockwood Ash LF Annual Field pH, Temp, Turbidity, D.O. Δ GW G 5 +Field Flow Reading Δ GW G 5 +Field Flow Reading Δ $Under Drain 5$ $3/D/l7$ $13:15$ \overline{O} GW G 5 +Field Flow Reading Δ $Under Drain 2$ $3/2/l7$ $12:15$ \overline{O} GW G G $Field Blank 3/2/l7 A \Delta GW GW GW G GW G O Observation Only \Delta GW GW Date A GW O Observation Only \Delta A/dr A GW O Observation Only A \Delta A/dr A GW O Observation Only A A A $			PO #.						Samplers	Signature.			
Chient Sample ID: Sample Jample D: <		No:		Time		1				1			
ID Sample Sample Sample Sample Para Mark C G G Lockwood Ash LF Annual Field pH, Temp, Turbidity, D.O. S Field Blank $3/bh7$ 335 D GW G 5 +Field PH, Temp, Turbidity, D.O. A GW Dep Drain 3 $3/agh7$ $(2:35)$ D GW G 5 +Field Flow Reading A Under Drain 5 $3/bh7$ $(2:35)$ D GW G 5 +Field Flow Reading A GW Dep Drain 2 $3/ah77$ P GW 0 Observation Only B LLHG Field Blank $3/ah77$ A GW 0 Observation Only C GW Dep Drain 4 $3/ah77$ A GW 0 Observation Only B GW Dep Drain 4 $3/ah77$ A GW 0 Observation Only B GW Dep Drain 4 $3/ah77$ A GW 0 Observation Only B GW A 0 Observation Only P 0 Dase B GW A 0 Observation		Client Sample ID:							[Analysis			
Treat Draw $3/3\nu/7$ 235 D GW G 5 Field pH, Temp, Turbidity, D.O. $2\sqrt{6}$ GW Dep Drain 3 $3/2\eta/7$ $(2:55)$ \overline{O} GW G 5 +Field Flow Reading $3\sqrt{6}$ Under Drain 5 $3/3\nu/7$ $(2:55)$ \overline{O} GW G 5 +Field Flow Reading $3\sqrt{60}$ $12:55$ \overline{O} \overline{OW} G 5 +Field Flow Reading $3\sqrt{60}$ $72:56$ \overline{O} \overline{OW} G 5 +Field Flow Reading $3\sqrt{60}$ $72:56$ \overline{O} \overline{OW} G 0 Observation Only $3\sqrt{60}$ \overline{OW} $\sqrt{60}$ \overline{OW} 0 Observation Only $3\sqrt{60}$ $7/4$ $\sqrt{6}$ \overline{OW} 0 Observation Only $3\sqrt{60}$ $7/4\sqrt{6}$ \overline{OW} 0 Observation Only \overline{O} $3\sqrt{60}$ $7/4\sqrt{6}$ \overline{OW} 0 Observation Only \overline{O} \overline{O} $3\sqrt{6}\sqrt{7}$ $\sqrt{6}$ \overline{OW} 0 Observation Only	ID		Sampled	P=pn		<u>Matrix</u>	<u>C</u>	<u>G</u>					
\bigcirc		Field Blank	2/2/17	1225	A								
AC GW Dep Drain 3 $3/24/17$ $12:55$ A GW G 5 +Field Flow Reading 1 Under Drain 5 $3/26/17$ $12:15$ A GW G 5 $Field$ Flow Reading 2 Under Drain 2 $3/26/17$ $12:15$ A GW G 5 $Field$ Flow Reading 3 LLHG Field Blank $3/26/17$ $4/25$ GW GW 0 Observation Only 3 GW Dep Drain 2 $3/26/17$ A P GW 0 Observation Only 3 GW Dep Drain 4 $3/26/17$ A GW 0 Observation Only 3 8405 $3/26/17$ A GW 0 Observation Only 3 A A P A P A A A P A P A A A A A P A A P A A A A A A A A	200	~	ן זומן ב	(~))	P	GW		G	5				
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GW GW 0 Observation Only 30 GW Dep Drain 4 $3/a/h^7$ A F GW 0 Observation Only 31 8405 $3/a/h^7$ A F GW 0 Observation Only 31 8405 $3/a/h^7$ A F GW 0 Observation Only 31 8405 $3/a/h^7$ A F GW 0 Observation Only 31 8405 $3/a/h^7$ A F GW 0 Observation Only 31 8405 $3/a/h^7$ A F GW 0 Observation Only 31 8405 $3/a/h^7$ A F GW 0 Observation Only 31 A A P Image: State of Constructions/Co	198	LLHG Field Blank	3/29/17	4:25	A (P)								
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2 - Day 5 Day Relinquished by: (Signature) Date Time M Bind 3(3) 17 9,00 Relinquished by: (Signature) Date Time Received by: (Signature) Date Time Relinquished by: (Signature) Date Time Received by: (Signature) Date Time Relinquished by: (Signature) Date Time Received for Laboratory by: Date Time Sample Temperature Ambient Chilled Chilling Process begun Property Preserved Received Within Holding Times													
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Sample Temperature Property Preserved Received Within Holding Times Ambient Chilled Y N Chilling Process begun Y N	Relinqui	shed by: (Signature)	Date	Time	e	Received	for L	abora	atory by:				
Sample TemperatureAmbient Chilled>YNChilling Process begunYN		Sample Temperature			Pron	erty Prese	rved	V/-					
		Ambient Chilled				-0				$l \sim$			
	No		Note	es:						Notes:			



314 North Pearl Street * Albany, New York 12207 * (518) 434-4546 * Fax (518) 434-0891

TERMS, CONDITIONS & LIMITATIONS

All service rendered by the Adirondack Environmental Services, Inc. are undertaken and all rates are based upon the following terms:

- (a) Neither Adirondack Environmental Services, Inc., nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of Adirondack Environmental Services, Inc.'s performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against Adirondack Environmental Services, Inc. arising out of its work.
- (b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.
- (c) Adirondack Environmental Services, Inc. reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an Adirondack Environmental Services, Inc. report by other than our customer does not constitute a representation of Adirondack Environmental Services, Inc. as to the accuracy of the contents thereof.
- (d) In no event shall Adirondack Environmental Services, Inc., its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.
- (e) No deviation from the terms set forth herein shall bind Adirondack Environmental Services, Inc. unless in writing and signed by a Director of Adirondack Environmental Services, Inc.
- (f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and Adirondack Environmental Services, Inc. is not responsible for the accuracy of this information.
- (g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

ATTACHMENT 2

Sample Data Group 7842

2A

Sample Data Group 7842

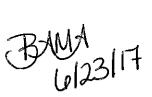
Sample Results

INORGANIC ANALYSES DATA SHEET

							7842
Lab Name:	Adirondack	Environmental		Contract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17024LH	SAS No.:		SDG No.:	7842
Matrix (soi)	l/water):	WATER	<u></u>	Lab	Sample ID:	170331010	-001D
Level (low/r	ned): <u>LO</u>	<u>w</u>		Dat	e Received:	3/31/2017	
% Solids:	0.0			Tot	al/Dissolved:	TOTAL	
		Concentration	Units (ug/L or mg/k	a drv weight):	UG/I	L

Concentration Units (ug/L or mg/kg dry weight):

	Analyte	Concentration	l c	Q	м
CAS No.	Anaryce	Concentration	ľ	×	<u> </u>
7429-90-5	Aluminum	400			₽
7440-36-0	Antimony	2.7	ש		P
7440-38-2	Arsenic	2.8	ប	1	P
7440-39-3	Barium	62.3	В	<u>FJ</u>	P
7440-42-8	Boron	86.8		<u>F</u>	₽
7440-43-9	Cadmium	0.37	U		P
7440-70-2	Calcium	109000	1	KJ.	P
7440-47-3	Chromium	6,9	υ	15	P
7440-50-8	Copper	25U 12.5	₽	<u> </u>	P
7439-89-6	Iron	1060		<u>he J</u>	P
7439-97-6	Mercury	0.03	υ	J	CV
7439-95-4	Magnesium	51900		FJ	P
7439-96-5	Manganese	93.4		<u>T ĭ</u>	Р
7440-02-0	Nickel	40U +1.9	B		P
7440-09-7	Potassium	5000 ++770-	₽		P
7782-49-2	Selenium	3.4	υ		P
7440-23-5	Sodium	11200			P
7440-66-6	Zinc	20U -4.5	₽		P



EPA SAMPLE NO.

Color Before:	<u> </u>	Clarity Before:		Texture:	
Color After:		Clarity After:		Artifacts:	
Comments:					
	·····		·····		
			· · · · · · · · · · · · · · · · · · ·		<u></u>

-1-
INORGANIC ANALYSES DATA SHEET

							8401
Lab Name:	Adirondack	Environmenta	<u>al</u>	Contract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17024LH	SAS No.:	·	SDG No.:	7842
Matrix (soi)	l/water):	WATER		Lab	Sample ID:	<u>1703310</u>	10-002D
Level (low/	med): LO	W		Dat	e Received:	3/31/20)17
% Solids:	0.0			Tot	al/Dissolved:	TOTAL	

·				+	
CAS No.	Analyte	Concentration	c	Q	м
7429-90-5	Aluminum	16.6	υ		P
7440-36-0	Antimony	2.7	ש	13	P
7440-38-2	Arsenic	2.8	שן	!	P
7440-39-3	Barium	200 U-58.7	в	E	P
7440-42-8	Boron	863		E	P
7440-43-9	Cadmium	0.37	ប	I .	P
7440-70-2	Calcium	81900		Į Z	P
7440-47-3	Chromium	6.9	ប	IJ	P
7440-50-8	Copper	125U -5.2	₽	l	P
7439-89-6	Iron	362	1) ME	P
7439-97-6	Mercury	0.03	ש	IJ_	cv
7439-95-4	Magnesium	22400		E	₽
7439-96-5	Manganese	65.4		₩.	P
7440-02-0	Nickel	0.40	ប		P
7440-09-7	Potassium	150001-2220-	B		P
7782-49-2	Selenium	3.4	ש		P
7440-23-5	Sodium	89000			P
7440-66-6	Zinc	0.29	ש		P



]	NORGANIC ANAL	YSES DATA SHEET			E	PA SAMPLE NO.
					Г	-	8401
Name: Adirond	ack Environmen	tal Contr	act: Lockwood	Ash	Lan		
Code: AES	Case No.:		AS No.:		SDG N	o.:	7842
rix (soil/water):	WATER		Lab Sample ID:	:	17033	31010-	-002D
el (low/med):	LOW		Date Received	:	<u>3/31/</u>	2017	
olids: 0.0			Total/Dissolve	ad:	TOTAI	, _	
<u></u>							
	Concentrat	ion Units (ug/L	or mg/kg dry weigh	ht):		UG/I	
		Analyte	Concentration	c	9	м	
	CAS No.	Anaryce	Concentracion		×		
	7429-90-5	Aluminum	16.6	υ	1	P	
	7440-36-0	Antimony	2.7	שן	J	P	
	7440-38-2	Arsenic	2.8	שן		P	
	7440-39-3	Barium	200U-58.7	ਭ	E	P	
	7440-42-8	Boron	863		k	P	
	7440-43-9	Cadmium	0.37	ש		P	
	7440-70-2	Calcium	81900		×	P	
	7440-47-3	Chromium	6.9	ש	IJ	P	
	7440-50-8	Copper	125U -5.2	- B-	<u> </u>	P	
	7439-89-6	Iron	362	<u> </u>	JAR.	P	
	7439-97-6	Mercury	0.03	ש	JJ	CV	
	7439-95-4	Magnesium	22400		K	P	
	7439-96-5	Manganese	65.4		B	P	
	7440-02-0	Nickel	0.40	ש	<u> </u>	P	
	7440-09-7	Potassium	15000L-2220	- B	<u> </u>	<u> </u>	
	7782-49-2	Selenium	3.4	ש	<u> </u>	P	
	7440-23-5	Sodium	89000	1	<u> </u>	P	
	7440-66-6	Zinc	0.29	ש	<u> </u>	P	
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		Form I					

-1-
INORGANIC ANALYSES DATA SHEET

		INURGANIC ANALYSES DATA SHEET					E.	о	
						Γ		8404	
Lab Name:	Adirondack	Environmental	c	Contract:	Lockwood Ash	Lan			
Lab Code:	AES	Case No.:	17024LH	SAS No.:		SDG 1	No.:	7842	
Matrix (soi)	l/water):	WATER		Lab	Sample ID:	<u>1703</u>	31010-	003D	
Level (low/m	ned): <u>LOI</u>	1		Dat	e Received:	3/31	/2017		
% Solids :	0.0			Tot	al/Dissolved:	TOTA	T.		

CAS No.	Analyte	Concentration	c	Q	м
7429-90-5	Aluminum	16.6	U	1	P
7440-36-0	Antimony	2.7	ס	IJ	P
7440-38-2	Arsenic	2.8	υ	[P
7440-39-3	Barium	2001 -48.0-	<u>"</u> †∌ ,	E	P
7440-42-8	Boron	141		E	P
7440-43-9	Cadmium	0.37	ប		P
7440-70-2	Calcium	118000	.	×	P
7440-47-3	Chromium	6.9	ប	JJ	P
7440-50-8	Copper	1 25U #5	┢		P
7439-89-6	Iron	118	i	JAR -	P
7439-97-6	Mercury	0.03	ש	JJ	CV
7439-95-4	Magnesium	23300		JF-	P
7439-96-5	Manganese	8.6	В	E .	P
7440-02-0	Nickel	1 40U -2.4	- ₽		P
7440-09-7	Potassium	15000U-890-	┉		P
7782-49-2	Selenium	3.4	ប		P
7440-23-5	Sodium	9570			P
7440-66-6	Zinc	1204 3.7	-la]	P



		ľ	ORGANIC ANALY	YSES DATA SHEET			E	PA SAMPLE NO.	
						Г		8404	
Name: A	dironda	ck Environment	al Contra	act: Lockwood	Ash	Lan			
_		Case No.:	<u> </u>	AS No.:		SDG N	o.:	7842	
Code: A	ES	Case NO.:	17024111 34						-
rix (soil/	water):	WATER		Lab Sample ID:		17033	81010-	-003D	
el (low/ma	d):	LOW		Date Received:	:	3/31/	2017		
Solids: 0	.0			Total/Dissolve	ad:	TOTAL			
								<u> </u>	
		Concentrati	on Units (ug/L a	or mg/kg dry weigh	1 t) :		UG/I		
			- Basluto	Concentration	c	Q	м		
		CAS No.	Analyte	Concentration	Ŭ	×			
		7429-90-5	Aluminum	16.6	U		P		
		7440-36-0	Antimony	2.7	ס	IJ	P		
		7440-38-2	Arsenic	2.8	υ		P		
		7440-39-3	Barium	2001 -48.0-		E	P		
		7440-42-8	Boron	141		E	P		
	:	7440-43-9	Cadmium	0.37	ש		P		
		7440-70-2	Calcium	118000	· · · ·		P		
		7440-47-3	Chromium	6.9	<u>דם </u>	$ \mathcal{T} $	P P		
		7440-50-8	Copper	<u> 25U 14.5</u> 118					
		7439-89-6	Iron	0.03		پير ال			
		7439-97-6	Mercury Magnesium	23300	1		P		
		7439-95-4	Magnesium Manganese	8.6	в) P		
		7440-02-0	Nickel	404-2.4	┤₽	<u> </u>	P		
		7440-09-7	Potassium	15000U-899-		<u>.</u>	P		
		7782-49-2	Selenium	3.4	ju -	Ì	P		
		7440-23-5	Sodium	9570	Ì	İ	P		
		7440-66-6	Zinc	1204 3.7	<u>μ</u> β	1	P	Ì	
					くじ	BAI	12 612	3/17	
Color Befor	e:	C3	arity Before:		- T	exture	:		
Color After	:	C1	arity After:		A	rtifac	ts:	<u></u>	<u> </u>
Comments:									
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			· ·····						
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-1-	
INORGANIC ANALYSES DATA SHE	CET

							8908-D
Lab Name:	Adirondack	Environmenta	1 (Contract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17024LH	SAS No.:	<u> </u>	SDG No.:	7842
Matrix (soi)	l/water):	WATER		Lab	Sample ID:	17033101	0-004D
Level (low/n	med): LO	W		Date	a Received:	3/31/201	7
<pre>% Solids:</pre>	0.0			Tota	al/Dissolved:	TOTAL	
		Concentratio	n Units (v	a/L or ma/k	g dry weight):	UG,	/L



-	1r	URGANIC ANAL	YSES DATA SHEET			E	PA SAMPLE NO.
					Г		8908-D
Name: Adi	rondack Environment	al Contr	act: Lockwood	Ash	Lan		
b Code: AES			AS No.:		SDG N	. :	7842
trix (soil/way	ter): WATER		Lab Sample ID:				-004D
vel (low/med)	LOW		Date Received:		3/31/	2017	
Solids: 0.0			Total/Dissolve	ed :	IATOT		
						/	
	Concentrati	on Units (ug/L)	or mg/kg dry weig)	1 t) :		UG/I	4
	CAS No.	Analyte	Concentration	С	Q	м	
	7429-90-5	Aluminum	16.6	ש		P	
	7440-36-0	Antimony	2,7	זי	İJ	P	
	7440-38-2	Arsenic	2.8	זי		P	
	7440-39-3	Barium	2001-16.6-	₽-	₩	P	
	7440-42-8	Boron	262	Ì	ļe.	P	
	7440-43-9	Cadmium	0.37	ש		P	
	7440-70-2	Calcium	156000	I	k	P	
	7440-47-3	Chromium	6.9	IJ	JJ	P	
	7440-50-8	Copper	1 25U 5.5	₽		P	
	7439-89-6	Iron	994		185	P	
	7439-97-6	Mercury	0.03	טן	15	CV	
	7439-95-4	Magnesium	65600			P	
	7439-96-5	Manganese	102	<u> </u>	Z	P	
	7440-02-0	Nickel		₽		P	
	7440-09-7	Potassium		<u> B</u>		Р	
	7782-49-2	Selenium	3.4	טן	1	P	
	7440-23-5	Sodium	33700	1	<u> </u>	P	
	7440-66-6	Zinc	0.29	טן		P	
				(Bd (MA e12:	3/17
Color Before:	C1	arity Before:	•••••	. т	exture		
Color After:	C1;	arity After:		. A	rtifaci	-8:	· · · · · · · · · · · · · · · · · · ·
oments:							
	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		·····				
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		Form I	- IN				ILM04.2-

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INORGANIC ANALYSES DATA SHEET

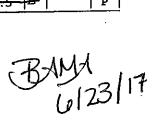
EPA SAMPLE NO.

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890	8-SH	

Lab Name:	Adirondack	Environmental	Contract: Lockwood Ash	Lan
Lab Code:	AES	Case No.: 170241	H SAS No.:	SDG No.: 7842
Matrix (soi.	l/water):	WATER	Lab Sample ID:	170331010-005D
Level (low/	med): LO	W	Date Received:	3/31/2017
% Solids:	0.0		Total/Dissolved:	TOTAL
		Concentration Units	(ug/L or mg/kg dry weight):	UG/L

CAS No.	Analyte	Concentration	С	Q	м
7429-90~5	Aluminum	16.6	υ		P
7440-36-0	Antimony	2.7	U] उ	P
7440-38-2	Arsenic	3.4	в	<u> </u>	P
7440-39-3	Barium	200U-52.2	B	<u>×</u>	P
7440-42-8	Boron	148	1		P
7440-43-9	Cadmium	0.37	ע	<u> </u>	P
7440-70-2	Calcium	159000		J.E.	P
7440-47-3	Chromium	11.3		<u> J-</u>	P
7440-50-8	Copper	25U 10.0-	- ₽-	I	P
7439-89-6	Iron	87.2	B	LME	P
7439-97-6	Mercury	0.03	U	<u>IJ</u>	CV
7439-95-4	Magnesium	57400	1 '	F	P
7439-96-5	Manganese	10.7	В	Z	P
7440-02-0	Nickel	1400 -2.6	巿	<u> </u>	P
7440-09-7	Potassium	5000U-2380			P
7782-49-2	Selenium	3.4	ש		P
7440-23-5	Sodium	32100		1	P
7440-66-6	Zinc	120U -8.5	₽		P



Color Before:	 Clarity Before:		Texture:
Color After:	 Clarity After:		Artifacts:
Comments:	 	<u></u>	
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			-1-						
		IN	ORGANIC ANALY	SES DA	TA SHEET			I	PA SAMPLE NO.
									8909-D
Lab Name:	Adironda	ck Environmenta	al Contrac	st: <u>1</u>	lockwood i	Ash	Lan		
Lab Code:	AES	Case No.:	<u>17024LH</u> SAS	No.:	····		SDG	No.:	7842
Matrix (soi	1/water):	WATER		Lab	Sample ID:		<u>170</u>	331010	-006D
Level (low/	'med) :	LOW		Date	Received:		3/3	1/2017	
% Solids:	0.0	-		Tota	1/Dissolve	d:	TOT	AL	
		Concentratio	on Units (ug/L or	mg/kg	dry weigh	t):		UG/I	L
		CAS No.	Analyte	Concen	tration	С	Q	м	
		7429-90-5	Aluminum		1430		J	P	1
		7440-36-0	Antimony		2.7	ប	J	P	Ī
		7440-38-2	Arsenic	Ī	2.8	σ		P	
		7440-39-3	Barium	200	U 68.2	₽-	17	P	
		7440-42-8	Boron	1	770		پ ر	P	
		7440-43-9	Cadmium		0.37	υ		P	
		7440-70-2	Calcium		14100		¥	P	
		7440-47-3	Chromium		6.9	U	J	P	
		7440-50-8	Copper	25	5U 3.2 −	B		P]

7439-89-6

7439-97-6

7439-95-4

7439-96-5

7440-02-0

7440-09-7

7782-49-2

7440-23-5

7440-66-6

Iron

Mercury

Nickel

Sodium

Zinc

Magnesium

Manganese

Potassium

Selenium

BAMA 6/23/17

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15.4

3.4

500U

40V

500011

20 U

Color Before:	· · · · · · · · · · · · · · · · · · ·	Clarity Before:	<u> </u>	Texture:	
Color After:		Clarity After:	, <u></u>	Artifacts:	
Comments:					

Form I - IN

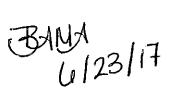
INORGANIC ANALYSES DATA SHEET

		INORGANIC ANALYSES DATA SHEET					EPA SAMPLE NO.
							8909-SH
Lab Name:	Adirondack	Environmenta	al	Contract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17024LH	SAS No.:		SDG No.:	7842
Matrix (soi)	l/water):	WATER	<u></u>	Lab	Sample 1D:	17033101	L0-007D
Level (low/	ned): <u>LO</u>	W		Dat	e Received:	3/31/203	L7
% Solids:	0.0			Tot	al/Dissolved:	TOTAL	

Concentration Units (ug/L or mg/kg dry weight):

UG/L

CAS No.	Analyte	Concentration	c	ð	м
7429-90-5	Aluminum	16.6	υ		P
7440-36-0	Antimony	2.7	ש	5	P
7440-38-2	Arsenic	6.4	В		P
7440~39-3	Barium	2004-26.3-	- ₽	JZ	P
7440-42-8	Boron	271		/z/	P
7440-43-9	Cadmium	0.37	ש		P
7440-70-2	Calcium	30200		F	P
7440-47-3	Chromium	6.9	ש	J	P
7440-50-8	Copper	1 25U 8.7			P
7439-89-6	Iron	136	Ţ		P
7439-97-6	Mercury	0.03	שן	1 <u>J</u>	CV
7439-95-4	Magnesium	17900		X	P
7439-96-5	Manganese	15.7		F	P
7440-02-0	Nickel	1400 -0.80-	t P		P
7440-09-7	Potassium	15000 -2020-	13		P
7782-49-2	Selenium	3.4	ש	1	P
7440-23-5	Sodium	72300			P
7440-66-6	Zinc	20U-2.6	₽		P



Color Before:		Clarity Before:		Texture:	
Color After:	. <u></u>	Clarity After:	,	Artifacts:	
Comments:		- 			

-1-	
INORGANIC ANALYSES DATA SH	EET

	· · · · ·		8910-D
Lab Name:	Adirondack Environmental	Contract: Lockwood Ash	Lan
Lab Code:	AES Case No.: 17024L	1 SAS No.:	SDG No.: 7842
Matrix (soi)	L/water): WATER	Lab Sample ID:	170331010-008D
Level (low/	eed): LOW	Date Received:	3/31/2017
ቼ Solids :	0.0	Total/Dissolved:	TOTAL

BAMA (0/23/17

				EPA SAMPLE NO.
				8910-D
me: Adirond	ack Environment	al Contr	act: Lockwood Ash La	
ode: <u>AES</u>	Case No.:	17024LH S	AS No.: SDG	- 5 No.: <u>7842</u>
ix (soil/water):	WATER		Lab Sample ID: 17	0331010-008D
(low/med):	LOW		Date Received: 3/3	31/2017
lids: 0.0	_		Total/Dissolved: TO	FAL
	Concentratio	on Units (ug/L	or mg/kg dry weight):	UG/L
	CAS No.	Analyte	Concentration C (2 M
	7429-90-5	Aluminum	16.6 U	P
	7440-36-0	Antimony	2.7 U	P
	7440-38-2	Arsenic	4.7 B	P
	7440-39-3	Barium	2001 18.9 HB	P
	7440-42-8	Boron	2830 /æ	P
	7440-43-9	Cadmium	0.37 U	P
	7440-70-2	Calcium	81400	P
	7440-47-3	Chromium	6.9 U J	
	7440-50-8	Copper	25U 3.5 13	P
	7439-89-6	Iron	32.5 B M	P
	7439-97-6	Mercury	0.03 0	CV
	7439-95-4	Magnesium	24700	P
	7439-96-5	Manganese	28.1	P
	7440-02-0	Nickel	404 ++++ 1B-1	
	7440-09-7	Potassium	15000 U 3050-13-1	P
	7782-49-2	Selenium	3.4 U	P
	7440-23-5	Sodium	105000	P
	7440-66-6	Zinc	0.29 0	P
			BM	EPA SAMPLE NO. 8910-D 3 No.: 7842 0331010-008D 31/2017 FAL UG/L 0 M P P P P P P P P P P P P P
color Before:	C1;	arity Before:	Textu	IG:
Color After:	Cla	arity After:	Artif	acts:
Comments :				
		······································		

EPA SAMPLE NO.

							8911-D
Lab Name:	Adirondack	Environmenta	<u>1 </u>	Contract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17024LH	SAS No.:		SDG No.:	7842
Matrix (soi)	l/water):	WATER		Lab	Sample ID:	1703310	L0-010D
Level (low/	ned): \underline{LO}	W		Dat	e Received:	<u>3/31/20</u>	17
% Solids:	0.0			Tot	al/Dissolved:	TOTAL	. <u> </u>

Concentration Units (ug/L or mg/kg dry weight):

Concentration С Q М Analyte CAS NO. U 16.6 Ρ 7429-90-5 Aluminum U 7440-36-0 2.7 J Ρ Antimony 7440-38-2 5.1 B Р Arsenic 200U -18.7 B E Ρ 7440-39-3 Barium 1590 Ρ 7440-42-8 ľπ Boron Р 7440-43-9 Cadmium 0.37 |U 67200 Ρ 7440-70-2 Calcium I U Ρ 6.9 7440-47-3 Chromium 25U 2.5 B Ρ 7440-50-8 Copper 119 P ЪÉ 7439-89-6 Iron 0.03 7439-97-6 ט(CV Mercury 21400 Ρ 7439-95-4 Magnesium Z 75.9 z Ρ 7439-96-5 Manganese -0.88-|B-Ρ 7440-02-0 Nickel 40 3030 Ρ 7440-09-7 Potassium 500U B ប 3.4 Ρ 7782-49-2 Selenium 131000 Ρ 7440-23-5 Sodium Zinc 20U -1-6-B-Ρ 7440-66-6



EPA SAMPLE NO.

UG/L

Color Before:	. <u> </u>	Clarity Before:	. <u></u>	Texture:	
Color After:	<u></u>	Clarity After:		Artifacts:	
Comments:					
					· · · · · · · · · · · · · · · · · · ·

Form I - IN

							8911-SH
Lab Name:	Adirondack	Environmenta	1	Contract:	Lockwood Ash	Lan	· · · · · · · · · · · · · · · · · · ·
Lab Code:	AES	Case No.:	17024LH	SAS No.:		SDG No.:	7842
Matrix (soi)	l/water):	WATER		Lab	Sample ID:	170331010	-011D
Level (low/n	med): <u>LO</u>	W		Dat	e Received:	<u>3/31/2017</u>	
% Solids:	0.0			Tot	al/Dissolved:	TOTAL	

Concentration Units (ug/L or mg/kg dry weight):

UG/L

EPA SAMPLE NO.

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	16.6	υ		P
7440-36-0	Antimony	2.7	ש	JJ	P
7440-38-2	Arsenic	17.9		1	P
7440393	Barium	12001 -28.0-	₽	JP 1	P
7440-42-8	Boron	318		P	P
7440-43-9	Cadmium	0.37	υ		P
7440-70-2	Calcium	53400	Γ.	×	P
7440-47-3	Chromium	6.9	ש	IJ	P
7440-50-8	Copper	1 25U 4.8	₽	1	P
7439-89-6	Iron	363		ME	P
7439-97-6	Mercury	0.03	טן	JJ_	CV
7439-95-4	Magnesium	15100		F	P
7439-96-5	Manganese	64.5]	Z	P
7440-02-0	Nickel	0.40	U	1	P
7440-09-7	Potassium	15000 -1740	 ₽		P
7782-49-2	Selenium	3.4	ם	1	P
7440-23-5	Sodium	94500			P
7440-66-6	Zinc	1 204 -0.78	₽		P



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Color Before:		Clarity Before:	,	Texture:	
Color After:	<u> </u>	Clarity After:		Artifacts:	
Comments:			<u> </u>	. <u> </u>	
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ILM04.2-22

		IN	ORGANIC ANALY	SES DATA SHEET		epa sa	MPLE NO.
						894	2-D
Lab Name:	Adironda	ack Environment	al Contra	act: Lockwood As	h Lan		
Lab Code:	AES	Case No.:	17024LH SA	SNO.:	SDG	No.: <u>7842</u>	
Matrix (soi	1/water):	WATER		Lab Sample ID:	<u>1703</u>	31010-012D	
Level (low/	'med) :	LOW		Date Received:	<u>3/31</u>	1/2017	
% Solids:	0.0			Total/Dissolved:	TOTA	AL	
		Concentratio	on Units (ug/L o	or mg/kg dry weight)	:	UG/L	
		CAS No.	Analyte	Concentration (2 Q	м	
		7429-90-5	Aluminum	16.6 U		P	
		7440-36-0	Antimony	2.7 U	<u> </u>]	P	
		7440-38-2	Arsenic	8.3 B		P	
		7440-39-3	Bariun	1 200U +7.1-13	F	P	
		7440-42-8	Boron	295	E	P	
		7440-43-9	Cadmium	0.37 0		P	
		7440-70-2	Calcium	87100	F	P	
		7440-47-3	Chromium	6.9 U	JU	P	
		7440-50-8	Copper	1 25U 8.3 1		P P	
		7439-89-6	Iron	522	NC.	P	
		7439-97-6	Mercury	0.03 0	<u> </u>] J	· CV	
		7439-95-4	Magnesium	65700	1	P	

Manganese

Potassium

Selenium

Sodium

Zinc

Nickel

7439-96-5

7440-02-0

7440-09-7

7782-49-2

7440-23-5

7440-66-6

BAMA 6123/17

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1.6

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Color Before:		Clarity Before:		Texture:	
Color After:		Clarity After:		Artifacts:	
Comments:	, <u> </u>		<u> </u>		
-	<u> </u>				

Form I - IN

ILM04.2-23

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			9306-SH
Lab Name:	Adirondack Environmental Conta	act: Lockwood Ash	Lan
Lab Code:	AES Case No.: 17024LH S	AS No.:	SDG No.: 7842
Matrix (soi)	l/water): WATER	Lab Sample ID:	170331010-013D
Level (low/)	ned): LOW	Date Received:	3/31/2017
% Solids:	0.0	Total/Dissolved:	TOTAL

CAS No.	Analyte	Concentration	c	0	м
CAS NO.	Falling Co.				
7429-90-5	Aluminum	16.6	U	1	P
7440-36-0	Antimony	2.7	U	JJ	P
7440-38-2	Arsenic	8.0	В	<u> </u>	P
7440-39-3	Barium	200U -41.0	₽	JF	P
7440-42-8	Boron	106		E	P
7440-43-9	Cadmium	0.37	ט		P
7440-70-2	Calcium	62500	Ĩ	E.	[P
7440-47-3	Chromium	6.9	ש	J	P
7440-50-8	Copper	254 9.9	₽		P
7439-89-6	Iron	279		NE	P
7439-97-6	Mercury	0.03	U	JJ	CV
7439-95-4	Magnesium	58400		¥.	P
7439-96-5	Manganese	16.6	1	¥	P
7440-02-0	Nickel	1 40U +10	╞	1	P
7440-09-7	Potassium	15000U-2670	₽		P
7782-49-2	Selenium	3.4	ט		P
7440-23-5	Sodium	21600			P
7440-66-6	Zinc	1200 2.4	╇	1	P



	1	NORGANIC ANAL	YSES DATA SHEET			EPA SAMPL	E NO.
					Γ	9306-8	H
ame: Adirond	ack Environmen	tal Contr	act: Lockwood	Ash	Lan		
Lode: AES	Case No.:		LSINO.:		SDG N	o.: 7842	
							
ix (soil/water):	WATER		Lab Sample ID:	:		31010-013D	-
1 (low/med):	LOW		Date Received:	:	3/31,	/2017	-
olids: 0.0			Total/Dissolve	ed:	TOTAL	<u>ن</u>	
	_				<u> </u>		•
	Concentrat	ion Units (ug/L	or mg/kg dry weigh	1 t) :		UG/L	
			Concentration	с	Q	м	
	CAS No.	Analyte	Concentration	ľ	Ť		
	7429-90-5	Aluminum	16.6	υ		P	
	7440-36-0	Antimony	2.7	U	JJ	P	
	7440-38-2	Arsenic	8.8	В		P	
	7440-39-3	Barium	200U -41.0-	B	X	P	
	7440-42-8	Boron	106		12	P	
	7440-43-9	Cadmium	0.37	ש		P	
	7440-70-2	Calcium	62500		E.	[P	
	7440-47-3	Chromium	6.9	ש	JJ	P	
	7440-50-8	Copper	1 254 9.9	₿	<u> </u>	P	
	7439-89-6	Iron	279		NE	P	
	7439-97-6	Mercury	0.03	ש	<u>1</u> J	CV	
	7439-95-4	Magnesium	58400		<u>x</u>	P	
	7439-96-5	Manganese	16.6		¥	P	
	7440-02-0	Nickel	1 40U -1.0	<u> </u> ₿-	1	P	
	7440-09-7	Potassium	5000U-2670	B	<u> </u>	P	
	7782-49-2	Selenium	3.4	ש		P	
	7440-23-5	Sodium	21600		<u> </u>	P	
	7440-66-6	Zinc	1 200 2.4	╞		P	
			Ē	B21	MA Lela	23/17	Ш.М04
· .							
olor Before:	C	larity Before:		. Т	exture	:	
lor After:	c	larity After:		. A	rtifac	ts:	
omments:							
		Form I	n a i				

					GW Dep Drain 1
Lab Name:	Adirondack	Environmenta	al C	ontract: Lockwood As	sh Lan
Lab Code:	AES	Case No.:	17024LH	SAS No.:	SDG No.: 7842
Matrix (soil	l/water):	WATER		Lab Sample ID:	170331010-015D
Level (low/r	red): \underline{LO}	W		Date Received:	3/31/2017
<pre>% Solids:</pre>	0.0			Total/Dissolved	: TOTAL

Concentration Units (ug/L or mg/kg dry weight):

UG/L

EPA SAMPLE NO.

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	16.6	σ		P
7440-36-0	Antimony	2.7	U	<u> J</u>	P
7440-38-2	Arsenic	4.4	В	J	P
7440-39-3	Barium	1200U 28.7	₽	FT	P
7440-42-8	Boron	2190		P	P
7440-43-9	Cadmium	0.37	ש	し	P
7440-70-2	Calcium	342000		Р.	P
7440-47-3	Chromium	6.9	U	JJ	P
7440-50-8	Copper	25U 5.9	╆	l'J	P
7439-89-6	Iron	382		JEJ-	P
7439-97-6	Mercury	0.03	ש	।उ	CV
7439-95-4	Magnesium	84200		E	P
7439-96-5	Manganese	24.4		FJ-	P
7440-02-0	Nickel	1 40U 4.7	18	J	P
7440-09-7	Potassium	15000 -4960-	┺	174	P
7782-49-2	Selenium	3.4	ש	J	P
7440-23-5	Sodium	43700		<u> J+</u>	P
7440-66-6	Zinc	20U - 3.6 -	19	JJ	P

BAMA 6/23/17

Color Before:	<u>,</u>	Clarity	Before:		Texture:	
Color After:		Clarity	After:		Artifacts:	
Comments:			<u> </u>			
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					GW DUP 8909-D
Lab Name:	Adirondack	Environmenta	<u>al (</u>	Contract: Lockwood As	h Lan
Lab Code:	AES	Case No.:	17024LH	SAS No.:	SDG No.: 7842
Matrix (soi)	1/water):	WATER		Lab Sample ID:	170331010-014D
Level (low/	med): L(OWWC		Date Received:	3/31/2017
% Solids:	0.0			Total/Dissolved:	TOTAL

10

CAS No.	Analyte	Concentration	C	Q	м
7429-90-5	Aluminum	905	Î	J	P
7440-36-0	Antimony	2.7	ប		P
7440-38-2	Arsenic	2.8	ן ש		P
7440-39-3	Barium	2004 -66.4	<u>₩</u>	J.	P
7440-42-8	Boron	728		¥	P
7440-43-9	Cadmium	0.37	ש	<u> </u>	P
7440-70-2	Calcium	14300		F	P
7440-47-3	Chromium	6.9	ש	IJ	P
7440-50-8	Copper	1 25U 3.4	HP HP		P
7439-89-6	Iron	2630		W J	P
7439-97-6	Mercury	0.03	ש	J	CV
7439-95-4	Magnesium	15000U 3020	╊	17	P
7439-96-5	Manganese	85,8		Ì₽∕	P
7440-02-0	Nickel	1 40U -3.1	₽		P
7440-09-7	Potassium	5000 U 1230	┢		P
7782-49-2	Selenium	3.4	ש	1	P
7440-23-5	Sodium	217000	1		P
7440-66-6	Zinc	120U 15.0	 ₿ -		P



	L	IORGAINC ANAD	YSES DATA SHEET			E	PA SAMPLE NO.
						G	W DUP 8909-D
Name: Adirond	lack Environment	tal Contr	act: Lockwood	Ash	Lan		
	Case No.:	<u></u>	LS No.:		SDG No	. :	7842
b Code: <u>AES</u>		1702466 34	B NO				
rix (soil/water):	WATER		Lab Sample ID:	:	17033	1010-	-014D
vel (low/med):	LOW		Date Received:		3/31/2	2017	
Solids: 0.0			Total/Dissolve	ad:	TOTAL		
solids: <u>0.0</u>							
	Concentrat	ion Units (ug/L	or mg/kg dry weigh	it):		UG/I	a
	· · · · · · · · · · · · · · · · · · ·			1			
	CAS No.	Analyte	Concentration	C	Q	м	
	7429-90-5	Aluminum	905	+	T	P	
	7440-36-0	Antimony	2.7	jυ	i 💟 🔤	P	
	7440-38-2	Arsenic	2.8	U	1	P	
	7440-39-3	Barium	12004 -66.4	╊	¥	P	
	7440-42-8	Boron	728		¥	P	
	7440-43-9	Cadmium	0.37	שן	[P	
	7440-70-2	Calcium	14300		₽	P	
	7440-47-3	Chromium	6.9	<u>יין</u>	<u> J</u>	P	
	7440-50-8	Copper	1 25U 3.4	+=		P	
	7439-89-6	Iron	2630		M J	P	
	7439-97-6	Mercury	0.03	<u>ע </u>	<u> J</u>		
	7439-95-4	Magnesium	5000 3020	╋			
	7439-96-5	Manganese	85.8	 	<u> </u> ¥ ∣	P P	
	7440-02-0	Nickel	5000 U 1230		1	<u>P</u>	
	7440-09-7	Potassium	5000 1 230	<u>יין</u> דד	<u> </u>	<u>-</u> P	
	7782-49-2	Selenium Sodium	217000	1-	<u> </u>		
	7440-23-5		120 U 15.0	– – ₽-	1	P	
	7440-88-8	21110	1 20 10 2010	<u> </u>	1	<u> </u>	2
			E	₿≯	MJ GD	31	PA SAMPLE NO. W DUP 8909-D 7842 -014D
Color Before:	c	larity Before:		_ T	exture		
Color After: _	c	larity After:		_ A	rtifaci	:s:	
Comments:					<u></u>		
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, <u> </u>							
		Form I					

INORGANIC ANALYSES DATA SHEET

						Leak	Detection Syst.
Lab Name:	Adirondack	Environmenta	al Co	ntract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17024LH	SAS No.:		SDG No.:	7842
Matrix (soi	l/water):	WATER		Lab	Sample ID:	170331010	-016D
Level (low/	med): <u>LC</u>	w		Dat	e Received:	3/31/2017	
% Solids:	0.0			Tot	al/Dissolved:	TOTAL	
					_		

		· · · · · · · · · · · · · · · · · · ·			
CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	16.6	υ		P
7440-36-0	Antimony	2.7	U	15	P
7440-38-2	Arsenic	7.1	в	JJ-	P
7440-39-3	Barium	2001 18.9	┢┺	KJ+	P
7440-42-8	Boron	1190		1×J-	P
7440-43-9	Cadmium	0.37	U	<u> J</u>	P
7440-70-2	Calcium	397000		¥	P
7440-47-3	Chromium	6.9	ש	15	P
7440-50-8	Copper	1 25U .6.8	₽.	TJ_	P
7439-89-6	Iron	47.7	В	<u> 严J-</u>	P
7439-97-6	Mercury	0.03	ប	<u> J</u>	CV
7439-95-4	Magnesium	109000		₽	P
7439-96-5	Manganese	1 15U 12.1-	₽	₩J	P
7440-02-0	Nickel	400 -1.6	 ₿~	JJ	P
7440-09-7	Potassium	15000U 4450-	₽	J+	P
7782-49-2	Selenium	3.4	ש	JJ	P
7440-23-5	Sodium	44800	В	1	P
7440-66-6	Zinc	0.29	שן	JJ	P

BAMA 6123/17

	IN	ORGANIC ANALY	SES DATA SHEET	EPA SAMPLE NO.
				Leak Detection Syst.
me: Adironda	ack Environment	al Contra	ct: Lockwood Ash	Lan
	Case No.:		3 No.:	SDG No.: 7842
de: <u>AES</u>				
<pre>x (soil/water):</pre>	WATER	· · · · · · · · · · · · · · · · · · ·	Lab Sample ID:	170331010-016D
(low/med):	LOW		Date Received:	3/31/2017
ids: 0.0			Total/Dissolved:	TOTAL
	Concentratio	on Units (ug/L o	r mg/kg dry weight):	UG/L
		Analyte	Concentration C	о м
	CAS No.	Anaryce		
	7429-90-5	Aluminum	16.6 U	P
	7440-36-0	Antimony	2.7 U	JJ P
	7440-38-2	Arsenic	7.1 B	
	7440-39-3	Barium	2001 18.9 13	KJ+ P
	7440-42-8	Boron	1190	FJ-P
	7440-43-9	Cadmium	0.37 U	
	7440-70-2	Calcium	397000	
	7440-47-3	Chromium	6.9 U	
	7440-50-8	Copper	1 25U 6.8 13	J P
	7439-89-6	Iron		₩J- P
	7439-97-6	Mercury	0.03 0	
	7439-95-4	Magnesium		Z P
	7439-96-5	Manganese	1 15U 12.1 B	₽ J P
	7440-02-0	Nickel	400 -1.6-18- 15000 (1 4450-18-	
	7440-09-7	Potassium	1000-00	
	7782-49-2	Selenium	3.4 U 44800 B	
	7440-23-5	Sodium	<u> 44800 2</u> 0.29 U	
	7440-66-6	Zinc	<u> </u>	
			P	U123/17
			J	~~/ t
				(l 20)
lor Before:	CI	arity Before:	т	'exture:
TOL Reloie: "				
lor After:	Cl	arity After:	A	rtifacts:
			<u></u>	
ments:				
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	<u> </u>			
		Form I	- IN	IL

INORGANIC ANALYSES DATA SHEET

· .						Γ	Under Drain 1
Lab Name:	Adirondack	Environmenta	al	Contract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17024LH	SAS No.:		SDG No	o.: <u>7842</u>
Matrix (soi	l/water):	WATER		Lab	Sample ID:	<u>17033</u>	1010-017D
Level (low/	med): \underline{LC}	W		Dat	e Received:	3/31/	2017
% Solids:	0.0			Tot	al/Dissolved:	TOTAL	

Concentration Units (ug/L or mg/kg dry weight):

UG/L

EPA SAMPLE NO.

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	16.6	ש	1	P
7440-36-0	Antimony	2.7	ש	JJ	P
7440-38-2	Arsenic	5,4	В	IJ-	P
7440-39-3	Barium	2001 50.3	╊	₽J+	P
7440-42-8	Boron	3800		₽.	P
7440-43-9	Cadmium	0.37	យ	ナ_	P_
7440-70-2	Calcium	383000		JE.	P
7440-47-3	Chromium	6.9	ען	13	P
7440-50-8	Copper	1 25U 3.0	∤₿	JJ	P
7439-89-6	Iron	3740	Ϊ	MJ-	P
7439-97-6	Mercury	0.03	ש	J	CV
7439-95-4	Magnesium	75700		Z	P
7439-96-5	Manganese	766		X	P
7440-02-0	Nickel	1400 5.5	₱	IJ_	P
7440-09-7	Potassium	16600		JJ+	P
7782-49-2	Selenium	20.3	Ì	J-	P
7440-23-5	Sodium	48000	B	Ī	P
7440-66-6	Zinc	0.29	ש	JJ	P

BAMA 6123/17

Color Before:	Clarity Before:	Texture:
Color After:	Clarity After:	Artifacts:
Comments:		

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INORGANIC ANALYSES DATA SHEET

			Under Drain 2
Lab Name:	Adirondack Environmental Co	ntract: Lockwood Ash	Lan
Lab Code:	AES Case No.: 17024LH	SAS No.:	SDG No.: 7842
Matrix (soi)	/water): WATER	Lab Sample ID:	170331010-018D
Level (low/r	aed): LOW	Date Received:	3/31/2017
& Solids:	0.0	Total/Dissolved:	TOTAL

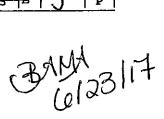
Concentration Units (ug/L or mg/kg dry weight):

UG/L

EPA SAMPLE NO.

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CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	16.6	U		P
7440-36-0	Antimony	2.7	ש	15	P
7440-38-2	Arsenic	2.8	ט	しむ	P
7440-39-3	Barium	1 200U 23.4-	/₽_	F J+	P
7440-42-8	Boron	24100		¥	P
7440-43-9	Cadmium	0.37	ש	15	P
7440-70-2	Calcium	634000		Z.	P
7440-47-3	Chromium	6.9	ש	IJ	P
7440-50-8	Copper	1 25U	₽	IJ	P
7439-89-6	Iron	4460	ł	ブ-	P
7439-97-6	Mercury	0.03	ש	J J	CV
7439-95-4	Magnesium	70600		۶.	P
7439-96-5	Manganese	782]	F	P
7440-02-0	Nickel	1400 5.5	₿	য	P
7440-09-7	Potassium	84100			P
7782-49-2	Selenium	30.0		15-	P
7440-23-5	Sodium	211000			P
7440-66-6	Zinc	1 200 - 8.3-	¦ ₿	J	P



Color Before:		Clarity Before:	 Texture:	
Color After:	<u> </u>	Clarity After:	 Artifacts:	
Comments:			 	
-			 	

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						ſ	Under Drain 3	
Lab Name:	Adirondack	Environmenta	1	Contract:	Lockwood Ash	Lan		
Lab Code:	AES	Case No.:	17024LH	SAS No.:		SDG 1	No.: 7842	
Matrix (soi)	l/water):	WATER		Lab	Sample ID:	1703	31010-019D	
Level (low/n	ned): <u>LO</u>	W		Dat	e Received:	3/31	/2017	
% Solids:	0.0			Tot	al/Dissolved:	TOTA	Т	

Concentration Units (ug/L or mg/kg dry weight):

UG/L

EPA SAMPLE NO.

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CAS No.	Analyte	Concentration	c	Q	M
7429-90-5	Aluminum	2170	1	İ.	P
7440-36-0	Antimony	2.7	ט	15	P
7440-38-2	Arsenic	2.8	ש	IJ	P
7440-39-3	Barium	200 u 14.7	<mark> </mark> ₿	15 J+	P
7440-42-8	Boron	8850		≠	P
7440-43-9	Cadmium	0.94	в	1 J-	P
7440-70-2	Calcium	720000		1×	P
7440-47-3	Chromium	6,9	ם	IJ	P
7440-50-8	Copper	25U +5	₽	ーナ	P
7439-89-6	Iron	4950		DEJ-	P
7439-97-6	Mercury	0.03	ש	IJ	CV
7439-95-4	Magnesium	87500		l₽́	P
7439-96-5	Manganese	504	1	∣ ⊈	P
7440-02-0	Nickel	41.7	1	JJ-	Р
7440-09-7	Potassium	88,300-60000			P
7782-49-2	Selenium	21.9		13-	P
7440-23-5	Sodium	187000	1	1	P
7440-66-6	Zinc	66.1		-UI	P

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Color Before:	 Clarity Before:	·	Texture:	
Color After:	 Clarity After:		Artifacts:	·
Comments:	 			
	 			······································

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Hardness Results

Lab Name:	Adirondack Env	vironmental		Contract:		
Lab Code:	AES	Case No.:	17024LH	SAS No.:	SDG No.:	7842
Matrix (soil/	water):	Water		Date Received:	3/31/17	

Level (Low/Med):

Low

Sample ID	Concentration (mg/L)
7842	486
8401	297
8404	391
8908-D	660
8908-SH	633
8909-D	49
8909-SH	149
8910-D	305
8911- D	256
8911-SH	196
8942-D	488
9306-SH	397
GW Dep Drain 1	1201
GW Dup 8909-D	48
Leak Detection System	1440
Under Drain 1	~-257-
Under Drain 2	1874
Under Drain 3	2158

BAMA 6123/17

1,270 mg/L

INORGANIC ANALYSIS DATA SHEET

					7842
Lab Name:	AES		Contract:		
Lab Code:	AES	Case No.: 1702	4LH NRAS No.:	SDG NO.:	7842
Matrix (soi	il/water):	WATER	Lab Sample ID:	170331010-001B	
Level (low/	'med) :	Low	Date Received:	03/31/2017	
% Solids:	0.0	D			

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	240			MG/L	
· · · · · · · · · · · · · · · · · · ·	Chloride	33.5			MG/L	
	Color	5	υ	5	MG/L	
	Nitrogen, Ammonia (As N)	0.1	Ū		MG/L	
	Specific Conductance	800	-		MG/L	1
	Sulfate	180			MG/L	
	TDS (Residue, Filterable)	575			MG/L	1
	Total Organic Carbon	2.9		<u>,</u>]+	MG/L	

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EPA SAMPLE NO.

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Comments:

Form IA-IN

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INORGANIC ANAL	YSIS	DATA	SHEFT
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Lab Name:	AES		Contract:	
Lab Code:	AES	Case No.: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (soi	il/water):	WATER	Lab Sample ID:	170331010-002B
Level (low/	/med):	Low	Date Received:	03/31/2017
% Solids:	0.	0		•

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	345			MG/L	
	Chloride	36.8			MG/L	1
	Sulfate	64.9			MG/L	
	Color	5	υ	\mathbf{J}	MG/L	
······································	Nitrogen, Ammonia (As N)	0.752			MG/L	
	Specific Conductance	719			MG/L	
	TDS (Residue, Filterable)	480		ļ	MG/L	1
<u></u>	Total Organic Carbon	1	U		MG/L	

BAMA 6123/17

Comments:

Form LA-IN

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EPA SAMPLE NO. 8401

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

8404

Lab Name:	AES		Contract:		
Lab Code:	AES	Case No.: <u>17024LH</u>	NRAS No.:	SDG NO.:	7842
Matrix (soi	l/water):	WATER	Lab Sample ID:	170331010-003B	
Level (low/	med) ;	Low	Date Received:	03/31/2017	
% Solids:	0.0	, ,			

CAS No.	Analyte	Concentration	с	Q	Units	м
	Alkalinity, Total (As CaCO3)	298			MG/L	T
	Chloride	2	υ		MG/L	1
	Sulfate	94.8			MG/L	
	Color	5	υ	3	MG/L	
	Nítrogen, Ammonia (As N)	0.1	U		MG/L	
	Specific Conductance	660			MG/L	
	TDS (Residue, Filterable)	455			MG/L	
	Total Organic Carbon	1.53		J+	MG/L	

BXMA 6123/17

Comments:

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INORGANIC ANALYSIS DATA SHEET

				8908-D	
Lab Name:	AES		Contract:		
Lab Code:	AES	Case No.: 170;	4LH NRAS No.:	SDG NO.: 7842	
Matrix (soi	1/water):	WATER	Lab Sample ID:	170331010-004B	
Level (low/	med) :	Low	Date Received:	03/31/2017	
ቼ Solids :	0.0)			

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	365			MG/L	
	Chloride	19.1			MG/L	
	Color	5	U	JJ	MG/L	
	Nitrogen, Ammonia (As N)	0.398		5-1	MG/L	
	Specific Conductance	1060			MG/L	
	Sulfate	330		<u> </u>	MG/L	1
	TDS (Residue, Filterable)	820		1	MG/L	
	Total Organic Carbon	1.15		3 +	MG/L	

BAMA 6123/17

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EPA SAMPLE NO.

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Comments:

Form IA-IN

INORGANIC ANALYSIS DATA SHEET

			8	908-sh
Lab Name: AES		Contract:		
Lab Code: AES Case N	o.: <u>17024LH</u>	NRAS No.:	SDG NO.	7842
Matrix (soil/water): WATER		Lab Sample ID:	170331010-005B	
Level (low/med): Low		Date Received:	03/31/2017	
% Solids: 0.0			, , , , , , , , , , , , , , , ,	

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	395		1	MG/L	T
	Chloride	13.5			MG/L	
	Color	5	U	J	MG/L	
	Nitrogen, Ammonia (As N)	0.1	U		MG/L	
	Specific Conductance	977			MG/L	<u> </u>
	Sulfate	254			MG/L	1
	TDS (Residue, Filterable)	730		1 1	MG/L	1
	Total Organic Carbon	1.11		J+	MG/L	1

BAMA 6123/17

EPA SAMPLE NO.

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Comments:

Form IA-IN

INORGANIC ANALYSIS DATA SHEET

					8909-D
Lab Name:	AES		Contract:		
Lab Code:	AES	Case No.: 17024LH	NRAS No.:	SDG	NO.: 7842
Matrix (so:	il/water):	WATER	Lab Sample ID:	170331010-006B	_
Level (low,	/med) :	Low	Date Received:	03/31/2017	

% Solids:

0.0

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	300			MG/L	T
	Chloride	4.5		1	MG/L	
	Sulfate	85.6			MG/L	
	Color	15		\overline{J}	MG/L	\top
	Nitrogen, Ammonia (As N)	0.475		J-1	MG/L	
	Specific Conductance	657			MG/L	
	TDS (Residue, Filterable)	505		1 1	MG/L	
	Total Organic Carbon	3.01		J+	MG/L	

BAMA 6123/17

EPA SAMPLE NO.

Comments:

Form IA-IN

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None-

INORGANIC ANALYSIS DATA SHEET

			8909–Sh
Lab Name: AES		Contract:	
Lab Code: AES	Case No.: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (soil/water):	WATER	Lab Sample ID:	170331010-007B
Level (low/med):	Low	Date Received:	03/31/2017
% Solids: 0	.0		

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	165			MG/L	T
	Chloride	2	υ		MG/L	
	Sulfate	126			MG/L	
	Color	5	υ	ত	MG/L	1
	Nitrogen, Ammonia (As N)	0.1	υ		MG/L	
	Specific Conductance	495			MG/L	
	TDS (Residue, Filterable)	355			MG/L	
	Total Organic Carbon	1	υ		MG/L	

BAMA 6123/17

Comments:

Form IA-IN

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EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

			8910-D
Lab Name: AES		Contract:	
Lab Code: AES Case No.	: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (soil/water): WATER		Lab Sample ID:	170331010-008B
Level (low/med): Low		Date Received:	03/31/2017
<pre>% Solids: 0.0</pre>			

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	135			MG/L	
	Chloride	24.9			MG/L	
<u></u>	Color	5	ប	চ	MG/L	
	Nitrogen, Ammonia (As N)	0.1	U		MG/L	
	Specific Conductance	900		i	MG/L	
	Sulfate	363			MG/L	
	TDS (Residue, Filterable)	690			MG/L	
	Total Organic Carbon	1	U		MG/L	

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EPA SAMPLE NO.

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Comments:

INORGANIC ANALYSIS DATA SHEET

			8911-D
Lab Name: AES		Contract:	
Lab Code: AES	Case No.: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (soil/water):	WATER	Lab Sample ID:	170331010-010B
Level (low/med):	Low	Date Received:	03/31/2017
% Solids: 0	.0		

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	205			MG/L	
	Chloride	16.2			MG/L	1
	Color	5	υ	T	MG/L	1 I
	Nitrogen, Ammonia (As N)	0.24		J-1	MG/L	1
	Specific Conductance	874			MG/L	
	Sulfate	305			MG/L	
	TDS (Residue, Filterable)	615		<u> </u>	MG/L	
	Total Organic Carbon	1	υ		MG/L	

BAMA 6123/17

Comments:

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Form LA-IN EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

Lab Name:	AES	-	Contract:	
Lab Code:	AES	Case No.: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (so	il/water):	WATER	Lab Sample ID:	170331010-011B
Level (low/	/med) :	Low	Date Received:	03/31/2017
<pre>% Solids:</pre>	0.	0		•

CAS No.	Analyte	Concentration	C	Q	Units	м
	Alkalinity, Total (As CaCO3)	90			MG/L	
	Chloride	10.2			MG/L	
	Color	5	U	T	MG/L	1
	Nitrogen, Ammonia (As N)	0.226		Ĵ-Ţ	MG/L	1
	Specific Conductance	634		11	MG/L	
	Sulfate	248			MG/L	
	TDS (Residue, Filterable)	440			MG/L	
	Total Organic Carbon	1	U		MG/L	

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Comments:

Form IA-IN

EPA SAMPLE NO. 8911-SH

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

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8942~D

Lab Name: AES			Contract:	
Lab Code:	AES	Case No.: 1702	24LH NRAS No.;	SDG NO.: 7842
Matrix (soil	l/water):	WATER	Lab Sample ID:	170331010-012B
Level (low/m	ned) :	Low	Date Received:	03/31/2017
% Solids:	0.0			

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	285		T T	MG/L	T
	Chloride	5.6			MG/L	
<u></u>	Color	5	υ	J	MG/L	
	Nitrogen, Ammonia (As N)	0.1	υ		MG/L	
	Specific Conductance	858			MG/L	
	Sulfate	280			MG/L	1
	TDS (Residue, Filterable)	645			MG/L	
	Total Organic Carbon	1	ប		MG/L	1

BAMA 6123/17

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Comments:

INORGANIC ANALYSIS DATA SHEET

EPA	SAMPLE	NO.
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9306-SH

Lab Name:	AES		Contract:	
Lab Code:	AES	Case No.: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (so:	il/water):	WATER	Lab Sample ID:	170331010-013B
Level (low/	/med) :	Low	Date Received:	03/31/2017
% Solids:	0.	D		·

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	325			MG/L	ŀ
	Chloride	2	υ		MG/L	
	Sulfate	83.3			MG/L	
	Color	5	υ	J	MG/L	
	Nitrogen, Ammonia (As N)	0.1	υ		MG/L	
	Specific Conductance	634			MG/L	
	TDS (Residue, Filterable)	410			MG/L	
	Total Organic Carbon	1	Ű		MG/L	

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Comments:

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INORGANIC ANALYSIS DATA SHEET

				GW Dep Drain 1
Lab Name:	AES		Contract:	
Lab Code:	AES	Case No.: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (so:	il/water):	WATER	Lab Sample ID:	170331010-015B
Level (low,	/med):	Low	Date Received:	03/31/2017
% Solids:	0.	0		

CAS No.	Analyte	Concentration	С	Q	Units	м	
	Alkalinity, Total (As CaCO3)	315			MG/L	 T	
	Chloride	55.6			MG/L	1	
	Color	5	U	:	MG/L		
· · · · · · · · · · · · · · · · · · ·	Nitrogen, Ammonia (As N)	0.1	ΰ		MG/L	1	
	Specific Conductance	1520			MG/L	1	
	Sulfate	654		1 1	MG/L	1	
	TDS (Residue, Filterable)	1280			MG/L	1	
	Total Organic Carbon	1.26		JH	MG/L	1	

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EPA SAMPLE NO.

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Comments:

Form IA-IN

INORGANIC ANALYSIS DATA SHEET

					ଙ୍କ	DUP 8909-D
Lab Name: AES	3			Contract:		
Lab Code: AES	3	Case No.:	17024LH	NRAS No.:	SDG NO	.: 7842
Matrix (soil/wa	ater):	WATER	_	Lab Sample ID:	170331010-014B	
Level (low/med)	:	Low		Date Received:	03/31/2017	
& Solids:	0.0))				

Analyte	Concentration	, C	Q	Units	м
Alkalinity, Total (As CaCO3)	315		T I	MG/L	T
Chloride	4.35			MG/L	
Sulfate	87.5			MG/L	
Color	15		र वि	MG/L	
Nitrogen, Ammonia (As N)	0.467		(T-	MG/L	
Specific Conductance	659			MG/L	
TDS (Residue, Filterable)	495			MG/L	
Total Organic Carbon	2.92		(T+	MG/L	
	Alkalinity, Total (As CaCO3) Chloride Sulfate Color Nitrogen, Ammonia (As N) Specific Conductance	Alkalinity, Total (As CaCO3)315Chloride4.35Sulfate87.5Color15Nitrogen, Ammonia (As N)0.467Specific Conductance659TDS (Residue, Filterable)495	Alkalinity, Total (As CaCO3)315Chloride4.35Sulfate87.5Color15Nitrogen, Ammonia (As N)0.467Specific Conductance659TDS (Residue, Filterable)495	Alkalinity, Total (As CaCO3)315Chloride4.35Sulfate87.5Color15Nitrogen, Ammonia (As N)0.467Specific Conductance659TDS (Residue, Filterable)495	AnalyteCondentrationCXAlkalinity, Total (As CaCO3)315MG/LChloride4.35MG/LSulfate87.5MG/LColor15JNitrogen, Ammonia (As N)0.467J-Specific Conductance659MG/LTDS (Residue, Filterable)495MG/L

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EPA SAMPLE NO.

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Comments:

Form IA-IN

INORGANIC ANALYSIS DATA SHEET

			Leak De	tection
Lab Name: AES		Contract:		
Lab Code: AES Ca	Case No.: 17024LH	NRAS No.:	SDG NO. :	7842
Matrix (soil/water): WAN	TER I	ab Sample ID: 1	.70331010-016B	
Level (low/med): Low	w D	ate Received: 0	3/31/2017	
* Solids: 0.0		-		

CAS No.	Analyte	Concentration		Q	Units	м	
	Alkalinity, Total (As CaCO3)	395			MG/L	Ť	
	Chloride	32.8			MG/L	+	
	Color	5	υ	J	MG/L	+	
	Nitrogen, Ammonia (As N)	0.1	υ		MG/L	+	
	Specific Conductance	1910			MG/L	+	
	Sulfate	1080			MG/L	1	
	TDS (Residue, Filterable)	1820			MG/L	+	
	Total Organic Carbon	2.68		T ₊	MG/L	<u>†</u>	

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Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

		Under Drain 1
Lab Name: AES	Contract:	······································
Lab Code: AES Case No.: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (soil/water): WATER	Lab Sample ID:	170331010-017B
Level (low/med): Low	Date Received:	03/31/2017
% Solids: 0.0		, <u>, , , , , , , , , , , , , , , , </u>

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	570			MG/L	
	Chloride	23.3			MG/L	
	Color	5	U	त	MG/L	1.
	Nitrogen, Ammonia (As N)	0.1	U		MG/L	
	Specific Conductance	1430			MG/L	
	Sulfate	468			MG/L	
	TDS (Residue, Filterable)	1250			MG/L	
	Total Organic Carbon	1	υ		MG/L	

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Comments:

INORGANIC ANALYSIS DATA SHEET

					Unde	r Drain 2
Lab Name:	AES			Contract:		
Lab Code:	AES	Case No.: 1	7024LH	NRAS No.:	SDG NO.	: 7842
Matrix (soi	l/water):	WATER	-	Lab Sample ID:	170331010-018B	
Level (low/	med):	Low		Date Received:	03/31/2017	
% Solids:	0.0)	-		<u>i</u>	1

CAS No.	Analyte	Concentration	С	Q	Units	м	
	Alkalinity, Total (As CaCO3)	310		<u> </u>	MG/L	T	
	Chloride	264			MG/L		
	Sulfate	1470			MG/L		
	Color	5	υ	J	MG/L		
	Nitrogen, Ammonia (As N)	0.759			MG/L	1	
	Specific Conductance	2960			MG/L	1	
······	TDS (Residue, Filterable)	2850			MG/L	1	
·····	Total Organic Carbon	1	U		MG/L	1	

BAMA 6/23/17

EPA SAMPLE NO.

Comments:

Form IA-IN

1A-IN

INORGANIC ANALYSIS DATA SHEET

		Under Drain 3
Lab Name: AES	Contract:	
Lab Code: AES Case No.: 17024LH	NRAS No.:	SDG NO.: 7842
Matrix (soil/water): WATER	Lab Sample ID:	170331010-019B
Level (low/med): Low	Date Received:	03/31/2017
% Solids: 0.0		

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	115			MG/L	Τ
<u> </u>	Chloride	832			MG/L	
	Sulfate	1480			MG/L	
	Color	5	U	JJ	MG/L	
	Nitrogen, Ammonia (As N)	0.228	<u> </u>	J-1	MG/L	
	Specific Conductance	4090			MG/L	
	TDS (Residue, Filterable)	3790			MG/L	
	Total Organic Carbon	1	U		MG/L	
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BAMA 6123/17

EPA SAMPLE NO.

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Comments:

Form IA-IN

A.4 FIELD DUPLICATES

Sample No.	170331010-006B	Field Duplicate No.	170331010-014	B SDG No.	7842
Lab Code:	AES	Case No.	17024LH	Sample Matrix:	Groundwater

% Solids Sample: 0.0

% Solids Duplicate: 0.0

Concentration Units (ug/I or mg/kg dry weight): mg/L

Analyte	Sample Concentration	С	Duplicate Concentration	с	RPD	Q	Μ
Ammonia	0.475		0.467		1.7%		
Alkalinity	300		315		4.9%		
Color	15		15				
Conductivity	657		659		0.3%		
Chloride	4.50		4.35		3.4%		
Hardness	49		48		2.1%		
Sulfate	85.6		88		2.2%		
TDS	505		495		2.0%		
тос	3.0		2.92		3.0%		

Parameter*	Sample Concentration	с	Duplicate Concentration	с	RPD	Units	Q
рН	9.3					SU	
Temperature	12					Deg C	
Turbidity	>999					NTU	

*Field parameters not measured on field duplicate.

A.4 **FIELD DUPLICATES**

Sample No. 170331010-006D Field Duplicate No. 170331010-014D SDG No. 7842

Lab Code: AES

Case No. 17024LH

Sample Matrix: Groundwater

% Solids Sample: 0.0

% Solids Duplicate: 0.0

Concentration Units (ug/l or mg/kg dry weight): ug/L

Analyte	CRQL	Action Limit (5xCRQL)	Sample Concentration	С	Duplicate Concentration	С	RPD, %	Absolute Difference	Q	М
Aluminum	200	1,000	1,430		905			525	J	Р
Antimony	60	300	2.7	U	2.7	U				Р
Arsenic	10	50	2.8	U	2.8	U				Р
Barium	200	1,000	68.2	В	66.4	В		2		Р
Boron	50	250	770		728		5.61			Р
Cadmium	5	25	0.37	U	0.37	U				Р
Calcium	5,000	25,000	14,100		14,300			200		Р
Chromium	10	50	6.9	U	6.9	U				Р
Copper	25	125	3.2	В	3.4	В		0.2		Р
Iron	100	500	3,540		2,630		29.50		J	Р
Magnesium	5,000	25,000	3,320	В	3,020	В		300		Р
Manganese	15	75	90		85.8		4.44			Р
Mercury	0.2	1.0	0.03	U	0.03	U				CV
Nickel	40	200	4.10	В	3.1	В		1.0		Р
Potassium	5,000	25,000	1,290	В	1,230	В		60		Р
Selenium	5	25	3.4	U	3.4	U				Р
Sodium	5,000	25,000	226,000		217,000		4.06			Р
Zinc	20	100	15.4	В	15.0	В		0.4		Р

2B

Sample Data Group 7842

Quality Control Documentation

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Lab Name:	Adirondack En	nvironmenta	al	C	ontract:	Lockwoo	d Ash Land	11111	
Lab Code:	AES	Case No.:	17024LH	SAS N	lo.:		SDG No.:	7842	
Preparation	Blank Matrix	(soil/water	c): WATE	R	_				
Preparation	Blank Concen	tration Unit	ts (ug/L or m	g/kg):	UG	/L			

Analyte C A D P Iuminum 2.7 U 2.7 U 2.7 U 2.7 U P P rsenic 2.8 U 2.8 U 2.8 U 2.8 U P P arxium 1.1 U 2.0 B 1.6 B P P admium 0.5 B 0.4 U 0.4 U P P admium 0.5 B 0.4 U 0.4 U P P coron 5.7 U 5.7 U P P P P P P P P P		Concentration C Initial Calib. Blank (ug/L)	CCB-4	g/kg): UG/ tinuing Calibrat Blank (ug/L) CCB-5	ccB-6	Preparation Blank C	м
Luminum 16.6 U 16.6 U 1 1 Antimony 2.7 U 2.7 U 2.7 U 2.7 U 2.7 U 2.7 U Arsenic 2.8 U 2.	Analyte	C	+ c	r 2 C	- <u> </u>		P
ntimony 2.7 U 2.8 U 2.8 U 2.8 U P arrium 1.1 U 2.0 B 1.6 B P P coron 5.8 B 13.1 B 8.2 B P P cathum 0.5 B 0.4 U 0.4 U P P cathum 5.7 U 5.7 U 5.7 U P P cathum 6.9 U 6.9 U 0.4 U P P copper 2.3 B 1.7 U 1.7 U P P copper 2.3 B 1.7 U 1.7 U P P copper 2.3 B 0.5 B 0.4 B P P copper 2.3 B 1.7 U 1.7 U P P fangesium 13.3 U 25.6 B 13.3 U P P ctassium 7.3 U 0.5 B 0.4 B P P octassium 7.3 U 11.6 B 7.3 U P P octassium 3.4 U 3.4 U 2.5 B	luminum			and the second s			
2.8 U 2.8 U 2.8 U 2.8 U 2.8 U 2.8 U 2.8 U 2.8 U P Sarium 1.1 U 2.0 D 1.6 D P P Soron 5.8 D 0.4 U 0.4 U 0.4 U P Sachium 0.5 D 0.4 U 0.4 U P P Salcium 5.7 U 5.7 U 5.7 U P P Schornium 6.9 U 6.9 U 0.9 U P Copper 2.3 D 1.7 U 1.7 U P Agnesium 13.3 U 25.6 B 13.3 U P Aarganese 0.4 B 0.5 B P P Schenium 7.3 U 11.6 B 7.3 U P Schenium 3.4 U 3.4 U P P	ntimony						D
arium 1.1 U 2.0 B 1.0 C 1.0 B 1.0 C 1.0 C <td< td=""><td>rsenic</td><td></td><td></td><td>the second second second second second second second second second second second second second second second se</td><td>and the second se</td><td></td><td>P</td></td<>	rsenic			the second second second second second second second second second second second second second second second se	and the second se		P
boron 5.6 B 15.1 B 0.4 U 0.4 U	arium		the second second second second second second second second second second second second second second second se			/	P
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Chronium 6.9 0 0.2 0 <th0.2 0<="" th=""> 0.2 0 0.2 0 <</th0.2>							P
Copper (2,3 B) (1,7)			the second second second second second second second second second second second second second second second se		the state of the s		P
Iron 1.7/0	and the second se	7300000000				l	P
Image: Argnesium Image: I						1	P
Manganese U.4/B U.2/B U.6/B U.1/B P Nickel 0.5 B 0.6 B 0.5 B P Potassium 7.3 U 11.6 B 7.3 U P Selenium 3.4 U 3.4 U 3.4 U 9 P Sodium 12.8 U 19.9 B 23.0 B P P Zinc 0.6 B 0.6 B 0.5 B P P						1	P
Nickel 0.3 B/ 0.6 B/ 7.3 U P Potassium 7.3 U 11.6 B/ 7.3 U P Selenium 3.4 U 3.4 U 3.4 U 9 P Sodium 12.8 U 19.9 B/ 23.0 B/ P P Zinc 0.6 B/ 0.6 B/ 0.5 B/ P P					and the second se		P
Potassium 1.3 U 3.4 U 3.4 U 3.4 U P Selenium 3.4 U 3.4 U 3.4 U P P Sodium 12.8 U 19.9 B 23.0 B P P Zinc 0.6 B 0.6 B 0.5 B P P				and the second sec	the second second second second second second second second second second second second second second second se		P
Selenium 3.4 ° 19.9 B 23.0 B P Sodium 12.8 U 19.9 B 23.0 B P Zinc 0.6 B 0.5 B P		++					P
Zinc O.6 B O.5 B P		+		1 THE REAL PROPERTY OF THE REAL PROPERTY OF	and the second se		P
						/	P
	Zinc		0.012			0	

ICP INTERFERENCE CHECK SAMPLE

 Lab Name:
 Adirondack Environmental
 Contract:
 Lockwood Ash Landfill

 Lab Code:
 AES
 Case No.:
 17024LH
 SAS No.:
 SDG No.:
 7842

 ICP ID Number:
 ICP4
 ICS Source:
 EPA

 Concentration Units:
 ug/L

	True	e	Initial Found			Final Found			
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R	
Aluminum	500,000	500000	495340	501740.0	100.3	486080	492590.0	98.5	
Barium		500		513.7	102.7		473.5	94.7	
Cadmium		1000		950.7	95.1		1007.9	100.8	
Calcium	500000	500000	432690	439860.0	88.0	473310	480030.0	96.0	
Chromium		500		577.7	115.5		530.6	106.1	
Copper		500		554.7	110.9		506.9	101.4	
Iron	200,000	200000	134570	136340.0	68.2	145320	148710.0	74.4	
Magnesium	500,000	500000	517780	525700.0	105.1	497030	504290.0	100.9	
Manganese		500		470.3	94.1		406.4	81.3	
Nickel		1000		1045.5	104.6		838.8	83.9	
Zinc		1000		937.5	93.8		1009.4	100.9	

Form IV - IN

Sam	ple f	Report
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04/21/17 11:43:43 AM SPEX-FIX2

Method: SPEX-	-FIX2 Mode: C	ONC Corr. H	actor: 1.000000				
User: admin	Test Code: CLF	PW Sample	Type: ICB	Dilution: 1			
Comment:							
						De	
Elem	Ag	A	As	Au	B_	Ba 493.409 { 68}	
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}		
Units	ppb	ppb	ppb	ppb	ppb	ppb 00000.>	
Avg	.06276	<.00000	<.00000	.37410	2.2735	.69212	
Stddev	4.0634	12.695	3.6739	1.0226	.4053		
%RSD	6474.2	187.05	307.11	273.33	17.827	4794.7	
⊭1	-2.8105	2.1898	-3.7941	34895	2.5601	50384	
\$2	2.9360	-15.763	1.4015	1.0972	1.9869	.47497	
	D -	0-		Co	Cr	Cu	
Elem	Be	Ca	Cd	228.616 {147}	357.869 { 94}	324.754 {103}	
_ine	313.042 {107}	317.933 {105}	228.802 {147}			524.754 {105} ppb	
Inits	ppb	ppb	ppb	ppb	ppb 00000.>	2.1325	
Avg	<.00000	<.00000	.06994	.40961	1.3225	1.1323	
Stddev	.01811	2.2849	.06321	.01438	16.439	53.096	
%RSD	20.924	70.707	90.379	3.5106	10.439	Avg= - 8.0450	54-11
¢1	07376	-1.6159	.02524	.41977	-8.9802	2.9332	
*2	09937	-4.8472	.11463	.39944	-7.1099	1.3319	
	5-	K	Li	Mg	Mn	Мо	
Elem	Fe	K_	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}	
Line	259.940 {129}	766.490 { 44 }			207.010 (101) ppb	202.000 (100) ppb	
Jnits	ppb	ppb	ppb	ppb 00000.>	.02064	1.5560	
Avg	<.00000	7.7167	<.00000	27.287	.00230	.7875	
Stddev	.09685	5.7609	49.026			50.610	
%RSD	22.318	74.655	376.74	1619.7	11.124	50.010	
\$1	36546	11.790	-47.680	17.610	.02226	2.1129	
約2	50243	3.6431	21.654	-20.980	.01901	.99917	
Elem	Na	2Na	Ni	Pb	Pd	Sb	
	588.995 { 57}	589.592 { 57}		220.353 {152}	and the second second second second second second second second second second second second second second second		
Line Inite		ppb	201.004 (140) ppb	ppb	ppb	ppb	
Jnits	ppb 3.5731	.24892	.17475	<.00000	2.5053	<.00000	
Avg		.29382	.08626	.45457	8.4126	1.6556	
Stddev	14.694	118.04	49.361	55.627	335.80	2031.6	
%RSD	411.25	110.04	49.001	00.021	000.00	2001.0	
泰1	-6.8174	.45668	.11376	49574	-3.4433	-1.2522	
*2	13.964	.04116	.23575	-1.1386	8.4539	1.0892	

AES

AES

Sample Report

liethod: SPEX-			actor: 1.000000	Dilution: 1			
Iser: admin	Test Code: CLP	w Sample	Type: CCB	Dilution. 1			
omment:							
	Ag	AI	As	Au	В_	Ва	
lem	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}	
rie		ppb	ppb	ppb	ppb	ppb	
nits	ppb <.00000	<.00000	<.00000	.12040	5.0664	<.00000	
vg		9.5330	4.8397	1.0043	3.0542	.45802	
tddev	.35659	94.021	124.69	834.11	60.283	85.203	
RSD	7.8248	94.021	124.00	00111			
1	-4.8094	-16.880	45932	58973	7.2260	21369	
1 2	-4.3051	-3.3983	-7.3037	.83053	2.9067	86143	
	De	Са	Cd	Co	Cr	Cu	
lem	Be	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}	
ine	313.042 {107}		220.002 (147) ppb	ppb	ppb	ppb	
Inits	ppb	ppb	.55572	.88282	<.00000	<.00000	
vg	<.00000	6.4609	.81063	.87786	.90712	1.4216	
itddev	.06078	.8757	145.87	99.438	30.185	60.323	Avg.
6RSD	106.24	13.554	145.67	55.450	Control	\sim	-2.35
	01423	5.8417	1.1289	1.5036	-3.6466	-3.3618	2-1
1	10019	7.0801	01748	.26208	-2.3638	-1.3514	
2	10019	7.0001				\sim	
lona	Fe	K_	Li	Mg	Mn	Мо	
Elem	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}	
line Inite	200.040 (120) ppb	ppb	ppb	ppb	ppb	ppb	
Jnits	.50554	5.1491	<.00000	7.0058	.57598	5.2906	
\vg	.92992	.1760	41.104	8.1740	.74597	5.1421	
Stddev	183.95	3.4188	145.26		129.51	97.194	
%RSD	105.95	0.4100					
	1.1631	5.0246	-57.361	12.786	1.1035	8.9266	
¥1 ₩0	15201	5.2736	.7684	1.2259	.04850	1.6545	
#2	102.01	0					
Elem	Na	2Na	Ni		Pd	Sb	
	588.995 { 57}		231.604 {145}	220.353 {152}		206.833 {162}	
Line Inite	ppb	ppb	ppb	ppb	ppb	ppb	
Jnits	<.00000	<.00000	.56895			1.4144	
Avg	8.3424		.96554				
Stddev	126.41	46.883	169.70		94.247	201.55	
%RSD	120.41	40.000					
	-12.498	-1.8959	1.2517	14907	20.351		
索1						60139	
#2	7004	-5.1705					

1 of 168-

Sample	Report
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Jser: admin	Test Code: CLF	W Sample	Type: CCB	Dilution: 1			
omment:							
lem	Ag	AI	As	Au	В_	Ba	
ine	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}	
Inits	ppb	ppb	ppb	ppb	ppb	ppb	
vg	.31237	13.014	<.00000	.53575	5.0569	1.0950	
tddev	6.0068	18.222	1.1949	.22668	2.2157	.0345	
RSD	1923.0	140.02	56.133	42.310	43.816	3.1548	
1	-3.9351	25.900	-2.9736	.69604	6.6236	1.1195	
2	4.5598	.12921	-1.2838	.37547	3.4901	1.0706	
lem	Ве	Са	Cd	Со	Cr	Cu	
ne	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}	
nits	ppb	ppb	ppb	ppb	ppb	ppb	
vg	.05243	5.8421	.34009	.43001	<.00000	1.6006	
stddev	.09822	7.3831	.06050	.00002	10.187	2.7911	
RSD	187.34	126.38	17.788	.00561	84.635	- Avg.= 174.38	
1	01702	.62146	.29732	.42999	-19.239	-12.033 5741	
2	.12188	11.063	.38287	.43002	-4.8329	<-10L.37301	
lem	Fe	К_	Li	Mg	Mn	Мо	
ine	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}	
nits	200.040 {120} ppb	ppb	ppb	ppb	ppb	ppb	
	<.00000	.26284	<.00000	7.2364	.19882	3.5710	
vg tddev	.18787	5.2485	51.821	9.2117	.06398	3.1736	
6RSD	74.122	1996.8	60.181	127.30	32.178	88.871	
4	12062	3.9741	-122.75	13.750	.24406	5.8151	
1 2	38631	-3.4484	-49.466	.72274	.15358	1.3269	
	No	2Na	Ni	Pb	Pd	Sb	
lem	Na		231.604 {145}			206.833 {162}	
ine Inite	588.995 { 57}	589.592 { 57}	231.004 (143) ppb	220.000 (102) ppb	ppb	ppb	
Inits	ppb 26.679	ppb 7.2460	.34981	<.00000	23.169	<.00000	
UVg	2.862	.8310	.13584	.87555	9.299	1.7933	
Stddev &RSD	10.728	11.469	38.831	48.419	40.134	58.355	
4	24.655	6.6584	.25376	-1.1892	16.594	-1.8051	
⊧1 ¢2	28.703	7.8337	.44586	-2.4274	29.745	-4.3412)
						(-
						> Avg.=	3.073 - IDL
						2	- IDL
						> Avg.=	3.
) 3.073 - IDL 1 of 2

AES

Sample Name: C	CB-6 Acquir	ed: 04/21/2017 1	7:14:44 Typ	e: Unk		
Method: SPEX-F	IX2 Mode: C	ONC Corr. F	actor: 1.000000			
User: admin	Test Code: CLF		Type: CCB	Dilution: 1		
	TOST OUD. OLI	vv Gumpio	1)00.000	Bridden 1		
Comment:						
Elem	Ag	AI	As	Au	В_	Ва
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	<.00000	1.4968	2.6229	8.1752	1.5754
Stddev	3.7978	1.5179	3.0133	1.2116	3.7191	.2890
%RSD	152.04	88.301	201.32	46.195	45.493	18.343
零1	.18757	-2.7923	63392	3.4796	10.805	1.7798
<i>#</i> 2	-5.1833	64567	3.6275	1.7661	5.5454	1.3711
Elem	Be	Са	Cd	Со	Cr	Cu
Line	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.17832	.86992	.32836	.83954	<.00000	.87259
Stddev	.05220	1.7578	.26930	.01080	6.4480	2.3668
%RSD	29.274	202.07	82.012	1.2862	59.685	271.24
701/00	25.214	202.01	02.012	112002	A	n Avg.
炭1	.21523	2.1129	.51878	.84718		-10.81380097
井2	.14141	37306	.13794	.83191	-6.2439	2-10L 2.5461
Clona	Fe	К_	Li	Mg	Mn	Мо
Elem	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}
Line		ppb	ppb	ppb	ppb	ppb
Units	ppb .28610	6.1075	<.00000	4.1032	.42400	4.0771
Avg		4.7857	58.755	6.8241	.09471	3.3729
Stddev	.00306		27.149	166.31	22.337	82.728
%RSD	1.0692	78.359	27.149	100.01	22.001	02.120
索1	.28394	9.4915	-257.96	72217	.49096	6.4621
#2	.28826	2.7234	-174.87	8.9286	.35703	1.6921
Elem	Na	2Na	Ni	Pb	Pd	Sb
Line	588.995 { 57}		231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23.003	<.00000	.51952	.07413	6.5757	<.00000
	32.017	2.4525	.19894	1.9961	13.282	1.5404
Stddev	139.19	36.180	38.293	2692.8	201.99	1573.8
%RSD	139.19	50.100	00.200	2002.0	201100	
	26220	-5.0444	.66020	-1.3373	15.968	.99136
索1	.36339	-8.5128	.37885	1.4856	-2.8163	-1.1871
孝2	45.642	-0.0120	.57005	11000	2.0100	1.10/1

Sample Name: I		red: 04/21/2017		e: Unk			
Method: SPEX-F			actor: 1.000000				
User: admin	Test Code: CLF	PW Sample	Type: ICSA	Dilution: 1			
Comment:							
Elem	Ag	AI	As	Au	В	Ba	
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	<.00000	495340.	<.00000	62.998	<.00000	3.0294	
Stddev	.44363	4568.	6.5768	1.218	1.0071	.1847	
%RSD	.89008	.92210	.53410	1.9329	.60141	6.0975	
			\bigcap	< - CRDL!		12-CRDL	
岽1	-50.156	492110.	-1226.7	62.137	-166.75	3.1600	- 7 1DL
寿2	-49.529	498570.	-1236.0	63.859	-168.17	2.8988	
				0.		Cu	
Elem	Be	Ca	Cd	Co	Cr 357.869 { 94}	324.754 {103}	
Line	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}		524.754 {105} ppb	
Units	ppb	ppb	ppb	ppb 2.4806	ppb 2,1222	<.00000	
Avg	1.9871	432690.	<. 00000 .03288	.2085	3.9292	2.0479	
Stddev	.0179	4443. 1.0269	2.5990	8.4044	185.14	13.567	-
%RSD	.89996	1.0209	2.5990	2-104	100.14	10.001	. 2- 10L
索1	1.9745	429550.	-1.2882	2.6280	65612	-16.543	
养2	1.9998	435830.	-1.2418	2.3331	4.9005	-13.646	
·····2-	1.0000	100000.					
Elem	Fe	К	Li	Mg	Mn	Mo	
Line	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	134570.	11.954	<.00000	517780.	<.00000	<.00000	
Stddev	1388.	2.646	121.23	3952.	.00954	.66044	S. 19
%RSD	1.0318	22.138	- 7 IDL 6.9743	.76315	.07763	24.661	
		\sim			10001	- Z-IDL	
柴1	133590.	10.083	-1823.9	514990.	-12.284	-2.2111	
#2	135550.	13.825	-1652.5	520580.	-12.298	-3.1451	
	No	2012	Ni	Pb	Pd	Sb	- 1
Elem	<u>Na</u> 588.995 { 57}	2Na 589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}	
Line		ppb	201.004 (140) ppb	ppb	ppb	ppb	
Units Avg	ppb 38.080	30.815	<.00000	<.00000	<.00000	<.00000	
Stddev	15.101	1.247	.53482	1.8329	.88624	4.3353	"N
%RSD	39.655	4.0476	2.3059	1.7596	9.1321	55.860	PO, CVA
,01,00	~~~		\sim			$ \frown $	11.4
孝1	27.402	29.933	-22.816	-102.87	-10.331	-10.826	1.1
\$2	48.758	31.697	-23.572	-105.46	-9.0780	-4.6954	
			\sim	K-IDL			1-101
		TIDL				~ 4	2-IDL

1.1

18 ··· 14

04/21/17 11:44:39 AM

SPEX-FIX2

Samp	ble	Re	port
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in.

Acquired: 04/21/2017 10:21:38 Type: Unk Sample Name: ICSA-1 Method: SPEX-FIX2 Mode: CONC Corr. Factor: 1.000000 Sample Type: ICSA Test Code: CLPW Dilution: 1 User: admin Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	10.616	3.9209	33.609	<.00000	<.00000
Stddev	.89758	2.729	.8963	.307	3.0741	2.9149
%RSD	2.7026	25.702	22.860	.91440	23.428	17.161
券1	-33.847	8.6869	3.2871	33.826	-15.295	-14.925
素2	-32.577	12.546	4.5547	33.392	-10.948	-19.047
		22-ERDL				
Elem	V	Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	<.00000	<.00000	<.00000			
Stddev	.94684	.17077	2.4898			
%RSD	2.7198	1.3758	26.443			
萦1	-34.143	-12.291	-7.6553			
#2	-35.482	-12.533	-11.176			
		TC.	K-IDL			

Avg.= - 12.412.

2 of 263-

ethod: SPEX-I	FIX2 Mode: C	ONC Corr. F	actor: 1.000000			
ser: admin	Test Code: CLF		Type: ICSAB	Dilution: 1		
omment:						
oniment.						
em	Ag	AI	As	Au	B_	Ва
ne	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
nits	ppb	ppb	ppb	ppb	ppb	ppb
/g	1065.9	501740.	<.00000	70.634	<.00000	513.67
ddev	6.3	826.	1.3080	.359	.83647	2.69
RSD	.58750	.16461	.10460	.50779	.47824	,52425
NOD	.00700	.10401	10100		A	174.
	1061.5	501160.	-1249.6	70.380	-174.31	511.77
	1070.3	502330.	-1251.4	70.888	-175.50	515.58
				< - (RDL	X	<<- CRDL
em	Be	Ca	Cd	Co	Cr	Cu
ne	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
nits	ppb	ppb	ppb	ppb	ppb	ppb
/g	500.16	439860.	950.66	450.73	577.65	554.69
ddev	1.62	2307.	1.03	.79	6.10	.81
RSD	.32386	.52443	.10836	.17554	1.0553	.14540
	.02000	.02110				
	499.01	438230.	949.93	450.17	581.96	554.12
	501.31	441490.	951.39	451.29	573.34	555.26
em	Fe	K_	Li	Mg	Mn	Mo
ne	259.940 {129}	766.490 { 44 }	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}
nits	ppb	ppb	ppb	ppb	ppb	ppb
/g	136340.	8.5766	<.00000	525700.	470.25	<.00000
ddev	474.	.4611	130.49	2496.	.95	.05793
RSD	.34743	5.3758	7.2948	.47471	.20101	3.5911
		~				
	136010.	8.9026	-1881.0	523940.	469.58	-1.6541
2	136680.	8.2506	-1696.5	527470.	470.92	-1.5722
			>IDL			
em	Na	2Na	Ni	Pb	Pd	Sb
ne	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}		206.833 {162}
nits	ppb	ppb	ppb	ppb	ppb	ppb
	39.053	24.607	1045.5	922.29	<.00000	<.00000
/g	12.801	.033	.8	3.38	13.777	4.8150
ddev		.13260	.07767	.36622	40.040	194.50
RSD	32.780	.15200	.01101	.00022	10.010	
	30.001	24.584	1046.1	924.68	-44.149	.92915
1 2		24.630	1045.0	919.91	-24.666	-5.8803
/	48.105	24.030	1040.0	010.01	21.000	

AES

04/21/17 11:44:47 AM SPEX-FIX2

Δ	-	0	
17	с.	0	

Sample Name: ICSAB-1 Acquired: 04/21/2017 10:26:05 Type: Unk Method: SPEX-FIX2 Mode: CONC Corr. Factor: 1.000000 User: admin Test Code: CLPW Sample Type: ICSAB Dilution: 1 Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	5.7682	1.3626	1.3917	<.00000	<.00000
Stddev	1.9900	27.344	.5240	.5918	.70504	.00034
%RSD	6.7947	474.06	38.459	42.526	4.6063	.00165
	\frown					
索1	-27.881	25.104	1.7331	.97319	-14.807	-20.623
#2	-30.695	-13.567	.99202	1.8101	-15.805	-20.623
		44 - CRDL				
Elem	V_	Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	443.73	937.51	<.00000			
Stddev	.28	.47	1.6704			
%RSD	.06337	.05043	16.133			
索1	443.93	937.17	-9.1729			
荐2	443.53	937.84	-11.535			

AES			Sample Repo	ort		04/21/17 05:03:56 SPEX-	6
Sample Name: I	CSA-2 Acqui	red: 04/21/2017	17:00:44 Tvi	pe: Unk			
Method: SPEX-			Factor: 1.000000				
User: admin	Test Code: CLF	Sample	Type: ICSA	Dilution: 1			
Comment:							
Elem	Ag	AI	As	Au	В	Ва	
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	<.00000	486080.	<.00000	67.027	<.00000	4.3079	
Stddev	1.1383	4495.	22.036	.974	1.0861	.3213	
%RSD	2.1958	.92468	1.7276	1.4535	.79718	7.4587	
<i>救</i> 1	-51.034	482900.	-1260.0	66.338	-137.01	4.5351	
<i>#</i> 2	-52.644	489260.	-1291.1	67.716	-135.48	12-CROL 4.0807 >	IDL
Elem	Be	Са	Cd	Co	Cr	Cu	
Line	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}	E
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	2.0777	473310.	<.00000	2.8775	<.00000	<.00000	11
Stddev	.0734	4678.	.24476	.1586	4.6749	6.5000	Bill
%RSD	3.5325	.98844	14.314	NS:0 5.5132	59.998	AV 39.136	16.6
索1	2.0258	470000.	-1.5369	2.7653	-4.4861	-21.205	
索2	2.1296	476620.	-1.8831	2.9896	-11.097	-12.013	
<i>#2</i> .	2.1230	470020.	-1.0001	<- IDL	-11.001	2-101	C-IDL
Elem	Fe	K	Li	Mg	Mn	Mo	
Line	259.940 {129}	766.490 { 44 }	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	145320.	20.394	<.00000	497030.	<.00000	<.00000	
Stddev	3602.	2.051	142.31	3769.	.11583	.30959	
%RSD	2.4782	10.058	5.8076	.75838	.92542	AV216 9.2046	
券1	142780.	21.844	-2551.1	494360.	-12.434	-3.1445	
柴 2	147870.	18,944	-2349.8	499690.	-12.598	-3.5824	
		18.944				L-IDL	
Elem	Na	2Na	Ni	Pb	Pd	Sb	
Line	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	165.39	69.615	<.00000	<.00000	<.00000	<.00000	
Stddev	57.28	31.284	.21086	1658	5.3040	.24370	
%RSD	34.636	44.938	.86523	AN9: 1.7347	13.134	3.3136	
岁1	124.88	91.736	-24.520	-24123.32	-36.634	-7.5267	
#2	205.89	47.494	-24.222	-126.38	-44.135	-7.1820	
19 - 200		SIDL		- IDL			- IDL

04/21/17 05:03:56 PM

1 of 260-

AES

Sample Report	Sam	ple	Re	port
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2 of 261

Sample Name: ICSA-2 Acquired: 04/21/2017 17:00:44 Type: Unk Method: SPEX-FIX2 Mode: CONC Corr. Factor: 1.000000 User: admin Test Code: CLPW Sample Type: ICSA Dilution: 1 Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	<.00000	2.8231	48.413	<.00000	<.00000
Stddev	6.3476	29.357	1.1358	.142	.61700	.95534
%RSD	17.040	N) 5357.73	40.233	.29370	5.4729	6.8402
	\sim	2.23				
索1	-32.762	12.552	2.0200	48.313	-11.710	-14.642
华2	-41.739	-28.965	3.6263	48.514	-10.837	-13.291
		CROL				
Elem	V_	Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	<.00000	<.00000	<.00000			
Stddev	2.2179	.54972	1.5193			
%RSD	5.9209	4.5059	17.904			
			N			
炒1	-39.027	-11.811	-7.4116			
葬2	-35.891	-12.589	-9.5603			
			- X-IDL			

lethod: SPEX-			Factor: 1.000000			
ser: admin	Test Code: CLF	W Sample	Type: ICSAB	Dilution: 1		
omment:						
em	Ag	AI	As	Au	B	Ва
าย	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
nits	ppb	ppb	ppb	ppb	ppb	ppb
'g	1021.9	492590.	<.00000	77.314	<.00000	473.52
ddev	.7	1246.	15.139	.038	.08571	1.00
RSD	.07087	.25302	1.1602	Avg 495 .04880	.05829	.21155
	1021.4	491710.	-1294.2	77.287	-147.09	472.81
	1022.4	493480.	-1315.7	77.341	-146.97	474.23
				LL-LRDL	K	22-CRDL
em	Be	Са	Cd	Co	Cr	Cu
10	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
nits	ppb	ppb	ppb	ppb	ppb	ppb
'g	516.99	480030.	1007.9	450.98	530.64	506.92
ddev	.76	1185.	1.7	.37	3.47	4.29
RSD	.14703	.24687	.16672	.08152	.65420	.84611
	516.45	479190.	1006.7	451.24	528.19	503.88
	517.53	480860.	1009.1	450.72	533.10	509.95
em	Fe	K_	Li	Mg	Mn	Мо
Θ	259.940 {129}	766.490 { 44 }	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}
nits	ppb	ppb	ppb	ppb	ppb	ppb
g	148710.	11.815	<.00000	504290.	406.41	<.00000
ddev	1544.	1.704	145.20	770.	.07	.59865
RSD	1.0380	14.423	6.1233	.15260	.01638	30.977
	147620.	10.610	-2473.9	503750.	406.46	-2.3559
	149800.	13.020	-2268.6	504840.	406.37	-1.5092
			>IDL			
em	Na	2Na	Ni	Pb	Pd	Sb
ne 	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}
its	ppb	ppb	ppb	ppb	ppb	ppb
g	172.95	28.293	838.76	854.62	<.00000	<.00000
ddev	70.75	5.109	2.04	.29	3.5633	1.7089
RSD	40.910	18.057	.24299	.03349	8.4328	42.498
	122.92	31.906	837.32	854.83	-44.774	-5.2293
	222.98	24.681	840.20	854.42	-39.735	-2.8126

04/21/17 05:08:16 PM SPEX-FIX2

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1 of 262

COLOR B.

AES

Sample Report

14

_{2 of} 263

Sample Name: ICSAB-2Acquired: 04/21/2017 17:05:04Type: UnkMethod: SPEX-FIX2Mode: CONCCorr. Factor: 1.000000User: adminTest Code: CLPWSample Type: ICSABDilution: 1Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97 }	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	dqq	ppb	ppb
Avg	<.00000	<.00000	.56972	15.772	<.00000	<.00000
Stddev	5.6474	17.072	1.0255	.447	.07073	3.6707
%RSD	16.007	107.15	180.00	2.8331	.55293	14.189
	\bigcap					
孝1	-31.288	-3.8607	1.2948	15.456	-12.742	-23.275
索2	-39.274	-28.004	15541	16.088	-12.842	-28.466
		K-CRDL				
Elem	V_	Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	454.82	1009.4	<.00000		3	
Stddev	10.10	.1	3.0500			
%RSD	2.2214	.01058	29.077			1
索1	447.68	1009.4	-12.646			
奔2	461.97	1009.5	-8.3328			

5A

SPIKE SAMPLE RECOVERY

Analyte	Control Limit %R	Spiked Sample Result (SSR)	с	Sample Result (SR)	с	Spike Added (SA)	%R	Q	м
luminum	75 - 125	2880.10	00	399.7600		2000.00	124.0		P
ntimony	75 - 125	518.92	00	2.6800	U	500.00	103.8		P
rsenic	75 - 125	37.27	20	2.7600	U	40.00	93.2		P
arium	75 - 125	2188.10	00	62.2550	B	2000.00	106.3		P
loron		99.86	80	86.7640		0.00	0.0		P
admium	75 - 125	52.42	50	0.3700		50.00	104.8		P
alcium		113440.00		109410.0000	1	0.00	0.0		P
Chromium	75 - 125	216.04	00	6.8700		200.00	108.0		P
opper	75 - 125			12.5080		250.00	107.4		P
ron	75 - 125			1055.9000		1000.00	127.2	N	P
lagnesium		53329.00		51873.0000		0.00	0.0	ļ	P
langanese	75 - 125			93.3930	-	500.00	100.4	<u> </u>	P
lickel	75 - 125			1.9371		500.00	92.7		P
otassium	1	1848.80		1767.8000		0.00	0.0	-	P
Selenium	75 - 125			3.4000		10.00	78.1		P
Sodium	75 - 125	11751.00 543.81		11225.0000 4.5421	-	500.00	107.9	-	P

1000

- Contraction

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

7842A

ab Name:	Adirondack	Environmental	Contract	: Lockwood A	sh Landf	ill
Lab Code:	AES	Case No.: 1702	24LH SAS No.: _	S	DG No.:	7842
Matrix (so	pil/water):	WATER	L	evel (low/med)	: LOW	

Concentration	Units:	ug/L
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Analyte	Control Limit %R	Spiked Sample Result (SSR)	с	Sample Result (SR)	с	Spike Added (SA)	8R	Q	м
Aluminum		4851.70		399.76		4000.0	111.3		P
Antimony		1025.50		2.68	U	1000.0	102.6		P
Arsenic		81.60		2.76	U	80.0	102.0		P
Barium	1	4214.70		62.26	в	4000.0	103.8		P
Boron		89.13		86.76		0.0	0.0		P
Cadmium		103.78		0.37	υ	100.0	103.8		P
Calcium		112800.00		109410.00		0.0	0.0		P
Chromium		415.36		6.87	U	400.0	103.8		P
Copper		545.42		12.51	B	500.0	106.6		P
Iron		3126.90		1055.90		2000.0	103.6)	P
Magnesium		52721.00		51873.00		0.0	0.0		P
Manganese		1073.00		93.39		1000.0	98.0		P
Nickel		919.18		1.94	B	1000.0	91.7		P
Potassium		1861.40	в	1767.80	B	0.0	0.0		P
Selenium		19.54		3.40	U	20.0	97.7		P
Sodium		11655.00		11225.00		0.0	0.0		P
Zinc		1061.10		4.54	B	1000.0	105.7		P

Comments:

Manager and -

9 ICP SERIAL DILUTIONS

SAMPLE NO.

7842L

Lab Name:	Adirondack	Environmental	Contract:	Lockwood As
Lab Code:	AES	Case No.: 17024LH	SAS No.:	SDG No.: 7842
Matrix (so	<pre>bil/water):</pre>	WATER	Level (1	.ow/med): LOW

Analyte	Initial Sample Result (I)	с	Serial Dilution Result (S)	с	<pre>% Differ- ence</pre>	Q	м
Aluminum	399.76		122.41	В	69.4		P
Antimony	2.68	UI	13.40	U			P
Arsenic	2.76	U	13.80	U			P
Barium	62.26	B	70.22	2 B	12.8	E	P
Boron	86.76		105.99	B	22.2	E	P
Cadmium	0.37	U	1.8	JU			P
Calcium	109410.00		133125.00	7	21.7	E	P
Chromium	6.87	U	34.3	U			P
Copper	12.51	B	22.6	5 B	81.1		P
Iron	1055.90	1 1	1342.60	2	27.2	E	P
Magnesium	51873.00	İİ	60065.0	7	15.8	E	P
Manganese	93.39	1 1	117.9	2	26.3	E	P
Nickel	1.94	B	2.0	B	7.7		F
Potassium	1767.80	B	1811.8	рв	2.5		P
Selenium	3.40	U	17.0	υσ			F
Sodium	11225.00	İİ	10928.5	рв	2.6		P
Zinc	4.54	B	7.8	3 B	-72.5		P

Method: MERCURY

Calibration	data fo	or Hg 253.				ation: Linear	, Calculated	i Intercept
		Marra C.			Calculated	i Standard		
ID		Mean Sid (Abs)	-	Conc. ug/L	Conc. ug/L	Deviation	%RSD	
Blank		0.000		0	-0.0711	0.00	11.4	
0.2ppk)	0.00		0.200	0.1180	0.00	2.8	
0.5ppt		0.00	34	0.500	0.5574	0.00	1.3	
1.00pph	0	0.01	45	1.000	1.0147	0.00	0.7	
2.00pph	0	0.02		2.000	1.9756	0.00	1.3	
5.00ppt		0.07		5.000	5.2066	0.00	0.7	
10.00pp		0.13		10.000	9.8989	0.00	0.8	
Correlation						ept: 0.00095		
Sequence No. Sample ID: 1	: 8				Autos	sampler Locati Collected: 4/	on: 5	:13 PM
Analyst:						Type: Origina		
Replicate Da								
		StndConc	BlnkCor	r Peak	Peak	Time	Peak	
# ug/L		ug/L	Signal	Area			Stored	
1 2.060		2.060	0.0284			15:08:01	Yes	
2 2.041		2.041	0.0281	0.121	15 0.0285	15:08:29	Yes	
lean: 2.051		2.051	0.0283					
D: 0.013		0.0135	0.0002					
RSD: 0.656		0.6560 limits fo	0.63 r Hg 253	7 Recor	verv = 102	.54%		
All analyte			- ng 200	Recov				
equence No.	.: 9				Auto	sampler Locati Collected: 4/	.on: 1	
Analyst:	СВ					Type: Origina		
Replicate Da	ata: IC	в						
	LeConc	StndConc				Time	Peak	
# ug/L		ug/L	Signal	Area			Stored Yes	
1 -0.00		-0.0620	0.0001		12 0.0005 14 0.0005		Yes	
2 -0.00	and the second se	-0.0607 -0.0613	$0.0001 \\ 0.0001$	0.00.	14 0.0005	10.10.02	100	
Mean: -0.00		0.0009	0.0001					
RSD: 1.48	1	1.481	9.32					
OC value	within	limits fo	r Hg 253	.7 Reco	very = Not	calculated		
All analyte	(s) pas	sed QC.						
Sequence No	.: 10					sampler Locati		
Sample ID: (Analyst:	.2ppb	- CRA				Collected: 4/ Type: Origina	and the second second second second second second second second second second second second second second second	:19 PM
Replicate Da Repl Samp	ata: 0. leConc	2ppb = Ir	BlnkCor	r Peak		Time	Peak	
# ug/L		ug/L	Signal	Area			Stored	
1 0.11		0.1138	0.0025	0.01			Yes	
2 0.04		0.0462	0.0016	0.00	52 0.0020	15:11:33	Yes	
Mean: (0.08)		0.0800	0.0020		10-1	208 6		
SD: 0.04		0.0478	0.0006		0K-1		57.)	
RSD: 59.7		59.78	31.65			0.2	-	
	⇒r	neasured	conc.				10	
						Sampler Locat: Collected: 4,		:50 PM
Sequence No	2. Uppb					Type: Origina		
Sample ID: 3								
			1111111					
Sample ID: 3 Analyst: Replicate Da	ata: 2.	0ppb StndConc		r Peak	 Peak	Time	Peak	

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Method	I: MERCURY				Page	6		Date: 4/3/2017 3:34:29 PM
	nce No.: 21 a ID: <u>CCB-1</u> at:				Date	ampler Locat Collected: 4 Type: Origin	/3/2017	3:27:33 PM
Replic	ate Data: CC	B-ML						
Repl	SampleConc		BlnkCorr	Peak	Peak	Time	Peak Stored	
# 1	ug/L -0.0591	ug/L -0.0591	Signal 0.0002	Area 0.0017	Height 0.0006	15:28:20	Yes	
2	-0.0616	-0.0616	0.0001	0.0016	0.0005	15:28:47	Yes	
Mean: SD:	0.0018	-0.0604 0.0018	0.0001 0.0000					
%RSD:	2.924	2.924	16.50					
	value within alyte(s) pas		or Hg 253.7	Recover	y = Not	calculated		
	nce No.: 22				Autos	ampler Locat	ion: 19	
Sample Analys	a ID: 1703310 st:	10-005D				Collected: 4 Type: Origin		3:29:04 PM
Replic	ate Data: 17							
Repl	SampleConc		BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored	
# 1	ug/L -0,0754	ug/L -0.0754	-0.0001		0.0003	15:29:51	Yes	
2	-0.0733	-0.0733	-0.0000	0.0007	0.0004	15:30:18	Yes	
Mean: SD:	-0.0743 0.0015	-0.0743 0.0015	-0.0000 0.0000					
	1.968	1.968	44.94	~				
	ce No.: 23					ampler Locat		
Sample Analys	ID: 1703310 t:	10-006D				Collected: 4 Type: Origin		3:30:36 PM
2	ate Data: 17							
Repl #	SampleConc ug/L	ug/L	Signal	Peak Area	Peak Height	Time	Peak Stored	L
ï	-0.0708	-0.0708	0.0000		0.0004		Yes	
2 Mean:	-0.0679	-0.0679	0.0000 0.0000	0.0021	0.0004	15:31:50	Yes	
SD:	-0.0694 0.0020	-0.0694 0.0020	0.0000					
%RSD:	2.931	2.931	119.04					
	ce No.: 24 ID: 1703310 st:	10-007D			Autos Date	ampler Locat Collected: 4 Type: Origin	1/3/2017	3:32:08 PM
	ate Data: 17	0331010-00)7D					
Repl #	SampleConc ug/L	ug/L	Signal	Peak Area	Peak Height	Time	Peak Stored	1
1	-0.0642	-0.0642	0.0001	0.0022	0.0005	15:32:55	Yes	
2 Mean:	-0.0709 -0.0675	-0.0709 -0.0675	0.0000 0.0000	0.0003	0.0004	15:33:22	Yes	
SD:	0.0047	0.0047	0.0001					
	7.024	7.024	132.74					
Sequer Sample	ce No.: 25 ID: 1703310				Autos Date	ampler Locat Collected: 4	tion: 22 4/3/2017	3:33:40 PM
Analys	it:				Data	Type: Origir	1a1	
Replic Repl	ate Data: 17 SampleConc)8D BlnkCorr	Peak	Peak	Time	Peak	
#	ug/L	ug/L	Signal	Area	Height		Stored	1
1	-0.0633	-0.0633	0.0001	0.0029	0.0005	15:34:28	Yes	
1+1			· · · · · · · · · · · · · · · · · · ·		÷			(((442)()441)) ()))

fethod: MERCURY				Page 1	8	Date	a: 4/3/2017 3:49:24 PM
Repl SampleConc # ug/L 1 -0.0686 2 -0.0706 dean: -0.0696 SD: 0.0014 GRSD: 2.028	StndConc ug/L -0.0686 -0.0706 -0.0696 0.0014 2.028	BlnkCorr Signal 0.0000 0.0000 0.0000 0.0000 94.88	Peak Area 0.0014 0.0010	Peak Height 0.0004 0.0004	Time 15:42:19 15:42:46	Peak Stored Yes Yes	
Sequence No.: 31 Sample ID: 1703310 Analyst:)10-015D			Date (ampler Locat Collected: 4 Type: Origin	ion: 28 /3/2017 3:43	3:06 PM
eplicate Data: 17							
SampleConc # ug/L 1 -0.0824 2 -0.0811 dean: -0.0817 5D: 0.0009 RSD: 1.122	StndConc ug/L -0.0824 -0.0811 -0.0817 0.0009 1.122	BlnkCorr Signal -0.0002 -0.0001 -0.0001 0.0000 8.64	Peak Area 0.0005 0.0008	Peak Height 0.0002 0.0003	Time 15:43:55 15:44:22	Peak Stored Yes Yes	
Gequence No.: 32 Sample ID: CCV analyst:				Autos Date	ampler Locat	ion: 5 /3/2017 3:44	1:42 PM
eplicate Data: CC							
SampleConc # ug/L 1 1.940 2 1.976 1 0.52	ug/L 1.940 1.976	BlnkCorr Signal 0.0268 0.0273		Peak Height 0.0272 0.0277	Time 15:45:30 15:45:57	Peak Stored Yes Yes	
lean: 1.958 D: 0.0259 RSD: 1.321	1.958 0.0259 1.321	0.0270 0.0003 1.27					
D: 0.0259	0.0259 1.321 n limits fo ssed QC.	0.0003 1.27	Recover	Autos	ampler Locat		
D: 0.0259 RSD: 1.321 QC value withir ll analyte(s) pas	0.0259 1.321 n limits fo ssed QC.	0.0003 1.27	Recover	Autos Date	ampler Locat	/3/2017 3:46	 5:17 PM
D: 0.0259 RSD: 1.321 QC value within ll analyte(s) pas equence No.: 33 cample ID: CCB-2 nalyst: ceplicate Data: CC	0.0259 1.321 n limits fo ssed QC.	0.0003 1.27 or Hg 253.7		Autos Date Data	ampler Locat Collected: 4 Type: Origin	/3/2017 3:46	5:17 PM
D: 0.0259 RSD: 1.321 QC value within analyte(s) pas equence No.: 33 ample ID: CCB-2 nalyst: ceplicate Data: CC equinate	0.0259 1.321 1 limits fo sed QC. StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0002	Recover Peak Area 0.0021 0.0021	Autos Date Data Peak Height	ampler Locat Collected: 4	4/3/2017 3:40 al	5:17 PM
D: 0.0259 RSD: 1.321 QC value within All analyte(s) pas equence No.: 33 sample ID: CCB-2 malyst: ceplicate Data: CC epl SampleConc # ug/L 1 -0.0569 2 -0.0585 lean: -0.0577	0.0259 1.321 1 limits fo ssed QC. B StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 1 limits fo	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0000 8.58	Peak Area 0.0021 0.0021	Autos Date Data Peak Height 0.0006 0.0006	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30	/3/2017 3:46 al Peak Stored Yes	5:17 PM
D: 0.0259 RSD: 1.321 QC value within All analyte(s) pass requence No.: 33 rample ID: CCB-2 nalyst: replicate Data: CC repl SampleConc # ug/L 1 -0.0569 2 -0.0585 Rean: -0.0577 D: 0.0012 RSD: 1.993 QC value within	0.0259 1.321 1 limits fo ssed QC. StndConc ug/L -0.0569 -0.0577 0.0012 1.993 1 limits fo ssed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7	Peak Area 0.0021 0.0021 Recover	Autos Data Data Peak Height 0.0006 0.0006 Cy = Not	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat	/3/2017 3:46 al Peak Stored Yes Yes :ion: 29	
D: 0.0259 RSD: 1.321 QC value within All analyte(s) pass requence No.: 33 rample ID: CCB-2 malyst: replicate Data: CC replicate Data: CC	0.0259 1.321 1 limits fo ssed QC. StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 1 limits fo ssed QC. 	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7 	Peak Area 0.0021 0.0021 Recover	Autos Data Data Peak Height 0.0006 0.0006 0.0006	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat Collected: 4 Type: Origin	Peak Stored Yes Yes Sion: 29 //3/2017 3:4"	
D: 0.0259 RSD: 1.321 QC value withir ll analyte(s) pass requence No.: 33 sample ID: CCB-2 nalyst: ceplicate Data: CC epl SampleConc # ug/L 1 -0.0569 2 -0.0585 lean: -0.0577 D: 0.0012 RSD: 1.993 QC value withir ll analyte(s) pass requence No.: 34 sample ID: 1703310 nalyst:	0.0259 1.321 1 limits fo ssed QC. StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 1 limits fo ssed QC. 	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7	Peak Area 0.0021 0.0021 Recover	Autos Date Data Peak Height 0.0006 0.0006 Vy = Not Autos Date Data Peak Height 0.0004	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat Collected: 4	/3/2017 3:46 al Peak Stored Yes Yes :ion: 29	
D: 0.0259 RSD: 1.321 QC value within An analyte (s) pass Requence No.: 33 Rample ID: CCB-2 Analyst: Replicate Data: CC RSD: 1.993 QC value within Analyte (s) pass RSD: 1.993 QC value within Analyte (s) pass RSD: 1.993 QC value within Analyte (s) pass RSD: 1.993 RSD: 1.993 QC value within Analyte (s) pass RSD: 1.993 RSD: 0.0259 1.321 1 limits fo ssed QC. StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 1 limits fo ssed QC. 010-016D	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7 	Peak Area 0.0021 0.0021 Recover	Autos Date Data Peak Height 0.0006 0.0006 Vy = Not Autos Date Data Peak Height 0.0004	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat Collected: 4 Type: Origin Time 15:48:37	Peak Stored Yes Yes Sion: 29 M/3/2017 3:4 Peak Stored Yes		

Method:	MERCURY				Page 11		Da	ate: 4/3/2017 4:11:06 PM
2 Mean: SD: %RSD:	0.0052	1.945 1.938 1.941 0.0052 0.2694	0.0269 0.0268 0.0268 0.0001 0.26	0.1170	0.0272	16:04:07 16:04:34	Yes Yes	
	alue within lyte(s) pas		r Hg 253.7	Recover	y = 97.00	15		
Seguenc	e No.: 45				Autosa	umpler Locat	ion: 1	
Sample Analyst	ID: CCB-3					Collected: 4 Type: Origin		:04:53 PM
Replica	te Data: CC SampleConc	B	BlakCorr	Peak	Peak	Time	Peak	
#	ug/L -0.0547	ug/L -0.0547	Signal 0.0002	Area	Height	16:05:40	Stored Yes	
2 Mean: SD:	-0,0588 -0.0567 0.0029	-0.0588 -0.0567 0.0029	0.0002 0.0002 0.0000			16:06:07	Yes	
QC V	5.039 ralue within alyte(s) pas	5.039 limits fo sed QC.	19.92 or Hg 253.7	Recover	y = Not o	calculated		
	e No.: 46				Autosa	ampler Locat Collected: 4	ion: 39	-06-24 DM
Sample Analyst	ID: 1703310	10-022D				Type: Origin		
Replica Replica	te Data: 17 SampleConc		2D BlnkCorr	Peak	Peak	Time	Peak	
#	ug/L -0.0066	ug/L -0.0066	Signal 0.0009	Area	Height 0.0013	16:07:12	Stored Yes	
2	-0.0068	-0.0068	0.0009			16:07:40	Yes	
Mean: SD:	-0.0067 0.0001	-0.0067 0.0001	0.0009 0.0000					
	1.629	1.629	0.17					
Sequenc Sample	ce No.: 47 ID: 1703310				Date (ampler Locat Collected: 4	/3/2017 4	:07:58 PM
Analyst					Data :	Type: Origin		
Replica Repl	ate Data: 17 SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak	
# 1	ug/L -0.0547	ug/L -0.0547	Signal 0.0002	Area 0.0021	Height 0.0006	16:08:46	Stored Yes	
2	-0.0531	-0.0531	0.0002	0.0025	0.0006	16:09:13	Yes	
Mean: SD:	-0.0539 0.0011	-0.0539 0.0011	0.0002					
%RSD:	2.094	2.094	6.54					
Sequend	Ce No.: 48 ID: 1703310				Autos Date	ampler Locat Collected: 4 Type: Origin	cion: 41 4/3/2017 4	1:09:32 PM
	ate Data: 17	0331010-02	24D					
Repl	SampleConc	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored	
# 1	ug/L -0.0638	-0.0638	0.0001	0.0009	0.0005		Yes	
2	-0.0611	-0.0611	0.0001	0.0023	0.0005	16:10:47	Yes	
Mean: SD:	-0.0625 0.0019	-0.0625 0.0019	0.0001					
%RSD:	3.065	3.065	22.27					
	ce No.: 49			********		ampler Loca		
	11-10 11-0 T	171		14				112223

Method: MERCURY

Sequence No.: 54 Autosampler Location: 34 Sample ID: LCS-53932 Date Collected: 4/3/2017 4:19:04 PM Analyst: Data Type: Original Replicate Data: LCS-53932 Repl SampleConc StndConc BlnkCorr Peak Peak Time Peak # ug/L ug/L Signal Area Height Stored 1 1.857 1.857 0.0257 0.1138 0.0261 16:19:50 Yes 2 1.925 1.925 0.0266 0.1176 0.0270 16:20:18 Yes Mean: 1.891 1.891 0.0261 0.0486 SD: 0.0486 0.0006 %RSD: 2.568 2.568 2.48 Sequence No.: 55 Autosampler Location: 38 Sample ID: 170331010-021DMS Date Collected: 4/3/2017 4:20:35 PM Analyst: Data Type: Original Replicate Data: 170331010-021DMS Repl SampleConc StndConc BlnkCorr Peak Peak Time Peak # ug/L ug/L Height Signal Area Stored 0.0273 1 1.980 1.980 0.1183 0.0277 16:21:22 Yes 2 2.004 2.004 0.1186 0.0280 16:21:49 Yes Mean: 1.992 1.992 0.0275 0.0169 SD: 0.0169 0.0002 %RSD: 0.8490 0.8490 0.82 Sequence No.: 56 Autosampler Location: 5 Sample ID: CCV Date Collected: 4/3/2017 4:22:07 PM Analyst: Data Type: Original Replicate Data: CCV Repl SampleConc StndConc BlnkCorr Peak Peak Time Peak # ug/L ug/L Signal Area Height Stored 1.927 1.927 1 0.0266 16:22:56 0.1163 0.0270 Yes 0.0269 2 1.948 1,948 0.1167 0.0273 16:23:23 Yes Mean: 1.937 1.937 0.0268 SD: 0.0151 0.0151 0.0002 0.7791 %RSD: 0.7791 0.75 QC value within limits for Hg 253.7 Recovery = 96.86% All analyte(s) passed QC. Sequence No.: 57 Autosampler Location: 1 Date Collected: 4/3/2017 4:23:43 PM Sample ID: CCB-4 Analyst: Data Type: Original Replicate Data: CCB Repl SampleConc StndConc BlnkCorr Peak Peak Time Peak # ug/L ug/L Signal Area Height Stored 1 -0.0531 -0.05310.0002 0.0024 0.0006 16:24:29 Yes 2 -0.0531-0.05310.0002 0.0030 0.0006 16:24:57 Yes Mean: (-0.0531) -0.0531 0.0002 SD: 0.0000 0.0000 0.0000 %RSD: 0.0538 0.0538 0.16 QC value within limits for Hg 253.7 Recovery = Not calculated All analyte(s) passed QC.

2B-IN

CRQL CHECK STANDARD

Lab Name:	AES	Contract:		
	AES Case No.:	17024LH NRAS No.:	SDG No.:	7842
CRQL Check	Standard Source:	See Source Form		

Concentration Units: mg/L

	CRQL	Check Standard	1			
		Initial		Final		
Analyte	True	Found*	%R (1)	Found*	%R (1)	
Chloride	1	1.05	105			
Sulfate	2	2.01	100			
Nitrogen, Ammonia (As N)	0.1	0.0591	59.	0.0627	6	
Total Organic Carbon	1	2.16	215	1.25		

(1) Control Limits: 70-130 with the following exceptions: ICP-AES - Antimony, Lead, and Thallium: 50-150 ICP-MS - Cobalt, Manganese, and Zinc: 50-150

 \star if applicable, enter the concentration qualifier "J" or "U" after the concentration in these columns (e.g., 0.20U for Mercury)

11

Lab Name: AES	Con	ntract:				
ab Code: AE	S Case No.: 17024LH Mod	l. Ref. No.:	SDG No.: 7842			
ources: See So	urce Form			1	T	
Sample ID	Analyte	True	Found	%R	Unit	
LCS-R145884	Alkalinity, Total (As CaCO3)	98.1	95	96.	MG/I	
LCS-R145940	Alkalinity, Total (As CaCO3)	98.1	95	96.	MG/I	
LCS	Chloride	200	205	102	MG/I	
LCS	Sulfate	400	401	100	MG/I	
LCS	Chloride	200	205	102	MG/1	
LCS	Sulfate	400	401	100	MG/1	
LCS	Chloride	200	203	101	MG/I	
LCS	Sulfate	400	404	101	MG/1	
LCS	Chloride	200	204	102	MG/1	
LCS	Sulfate	400	403	100	MG/1	
LCS	Nitrogen, Ammonia (As N)	9.93	10.1	101	MG/	
LCS	Nitrogen, Ammonia (As N)	9.93	9.64	97.	MG/	
LCS	Nitrogen, Ammonia (As N)	9.93	9.58	96.	MG/	
LCS-R146081	Specific Conductance	704	709	100	MG/	
LCS-R146266	Specific Conductance	704	704	100	MG/	
LCS-R145871	TDS (Residue, Filterable)	615	660	107	MG/	
LCS-R145927	TDS (Residue, Filterable)	615	605	98.	MG/	
LCS	Total Organic Carbon	30	32.9	109	MG/	
LCS	Total Organic Carbon	30	33.4	111.	MG/	

33.9

113

7 - IN	
LABORATORY CONTROL SAMPLE	3

		COLOR		019-5V
	Sample ID State	daid Cipla	Trio	pia Date/Init
		cs-is-B Scpa	18:15	6 3/10/17 Xis
	170310-37-1	E ON		75 1
-		5 cpin 5 cpin		7.S V
ł	CeB - 37-1 dup	KScpta		4 V I
		<5 c.per	15:15	6 21/3/17 KLD
	Blank			6
hc twood				6
	10-2	- added < 5 c.p.u		7
				7
		{ hold time < 5 cpc		
		anyway as <scpu< td=""><td></td><td>7</td></scpu<>		7
		Part 15 cpu		7
	10-7	15 cpu		7
<u> </u>	10-8	< <u>s</u> cpu		7
	10-18 (Ku)	<u> </u>		7
	10-10 dup	K Scpa	++-	7
	10 - 11	<u> </u>		7
	10-12	KS cpu		7
	10-13	K Scpu		
	10-14	15 сри		7
	10-15	<u> </u>		
	16-16	<s cpu<br=""><s cpu<br=""><s cpu<br=""><s cpu<br=""><s cpu<br=""><s cpu<="" td=""><td></td><td>7</td></s></s></s></s></s></s>		7
	10-12 10-18 16-19	KScpu		8
	10-18	Scpu_		7.5
	10-19	< 5 cpu		7
+	10-20	< <u><</u> < <u>Scpu</u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u>		8
	10-20 desp	< Scpu		3
	10-21	5 cpu		7
+		5 cpu		7
	10 - 22	5 cpu		7
		5 cpu		8
	10-24	Scoul		6
	10-26	5 cnu		7.5
		(SCDU		7
	V 10 * 27	<s cpu<br="">s cpu <s cpu<br=""><s cpu<="" td=""><td></td><td>6</td></s></s></s>		6
	CCB			
		╶┼╍╌┼╍┼╸┞╼╎╍┼╍┼╸╃┈┤╍		-34

ATTACHMENT 3

Sample Data Group GW Dep Drain 3

3A

Sample Data Group GW Dep Drain 3

Sample Results

		INC	ORGANIC	ANALYSES DA	ATA SHEET			epa sampi	LE NO.
							(W Dep Dr	ain 3
Lab Name:	Adirondack	Environmenta	1	Contract:	Lockwood Ash	Lan	L		
Lab Code:	AES	Case No.:	17025LH	SAS No.:		SDG	No.:	GW Dep	Drain
Matrix (soi	1/water):	WATER		Lab	Sample ID:	170	331010	0-026D	
Level (low/	med): LC	W		Dat	e Received:	3/3	1/2017	1	_
% Solids:	0.0			Tot	al/Dissolved:	TOT	AL		_
		Concentration	n Units ((ug/L or mg/k	g dry weight):		UG/	L	

-1-

CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	16.6	U	J	P
7440-36-0	Antimony	2.7	ש		P
7440-38-2	Arsenic	10.5			P
7440-39-3	Barium	12000 -28.7	-		P
7440-42-8	Boron	155			P
7440-43-9	Cadmium	0.37	U	Ī	P
7440-70-2	Calcium	140000		<u>کر</u>	P
7440-47-3	Chromium	6.9	ש	J	P
7440-50-8	Copper	3.1	В		P
7439-89-6	Iron	16.1	B		P
7439-97-6	Mercury	0.03	ש	J	CV
7439-95-4	Magnesium	29000			P
7439-96-5	Manganese	51.1		l	P
7440-02-0	Nickel	1 40U -3.3-	₽		P
7440-09-7	Potassium	15000U-2420-	╞	I ≱	P
7782-49-2	Selenium	3.4	שן	X	P
7440-23-5	Sodium	11000	1	X	P
7440-66-6	Zinc	1 20U 4.0-	₽	l	P



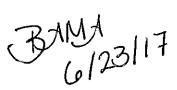
			YSES DATA SHEET			I	EPA SAMPLE NO.
					Γ	G	W Dep Drain 3
Name: Adirone	dack Environment	al Contr	act: Lockwood	Ash	Lan		
Code: AES	Case No.:		AS No.:		SDG No	. .:	GW Dep Drain
rix (soil/water)	: WATER		Lab Sample ID:	:	17033	1010	-026D
el (low/med):	LOW		Date Received:	:	3/31/	2017	
olids: 0.0			Total/Dissolve	ed :	TOTAL		
<u></u>							<u></u>
	Concentrati	on Units (ug/L	or mg/kg dry weigh	1 t) :		UG/1	<u> </u>
	CAS No.	Analyte	Concentration	С	Q	M	
	7429-90-5	Aluminum	16.6	ש	J	P	Ì
	7440-36-0	Antimony	2.7	ש		P]
	7440-38-2	Arsenic	10.5			P	ļ
	7440-39-3	Barium	12000 28.7	₽-		Р	ļ
	7440-42-8	Boron	155	<u> </u>		P	
	7440-43-9	Cadmium	0.37	ש		P	
	7440-70-2	Calcium	140000	<u> </u>	<u>کرا</u>	P	
	7440-47-3	Chromium	6.9	ש	J	P	1
	7440-50-8	Copper	3.1	B	·	P	
	7439-89-6	Iron	16.1	B		P	
	7439-97-6	Mercury	0.03	ש	<u> J</u>	CV	
	7439-95-4	Magnesium	29000	<u> </u>	<u> </u>	P	
	7439-96-5	Manganese	51.1	<u> </u>		<u> </u>	
	7440-02-0	Nickel			<u> </u>	P	
	7440-09-7	Potassium	50001-2420-	╞	<u>¥</u>	P	
	7782-49-2	Selenium	3.4	_	X	P	
	7440-23-5	Sodium	11000	<u> </u>	¥	P	
	7440-66-6	Zinc	<u> 200 ++++-</u>	₽		P	<u> </u>
				BA	MA 612	3/1	7
olor Before:	C1	arity Before:		Te	exture:		
olor After:		arity After:	. <u> </u>	A	rtifact	:s:	
mments:							
	· · · · · · · · · · · · · · · · · · ·						

-1-INORGANIC ANALYSES DATA SHEET

							1	Enlet To	Pond
Lab Name:	Adirondack	Environmenta	<u>.1</u> c	ontract:	Lockwood As	h Lan			
Lab Code:	AES	Case No.:	17025LH	SAS No.:		SDG	No.:	GW Dep	Drain
Matrix (soi	l/water):	WATER		Lab	Sample ID:	170	331010	-020D	-
Level (low/r	med): <u>LO</u>	W		Dat	e Received:	<u>3/3</u>	1/2017		
% Solids:	0.0			Tot	al/Dissolved:	TOT	AL		_

Concentration Units (ug/L or mg/kg dry weight):

Concentration С Q м CAS No. Analyte ΰ P 16.6 J 7429-90-5 Aluminum 2.7 U P Л 7440-36-0 Antimony 6.7 в P 7440-38-2 Arsenic J Ρ *31.5 †₿ 7നവ 7440-39-3 Barium 12500 P 7440-42-8 Boron U 0.37 Р 7440-43-9 Cadmium P 576000 Calcium 7440-70-2 6.9 U Р 7440-47-3 Chromium 2.7 в Р 7440-50-8 Copper P 2160 7439-89-6 Iron 0.03 U CV 7439-97-6 Mercury 74800 Р 7439-95-4 Magnesium 411 Р 7439-96-5 Manganese ~5.6 ₽ P 7440-02-0 Nickel 40 95600 Р 7440-09-7 Potassium 37.8 P Selenium 7782-49-2 180000 Р Sodium 7440-23-5 20u -4.9 P 7440-66-6 Zinc



Color Before:	Clarity Before:	Texture:
Color After:	Clarity After:	Artifacts:
Comments:		

EPA SAMPLE NO.

UG/L

-1-
INORGANIC ANALYSES DATA SHEET

							Ke	uka Downstre	eam
Lab Name:	Adirondack	Environmenta	<u>1</u> (Contract:	Lockwood Asl	1 Lan			<u></u>
Lab Code:	AES	Case No.:	17025LH	SAS No.:	··	SDG	No.:	GW Dep Dra	ain
Matrix (soi)	1/water):	WATER		Lab	Sample ID:	1703	331010	-022D	
Level (low/r	ned): <u>LO</u>	W		Dat	e Received:	<u>3/31</u>	L/2017		
% Solids:	0.0			Tot	al/Dissolved:	TOT	AL		

Concentration Units (ug/L or mg/kg dry weight):

CAS No.	Analyte	Concentration	С	Q	M
7429-90-5	Aluminum	16.6	ד	J	P
7440-36-0	Antimony	2.7	۱a]	P
7440-38-2	Arsenic	4.4	В		P
7440-39-3	Barium	12000 -21.4	- ₽	1	P
7440-42-8	Boron	50U 35.5	╋	1	P
7440-43-9	Cadmium	0.37	ען	·	P
7440-70-2	Calcium	39400]	1.	P
7440-47-3	Chromium	6.9	ប	JJ	P
7440-50-8	Copper	3.9	В		P
7439-89-6	Iron	216		1	P
7439-97-6	Mercury	0.03	טן	1 3	CV
7439-95-4	Magnesium	11200	1		P
7439-96-5	Manganese	22.4]	P
7440-02-0	Nickel	404 +++	- B.	1	P
7440-09-7	Potassium	5000U -2190	18	X	P
7782-49-2	Selenium	3.4	זי	<u>الا</u>	P
7440-23-5	Sodium	19300		k.	P
7440-66-6	Zinc	20U 6.9	13	<u> </u>	P



EPA SAMPLE NO.

UG/L

Color Before:	 Clarity Before:		Texture:	
Color After:	 Clarity After:		Artifacts:	
Comments:	 			
	 <u></u>	······································		

-1-INORGANIC ANALYSES DATA SHEET

			Keuka Upstream
Lab Name:	Adirondack Environmental Contr	act: Lockwood Ash	Lan
Lab Code:	AES Case No.: 17025LH SA	AS No.:	SDG No.: GW Dep Drain
Matrix (soi)	/water): WATER	Lab Sample ID:	170331010-021D
Level (low/1	ned): LOW	Date Received:	3/31/2017
t Solids:	0.0	Total/Dissolved:	TOTAL

CAS No.	Analyte	Concentration	С	Q	м
7429-90-5	Aluminum	16.6	ש	J	P
7440-36-0	Antimony	2.7	ប	1	P
7440382	Arsenic	3.4	В	<u> </u>	P
7440-39-3	Barium	1 2004-22.0	-12-		P
7440-42-8	Boron	50U-35-1	₽	<u> </u>	P
7440-43-9	Cadmium	0.37	υ	ĺ	P
7440-70-2	Calcium	40000		×	P
7440-47-3	Chromium	6.9	ש	J	P
7440-50-8	Copper	4.0	в	l	P_
7439-89-6	Iron	200			P
7439-97-6	Mercury	0.03	ש	J	CV
7439-95-4	Magnesium	11300	1		P
7439-96-5	Manganese	21.0]	P_
7440-02-0	Nickel	400 0.72	-†*		P
7440-09-7	Potassium	15000 U 2180	₽	Į Ž	P
7782-49-2	Selenium	3.4	σ	×	P
7440-23-5	Sodium	19500		¥	P
7440-66-6	Zinc	20U 4.5	-12-	1	P

EPA SAMPLE NO.

	I		SES DATA SHEET			EP	A SAMPLE NO.
					Γ	Kei	ıka Upstream
ame: Adiron	dack Environmen	tal Contra	ct: Lockwood A	sh :	Lan Lan		
Code: AES	Case No.:		5 No.:		SDG No	5.: (W Dep Drair
					17022	1010-(
ix (soil/water)	: WATER		Lab Sample ID:				
(low/med):	LOW		Date Received:		3/31/	2017	······································
ids: 0.0			Total/Dissolved	1:	TOTAL	۱ 	
						··· · ···	
	Concentrat	ion Units (ug/L o	r mg/kg dry weight	:);		UG/L	
	CAS No.	Analyte	Concentration	с	Q	м	
	7429-90-5	Aluminum	16.6	ד ד	J	P	
	7440-36-0	Antimony	2.7	υ		P	
	7440-38-2	Arsenic	1 ·	в		P	
	7440-39-3	Barium		<u>1</u>		P	
	7440-42-8	Boron		B		P	
	7440-43-9	Cadmium		ט ן		P	
	7440-70-2	Calcium	40000		ž	P	
	7440-47-3	Chromium		ប	<u>J</u>	P	
	7440-50-8	Copper		в		P	
	7439-89-6	Iron	200			<u>P</u>	
	7439-97-6	Mercury	1	ט	J		
	7439-95-4	Magnesium	11300			P	
	7439-96-5	Manganese				P	
	7440-02-0	Nickel		B		P	
	7440-09-7	Potassium	NUUN		<u>¥</u>	P	
	7782-49-2	Selenium			<u>×</u>	P	
	7440-23-5	Sodium	19500		¥	P	
	7440-66-6	Zinc	20U 4.5-	₽-		P	
			F	١K	M Leli	23	17
lor Before:		Clarity Before:		Te	ature	: _	
TOT BELOIS.		Jawite After:		Δ-	tifac	ts:	
-	-						
lor After:		Clarity After:	····			_	
-		Jarity Alter.				_	

Form I - IN

-1-

INORGANIC ANALYSES DATA SHEET

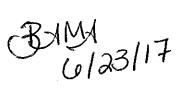
							Pond Grab
Lab Name:	Adirondack	Environmenta	<u>1</u> (Contract:	Lockwood Ash	Lan	
Lab Code:	AES	Саве No.:	17025LH	SAS No.:		SDG No.:	GW Dep Drain
Matrix (soil	l/water):	WATER		Lab	Sample ID:	1703310	10-024D
Level (low/m	ned): <u>LO</u>	W		Dat	e Received:	3/31/20	17
% Solids:	0.0			Tot	al/Dissolved:	TOTAL	,,,, ··· ·= -··· ,

Concentration Units (ug/L or mg/kg dry weight):

UG/L

EPA SAMPLE NO.

CAS No.	Analyte	Concentration	с	Q	м
7429-90-5	Aluminum	16.6	U	JJ	Į₽
7440-36-0	Antimony	2.7	U	IJ	P
7440-38-2	Arsenic	9.9	В	J-	P
7440-39-3	Barium	2000 24.6	B	IJ	P
7440-42-8	Boron	8250			P
7440-43-9	Cadmium	0.37	ū	J	P
7440-70-2	Calcium	290000		K	- P
7440-47-3	Chromium	9.3	в	J	P
7440-50-8	Copper	1.7	σ	J_	P
7439-89-6	Iron	289		-J	P
7439-97~6	Mercury	0.03	υ	J	CV
7439-95-4	Magnesium	45300	I		P
7439-96-5	Manganese	157			P
7440-02-0	Nickel	404 5.4	₽	J_	P
7440-09-7	Potassium	41600		VJ+	P
7782-49-2	Selenium	3.4	U	J	P
7440-23-5	Sodium	106000		¥	P
7440-66-6	Zinc	20U 2.0	₽	J	P



Color Before:		Clarity Before:	<u> </u>	Texture:	······
Color After:		Clarity After:		Artifacts:	
Comments:		<u> </u>			
					· · · · · · · · · · · · · · · · · · ·
	····	<u> </u>			

-1-

INORGANIC ANALYSES DATA SHEET

						Su	rface Water Dup
Lab Name:	Adirondack	Environmenta	al	Contract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17025LH	SAS No.:	·	SDG No.:	GW Dep Drain
Matrix (soi)	1/water):	WATER		Lab	Sample ID:	170331010	-023D
Level (low/r	med): LOW	1		Dat	e Received:	3/31/2017	· · · · · · · · · · · · · · · · · · ·
<pre>% Solids:</pre>	0.0		-	Tot	al/Dissolved:	TOTAL	

BAMA 6/23/17

			Surface Water Dup
lizondack Envizo	amontal Con	tract: Lockwood Ash	Lan
			SDG No.: GW Dep Drain
<u>Case</u>	No.: <u>17025LH</u>	SAS NO.:	SDG NO.: GW DEP DIAIN
ater): WATER	······	Lab Sample ID:	170331010-023D
): <u>rom</u>		Date Received:	3/31/2017
0		Total/Dissolved:	TOTAL
		•	
Concen	itration Units (ug/	L or mg/kg dry weight):	
			ОМ
CAS No.	Analyte	Concentration	
7429-90-	-5 Aluminum	16.6 U	JP
7440-36-	-0 Antimony	2.7 U	P
7440-38-	-2 Arsenic	6.2 B	P
7440-39-	-3 Barium	1 2001-20.3 B	P
7440-42-	-8 Boron	504-29-8-B	P
7440~43-	-9 Cadmium	0.37 U	P
7440-70-	-2 Calcium	39000	Z P
7440-47-	-3 Chromium	6.9 U	
7440-50-	-8 Copper	5.7 B	
7439-89-	-6 Iron	218	P
		0.03 U	JJ ICVI
		11100	P
		21.3	P
		404 1.1 HB	P
			Z P
		3.4 U	X P
		19300	Z P
		2011 6.2 B	P
			1. I. J.
		C \$ 7	AMA
		C P	(0/23/17
			GASIT
	Clarity Before	. п	lexture:
		د 	
	Clarity After:	1	Artifacts:
		······	
			<u></u>
	······································		
	ES Case vater): WATER a): LOW .0 Concer CAS No. 7429-90 7440-36 7440-39 7440-39 7440-39 7440-42 7440-43 7440-43 7440-43 7440-43 7440-43 7440-43 7440-43 7440-43 7440-43 7440-43 7440-50 7439-89 7439-95 7440-23 7440-23	ES Case No.: 17025LH rater): WATER A): LOW .0 Concentration Units (ug/ CAS No. Analyte 7429-90-5 Aluminum 7440-36-0 Antimony 7440-38-2 Arsenic 7440-39-3 Barium 7440-42-8 Boron 7440-42-8 Boron 7440-47-3 Chromium 7440-70-2 Calcium 7439-97-6 Magnesium 7439-96-5 Manganesse 7440-02-0 Nickel 7440-23-5 Sodium 7440-23-5 Sodium 7440-23-5 Sodium 7440-66-6 Zinc	ES Case No.: 17025LH SAS No.: rater): WATER Lab Sample ID: h): LOW Date Received: .0 Total/Dissolved: Concentration Units (ug/L or mg/kg dry weight): CAS No. Analyte Concentration C 7429-90-5 Aluminum 16.6 U 7440-36-0 Antimony 2.7 U 7440-39-3 Barium 2COUL20.3 B 7440-39-3 Barium 2COUL20.3 B 7440-70-2 Calcium 0.37 U 7440-42-6 Boron 5OUL20.3 B 7440-70-2 Calcium 0.37 U 7440-70-2 Calcium 0.37 U 7440-70-4 Copper 5.7 B 7439-97-6 Mercury 0.03 U 7439-95-4 Magnesium 11100 7439-95-5 Manganese 21.3 7440-02-0 Nickel 4OUL 4:: B 7440-03-5 Sodium 19300 7440-02-5 Sodium <t< td=""></t<>

-1-INORGANIC ANALYSES DATA SHEET

							EPA SAMPLE NO.
							Under Drain 5
Lab Name:	Adirondack E	Invironmenta	1 Cont	tract:	Lockwood Ash	Lan	
Lab Code:	AES	Case No.:	17025LH	SAS No.:	······	SDG No.:	GW Dep Drain
Matrix (soi)	l/water): V	VATER		Lab	Sample ID:	170331010	0-027D
Level (low/r	med): LOW	-		Date	a Received:	3/31/2017	
% Solids;	0.0			Tota	al/Dissolved:	TOTAL	<u></u>

Concentration Units (ug/L or mg/kg dry weight):

Analyte Concentration С CAS No. Q м 7429-90-5 Aluminum 16.6 υ Ρ Л 7440-36-0 U Antimony 2.7 P Л 7440-38-2 10.0 Arsenic B Ĵ. Р 7440-39-3 Barium -21-8 B. Р COL 7440-42-8 Boron 12400 Р 7440-43-9 Cadmium 0.37 σ Р J 7440-70-2 Calcium 820000 Р 7440-47-3 Chromium 6.9 U Ρ 7440-50-8 2.9 B Copper Р 7439-89-6 Iron 8.3 в Р c l 7439-97-6 U Mercury 0.03 CV 7439-95-4 81600 Magnesium P 7439-96-5 Manganese 1.6 в Р $\overline{\mathbf{1}}$ _ 7440-02-0 Nickel 3.1 ₽ Ρ 40l 7440-09-7 Potassium 185000 Z ₽ 7782-49-2 Selenium 71.9 XT Р 7440-23-5 226000 Sodium É Р

7440-66-6

Zinc

JAMA 10/23/17

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20U -14-9

UG/L

Color Before:	Cla	rity Before:	Texture:
Color After:	Cla	rity After:	Artifacts:
Comments:			
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Form I - IN

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			Field Blank
Lab Name:	Adirondack Environmental Cont	ract: Lockwood Ash Lan	
Lab Code:	AES Case No.: 17025LH S	SAS No.: SDG No.	: GW Dep Drain
Matrix (soi:	L/water): WATER	Lab Sample ID: 170331	010-025D
Level (low/r	ned): LOW	Date Received: $3/31/20$	017
% Solids:	0.0	Total/Dissolved: TOTAL	

Concentration Units (ug/L or mg/kg dry weight):

м С Analyte Concentration Q CAS No. в 31.5 Ρ 7429-90-5 Aluminum Τ---2.7 U Ρ 7440-36-0 Antimony в Ρ 3.6 7440-38-2 Arsenic -1-0 ┢ ₽ 7440-39-3 200U Barium 24.3 B ₽ 7440-42-8 Boron ~ 1 U 0.37 ₽ 7440-43-9 Cadmium B P -122 7440-70-2 Calcium 50004 7,9 B р 7440-47-3 Chromium в 1.8 р 7440-50-8 Copper 10.5 в ₽ 7439-89-6 Iron U 0.03 CV 7439-97-6 Mercury P 23.7 B 7439-95-4 Magnesium 50000 U 0.27 p 7439-96-5 Manganese 0.40 U р 7440-02-0 Nickel р 41.4 ₽ 7440-09-7 Potassium Þ 5000 3.4 U X ₽ 7782-49-2 Selenium 5000U 62.5 ┢┲┉╽┲ P Sodium 7440-23-5 B Ρ 7440-66-6 Zinc つぐ 1.8

BAMA 6/23/17

EPA SAMPLE NO.

UG/L

Color Before:		Clarity Before:		Texture:	·····
Color After:		Clarity After:	,	Artifacts:	
Comments:	, <u>,</u>				

Form I - IN

Hardness Results

Contract:

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Matrix (soil/water):	Water	Date Received:	
Level (Low/Med):	Low		
Sa	mple ID	Concentration (mg/L)	
GW Dep D	rain 3	469	
Inlet to Por	nd	1746	
Keuka Dov	vnstream	145	
Keuka Ups	Keuka Upstream		
Pond Grab		911	
Surface Wa	Surface Water Dup		
Under Drai	Under Drain 5		

Case No.: 17025LH SAS No.:

Lab Name: Adirondack Environmental

Field Blank

Lab Code: AES

SDG No.: GW Dep Drain 3

3/31/17

INORGANIC ANALYSIS DATA SHEET

			GW Dep Drain 3
Lab Name: AES		Contract:	
Lab Code: AES Case No.	: <u>17025LH</u>	NRAS No.:	SDG NO.: GW Dep Drain
Matrix (soil/water): WATER		Lab Sample ID:	170331010-026B
Level (low/med): Low		Date Received:	03/31/2017
% Solids: 0.0			

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	280		Î I	MG/L	<u> </u>
	Chloride	4.27			MG/L	
	Color	5		চ	MG/L	
	Nitrogen, Ammonia (As N)	0.1	υ		MG/L	1
- <u></u>	Specific Conductance	752			MG/L	
	Sulfate	209			MG/L	
	TDS (Residue, Filterable)	545			MG/L	
	Total Organic Carbon	2.84		ত	MG/L	1

BAMA 6123/17

Comments:

Form IA-IN

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EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Inlet To Pond

Lab Name:	AES		Contract:	
Lab Code:)	AES	Сазе No.: 17025LH	NRAS No.:	SDG NO.: GW Dep Drain
Matrix (soil	/water):	WATER	Lab Sample ID:	170331010-0208
Level (low/m	ad):	Low	Date Received:	03/31/2017
% Solids:	0.0			

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	355			MG/L	Ţ
	Chloride	276		11	MG/L	
	Color	5	υ	ন	MG/L	
	Nitrogen, Ammonia (As N)	0.168		Ĵ-	MG/L	
	Specific Conductance	2630			MG/L	
	Sulfate	1120			MG/L	
	TDS (Residue, Filterable)	2480			MG/L	
	Total Organic Carbon	1	ប		MG/L	

BAMJ 6/23/17

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

মানি বিশিক্ষ কাৰ্যপ্ৰাৰ প্ৰথম প্ৰথম বিশেষ বিশেষ নামা প্ৰথম বিশেষ বিশেষ বিশেষ বিশেষ বিশেষ বিশেষ বিশেষ বিশেষ বিশে

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Keuka Downstrea

Lab Name:	AES		Contract:		
Lab Code:	AES	Case No.: 17025LH	NRAS No.:	SDG NO.:	GW Dep Drain
Matrix (soi	l/water):	WATER	Lab Sample ID:	170331010-022B	
Level (low/n	ned) :	Low	Date Received:	03/31/2017	
% Solids:	0.0				

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	105		Ĩ	MG/L	<u> </u>
	Chloride	38.9			MG/L	+
	Sulfate	23.5			MG/L	+
	Color	5		T	MG/L	
<u></u>	Nitrogen, Ammonia (As N)	0,1	U		MG/L	1
	Specific Conductance	336			MG/L	1
	TDS (Residue, Filterable)	165			MG/L	1
	Total Organic Carbon	2.41		5	MG/L	1

BXMX 6123/17

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Keuka Upstream

Lab Name:	AES		Contract:		
Lab Code:	AES	Case No.: 17025LH	NRAS No.:	SDG NO.:	GW Dep Drain
Matrix (soil	l/water):	WATER	Lab Sample ID:	170331010-021B	
Level (low/m	ned):	Low	Date Received:	03/31/2017	
<pre>% Solids:</pre>	0.0				

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	95			MG/L	
	Chloride	38.9			MG/L	
,	Sulfate	23.4		<u> </u>	MG/L	
	Color	5		য	MG/L	
<u> </u>	Nitrogen, Ammonia (As N)	0.1	U		MG/L	
	Specific Conductance	337			MG/L	
	TDS (Residue, Filterable)	175			MG/L	
	Total Organic Carbon	2.31		ज	MG/L	

BAMA 6123/17

Comments:

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INORGANIC ANALYSIS DATA SHEET

203	SAMPLE	NO
LPA	SARELLE	LAO,

-22

Pond Grab

Lab Name:	AES			Contract:				
Lab Code:	AES	Case No.:	17025LH	NRAS No.:		SDG NO.:	GW Dep	Drain
Matrix (soi	1/water):	WATER		Lab Sample ID:	170331010-024	4B		
Level (low/	med):	Low		Date Received:	03/31/2017			
% Solids:	0.0	1				1		

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	195			MG/L	T
	Chloride	110			MG/L	
	Color	5		ज	MG/L	
	Nitrogen, Ammonia (As N)	0.1	υ		MG/L	
	Specific Conductance	1530			MG/L	1
	Sulfate	627		<u> </u>	MG/L	
	TDS (Residue, Filterable)	1240			MG/L	<u> </u>
i	Total Organic Carbon	3.42		J	MG/L	1

Form IA-IN

BAMA 6123/17

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Surface Water D

Lab Name:	AES		·	Contract:			
Lab Code:	AES	Case No.:	17025LH	NRAS No.:		SDG NO.:	GW Dep Drain
Matrix (soil	/water):	WATER		Lab Sample ID:	170331010-02	3B	
Level (low/m	led):	Low		Date Received:	03/31/2017		
<pre>% Solids:</pre>	0.0					,	

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	100			MG/L	T
	Chloride	39.1			MG/L	
	Sulfate	23.2			MG/L	
	Color	5		J	MG/L	
	Nitrogen, Ammonia (As N)	0.1	U		MG/L	\top
	Specific Conductance	317			MG/L	1
	TDS (Residue, Filterable)	180			MG/L	1
	Total Organic Carbon	2.33		ित	MG/L	1

BAMA 6123/17

Comments:

INORGANIC ANALYSIS DATA SHEET

				Under	r Drain 5
Lab Name:	AES		Contract:		
Lab Code:	AES	Case No.: 17025LH	NRAS No.:	SDG NO.:	GW Dep Drain
Matrix (so	il/water):	WATER	Lab Sample ID:	170331010-027B	
Level (low,	/med):	Low	Date Received:	03/31/2017	
% Solids:	0.	0		<u> </u>	

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	190	·····		MG/L	T
······	Chloride	825			MG/L	1
	Sulfate	1380			MG/L	1
	Color	5	υ	त	MG/L	
	Nitrogen, Ammonia (As N)	0.1	U		MG/L	1
	Specific Conductance	4070			MG/L	
	TDS (Residue, Filterable)	3600			MG/L	
	Total Organic Carbon	1	U		MG/L	1

BANA 6/23/17

Comments:

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EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Field Blank

Lab Name:	AES			Contract:				
Lab Code:	AES	Case No.:	17025LH	NRAS No.:		SDG NO.:	GW Dep	Drain
Matrix (soi)	l/water):	WATER	_	Lab Sample ID:	170331010-02	5B		
Level (low/m	aed):	Low		Date Received:	03/31/2017			
% Solids:	0.0		_					

CAS No.	Analyte	Concentration	С	Q	Units	м
	Alkalinity, Total (As CaCO3)	1	υ		MG/L	T
	Chloride	2	υ		MG/L	
	Sulfate	4	υ		MG/L	
	Color	5	U	5	MG/L	
	Nitrogen, Ammonia (As N)	0.1	υ		MG/L	
	Specific Conductance	1.54			MG/L	
·	TDS (Residue, Filterable)	5	U		MG/L	
	Total Organic Carbon	1	U		MG/L	1

BAMA 6123/17

Comments:

A.4 **FIELD DUPLICATES**

Sample No. 170331010-021D Field Duplicate No. 170331010-023D SDG No. GW Dep Drain 3

Lab Code: AES

Case No. 17025LH

Sample Matrix: Surface Water

% Solids Sample: 0.0

% Solids Duplicate: 0.0

Concentration Units (ug/l or mg/kg dry weight): ug/L

Analyte	CRQL	Action Limit (5xCRQL)	Sample Concentration	С	Duplicate Concentration	С	RPD, %	Absolute Difference	Q	М
Aluminum	200	1,000	16.6	U	16.6	U				Р
Antimony	60	300	2.7	U	2.7	U				Р
Arsenic	10	50	3.4	U	6.2	В		2.8		Р
Barium	200	1,000	22.0	В	20.3	В		1.7		Р
Boron	50	250	35.1	В	29.8	В		5.3		Р
Cadmium	5	25	0.37	U	0.37	U				Р
Calcium	5,000	25,000	40,000		39,000		2.53			Р
Chromium	10	50	6.9	U	6.9	U				Р
Copper	25	125	4.0	В	5.7	В		1.7		Р
Iron	100	500	200.0		218			18		Р
Magnesium	5,000	25,000	11,300		11,100			200		Р
Manganese	15	75	21.0		21.3			0.3		Р
Mercury	0.2	1.0	0.03	U	0.03	U				CV
Nickel	40	200	0.7	В	1.1	В		0.38		Р
Potassium	5,000	25,000	2,180	В	2,160	В		20		Р
Selenium	5	25	3.4	U	3.4	U				Р
Sodium	5,000	25,000	19,500		19,300			200		Р
Zinc	20	100	4.5	В	6.2	В		1.7		Р

A.4 FIELD DUPLICATES

Sample No.	170331010-021B	Field Duplicate No.	170331010-23B	SDG No. GW	Dep Drain 3
Lab Code:	AES	Case No.	17025LH	Sample Matrix: Surfa	ace Water

% Solids Sample: 0.0

% \$

% Solids Duplicate: 0.0

Concentration Units (ug/I or mg/kg dry weight): mg/L

Analyte	Sample Concentration	С	Duplicate Concentration	с	RPD	Q	Μ
Ammonia	0.1	U	0.1	U			
Alkalinity	95		100		5.1%		
Color	5		5				
Conductivity	337		317		6.1%		
Chloride	38.9		39.1		0.5%		
Hardness	146		143		2.1%		
Sulfate	23.4		23.2		0.9%		
TDS	175		180		2.8%		
ТОС	2.31		2.33		0.9%		

Parameter*	Sample Concentration	с	Duplicate Concentration	с	RPD	Units	Ø
Falailletei	Concentration	U U	Concentration	C	RFD	Units	Q
рН	7.9					SU	
Temperature	4					Deg C	
Turbidity	712					NTU	
Dissolved Oxygen	7.37					mg/L	

*Field parameters not measured on the field duplicate.

3B

Sample Data Group GW Dep Drain 3

Quality Control Documentation

2B-IN

CRDL STANDARD FOR AA AND ICP

Lab Name: Adirondack Environmental Contract: Lockwood Ash Landfill Lab Code: AES Case No.: 17025LH SAS No.: SDG No.: GW Dep Drain 3 AA CRDL Standard Source: INOR-VEN Concentration Units: ug/L

					CRDL Stan	dard fo	or ICP	
				Ini	itial		Final	L
Analyte	True	Found	%R	True	Found	%R	Found	%R
Antimony		1		120.0	117.70	98.1	121.82	
Arsenic				20.0	21.60	108.0	21.09	
Cadmium		1		10.0	8.86	88.6	8.81	88.3
Chromium				20.0	16.39	82.0	18.68	93.4
Copper				50.0	50.48		47.51	95.0
Manganese	+	1		30.0	27.49		28.34	94.
Nickel				80.0	78.88		71.82	
Selenium				10.0		82.1	10.13	101.3
Zinc		1		40.0	41.14		42.34	105.

Control Limits: no limits have been established by EPA at this time

3 BLANKS

Contract: Lockwood Ash Landfill Lab Name: Adirondack Environmental and and and a GW Dep Drain 3 SDG No.: Case No.: 17025LH SAS No.: Lab Code: AES Preparation Blank Matrix (soil/water): WATER Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank			Co	ntinuing Cal Blank (ug/		ation		Preparation Blank		
Analyte	(ug/L)	c	1	С	2	С	3	С		С	M
Aluminum	16.6	U	16.6	וטן	16.6	U	16.6	U	16.560	U	P
Antimony	2.7	U	2.7	U	2.7	U	2.7	U	2.680	U	P
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U	2.760	U	P
Barium	1.1	U	1.1	U	2.5	в	1.1	U	1.050	U	P
Boron	1.0	U	1.0	U	8.1	в	1.0	U	1.040	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.370	U	P
Calcium	5.7	U	5.7	U	5.7	U	5.7	U	6.751	B	P
Chromium	6.9	U	6.9		6.9	U	6.9	ע	6.870	U	P
Copper	1.7	U	1.7		1.7	U	1.7	ע	1.740	υ	P
Iron	1.7	U	1.7		1.7	U	1.7	U	1.720	U	P
Magnesium	13.3	U	13.3		13.3	U	21.6	B	36.301	B	P
Manganese	0.3	U	0.3		0.3	U	0.3	U	0.270	U	P
Nickel	0.4	υ	0.5		0.4	В	0.4	U	0.400	υ	P
Potassium	7.3	U	7.3		15.7	В	7.3	U	8.808	B	F
Selenium	3.4	U	3.4		3.4	U	3.4	U	3.400	U	F
Sodium	12.8	U	12.8		36.8	B	31.3	B	12.810	U	E
Zinc	0.3		0.3		0.3	U	0.3	U	0.613	B	E

3 BLANKS

Lab Name:	Adirondack En	nvironment	al	C	contract:	Lockwoo	d Ash Land	11111	
Lab Code:	AES	Case No.:	17025LH	SAS 1	No.:		SDG No.:	GW Dep	Drain 3
Preparation	Blank Matrix	(soil/wate:	c): WATER		-				
Preparation	Blank Concent	tration Uni	ts (ug/L or mg	/kg):	UG	/L			

	Initial Calib. Blank			Con	tinuing (Blank (u	Calibrat ng/L)	ion		Preparation Blank		
Analyte	(ug/L)	С	1	С	2	С	3	С		С	M
Aluminum			16.6	וטן							P
Antimony			2.7	טן							P
Arsenic	1		2.8	וטן							P
Barium			1.2								P
Boron			3.6								P
Cadmium			0.4								P
Calcium		11	5.7								P
Chromium		11	6.9								P
Copper		tt	1.7								P
Iron			1.7								P
Magnesium	1	++	23.7								P
Manganese		1-1	0.3								P
Nickel	1	- <u>†</u>	0.4								P
Potassium	1	- <u></u>	(8.5								P
Selenium	1		3.4			11				1	P
Sodium	1		35.5								P
Zinc			0.3								P

Sample Report

04/25/17 12:27:36 PM SPEX-FIX2 ないです

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Sample Name: I	CB-1 Acquire	d: 04/25/2017 12	2:24:30 Type	e: Unk		
Method: SPEX-F	IX2 Mode: C	ONC Corr. F	actor: 1.000000)		
User: admin	Test Code: CLF		Type: ICB	Dilution: 1		
	10010000.021	vv oumpio	1)00.100	Directoria		
Comment:						
Elem	Ag	AI	As	Au	B_	Ва
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.0109	.12457	.00039	.80229	<.00000	.84120
Stddev	1.0083	8.8853	.34877	.34159	.19836	.78744
%RSD	99.739	7133.1	89790.	42.577	116890.	93.609
漱1	.29796	-6.1583	.24700	1.0438	14043	.28439
养2	1.7239	6.4074	24623	.56075	.14009	1.3980
Elem	Be	Са	Cd	Co	Cr	Cu
Line	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.05107	<.00000	.16606	<.00000	<.00000	<.00000
Stddev	.05317	5.0249	.15959	.02383	1.2471	.82801
%RSD	104.12	151.49	96.106	18.081	16.440	94.017
44	.08867	.23616	.05321	14863	-6.7041	29521
索1	.01347	-6.8701	.27891	11493	-8.4678	-1.4662
茶2	.01347	-0.0701	.21001			Avg.= - 7.58595
Elem	Fe	K_	Li	Mg	Mn	Mo
Line	259.940 {129}	766.490 { 44 }	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	.81760	<.00000	2.5287	<.00000	.01797
Stddev	.09397	7.3833	57.878	6.1711	.06296	.03813
%RSD	36.811	903.04	722.33	244.05	234.66	212.15
志1	32171	6.0384	-48.939	-1.8350	07135	.04493
#2	18882	-4.4032	32.913	6.8923	.01769	00899
Elem	Na	2Na	Ni	Pb	Pd	Sb
Line	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	8.0063	<.00000	.17436	.38261	<.00000	1.5952
Stddev	12.767	.23187	.02414	.73351	5.3165	1.6145
%RSD	159.46	102.67	13.845	191.71	339.52	101.21
70130	100.40	102.01	10.010			
※1	-1.0215	06188	.19143	.90128	2.1934	.45354
	17.034	38980	.15729	13606	-5.3253	2.7368
#2	17.034		,10120			

AES

04/25/17 01:20:02 PM SPEX-FIX2

A	ES

Jser: admin	Test Code: CLP	W Sample	Type: CCB	Dilution: 1		
Comment:		A.C. A. S. S. S. S. S. S. S. S. S. S. S. S. S.				
omment.						
lem	Ag	AL	As	Au	В_	Ва
ine	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
Inits	ppb	ppb	ppb	ppb	ppb	ppb
vg	.77272	<.00000	.90373	.37423	<.00000	<.00000
tddev	.50416	13.534	.32338	.18902	.00001	.35869
RSD	65.245	428.03	35.783	50.509	.00117	39.038
on ou	00.240	420.00	00.100			
1	.41623	-12.732	.67506	.24057	95351	66518
2	1.1292	6.4079	1.1324	.50788	95353	-1.1724
				-	0.	Cu
lem	Be	Ca	Cd	Со	Cr	Cu
ine	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
Inits	ppb	ppb	ppb	ppb	ppb	ppb
VG	<.00000	<.00000	<.00000	.15425	<.00000	1.4861
tddev	.09909	3.6850	.35589	.05552	12.262	2.2426
RSD	147.19	45.751	296.61	35.994	122.03	150.91
		\bigcap	07400	10051	-18.718	09966
1	13738	-10.660	37163	.19351		3.0719
2	.00274	-5.4488	.13166	.11499	-1.3777	
	1.1		-Avg.= - 8.054	4 Ma	Mn	-Avg =- 10.047 Mo
lem	Fe	K_		Mg	257.610 {131}	202.030 {166}
ine	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}		
Inits	ppb	ppb	ppb	ppb	ppb	ppb 00000.>
vg	<.00000	<.00000	<.00000	13.095	<.00000	
Iddev	.08797	.38505	55.775	21.120	.00432	.17790
&RSD	11.236	75.253	248.35	161.28	5.7089	34.731
	04544	23940	-61.897	28.029	07867	38644
1	84514 72072	78395	16.981	-1.8391	07257	63803
2	12012	-,70000	10.001			
lem	Na	2Na	Ni	Pb	Pd	Sb
ine	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162]
Jnits	ppb	ppb	ppb	ppb	ppb	ppt
vg	<.00000	<.00000	.48918	.73718	1.2534	.82894
Stddev	10.113	.40527	.15633	1.5438	2.2150	1.3722
%RSD	44.917	4.8515	31.958	209.42	176.72	165.53
	\frown			1 0000	24005	1.7992
1	-29.665	-8.0669	.37863	1.8288	31285	
2	-15.363	-8.6400	.59972	35446	2.8196	14134

1 of 219-

Samp	le	Re	port

Sample Name:	CCB-1 Acquir	ed: 04/25/2017 13:16:56	Type: Unk	
Method: SPEX-	FIX2 Mode: C	ONC Corr. Factor: 1.0000	000	
User: admin	Test Code: CLF	W Sample Type: CCB	Dilution: 1	
Comment:				

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	<.00000	1.1464	6.9130	.38334	3.4061
Stddev	2.0344	3.8992	1.2563	8.6092	.25294	8.4388
%RSD	52.198	49.936	109.59	124.54	65.984	247.75
#1	-2.4590	-10.566	.25801	13.001	.20448	-2.5610
<u>茶</u> 2	-5.3361	-5.0513	2.0347	.82536	.56219	9.3733
71 m		Ava = - 3.8975				
Elem	V_	-Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	1.8800	<.00000	.80687			
Stddev	.6205	.01654	.17320			
%RSD	33.007	5.4721	21.465			
炒1	2.3187	29058	.92934			
#2	1.4412	31397	.68441			
		\sim	Avg.=-0.30	2275		

Sample Report	t
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Sample Name: C	CB-2 Acquire	ed: 04/25/2017 1	4:34:58 Typ	e: Unk		
Method: SPEX-F	IX2 Mode: Co	ONC Corr. F	actor: 1.000000			
User: admin	Test Code: CLP	W Sample	Type: CCB	Dilution: 1		
Comment:		14 COL 14 C				
Comment.						
(**) e	٨٩	AI	As	Au	B	Ва
Elem	Ag 328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
Line			ppb	242.700 (100) ppb	ppb	ppb
Units	ppb	ppb 00000.>	<.00000	2.2765	8.0639	2.4518
Avg	2.0208	14.593	3.3463	.0379	2.3890	.0991
Stddev	2.9427		125.05	1.6634	29.625	4.0418
%RSD	145.62	60.680	125.05	1.0004	20.020	
	4.1016	-13.731	30980	2.3033	9.7532	2.5219
孝1		-34.369	-5.0422	2.2498	6.3747	2.3818
赤2	05995	-34.303	Avg. = - 24.			
211 march	Po	Ca	Tuy. 27. Cd	Co	Cr	Cu
Elem	Be	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
Line	313.042 {107}		220.002 (147) ppb	ppb	ppb	ppb
Units	ppb	ppb	.01496	.17108	<.00000	<.00000
Avg	<.00000	<.00000	.03184	.19832	.19185	5.0214
Stddev	.02286	6.3657		115.93	9.5443	214.88
%RSD	42.524	111.96	212.82	110.00	0.0410	
	00700	1 1015	.03748	.03084	-2.1458	1.2139
拌1	03760	-1.1845	00755	.31131	-1.8744	-5.8875
芹2	06993	-10.187	00755	.01101	1.0111	
Claure	Fe	К_	Li	Mg	Mn	Мо
Elem		766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}
Line	259.940 {129}	ppb	ppb	ppb	ppb	ppb
Units	ppb	15.706	<.00000	<.00000	<.00000	<.00000
Avg	<.00000	3.235	46.850	32.169	.01380	.29234
Stddev	.07277		27.868	1998.2	18.102	135.53
%RSD	14.455	20.598	27.000	1000.2	10.102	
11.4	45105	17.993	-201.25	21,137	06648	00899
索1	45195	13.418	-134.99	-24.357	08600	42242
<i>幣</i> 2	55486	13.410	-104.00	21.007		
Clana	Na	2Na	Ni	Pb	Pd	Sb
Elem	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}
Line		ppb	ppb	ppb	ppb	ppb
Units	ppb 36.810	3.5424	.42945	1.0292	<.00000	<.00000
Avg		2.3389	.01347	1.3703	3.9873	1.0845
Stddev	34.215	66.025	3.1371	133.14	23.569	123.82
%RSD	92.952	00.025	0.1071	100.11		
	10 640	1.8886	.41993	.06028	-14.098	-1.6427
深1	12.616	5.1963	.43898	1.9982		
<i>菜2</i> .	61.004	5.1905	.40000	1.0002		

Samp	le R	epor	t
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Sample Name: 0		ed: 04/25/2017 1		e: Unk		
Method: SPEX-F			actor: 1.000000			
User: admin	Test Code: CLF	W Sample	Type: CCB	Dilution: 1		
Comment:						
Elem	Ag	AI	As	Au	B_	Ва
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	<.00000	<.00000	.78902	.61560	.93409
Stddev	3.3632	14.358	1.5814	.09486	.59127	.63736
%RSD	628.18	60.118	1041.7	12.023	96.047	68.234
李1	1.8427	-13.730	-1.2700	.85610	1.0337	.48340
李2	-2.9135	-34.036	.96640	.72195	.19751	1.3848
			-Avg. 23.88	3	0	C 11
Elem	Be	Ca	L Cd	Со	Cr	Cu
Line	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.08622	<.00000	.01895	<.00000	<.00000	.74560
Stddev	.06090	2.1776	.01841	.03173	.65975	3.5537
%RSD	70.630	27.438	97.187	59.578	20.626	476.62
孝1	.12928	-9.4759	.00593	07570	-2.7321	-1.7672
*2	.04316	-6.3964	.03197	03082	-3.6651	3.2584
			HV9. = - 7.9	3615		
Elem	Fe	K	Li	Mg	Mn	Мо
Line	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	5.6152	<.00000	21.596	<.00000	.06152
Stddev	.11596	3.2635	58.749	4.549	.02242	.07625
%RSD	18.825	58.118	82.696	21.063	23.418	123.95
於1	53396	7.9229	-112.58	18.380	07989	.00760
#2	69794	3.3076	-29.500	24.813	11159	.11544
271	Na	2Na	Ni	Pb	Pd	Sb
Elem		589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	
Line	588.995 { 57}		201.004 (140) ppb	ppb	ppb	ppb
Units	ppb	ppb 00000.>	<.00000	<.00000	.62644	1.1263
Avg	31.321	.79185	.17626	.67127	19.051	1.5708
Stddev	7.675	12.360	69.608	287.75	3041.1	139.47
%RSD	24.505	12.300	03.000	201.10	001111	
-66.4	25.894	-6.9664	12858	.24137	14.097	2.2371
零1	36.748	-5.8465	37785	70794		.01554
#2	30.140	-0.0400	.01700			

Method: SPEX-f User: admin Comment:	FIX2 Mode: C Test Code: CLF		Factor: 1.000000 • Type: CCB	Dilution: 1			
Elem	Ag	AL	As	Au	B_	Ba 493.409 { 68}	
.ine	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135} ppb	493.409 { 66} ppb	
Inits	ppb . 17819	ppb 	ppb . 36544	ppb .45433	3.6430	1.1890	
vg tddev	.50409	6.8251	.62121	.34004	1.8826	.6041	
RSD	282.89	34.318	169.99	74.843	51.678	50.809	
1	.53464	-15.062	07383	.21389	4.9743	.76181	
2	17825	-24.714	.80470 Avg.= - 19.82	.69478	2.3118	1.6161	
lem	Be	Ca	Cd	Co	Cr	Cu	
ne	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}	
nits	ppb	ppb	ppb	ppb	ppb	ppb	
vg	.04041	<.00000	.03084	<.00000	<.00000	<.00000	
tddev	.02293	.16742	.10253	.01981	.25471	1.4577	
RSD	56.750	8.3135	332.45	50.472	9.6417	33.750	
1	.05663	-2.1322	04166	02524	-2.4616	-3.2885	
2	.02419	-1.8954	.10334	05325	-2.8218	-5.3501	Avq.=
em	Fe	K_	Li	Mg	Mn	Мо	-4 319=
ne	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}	1.5110
nits	ppb	ppb	ppb	ppb	ppb	ppb	
/g	<.00000	8.5007	<.00000	23.664	<.00000	1.3459	
lddev	.18249	8.8846	38.328	.325	.00001	.1175	
RSD	192.43	104.52	45.370	1.3731	.01548	8.7266	
1	.03421	14.783	-111.58	23.434	06160	1.4289	
2	22387	2.2184	-57.378	23.894	06158	1.2628	
lem	Na	2Na	Ni	Pb	Pd	Sb	
ne	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}	
nits	ppb	ppb	ppb	dqq	ppb	ppb	
vg	35.517	<.00000	.3 1905 .24707	<.00000 1.6984	1.2532 2.2153	< .00000 1.0618	
tddev	3.398 9.5683	.80893 7.1951	77.438	132.34	176.77	356.89	
RSD							-17
1 2	33.114	-11.815	.14435	08244	31323 2.8197	-1.0483 .45328	
1	37.920	-10.671	.49375	-2.4844	2.019/	.40020	

Sample Report

04/25/17 04:40:45 PM SPEX-FIX2 No.

Samp	le	Re	ро	rt
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2 of 274

Sample Name: CCB-4 Acquired: 04/25/2017 16:37:39 Type: Unk Method: SPEX-FIX2 Mode: CONC Corr. Factor: 1.000000 User: admin Test Code: CLPW Sample Type: CCB Dilution: 1 Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	<.00000	<.00000	5.5720	2.3258	2.6858
Stddev	2.6261	5.1989	1.2748	6.7133	.6145	.1971
%RSD	43.461	161.71	135.79	120.48	26.421	7.3398
	0					
索1	-7.8993	.46121	03740	10.319	2.7603	2.8252
將2	-4.1855	-6.8911	-1.8402	.82501	1.8913	2.5464
			424			
Elem	V_	211	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	.62404	<.00000	1.5403			
Stddev	4.1585	.07616	.0349			
%RSD	666.39	14.653	2.2659			
444	3.5645	46589	1.5156			
茶1		57360	1.5650			
荐2	-2.3165	57300				
			- Avg .= - 0.5	519145		

AES

ICP INTERFERENCE CHECK SAMPLE

 Lab Name:
 Adirondack Environmental
 Contract:
 Lockwood Ash Landfill

 Lab Code:
 AES
 Case No.:
 17025LH
 SAS No.:
 SDG No.:
 GW Dep Drain 3

 ICP ID Number:
 ICP4
 ICS Source:
 EPA

 Concentration Units:
 ug/L

	True	9	Ini	tial Found		Final Found		
Analyte	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	500000	500000	491580	491060.0	98.2	492540	491670.0	98.3
Barium		500		504.6	100.9		489.2	97.8
Cadmium		1000		890.4	89.0		878.6	87.9
Calcium	500000	500000	430490	429600.0	85.9	451550	449720.0	89.9
		500		566.9	113.4	· · · · · · · · · · · · · · · · · · ·	562.0	112.4
Chromium		500		536.0	107.2		500.5	100.1
Copper	200000	200000	144330	144850.0	72.4	145930	147250.0	(73.0
Iron	500000	500000	512770	510380.0	102.1	505500	503300.0	100.7
Magnesium	500000		512770	485.8			500.7	100.1
Manganese		500					874.1	87.4
Nickel		1000		841.4	84.1			
Zinc		1000		938.3	93.8		964.7	96.5

ES.			Sample Repo	ort	(04/25/17 12:45:2 SPEX	23 PM (-FIX2
ample Name:	ICSA-1 Acquir	ed: 04/25/2017	12:42:10 Typ	be: Unk			
lethod: SPEX-	FIX2 Mode: C	ONC Corr. F	actor: 1.000000				
lser: admin	Test Code: CLF		Type: ICSA	Dilution: 1			
	1031 0000. 021	vv Gampio	1300.10071	Bhallonn			
comment:							
lem	Ag	AI	As	Au	В	Ba	
ine	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}	
Inits	ppb	ppb	ppb	ppb	ppb	ppb	
vg	<.00000	491580.	<.00000	67.680	<.00000	2.8991	
tddev	4.4953	1812.	3.7009	. 5 .827	1.5941	1.5763	
RSD	9.3301	.36865	.30334	1.2221	.81534	ND 54.374	
	45 000	400960	1217 4	67.095	-194.38	4.0137	
1	-45.002	492860.	-1217.4 -1222.7	68.265	-196.64	1.7844	
2	-51.359	490300.	-1222.1	100.200	-100.04	«	(>IDL
lem	Be	Ca	Cd	Co	Cr	Cu	
ine	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}	
nits	ppb	ppb	ppb	ppb	ppb	ppb	
vg	2.2437	430490.	<.00000	2.1257	<.00000	<.00000	4
tddev	.0413	31.	.00118	// .2813	3.5285	1.8353	10 9
RSD	1.8389	.00728	.09381	13.231	292.41	10.417	42 61
			\frown	AND: 2.3246			1.
1	2.2729	430470.	-1.2620	2.3246	-3.7018	-18.916).
2	2.2145	430510.	-1.2603	1.9268	1.2883	-16.320	1
				- K-IDL			2-10L
lem	Fe	К_	Li	Mg	Mn	Mo	
ine	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}	
nits	ppb	ppb	ppb	ppb	ppb	ppb	
vg	144330.	5.0335	<.00000	512770.	<.00000	// <.00000	
tddev	751.	1.2769	138.61	331.	.05974	S ~ .07687	
RSD	.52000	25.369	8.5752	.06454	.43858	2.1654	
	440000	4.1305	-1714.4	512540.	-13.663	-3.4954	
1	143800. 144870.	5.9364	-1518.4	513010.	-13.579	-3 6041	
2	144070.	0.0004	1010.1	0100101		-2-1DL	
lem	Na	2Na	Ni	Pb	Pd	Sb	
ine	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}	
Inits	ppb	ppb	ppb	ppb	ppb	ppb	
vg	48.867	29.466	<.00000	<.00000	<.00000	<.00000	
tddev	13.392	1.716	.03225	.18000	7.5513	2.6559	
6RSD	27.404	5.8219	.12645	.14831	38.852	42.323	
		00.050	-25.527	-121.24	-14.096	-8.1535	1
1 12	39.398	28.253	-25.527	-121.24	-24.776	-4.3974)
2	58.337	30.679					- 2-10
	L	> IDL	Te	<-IDL Avg.= - 25.50		L Ava	=-171
		- two		1 = - 7550	45	- ng	0.61
			\sim	HVg 25.00			

Sample Repo	rt
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Sample Name: ICSA-1 Acquired: 04/25/2017 12:42:10 Type: Unk Method: SPEX-FIX2 Mode: CONC Corr. Factor: 1.000000 User: admin Test Code: CLPW Sample Type: ICSA Dilution: 1 Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	21.159	2.6364	39.027	<.00000	<.00000
Stddev	1.7059	3.203	1.5803	7.330	1.2900	1.0229
%RSD	5.4350	AN9 3015.137	59.942	18.781	8.3521	7.7933
		31.2 00 101				
崇1	-30.180	23.424	3.7539	33.844	-16.357	-13.848
井2	-32.592	18.895	1.5190	44.210	-14.533	-12.402
		-2-IDL				
Elem	V_	Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	<.00000	<.00000	<.00000			
Stddev	7.2982	.01874	.56442			
%RSD	69.927	.14731	6.7835			
粜1	-15.598	-12.708	-7.9213			
柴2	-5.2764	-12.735	-8.7195			
			2-101			
		T,		5		
		-F	1vg. = -12.72			

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Type: Unk Acquired: 04/25/2017 12:49:20 Sample Name: ICSAB-1 Corr. Factor: 1.000000 Method: SPEX-FIX2 Mode: CONC Sample Type: ICSAB Dilution: 1 Test Code: CLPW User: admin Comment:

Elem	Ag	AI	As	Au	B	Ba
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1039.5	491060.	<.00000	72.890	<.00000	504.55
Stddev	10.0	2730.	.93204	.700	.91732	2.61
%RSD	.95756	.55589	.07567	.700 Av9: 75.96084 1231.75.96084	.46917	N.9.52.51705
書1	1032.4	489130.	-1231.1	1	-196.17	502.71
#2	1046.5	492990.	-1232.4	73.385	-194.87	506.39
				- Z-IDL		-2-10L
Elem	Be	Ca	Cd	Co	Cr	Cu
Line	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	490.55	429600.	890.37	422.18	566.87	535.96
Stddev	3.15	2614.	.33	.04	2.31	.33
%RSD	.64234	.60845	.03703	.01049	.40836	.06219
孝1	488.32	427750.	890.60	422.21	565.24	535.73
	492.78	431450.	890.13	422.15	568.51	536.20
索2	492.70	451450.	000.10	122110		
Elem	Fe	K_	Li	Mg	Mn	Мо
Line	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	144850.	2.5610	<.00000	510380.	485.83	<.00000
Stddev	244.	4.4423	136.94	1968.	.12	1.6392
%RSD	.16829	173.46	8.3584	.38550	.02399	84.460
701100	.10020					
索1	144670.	58022	-1735.2	508980.	485.75	78173
芥2	145020.	5.7022	-1541.5	511770.	485.91	-3.1000
11 1-						
Elem	Na	2Na	Ni	Pb	Pd	Sb
Line	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}
Units	ppb	ddd	ppb	ppb	ppb	ppb
Avg	38.260	25.155	841.41	1071.9	<.00000	<.00000
Stddev	14.754	1.264	1.13	.5	5.3179	3.2636
%RSD	38.563	5.0239	.13384	.05014	12.039	135.66
			1.1.2.1	1071.0	10 110	09807
弄1	27.827	26.048	840.61	1071.6	-40.410	
素2	48.693	24.261	842.21	1072.3	-47.931	-4.7135
		-710L				

Samp	le F	Rep	ort
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Sample Name: ICSAB-1Acquired: 04/25/2017 12:49:20Type: UnkMethod: SPEX-FIX2Mode: CONCCorr. Factor: 1.000000User: adminTest Code: CLPWSample Type: ICSABDilution: 1Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	<.00000	1.0605	16.303	<.00000	<.00000
Stddev	1.9231	1,5 20.135	.4863	1.752	.57782	7.4088
%RSD	8.0279	1095.9	45.852	10.745	4.1406	30.538
		3.			Concernation of the second	
孝1	-25.315	12.401	1.4043	15.065	-14.364	-29.500
游2	-22.596	-16.075	.71665	17.542	-13.546	-19.022
		- 2-10L 7-				
Elem	V_	Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	456.01	938.34	<.00000			
Stddev	7.91	.48	1.0033			
%RSD	1.7349	.05100	10.942			
虚1	450.41	938.01	-8.4592			
茶2	461.60	938.68	-9.8780			

04/25/17	04:23:07 PM
	SPEX-FIX2

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Sample Report

User: admin	Test Code: CL	W Sample	Type: ICSA	Dilution: 1			
Comment:							
Elem	Ag	AI	As	Au	В	Ва	-
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	<.00000	492540.	<.00000	68.417	<.00000	4.2424	
Stddev	1.2618	747.	2.1060	.027	.09753	.0772	
%RSD	2.7073	.15174	.16999	ANG 3003935	.06092	1.8190	
学1	-45.713	493070.	-1237.4	68.436	-160.18	4.1879	
#2	-47.497	492010.	-1240.4	68.398	-160.04	4.2970	
				- 2-10L		K-IDL	(>IDL
Elem	Be	Са	Cd	Co	Cr	Cu	•
Line	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	2.2404	451550.	<.00000	2.1033	<.00000	<.00000	1
Stddev	.0496	769.	.01994	.1941	6.2800	1.3712	10: 402
%RSD	2.2120	.17033	1.5613	PV9.219.2264	109.97	4.4952	A 30.
索1	2.2054	452090.	-1.2630	2.2405	-1.2700	-29.534	$\langle \cdot \rangle$
索2	2.2755	451000.	-1.2912	1.9661	-10.151	-31.473	LE-IDL
				<- IDL	4.5		
Elem	Fe	K	Li	Mg	Mn	Мо	
Line	259.940 {129}	766.490 { 44}	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	145930.	21.265	<.00000	505500.	<.00000	<.00000	
Stddev	99.	2.704	124.60	1537.	.20489	.78649	
%RSD	.06804	12.715	6.3633	.30395	1.4152	AN9 AT 23.786	
	146000.	19.353	-2046.3	506590.	-14.622	-2.7504	
茶 2	145860.	23.177	-1870.1	504410.	-14.333	-3.8626	
			>IDL			-<- 10L	
Elem	Na	2Na	Ni	Pb	Pd	Sb	
Line	588.995 { 57}	589.592 { 57}	231.604 {145}	220.353 {152}	324.270 {103}	206.833 {162}	
Units	ppb	ppb	ppb	ppb	ppb	ppb	
Avg	100.16	23.948	<.00000	<.00000	<.00000	<.00000	4 45
Stddev	2.43	1.438	.22413	4 62.2474	5.3155	.43239	10: 26
%RSD	2.4253	6.0052	.89462	35 31.7146	15.859	13.359	Nº 3
券 1	101.88	24.965	-25.212	-129.48	-37.276	-2.9308	11
*1	98.442	22.932	-24.895	-132.66	-29.759	-3.5423	
CI Ga	00.772	22.002	27.000	102.00	20.100	0.0120	XZ-IDL

AES

Sample Report

Sample Name: ICSA-2Acquired: 04/25/2017 16:19:54Type: UnkMethod: SPEX-FIX2Mode: CONCCorr. Factor: 1.000000User: adminTest Code: CLPWSample Type: ICSADilution: 1Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	5.0501	1.1839	53.757	<.00000	<.00000
Stddev	4.1388	4 , 16.889	.1933	3.065	.68652	4.5630
%RSD	12.499	N9, 12 334.43	16.323	5.7018	5.3404	54.056
索1	-36.039	-6.8921	1.0472	51.590	-13.341	-11.668
#2	-30.186	16.992	1.3205	55.925	-12.370	-5.2148
		1DL	7.			
Elem		Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	<.00000	<.00000	<.00000			
Stddev	3.3154	.01529	.83001			
%RSD	17.714	.12435	9.9858			
葬1	-16.372	-12.310	-7.7251			
#2	-21.060	-12.288	-8.8989			
		T	K-IDL			
			tvg.=-12.29	9		

AES

Sample Report

Sample Name: IC	CSAB-2 Acqu	ired: 04/25/2017	16:30:09 T	ype: Unk		
Method: SPEX-F	IX2 Mode: Co	ONC Corr. F	actor: 1.000000			
User: admin	Test Code: CLP	W Sample	Type: ICSAB	Dilution: 1		
Comment:		Sel Constant				
oomnone						
Elem	Ag	AI	As	Au	В	Ва
Line	328.068 {102}	394.401 { 85}	193.759 {173}	242.795 {138}	249.678 {135}	493.409 { 68}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1028.8	491670.	<.00000	73.277	<.00000	489.20
Stddev	6.9	4648.	5.0048	4226	1.3295	5.02
%RSD	.67423	.94536	.40179	NY 6.30906	.83148	AV9 1 1.0257
			\bigcap	A		(159
零1	1023.9	488380.	-1242.1	73.117	-160.84	485.66
茶2	1033.7	494960.	-1249.2	73.437	-158.96	492.75
				- K-IDL	t	X-101
Elem	Be	Ca	Cd	Co	Cr	Cu
Line	313.042 {107}	317.933 {105}	228.802 {147}	228.616 {147}	357.869 { 94}	324.754 {103}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	498.05	449720.	878.58	440.28	562.03	500.45
Stddev	6.50	5711.	10.72	1.84	16.62	3.75
%RSD	1.3053	1.2699	1.2198	.41788	2.9572	.74905
	102 15	145090	886.16	441.58	550.27	497.80
#1	493.45	445680. 453760.	871.01	438.98	573.78	503.10
#2	502.65	455760.	071.01	400.00	070.70	000.10
Elem	Fe	к	Li	Mg	Mn	Мо
Line	259.940 {129}	766.490 { 44 }	610.362 { 55}	383.826 { 87}	257.610 {131}	202.030 {166}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	147250.	10.957	<.00000	503300.	500.69	<.00000
Stddev	329.	2.409	136.16	4657.	6.40	.00878
%RSD	.22375	21.987	6.9901	.92534	1.2788	.40655
	anal a b			500010	505.00	0 4500
幸1	147020.	12.661	-2044.2	500010.	505.22	-2.1530
#2	147480.	9.2536	-1851.6	506600.	496.16	-2.1654
			>IDL NI	Pb	Pd	Sb
Elem	Na	2Na	Ni Ni			
Line	588.995 { 57}	589.592 { 57}	231.604 {145}		324.270 {103}	
Units	ppb	ppb	ppb	ppb 836.92	ppb <.00000.>	ppb 00000.>
Avg	76.042	19.833	874.12 8.34	3.53	2.2072	2.9735
Stddev	17.159	2.233		.42139	3.7479	259.38
%RSD	22.565	11.260	.95368	.42139	5.1419	200.00
券1	63.909	21.412	880.01	839.41	-60.453	-3.2489
茶1 茶2	88.175	18.254	868.23	834.42	-57.331	.95618
n.e.	00.110		000.20			
		- >IDL				

Samp	ble	Re	port
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2 of 2 70

Sample Name: ICSAB-2Acquired: 04/25/2017 16:30:09Type: UnkMethod: SPEX-FIX2Mode: CONCCorr. Factor: 1.000000User: adminTest Code: CLPWSample Type: ICSABDilution: 1Comment:

Elem	Se	Si	Sn	Sr	Ti	TI
Line	196.090 {171}	288.158 {116}	189.989 {176}	346.446 { 97}	336.121 {100}	190.864 {176}
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	<.00000	<.00000	<.00000	9.6987	<.00000	<.00000
Stddev	3.6244	\$5.1934	2.3969	3.5004	.50796	1.3913
%RSD	12.622	N9 1 23.074	265.36	36.091	3.7080	8.7979
	\frown	128				
漭1	-31.277	-18.835	.79160	12.174	-13.340	-16.798
莽2	-26.152	-26.180	-2.5981	7.2235	-14.058	-14.830
		-2-10L				
Elem	V_	Zn	Zr			
Line	292.402 {115}	213.856 {157}	339.198 { 99}			
Units	ppb	ppb	ppb			
Avg	455.96	964.70	<.00000			
Stddev	1.68	6.55	.79317			
%RSD	.36792	.67932	8.8886			
莽1	454.77	969.34	-9.4843			
茶2	457.14	960.07	-8.3626			

AES

5A

SPIKE SAMPLE RECOVERY

						SAMPI	ENO.			
						Inlet To PondMS				
Co rix	me: <u>Adirono</u> de: <u>AES</u> : (soil/water ds for Sampl	Case No -): <u>WATER</u> e: <u>0.0</u>	5.: <u>17025LH</u> SAS N	o.: (low/med): LOW		h Landfill SDG No.: <u>GW</u> 	Dep Drai	Ln	3	
Ī	Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR)	c	Spike Added (SA)	%R	Q	Þ	
l	Aluminum	75 - 125	1650.1000	16.5600	U	2000.00	82.5		1	
i	Antimony	75 - 125	528.2400	2.6800	U	500.00	105.6		1	
i	Arsenic	75 - 125	40.9700	6.6551	B	40.00	85.8		1	
1	Barium	75 - 125	1973.8000	31.5300	в	2000.00	97.1			
-	Boron	1	12675.0000	12543.0000		0.00	0.0		1	
	Cadmium	75 - 125	47.1310	0.3700	U	50.00	94.3			
	Chromium	75 - 125	200.1600	6.8700	U	200.00	100.1		1	
	Copper	75 - 125	260.2200	2.7106	B	250.00	103.0			
	Iron	75 - 125	3238.4000	2156.8000	1	1000.00	108.2		ļ	
	Magnesium		73068.0000	74756.0000		0.00	-0.0		1	
	Manganese	75 - 125	912.0200	411.4200		500.00	100.1		1	
	Nickel	75 - 125	509.3200	5.6196	B	500.00	100.7		1	
	Selenium	75 - 125	44.8210	37.7860		10.00	70.4	N		
	Zinc	75 - 125	534.7300	4.9476	B	500.00	106.0			

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

Inlet To PondA

Jab	Name:	Adirondack	Environme	ntal	_ Contract	t: Lo	ckwood As	h Landf	Fill	_
Lab	Code:	AES	Case No.:	17025LH	SAS No.:		SD0	No.:	GW Dep Drain 3	_
fat	cix (so	il/water):	WATER			Level	(low/med) :	LOW		_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	с	Sample Result (SR)	С	Spike Added (SA)	%R	Q	м
Aluminum		3672.80		16.56	U	4000.0	91.8		P
Antimony		1026.60		2.68	U	1000.0	102.7		P
Arsenic		78.52		6.66	в	80.0	89.8		P
Barium		3813.10		31.53	в	4000.0	94.5		P
Boron		12254.00	-	12543.00		0.0	-0-0		P
Cadmium		92.98		0.37	U	100.0	93.0		P
Chromium		419.98		6.87	U	400.0	105.0		P
		503.94		2.71	в	500.0	100.2		P
Copper		4103.50		2156.80		2000.0	97.3		P
Magnesium		70412.00	-	74756.00		0.0	0.0		P
		1368.20		411.42		1000.0	95.7		P
Manganese		1009.80		5.62	в	1000.0	100.4		P
Nickel		51.46		37.79		20.0	68.4		P
Selenium		1045,60		4.95	B	1000.0	104.1		F

Comments:

ICP SERIAL DILUTIONS

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SAMPLE NO.

10 111.

Inlet To PondL

Case No.: 17025LH		SAS No.: SDG	No	the second second			
		5/15 / 10·11	NO.	: GW Dep Dra	ain		
WATER		Level (low/med): LOW					
Concentrat	ion	Units: ug/L			-	1	
Initial Sample Result (I)	C	Serial Dilution Result (S)	c	<pre>% Differ- ence</pre>	Q	M	
10.50		82 80 1	TT			P	
		1		H		P	
		and the second sec		473 01	-	P	
						F	
	В				-	E	
12543.00				0.2		P	
0.37	ן ט ן		-	95%	1		
418890.00	PI	/L.N.	1	L.R. (17.2)	-/E	P	
6.87	U	34.35	ט			E	
2.71	В	8.70	U	in the second second second second second second second second second second second second second second second		E	
2156.80	1	2256.05				E	
74756.00		72225.00		3.4		E	
411.42	1	431.14		4.8		E	
5.62	B	8.64	В	53.7		E	
98135.00	120	57.L.R. 87190.00		11.2	E	I	
37.79	1	17.00	U	100.0		F	
	15	157355.00		24.6	E	I	
4.95	IB		в	105.1	1	I	
	Initial Sample Result (I) 16.56 2.68 6.66 31.53 12543.00 0.37 418890.00 6.87 2.71 2156.80 74756.00 411.42 5.62 98135.00 37.79 (126290.00	Initial Sample Result (I) C 16.56 U 2.68 U 6.66 B 31.53 B 12543.00 0.37 U 418890.00 6.87 U 2.71 B 2156.80 74756.00 411.42 5.62 B 98135.00 >C 37.79 126290.00 >	Initial Sample Result (I) Serial Dilution Result (S) 16.56 U 82.80 2.68 U 13.40 6.66 B 38.16 31.53 B 39.99 12543.00 12523.00 0.37 U 1.85 418890.00 7L.R. 490900.00 6.87 U 34.35 2.71 B 8.70 2156.80 2256.05 74756.00 411.42 431.14 5.62 B 8.64 98135.00 957.L.K. 87190.00 37.79 17.00 157355.00	Initial Sample Result (I) Serial Dilution Result (S) C 16.56 U 82.80 U 2.68 U 13.40 U 6.66 B 38.16 B 31.53 B 39.99 B 12543.00 12523.00 12523.00 0.37 U 1.85 U 418890.00 >L.R. 490900.00 2156.80 2.71 B 8.70 U 2156.80 2256.05 431.14 5.62 B 8.64 B 98135.00 257.L.K. 87190.00 37.79 126290.00 L.R. 157355.00 157355.00	Initial Sample Result (I) Serial Dilution Result (S) % Differ- ence 16.56 U 82.80 U 2.68 U 13.40 U 6.66 B 38.16 B 473.0 31.53 B 39.99 8 26.8 12543.00 12523.00 0.2 0.2 0.37 U 1.85 957. 418890.00 YL.R. 490900.00 2.7.1 6.87 U 34.35 0 2.71 B 8.70 100.0 2156.80 2256.05 4.6 74756.00 72225.00 3.4 411.42 431.14 4.8 5.62 B 8.64 53.7 98135.00 957.L.K. 87190.00 11.2 37.79 17.00 100.0 11.2	Initial Sample Result (I) Serial Dilution Result (S) % Differ- ence Q 16.56 U 82.80 U 0 2.68 U 13.40 U 0 6.66 B 38.16 B 473.0 31.53 B 39.99 B 26.80 12543.00 12523.00 0.2 0.2 0.37 U 1.85 95% 0 418890.00 YL.R. 490900.00 27.7 5 6.87 U 34.35 0 100.0 2.71 B 8.70 10 100.0 2156.80 2256.05 4.6 3.4 411.42 431.14 4.8 5.62 98135.00 256./L.R. 87190.00 11-2 F 37.79 17.00 100.0 100.0 100.0 100.0 126290.00 K.R. 157355.00 24.6 F	

Na from 10× dilution= 180,310 mg/L %D= 180,310-157,355 = (12.6%) E

> [k] from 10× dilution= 95,588 Mg/L %.D = <u>95,588-87,190</u> = <u>8.8%</u> √

シアンドランションション ひろうろう ちょうろう ちょうちょう

lethod: MERCURY			Page 3		Date:	4/3/2017 3:12:39 PM
		a bistoria				
alibration data for	r Hg 253.7			tion: Linear	, Calculated	Intercept
	Ent	ered Cal	Conc.	Standard		
	woun sugnal	nc.	ug/L	Deviation	%RSD	
ID		/L	-0.0711	0.00	11.4	
Blank		CR Carlos		0.00	2.8	
0.2ppb		T 3.5	0.1180		1.3	
0.5ppb			0.5574	0.00	0.7	
1.00ppb			1.0147	0.00	1.3	
2.00ppb		2.2.2	1.9756	0.00	0.7	
5.00ppb		1. T. T. T.	5.2066	0.00	0.8	
10.00ppb			9.8989	0.00	0.0	
Correlation Coef.:	0.999572 Slope: 0.	01332		t: 0.00095		
			Autosa	mpler Locati	on: 5	
Sequence No.: 8 Sample ID: ICV			Date (collected: 4/	3/2017 3:07:	13 PM
ampie ib. icv malyst:			Data 1	ypa: Origina	1	
Replicate Data: ICV Repl SampleConc	StndConc BlnkCorr	Peak	Peak	Time	Peak	
	ug/L Signal	Area	Height	a distant in the	Stored	
91-	2.060 0.0284	0.1237	0.0288	15:08:01	Yes	
T	2.041 0.0281		0.0285	15:08:29	Yes	
L	2.051 0.0283					
icuit state	0.0135 0.0002					
BRD: 0 6560	0.6560 0.63					
OC value within	limits for Hg 253.7	Recover	y = 102.5	548		
All analyte(s) pass	ed QC.					
			Autos	ampler Locat:	ion: 1	
Sequence No.: 9			Date	Collected: 4,	/3/2017 3:08:	48 PM
Sample ID: ICB			Data	Type: Origina	al	
Analyst:						
Replicate Data: ICI	 3					
Repl SampleConc	StndConc BlnkCorr	Peak	Peak	Time	Peak	
# ug/L	ug/L Signal	Area	Height		Stored	
1 -0.0620	-0.0620 0.0001	0.0012	0.0005		Yes	
2 -0.0607	-0.0607 0.0001	0.0014	0.0005	15:10:02	Yes	
lean: -0.0613	-0.0613 0.0001					
SD: 0.0009	0.0009 0.0000					
0000. 1 401	1 481 9.32					
OC value within	limits for Hg 253.7	Recover	ry = Not	calculated		
All analyte(s) pas	sed QC.					
			Autos	ampler Locat		
Sequence No.: 10	004		Date	Collected: 4	/3/2017 3:10	:19 PM
Sample ID: 0.2ppb-	-CKA		Data	Type: Origin	al	
Analyst:						
Replicate Data: 0.	 900b					
Repl SampleConc	StndConc BlnkCorr	Peak	Peak	Time	Peak	
# ug/L	ug/L Signal	Area	Height		Stored	
1 0.1138	0.1138 0.0025	0.0112	0.0029	15:11:06	Yes	
2 0.0462	0.0462 0.0016	0.0052	0.0020	15:11:33	Yes	
Mean: 0.0800	0.0800 0.0020				N	
SD: 0.0478	0.0478 0.0006		0.08	- 10.10		
%RSD: 59.78	59.78 31.65		1 07	= 407. K		
			0.2			
Sequence No.: 11	**********************		Auto	sampler Locat	tion: 10	
Sample ID: 2.0ppb			Date	Collected: 4	4/3/2017 3:11	.:50 PM
Analyst:			Data	Type: Origin	nal	
A State of the second sec		S. 199				
Replicate Data: 2.	 dqq0					
Repl SampleConc	StndConc BlnkCorr	Peak	Peak	Time	Peak	

Date: 4/3/2017 3:34:29 PM Page 6 Method: MERCURY Autosampler Location: 1 Sequence No.: 21 Date Collected: 4/3/2017 3:27:33 PM Sample ID: CCB-1 Data Type: Original Analyst: Replicate Data: CCB Peak Repl SampleConc StndConc BlnkCorr Peak Peak Time Stored Height Area ug/L ug/L Signal # Yes 15:28:20 0.0017 0.0006 -0.0591 -0.0591 0.0002 1 0.0001 Yes 0.0016 0.0005 15:28:47 -0.0616 -0.0616 2 Mean: -0.0604) -0.0604 0.0001 0.0000 0.0018 SD: 0.0018 %RSD: 2.924 2,924 16.50 QC value within limits for Hg 253.7 Recovery = Not calculated All analyte(s) passed QC. Autosampler Location: 19 Sequence No.: 22 Date Collected: 4/3/2017 3:29:04 PM Sample ID: 170331010-005D Data Type: Original Analyst: _____ _____ Replicate Data: 170331010-005D Time Peak SampleConc StndConc BlnkCorr Peak Peak Repl Height Stored Area Signal ug/L # ug/L 15:29:51 Yes -0.0001 0.0003 0.0003 -0.0754 -0.0754 1 0.0007 0.0004 Yes 15:30:18 -0.0000 -0.0733 -0.0733 2 -0.0000 Mean: -0.0743 -0.0743 0.0015 0.0000 0.0015 SD: 1.968 44.94 %RSD: 1.968 Autosampler Location: 20 Sequence No.: 23 Date Collected: 4/3/2017 3:30:36 PM Sample ID: 170331010-006D Data Type: Original Analyst: Replicate Data: 170331010-006D Peak Time SampleConc StndConc BlnkCorr Peak Peak Repl Stored Height Signal 0.0000 Area ug/L ug/L # 0.0016 0.0004 15:31:23 Yes -0.0708 -0.0708 1 0.0000 0.0021 0.0004 15:31:50 Yes -0.0679 -0.0679 2 -0.0694 0.0000 Mean: -0.0694 0.0000 0.0020 0.0020 SD: 2.931 119.04 %RSD: 2.931 Autosampler Location: 21 Sequence No.: 24 Date Collected: 4/3/2017 3:32:08 PM Sample ID: 170331010-007D Data Type: Original Analyst: _____ _____ _____ Replicate Data: 170331010-007D Time Peak SampleConc StndConc BlnkCorr Peak Peak Repl Stored Signal Height Area ug/L # ug/L 0.0022 0.0005 15:32:55 Yes -0.0642 -0.0642 0.0001 1 0.0003 0.0004 15:33:22 Yes 0.0000 -0.0709 -0.0709 2 -0.0675 0.0000 -0.0675 Mean: 0.0001 0.0047 0.0047 SD: 132.74 7.024 %RSD: 7.024 Autosampler Location: 22 Sequence No.: 25 Date Collected: 4/3/2017 3:33:40 PM Sample ID: 170331010-008D Data Type: Original Analyst: _____ _____ Replicate Data: 170331010-008D Peak Time Peak Repl SampleConc StndConc BlnkCorr Peak ug/L Signal Area Height -0.0633 0.0001 0.0029 0.0005 Stored # ug/L Yes 15:34:28 -0.0633 1

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	: MERCURY				Page 8		Date: 4/3/201	
Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak	
#	ug/L	ug/L	Signal	Area	Height		Stored	
ï	-0.0686	-0.0686	0.0000		0.0004		Yes	
2	-0.0706	-0.0706	0.0000	0.0010	0.0004	15:42:46	Yes	
Mean:	-0.0696	-0.0696	0.0000					
SD:	0.0014	0.0014 2.028	0.0000 94.88					
1993 S. A.	2.028							
		**********				mpler Locat	ion: 28	
	ce No.: 31 ID: 1703310	10-015D			Date (collected: 4	/3/2017 3:43:06 PM	
Analys					Data 1	Ype: Origin	al	
	ate Data: 17	0331010-01	 5D					
Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak	
#	ug/L	ug/L	Signal	Area	Height		Stored	
1	-0.0824	-0.0824	-0.0002		0.0002		Yes	
2	-0.0811	-0.0811	-0.0001	0.0008	0.0003	15:44:22	Yes	
Mean:	-0.0817	-0.0817	-0.0001					
SD:	0.0009	0.0009	0.0000					
	1.122	1.122	8.64					

	ICE No.: 32 ID: CCV				Date (/3/2017 3:44:42 PM	
Analys	st:				Data 1	Type: Origin	at	
Replic	ate Data: CC							
Repl	SampleConc	StndConc	BlnkCorr		Peak	Time	Peak	
#	ug/L	ug/L	Signal	Area	Height	10 10 00	Stored	
1	1.940	1.940	0.0268		0.0272	15:45:30	Yes	
2	1.976	1.976	0.0273	0.1171	0.0277	15:45:57	Yes	
		1.958	0.0270					
Mean:	1.958	1.550						
Mean: SD:	0.0259	0.0259	0.0003					
SD: %RSD:	0.0259	0.0259	0.0003		0.2.20			
SD: %RSD; QC	0.0259	0.0259 1.321 1 limits fo	0.0003	Recover	cy = 97.9	0%		
SD: %RSD: QC All an	0.0259 1.321 value within halyte(s) pas	0.0259 1.321 h limits fo ssed QC.	0.0003 1.27 or Hg 253.7					
SD: %RSD: QC All an Sequen	0.0259 1.321 value within halyte(s) pas nce No.: 33	0.0259 1.321 h limits fo ssed QC.	0.0003 1.27 or Hg 253.7		Autos	ampler Locat	ion: 1	
SD: %RSD: QC All an Sequen	0.0259 1.321 value within halyte(s) pas	0.0259 1.321 h limits fo ssed QC.	0.0003 1.27 or Hg 253.7		Autos Date	ampler Locat	cion: 1 1/3/2017 3:46:17 PM	
SD: %RSD: QC All an Sequen Sample	0.0259 1.321 value within halyte(s) pas nce No.: 33 DID: CCB-2	0.0259 1.321 h limits fo ssed QC.	0.0003 1.27 or Hg 253.7		Autos Date	ampler Locat	cion: 1 1/3/2017 3:46:17 PM	
SD: QC All an Sequen Sample Analys	0.0259 1.321 value within halyte(s) pas doe No.: 33 a ID: CCB-2 st: cate Data: CO	0.0259 1.321 h limits fo ssed QC.	0.0003 1.27 or Hg 253.7		Autos Date Data	ampler Locat Collected: 4 Type: Origir	cion: 1 1/3/2017 3:46:17 PM bal	
SD: QC All an Sequen Sample Analys Replic Repl	0.0259 1.321 value within halyte(s) pas hce No.: 33 a ID: CCB-2 st: cate Data: CC SampleConc	0.0259 1.321 h limits fo ssed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr	Peak	Autos Date Data Peak	ampler Locat	cion: 1 1/3/2017 3:46:17 PM nal Peak	
SD: QC All an Sequen Sample Analys	0.0259 1.321 value within halyte(s) pas disce No.: 33 a ID: CCB-2 st: Cate Data: CC SampleConc ug/L	0.0259 1.321 h limits fo ssed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr Signal	Peak Area	Autos Date Data Peak Height	ampler Locat Collected: 4 Type: Origir Time	cion: 1 1/3/2017 3:46:17 PM Hal Peak Stored	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1	0.0259 1.321 value within halyte(s) pas disce No.: 33 a ID: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569	0.0259 1.321 h limits fo ssed QC. CB StndConc ug/L -0.0569	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002	Peak Area 0.0021	Autos Date Data Peak Height 0.0006	ampler Locat Collected: 4 Type: Origin Time 15:47:03	cion: 1 1/3/2017 3:46:17 PM Hal Peak Stored Yes	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl 1 2	0.0259 1.321 value within halyte(s) pas nce No.: 33 D: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0585	0.0259 1.321 1 limits for ssed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002	Peak Area 0.0021	Autos Date Data Peak Height	ampler Locat Collected: 4 Type: Origin Time 15:47:03	cion: 1 1/3/2017 3:46:17 PM Hal Peak Stored	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1 2 Mean:	0.0259 1.321 value within halyte(s) pas nce No.: 33 D: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0585 -0.0577	0.0259 1.321 1 limits for seed QC. StndCone ug/L -0.0569 -0.0585 -0.0577	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002	Peak Area 0.0021	Autos Date Data Peak Height 0.0006	ampler Locat Collected: 4 Type: Origin Time 15:47:03	cion: 1 1/3/2017 3:46:17 PM Hal Peak Stored Yes	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl 1 2 Mean: SD:	0.0259 1.321 value within halyte(s) pas home No.: 33 a ID: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0577 0.0012	0.0259 1.321 1 limits fc ssed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0000	Peak Area 0.0021	Autos Date Data Peak Height 0.0006	ampler Locat Collected: 4 Type: Origin Time 15:47:03	cion: 1 1/3/2017 3:46:17 PM Hal Peak Stored Yes	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1 2 Mean: SD: Spsp.	0.0259 1.321 value within halyte(s) pas for No.: 33 a ID: CCB-2 st: cate Data: CC SampleConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993	0.0259 1.321 1 limits for seed QC. StndCone ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0000 8.58	Peak Area 0.0021 0.0021	Autos Date Data Peak Height 0.0006 0.0006	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30	cion: 1 1/3/2017 3:46:17 PM Hal Peak Stored Yes	
SD: %RSD: QC All an sequen Sample Analys Replic Repl # 1 2 Mean: SD: QC	0.0259 1.321 value within halyte(s) pas home No.: 33 a ID: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0577 0.0012	0.0259 1.321 h limits for ssed QC. StndCone ug/L -0.0569 -0.0577 0.0012 1.993 h limits for	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0000 8.58	Peak Area 0.0021 0.0021	Autos Date Data Peak Height 0.0006 0.0006	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30	cion: 1 1/3/2017 3:46:17 PM Hal Peak Stored Yes	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl 1 2 Mean: SD: %RSD: QC All ar	0.0259 1.321 value within halyte(s) pas nce No.: 33 D: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0577 0.0012 1.993 value within halyte(s) pas	0.0259 1.321 1 limits for seed QC. StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 1 limits for sseed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7	Peak Area 0.0021 0.0021 Recove:	Autos Date Data Peak Height 0.0006 0.0006	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated	cion: 1 1/3/2017 3:46:17 PM hal Peak Stored Yes Yes Yes	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1 2 Mean: SD: QC All ar SD: Sequen Sequen and SD: SD: SD: Souther SD: SD: SD: SD: SD: SD: SD: SD:	0.0259 1.321 value within halyte(s) pas for No.: 33 a ID: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0585 -0.0577 0.0912 1.993 value within halyte(s) pas malyte(s) pas	0.0259 1.321 h limits for ssed QC. StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 h limits for ssed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7	Peak Area 0.0021 0.0021 Recove:	Autos Date Data Peak Height 0.0006 0.0006 cy = Not	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat	tion: 1 1/3/2017 3:46:17 PM hal Peak Stored Yes Yes Yes	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1 2 Mean: SD: QC All ar SD: Sequen Sequen and SD: SD: SD: Souther SD: SD: SD: SD: SD: SD: SD: SD:	0.0259 1.321 value within halyte(s) pas for No.: 33 a ID: CCB-2 st: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 value within halyte(s) pas	0.0259 1.321 h limits for ssed QC. StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 h limits for ssed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7	Peak Area 0.0021 0.0021 Recove:	Autos Date Data Peak Height 0.0006 0.0006 cy = Not	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat Collected: 4	tion: 1 1/3/2017 3:46:17 PM hal Peak Stored Yes Yes Yes tion: 29 4/3/2017 3:47:48 PM	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1 2 Mean: SD: %RSD: QC All ar sequer Sample Analys	0.0259 1.321 value within halyte(s) pass for No.: 33 a ID: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0577 0.0012 1.993 value within halyte(s) pass nce No.: 34 a ID: 1703310 st:	0.0259 1.321 h limits for seed QC. StndConc ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 h limits for sseed QC. -0.05012 -0.0502 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0577 0.0012 -0.0585 -0.0577 -0.0576 -0.0577 -0.0575 -0.0577 -0.0575 -0.0577 -0.0575 -0.0575 -0.0575 -0.0577 -0.0575	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7	Peak Area 0.0021 0.0021 Recove:	Autos Date Data Peak Height 0.0006 0.0006 cy = Not Autos Date Data	ampler Locat Collected: 4 Type: Origin 15:47:03 15:47:30 calculated ampler Locat Collected: 4 Type: Origin	tion: 1 A/3/2017 3:46:17 PM hal Peak Stored Yes Yes Yes tion: 29 4/3/2017 3:47:48 PM	
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SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1 2 Mean: SD: QC All an SD: QC All an sequer Sample # 1 2 Replic	0.0259 1.321 value within halyte(s) pass for No.: 33 a ID: CCB-2 st: Cate Data: CC SampleConc ug/L -0.0569 -0.0577 0.0012 1.993 value within halyte(s) pass main of No.: 34 a ID: 1703310 st: Cate Data: 1' SampleConc ug/L -0.0699	0.0259 1.321 h limits for seed QC. StndCone ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 h limits for ssed QC.	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7 Hg 253.7 L6D BlnkCorr Signal 0.0000	Peak Area 0.0021 0.0021 Recover	Autos Date Data Peak Height 0.0006 0.0006 ry = Not Autos Date Data Peak Height 0.0004	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat Collected: 4 Type: Origin Time	<pre>cion: 1 h/3/2017 3:46:17 PM hal Peak Stored Yes Yes tion: 29 h/3/2017 3:47:48 PM hal Peak Stored</pre>	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1 2 Mean: SD: QC All ar SD: QC All ar sequer Sample Analys Particle Replic	0.0259 1.321 value within halyte(s) pass for No.: 33 a ID: CCB-2 st: cate Data: CC SampleConc ug/L -0.0569 -0.0577 0.0012 1.993 value within halyte(s) pass a ID: 1703310 st: cate Data: 1' SampleConc ug/L -0.0699 -0.0700	0.0259 1.321 h limits for seed QC. StndCone ug/L -0.0569 -0.0577 0.0012 1.993 h limits for sseed QC. 010-016D 70331010-01 StndCone ug/L -0.0699 -0.0700	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7 Hg 253.7 IGD BlnkCorr Signal 0.0000 0.0000	Peak Area 0.0021 0.0021 Recover	Autos Date Data Peak Height 0.0006 0.0006 ry = Not Autos Date Data Peak Height 0.0004	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat Collected: 4 Type: Origin Time 15:48:37	<pre>cion: 1 h/3/2017 3:46:17 PM hal Peak Stored Yes Yes tion: 29 h/3/2017 3:47:48 PM hal Peak Stored Yes</pre>	
SD: %RSD: QC All an Sequen Sample Analys Replic Replic Repl %RSD: QC All ar So: QC All ar Sequer Sample Analys Provide the second	0.0259 1.321 value within halyte(s) pass for No.: 33 a ID: CCB-2 st: cate Data: CC SampleConc ug/L -0.0569 -0.0577 0.0012 1.993 value within halyte(s) pass ace No.: 34 a ID: 1703310 st: cate Data: 1' SampleConc ug/L -0.0699 -0.0700 -0.0699	0.0259 1.321 h limits for seed QC. StndCone ug/L -0.0569 -0.0585 -0.0577 0.0012 1.993 h limits for sseed QC. 010-016D 70331010-01 StndCone ug/L -0.0699 -0.0700 -0.0699	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7 Hg 253.7 L6D BlnkCorr Signal 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	Peak Area 0.0021 0.0021 Recover	Autos Date Data Peak Height 0.0006 0.0006 ry = Not Autos Date Data Peak Height 0.0004	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat Collected: 4 Type: Origin Time 15:48:37	<pre>cion: 1 h/3/2017 3:46:17 PM hal Peak Stored Yes Yes tion: 29 h/3/2017 3:47:48 PM hal Peak Stored Yes</pre>	
SD: %RSD: QC All an Sequen Sample Analys Replic Repl # 1 2 Mean: SD: QC All ar SD: QC All ar sequer Sample Analys Particle Replic	0.0259 1.321 value within halyte(s) pass for No.: 33 a ID: CCB-2 st: cate Data: CC SampleConc ug/L -0.0569 -0.0577 0.0012 1.993 value within halyte(s) pass a ID: 1703310 st: cate Data: 1' SampleConc ug/L -0.0699 -0.0700 -0.0699 0.0001	0.0259 1.321 h limits for seed QC. StndCone ug/L -0.0569 -0.0577 0.0012 1.993 h limits for sseed QC. 010-016D 70331010-01 StndCone ug/L -0.0699 -0.0699 -0.0700	0.0003 1.27 or Hg 253.7 BlnkCorr Signal 0.0002 0.0002 0.0002 0.0000 8.58 or Hg 253.7 Hg 253.7 IGD BlnkCorr Signal 0.0000 0.0000	Peak Area 0.0021 0.0021 Recover	Autos Date Data Peak Height 0.0006 0.0006 ry = Not Autos Date Data Peak Height 0.0004	ampler Locat Collected: 4 Type: Origin Time 15:47:03 15:47:30 calculated ampler Locat Collected: 4 Type: Origin Time 15:48:37	<pre>cion: 1 h/3/2017 3:46:17 PM hal Peak Stored Yes Yes tion: 29 h/3/2017 3:47:48 PM hal Peak Stored Yes</pre>	

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Date: 4/3/2017 4:11:06 PM Page 11 Method: MERCURY 0.0269 0.1147 0.0273 16:04:07 Yes 1.945 1.945 1 Yes 16:04:34 1.938 0.0268 0.1170 0.0272 1.938 2 0.0268 1.941 1.941 Mean: 0.0001 0.0052 0.0052 SD: 0.2694 0.26 %RSD: 0.2694 QC value within limits for Hg 253.7 Recovery = 97.06% All analyte(s) passed QC. Autosampler Location: 1 Sequence No.: 45 Date Collected: 4/3/2017 4:04:53 PM Sample ID: CCB-3 Data Type: Original Analyst: _____ Replicate Data: CCB Peak Repl SampleConc StndConc BlnkCorr Peak Peak Time Stored Height Area # ug/L ug/L Signal 16:05:40 Yes 0.0027 -0.0547 0.0002 0.0006 -0.0547 1 Yes 0.0020 0.0006 16:06:07 0.0002 -0.0588 2 -0.0588 Mean: -0.0567 -0.0567 0.0002 0.0000 0.0029 SD: 0.0029 %RSD: 5.039 5.039 19.92 QC value within limits for Hg 253.7 Recovery = Not calculated All analyte(s) passed QC. Autosampler Location: 39 Sequence No.: 46 Date Collected: 4/3/2017 4:06:24 PM Sample ID: 170331010-022D Data Type: Original Analyst: _____ Replicate Data: 170331010-022D Time Peak SampleConc StndConc BlnkCorr Peak Peak Repl Signal Stored Height ug/L Area # ug/L 16:07:12 Yes 0.0051 0.0013 -0.0066 0.0009 1 -0.0066 0.0049 0.0012 16:07:40 Yes 0.0009 -0.0068 -0.0068 2 0.0009 -0.0067 -0.0067 Mean: 0.0000 0.0001 0.0001 SD: 1.629 0.17 %RSD: 1.629 Autosampler Location: 40 Sequence No.: 47 Date Collected: 4/3/2017 4:07:58 PM Sample ID: 170331010-023D Data Type: Original Analyst: _____ Replicate Data: 170331010-023D Peak SampleConc StndConc BlnkCorr Peak Peak Time Repl Stored Height Signal ug/L ug/L Area # 16:08:46 Yes -0.0547 0.0002 0.0021 0.0006 -0.0547 1 16:09:13 Yes 0.0025 0.0006 -0.0531 0.0002 2 -0.0531 -0.0539 0.0002 -0.0539 Mean: 0.0011 0.0000 0.0011 SD: 2.094 6.54 %RSD: 2.094 ------Autosampler Location: 41 Sequence No.: 48 Date Collected: 4/3/2017 4:09:32 PM Sample ID: 170331010-024D Data Type: Original Analyst: Replicate Data: 170331010-024D SampleConc StndConc BlnkCorr Time Peak Peak Peak Repl Stored Area Height ug/L Signal # ug/L 0.0009 0.0005 16:10:20 Yes 0.0001 -0.0638 -0.0638 1 16:10:47 0.0023 0.0005 Yes 0.0001 -0.0611 -0.0611 2 0.0001 -0.0625 -0.0625 Mean: 0.0000 0.0019 0.0019 SD: 22.27 3.065 %RSD: 3.065 Autosampler Location: 42 Sequence No.: 49

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	I: MERCURY				Page 1	3	Da	te: 4/3/201	4.20.10 1
	ce No.: 54				Autos	ampler Locat	ion: 34		
	ID: LCS-539	32			Date	Collected: 4	/3/2017 4:	19:04 PM	
Analys						Type: Origin			
	ate Data: LC								
	SampleConc		BlnkCorr	Peak	Peak	Time	Peak		
	ug/L	ug/L	Signal	Area	Height		Stored		
1 .	1.857	1.857	0.0257			16:19:50	Yes		
2	1.925	1.925	0.0266	0.1176	0.0270	16:20:18	Yes		
	1.891	1.891	0.0261						
BD: BRSD:	0.0486 2.568	0.0486 2.568	0.0006 2.48						
	ce No.: 55	10 001040				ampler Locat Collected: 4		20.35 PM	
Analys	ID: 1703310	TO-021DMS				Type: Origin		20,00 EM	
				•					
Replic	ate Data: 17	0331010-02	1DMS						
	SampleConc				Peak	Time	Peak		
	ug/L	ug/L	Signal	Area	Height	16.01.00	Stored		
1	1.980	1.980	0.0273			16:21:22 16:21:49	Yes Yes		
2	2.004	2.004	0.0277	0.1186	0.0280	10:21:49	res		
dean: SD:	1.992	1.992 0.0169	0.0275 0.0002						
Constant and the second	0.0169 0.8490	0.8490	0.82						
KSD:			0.02						
	nce No.: 56				Autos	ampler Locat	ion: 5		
Sequen Sample	nce No.: 56 a ID: CCV				Autos Date		ion: 5 /3/2017 4:		
Sequen Sample Analys	nce No.: 56 a ID: CCV				Autos Date Data	sampler Locat Collected: 4 Type: Origin	ion: 5 /3/2017 4: al		
Sequen Sample Analys Replic	ace No.: 56 a ID: CCV at: cate Data: CC				Autos Date Data	sampler Locat Collected: 4 Type: Origin	ion: 5 /3/2017 4: al	:22:07 PM	
Sequen Sample Analys Replic Repl	ace No.: 56 a ID: CCV at: cate Data: CC SampleConc		BlnkCorr	Peak	Autos Date Data Peak	sampler Locat Collected: 4 Type: Origin Time	ion: 5 /3/2017 4: al Peak	:22:07 PM	
Sequen Sample Analys Replic Replic #	ace No.: 56 a ID: CCV at: cate Data: CC SampleConc ug/L	CV StndConc ug/L	BlnkCorr Signal	Peak Area	Autos Date Data Peak Height	sampler Locat Collected: 4 Type: Origin Time	ion: 5 /3/2017 4: al Peak Stored	:22:07 PM	
Sequen Sample Analys Ceplic Cepl # 1	nce No.: 56 a ID: CCV st: cate Data: CC SampleConc ug/L 1.927	StndConc ug/L 1.927	BlnkCorr	Peak Area 0.1163	Autos Date Data Peak Height	sampler Locat Collected: 4 Type: Origin Time 16:22:56	ion: 5 /3/2017 4: al Peak	:22:07 PM	
Sequen Sample Analys Replic Repl # 1 2	ace No.: 56 a ID: CCV at: cate Data: CC SampleConc ug/L	CV StndConc ug/L	BlnkCorr Signal 0.0266	Peak Area 0.1163	Autos Date Data Peak Height 0.0270	sampler Locat Collected: 4 Type: Origin Time 16:22:56	rion: 5 /3/2017 4: al Peak Stored Yes	:22:07 PM	
Sequen Sample Analys Replic Repl # 1 2 4ean:	ace No.: 56 a ID: CCV st: Sate Data: CC SampleConc ug/L 1.927 1.948	SV StndConc ug/L 1.927 1.948	BlnkCorr Signal 0.0266 0.0269	Peak Area 0.1163	Autos Date Data Peak Height 0.0270	sampler Locat Collected: 4 Type: Origin Time 16:22:56	rion: 5 /3/2017 4: al Peak Stored Yes	:22:07 PM	
Sequen Sample Analys Replic Repl # 1 2 4ean: 5D: 8RSD:	ace No.: 56 a ID: CCV st: cate Data: CC SampleConc ug/L 1.927 1.948 1.937 0.0151 0.7791	StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75	Peak Area 0.1163 0.1167	Autos Date Data Peak Height 0.0270 0.0273	sampler Locat Collected: 4 Type: Origin Time 16:22:56 16:23:23	rion: 5 /3/2017 4: al Peak Stored Yes	:22:07 PM	
Sequen Sample Analys Replic Repl # 1 2 Mean: SD: SRSD: QC	ace No.: 56 a ID: CCV st: cate Data: CC SampleConc ug/L 1.927 1.948 1.937 0.0151	StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791 1 limits fo	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75	Peak Area 0.1163 0.1167	Autos Date Data Peak Height 0.0270 0.0273	sampler Locat Collected: 4 Type: Origin Time 16:22:56 16:23:23	rion: 5 /3/2017 4: al Peak Stored Yes	:22:07 PM	
Sequen Sample Analys Replic Repl # 1 2 Mean: SD: &RSD: QC All an	ace No.: 56 a ID: CCV st: cate Data: CC SampleConc ug/L 1.927 1.948 1.937 0.0151 0.7791 value withir	StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791 1 limits fo ssed QC.	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75 or Hg 253.7	Peak Area 0.1163 0.1167 Recover	Autos Date Data Peak Height 0.0270 0.0273 y = 96.8	Sampler Locat Collected: 4 Type: Origin Time 16:22:56 16:23:23	rion: 5 /3/2017 4: al Peak Stored Yes Yes	22:07 PM	
Sequen Sample Analys Replic Replic Replic Replic Sol: # Mean: SD: &RSD: QC All an Sequen	nce No.: 56 a ID: CCV st: sate Data: CC SampleConc ug/L 1.927 1.948 1.937 0.0151 0.7791 value withir nalyte(s) pas nce No.: 57	StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791 1 limits fo ssed QC.	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75 or Hg 253.7	Peak Area 0.1163 0.1167 Recover	Autos Date Data Peak Height 0.0270 0.0273 y = 96.8	sampler Locat Collected: 4 Type: Origin Time 16:22:56 16:23:23	rion: 5 /3/2017 4: hal Peak Stored Yes Yes	22:07 PM	
Sequen Sample Analys Replic Replic Replic Replic Solution H Manalys C All an Sequen Sample	ace No.: 56 a ID: CCV st: SampleConc ug/L 1.927 1.948 1.937 0.0151 0.7791 value withir halyte(s) pas ace No.: 57 a ID: CCB-4	StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791 1 limits fo ssed QC.	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75 or Hg 253.7	Peak Area 0.1163 0.1167 Recover	Autos Date Data Peak Height 0.0270 0.0273 ry = 96.8 Autos Date	sampler Locat Collected: 4 Type: Origin Time 16:22:56 16:23:23 36% sampler Locat Collected: 4	cion: 5 /3/2017 4: al Peak Stored Yes Yes Cion: 1 4/3/2017 4	22:07 PM	
Sequen Sample Analys Replic Repl # 1 2 Mean: 3D: 8RSD: QC All an Sequen Sample Analys	ace No.: 56 a ID: CCV st: cate Data: CC SampleConc ug/L 1.927 1.948 1.937 0.0151 0.7791 value withir halyte(s) pas acce No.: 57 a ID: CCB-4 st:	StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791 1 limits fo ssed QC.	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75 or Hg 253.7	Peak Area 0.1163 0.1167 Recover	Autos Date Data Peak Height 0.0270 0.0273 y = 96.8 Autos Date Data	Sampler Locat Collected: 4 Type: Origin Time 16:22:56 16:23:23 36% Sampler Locat Collected: 4 Type: Origin	rion: 5 /3/2017 4: al Peak Stored Yes Yes Yes	:22:07 PM	
Sequen Sample Analys Replic Repl # 1 2 Mean: 3D: 4RSD: QC All an Sample Analys Replic	ace No.: 56 a ID: CCV st: cate Data: CC SampleConc ug/L 1.927 1.948 1.937 0.0151 0.7791 value withir halyte(s) pas acce No.: 57 a ID: CCB-4 st: cate Data: CC	CV StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791 1 limits for ssed QC.	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75 or Hg 253.7	Peak Area 0.1163 0.1167 Recover	Autos Date Data Peak Height 0.0270 0.0273 y = 96.8 Autos Date Data	sampler Locat Collected: 4 Type: Origin Time 16:22:56 16:23:23 36% Sampler Locat Collected: 4 Type: Origin	tion: 5 /3/2017 4: al Peak Stored Yes Yes Yes	:22:07 PM	
Sequen Sample Analys Replic Repl # 1 2 Mean: 5D: 5D: QC All an Sample Analys Replic Repl	Ace No.: 56 a ID: CCV st: cate Data: CC SampleConc ug/L 1.927 1.948 1.937 0.0151 0.7791 value withir halyte(s) pas a ID: CCB-4 st: cate Data: CC SampleConc	StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791 1 limits for ssed QC.	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75 or Hg 253.7 BlnkCorr	Peak Area 0.1163 0.1167 Recover	Autos Date Data Peak Height 0.0270 0.0273 y = 96.8 Autos Date Data Peak	Time Collected: 4 Type: Origin Time 16:22:56 16:23:23 36% Sampler Locat Collected: 4 Type: Origin Time	rion: 5 /3/2017 4: al Peak Stored Yes Yes ion: 1 4/3/2017 4 aal Peak	:22:07 PM	
Sequen Sample Analys Replic Repl # 1 2 Mean: SD: SC: QC All an Sample Analys Replic Repl #	ace No.: 56 a ID: CCV st: cate Data: CC SampleConc ug/L 1.927 1.948 1.937 0.0151 0.7791 value within halyte(s) pas a ID: CCB-4 st: cate Data: CC SampleConc ug/L	CV StndConc ug/L 1.927 1.948 1.937 0.0151 0.7791 1 limits for ssed QC. CB StndConc ug/L	BlnkCorr Signal 0.0266 0.0269 0.0268 0.0002 0.75 or Hg 253.7 BlnkCorr Signal	Peak Area 0.1163 0.1167 Recover	Autos Date Data Peak Height 0.0270 0.0273 y = 96.8 Autos Date Data Peak Height	Time 16:22:56 16:23:23 36% Sampler Locat Collected: 4 Type: Origin Time	tion: 5 /3/2017 4: al Peak Stored Yes Yes Yes	:22:07 PM	
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-187

2B-IN

CRQL CHECK STANDARD

Lab	Name:	AES			Contract:		
Lab	Code:	AES	Case No.:	17025LH	NRAS No.:	 SDG No.:	GW Dep Drain 3
CRQI	L Check	Standard	Source:	See Source F	orm		

Concentration Units: mg/L

	CRQL	Check Standard	đ		
		Initial		Final	
Analyte	True	Found*	%R (1)	Found*	%R (1)
Chloride	1	1.07	106		
Sulfate	2	2.05	102		
Nitrogen, Ammonia (As N)	0.1	0.0591	59.	0.0627	6
Total Organic Carbon	1	0.525	(52.)	1.18	(1

(1) Control Limits: 70-130 with the following exceptions:
 ICP-AES - Antimony, Lead, and Thallium: 50-150
 ICP-MS - Cobalt, Manganese, and Zinc: 50-150

* if applicable, enter the concentration qualifier "J" or "U" after the concentration in these columns (e.g., 0.20U for Mercury)

		_0'P	Traio	019 V pi4 Date/Int
	Sample I'D Stavedard	Ciplant -	11/102	
	Biank wcs-is-B 170310-37-1	Scpu	18:15	6 3/10/17 JEB
1	170310-27-1	5 cpm		75 1 1
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e	CCB	- Scpca		GV
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he	10-2	x5cpu		6
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SECOND QUARTER



Experience is the solution 314 North Pearl Street

Albany, New York 12207 (800) 848-4983

(518) 434-4546

Fax (518) 434-0891

July 18, 2017

Dale Irwin Lockwood Hills LLC 590 Plant Road, PO Box 187 Dresden, NY 14441

Work Order No: 170630015

TEL: (315) 536-2359 FAX:

RE: Lockwood Ash Landfill Quarterly

Dear Dale Irwin:

Adirondack Environmental Services, Inc received 31 samples on 6/30/2017 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Krzysztof Trafalski Laboratory Manager ELAP#: 10709

CASE NARRATIVE

CLIENT:	Lockwood Hills LLC	Date: 18-Jul-17
Project:	Lockwood Ash Landfill	
Lab Order:	170630015	

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

Oualifiers :	ND - Not Detected at reporting limit
Ouannus.	

- J Analyte detected below quantitation limit
- B Analyte detected in Blank
- X Exceeds maximum contamination limit
- H Hold time exceeded
- N Matrix Spike below acceptable limits
- N+ Matrix Spike is above acceptable limits

- C Details are above in Case Narrative
- S LCS Spike recovery is below acceptable limits
- S+ LCS Spike recovery is above acceptable limits
- Z Duplication outside acceptable limits
- T Tentatively Identified Compound-Estimated
- E -Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Client Sample ID: 8404 **Collection Date:** 6/28/2017 6:05:00 PM Lab Sample ID: 170630015-002 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	Analyst: FLD				
pH (E150.1)	7.1		S.U.		6/28/2017 6:05:00 PM
Temperature (E170.1)	13		deg C		6/28/2017 6:05:00 PM
Turbidity (E180.1)	8	1.0	NTU		6/28/2017 6:05:00 PM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	/5/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 3:30:56 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 3:30:56 PM
Boron	170	50.0	μg/L	1	7/13/2017 3:30:56 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 3:30:56 PM
Calcium	105000	50.0	μg/L	1	7/13/2017 3:30:56 PM
Copper	8.81	5.00	μg/L	1	7/13/2017 3:30:56 PM
Iron	82.3	50.0	μg/L	1	7/13/2017 3:30:56 PM
Magnesium	21800	50.0	μg/L	1	7/13/2017 3:30:56 PM
Manganese	22.0	20.0	μg/L	1	7/13/2017 3:30:56 PM
Potassium	1110	50.0	μg/L	1	7/13/2017 3:30:56 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 3:30:56 PM
Sodium	12000	50.0	μg/L	1	7/13/2017 3:30:56 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	352	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/	/6/2017)				Analyst: AVE
Mercury	ND	0.0002	mg/L	1	7/6/2017 12:43:44 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	7/14/2017 7:18:04 PM
Sulfate	114	4.00	mg/L	2	7/14/2017 7:18:04 PM
ALKALINITY TO PH 4.5 -SM 23206	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	310	10	mg/L CaCO3	1	7/12/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 1:41:00 PM

Date: 18-Jul-17

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8404

 Collection Date:
 6/28/2017 6:05:00 PM

 Lab Sample ID:
 170630015-002

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25 ⁷	I0B-97,-11				Analyst: CA
Specific Conductance	674	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SN	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	400	5	mg/L	1	7/5/2017

			r-3/ -	-	
Calcium	61500	50.0	μg/L	1	7/13/2017 4:07:36 PM
Copper	ND	5.00	μg/L	1	7/13/2017 4:07:36 PM
Iron	711	50.0	μg/L	1	7/13/2017 4:07:36 PM
Magnesium	29600	50.0	μg/L	1	7/13/2017 4:07:36 PM
Manganese	77.0	20.0	μg/L	1	7/13/2017 4:07:36 PM
Potassium	1430	50.0	μg/L	1	7/13/2017 4:07:36 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 4:07:36 PM
Sodium	27100	50.0	μg/L	1	7/13/2017 4:07:36 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	276	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 12:45:15 PM
ANIONS BY ION CHROMATOGRAPHY - E	PA 300.0 F	REV 2.1			Analyst: CS
Chloride	16.8	5.00	mg/L	5	7/14/2017 7:29:10 PM
Sulfate	285	10.0	mg/L	5	7/14/2017 7:29:10 PM
ALKALINITY TO PH 4.5 -SM 2320B-97,-11					Analyst: CC
Alkalinity, Total (As CaCO3)	370	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA 350.1	REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.5	0.1	mg/L	1	7/12/2017 1:47:00 PM

FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Result

7.1

12

203

)

165

ND

131

ND

PQL Qual

1.0

100

5.00

50.0

5.00

Units

S.U.

deg C

NTU

μg/L

μg/L

μg/L

μg/L

Lockwood Hills LLC **CLIENT:** Work Order: 170630015 **Reference:** Lockwood Ash Landfill / Quarterly PO#:

(Prep: SW3010A - 7/5/2017

Analyses

pH (E150.1)

Aluminum

Cadmium

Arsenic

Boron

Temperature (E170.1)

ICP METALS - EPA 200.7

Turbidity (E180.1)

Client Sample ID: 8908-D Collection Date: 6/29/2017 12:50:00 PM Lab Sample ID: 170630015-003 Matrix: GROUNDWATER

DF

1

1

1

1

Date Analyzed

Analyst: FLD

6/29/2017 12:50:00 PM

6/29/2017 12:50:00 PM

6/29/2017 12:50:00 PM

7/13/2017 4:07:36 PM

7/13/2017 4:07:36 PM

7/13/2017 4:07:36 PM

7/13/2017 4:07:36 PM

Analyst: SM

Date: 18-Jul-17

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8908-D

 Collection Date:
 6/29/2017 12:50:00 PM

 Lab Sample ID:
 170630015-003

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1090	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SI	A 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	805	5	mg/L	1	7/5/2017

			acge		
Turbidity (E180.1)	< 1	1.0	NTU		6/29/2017 1:25:00 PM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7	/5/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 4:18:14 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 4:18:14 PM
Boron	169	50.0	μg/L	1	7/13/2017 4:18:14 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 4:18:14 PM
Calcium	128000	50.0	μg/L	1	7/13/2017 4:18:14 PM
Copper	6.45	5.00	μg/L	1	7/13/2017 4:18:14 PM
Iron	57.8	50.0	μg/L	1	7/13/2017 4:18:14 PM
Magnesium	56400	50.0	μg/L	1	7/13/2017 4:18:14 PM
Manganese	46.9	20.0	μg/L	1	7/13/2017 4:18:14 PM
Potassium	2450	50.0	μg/L	1	7/13/2017 4:18:14 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 4:18:14 PM
Sodium	23500	50.0	µg/L	1	7/13/2017 4:18:14 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	552	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7	/6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 12:46:47 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	16.4	5.00	mg/L	5	7/14/2017 7:40:15 PM
Sulfate	341	10.0	mg/L	5	7/14/2017 7:40:15 PM
ALKALINITY TO PH 4.5 -SM 2320	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	400	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.2	0.1	mg/L	1	7/12/2017 1:49:00 PM

FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Result

7.2

12

PQL Qual Units

S.U.

deg C

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Analyses

pH (E150.1)

Temperature (E170.1)

Client Sample ID: 8908-SH Collection Date: 6/29/2017 1:25:00 PM Lab Sample ID: 170630015-004 Matrix: GROUNDWATER

DF

Date Analyzed

6/29/2017 1:25:00 PM

6/29/2017 1:25:00 PM

Analyst: FLD

Date: 18-Jul-17

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8908-SH

 Collection Date:
 6/29/2017 1:25:00 PM

 Lab Sample ID:
 170630015-004

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1090	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SI	A 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	805	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Client Sample ID: 8909-D Collection Date: 6/28/2017 2:55:00 PM Lab Sample ID: 170630015-005 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	8.5		S.U.		6/28/2017 2:55:00 PM
Temperature (E170.1)	16		deg C		6/28/2017 2:55:00 PM
Turbidity (E180.1)	565	1.0	NTU		6/28/2017 2:55:00 PM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	5/2017)				
Aluminum	1590	100	μg/L	1	7/13/2017 5:00:46 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 5:00:46 PM
Boron	793	50.0	µg/L	1	7/13/2017 5:00:46 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 5:00:46 PM
Calcium	7820	50.0	µg/L	1	7/13/2017 5:00:46 PM
Copper	ND	5.00	μg/L	1	7/13/2017 5:00:46 PM
Iron	3460	50.0	μg/L	1	7/13/2017 5:00:46 PM
Magnesium	2420	50.0	μg/L	1	7/13/2017 5:00:46 PM
Manganese	64.1	20.0	μg/L	1	7/13/2017 5:00:46 PM
Potassium	1260	50.0	μg/L	1	7/13/2017 5:00:46 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 5:00:46 PM
Sodium	177000	500	μg/L	10	7/13/2017 5:05:52 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	30	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/	6/2017)				Analyst: AVE
Mercury	ND	0.0002	mg/L	1	7/6/2017 12:48:20 PM
ANIONS BY ION CHROMATOGRAI	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	4.64	2.00	mg/L	2	7/14/2017 7:51:21 PM
Sulfate	96.3	4.00	mg/L	2	7/14/2017 7:51:21 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	270	10	mg/L CaCO3	1	7/12/2017
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.6	0.1	mg/L	1	7/12/2017 1:51:00 PM

Date: 18-Jul-17

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8909-D

 Collection Date:
 6/28/2017 2:55:00 PM

 Lab Sample ID:
 170630015-005

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	680	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	445	5	mg/L	1	7/5/2017

	15		uug u		0/20/2011 2.00.001 11
Turbidity (E180.1)	< 1	1.0	NTU		6/28/2017 2:50:00 PM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5	/2017)				, -
Aluminum	118	100	μg/L	1	7/13/2017 5:10:57 PM
Arsenic	6.49	5.00	μg/L	1	7/13/2017 5:10:57 PM
Boron	281	50.0	μg/L	1	7/13/2017 5:10:57 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 5:10:57 PM
Calcium	22000	50.0	μg/L	1	7/13/2017 5:10:57 PM
Copper	ND	5.00	μg/L	1	7/13/2017 5:10:57 PM
Iron	112	50.0	μg/L	1	7/13/2017 5:10:57 PM
Magnesium	16500	50.0	μg/L	1	7/13/2017 5:10:57 PM
Manganese	30.6	20.0	μg/L	1	7/13/2017 5:10:57 PM
Potassium	1990	50.0	μg/L	1	7/13/2017 5:10:57 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 5:10:57 PM
Sodium	51500	500	µg/L	10	7/13/2017 5:16:15 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	123	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0					Analyst: AVB
(Prep: E245.1 - 7/6	/2017)				
Mercury	ND	0.0002	mg/L	1	7/6/2017 12:49:53 PM
ANIONS BY ION CHROMATOGRAP	HY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	2.15	2.00	mg/L	2	7/14/2017 8:36:56 PM
Sulfate	122	4.00	mg/L	2	7/14/2017 8:36:56 PM
Sanato	122	1.00	g, L	-	1,11,2017 0.00.001 M
ALKALINITY TO PH 4.5 -SM 2320B-	97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	190	10	mg/L CaCO3	1	7/12/2017
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL

ND

0.1

mg/L

1

Adirondack Environmental Services, Inc

FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Result

7.7

13

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:

Analyses

pH (E150.1)

Temperature (E170.1)

Nitrogen, Ammonia (As N)

Date: 18-Jul-17

Collection Date: 6/28/2017 2:50:00 PM

DF

Matrix: GROUNDWATER

Date Analyzed

6/28/2017 2:50:00 PM

6/28/2017 2:50:00 PM

Analyst: FLD

Lab Sample ID: 170630015-006

Client Sample ID: 8909-SH

PQL Qual Units

S.U.

deg C

7/12/2017 1:53:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8909-SH

 Collection Date:
 6/28/2017 2:50:00 PM

 Lab Sample ID:
 170630015-006

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	498	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	275	5	mg/L	1	7/5/2017

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

 Client Sample ID:
 8910-D

 Collection Date:
 6/28/2017 3:55:00 PM

 Lab Sample ID:
 170630015-007

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE	NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.4		S.U.		6/28/2017 3:55:00 PM
Temperature (E170.1)	14		deg C		6/28/2017 3:55:00 PM
Turbidity (E180.1)	7	1.0	NTU		6/28/2017 3:55:00 PM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5/2	017)				
Aluminum	ND	100	μg/L	1	7/13/2017 5:21:21 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 5:21:21 PM
Boron	3160	50.0	μg/L	1	7/13/2017 5:21:21 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 5:21:21 PM
Calcium	62700	50.0	μg/L	1	7/13/2017 5:21:21 PM
Copper	ND	5.00	μg/L	1	7/13/2017 5:21:21 PM
Iron	120	50.0	μg/L	1	7/13/2017 5:21:21 PM
Magnesium	22300	50.0	μg/L	1	7/13/2017 5:21:21 PM
Manganese	79.8	20.0	μg/L	1	7/13/2017 5:21:21 PM
Potassium	3160	50.0	μg/L	1	7/13/2017 5:21:21 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 5:21:21 PM
Sodium	88300	500	μg/L	10	7/13/2017 5:26:45 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	249	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6/2	017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 12:54:35 PM
ANIONS BY ION CHROMATOGRAPH	Y - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	26.2	5.00	mg/L	5	7/14/2017 8:48:11 PM
Sulfate	368	10.0	mg/L	5	7/14/2017 8:48:11 PM
ALKALINITY TO PH 4.5 -SM 2320B-9	7,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	140	10	mg/L CaCO3	1	7/12/2017
AMMONIA (NON-DISTILLED) - EPA 3	50.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 1:55:00 PM

Date: 18-Jul-17

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8910-D

 Collection Date:
 6/28/2017 3:55:00 PM

 Lab Sample ID:
 170630015-007

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	907	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	/ 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	635	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: 8911-D Collection Date: 6/28/2017 4:40:00 PM Lab Sample ID: 170630015-008 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.6		S.U.		6/28/2017 4:40:00 PM
Temperature (E170.1)	14		deg C		6/28/2017 4:40:00 PM
Turbidity (E180.1)	140	1.0	NTU		6/28/2017 4:40:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	/5/2017)				
Aluminum	570	100	μg/L	1	7/13/2017 5:31:52 PM
Arsenic	ND	5.00	µg/L	1	7/13/2017 5:31:52 PM
Boron	1940	50.0	μg/L	1	7/13/2017 5:31:52 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 5:31:52 PM
Calcium	56300	50.0	μg/L	1	7/13/2017 5:31:52 PM
Copper	ND	5.00	μg/L	1	7/13/2017 5:31:52 PM
Iron	1370	50.0	μg/L	1	7/13/2017 5:31:52 PM
Magnesium	21100	50.0	μg/L	1	7/13/2017 5:31:52 PM
Manganese	382	20.0	μg/L	1	7/13/2017 5:31:52 PM
Potassium	3440	50.0	μg/L	1	7/13/2017 5:31:52 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 5:31:52 PM
Sodium	104000	500	µg/L	10	7/13/2017 5:37:16 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	228	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/	/6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 12:59:16 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	REV 2.1			Analyst: CS
Chloride	16.2	5.00	mg/L	5	7/14/2017 8:59:17 PM
Sulfate	318	10.0	mg/L	5	7/14/2017 8:59:17 PM
ALKALINITY TO PH 4.5 -SM 23206			Ū		Analyst: CC
Alkalinity, Total (As CaCO3)	210	10	mg/L CaCO3	1	7/12/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.9	0.1	mg/L	1	7/12/2017 1:57:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8911-D

 Collection Date:
 6/28/2017 4:40:00 PM

 Lab Sample ID:
 170630015-008

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	878	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	620	5	mg/L	1	7/5/2017

Result PQL Qual Units

Result		Units	DF	Date Analyzeu
T ELAP CE	RTIFIABLE			Analyst: FLD
7.9		S.U.		6/29/2017 10:55:00 AM
14		deg C		6/29/2017 10:55:00 AM
7	1.0	NTU		6/29/2017 10:55:00 AM
				Analyst: SM
)				
ND	100	μg/L	1	7/13/2017 5:49:50 PM
10.8	5.00	μg/L	1	7/13/2017 5:49:50 PM
321	50.0	μg/L	1	7/13/2017 5:49:50 PM
ND	5.00	μg/L	1	7/13/2017 5:49:50 PM
36500	50.0	μg/L	1	7/13/2017 5:49:50 PM
ND	5.00	μg/L	1	7/13/2017 5:49:50 PM
255	50.0	μg/L	1	7/13/2017 5:49:50 PM
13000	50.0	μg/L	1	7/13/2017 5:49:50 PM
50.4	20.0	μg/L	1	7/13/2017 5:49:50 PM
1760	50.0	μg/L	1	7/13/2017 5:49:50 PM
ND	5.00	μg/L	1	7/13/2017 5:49:50 PM
63700	500	μg/L	10	7/13/2017 6:11:09 PM
				Analyst: SM
145	5	mg/L CaCO3	1	7/13/2017
)				Analyst: AVB
ND	0.0002	mg/L	1	7/6/2017 1:00:52 PM
EPA 300.0 F	REV 2.1			Analyst: CS
10.8	5.00	mg/L	5	7/14/2017 9:10:22 PM
271	10.0	mg/L	5	7/14/2017 9:10:22 PM
				Analyst: CC
88	4	mg/L CaCO3	1	7/13/2017
REV 2.0				Analyst: PL
0.3	0.1	mg/L	1	7/12/2017 1:59:00 PM
	T ELAP CE 7.9 14 7) ND 10.8 321 ND 36500 ND 255 13000 50.4 1760 ND 63700 145 () ND 63700 145 () ND 63700 145 () ND 63700 145 () ND 63700 () 88 271 () 88 REV 2.0	TELAP CERTIFIABLE 7.9 14 7 1.0) 100 10.8 5.00 321 50.0 36500 50.0 ND 5.00 36500 50.0 13000 50.0 13000 50.0 13000 50.0 13000 50.0 13000 50.0 13000 50.0 145 5) ND 0.0002 EPA 300.0 REV 2.1 10.8 5.00 271 10.0 88 4 REV 2.0 4	7.9 S.U. 14 deg C 7 1.0 ND 100 µg/L 10.8 5.00 321 50.0 ND 5.00 ND 5.00 ND 5.00 ND 5.00 10.8 5.00 36500 50.0 ND 5.00 ND 5.00 13000 50.0 9 YL 13000 50.0 9 MD 145 5 1760 50.0 9 MD 145 5 145 5 145 5 145 5 10.0 0.0002 10.1 mg/L 271 10.0 mg/L 88 4 mg/L CaCO3 88 4 mg/L CaCO3 88 4 mg/L CaCO3	T ELAP CERTIFIABLE 7.9 S.U. 14 deg C 7 1.0 NTU)

Adirondack Environmental Services, Inc

Lockwood Hills LLC

Lockwood Ash Landfill / Quarterly

170630015

CLIENT:

Reference:

Analyses

PO#:

Work Order:

Client Sample ID: 8911-SH

Date: 18-Jul-17

Collection Date: 6/29/2017 10:55:00 AM

DF

Matrix: GROUNDWATER

Date Analyzed

Lab Sample ID: 170630015-009

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8911-SH

 Collection Date:
 6/29/2017 10:55:00 AM

 Lab Sample ID:
 170630015-009

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	633	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SN	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	410	5	mg/L	1	7/5/2017

	10		uog o		0/20/2011 1:00:001 1
Turbidity (E180.1)	10	1.0	NTU		6/28/2017 1:50:00 PM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	5/2017)				, -
Aluminum	ND	100	μg/L	1	7/13/2017 6:16:16 PM
Arsenic	6.38	5.00	μg/L	1	7/13/2017 6:16:16 PM
Boron	296	50.0	μg/L	1	7/13/2017 6:16:16 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 6:16:16 PM
Calcium	60900	50.0	μg/L	1	7/13/2017 6:16:16 PM
Copper	ND	5.00	μg/L	1	7/13/2017 6:16:16 PM
Iron	316	50.0	μg/L	1	7/13/2017 6:16:16 PM
Magnesium	60100	50.0	μg/L	1	7/13/2017 6:16:16 PM
Manganese	244	20.0	μg/L	1	7/13/2017 6:16:16 PM
Potassium	2580	50.0	μg/L	1	7/13/2017 6:16:16 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 6:16:16 PM
Sodium	30900	50.0	μg/L	1	7/13/2017 6:16:16 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	400	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0					Analyst: AVB
(Prep: E245.1 - 7/	6/2017)				
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:02:25 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	3.84	2.00	mg/L	2	7/14/2017 9:32:32 PM
Sulfate	285	20.0	mg/L	10	7/14/2017 9:21:27 PM
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	270	10	mg/L CaCO3	1	7/12/2017
AMMONIA (NON-DISTILLED) - EP/	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.2	0.1	mg/L	1	7/12/2017 2:01:00 PM

FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Result

7.5

15

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:

Analyses

pH (E150.1)

Temperature (E170.1)

Date: 18-Jul-17

Collection Date: 6/28/2017 1:50:00 PM

DF

Matrix: GROUNDWATER

Date Analyzed

6/28/2017 1:50:00 PM

6/28/2017 1:50:00 PM

Analyst: FLD

Lab Sample ID: 170630015-010

Client Sample ID: 8942-D

PQL Qual Units

S.U.

deg C

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8942-D

 Collection Date:
 6/28/2017 1:50:00 PM

 Lab Sample ID:
 170630015-010

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	847	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	610	5	mg/L	1	7/5/2017

Adirondack Environmental Services, l	[nc
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CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Client Sample ID: 9306-SH Collection Date: 6/29/2017 1:55:00 PM Lab Sample ID: 170630015-011 Matrix: GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.5		S.U.		6/29/2017 1:55:00 PM
Temperature (E170.1)	13		deg C		6/29/2017 1:55:00 PM
Turbidity (E180.1)	9	1.0	NTU		6/29/2017 1:55:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	5/2017)				
Aluminum	125	100	μg/L	1	7/13/2017 6:26:50 PM
Arsenic	7.93	5.00	μg/L	1	7/13/2017 6:26:50 PM
Boron	106	50.0	μg/L	1	7/13/2017 6:26:50 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 6:26:50 PM
Calcium	43800	50.0	μg/L	1	7/13/2017 6:26:50 PM
Copper	5.38	5.00	μg/L	1	7/13/2017 6:26:50 PM
Iron	161	50.0	μg/L	1	7/13/2017 6:26:50 PM
Magnesium	53800	50.0	μg/L	1	7/13/2017 6:26:50 PM
Manganese	ND	20.0	μg/L	1	7/13/2017 6:26:50 PM
Potassium	2650	50.0	μg/L	1	7/13/2017 6:26:50 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 6:26:50 PM
Sodium	15300	50.0	μg/L	1	7/13/2017 6:26:50 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	331	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/0	6/2017)				Analyst: AVE
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:03:59 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	7/14/2017 9:43:37 PM
Sulfate	86.2	4.00	mg/L	2	7/14/2017 9:43:37 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	340	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:02:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 9306-SH

 Collection Date:
 6/29/2017 1:55:00 PM

 Lab Sample ID:
 170630015-011

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	652	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM				Analyst: CS	
TDS (Residue, Filterable)	370	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: GW DUP 8909-D Collection Date: 6/29/2017 2:55:00 PM Lab Sample ID: 170630015-012 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	8.5		S.U.		6/29/2017 2:55:00 PM
Temperature (E170.1)	16		deg C		6/29/2017 2:55:00 PM
Turbidity (E180.1)	565	1.0	NTU		6/29/2017 2:55:00 PM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5	5/2017)				
Aluminum	1510	100	μg/L	1	7/13/2017 6:37:25 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 6:37:25 PM
Boron	768	50.0	μg/L	1	7/13/2017 6:37:25 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 6:37:25 PM
Calcium	7640	50.0	μg/L	1	7/13/2017 6:37:25 PM
Copper	ND	5.00	μg/L	1	7/13/2017 6:37:25 PM
Iron	3350	50.0	μg/L	1	7/13/2017 6:37:25 PM
Magnesium	2450	50.0	μg/L	1	7/13/2017 6:37:25 PM
Manganese	72.9	20.0	μg/L	1	7/13/2017 6:37:25 PM
Potassium	1330	50.0	μg/L	1	7/13/2017 6:37:25 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 6:37:25 PM
Sodium	142000	500	µg/L	10	7/13/2017 6:42:31 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	29	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6/2017)					Analyst: AVE
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:05:34 PM
ANIONS BY ION CHROMATOGRAF		EV 2.1	0		Analyst: CS
Chloride	4.62	2.00	mg/L	2	7/14/2017 9:54:42 PM
Sulfate	99.9	4.00	mg/L	2	7/14/2017 9:54:42 PM
ALKALINITY TO PH 4.5 -SM 2320B			-		Analyst: CC
Alkalinity, Total (As CaCO3)	280	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0			-		Analyst: PL

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 18-Jul-17

 Client Sample ID:
 GW DUP 8909-D

 Collection Date:
 6/29/2017 2:55:00 PM

 Lab Sample ID:
 170630015-012

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	659	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SN				Analyst: CS	
TDS (Residue, Filterable)	485	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: GW Dep Drain 1 Collection Date: 6/28/2017 1:35:00 PM Lab Sample ID: 170630015-013 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP AI	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	4.67	0.10	mg/L		6/28/2017 1:35:00 PM
Flow, GPD	457		gal/day		6/28/2017 1:35:00 PM
pH (E150.1)	7.4		S.U.		6/28/2017 1:35:00 PM
Temperature (E170.1)	14		deg C		6/28/2017 1:35:00 PM
Turbidity (E180.1)	4	1.0	NTU		6/28/2017 1:35:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5	5/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 6:47:38 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 6:47:38 PM
Boron	3440	50.0	μg/L	1	7/13/2017 6:47:38 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 6:47:38 PM
Calcium	195000	50.0	μg/L	1	7/13/2017 6:47:38 PM
Copper	ND	5.00	μg/L	1	7/13/2017 6:47:38 PM
Iron	ND	50.0	μg/L	1	7/13/2017 6:47:38 PM
Magnesium	98900	50.0	μg/L	1	7/13/2017 6:47:38 PM
Manganese	ND	20.0	μg/L	1	7/13/2017 6:47:38 PM
Potassium	6740	50.0	μg/L	1	7/13/2017 6:47:38 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 6:47:38 PM
Sodium	34400	50.0	μg/L	1	7/13/2017 6:47:38 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	895	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6/2017)					Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:07:10 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1					Analyst: CS
Chloride	93.0	10.0	mg/L	10	7/14/2017 10:05:48 PM
Sulfate	967	20.0	mg/L	10	7/14/2017 10:05:48 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	370	10	mg/L CaCO3	1	7/12/2017

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 GW Dep Drain 1

 Collection Date:
 6/28/2017 1:35:00 PM

 Lab Sample ID:
 170630015-013

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:12:00 PM
CONDUCTANCE AT 25C - SM 25				Analyst: CA	
Specific Conductance	1880	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM				Analyst: CS	
TDS (Residue, Filterable)	1850	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Leak Detection Syst. Collection Date: 6/29/2017 11:15:00 AM Lab Sample ID: 170630015-014 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	1.22	0.10	mg/L		6/29/2017 11:15:00 AM
Flow, GPD	95		gal/day		6/29/2017 11:15:00 AM
pH (E150.1)	7.5		S.U.		6/29/2017 11:15:00 AM
Temperature (E170.1)	16		deg C		6/29/2017 11:15:00 AM
Turbidity (E180.1)	20	1.0	NTU		6/29/2017 11:15:00 AM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5	5/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 6:58:21 PM
Arsenic	7.91	5.00	μg/L	1	7/13/2017 6:58:21 PM
Boron	1150	50.0	μg/L	1	7/13/2017 6:58:21 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 6:58:21 PM
Calcium	368000	500	μg/L	10	7/13/2017 7:03:52 PM
Copper	ND	5.00	μg/L	1	7/13/2017 6:58:21 PM
Iron	86.3	50.0	μg/L	1	7/13/2017 6:58:21 PM
Magnesium	159000	50.0	μg/L	1	7/13/2017 6:58:21 PM
Manganese	22.0	20.0	μg/L	1	7/13/2017 6:58:21 PM
Potassium	6290	50.0	μg/L	1	7/13/2017 6:58:21 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 6:58:21 PM
Sodium	93900	500	μg/L	10	7/13/2017 7:03:52 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	1575	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6	6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:08:47 PM
ANIONS BY ION CHROMATOGRAF	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	37.0	20.0	mg/L	20	7/14/2017 10:40:27 PM
Sulfate	1510	40.0	mg/L	20	7/14/2017 10:40:27 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	550	10	mg/L CaCO3	1	7/13/2017

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 18-Jul-17

 Client Sample ID:
 Leak Detection Syst.

 Collection Date:
 6/29/2017 11:15:00 AM

 Lab Sample ID:
 170630015-014

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:14:00 PM
CONDUCTANCE AT 25C - SM 25				Analyst: CA	
Specific Conductance	2530	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	2570	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Under Drain 1 Collection Date: 6/29/2017 2:20:00 PM Lab Sample ID: 170630015-015 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARI	E NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	4.64	0.10	mg/L		6/29/2017 2:20:00 PM
Flow, GPD	10272		gal/day		6/29/2017 2:20:00 PM
pH (E150.1)	7.6		S.U.		6/29/2017 2:20:00 PM
Temperature (E170.1)	13		deg C		6/29/2017 2:20:00 PM
Turbidity (E180.1)	75	1.0	NTU		6/29/2017 2:20:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5/2	2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 7:09:08 PM
Arsenic	43.7	5.00	μg/L	1	7/13/2017 7:09:08 PM
Boron	3960	50.0	μg/L	1	7/13/2017 7:09:08 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 7:09:08 PM
Calcium	185000	50.0	μg/L	1	7/13/2017 7:09:08 PM
Copper	ND	5.00	μg/L	1	7/13/2017 7:09:08 PM
Iron	7400	50.0	μg/L	1	7/13/2017 7:09:08 PM
Magnesium	64100	50.0	μg/L	1	7/13/2017 7:09:08 PM
Manganese	674	20.0	μg/L	1	7/13/2017 7:09:08 PM
Potassium	12700	50.0	μg/L	1	7/13/2017 7:09:08 PM
Selenium	16.1	5.00	μg/L	1	7/13/2017 7:09:08 PM
Sodium	29900	50.0	μg/L	1	7/13/2017 7:09:08 PM
LOW LEVEL MERCURY - EPA 1631E (Prep: Method - 6/30					Analyst: SM
Mercury	, 1.0	0.5	ng/L	1	7/6/2017
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	726	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6/2	2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:53:37 PM
ANIONS BY ION CHROMATOGRAPH	IY - EPA 300.0 R	REV 2.1			Analyst: CS
Chloride	30.3	10.0	mg/L	10	7/14/2017 11:14:00 PM
Sulfate	556	20.0	mg/L	10	7/14/2017 11:14:00 PM
ALKALINITY TO PH 4.5 -SM 2320B-9	97,-11				Analyst: CC

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 Under Drain 1

 Collection Date:
 6/29/2017 2:20:00 PM

 Lab Sample ID:
 170630015-015

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
ALKALINITY TO PH 4.5 -SM 2320B-97,-11	l				Analyst: CC
Alkalinity, Total (As CaCO3)	660	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA 350.1	REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.2	0.1	mg/L	1	7/12/2017 2:16:00 PM
CONDUCTANCE AT 25C - SM 2510B-97,-	11				Analyst: CA
Specific Conductance	1680	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM 2540C-	97,-11				Analyst: CS
TDS (Residue, Filterable)	1480	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Under Drain 2 Collection Date: 6/29/2017 11:40:00 AM Lab Sample ID: 170630015-016 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP AI	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	1.12	0.10	mg/L		6/29/2017 11:40:00 AM
Flow, GPD	4565		gal/day		6/29/2017 11:40:00 AM
pH (E150.1)	7.6		S.U.		6/29/2017 11:40:00 AM
Temperature (E170.1)	14		deg C		6/29/2017 11:40:00 AM
Turbidity (E180.1)	50	1.0	NTU		6/29/2017 11:40:00 AM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5	5/2017)				
Aluminum	116	100	μg/L	1	7/13/2017 7:35:36 PM
Arsenic	9.04	5.00	μg/L	1	7/13/2017 7:35:36 PM
Boron	38600	50.0	µg/L	1	7/13/2017 7:35:36 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 7:35:36 PM
Calcium	298000	500	µg/L	10	7/13/2017 7:40:54 PM
Copper	ND	5.00	µg/L	1	7/13/2017 7:35:36 PM
Iron	5380	50.0	µg/L	1	7/13/2017 7:35:36 PM
Magnesium	72200	50.0	μg/L	1	7/13/2017 7:35:36 PM
Manganese	920	20.0	µg/L	1	7/13/2017 7:35:36 PM
Potassium	52100	50.0	µg/L	1	7/13/2017 7:35:36 PM
Selenium	35.7	5.00	µg/L	1	7/13/2017 7:35:36 PM
Sodium	145000	500	μg/L	10	7/13/2017 7:40:54 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	1042	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6	6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:55:07 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1					Analyst: CS
Chloride	314	20.0	mg/L	20	7/14/2017 11:25:06 PM
Sulfate	1750	40.0	mg/L	20	7/14/2017 11:25:06 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	320	10	mg/L CaCO3	1	7/13/2017

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 Under Drain 2

 Collection Date:
 6/29/2017 11:40:00 AM

 Lab Sample ID:
 170630015-016

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	1.7	0.1	mg/L	1	7/12/2017 2:22:00 PM
CONDUCTANCE AT 25C - SM 25				Analyst: CA	
Specific Conductance	3370	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	1 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	3320	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Under Drain 3 Collection Date: 6/29/2017 10:50:00 AM Lab Sample ID: 170630015-017 Matrix: GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	3.57	0.10	mg/L		6/29/2017 10:50:00 AM
Flow, GPD	228		gal/day		6/29/2017 10:50:00 AM
pH (E150.1)	6.9		S.U.		6/29/2017 10:50:00 AM
Temperature (E170.1)	17		deg C		6/29/2017 10:50:00 AM
Turbidity (E180.1)	58	1.0	NTU		6/29/2017 10:50:00 AM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	5/2017)				
Aluminum	229	100	μg/L	1	7/13/2017 7:46:17 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 7:46:17 PM
Boron	18100	50.0	μg/L	1	7/13/2017 7:46:17 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 7:46:17 PM
Calcium	467000	500	μg/L	10	7/13/2017 7:51:35 PM
Copper	ND	5.00	μg/L	1	7/13/2017 7:46:17 PM
Iron	706	50.0	μg/L	1	7/13/2017 7:46:17 PM
Magnesium	85200	50.0	μg/L	1	7/13/2017 7:46:17 PM
Manganese	321	20.0	μg/L	1	7/13/2017 7:46:17 PM
Potassium	84600	500	μg/L	10	7/13/2017 7:51:35 PM
Selenium	20.2	5.00	μg/L	1	7/13/2017 7:46:17 PM
Sodium	177000	500	μg/L	10	7/13/2017 7:51:35 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	1518	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/	6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:56:38 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1					Analyst: CS
Chloride	996	20.0	mg/L	20	7/14/2017 11:36:11 PM
Sulfate	1720	40.0	mg/L	20	7/14/2017 11:36:11 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	270	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 18-Jul-17

 Client Sample ID:
 Under Drain 3

 Collection Date:
 6/29/2017 10:50:00 AM

 Lab Sample ID:
 170630015-017

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.4	0.1	mg/L	1	7/12/2017 2:24:00 PM
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	4910	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	4480	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID:Inlet To PondCollection Date:6/29/2017 2:35:00 PMLab Sample ID:170630015-018Matrix:GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP AF	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	4.28	0.10	mg/L		6/29/2017 2:35:00 PM
Flow, GPD	19974		gal/day		6/29/2017 2:35:00 PM
pH (E150.1)	7.6		S.U.		6/29/2017 2:35:00 PM
Temperature (E170.1)	14		deg C		6/29/2017 2:35:00 PM
Turbidity (E180.1)	22	1.0	NTU		6/29/2017 2:35:00 PM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5	/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 7:56:58 PM
Arsenic	38.6	5.00	μg/L	1	7/13/2017 7:56:58 PM
Boron	17400	50.0	μg/L	1	7/13/2017 7:56:58 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 7:56:58 PM
Calcium	287000	500	μg/L	10	7/13/2017 8:02:18 PM
Copper	ND	5.00	μg/L	1	7/13/2017 7:56:58 PM
Iron	6690	50.0	μg/L	1	7/13/2017 7:56:58 PM
Magnesium	71200	50.0	μg/L	1	7/13/2017 7:56:58 PM
Manganese	560	20.0	μg/L	1	7/13/2017 7:56:58 PM
Potassium	42300	50.0	μg/L	1	7/13/2017 7:56:58 PM
Selenium	37.3	5.00	μg/L	1	7/13/2017 7:56:58 PM
Sodium	118000	500	μg/L	10	7/13/2017 8:02:18 PM
LOW LEVEL MERCURY - EPA 1631 (Prep: Method - 6/3					Analyst: SM
Mercury	0.9	0.5	ng/L	1	7/6/2017
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	1011	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6	/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:58:10 PM
ANIONS BY ION CHROMATOGRAP	HY - EPA 300.0 R	REV 2.1			Analyst: CS
Chloride	165	20.0	mg/L	20	7/14/2017 11:47:17 PM
Sulfate	1260	40.0	mg/L	20	7/14/2017 11:47:17 PM
ALKALINITY TO PH 4.5 -SM 2320B-	97,-11				Analyst: CC

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 Inlet To Pond

 Collection Date:
 6/29/2017 2:35:00 PM

 Lab Sample ID:
 170630015-018

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
ALKALINITY TO PH 4.5 -SM 2320B-97,	-11				Analyst: CC
Alkalinity, Total (As CaCO3)	500	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA 350	0.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.4	0.1	mg/L	1	7/12/2017 2:26:00 PM
CONDUCTANCE AT 25C - SM 2510B-9	7,-11				Analyst: CA
Specific Conductance	2640	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM 2540	C-97,-11				Analyst: CS
TDS (Residue, Filterable)	2470	5	mg/L	1	7/6/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Keuka Upstream Collection Date: 6/29/2017 1:20:00 PM Lab Sample ID: 170630015-019 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	4.25	0.10	mg/L		6/29/2017 1:20:00 PM
pH (E150.1)	8.5		S.U.		6/29/2017 1:20:00 PM
Temperature (E170.1)	22		deg C		6/29/2017 1:20:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		6/29/2017 1:20:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	5/2017)				
Aluminum	111	100	μg/L	1	7/13/2017 8:07:42 PM
Arsenic	ND	5.00	µg/L	1	7/13/2017 8:07:42 PM
Boron	66.3	50.0	µg/L	1	7/13/2017 8:07:42 PM
Cadmium	ND	5.00	µg/L	1	7/13/2017 8:07:42 PM
Calcium	31100	50.0	µg/L	1	7/13/2017 8:07:42 PM
Copper	ND	5.00	µg/L	1	7/13/2017 8:07:42 PM
Iron	72.0	50.0	µg/L	1	7/13/2017 8:07:42 PM
Magnesium	12300	50.0	µg/L	1	7/13/2017 8:07:42 PM
Manganese	ND	20.0	µg/L	1	7/13/2017 8:07:42 PM
Potassium	2980	50.0	µg/L	1	7/13/2017 8:07:42 PM
Selenium	ND	5.00	µg/L	1	7/13/2017 8:07:42 PM
Sodium	16900	50.0	μg/L	1	7/13/2017 8:07:42 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	128	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/	6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 1:59:42 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	REV 2.1			Analyst: CS
Chloride	46.3	2.00	mg/L	2	7/14/2017 11:58:22 PM
Sulfate	46.3 27.0	4.00	mg/L	2	7/14/2017 11:58:22 PM
		4.00	iiig/L	2	
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	120	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:28:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 Keuka Upstream

 Collection Date:
 6/29/2017 1:20:00 PM

 Lab Sample ID:
 170630015-019

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 257	I0B-97,-11				Analyst: CA
Specific Conductance	371	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SN	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	225	5	mg/L	1	7/6/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Keuka Downstream Collection Date: 6/29/2017 12:45:00 PM Lab Sample ID: 170630015-020 Matrix: SURFACE WATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	Analyst: FLD				
Dissolved Oxygen (E360.1)	8.18	0.10	mg/L		6/29/2017 12:45:00 PM
pH (E150.1)	8.1		S.U.		6/29/2017 12:45:00 PM
Temperature (E170.1)	21		deg C		6/29/2017 12:45:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		6/29/2017 12:45:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	5/2017)				
Aluminum	140	100	μg/L	1	7/13/2017 8:44:08 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 8:44:08 PM
Boron	64.8	50.0	μg/L	1	7/13/2017 8:44:08 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 8:44:08 PM
Calcium	30400	50.0	μg/L	1	7/13/2017 8:44:08 PM
Copper	ND	5.00	μg/L	1	7/13/2017 8:44:08 PM
Iron	79.4	50.0	μg/L	1	7/13/2017 8:44:08 PM
Magnesium	12400	50.0	μg/L	1	7/13/2017 8:44:08 PM
Manganese	ND	20.0	μg/L	1	7/13/2017 8:44:08 PM
Potassium	3140	50.0	μg/L	1	7/13/2017 8:44:08 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 8:44:08 PM
Sodium	17700	50.0	μg/L	1	7/13/2017 8:44:08 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	127	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6/2017)					Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 2:01:14 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	46.0	2.00	mg/L	2	7/15/2017 12:09:29 AM
Sulfate	27.0	4.00	mg/L	2	7/15/2017 12:09:29 AM
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	130	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EP/	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:34:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 18-Jul-17

 Client Sample ID:
 Keuka Downstream

 Collection Date:
 6/29/2017 12:45:00 PM

 Lab Sample ID:
 170630015-020

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	370	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	220	5	mg/L	1	7/6/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Surface Water DUP Collection Date: 6/29/2017 1:20:00 PM Lab Sample ID: 170630015-021 Matrix: SURFACE WATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	4.25	0.10	mg/L		6/29/2017 1:20:00 PM
pH (E150.1)	8.5		S.U.		6/29/2017 1:20:00 PM
Temperature (E170.1)	22		deg C		6/29/2017 1:20:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		6/29/2017 1:20:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	5/2017)				
Aluminum	134	100	μg/L	1	7/13/2017 9:05:09 PM
Arsenic	5.70	5.00	μg/L	1	7/13/2017 9:05:09 PM
Boron	54.6	50.0	μg/L	1	7/13/2017 9:05:09 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 9:05:09 PM
Calcium	29900	50.0	μg/L	1	7/13/2017 9:05:09 PM
Copper	ND	5.00	μg/L	1	7/13/2017 9:05:09 PM
Iron	68.7	50.0	μg/L	1	7/13/2017 9:05:09 PM
Magnesium	12500	50.0	μg/L	1	7/13/2017 9:05:09 PM
Manganese	ND	20.0	μg/L	1	7/13/2017 9:05:09 PM
Potassium	3180	50.0	μg/L	1	7/13/2017 9:05:09 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 9:05:09 PM
Sodium	17600	50.0	μg/L	1	7/13/2017 9:05:09 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	126	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/	6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 2:02:47 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	46.4	2.00	mg/L	2	7/15/2017 12:20:35 AM
Sulfate	26.7	4.00	mg/L	2	7/15/2017 12:20:35 AM
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	130	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EP/	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:36:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 Surface Water DUP

 Collection Date:
 6/29/2017 1:20:00 PM

 Lab Sample ID:
 170630015-021

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	367	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	1 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	235	5	mg/L	1	7/6/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Pond Grab Collection Date: 6/28/2017 5:25:00 PM Lab Sample ID: 170630015-022 Matrix: SURFACE WATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	ARE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	5.90	0.10	mg/L		6/28/2017 5:25:00 PM
pH (E150.1)	8.1		S.U.		6/28/2017 5:25:00 PM
Temperature (E170.1)	25		deg C		6/28/2017 5:25:00 PM
Turbidity (E180.1)	4	1.0	NTU		6/28/2017 5:25:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7	/5/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 9:15:33 PM
Arsenic	5.42	5.00	µg/L	1	7/13/2017 9:15:33 PM
Boron	14400	50.0	µg/L	1	7/13/2017 9:15:33 PM
Cadmium	ND	5.00	µg/L	1	7/13/2017 9:15:33 PM
Calcium	142000	50.0	µg/L	1	7/13/2017 9:15:33 PM
Copper	ND	5.00	µg/L	1	7/13/2017 9:15:33 PM
Iron	96.6	50.0	µg/L	1	7/13/2017 9:15:33 PM
Magnesium	68500	50.0	µg/L	1	7/13/2017 9:15:33 PM
Manganese	ND	20.0	µg/L	1	7/13/2017 9:15:33 PM
Potassium	45800	50.0	µg/L	1	7/13/2017 9:15:33 PM
Selenium	ND	5.00	µg/L	1	7/13/2017 9:15:33 PM
Sodium	121000	500	µg/L	10	7/13/2017 9:20:56 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	637	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7	/6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 2:07:29 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	REV 2.1			Analyst: CS
Chloride	160	20.0	mg/L	20	7/14/2017 6:40:35 PM
Sulfate	927	40.0	mg/L	20 20	7/14/2017 6:40:35 PM
ALKALINITY TO PH 4.5 -SM 23201	3-97,-11		-		Analyst: CC
Alkalinity, Total (As CaCO3)	88	4	mg/L CaCO3	1	7/12/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:38:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

Client Sample ID:Pond GrabCollection Date:6/28/2017 5:25:00 PMLab Sample ID:170630015-022Matrix:SURFACE WATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	2060	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	/I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	1800	5	mg/L	1	7/5/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: Field Blank Collection Date: 6/29/2017 2:30:00 PM Lab Sample ID: 170630015-023 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP AF	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	6.62	0.10	mg/L		6/29/2017 2:30:00 PM
pH (E150.1)	7.0		S.U.		6/29/2017 2:30:00 PM
Temperature (E170.1)	22		deg C		6/29/2017 2:30:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		6/29/2017 2:30:00 PM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/5	/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 9:42:32 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 9:42:32 PM
Boron	ND	50.0	µg/L	1	7/13/2017 9:42:32 PM
Cadmium	ND	5.00	µg/L	1	7/13/2017 9:42:32 PM
Calcium	94.8	50.0	µg/L	1	7/13/2017 9:42:32 PM
Copper	ND	5.00	µg/L	1	7/13/2017 9:42:32 PM
Iron	ND	50.0	μg/L	1	7/13/2017 9:42:32 PM
Magnesium	ND	50.0	μg/L	1	7/13/2017 9:42:32 PM
Manganese	ND	20.0	μg/L	1	7/13/2017 9:42:32 PM
Potassium	ND	50.0	μg/L	1	7/13/2017 9:42:32 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 9:42:32 PM
Sodium	ND	50.0	μg/L	1	7/13/2017 9:42:32 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	237	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/6	/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 2:12:13 PM
ANIONS BY ION CHROMATOGRAP	HY - EPA 300.0 R	REV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	7/14/2017 6:57:11 PM
Sulfate	ND	4.00	mg/L	2	7/14/2017 6:57:11 PM
ALKALINITY TO PH 4.5 -SM 2320B-				_	Analyst: CC
Alkalinity, Total (As CaCO3)	5	1	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA			č		Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:40:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

Client Sample ID:Field BlankCollection Date:6/29/2017 2:30:00 PMLab Sample ID:170630015-023Matrix:GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	3	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	ND	5	mg/L	1	7/6/2017

CLIENT:	Lockwood Hills LLC			Client Sample	Field Blank		
Work Order:	170050015		Collection Date: 6/29/2017 2:45:00 PM Lab Sample ID: 170630015-024				
Reference:							
PO#:				Ma	trix: FIELI	D BLANK	
Analyses		Result	PQL Qua	l Units	DF	Date Analyzed	
	ERCURY - EPA 1631E					Analyst: SN	
		``					
	Prep: Method - 6/30/2017)					

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: 8401 Collection Date: 6/29/2017 10:05:00 AM Lab Sample ID: 170630015-025 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.3		S.U.		6/29/2017 10:05:00 AM
Temperature (E170.1)	13		deg C		6/29/2017 10:05:00 AM
Turbidity (E180.1)	3	1.0	NTU		6/29/2017 10:05:00 AM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7/	5/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 9:52:48 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 9:52:48 PM
Boron	828	50.0	μg/L	1	7/13/2017 9:52:48 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 9:52:48 PM
Calcium	54400	50.0	μg/L	1	7/13/2017 9:52:48 PM
Copper	ND	5.00	μg/L	1	7/13/2017 9:52:48 PM
Iron	228	50.0	μg/L	1	7/13/2017 9:52:48 PM
Magnesium	22300	50.0	μg/L	1	7/13/2017 9:52:48 PM
Manganese	58.7	20.0	μg/L	1	7/13/2017 9:52:48 PM
Potassium	2730	50.0	μg/L	1	7/13/2017 9:52:48 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 9:52:48 PM
Sodium	56100	500	μg/L	10	7/13/2017 9:58:13 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	228	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7/0	6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 2:13:48 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	35.2	2.00	mg/L	2	7/14/2017 7:13:47 PM
Sulfate	62.0	4.00	mg/L	2	7/14/2017 7:13:47 PM
		4.00	ing/L	L	
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	370	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	1.0	0.1	mg/L	1	7/12/2017 2:42:00 PM

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 8401

 Collection Date:
 6/29/2017 10:05:00 AM

 Lab Sample ID:
 170630015-025

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	792	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SN	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	480	5	mg/L	1	7/6/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170630015
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 18-Jul-17

Client Sample ID: GW Dep Drain 3 Collection Date: 6/29/2017 10:30:00 AM Lab Sample ID: 170630015-026 Matrix: GROUNDWATER

Analyses	Result	PQL Qı	ual Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD			
Dissolved Oxygen (E360.1)	2.98	0.10	mg/L		6/29/2017 10:30:00 AM
Flow, GPD	88		gal/day		6/29/2017 10:30:00 AM
pH (E150.1)	6.9		S.U.		6/29/2017 10:30:00 AM
Temperature (E170.1)	17		deg C		6/29/2017 10:30:00 AM
Turbidity (E180.1)	< 1	1.0	NTU		6/29/2017 10:30:00 AM
ICP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7	/5/2017)				
Aluminum	ND	100	μg/L	1	7/13/2017 10:03:27 PM
Arsenic	ND	5.00	μg/L	1	7/13/2017 10:03:27 PM
Boron	260	50.0	μg/L	1	7/13/2017 10:03:27 PM
Cadmium	ND	5.00	μg/L	1	7/13/2017 10:03:27 PM
Calcium	150000	50.0	μg/L	1	7/13/2017 10:03:27 PM
Copper	ND	5.00	μg/L	1	7/13/2017 10:03:27 PM
Iron	ND	50.0	μg/L	1	7/13/2017 10:03:27 PM
Magnesium	54900	50.0	μg/L	1	7/13/2017 10:03:27 PM
Manganese	ND	20.0	μg/L	1	7/13/2017 10:03:27 PM
Potassium	4090	50.0	μg/L	1	7/13/2017 10:03:27 PM
Selenium	ND	5.00	μg/L	1	7/13/2017 10:03:27 PM
Sodium	16400	50.0	μg/L	1	7/13/2017 10:03:27 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	601	5	mg/L CaCO3	1	7/13/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7	/6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	7/6/2017 2:15:24 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	8.41	5.00	mg/L	5	7/14/2017 7:30:23 PM
Sulfate	383	10.0	mg/L	5	7/14/2017 7:30:23 PM
ALKALINITY TO PH 4.5 -SM 23208	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	460	10	mg/L CaCO3	1	7/13/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL

CLIENT:Lockwood Hills LLCWork Order:170630015Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 18-Jul-17

 Client Sample ID:
 GW Dep Drain 3

 Collection Date:
 6/29/2017 10:30:00 AM

 Lab Sample ID:
 170630015-026

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/12/2017 2:43:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1350	1	µmhos/cm	1	7/14/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	1170	5	mg/L	1	7/6/2017

Adirondac	k Environmental Serv	vices, Iı	nc	18-Jul-1	-Jul-17		
CLIENT:	Lockwood Hills LLC		Client Samp	le ID: (GW Dep	Drain 2	
Work Order:	170630015		Collection	Date: 6	5/28/201	7	
Reference:	Lockwood Ash Landfill / Q	uarterly	Lab Sampl	e ID:	1706300	015-027	
PO#:			Μ	atrix: (GROUN	IDWATER	
Analyses	Re	sult	PQL Qual Units		DF	Date Analyzed	
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: FLD							
Observation		Dry	NA			6/28/2017	

Adirondac	k Environmental Serv	vices, Inc		Date:	18-Jul-	18-Jul-17		
CLIENT:	Lockwood Hills LLC		C	lient Sample ID:	GW D	ep Drain 4		
Work Order:	170630015			Collection Date:	6/28/20	017		
Reference:	Lockwood Ash Landfill / Q	uarterly		Lab Sample ID:	170630	0015-028		
PO#:				Matrix:	GROU	NDWATER		
Analyses	Re	sult P	QL Qual	Units	DF	Date Analyzed		
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: FLD								
Observation		Dry		NA		6/28/2017		

Aunonuac	K Environmental Services, I						
CLIENT:	Lockwood Hills LLC	Client Sample ID:	Under I	Drain 5			
Work Order:	170630015	Collection Date:	6/28/20	17			
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID:	170630	015-029			
PO#:		Matrix:	GROUN	NDWATER			
Analyses	Result	PQL Qual Units	DF	Date Analyzed			
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: FLD							

Adirondac	k Environmental Service	s, Inc Date:	: 18-Jul-	17
CLIENT:	Lockwood Hills LLC	Client Sample ID:	: 8910-S	Н
Work Order:	170630015	Collection Date:	6/28/20)17
Reference:	Lockwood Ash Landfill / Quarter	ly Lab Sample ID:	170630	0015-030
PO#:		Matrix	GROU	NDWATER
Analyses	Result	PQL Qual Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NOT ELAP C	ERTIFIABLE		Analyst: FLD
Observation	Poor Recovery	NA		6/28/2017

Aunonuaci	K Elivii Olillelitai Sel vices, I			• 			
CLIENT:	Lockwood Hills LLC	Client Sample ID:	8405				
Work Order:	170630015	Collection Date:	6/28/2	017			
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID:	17063	170630015-031			
PO#:		Matrix:	GROU	INDWATER			
Analyses	Result	PQL Qual Units	DF	Date Analyzed			
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: FLD							
Observation	Dry	NA		6/28/2017			

Date: 18-Jul-17

Adirondack Environmental Services, Inc



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1.

AES Work Order#:

170630012

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Client Nam	ne:	Address:			<u></u>	<u>v</u>					
Lockwo	ood Hills LLC								N.		
Send Repo		Project Name (Location):						Samplers Name:			
Dale Ir		Lockwood Ash LF Quarterly				rlv		Paul Buist			
Client Pho	ne No:	PO #:	<u></u>		Quarte				Şignature:		
Client Fax	No:	r0#:							and Bart		
AES		Date	Time		Sampl	o Tur	0	# of			
Sample ID	Client Sample ID:	Sampled	A=an P=pn		Matrix	C	G	Cont's	Analysis		
00(7842	6128/17		A P	A CW C 0 Observation Only				Observation Only		
かん	8404	6/28/17	6:05	A D	GW		G	4	Lockwood Ash LF Quarterly		
63	8908-D	Glaalin	12:50	A P	GW		G	4	Field pH, Temp, Turbidity		
54	8908-SH	6/29/17	125	A P	GW		G	4			
200	8909-D	6/28/17	1	A D	GW		G	4			
006	8909-SH	Clashi7	2:50	A P	GW		G	4			
007	8910-D	6/28/17	3:55	A P			G	4			
D08	8911-D	6128/17	4.40	A B	GW		G	4			
pug	8911-SH	6/29/17		P P			G	4			
010	8942-D 9306-SH 10 11	clasin	+	A (P)	GW		G	4			
<u>p11</u>	9306-SH (* 1)	6/24/17		Ô			G	4			
D12	GW Dup <u>8909-54</u>	61281.7	2:50	Ć			G	4			
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AES Work Order#: 170630015

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Client Name:	Address:								
Lockwood Hills LLC									
Send Report to:	Project Nam	e (Locatio	n):				Samplers 1	Name:	
Dale Irwin	Lockwo	od Ash	IE	Quarter	rlv		P	aul Buist	
Client Phone No:		ou Asii		Quarte	i i y				
	PO #:						Samplers S		
Client Fax No:			I					faul Burt	
AES Sample Client Sample ID:	Date Sampled	Time A=an	ı i	Sampl Matrix	е Тур С	e G	# of Cont's	Analysis	
D GW Dep Drain 1	Glasliz	<u>P=pr</u>	A P	GW	2	G	4	Lockwood Ash LF Quarterly Field pH, Temp, Turbidity	
D/Y Leak Detection Syst.	6/29/17	11:15	Ø	GW		G	4	+ Field Flow Reading, DO	
Under Drain 1	6/24/17	2:20	A D	GW		G	5	+ Field Flow Reading, DO	
Under Drain 2	6/29/17	11:40	(A) P	GW		G	4	+ Field Flow Reading, DO	
Under Drain 3	Glagliz	10:50	Â	GW		G	4	+ Field Flow Reading, DO	
21 - Pond	6/24/17	2:35		GW		G	5	+ Field Flow Reading, DO	
0/9 Keuka Upstream	Gladlin	1:20	A B	GW		G	4	Lockwood Quarterly +DO	
Keuka Downstream	6/29/17	12145	A Ø	SF		G	4	Lockwood Quarterly +DO	
5入) Surface Water Dup	6/24/07	1:20	A D	SF		G	4	Lockwood Quarterly +DO	
Pond Grab	6/28/17	5:25	A (P)	SF		G	4	Lockwood Quarterly +DO	
DA3 Field Blank	6/24/17	2:30	A Ø	GW		G	4	Lockwood Quarterly +DO	
CA / LLHg Field Blank	6/29/17	2:45	ত	GW		G	1	EPA 1631	
Shipment Arrived Via:			Sp	ecial Instru	ction	s/Rem	arks:		
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		1. M2_				/ 		6/30/12 10:02	
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CHAIN OF CUSTODY RECORD

AES Work Order#:

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	A full service analyti	cal researc	h labor	ator	ry offer	ing so	oluti	ons to	environmental c	oncerns	
Client Na	ime:	Address:									
Lockw	vood Hills LLC										
Send Rep	port to:	Project Name (Location): Samp							Name:		
Dale I	rwin	_						-			
Client Ph	one No:	🗏 Lockwo	od Ash	LF	Quarte	rly		Pau	1 Buist		
		PO #:				-		Samplers &			
Client Fax	x No:	-						l	al Bet	And the second se	
AES		Date	Time	;				# of	a c / start		
Sample	Client Sample ID:	Sampled	A=an			le Type		Cont's	An	alysis	
ID	0.401		P=pn	1	Matrix	<u>C</u>	<u>G</u>				
~~ ·-	8401	6/29/17	10:05	Ð	GW			4	Lockwood As	sh LF Q	uarterly
225		- ,	10.00						Field pH, Te	emp, Tu	rbidity
226	GW Dep Drain 3	6/29/17	10:30	(A) P	GW			4	+ Field Flow	v Readin	ng, DO
222	GW Dep Drain 2	6/28/17		A P	GW			0	Observa	ation Or	nly
	GW Dep Drain 4	6128/17	/	A P	GW			0	Observa	ation Or	nly
028 029	Under Drain 5	6/28/17	/	A P	GW			0	Observa	ation Or	nly
230	8910-SH	6/28/17	/	A P	GW			0	Observa	ation Or	nly
031	8405	6/28/17		A	GW			0	Observa	ation Or	nly
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TERMS, CONDITIONS & LIMITATIONS

All service rendered by the Adirondack Environmental Services, Inc. are undertaken and all rates are based upon the following terms:

- (a) Neither Adirondack Environmental Services, Inc., nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of Adirondack Environmental Services, Inc.'s performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against Adirondack Environmental Services, Inc. arising out of its work.
- (b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.
- (c) Adirondack Environmental Services, Inc. reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an Adirondack Environmental Services, Inc. report by other than our customer does not constitute a representation of Adirondack Environmental Services, Inc. as to the accuracy of the contents thereof.
- (d) In no event shall Adirondack Environmental Services, Inc., its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.
- (e) No deviation from the terms set forth herein shall bind Adirondack Environmental Services, Inc. unless in writing and signed by a Director of Adirondack Environmental Services, Inc.
- (f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and Adirondack Environmental Services, Inc. is not responsible for the accuracy of this information.
- (g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.



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Fax (518) 434-0891

July 19, 2017

Dale Irwin Lockwood Hills LLC 590 Plant Road, PO Box 187 Dresden, NY 14441

Work Order No: 170710048

TEL: (315) 536-2359 FAX:

RE: Lockwood Ash Landfill

Dear Dale Irwin:

Adirondack Environmental Services, Inc received 1 sample on 7/10/2017 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Krzysztof Trafalski Laboratory Manager

ELAP#: 10709

CASE NARRATIVE

CLIENT:	Lockwood Hills LLC	Date: 19-Jul-17
Project:	Lockwood Ash Landfill	
Lab Order:	170710048	

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

Oualifiers :	ND - Not Detected at reporting limit
Ouannus.	

- J Analyte detected below quantitation limit
- B Analyte detected in Blank
- X Exceeds maximum contamination limit
- H Hold time exceeded
- N Matrix Spike below acceptable limits
- N+ Matrix Spike is above acceptable limits

- C Details are above in Case Narrative
- S LCS Spike recovery is below acceptable limits
- S+ LCS Spike recovery is above acceptable limits
- Z Duplication outside acceptable limits
- T Tentatively Identified Compound-Estimated
- E -Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack	Environmental	Services,	Inc
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CLIENT:Lockwood Hills LLCWork Order:170710048Reference:Lockwood Ash Landfill /PO#:

Client Sample ID: 7842 Collection Date: 7/7/2017 11:20:00 AM Lab Sample ID: 170710048-001 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	ARE NOT ELAP CE	RTIFIABLE			Analyst: FLC
pH (E150.1)	7.6		S.U.		7/7/2017 11:20:00 AM
Temperature (E170.1)	19		deg C		7/7/2017 11:20:00 AM
Turbidity (E180.1)	< 1	1.0	NTU		7/7/2017 11:20:00 AM
CP METALS - EPA 200.7					Analyst: SM
(Prep: SW3010A - 7	/17/2017)				
Aluminum	118	100	μg/L	1	7/17/2017 8:39:56 PM
Arsenic	ND	5.00	μg/L	1	7/17/2017 8:39:56 PM
Boron	93.0	50.0	μg/L	1	7/17/2017 8:39:56 PM
Cadmium	ND	5.00	μg/L	1	7/17/2017 8:39:56 PM
Calcium	114000	500	μg/L	10	7/17/2017 8:45:14 PM
Copper	64.2	5.00	μg/L	1	7/17/2017 8:39:56 PM
Iron	133	50.0	μg/L	1	7/17/2017 8:39:56 PM
Magnesium	33900	50.0	μg/L	1	7/17/2017 8:39:56 PM
Manganese	45.2	20.0	μg/L	1	7/17/2017 8:39:56 PM
Potassium	1840	50.0	μg/L	1	7/17/2017 8:39:56 PM
Selenium	ND	5.00	μg/L	1	7/17/2017 8:39:56 PM
Sodium	7490	50.0	μg/L	1	7/17/2017 8:39:56 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: SM
Total Hardness (As CaCO3)	424	5	mg/L CaCO3	1	7/17/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 7	/17/2017)				Analyst: AVI
Mercury	ND	0.0002	mg/L	1	7/17/2017 2:08:43 PM
Mercury	ND	0.0002	mg/L	1	7/17/2017 1:45:18 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	REV 2.1			Analyst: CS
Chloride	20.3	2.00	mg/L	2	7/17/2017 6:56:04 PM
Sulfate	119	20.0	mg/L	10	7/17/2017 6:44:59 PM
ALKALINITY TO PH 4.5 -SM 23201	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	270	10	mg/L CaCO3	1	7/17/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	7/14/2017 2:13:00 PM

Date: 19-Jul-17

CLIENT:	Lockwood Hills LLC			Client Sample	D: 7842		
Work Order:	170710048			Collection Da	te: 7/7/20	017 11:20:00 AM	
Reference: Lockwood Ash Landfill /				Lab Sample I	D: 17071	0048-001	
PO#:		Matrix: GROUNDWATER					
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed	
CONDUCTANC	E AT 25C - SM 2510B-9	7,-11				Analyst: CA	
Specific Conduc	tance	735	1	µmhos/cm	1	7/17/2017	
TOTAL DISSOL	VED SOLIDS - SM 2540)C-97,-11				Analyst: CS	
TDS (Residue, F	- ilterable)	510	5	mg/L	1	7/12/2017	

Date: 19-Jul-17



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CHAIN OF CUSTODY RECORD	
AES Work Order#:	

170710048

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Client Nat		Address:							
Lockw	ood Hills LLC								
Send Repo	ort to:	Project Nam	e (Locatio	n):				Samplers	Name:
Dale Ir								1-	
Client Pho		- Lockwo	od Ash	LF	⁷ Quarter	rly		Ke	vin Ambra
		PO #:						Samplers	Signature:
Client Fax	No:							-	-
AES		Date	Time)	C1	. T		# of	
Sample	Client Sample ID:	Sampled	A=an		Sample Matrix	C	G	Cont's	Analysis
D	79.43		P=pn			<u> </u>		· · · · ·	
551	7842	7/17/17	11:20	A P	GW		G	4	Lockwood Ash LF Quarterly
				A					Field pH, Temp, Turbidity
				P					
				A P	-				
				A	+				
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TERMS, CONDITIONS & LIMITATIONS

All service rendered by the Adirondack Environmental Services, Inc. are undertaken and all rates are based upon the following terms:

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- (b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.
- (c) Adirondack Environmental Services, Inc. reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an Adirondack Environmental Services, Inc. report by other than our customer does not constitute a representation of Adirondack Environmental Services, Inc. as to the accuracy of the contents thereof.
- (d) In no event shall Adirondack Environmental Services, Inc., its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.
- (e) No deviation from the terms set forth herein shall bind Adirondack Environmental Services, Inc. unless in writing and signed by a Director of Adirondack Environmental Services, Inc.
- (f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and Adirondack Environmental Services, Inc. is not responsible for the accuracy of this information.
- (g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

THIRD QUARTER



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October 10, 2017

Dale Irwin Lockwood Hills LLC 590 Plant Road, PO Box 187 Dresden, NY 14441

Work Order No: 170922003

TEL: (315) 536-2359 FAX:

RE: Lockwood Ash Landfill Quarterly

Dear Dale Irwin:

Adirondack Environmental Services, Inc received 31 samples on 9/22/2017 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Krzysztof Trafalski Laboratory Manager ELAP#: 10709

CASE NARRATIVE

CLIENT:	Lockwood Hills LLC	Date: 10-Oct-17
Project:	Lockwood Ash Landfill	
Lab Order:	170922003	

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

Oualifiers: ND - Not Detected at reporting limit

- J Analyte detected below quantitation limit
- B Analyte detected in Blank
- X Exceeds maximum contamination limit
- H Hold time exceeded
- N Matrix Spike below acceptable limits
- N+ Matrix Spike is above acceptable limits

- C Details are above in Case Narrative
- S LCS Spike recovery is below acceptable limits
- S+ LCS Spike recovery is above acceptable limits
- Z Duplication outside acceptable limits
- T Tentatively Identified Compound-Estimated
- E -Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondac	k Environmental Se	rvices, I	nc Date:			10-Oct-17		
CLIENT:	Lockwood Hills LLC		С	lient Sample ID:	7842			
Work Order:	170922003			Collection Date:	9/20/2	017		
Reference:	Lockwood Ash Landfill /	Quarterly]	Lab Sample ID:	17092	2003-001		
PO#:				Matrix:	GROU	INDWATER		
Analyses	I	Result	PQL Qual	Units	DF	Date Analyzed		
FIELD-PH, RES	CL2, AND TEMP ARE NOT	ELAP CERT	IFIABLE			Analyst: FLD		
Observation	Obstr	ructed		NA		9/20/2017		

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: 8404 Collection Date: 9/21/2017 11:15:00 AM Lab Sample ID: 170922003-002 Matrix: GROUNDWATER

Analyses	Result	PQL Q)ual Un	its DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	6.8		S.U.		9/21/2017 11:15:00 AM
Temperature (E170.1)	16		deg	С	9/21/2017 11:15:00 AM
Turbidity (E180.1)	75	1.0	NTU		9/21/2017 11:15:00 AM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/	(25/2017)				
Aluminum	ND	100	μg/L	1	10/3/2017 2:27:00 PM
Arsenic	ND	5.00	μg/L	1	10/3/2017 2:27:00 PM
Boron	249	50.0	μg/L	1	10/3/2017 2:27:00 PM
Cadmium	ND	5.00	μg/L	1	10/3/2017 2:27:00 PM
Calcium	128000	50.0	μg/L	1	10/3/2017 2:27:00 PM
Copper	9.51	5.00	μg/L	1	10/3/2017 2:27:00 PM
Iron	348	50.0	μg/L	1	10/3/2017 2:27:00 PM
Magnesium	23900	50.0	μg/L	1	10/3/2017 2:27:00 PM
Manganese	84.9	20.0	μg/L	1	10/3/2017 2:27:00 PM
Potassium	1230	50.0	μg/L	1	10/3/2017 2:27:00 PM
Selenium	ND	5.00	μg/L	1	10/3/2017 2:27:00 PM
Sodium	15400	50.0	μg/L	1	10/3/2017 2:27:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	418	5	mg/L	CaCO3 1	10/3/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	(26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	- 1	9/26/2017 2:11:56 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	ND	2.00	mg/l	_ 2	10/5/2017 11:58:06 PM
Sulfate	109	4.00	mg/L		10/5/2017 11:58:06 PM
ALKALINITY TO PH 4.5 -SM 23206	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	300	10	H mg/l	CaCO3 1	10/6/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	- 1	9/27/2017 6:15:00 PM

Adirondack	Environmental	Services, Inc
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CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8404

 Collection Date:
 9/21/2017 11:15:00 AM

 Lab Sample ID:
 170922003-002

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	717	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	535	5	mg/L	1	9/25/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: 8908-D Collection Date: 9/21/2017 12:00:00 PM Lab Sample ID: 170922003-003 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.3		S.U.		9/21/2017 12:00:00 PM
Temperature (E170.1)	13		deg C		9/21/2017 12:00:00 PM
Turbidity (E180.1)	62	1.0	NTU		9/21/2017 12:00:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/	25/2017)				
Aluminum	ND	100	μg/L	1	10/3/2017 4:01:00 PM
Arsenic	ND	5.00	μg/L	1	10/3/2017 4:01:00 PM
Boron	240	50.0	μg/L	1	10/3/2017 4:01:00 PM
Cadmium	ND	5.00	μg/L	1	10/3/2017 4:01:00 PM
Calcium	174000	50.0	μg/L	1	10/3/2017 4:01:00 PM
Copper	ND	5.00	μg/L	1	10/3/2017 4:01:00 PM
Iron	1540	50.0	μg/L	1	10/3/2017 4:01:00 PM
Magnesium	67100	50.0	μg/L	1	10/3/2017 4:01:00 PM
Manganese	187	20.0	μg/L	1	10/3/2017 4:01:00 PM
Potassium	2780	50.0	μg/L	1	10/3/2017 4:01:00 PM
Selenium	ND	5.00	μg/L	1	10/3/2017 4:01:00 PM
Sodium	33700	50.0	μg/L	1	10/3/2017 4:01:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	710	5	mg/L CaCO3	1	10/3/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/26/2017)					Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:13:34 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	17.5	2.00	mg/L	2	10/6/2017 12:46:27 AM
Sulfate	311	20.0	mg/L	10	10/6/2017 12:34:22 AM
ALKALINITY TO PH 4.5 -SM 2320E	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	350	10 H	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.3	0.1	mg/L	1	9/27/2017 6:17:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8908-D

 Collection Date:
 9/21/2017 12:00:00 PM

 Lab Sample ID:
 170922003-003

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1170	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	A 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	885	5	mg/L	1	9/25/2017

Client Sample ID: 8908-SH Collection Date: 9/21/2017 1:00:00 PM Lab Sample ID: 170922003-004 Matrix: GROUNDWATER

DF

Date Analyzed

Adirondack Environmental Services, Inc

Result

PQL Qual Units

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Analyses

FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE	1			Analyst: FLD
pH (E150.1) Temperature (E170.1)	6.8 15			S.U. deg C		9/21/2017 1:00:00 PM 9/21/2017 1:00:00 PM
Turbidity (E180.1)	2	1.0		NTU		9/21/2017 1:00:00 PM
ICP METALS - EPA 200.7						Analyst: KH
(Prep: SW3010A - 9/	(25/2017)					
Aluminum	ND	100		μg/L	1	10/3/2017 4:05:00 PM
Arsenic	ND	5.00		μg/L	1	10/3/2017 4:05:00 PM
Boron	177	50.0		μg/L	1	10/3/2017 4:05:00 PM
Cadmium	ND	5.00		μg/L	1	10/3/2017 4:05:00 PM
Calcium	190000	50.0		μg/L	1	10/3/2017 4:05:00 PM
Copper	ND	5.00		μg/L	1	10/3/2017 4:05:00 PM
Iron	66.8	50.0		μg/L	1	10/3/2017 4:05:00 PM
Magnesium	64200	50.0		μg/L	1	10/3/2017 4:05:00 PM
Manganese	116	20.0		μg/L	1	10/3/2017 4:05:00 PM
Potassium	2570	50.0		μg/L	1	10/3/2017 4:05:00 PM
Selenium	ND	5.00		μg/L	1	10/3/2017 4:05:00 PM
Sodium	29000	50.0		µg/L	1	10/3/2017 4:05:00 PM
HARDNESS - EPA 200.7 REV 4.4						Analyst: KH
Total Hardness (As CaCO3)	738	5		mg/L CaCO3	1	10/3/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	(26/2017)					Analyst: AVB
Mercury	ND	0.0002		mg/L	1	9/26/2017 2:15:12 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1				Analyst: CS
Chloride	15.3	2.00		mg/L	2	10/6/2017 1:10:38 AM
Sulfate	317	20.0		mg/L	10	10/6/2017 12:58:33 AM
ALKALINITY TO PH 4.5 -SM 2320E	3-97,-11					Analyst: CC
Alkalinity, Total (As CaCO3)	380	10	Н	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0					Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	9/27/2017 6:19:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8908-SH

 Collection Date:
 9/21/2017 1:00:00 PM

 Lab Sample ID:
 170922003-004

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1190	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SI	A 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	955	5	mg/L	1	9/25/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

 Client Sample ID:
 8909-D

 Collection Date:
 9/20/2017 2:50:00 PM

 Lab Sample ID:
 170922003-005

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP AF	Analyst: FLD				
pH (E150.1)	7.9		S.U.		9/20/2017 2:50:00 PM
Temperature (E170.1) Turbidity (E180.1)	19 189	1.0	deg C NTU		9/20/2017 2:50:00 PM 9/20/2017 2:50:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/2	5/2017)				
Aluminum	427	100	µg/L	1	10/3/2017 4:08:00 PM
Arsenic	10.5	5.00	µg/L	1	10/3/2017 4:08:00 PM
Boron	510	50.0	µg/L	1	10/3/2017 4:08:00 PM
Cadmium	ND	5.00	µg/L	1	10/3/2017 4:08:00 PM
Calcium	6970	50.0	μg/L	1	10/3/2017 4:08:00 PM
Copper	ND	5.00	μg/L	1	10/3/2017 4:08:00 PM
Iron	962	50.0	µg/L	1	10/3/2017 4:08:00 PM
Magnesium	1850	50.0	µg/L	1	10/3/2017 4:08:00 PM
Manganese	36.2	20.0	µg/L	1	10/3/2017 4:08:00 PM
Potassium	1430	50.0	µg/L	1	10/3/2017 4:08:00 PM
Selenium	ND	5.00	µg/L	1	10/3/2017 4:08:00 PM
Sodium	172000	50000	μg/L	10	10/3/2017 4:30:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	25	5	mg/L CaCO3	1	10/3/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/2	6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:20:10 PM
ANIONS BY ION CHROMATOGRAP	HY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	4.02	2.00	mg/L	2	10/6/2017 1:22:43 AM
Sulfate	63.3	4.00	mg/L	2	10/6/2017 1:22:43 AM
ALKALINITY TO PH 4.5 -SM 2320B-	97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	310	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.4	0.1	mg/L	1	9/27/2017 6:21:00 PM

Date: 10-Oct-17

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8909-D

 Collection Date:
 9/20/2017 2:50:00 PM

 Lab Sample ID:
 170922003-005

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	672	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	460	5	mg/L	1	9/22/2017

pH (E150.1)	7.5		S.U.		9/20/2017 2:35:00 PM
Temperature (E170.1)	19		deg C		9/20/2017 2:35:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		9/20/2017 2:35:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9	/25/2017)				
Aluminum	ND	100	μg/L	1	10/3/2017 4:12:00 PM
Arsenic	7.32	5.00	μg/L	1	10/3/2017 4:12:00 PM
Boron	250	50.0	μg/L	1	10/3/2017 4:12:00 PM
Cadmium	ND	5.00	μg/L	1	10/3/2017 4:12:00 PM
Calcium	29400	50.0	μg/L	1	10/3/2017 4:12:00 PM
Copper	ND	5.00	μg/L	1	10/3/2017 4:12:00 PM
Iron	ND	50.0	μg/L	1	10/3/2017 4:12:00 PM
Magnesium	18000	50.0	μg/L	1	10/3/2017 4:12:00 PM
Manganese	ND	20.0	μg/L	1	10/3/2017 4:12:00 PM
Potassium	1910	50.0	μg/L	1	10/3/2017 4:12:00 PM
Selenium	ND	5.00	μg/L	1	10/3/2017 4:12:00 PM
Sodium	55200	50000	μg/L	10	10/3/2017 4:34:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	148	5	mg/L CaCO3	1	10/3/2017
MERCURY - EPA 245.1 REV 3.0					Analyst: AVB
(Prep: E245.1 - 9	/26/2017)				
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:21:42 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	10/6/2017 1:34:48 AM
Sulfate	108	4.00	mg/L	2	10/6/2017 1:34:48 AM
ALKALINITY TO PH 4.5 -SM 2320	B-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	160	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 6:29:00 PM

CLIENT:

Reference:

Analyses

PO#:

Lockwood Hills LLC Work Order: 170922003 Lockwood Ash Landfill / Quarterly

FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Result

Date: 10-Oct-17

Collection Date: 9/20/2017 2:35:00 PM

DF

Matrix: GROUNDWATER

Date Analyzed

Analyst: FLD

Lab Sample ID: 170922003-006

Client Sample ID: 8909-SH

PQL Qual Units

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8909-SH

 Collection Date:
 9/20/2017 2:35:00 PM

 Lab Sample ID:
 170922003-006

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	507	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	355	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: 8910-D Collection Date: 9/20/2017 3:45:00 PM Lab Sample ID: 170922003-007 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD			
pH (E150.1)	7.8		S.U.		9/20/2017 3:45:00 PM
Temperature (E170.1)	14		deg C		9/20/2017 3:45:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		9/20/2017 3:45:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/	25/2017)				
Aluminum	ND	100	μg/L	1	10/4/2017 12:54:00 PM
Arsenic	5.07	5.00	μg/L	1	10/4/2017 12:54:00 PM
Boron	3280	50.0	μg/L	1	10/4/2017 12:54:00 PM
Cadmium	ND	5.00	µg/L	1	10/4/2017 12:54:00 PM
Calcium	88100	50.0	µg/L	1	10/4/2017 12:54:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 12:54:00 PM
Iron	ND	50.0	μg/L	1	10/4/2017 12:54:00 PM
Magnesium	27200	50.0	μg/L	1	10/4/2017 12:54:00 PM
Manganese	ND	20.0	μg/L	1	10/4/2017 12:54:00 PM
Potassium	3120	50.0	μg/L	1	10/4/2017 12:54:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 12:54:00 PM
Sodium	99900	500	μg/L	10	10/4/2017 12:59:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	332	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:23:15 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	26.8	2.00	mg/L	2	10/5/2017 6:14:32 PM
Sulfate	366	20.0	mg/L	10	10/5/2017 6:02:26 PM
ALKALINITY TO PH 4.5 -SM 2320B	9-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	150	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 6:30:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8910-D

 Collection Date:
 9/20/2017 3:45:00 PM

 Lab Sample ID:
 170922003-007

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	I0B-97,-11				Analyst: CA
Specific Conductance	952	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	l 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	745	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: 8911-D Collection Date: 9/21/2017 10:40:00 AM Lab Sample ID: 170922003-008 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD			
pH (E150.1)	7.9		S.U.		9/21/2017 10:40:00 AM
Temperature (E170.1)	13		deg C		9/21/2017 10:40:00 AM
Turbidity (E180.1)	27	1.0	NTU		9/21/2017 10:40:00 AM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9	/25/2017)				
Aluminum	ND	100	μg/L	1	10/4/2017 1:03:00 PM
Arsenic	6.73	5.00	μg/L	1	10/4/2017 1:03:00 PM
Boron	1920	50.0	μg/L	1	10/4/2017 1:03:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 1:03:00 PM
Calcium	68800	50.0	μg/L	1	10/4/2017 1:03:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 1:03:00 PM
Iron	326	50.0	μg/L	1	10/4/2017 1:03:00 PM
Magnesium	23100	50.0	μg/L	1	10/4/2017 1:03:00 PM
Manganese	116	20.0	μg/L	1	10/4/2017 1:03:00 PM
Potassium	3090	50.0	μg/L	1	10/4/2017 1:03:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 1:03:00 PM
Sodium	130000	500	μg/L	10	10/4/2017 1:32:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	267	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9	/26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:27:59 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	15.4	2.00	mg/L	2	10/5/2017 6:38:43 PM
Sulfate	304	20.0	mg/L	10	10/5/2017 6:26:37 PM
ALKALINITY TO PH 4.5 -SM 2320I	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	200	10 H	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.3	0.1	mg/L	1	9/27/2017 6:32:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 10-Oct-17

 Client Sample ID:
 8911-D

 Collection Date:
 9/21/2017 10:40:00 AM

 Lab Sample ID:
 170922003-008

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	958	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SN	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	610	5	mg/L	1	9/26/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: 8911-SH Collection Date: 9/21/2017 10:25:00 AM Lab Sample ID: 170922003-009 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD			
pH (E150.1)	8.1		S.U.		9/21/2017 10:25:00 AM
Temperature (E170.1)	13		deg C		9/21/2017 10:25:00 AM
Turbidity (E180.1)	4	1.0	NTU		9/21/2017 10:25:00 AM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/	25/2017)				
Aluminum	ND	100	μg/L	1	10/4/2017 1:36:00 PM
Arsenic	15.5	5.00	μg/L	1	10/4/2017 1:36:00 PM
Boron	294	50.0	μg/L	1	10/4/2017 1:36:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 1:36:00 PM
Calcium	49700	50.0	μg/L	1	10/4/2017 1:36:00 PM
Copper	7.19	5.00	μg/L	1	10/4/2017 1:36:00 PM
Iron	258	50.0	μg/L	1	10/4/2017 1:36:00 PM
Magnesium	15100	50.0	μg/L	1	10/4/2017 1:36:00 PM
Manganese	56.6	20.0	μg/L	1	10/4/2017 1:36:00 PM
Potassium	1740	50.0	μg/L	1	10/4/2017 1:36:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 1:36:00 PM
Sodium	71400	500	μg/L	10	10/4/2017 1:40:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	186	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:29:32 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	9.97	2.00	mg/L	2	10/5/2017 7:02:54 PM
Sulfate	252	20.0	mg/L	10	10/5/2017 6:50:48 PM
ALKALINITY TO PH 4.5 -SM 2320B			Ū		Analyst: CC
Alkalinity, Total (As CaCO3)	100	10 H	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EPA					Analyst: PL
Nitrogen, Ammonia (As N)	0.2	0.1	mg/L	1	9/27/2017 6:34:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8911-SH

 Collection Date:
 9/21/2017 10:25:00 AM

 Lab Sample ID:
 170922003-009

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	681	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SN	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	420	5	mg/L	1	9/26/2017

PQL Qual	Units		DF	Date Analyzed
		1 1111111	GROU	
		Matrix:	GROU	NDWATER
	Lab Sar	nple ID:	170922	003-010

Client Sample ID: 8942-D

Adirondack Environmental Services, Inc

FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE

Result

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Analyses

					,
pH (E150.1)	8.4		S.U.		9/20/2017 5:30:00 PM
Temperature (E170.1)	17		deg C		9/20/2017 5:30:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		9/20/2017 5:30:00 PM
ICP METALS - EPA 200.7 (Prep: SW3010A - 9/	/25/2017)				Analyst: KH
Aluminum	ND	100	μg/L	1	10/4/2017 1:44:00 PM
Arsenic	8.19	5.00	μg/L	1	10/4/2017 1:44:00 PM
Boron	290	50.0	μg/L	1	10/4/2017 1:44:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 1:44:00 PM
Calcium	80900	50.0	μg/L	1	10/4/2017 1:44:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 1:44:00 PM
Iron	523	50.0	μg/L	1	10/4/2017 1:44:00 PM
Magnesium	66800	50.0	μg/L	1	10/4/2017 1:44:00 PM
Manganese	426	20.0	μg/L	1	10/4/2017 1:44:00 PM
Potassium	2640	50.0	μg/L	1	10/4/2017 1:44:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 1:44:00 PM
Sodium	40000	50.0	μg/L	1	10/4/2017 1:44:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	477	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0	(00/00/ -)				Analyst: AVB
(Prep: E245.1 - 9/	/26/2017)				
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:31:07 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	3.03	2.00	mg/L	2	10/5/2017 7:27:05 PM
Sulfate	261	20.0	mg/L	10	10/5/2017 7:15:00 PM
ALKALINITY TO PH 4.5 -SM 23208	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	270	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.1	0.1	mg/L	1	9/27/2017 6:36:00 PM
Nitrogen, Ammonia (As N)	0.1	0.1	mg/L	1	9/27/2017 6:36:00 Pl

Collection Date: 9/20/2017 5:30:00 PM

Analyst: FLD

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8942-D

 Collection Date:
 9/20/2017 5:30:00 PM

 Lab Sample ID:
 170922003-010

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	876	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	A 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	670	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: 9306-SH Collection Date: 9/21/2017 10:30:00 AM Lab Sample ID: 170922003-011 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD			
pH (E150.1)	6.9		S.U.		9/21/2017 10:30:00 AM
Temperature (E170.1)	14		deg C		9/21/2017 10:30:00 AM
Turbidity (E180.1)	500	1.0	NTU		9/21/2017 10:30:00 AM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/	25/2017)				
Aluminum	ND	100	μg/L	1	10/4/2017 1:57:00 PM
Arsenic	14.3	5.00	μg/L	1	10/4/2017 1:57:00 PM
Boron	97.5	50.0	μg/L	1	10/4/2017 1:57:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 1:57:00 PM
Calcium	61100	50.0	μg/L	1	10/4/2017 1:57:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 1:57:00 PM
Iron	463	50.0	μg/L	1	10/4/2017 1:57:00 PM
Magnesium	59700	50.0	μg/L	1	10/4/2017 1:57:00 PM
Manganese	35.7	20.0	μg/L	1	10/4/2017 1:57:00 PM
Potassium	2600	50.0	μg/L	1	10/4/2017 1:57:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 1:57:00 PM
Sodium	20800	50.0	μg/L	1	10/4/2017 1:57:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	398	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:32:42 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	10/5/2017 8:03:50 PM
Sulfate	74.2	4.00	mg/L	2	10/5/2017 8:03:50 PM
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11		-		Analyst: CC
Alkalinity, Total (As CaCO3)	310	10 H	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 6:38:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 10-Oct-17

 Client Sample ID:
 9306-SH

 Collection Date:
 9/21/2017 10:30:00 AM

 Lab Sample ID:
 170922003-011

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	686	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	390	5	mg/L	1	9/26/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: GW DUP 8909-D Collection Date: 9/20/2017 2:50:00 PM Lab Sample ID: 170922003-012 Matrix: GROUNDWATER

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD			
pH (E150.1)	7.9		S.U.		9/20/2017 2:50:00 PM
Temperature (E170.1)	19		deg C		9/20/2017 2:50:00 PM
Turbidity (E180.1)	189	1.0	NTU		9/20/2017 2:50:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/	25/2017)				
Aluminum	454	100	μg/L	1	10/4/2017 2:04:00 PM
Arsenic	9.31	5.00	μg/L	1	10/4/2017 2:04:00 PM
Boron	523	50.0	μg/L	1	10/4/2017 2:04:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 2:04:00 PM
Calcium	7430	50.0	μg/L	1	10/4/2017 2:04:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 2:04:00 PM
Iron	1010	50.0	μg/L	1	10/4/2017 2:04:00 PM
Magnesium	1980	50.0	μg/L	1	10/4/2017 2:04:00 PM
Manganese	44.5	20.0	μg/L	1	10/4/2017 2:04:00 PM
Potassium	1410	50.0	μg/L	1	10/4/2017 2:04:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 2:04:00 PM
Sodium	206000	500	μg/L	10	10/4/2017 2:08:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	27	5	mg/L CaCO	3 1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:34:18 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	4.20	2.00	mg/L	2	10/5/2017 8:40:13 PM
Sulfate	66.8	4.00	mg/L	2	10/5/2017 8:40:13 PM
				-	
ALKALINITY TO PH 4.5 -SM 2320E	,-11,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	300	10	mg/L CaCO	3 1	10/3/2017
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.4	0.1	N mg/L	1	9/27/2017 6:40:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 10-Oct-17

 Client Sample ID:
 GW DUP 8909-D

 Collection Date:
 9/20/2017 2:50:00 PM

 Lab Sample ID:
 170922003-012

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	I0B-97,-11				Analyst: CA
Specific Conductance	677	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SN	l 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	470	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: GW Dep Drain 1 Collection Date: 9/20/2017 2:00:00 PM Lab Sample ID: 170922003-013 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP AI		Analyst: FLD			
Dissolved Oxygen (E360.1)	1.03	0.10	mg/L		9/20/2017 2:00:00 PM
Flow, GPD	457		gal/day		9/20/2017 2:00:00 PM
pH (E150.1)	7.8		S.U.		9/20/2017 2:00:00 PM
Temperature (E170.1)	15		deg C		9/20/2017 2:00:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		9/20/2017 2:00:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/2	25/2017)				
Aluminum	ND	100	μg/L	1	10/4/2017 2:17:00 PM
Arsenic	ND	5.00	μg/L	1	10/4/2017 2:17:00 PM
Boron	3150	50.0	μg/L	1	10/4/2017 2:17:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 2:17:00 PM
Calcium	307000	500	μg/L	10	10/4/2017 2:22:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 2:17:00 PM
Iron	ND	50.0	μg/L	1	10/4/2017 2:17:00 PM
Magnesium	115000	50.0	μg/L	1	10/4/2017 2:17:00 PM
Manganese	ND	20.0	μg/L	1	10/4/2017 2:17:00 PM
Potassium	6630	50.0	μg/L	1	10/4/2017 2:17:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 2:17:00 PM
Sodium	35700	500	μg/L	10	10/4/2017 2:22:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	1240	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/2	26/2017)				Analyst: AVE
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:35:53 PM
ANIONS BY ION CHROMATOGRAF	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	80.6	2.00	mg/L	2	10/5/2017 9:04:24 PM
Sulfate	896	40.0	mg/L	20	10/5/2017 8:52:19 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	340	10	mg/L CaCO3	1	10/3/2017

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 GW Dep Drain 1

 Collection Date:
 9/20/2017 2:00:00 PM

 Lab Sample ID:
 170922003-013

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 6:50:00 PM
CONDUCTANCE AT 25C - SM 251				Analyst: CA	
Specific Conductance	1940	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	l 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	1770	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Leak Detection Syst. Collection Date: 9/20/2017 12:10:00 PM Lab Sample ID: 170922003-014 Matrix: GROUNDWATER

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	1.57	0.10	mg/L		9/20/2017 12:01:00 PM
Flow, GPD	57		gal/day		9/20/2017 12:01:00 PM
pH (E150.1)	7.5		S.U.		9/20/2017 12:01:00 PM
Temperature (E170.1)	16		deg C		9/20/2017 12:01:00 PM
Turbidity (E180.1)	65	1.0	NTU		9/20/2017 12:01:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/2	25/2017)				
Aluminum	ND	100	μg/L	1	10/4/2017 2:29:00 PM
Arsenic	6.82	5.00	μg/L	1	10/4/2017 2:29:00 PM
Boron	2720	50.0	μg/L	1	10/4/2017 2:29:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 2:29:00 PM
Calcium	482000	500	μg/L	10	10/4/2017 2:54:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 2:29:00 PM
Iron	144	50.0	μg/L	1	10/4/2017 2:29:00 PM
Magnesium	216000	500	μg/L	10	10/4/2017 2:54:00 PM
Manganese	56.8	20.0	μg/L	1	10/4/2017 2:29:00 PM
Potassium	10700	50.0	μg/L	1	10/4/2017 2:29:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 2:29:00 PM
Sodium	125000	500	μg/L	10	10/4/2017 2:54:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	2016	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/2	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:37:30 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 REV 2.1					Analyst: CS
Chloride	34.8	5.00	mg/L	5	10/5/2017 9:28:35 PM
Sulfate	1440	100	mg/L	50	10/5/2017 9:16:30 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	480	10	mg/L CaCO3	1	10/3/2017

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 10-Oct-17

 Client Sample ID:
 Leak Detection Syst.

 Collection Date:
 9/20/2017 12:10:00 PM

 Lab Sample ID:
 170922003-014

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 6:52:00 PM
CONDUCTANCE AT 25C - SM 251				Analyst: CA	
Specific Conductance	2730	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	2620	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Under Drain 1 Collection Date: 9/20/2017 1:25:00 PM Lab Sample ID: 170922003-015 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP /	ARE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	1.66	0.10	mg/L		9/20/2017 1:25:00 PM
Flow, GPD	6848		gal/day		9/20/2017 1:25:00 PM
pH (E150.1)	6.5		S.U.		9/20/2017 1:25:00 PM
Temperature (E170.1)	16		deg C		9/20/2017 1:25:00 PM
Turbidity (E180.1)	200	1.0	NTU		9/20/2017 1:25:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9	/25/2017)				
Aluminum	ND	100	μg/L	1	10/4/2017 2:59:00 PM
Arsenic	56.0	5.00	μg/L	1	10/4/2017 2:59:00 PM
Boron	3930	50.0	μg/L	1	10/4/2017 2:59:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 2:59:00 PM
Calcium	352000	500	μg/L	10	10/4/2017 3:05:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 2:59:00 PM
Iron	6640	50.0	μg/L	1	10/4/2017 2:59:00 PM
Magnesium	80500	50.0	μg/L	1	10/4/2017 2:59:00 PM
Manganese	815	20.0	μg/L	1	10/4/2017 2:59:00 PM
Potassium	16000	50.0	μg/L	1	10/4/2017 2:59:00 PM
Selenium	ND	5.00	μg/L	1	10/4/2017 2:59:00 PM
Sodium	40200	500	μg/L	10	10/4/2017 3:05:00 PM
OW LEVEL MERCURY - EPA 16: (Prep: Method - 9					Analyst: SM
Mercury	1.3	0.5	ng/L	1	10/3/2017
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	1211	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9)/26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:39:07 PM
ANIONS BY ION CHROMATOGRA	APHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	30.3	2.00	mg/L	2	10/5/2017 9:52:46 PM
Sulfate	521	40.0	mg/L	20	10/5/2017 9:40:40 PM
ALKALINITY TO PH 4.5 -SM 2320	Analyst: CC				

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 Under Drain 1

 Collection Date:
 9/20/2017 1:25:00 PM

 Lab Sample ID:
 170922003-015

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	570	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EPA				Analyst: PL	
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 6:54:00 PM
CONDUCTANCE AT 25C - SM 2510B-97,-11					Analyst: CA
Specific Conductance	1750	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM 2540C-97,-11					Analyst: CS
TDS (Residue, Filterable)	1490	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Under Drain 2 Collection Date: 9/20/2017 12:35:00 PM Lab Sample ID: 170922003-016 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	1.19	0.10	mg/L		9/20/2017 12:35:00 PM
Flow, GPD	4451		gal/day		9/20/2017 12:35:00 PM
pH (E150.1)	7.9		S.U.		9/20/2017 12:35:00 PM
Temperature (E170.1)	16		deg C		9/20/2017 12:35:00 PM
Turbidity (E180.1)	25	1.0	NTU		9/20/2017 12:35:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/2	25/2017)				
Aluminum	ND	100	μg/L	1	10/4/2017 3:10:00 PM
Arsenic	16.0	5.00	μg/L	1	10/4/2017 3:10:00 PM
Boron	41200	50.0	μg/L	1	10/4/2017 3:10:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 3:10:00 PM
Calcium	579000	500	μg/L	10	10/4/2017 3:14:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 3:10:00 PM
Iron	2430	50.0	μg/L	1	10/4/2017 3:10:00 PM
Magnesium	93900	50.0	μg/L	1	10/4/2017 3:10:00 PM
Manganese	1140	20.0	μg/L	1	10/4/2017 3:10:00 PM
Potassium	74500	500	μg/L	10	10/4/2017 3:14:00 PM
Selenium	14.0	5.00	μg/L	1	10/4/2017 3:10:00 PM
Sodium	227000	500	μg/L	10	10/4/2017 3:14:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	1833	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/2	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:40:44 PM
ANIONS BY ION CHROMATOGRAI	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	307	5.00	mg/L	5	10/5/2017 10:54:37 PM
Sulfate	1760	100	mg/L	50	10/5/2017 10:42:22 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	300	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EPA	Analyst: PL				

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 Under Drain 2

 Collection Date:
 9/20/2017 12:35:00 PM

 Lab Sample ID:
 170922003-016

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	1.4	0.1	mg/L	1	9/27/2017 6:56:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	3710	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	3410	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Under Drain 3 Collection Date: 9/20/2017 11:40:00 AM Lab Sample ID: 170922003-017 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	2.46	0.10	mg/L		9/20/2017 11:40:00 AM
Flow, GPD	216		gal/day		9/20/2017 11:40:00 AM
pH (E150.1)	7.9		S.U.		9/20/2017 11:40:00 AM
Temperature (E170.1)	16		deg C		9/20/2017 11:40:00 AM
Turbidity (E180.1)	25	1.0	NTU		9/20/2017 11:40:00 AM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 9/2	25/2017)				
Aluminum	ND	100	µg/L	1	10/4/2017 3:18:00 PM
Arsenic	5.18	5.00	μg/L	1	10/4/2017 3:18:00 PM
Boron	25500	50.0	μg/L	1	10/4/2017 3:18:00 PM
Cadmium	ND	5.00	μg/L	1	10/4/2017 3:18:00 PM
Calcium	804000	500	μg/L	10	10/4/2017 3:22:00 PM
Copper	ND	5.00	μg/L	1	10/4/2017 3:18:00 PM
Iron	ND	50.0	μg/L	1	10/4/2017 3:18:00 PM
Magnesium	115000	50.0	μg/L	1	10/4/2017 3:18:00 PM
Manganese	317	20.0	μg/L	1	10/4/2017 3:18:00 PM
Potassium	133000	500	μg/L	10	10/4/2017 3:22:00 PM
Selenium	11.8	5.00	μg/L	1	10/4/2017 3:18:00 PM
Sodium	337000	500	μg/L	10	10/4/2017 3:22:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	2478	5	mg/L CaCO3	1	10/4/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/2	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:42:22 PM
ANIONS BY ION CHROMATOGRAF	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	745	50.0	mg/L	50	10/5/2017 11:06:43 PM
Sulfate	1720	100	mg/L	50	10/5/2017 11:06:43 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	340	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EPA	Analyst: PL				

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 10-Oct-17

 Client Sample ID:
 Under Drain 3

 Collection Date:
 9/20/2017 11:40:00 AM

 Lab Sample ID:
 170922003-017

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 6:58:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	4870	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	4290	5	mg/L	1	9/22/2017

Date: 10-Oct-17

CLIENT:	Lockwood Hills LLC	Client Sample ID: 21" Inlet To Pond Inlet to Pond
Work Order:	170922003	Collection Date: 9/20/2017 4:00:00 PM
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID: 170922003-018
PO#:		Matrix: GROUNDWATER

Analyses	Result	PQL Que	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	Analyst: FLD				
Dissolved Oxygen (E360.1)	0.95	0.10	mg/L		9/20/2017 4:00:00 PM
Flow, GPD	14,838		gal/day		9/20/2017 4:00:00 PM
pH (E150.1)	8.3		S.U.		9/20/2017 4:00:00 PM
Temperature (E170.1)	14		deg C		9/20/2017 4:00:00 PM
Turbidity (E180.1)	75	1.0	NTU		9/20/2017 4:00:00 PM
ICP METALS - EPA 200.7					Analyst: WB
(Prep: SW3010A - 9/	25/2017)				
Aluminum	ND	100	μg/L	1	10/5/2017 12:27:00 PM
Arsenic	30.5	5.00	μg/L	1	10/5/2017 12:27:00 PM
Boron	20400	50.0	μg/L	1	10/5/2017 12:27:00 PM
Cadmium	ND	5.00	μg/L	1	10/5/2017 12:27:00 PM
Calcium	448000	500	μg/L	10	10/5/2017 1:28:00 PM
Copper	ND	5.00	μg/L	1	10/5/2017 12:27:00 PM
Iron	3540	50.0	μg/L	1	10/5/2017 12:27:00 PM
Magnesium	88300	50.0	μ g/L	1	10/5/2017 12:27:00 PM
Manganese	668	20.0	μg/L	1	10/5/2017 12:27:00 PM
Potassium	75700	50.0	μg/L	1	10/5/2017 12:27:00 PM
Selenium	22.1	5.00	μg/L	1	10/5/2017 12:27:00 PM
Sodium	173000	500	μg/L	10	10/5/2017 1:28:00 PM
LOW LEVEL MERCURY - EPA 163	1E				Analyst: SM
(Prep: Method - 9/	28/2017)				
Mercury	ND	0.5	ng/L	1	10/3/2017
HARDNESS - EPA 200.7 REV 4.4					Analyst: WB
Total Hardness (As CaCO3)	1481	5	mg/L CaCO3	1	10/5/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:47:13 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	144	5.00	mg/L	5	10/5/2017 11:42:59 PM
Sulfate	1280	100	mg/L	50	10/5/2017 11:30:53 PM
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11				Analyst: CC

Date: 10-Oct-17

CLIENT:	Lockwood Hills LLC	Client Sample ID: 21" Inlet To Pond Inlet to Pond
Work Order:	170922003	Collection Date: 9/20/2017 4:00:00 PM
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID: 170922003-018
PO#:		Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
ALKALINITY TO PH 4.5 -SM 23208	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	440	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.2	0.1	mg/L	1	9/27/2017 7:00:00 PM
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	2960	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	2660	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Keuka Upstream Collection Date: 9/21/2017 9:55:00 AM Lab Sample ID: 170922003-019 Matrix: GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE				Analyst: FLD
Dissolved Oxygen (E360.1)	4.44	0.10		mg/L		9/21/2017 9:55:00 AM
pH (E150.1)	7.0			S.U.		9/21/2017 9:55:00 AM
Temperature (E170.1)	19			deg C		9/21/2017 9:55:00 AM
Turbidity (E180.1)	< 1	1.0		NTU		9/21/2017 9:55:00 AM
CP METALS - EPA 200.7						Analyst: WB
(Prep: SW3010A - 9/	25/2017)					
Aluminum	ND	100		μg/L	1	10/5/2017 1:35:00 PM
Arsenic	5.13	5.00		μg/L	1	10/5/2017 1:35:00 PM
Boron	ND	50.0		μg/L	1	10/5/2017 1:35:00 PM
Cadmium	ND	5.00		μg/L	1	10/5/2017 1:35:00 PM
Calcium	42900	50.0		μg/L	1	10/5/2017 1:35:00 PM
Copper	ND	5.00		μg/L	1	10/5/2017 1:35:00 PM
Iron	69.7	50.0		μg/L	1	10/5/2017 1:35:00 PM
Magnesium	11800	50.0		μg/L	1	10/5/2017 1:35:00 PM
Manganese	ND	20.0		μg/L	1	10/5/2017 1:35:00 PM
Potassium	2790	50.0		μg/L	1	10/5/2017 1:35:00 PM
Selenium	ND	5.00		μg/L	1	10/5/2017 1:35:00 PM
Sodium	26300	50.0		μg/L	1	10/5/2017 1:35:00 PM
HARDNESS - EPA 200.7 REV 4.4						Analyst: WB
Total Hardness (As CaCO3)	156	5		mg/L CaCO3	1	10/5/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	26/2017)					Analyst: AVB
Mercury	ND	0.0002		mg/L	1	9/26/2017 2:48:51 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1				Analyst: CS
Chloride	44.5	2.00		mg/L	2	10/5/2017 11:55:04 PM
Sulfate	26.1	4.00		mg/L	2	10/5/2017 11:55:04 PM
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11					Analyst: CC
Alkalinity, Total (As CaCO3)	120	10	Н	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0					Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	9/27/2017 7:02:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

Client Sample ID:Keuka UpstreamCollection Date:9/21/2017 9:55:00 AMLab Sample ID:170922003-019Matrix:GROUNDWATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	395	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	205	5	mg/L	1	9/26/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Keuka Downstream Collection Date: 9/21/2017 9:30:00 AM Lab Sample ID: 170922003-020 Matrix: SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE				Analyst: FLD
Dissolved Oxygen (E360.1)	3.85	0.10		mg/L		9/21/2017 9:30:00 AM
pH (E150.1)	6.5			S.U.		9/21/2017 9:30:00 AM
Temperature (E170.1)	19			deg C		9/21/2017 9:30:00 AM
Turbidity (E180.1)	< 1	1.0		NTU		9/21/2017 9:30:00 AM
CP METALS - EPA 200.7						Analyst: WB
(Prep: SW3010A - 9/	25/2017)					
Aluminum	ND	100		μg/L	1	10/5/2017 1:41:00 PM
Arsenic	ND	5.00		μg/L	1	10/5/2017 1:41:00 PM
Boron	ND	50.0		μg/L	1	10/5/2017 1:41:00 PM
Cadmium	ND	5.00		μg/L	1	10/5/2017 1:41:00 PM
Calcium	43700	50.0		μg/L	1	10/5/2017 1:41:00 PM
Copper	ND	5.00		μg/L	1	10/5/2017 1:41:00 PM
Iron	64.3	50.0		μg/L	1	10/5/2017 1:41:00 PM
Magnesium	12000	50.0		μg/L	1	10/5/2017 1:41:00 PM
Manganese	ND	20.0		μg/L	1	10/5/2017 1:41:00 PM
Potassium	2830	50.0		μg/L	1	10/5/2017 1:41:00 PM
Selenium	ND	5.00		μg/L	1	10/5/2017 1:41:00 PM
Sodium	27300	50.0		μg/L	1	10/5/2017 1:41:00 PM
HARDNESS - EPA 200.7 REV 4.4						Analyst: WB
Total Hardness (As CaCO3)	159	5		mg/L CaCO3	1	10/5/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	26/2017)					Analyst: AVB
Mercury	ND	0.0002		mg/L	1	9/26/2017 2:50:30 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1				Analyst: CS
Chloride	44.7	2.00		mg/L	2	10/6/2017 12:56:55 AM
Sulfate	26.0	4.00		mg/L	2	10/6/2017 12:56:55 AM
ALKALINITY TO PH 4.5 -SM 2320B	9-97,-11					Analyst: CC
Alkalinity, Total (As CaCO3)	150	10	Н	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0					Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	9/27/2017 7:04:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 10-Oct-17

 Client Sample ID:
 Keuka Downstream

 Collection Date:
 9/21/2017 9:30:00 AM

 Lab Sample ID:
 170922003-020

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	0B-97,-11				Analyst: CA
Specific Conductance	403	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SN	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	220	5	mg/L	1	9/26/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Surface Water DUP Collection Date: 9/21/2017 9:55:00 AM Lab Sample ID: 170922003-021 Matrix: SURFACE WATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE				Analyst: FLD
Dissolved Oxygen (E360.1)	4.44	0.10		mg/L		9/21/2017 9:55:00 AM
pH (E150.1)	7.0			S.U.		9/21/2017 9:55:00 AM
Temperature (E170.1)	19			deg C		9/21/2017 9:55:00 AM
Turbidity (E180.1)	< 1	1.0		NTU		9/21/2017 9:55:00 AM
CP METALS - EPA 200.7	o=/oo/=					Analyst: WB
(Prep: SW3010A - 9/	25/2017)					
Aluminum	ND	100		μg/L	1	10/5/2017 1:48:00 PM
Arsenic	ND	5.00		μg/L	1	10/5/2017 1:48:00 PM
Boron	ND	50.0		μg/L	1	10/5/2017 1:48:00 PM
Cadmium	ND	5.00		μg/L	1	10/5/2017 1:48:00 PM
Calcium	42800	50.0		μg/L	1	10/5/2017 1:48:00 PM
Copper	ND	5.00		μg/L	1	10/5/2017 1:48:00 PM
Iron	67.9	50.0		μg/L	1	10/5/2017 1:48:00 PM
Magnesium	11900	50.0		μg/L	1	10/5/2017 1:48:00 PM
Manganese	ND	20.0		µg/L	1	10/5/2017 1:48:00 PM
Potassium	2740	50.0		μg/L	1	10/5/2017 1:48:00 PM
Selenium	ND	5.00		μg/L	1	10/5/2017 1:48:00 PM
Sodium	26500	50.0		μg/L	1	10/5/2017 1:48:00 PM
HARDNESS - EPA 200.7 REV 4.4						Analyst: WB
Total Hardness (As CaCO3)	156	5		mg/L CaCO3	1	10/5/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/	26/2017)					Analyst: AVB
Mercury	ND	0.0002		mg/L	1	9/26/2017 2:52:10 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	EV 2.1				Analyst: CS
Chloride	44.1	2.00		mg/L	2	10/6/2017 1:09:16 AM
Sulfate	25.4	4.00		mg/L	2	10/6/2017 1:09:16 AM
				iiig, L	-	
ALKALINITY TO PH 4.5 -SM 2320E)- <i>31</i> ,-11					Analyst: CC
Alkalinity, Total (As CaCO3)	110	10	н	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0					Analyst: PL	
Nitrogen, Ammonia (As N)	ND	0.1		mg/L	1	9/27/2017 7:06:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 Surface Water DUP

 Collection Date:
 9/21/2017 9:55:00 AM

 Lab Sample ID:
 170922003-021

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	398	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	210	5	mg/L	1	9/26/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Pond Grab Collection Date: 9/20/2017 2:35:00 PM Lab Sample ID: 170922003-022 Matrix: SURFACE WATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	1.04	0.10	mg/L		9/20/2017 2:35:00 PM
pH (E150.1)	8.3		S.U.		9/20/2017 2:35:00 PM
Temperature (E170.1)	26		deg C		9/20/2017 2:35:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		9/20/2017 2:35:00 PM
ICP METALS - EPA 200.7 (Prep: SW3010A - 9//	25/2017)				Analyst: WB
Aluminum	ND	100	ug/l	1	10/5/2017 1:57:00 PM
Arsenic	6.81	5.00	μg/L	1	10/5/2017 1:57:00 PM
Boron	17500	50.0	μg/L μg/L	1	10/5/2017 1:57:00 PM
Cadmium	ND	5.00	μg/L	1	10/5/2017 1:57:00 PM
Calcium	270000	500	μg/L	10	10/5/2017 2:03:00 PM
Copper	ND	5.00	μg/L	10	10/5/2017 1:57:00 PM
Iron	75.8	50.0	μg/L	1	10/5/2017 1:57:00 PM
Magnesium	82000	50.0	μg/L	1	10/5/2017 1:57:00 PM
Manganese	ND	20.0	μg/L	1	10/5/2017 1:57:00 PM
Potassium	70500	50.0	μg/L	1	10/5/2017 1:57:00 PM
Selenium	ND	5.00	μg/L	1	10/5/2017 1:57:00 PM
Sodium	140000	50.0	μg/L	1	10/5/2017 1:57:00 PM
Sodium	165000	500	μg/L	10	10/5/2017 2:03:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: WB
Total Hardness (As CaCO3)	1012	5	mg/L CaCO3	1	10/5/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/:	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:56:47 PM
ANIONS BY ION CHROMATOGRAI	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	156	5.00	mg/L	5	10/6/2017 1:33:27 AM
Sulfate	1090	100	mg/L	50	10/6/2017 1:21:22 AM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	110	10	mg/L CaCO3	1	10/3/2017
AMMONIA (NON-DISTILLED) - EPA	Analyst: PL				

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 Pond Grab

 Collection Date:
 9/20/2017 2:35:00 PM

 Lab Sample ID:
 170922003-022

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 7:08:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	2310	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	1 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	2020	5	mg/L	1	9/22/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: Field Blank Collection Date: 9/21/2017 9:55:00 AM Lab Sample ID: 170922003-023 Matrix: GROUNDWATER

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP AR	E NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	7.67	0.10	mg/L		9/21/2017 9:55:00 AM
pH (E150.1)	7.0		S.U.		9/21/2017 9:55:00 AM
Temperature (E170.1)	21		deg C		9/21/2017 9:55:00 AM
Turbidity (E180.1)	< 1	1.0	NTU		9/21/2017 9:55:00 AM
CP METALS - EPA 200.7					Analyst: WB
(Prep: SW3010A - 9/2	5/2017)				
Aluminum	ND	100	μg/L	1	10/5/2017 2:09:00 PM
Arsenic	ND	5.00	μg/L	1	10/5/2017 2:09:00 PM
Boron	ND	50.0	μg/L	1	10/5/2017 2:09:00 PM
Cadmium	ND	5.00	μg/L	1	10/5/2017 2:09:00 PM
Calcium	101	50.0	μg/L	1	10/5/2017 2:09:00 PM
Copper	ND	5.00	μg/L	1	10/5/2017 2:09:00 PM
Iron	ND	50.0	μg/L	1	10/5/2017 2:09:00 PM
Magnesium	ND	50.0	μg/L	1	10/5/2017 2:09:00 PM
Manganese	ND	20.0	μg/L	1	10/5/2017 2:09:00 PM
Potassium	ND	50.0	μg/L	1	10/5/2017 2:09:00 PM
Selenium	ND	5.00	μg/L	1	10/5/2017 2:09:00 PM
Sodium	287	50.0	μg/L	1	10/5/2017 2:09:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: WB
Total Hardness (As CaCO3)	ND	5	mg/L CaCO3	1	10/5/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/20	6/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:58:21 PM
ANIONS BY ION CHROMATOGRAP	HY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	10/6/2017 1:45:32 AM
Sulfate	ND	2.00 4.00	mg/L	2	10/6/2017 1:45:32 AM
Sunate	ND	4.00	IIIg/L	2	
ALKALINITY TO PH 4.5 -SM 2320B-	97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	1	1	H mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 7:15:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

Client Sample ID:Field BlankCollection Date:9/21/2017 9:55:00 AMLab Sample ID:170922003-023Matrix:GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	2	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	ND	5	mg/L	1	9/26/2017

CLIENT: Work Order:	Lockwood Hills LLC			Client Samp	U	
Reference:	170922003 Lockwood Ash Landfill	Quarterly			e ID: 17092	2017 1:35:00 PM 22003-024
PO#:		Quarterry		-	atrix: FIELI	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
-	ERCURY - EPA 1631E Prep: Method - 9/28/2017)				Analyst: SN

Date: 10-Oct-17

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: 8401 Collection Date: 9/21/2017 9:35:00 AM Lab Sample ID: 170922003-025 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.2		S.U.		9/21/2017 9:35:00 AM
Temperature (E170.1)	13		deg C		9/21/2017 9:35:00 AM
Turbidity (E180.1)	8	1.0	NTU		9/21/2017 9:35:00 AM
CP METALS - EPA 200.7					Analyst: WB
(Prep: SW3010A - 9/2	25/2017)				
Aluminum	ND	100	µg/L	1	10/5/2017 2:14:00 PM
Arsenic	5.34	5.00	μg/L	1	10/5/2017 2:14:00 PM
Boron	820	50.0	μg/L	1	10/5/2017 2:14:00 PM
Cadmium	ND	5.00	μg/L	1	10/5/2017 2:14:00 PM
Calcium	92900	50.0	μg/L	1	10/5/2017 2:14:00 PM
Copper	ND	5.00	μg/L	1	10/5/2017 2:14:00 PM
Iron	251	50.0	μg/L	1	10/5/2017 2:14:00 PM
Magnesium	23900	50.0	μg/L	1	10/5/2017 2:14:00 PM
Manganese	70.3	20.0	μg/L	1	10/5/2017 2:14:00 PM
Potassium	2300	50.0	μg/L	1	10/5/2017 2:14:00 PM
Selenium	ND	5.00	μg/L	1	10/5/2017 2:14:00 PM
Sodium	70100	500	μg/L	10	10/5/2017 2:19:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: WB
Total Hardness (As CaCO3)	330	5	mg/L CaCO3	1	10/5/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/2	26/2017)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	9/26/2017 2:59:56 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	47.7	2.00	mg/L	2	10/6/2017 1:57:37 AM
Sulfate	86.9	4.00	mg/L	2	10/6/2017 1:57:37 AM
		4.00	iiig/E	2	
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	350	10 H	mg/L CaCO3	1	10/6/2017
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.6	0.1	mg/L	1	9/27/2017 7:17:00 PM

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 8401

 Collection Date:
 9/21/2017 9:35:00 AM

 Lab Sample ID:
 170922003-025

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	883	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	520	5	mg/L	1	9/26/2017

CLIENT:	Lockwood Hills LLC
Work Order:	170922003
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 10-Oct-17

Client Sample ID: GW Dep Drain 3 Collection Date: 9/20/2017 11:10:00 AM Lab Sample ID: 170922003-026 Matrix: GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP AF	RE NOT ELAP CE	RTIFIABLE				Analyst: FLD
Dissolved Oxygen (E360.1)	4.83	0.10		mg/L		9/20/2017 11:10:00 AM
Flow, GPD	105			gal/day		9/20/2017 11:10:00 AM
pH (E150.1)	7.6			S.U.		9/20/2017 11:10:00 AM
Temperature (E170.1)	19			deg C		9/20/2017 11:10:00 AM
Turbidity (E180.1)	20	1.0		NTU		9/20/2017 11:10:00 AM
ICP METALS - EPA 200.7 (Prep: SW3010A - 9/2	5/2017)					Analyst: KH
	-					
Aluminum	ND	100		µg/L	1	10/6/2017 12:49:00 PM
Arsenic	5.63	5.00		µg/L	1	10/6/2017 12:49:00 PM
Boron	236	50.0		μg/L	1	10/6/2017 12:49:00 PM
Cadmium	ND	5.00		µg/L	1	10/6/2017 12:49:00 PM
Calcium	276000	500		µg/L	10	10/6/2017 12:54:00 PM
Copper	ND	5.00		µg/L	1	10/6/2017 12:49:00 PM
Iron	ND	50.0		µg/L	1	10/6/2017 12:49:00 PM
Magnesium	51300	50.0		μg/L	1	10/6/2017 12:49:00 PM
Manganese	ND	20.0		μg/L	1	10/6/2017 12:49:00 PM
Potassium	3620	50.0		μg/L	1	10/6/2017 12:49:00 PM
Selenium	ND	5.00	Ν	μg/L	1	10/6/2017 12:49:00 PM
Sodium	25900	50.0		μg/L	1	10/6/2017 12:49:00 PM
HARDNESS - EPA 200.7 REV 4.4						Analyst: KH
Total Hardness (As CaCO3)	900	5		mg/L CaCO3	1	10/6/2017
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 9/2	6/2017)					Analyst: AVB
Mercury	ND	0.0002		mg/L	1	9/26/2017 3:01:30 PM
ANIONS BY ION CHROMATOGRAP	HY - EPA 300.0 F	REV 2.1				Analyst: CS
Chloride	8.88	5.00		mg/L	5	10/6/2017 2:21:48 AM
Sulfate	420	100		mg/L	50	10/6/2017 2:09:43 AM
ALKALINITY TO PH 4.5 -SM 2320B-	97,-11					Analyst: CC
Alkalinity, Total (As CaCO3)	430	10		mg/L CaCO3	1	10/3/2017

CLIENT:Lockwood Hills LLCWork Order:170922003Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 10-Oct-17

 Client Sample ID:
 GW Dep Drain 3

 Collection Date:
 9/20/2017 11:10:00 AM

 Lab Sample ID:
 170922003-026

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	9/27/2017 7:19:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1320	1	µmhos/cm	1	9/27/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	1080	5	mg/L	1	9/22/2017

Adirondac	k Environmental So	ervices, I	nc Date:	10-Oct	t-17
CLIENT:	Lockwood Hills LLC		Client Sample ID:	GW D	ep Drain 2
Work Order:	170922003		Collection Date:	9/20/2	017
Reference:	Lockwood Ash Landfill /	Quarterly	Lab Sample ID:	2003-027	
PO#:			Matrix:	GROU	INDWATER
Analyses		Result	PQL Qual Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NOT	ELAP CERT	IFIABLE		Analyst: FLD
Observation		Dry	ΝΑ		9/20/2017

Aunonuaci	k Elivii olimentai Sei vices, i		10 000	-,
CLIENT:	Lockwood Hills LLC	Client Sample ID:	GW D	ep Drain 4
Work Order:	170922003	Collection Date:	9/20/20	017
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID:	170922	2003-028
PO#:		Matrix:	GROU	NDWATER
Analyses	Result	PQL Qual Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NOT ELAP CER	TIFIABLE		Analyst: FLD
Observation	Dry	NA		9/20/2017

Date: 10-Oct-17

Adirondac	k Environmental S	ervices, I	nc Dat	e:	10-Oct	-17
CLIENT:	Lockwood Hills LLC		Client Sample I			
Work Order: Reference:	170922003 Lockwood Ash Landfill /	922003 Collection 1 kwood Ash Landfill / Quarterly Lab Sample				
PO#:			Matri	x:	GROU	NDWATER
Analyses		Result	PQL Qual Units		DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NOT	ELAP CERT	IFIABLE			Analyst: FLD
Observation		Dry	NA			9/20/2017

Adirondac	k Environmental Service	s, Inc Date:	10-Oct-17		
CLIENT:	Lockwood Hills LLC	Client Sample ID:	: 8910-SH		
Work Order:	170922003	Collection Date:	: 9/20/2017		
Reference:	Lockwood Ash Landfill / Quarter	tly Lab Sample ID:	170922003-030		
PO#:		Matrix	: GROUNDWATER		
Analyses	Result	PQL Qual Units	DF Date Analyzed		
FIELD-PH, RES	CL2, AND TEMP ARE NOT ELAP C	ERTIFIABLE	Analyst: FLD		
Observation	Poor Recovery	NA	9/20/2017		

Aunonuaci	K Elivii olimentai Sei vices, I						
CLIENT:	Lockwood Hills LLC	Client Sample ID:	8405				
Work Order:	170922003	Collection Date:	9/20/2	017			
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID:	17092	2003-031			
PO#:		Matrix:	GROU	JNDWATER			
Analyses	Result	PQL Qual Units	DF	Date Analyzed			
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analyst: FLD							
Observation	Dry	NA		9/20/2017			

Date: 10-Oct-17



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170922003

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AES Work Order#:

170922003

EXPERIENCE IS THE SOLUTION

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Client Na		Address:									
Lockw	ood Hills LLC										
Send Rep	ort to:	Project Nam	ne (Location	n):				Samplers	Name:		
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Client Ph	one No:	Lockwo	od Ash	Lŀ	Quarte	rly	_		Bust		
		PO #:						Samplers	Signature:	> _	
Client Fax	x No:			1				/	Darl B	us	
AES Sample	Client Sample ID:	Date	Time A=an		Sampl	е Тур		# of		Analysis	
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502	8404	9/21/17	11:15	Ø P	GW		G	4	Field pE	I, Temp, Turbidity	7
003	8908-D	9/21/17	12:00	A D	GW		G	4			
004	8908-SH	9/2/107	1:00	A D	GW		G	4			
005	8909-D	9/20/17	2:50	A P	GW		G	4			
006	8909-SH	9/20/17	2135	A D	GW		G	4			
007	8910-D	9/20/17	3:45	A O	GW		G	4			
008	8911-D	9/21/17	10:45	8 P	GW		G	4			
051	8911-SH	9/21/17	10:25) P	GW		G	4			
210	8942-D	9/20/07	5.30	A D	GW		G	4			
011	9306-SH	9/21/17	10:30	Ð	GW		G	4			
012	GW Dup <u> </u>	9/20/17	2;54	Ð	GW		G	4			
Shipmen	t Arrived Via:			Spe	ecial Instru	ctions	/Rem	arks:			
FedEx	UPS Client AES 9th	er:		Pa	ge 1 of 3						
Turnaro	ound Time Requested:										
1 Day	3 Day Normal										
2 -Da											
	hed by: (Signature)	Received	by: (Signa	iture)					Date	Time	
Pau	& But								9/22/7	7:30	
	hed by: (Signature)	Received	l by: (Signa	ture)			-		Date	Time	
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	Sample Temperature		F	rope	rly Preserv	ed			Received	Within Holding Times	
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										Demo	



Sample Temperature Ambient Chilled Chilling Process begun

Notes:

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AES Work Order#:

122/12

Notes:

9:3014

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Received Within Holding Times

170922003

EXPERIENCE IS THE SOLUTION

	A full service analytic	al researc	h labor	ator	y offeri	ng s	solut	tions to	environn	nental concerns
Client Na	me:	Address:		÷						
Lockw	ood Hills LLC									
Send Rep		Project Nam	e (Location	n):				Samplers]	Name:	· · · · · · · · · · · · · · · · · · ·
Dale In		Lockwo	od Ash	IF	Quarte	rlv		P	aul Bui	st
Client Pho	one No:	PO #:		1/1	Quarte					
Client Fax	No:	PO #:						Samplers	Signature: AM B	and
AES		Date	Time			. T		# of		
Sample ID	Client Sample ID:	Sampled	A=am P=pm		Sampl <u>Matrix</u>	C	G	Cont's		Analysis
013	GW Dep Drain 1	9/20/17	2:00	A D	GW		G	4	1	vood Q Field pH, Temp, Field Flow Reading, DO
014	Leak Detection Syst.	9/20/17	12:10	A	GW		G	4		"
015	Under Drain 1	9/20/17	1:25	A D	GW		G	5		"
016	Under Drain 2	9/20/17	A:35	A D	GW		G	4		"
017	Under Drain 3	9/20/17	11:40	Ø P	GW		G	4		"
048	21" Inlet to Pond	9/20/17	4:00	A P	GW		G	5		<u> </u>
019	Keuka Upstream	9/21/17	9:55	Ø P	GW		G	4		wood Quarterly +DO
620	Keuka Downstream	9/2/17	9:30	Ø P	SF		G	4		wood Quarterly +DO
nal	Surface Water Dup	9/21/17	9:55		SF		G	4		wood Quarterly +DO
002	Pond Grab	9/20/17	a:35	A	SF		G	4		kwood Quarterly +DO
093	Field Blank	9/a/17	9:55	Ø	GW		G	4	Loc	kwood Quarterly +DO
024	LLHg Field Blank	9/2017	1:35	Ð	GW		G	1		EPA 1631
Shipmen	t Arrived Via:			Sp	ecial Instru	ctions	/Rem	arks:		
FedEx	UPS Client AES Oth	er:		Pa	ge 2 of 3					
Turnar	ound Time Requested:									
1 Day	+									
2 -Da	y 5 Day hed by: (Signature)	Pagainad	by: (Signa						Date	Time
1 71	M Bunt	Received	i oy. (Signa	11115)					9/22/19	9,30
	hed by: (Signature)	Received	by: (Signa	ture)					Date	Time
Relinquis	hed by: (Signature)	Received	l for Labo	rator	y by:				Date	Time

Properly Preserved

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Notes:

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AES Work Order#:

170922003

EXPERIENCE IS THE SOLUTION

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Client Nat	me:	Address:									
Lockw	rood Hills LLC										
Send Repo	ort to:	Project Name (Location):					Samplers	Samplers Name:			
Dale In			1 - 1	τD				1 Buist	r		
Client Pho	one No:	Lockwo	od Ash		Quarter	пу					
		PO #:					Samplers	Signature:	Bat		
Client Fax AES	x No:		Time]			# of	- cun	1 JUNA		
Sample	Client Sample ID:	Date Sampled	A=am	1		e Type	Contro		Analysis		
1D	-	Sumpred	P=pm		<u>Matrix</u>	<u>C</u> <u>G</u>		T col-	wood Ash LF Quarterly		
	8401	9/21/17	9135	Ð	GW		4				
OQS		-							d pH, Temp, Turbidity		
D26	GW Dep Drain 3	9/20/17	11:10	P	GW		4	+ F1	eld Flow Reading, DO		
527	GW Dep Drain 2	9/20/17		A P	GW		0		Observation Only		
201	GW Dep Drain 4	9/20/17		A	GW		0		Observation Only		
029	Under Drain 5	9/20/17		A P	GW		0		Observation Only		
030	8910-SH	9/20/17		A P	GW		0		Observation Only		
031	8405	9/20/17		A	GW		0		Observation Only		
<u>F-51</u>											
				P A							
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				A				-			
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Shinmen	nt Arrived Via:	and the second states states			ecial Instru	ictions/Re	marks:				
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FEUEX				L Pa	ige 3 of 3	>					
Turnar	ound Time Requested:										
1 Day											
2 -Da		Province	d by (Cim	atura				Date	Time		
	shed by: (Signature)	Keceived	d by: (Signa	ature)				9/22/17			
	and Bunt	- P	d by: (Sign					Date	Time		
Relinqui	shed by: (Signature)	Received	u by: (Sign	ature)				Date			
Relinqui	shed by: (Signature)	Receive	d for Labo	rator	y by:			Date	Time		
		0		v		and marked and		9120	2/12 9:30 Am		
	Sample Temperature	- J	· · / /	Prope	erly Preser	rved			eceived Within Holding Times		
	Ambient Chilled Chilling Process begun	T		Ċ	N (Y				Y N		
	110	Note	e.	"Nonego				Notes:	- -		
No	otes:	- INOLE	s:								
-											



314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services**, Inc. are undertaken and all rates are based upon the following terms:

- (a) Neither Adirondack Environmental Services, Inc., nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of Adirondack Environmental Services, Inc.'s performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against Adirondack Environmental Services, Inc. arising out of its work.
- (b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.
- (c) Adirondack Environmental Services, Inc. reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an Adirondack Environmental Services, Inc. report by other than our customer does not constitute a representation of Adirondack Environmental Services, Inc. as to the accuracy of the contents thereof.
- (d) In no event shall Adirondack Environmental Services, Inc., its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.
- (e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**
- (f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.
- (g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

FOURTH QUARTER



Experience is the solution 314 North Pearl Street • Albany, New York 12207 (800) 848-4983 • (518) 434-4546 • Fax (518) 434-0891

January 23, 2018

Dale Irwin Lockwood Hills LLC 590 Plant Road, PO Box 187 Dresden, NY 14441

Work Order No: 171229039

TEL: (315) 536-2359

RE: Lockwood Ash Landfill Quarterly

Dear Dale Irwin:

Adirondack Environmental Services, Inc received 31 samples on 12/29/2017 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Jana Doniel

ELAP#: 10709

Tara Daniels Laboratory Director

CASE NARRATIVE

CLIENT:	Lockwood Hills LLC	Date: 23-Jan-18
Project:	Lockwood Ash Landfill	
Lab Order:	171229039	

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

Oualifiers: ND - Not Detected at reporting limit

- J Analyte detected below quantitation limit
- B Analyte detected in Blank
- X Exceeds maximum contamination limit
- H Hold time exceeded
- N Matrix Spike below acceptable limits
- N+ Matrix Spike is above acceptable limits

- C Details are above in Case Narrative
- S LCS Spike recovery is below acceptable limits
- S+ LCS Spike recovery is above acceptable limits
- Z Duplication outside acceptable limits
- T Tentatively Identified Compound-Estimated
- E -Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondac	k Environmental S	ervices, I	nc Date:	1-18	
CLIENT: Work Order:	Lockwood Hills LLC 171229039		Client Sample ID: Collection Date:		
Reference:	Lockwood Ash Landfill	/ Quarterly	Lab Sample ID:		9039-001
PO#:			Matrix:	GROU	JNDWATER
Analyses		Result	PQL Qual Units	DF	Date Analyzed
FIELD-PH, RES	Analyst: FLD				
Observation		Dry	NA		

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

 Client Sample ID:
 8404

 Collection Date:
 12/27/2017 2:33:00 PM

 Lab Sample ID:
 171229039-002

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	6.8		S.U.		12/27/2017 2:33:00 PM
Temperature (E170.1)	6		deg C		12/27/2017 2:33:00 PM
Turbidity (E180.1)	68.4	1.0	NTU		12/27/2017 2:33:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/	2/2018)				
Aluminum	ND	100	μg/L	1	1/8/2018 2:10:00 PM
Arsenic	ND	5.00	μg/L	1	1/8/2018 2:10:00 PM
Boron	186	50.0	μg/L	1	1/8/2018 2:10:00 PM
Cadmium	ND	5.00	μg/L	1	1/8/2018 2:10:00 PM
Calcium	120000	50.0	μg/L	1	1/8/2018 2:10:00 PM
Copper	6.99	5.00	μg/L	1	1/8/2018 2:10:00 PM
Iron	63.8	50.0	μg/L	1	1/8/2018 2:10:00 PM
Magnesium	24900	50.0	μg/L	1	1/8/2018 2:10:00 PM
Manganese	ND	20.0	μg/L	1	1/8/2018 2:10:00 PM
Potassium	1790	50.0	μg/L	1	1/8/2018 2:10:00 PM
Selenium	ND	5.00	μg/L	1	1/8/2018 2:10:00 PM
Sodium	14400	50.0	µg/L	1	1/8/2018 2:10:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	403	5	mg/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 12:37:43 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	1/4/2018 4:48:59 PM
Sulfate	96.2	4.00	mg/L	2	1/4/2018 4:48:59 PM
				-	
ALKALINITY TO PH 4.5 -SM 2320E	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	310	10	mg/L CaCO3	1	1/3/2018
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/4/2018 1:47:00 PM

Adirondack	Environmental	Services,	Inc
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CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 8404

 Collection Date:
 12/27/2017 2:33:00 PM

 Lab Sample ID:
 171229039-002

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	735	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SN				Analyst: CS	
TDS (Residue, Filterable)	380	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: 8908-D Collection Date: 12/27/2017 11:20:00 AM Lab Sample ID: 171229039-003 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.4		S.U.		12/27/2017 11:20:00 AM
Temperature (E170.1)	7		deg C		12/27/2017 11:20:00 AM
Turbidity (E180.1)	3	1.0	NTU		12/27/2017 11:20:00 AM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1	(2/2018)				
Aluminum	ND	100	μg/L	1	1/8/2018 2:38:00 PM
Arsenic	ND	5.00	μg/L	1	1/8/2018 2:38:00 PM
Boron	228	50.0	μg/L	1	1/8/2018 2:38:00 PM
Cadmium	ND	5.00	μg/L	1	1/8/2018 2:38:00 PM
Calcium	152000	50.0	μg/L	1	1/8/2018 2:38:00 PM
Copper	ND	5.00	μg/L	1	1/8/2018 2:38:00 PM
Iron	1010	50.0	μg/L	1	1/8/2018 2:38:00 PM
Magnesium	67000	50.0	μg/L	1	1/8/2018 2:38:00 PM
Manganese	121	20.0	μg/L	1	1/8/2018 2:38:00 PM
Potassium	3070	50.0	μg/L	1	1/8/2018 2:38:00 PM
Selenium	ND	5.00	μg/L	1	1/8/2018 2:38:00 PM
Sodium	33300	50.0	μg/L	1	1/8/2018 2:38:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	654	5	mg/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/	/2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 12:39:24 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	14.1	5.00	mg/L	5	1/4/2018 5:06:05 PM
Sulfate	260	10.0	mg/L	5	1/4/2018 5:06:05 PM
ALKALINITY TO PH 4.5 -SM 23208	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	340	10	mg/L CaCO3	1	1/3/2018
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.5	0.1	mg/L	1	1/4/2018 1:49:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 8908-D

 Collection Date:
 12/27/2017 11:20:00 AM

 Lab Sample ID:
 171229039-003

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed	
CONDUCTANCE AT 25C - SM 2510B-97,-11					Analyst: CA	
Specific Conductance	1230	1	µmhos/cm	1	1/12/2017	
TOTAL DISSOLVED SOLIDS - SM	A 2540C-97,-11				Analyst: CS	
TDS (Residue, Filterable)	825	5	mg/L	1	12/29/2017	

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: 8908-SH Collection Date: 12/27/2017 12:15:00 PM Lab Sample ID: 171229039-004 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	7.4		S.U.		12/27/2017 12:15:00 PM
Temperature (E170.1)	9		deg C		12/27/2017 12:15:00 PM
Turbidity (E180.1)	47	1.0	NTU		12/27/2017 12:15:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/	(2/2018)				
Aluminum	ND	100	μg/L	1	1/8/2018 2:43:00 PM
Arsenic	ND	5.00	μg/L	1	1/8/2018 2:43:00 PM
Boron	154	50.0	μg/L	1	1/8/2018 2:43:00 PM
Cadmium	ND	5.00	μg/L	1	1/8/2018 2:43:00 PM
Calcium	173000	50.0	μg/L	1	1/8/2018 2:43:00 PM
Copper	ND	5.00	μg/L	1	1/8/2018 2:43:00 PM
Iron	264	50.0	μg/L	1	1/8/2018 2:43:00 PM
Magnesium	64800	50.0	μg/L	1	1/8/2018 2:43:00 PM
Manganese	82.3	20.0	μg/L	1	1/8/2018 2:43:00 PM
Potassium	2760	50.0	μg/L	1	1/8/2018 2:43:00 PM
Selenium	ND	5.00	μg/L	1	1/8/2018 2:43:00 PM
Sodium	28900	50.0	µg/L	1	1/8/2018 2:43:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	699	5	mg/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/	(2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 12:40:57 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	12.3	5.00	mg/L	5	1/4/2018 5:23:10 PM
Sulfate	243	10.0	mg/L	5	1/4/2018 5:23:10 PM
ALKALINITY TO PH 4.5 -SM 23208	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	390	10	mg/L CaCO3	1	1/3/2018
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/4/2018 1:51:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 8908-SH

 Collection Date:
 12/27/2017 12:15:00 PM

 Lab Sample ID:
 171229039-004

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed	
CONDUCTANCE AT 25C - SM 2510B-97,-11					Analyst: CA	
Specific Conductance	1220	1	µmhos/cm	1	1/12/2017	
TOTAL DISSOLVED SOLIDS - SM	A 2540C-97,-11				Analyst: CS	
TDS (Residue, Filterable)	740	5	mg/L	1	12/29/2017	

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

 Client Sample ID:
 8909-D

 Collection Date:
 12/27/2017 1:12:00 PM

 Lab Sample ID:
 171229039-005

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	9.0		S.U.		12/27/2017 1:12:00 PM
Temperature (E170.1)	8		deg C		12/27/2017 1:12:00 PM
Turbidity (E180.1)	> 999	1.0	NTU		12/27/2017 1:12:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/	2/2018)				
Aluminum	506	100	μg/L	1	1/8/2018 2:49:00 PM
Arsenic	ND	5.00	μg/L	1	1/8/2018 2:49:00 PM
Boron	723	50.0	μg/L	1	1/8/2018 2:49:00 PM
Cadmium	ND	5.00	μg/L	1	1/8/2018 2:49:00 PM
Calcium	19900	50.0	μg/L	1	1/8/2018 2:49:00 PM
Copper	ND	5.00	μg/L	1	1/8/2018 2:49:00 PM
Iron	2200	50.0	μg/L	1	1/8/2018 2:49:00 PM
Magnesium	4730	50.0	μg/L	1	1/8/2018 2:49:00 PM
Manganese	114	20.0	μg/L	1	1/8/2018 2:49:00 PM
Potassium	1520	50.0	μg/L	1	1/8/2018 2:49:00 PM
Selenium	ND	5.00	μg/L	1	1/8/2018 2:49:00 PM
Sodium	180000	50000	μg/L	10	1/8/2018 3:55:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	69	5	mg/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0	0/0010 \				Analyst: AVB
(Prep: E245.1 - 1/	-				
Mercury	ND	0.0002	mg/L	1	1/2/2018 12:58:10 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	4.27	2.00	mg/L	2	1/4/2018 5:40:15 PM
Sulfate	63.8	4.00	mg/L	2	1/4/2018 5:40:15 PM
ALKALINITY TO PH 4.5 -SM 2320B	8-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	320	10	mg/L CaCO3	1	1/3/2018
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.6	0.1	mg/L	1	1/4/2018 1:53:00 PM

Adirondack	Environmental	Services,	Inc
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CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 8909-D

 Collection Date:
 12/27/2017 1:12:00 PM

 Lab Sample ID:
 171229039-005

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed	
CONDUCTANCE AT 25C - SM 2510B-97,-11					Analyst: CA	
Specific Conductance	757	1	µmhos/cm	1	1/12/2017	
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS	
TDS (Residue, Filterable)	535	5	mg/L	1	12/29/2017	

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

 Client Sample ID:
 8909-SH

 Collection Date:
 12/27/2017 1:55:00 PM

 Lab Sample ID:
 171229039-006

 Matrix:
 GROUNDWATER

LAP CE 7.8 15 < 1) ND 7.73 231 ND 3800 ND 7800 ND 2130	RTIFIABLE 1.0 100 5.00 50.0 50.0 50.0 50.0 50.0 5	S.U. deg C NTU µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L	1 1 1 1 1 1 1	Analyst: FLD 12/27/2017 1:55:00 PM 12/27/2017 1:55:00 PM 12/27/2017 1:55:00 PM Analyst: KH 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
15 < 1) ND 7.73 231 ND 3800 ND ND 7800 ND	100 5.00 50.0 5.00 50.0 50.0 50.0 50.0	deg C NTU µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L	1 1 1 1	12/27/2017 1:55:00 PM 12/27/2017 1:55:00 PM Analyst: KH 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
< 1) ND 7.73 231 ND 3800 ND ND 7800 ND	100 5.00 50.0 5.00 50.0 50.0 50.0 50.0	ΝΤU μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L	1 1 1 1	12/27/2017 1:55:00 PM Analyst: KH 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
) ND 7.73 231 ND 3800 ND ND 7800 ND	100 5.00 50.0 5.00 50.0 50.0 50.0 50.0	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L	1 1 1 1	Analyst: KH 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
ND 7.73 231 ND 3800 ND ND 7800 ND	5.00 50.0 5.00 50.0 5.00 50.0 50.0	μg/L μg/L μg/L μg/L μg/L μg/L	1 1 1 1	1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
ND 7.73 231 ND 3800 ND ND 7800 ND	5.00 50.0 5.00 50.0 5.00 50.0 50.0	μg/L μg/L μg/L μg/L μg/L μg/L	1 1 1 1	1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
7.73 231 ND 3800 ND ND 7800 ND	5.00 50.0 5.00 50.0 5.00 50.0 50.0	μg/L μg/L μg/L μg/L μg/L μg/L	1 1 1 1	1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
231 ND 3800 ND ND 7800 ND	50.0 5.00 50.0 5.00 50.0 50.0	μg/L μg/L μg/L μg/L μg/L μg/L	1 1 1 1	1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
ND 3800 ND ND 7800 ND	5.00 50.0 5.00 50.0 50.0	μg/L μg/L μg/L μg/L μg/L	1 1 1	1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
3800 ND ND 7800 ND	50.0 5.00 50.0 50.0	μg/L μg/L μg/L μg/L	1 1	1/8/2018 2:55:00 PM 1/8/2018 2:55:00 PM
ND ND 7800 ND	5.00 50.0 50.0	μg/L μg/L μg/L	1	1/8/2018 2:55:00 PM
ND 7800 ND	50.0 50.0	μg/L μg/L		
7800 ND	50.0	μg/L	1	1/8/2018 2:55:00 PM
ND				1,0,2010 2.00.001 10
	20.0		1	1/8/2018 2:55:00 PM
2130		μg/L	1	1/8/2018 2:55:00 PM
	50.0	µg/L	1	1/8/2018 2:55:00 PM
ND	5.00	μg/L	1	1/8/2018 2:55:00 PM
3600	50000	μg/L	10	1/8/2018 4:03:00 PM
				Analyst: KH
145	5	mg/L CaCO3	1	1/8/2018
)				Analyst: AVB
ND	0.0002	mg/L	1	1/2/2018 12:59:44 PM
300.0 R	EV 2.1			Analyst: CS
ND	2.00	ma/L	2	1/4/2018 5:57:21 PM
		•	2	1/4/2018 5:57:21 PM
		Ū		Analyst: CC
160	10	mg/L CaCO3	1	1/3/2018
				Analyst: PL
	0.1	ma/l	1	1/4/2018 1:55:00 PM
	ND	ND 0.0002 300.0 REV 2.1 ND 2.00 117 4.00 160 10 EV 2.0 10	ND 0.0002 mg/L 300.0 REV 2.1 mg/L ND 2.00 mg/L 117 4.00 mg/L 160 10 mg/L CaCO3 2V 2.0	ND 0.0002 mg/L 1 300.0 REV 2.1

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 8909-SH

 Collection Date:
 12/27/2017 1:55:00 PM

 Lab Sample ID:
 171229039-006

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	I0B-97,-11				Analyst: CA
Specific Conductance	564	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SN	l 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	320	5	mg/L	1	12/29/2017

Date: 23-Jan-18

CLIENT:	Lockwood Hills LLC	Client Sample ID:	8910-D
Work Order:	171229039	Collection Date:	12/27/2017 2:40:00 PM
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID:	171229039-007
PO#:		Matrix:	GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE	NOT ELAP CE	RTIFIABLE	6.5		Analyst: FLD
pH (E150.1)	7.9		S.U.		12/27/2017 2:40:00 PM
Temperature (E170.1) Turbidity (E180.1)	10 < 1	1.0	deg C NTU		12/27/2017 2:40:00 PM 12/27/2017 2:40:00 PM
	< 1	1.0	NIO		
ICP METALS - EPA 200.7 (Prep: SW3010A - 1/2/2	018)				Analyst: KH
		100			1/0/0010 0.01.00 DM
Aluminum	ND	100	μg/L	1	1/8/2018 3:01:00 PM
Arsenic	ND	5.00	μg/L	1	1/8/2018 3:01:00 PM
Boron	2840	50.0	μg/L	1	1/8/2018 3:01:00 PM
Cadmium	ND	5.00	μg/L	1	1/8/2018 3:01:00 PM
Calcium	82100	50.0	µg/L	1	1/8/2018 3:01:00 PM
Copper	ND	5.00	μg/L	1	1/8/2018 3:01:00 PM
Iron	ND	50.0	μg/L	1	1/8/2018 3:01:00 PM
Magnesium	27500	50.0	μg/L	1	1/8/2018 3:01:00 PM
Manganese	44.4	20.0	μg/L	1	1/8/2018 3:01:00 PM
Potassium	3410	50.0	μg/L	1	1/8/2018 3:01:00 PM
Selenium	ND	5.00	µg/L	1	1/8/2018 3:01:00 PM
Sodium	109000	500	μg/L	10	1/8/2018 4:10:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
	219				
Total Hardness (As CaCO3)	39	5	mg/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/2/2	BAMA 018)	2/27/18			Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 1:01:18 PM
ANIONS BY ION CHROMATOGRAPH	Y - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	25.4	5.00	mg/L	5	1/4/2018 7:06:24 PM
Sulfate	343	10.0	mg/L	5	1/4/2018 7:06:24 PM
ALKALINITY TO PH 4.5 -SM 2320B-97	',-11				Analyst: CC
Alkalinity, Total (As CaCO3)	130	10	mg/L CaCO3	1	1/4/2018
AMMONIA (NON-DISTILLED) - EPA 35	50.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.3	0.1	mg/L	1	1/4/2018 1:57:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 23-Jan-18

 Client Sample ID:
 8910-D

 Collection Date:
 12/27/2017 2:40:00 PM

 Lab Sample ID:
 171229039-007

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1060	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM	/ 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	675	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

 Client Sample ID:
 8911-D

 Collection Date:
 12/27/2017 3:25:00 PM

 Lab Sample ID:
 171229039-008

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	8.2		S.U.		12/27/2017 3:25:00 PM
Temperature (E170.1)	6		deg C		12/27/2017 3:25:00 PM
Turbidity (E180.1)	28	1.0	NTU		12/27/2017 3:25:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/2	2/2018)				
Aluminum	ND	100	μg/L	1	1/8/2018 4:17:00 PM
Arsenic	ND	5.00	μg/L	1	1/8/2018 4:17:00 PM
Boron	1410	50.0	μg/L	1	1/8/2018 4:17:00 PM
Cadmium	ND	5.00	μg/L	1	1/8/2018 4:17:00 PM
Calcium	64800	50.0	μg/L	1	1/8/2018 4:17:00 PM
Copper	ND	5.00	μg/L	1	1/8/2018 4:17:00 PM
Iron	467	50.0	μg/L	1	1/8/2018 4:17:00 PM
Magnesium	22800	50.0	μg/L	1	1/8/2018 4:17:00 PM
Manganese	92.1	20.0	μg/L	1	1/8/2018 4:17:00 PM
Potassium	3340	50.0	μg/L	1	1/8/2018 4:17:00 PM
Selenium	ND	5.00	μg/L	1	1/8/2018 4:17:00 PM
Sodium	95200	500	μg/L	10	1/8/2018 4:21:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	256	5	mg/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1//	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 1:02:54 PM
ANIONS BY ION CHROMATOGRAI	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	12.1	5.00	mg/L	5	1/4/2018 7:57:47 PM
Sulfate	247	10.0	mg/L	5	1/4/2018 7:57:47 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	170	10	mg/L CaCO3	1	1/4/2018
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.3	0.1	mg/L	1	1/4/2018 2:04:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 8911-D

 Collection Date:
 12/27/2017 3:25:00 PM

 Lab Sample ID:
 171229039-008

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	954	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	560	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: 8911-SH Collection Date: 12/27/2017 10:30:00 AM Lab Sample ID: 171229039-009 Matrix: GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD				
pH (E150.1)	8.6		S	S.U.		12/27/2017 10:30:00 AM
Temperature (E170.1)	10		d	leg C		12/27/2017 10:30:00 AM
Turbidity (E180.1)	< 1	1.0	Ν	ITU		12/27/2017 10:30:00 AM
ICP METALS - EPA 200.7						Analyst: KH
(Prep: SW3010A - 1/2	2/2018)					
Aluminum	ND	100	μ	ıg/L	1	1/8/2018 4:27:00 PM
Arsenic	13.0	5.00		ıg/L	1	1/8/2018 4:27:00 PM
Boron	241	50.0	μ	ıg/L	1	1/8/2018 4:27:00 PM
Cadmium	ND	5.00	μ	ıg/L	1	1/8/2018 4:27:00 PM
Calcium	41200	50.0	μ	ıg/L	1	1/8/2018 4:27:00 PM
Copper	ND	5.00	μ	ιg/L	1	1/8/2018 4:27:00 PM
Iron	248	50.0	μ	ιg/L	1	1/8/2018 4:27:00 PM
Magnesium	13800	50.0	μ	ıg/L	1	1/8/2018 4:27:00 PM
Manganese	47.8	20.0	μ	ıg/L	1	1/8/2018 4:27:00 PM
Potassium	1810	50.0	μ	ıg/L	1	1/8/2018 4:27:00 PM
Selenium	ND	5.00	μ	ıg/L	1	1/8/2018 4:27:00 PM
Sodium	60400	500	μ	ıg/L	10	1/8/2018 4:33:00 PM
HARDNESS - EPA 200.7 REV 4.4						Analyst: KH
Total Hardness (As CaCO3)	160	5	n	ng/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/2	2/2018)					Analyst: AVB
Mercury	ND	0.0002	n	ng/L	1	1/2/2018 1:04:29 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1				Analyst: CS
Chloride	9.35	5.00	n	ng/L	5	1/4/2018 8:14:52 PM
Sulfate	233	10.0		ng/L	5	1/4/2018 8:14:52 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11					Analyst: CC
Alkalinity, Total (As CaCO3)	100	10	n	ng/L CaCO3	1	1/4/2018
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0					Analyst: PL
Nitrogen, Ammonia (As N)	0.2	0.1	N+ n	ng/L	1	1/4/2018 2:06:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 23-Jan-18

 Client Sample ID:
 8911-SH

 Collection Date:
 12/27/2017 10:30:00 AM

 Lab Sample ID:
 171229039-009

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	718	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	395	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

 Client Sample ID:
 8942-D

 Collection Date:
 12/27/2017 3:32:00 PM

 Lab Sample ID:
 171229039-010

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD			
pH (E150.1)	7.5		S.U.		12/27/2017 3:32:00 PM
Temperature (E170.1)	9		deg C		12/27/2017 3:32:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		12/27/2017 3:32:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/2	2/2018)				
Aluminum	ND	100	μg/L	1	1/8/2018 4:38:00 PM
Arsenic	13.3	5.00	μg/L	1	1/8/2018 4:38:00 PM
Boron	280	50.0	µg/L	1	1/8/2018 4:38:00 PM
Cadmium	ND	5.00	µg/L	1	1/8/2018 4:38:00 PM
Calcium	72700	50.0	µg/L	1	1/8/2018 4:38:00 PM
Copper	ND	5.00	µg/L	1	1/8/2018 4:38:00 PM
Iron	735	50.0	μg/L	1	1/8/2018 4:38:00 PM
Magnesium	66300	50.0	μg/L	1	1/8/2018 4:38:00 PM
Manganese	182	20.0	µg/L	1	1/8/2018 4:38:00 PM
Potassium	2760	50.0	μg/L	1	1/8/2018 4:38:00 PM
Selenium	ND	5.00	μg/L	1	1/8/2018 4:38:00 PM
Sodium	39700	50.0	μg/L	1	1/8/2018 4:38:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	454	5	mg/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/2	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 1:06:06 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	2.80	2.00	mg/L	2	1/4/2018 8:49:03 PM
Sulfate	239	20.0	mg/L	10	1/4/2018 8:31:57 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	270	10	mg/L CaCO3	1	1/4/2018
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.3	0.1	mg/L	1	1/4/2018 2:10:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 23-Jan-18

 Client Sample ID:
 8942-D

 Collection Date:
 12/27/2017 3:32:00 PM

 Lab Sample ID:
 171229039-010

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	928	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SN				Analyst: CS	
TDS (Residue, Filterable)	555	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: 9306-SH Collection Date: 12/27/2017 11:21:00 AM Lab Sample ID: 171229039-011 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	6.8		S.U.		12/27/2017 11:21:00 AM
Temperature (E170.1)	8		deg C		12/27/2017 11:21:00 AM
Turbidity (E180.1)	56.5	1.0	NTU		12/27/2017 11:21:00 AM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/2	2/2018)				
Aluminum	ND	100	μg/L	1	1/8/2018 4:42:00 PM
Arsenic	15.7	5.00	μg/L	1	1/8/2018 4:42:00 PM
Boron	89.0	50.0	μg/L	1	1/8/2018 4:42:00 PM
Cadmium	ND	5.00	μg/L	1	1/8/2018 4:42:00 PM
Calcium	65600	50.0	µg/L	1	1/8/2018 4:42:00 PM
Copper	ND	5.00	μg/L	1	1/8/2018 4:42:00 PM
Iron	813	50.0	μg/L	1	1/8/2018 4:42:00 PM
Magnesium	62000	50.0	μg/L	1	1/8/2018 4:42:00 PM
Manganese	79.6	20.0	μg/L	1	1/8/2018 4:42:00 PM
Potassium	2880	50.0	µg/L	1	1/8/2018 4:42:00 PM
Selenium	ND	5.00	μg/L	1	1/8/2018 4:42:00 PM
Sodium	20400	50.0	μg/L	1	1/8/2018 4:42:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	419	5	mg/L CaCO3	1	1/8/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/2	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 1:07:42 PM
ANIONS BY ION CHROMATOGRAF	PHY - EPA 300.0 R	REV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	1/4/2018 9:06:08 PM
Sulfate	69.1	4.00	mg/L	2	1/4/2018 9:06:08 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	310	10	mg/L CaCO3	1	1/4/2018
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/4/2018 2:12:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 23-Jan-18

 Client Sample ID:
 9306-SH

 Collection Date:
 12/27/2017 11:21:00 AM

 Lab Sample ID:
 171229039-011

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	I0B-97,-11				Analyst: CA
Specific Conductance	738	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM				Analyst: CS	
TDS (Residue, Filterable)	420	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: GW DUP 8909-D Collection Date: 12/27/2017 2:45:00 PM Lab Sample ID: 171229039-012 Matrix: GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
pH (E150.1)	9.0		S.U.		12/27/2017 2:45:00 PM
Temperature (E170.1)	8		deg C		12/27/2017 2:45:00 PM
Turbidity (E180.1)	> 999	1.0	NTU		12/27/2017 2:45:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/	2/2018)				
Aluminum	592	100	μg/L	1	1/10/2018 4:00:00 PM
Arsenic	ND	5.00	μg/L	1	1/10/2018 4:00:00 PM
Boron	709	50.0	μg/L	1	1/10/2018 4:00:00 PM
Cadmium	ND	5.00	μg/L	1	1/10/2018 4:00:00 PM
Calcium	18000	50.0	μg/L	1	1/10/2018 4:00:00 PM
Copper	ND	5.00	μg/L	1	1/10/2018 4:00:00 PM
Iron	1960	50.0	μg/L	1	1/10/2018 4:00:00 PM
Magnesium	3990	50.0	μg/L	1	1/10/2018 4:00:00 PM
Manganese	96.0	20.0	μg/L	1	1/10/2018 4:00:00 PM
Potassium	1900	50.0	μg/L	1	1/10/2018 4:00:00 PM
Selenium	ND	5.00	μg/L	1	1/10/2018 4:00:00 PM
Sodium	164000	500	μg/L	10	1/10/2018 4:05:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	61	5	mg/L CaCO3	1	1/10/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 1:09:19 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	EV 2.1			Analyst: CS
Chloride	4.48	2.00	mg/L	2	1/4/2018 9:23:15 PM
Sulfate	69.3	4.00	mg/L	2	1/4/2018 9:23:15 PM
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	310	10	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.6	0.1	mg/L	1	1/4/2018 2:28:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 23-Jan-18

 Client Sample ID:
 GW DUP 8909-D

 Collection Date:
 12/27/2017 2:45:00 PM

 Lab Sample ID:
 171229039-012

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	756	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM				Analyst: CS	
TDS (Residue, Filterable)	535	5	mg/L	1	12/29/2017

CLIENT: Work Order: Reference: PO#:	Lockwood Hills LLC 171229039 Lockwood Ash Landfill	/ Quarterly		Lab Sample ID	e: 12/27/2 : 171229	017 3:30:00 PM
1 On.						
Analyses		Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NO	T ELAP CER	TIFIABLE			Analyst: FLD
Dissolved Oxyge	p (E360 1)	5.6	0.10	mg/L		12/27/2017 3:30:00 PM
Flow, GPD	II (L300.1)	1.45	0.10	-gal/day Lmi	2	12/27/2017 3:30:00 PM
pH (E150.1)		7.4		S.U.		12/27/2017 3:30:00 PM
Temperature (E1	170 1)	7		deg C Incor	rect	12/27/2017 3:30:00 PM
Turbidity (E180.		< 1	1.0	NTU Units	sper	12/27/2017 3:30:00 PM
	•)				33/1/18	
ICP METALS - E				has a	0 21110	Analyst: KH
(Pre	p: SW3010A - 1/2/2018)				
Aluminum		ND	100	μg/L	1	1/10/2018 4:12:00 PM
Arsenic		ND	5.00	μg/L	1	1/10/2018 4:12:00 PM
Boron		2640	50.0	μg/L	1	1/10/2018 4:12:00 PM
Cadmium		ND	5.00	μg/L	1	1/10/2018 4:12:00 PM
Calcium		342000	500	μg/L	10	1/10/2018 4:17:00 PM
Copper		ND	5.00	μg/L	1	1/10/2018 4:12:00 PM
Iron		ND	50.0	μg/L	1	1/10/2018 4:12:00 PM
Magnesium		104000	50.0	μg/L	1	1/10/2018 4:12:00 PM
Manganese		ND	20.0	μg/L	1	1/10/2018 4:12:00 PM
Potassium		6390	50.0	μg/L	1	1/10/2018 4:12:00 PM
Selenium		ND	5.00	μg/L	1	1/10/2018 4:12:00 PM
Sodium		42000	50.0	μg/L	1	1/10/2018 4:12:00 PM
HARDNESS - EP	PA 200.7 REV 4.4					Analyst: KH
Total Hardness (A	As CaCO3)	1281	5	mg/L CaCO3	1	1/10/2018
MERCURY - EPA (F	A 245.1 REV 3.0 Prep: E245.1 - 1/2/2018)				Analyst: AVB
Mercury		ND	0.0002	mg/L	1	1/2/2018 1:10:56 PM
ANIONS BY ION	CHROMATOGRAPHY -	EPA 300.0 RE	V 2.1			Analyst: CS
		65 1	20.0	mg/L	20	1/5/2018 5:05:40 PM
Chloride Sulfate		65.1 709	40.0	mg/L	20	1/5/2018 5:05:40 PM
ALKALINITY TO	PH 4.5 -SM 2320B-97,-1	1				Analyst: CC
Alkalinity, Total (A	As CaCO3)	330	10	mg/L CaCO3	1	1/8/2018

AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0

Date: 23-Jan-18

Analyst: PL

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 GW Dep Drain 1

 Collection Date:
 12/27/2017 3:30:00 PM

 Lab Sample ID:
 171229039-013

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/4/2018 2:30:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1970	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM	1 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	1380	5	mg/L	1	12/29/2017

CLIENT: Work Order: Reference: PO#:	Lockwood Hills LLO 171229039 Lockwood Ash Land			Lab Sample II	e: 12/27/	2017 12:00:00 PM
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE	NOT ELAP CERT	IFIABLE			Analyst: FLD
Dissolved Oxyge Flow, GPD pH (E150.1) Temperature (E Turbidity (E180.	170.1)	9.8 0.15 7.8 6 56.7	0.10	mg/L -gal/day L/m S.U. deg C IMCO NTU UNIT	s per	12/27/2017 12:00:00 PM 12/27/2017 12:00:00 PM 12/27/2017 12:00:00 PM 12/27/2017 12:00:00 PM 12/27/2017 12:00:00 PM
ICP METALS - E	EPA 200.7			(ab (1311	18 Analyst: KH
(Pre	ep: SW3010A - 1/2/2	018)				
Aluminum Arsenic Boron Cadmium Calcium Copper Iron Magnesium Manganese Potassium Selenium Sodium HARDNESS - EI	PA 200.7 REV 4.4 As CaCO3)	ND 26.4 26600 ND 570000 ND 17200 129000 716 83600 ND 198000	100 5.00 5.00 5.00 5.00 50.0 50.0 50.0 5	μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L	1 1 10 1 1 1 1 1 10	1/11/2018 3:22:00 PM 1/11/2018 3:22:00 PM
MERCURY - EP	A 245.1 REV 3.0					Analyst: AVB
(Prep: E245.1 - 1/2/2	018)				
Mercury		ND	0.0002	mg/L	1	1/2/2018 1:12:34 PM
ANIONS BY ION	I CHROMATOGRAPH	Y - EPA 300.0 RE\	/ 2.1			Analyst: CS
Chloride Sulfate		271 1560	20.0 40.0	mg/L mg/L	20 20	1/5/2018 5:22:45 PM 1/5/2018 5:22:45 PM
ALKALINITY TO	PH 4.5 -SM 2320B-97	7,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	420	10	mg/L CaCO3	1	1/8/2018

Adirondack Environmental Services, Inc

AMMONIA (NON-DISTILLED) - EPA 350.1 REV 2.0

Date: 23-Jan-18

Analyst: PL

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:

Date: 23-Jan-18

 Client Sample ID:
 Leak Detection Syst.

 Collection Date:
 12/27/2017 12:00:00 PM

 Lab Sample ID:
 171229039-014

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.8	0.1	mg/L	1	1/4/2018 2:31:00 PM
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	3760	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	3100	5	mg/L	1	12/29/2017

Adirondack Environmental Services, Inc			Date: 23-Jan-18			
CLIENT:	Lockwood Hills LLC			Client Sample II	D: Under	Drain 1
Work Order:	171229039			Collection Dat	e: 12/28/	2017 3:00:00 PM
Reference:	Lockwood Ash Landfil	1 / Ouarterly		Lab Sample ID	: 17122	9039-015
PO#:						INDWATER
r 0#.				Math	A. OROC	
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NO	OT ELAP CER	TIFIABLE			Analyst: FLD
Dissolved Oxyge	n (E360.1)	8.4	0.10	mg/L		12/28/2017 3:00:00 PN
Flow, GPD		7.7		-gal/day L/m	in	12/28/2017 3:00:00 PN
pH (E150.1)		8.2		S.U. INCOT	rect	12/28/2017 3:00:00 PM
Temperature (E		5		degCunite	Sper	12/28/2017 3:00:00 PM
Turbidity (E180.	1)	< 1	1.0	NTU Jah	s per B 3/1	12/28/2017 3:00:00 PM
CP METALS - E	PA 200.7			1000	10 3/1	18 Analyst: KH
(Pre	p: SW3010A - 1/2/2018	3)				
Aluminum		ND	100	μg/L	1	1/11/2018 3:30:00 PM
Arsenic		9.63	5.00	μg/L	1	1/11/2018 3:30:00 PM
Boron		3860	50.0	μg/L	1	1/11/2018 3:30:00 PM
Cadmium		ND	5.00	μg/L	1	1/11/2018 3:30:00 PM
Calcium		359000	500	μg/L	10	1/11/2018 3:39:00 PM
Copper		ND	5.00	μg/L	1	1/11/2018 3:30:00 PM
Iron		261	50.0	μg/L	1	1/11/2018 3:30:00 PM
Magnesium		78600	50.0	μg/L	1	1/11/2018 3:30:00 PM
Manganese		726	20.0	μg/L	1	1/11/2018 3:30:00 PM
Potassium		16300	50.0	μg/L	1	1/11/2018 3:30:00 PM
Selenium		ND	5.00	μg/L	1	1/11/2018 3:30:00 PM
Sodium		43800	50.0	μg/L	1	1/11/2018 3:30:00 PM
	RCURY - EPA 1631E Prep: 1631E - 12/29/20)17)				Analyst: SM
Mercury		7.2	0.5	ng/L	1	1/2/2018
HARDNESS - EF	PA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	1219	5	mg/L CaCO3	1	1/12/2018
MERCURY - EP/ (I	A 245.1 REV 3.0 Prep: E245.1 - 1/2/2018	3)				Analyst: AVE
Mercury		ND	0.0002	mg/L	1	1/2/2018 1:17:24 PM
NIONS BY ION	CHROMATOGRAPHY -	EPA 300.0 RE	V 2.1			Analyst: CS
Chloride		23.6	10.0	mg/L	10	1/5/2018 5:39:51 PM
Sulfate		442	20.0	mg/L	10	1/5/2018 5:39:51 PM
				-		A
LKALINITY TO	PH 4.5 -SM 2320B-97,-1	1				Analyst: CC

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 Under Drain 1

 Collection Date:
 12/28/2017 3:00:00 PM

 Lab Sample ID:
 171229039-015

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	550	10	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/8/2018 1:32:00 PM
CONDUCTANCE AT 25C - SM 2510)B-97,-11				Analyst: CA
Specific Conductance	1690	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM 2	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	1320	5	mg/L	1	12/29/2017

Adirondack Environmental Services, Inc		Date: 23-Jan-18		
CLIENT:	Lockwood Hills LLC	Client Sample ID:	Under Drain 2	
Work Order:	171229039	Collection Date:	12/28/2017 12:45:00 PM	
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID:	171229039-016	
PO#:		Matrix:	GROUNDWATER	

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	11.6	0.10	mg/L		12/28/2017 12:45:00 PM
Flow, GPD-	5.4		-gal/day L/m	in	12/28/2017 12:45:00 PM
pH (E150.1)	7.7		911	rrect	12/28/2017 12:45:00 PM
Temperature (E170.1)	8			s per	12/28/2017 12:45:00 PM
Turbidity (E180.1)	27.9	1.0	NTU LOL	Sper	12/28/2017 12:45:00 PM
ICP METALS - EPA 200.7			ias (123	118 Analyst: KH
(Prep: SW3010A - 1/	2/2018)				
Aluminum	ND	100	μg/L	1	1/11/2018 3:46:00 PM
Arsenic	16.4	5.00	μg/L	1	1/11/2018 3:46:00 PM
Boron	39500	50.0	μg/L	1	1/11/2018 3:46:00 PM
Cadmium	ND	5.00	μg/L	1	1/11/2018 3:46:00 PM
Calcium	560000	500	μg/L	10	1/11/2018 4:07:00 PM
Copper	ND	5.00	μg/L	1	1/11/2018 3:46:00 PM
Iron	5860	50.0	μg/L	1	1/11/2018 3:46:00 PM
Magnesium	92000	50.0	μg/L	1	1/11/2018 3:46:00 PM
Manganese	984	20.0	μg/L	1	1/11/2018 3:46:00 PM
Potassium	82700	500	μg/L	10	1/11/2018 4:07:00 PM
Selenium	ND	5.00	μg/L	1	1/11/2018 3:46:00 PM
Sodium	219000	500	μg/L	10	1/11/2018 4:07:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	1776	5	mg/L CaCO3	1	1/12/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1//	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 1:19:04 PM
ANIONS BY ION CHROMATOGRAI	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	341	50.0	mg/L	50	1/5/2018 5:56:56 PM
Sulfate	1640	100	mg/L	50	1/5/2018 5:56:56 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	290	10	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 Under Drain 2

 Collection Date:
 12/28/2017 12:45:00 PM

 Lab Sample ID:
 171229039-016

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	1.6	0.1	mg/L	1	1/8/2018 1:39:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	4160	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	3360	5	mg/L	1	12/29/2017

Adirondack Environmental Services, Inc			Date: 25 Jun 10			
CLIENT: Work Order: Reference:	Lockwood Hills LLC 171229039 Lockwood Ash Landf	ĩll / Quarterly		Lab Sample ID	e: 12/28/2): 171229	2017 12:00:00 PM 0039-017
PO#:				Matri	x: GROU	NDWATER
Analyses		Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE I	NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxyge	en (E360.1)	7.9	0.10	mg/L		12/28/2017 12:00:00 PM
Flow, GPD		0.9		-gal/day └\m	IN	12/28/2017 12:00:00 PM
pH (E150.1)		7.4		S.U.		12/28/2017 12:00:00 PM
Temperature (E	170.1)	8		deg C Incor	rect	12/28/2017 12:00:00 PM
Turbidity (E180.	1)	35.4	1.0	NTU Unit	sper	12/28/2017 12:00:00 PM
ICP METALS - E				lab (133/	18 Analyst: KH
(Pre	ep: SW3010A - 1/2/20	18)				
Aluminum		554	100	μg/L	1	1/11/2018 4:11:00 PM
Arsenic		10.3	5.00	μg/L	1	1/11/2018 4:11:00 PM
Boron		19300	50.0	μg/L	1	1/11/2018 4:11:00 PM
Cadmium		ND	5.00	μg/L	1	1/11/2018 4:11:00 PM
Calcium		706000	500	μg/L	10	1/12/2018 1:47:00 PM
Copper		ND	5.00	μg/L	1	1/11/2018 4:11:00 PM
Iron		1530	50.0	μg/L	1	1/11/2018 4:11:00 PM
Magnesium		110000	50.0	μg/L	1	1/11/2018 4:11:00 PM
Manganese		542	20.0	μg/L	1	1/11/2018 4:11:00 PM
Potassium		106000	500	μg/L	10	1/12/2018 1:47:00 PM
Selenium		ND	5.00	μg/L	1	1/11/2018 4:11:00 PM
Sodium		262000	500	μg/L	10	1/12/2018 1:47:00 PM
	PA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	2215	5	mg/L CaCO3	1	1/12/2018
0740.60% (1960	A 245.1 REV 3.0					Analyst: AVB
	Prep: E245.1 - 1/2/20	18)				
Mercury		ND	0.0002	mg/L	1	1/2/2018 1:23:55 PM
ANIONS BY ION	I CHROMATOGRAPHY	- EPA 300.0 R	EV 2.1			Analyst: CS
Chloride		853	50.0	mg/L	50	1/5/2018 6:14:03 PM
Sulfate		1610	100	mg/L	50	1/5/2018 6:14:03 PM
ALKALINITY TO	PH 4.5 -SM 2320B-97,	-11				Analyst: CC
Alkalinity, Total (As CaCO3)	250	10	mg/L CaCO3	1	1/8/2018
	N-DISTILLED) - EPA 350	0.1 REV 2.0				Analyst: PL
	84 - Aneron 623 (1948) (1979) (1979) - 3					

Date: 23-Jan-18

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 Under Drain 3

 Collection Date:
 12/28/2017 12:00:00 PM

 Lab Sample ID:
 171229039-017

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.2	0.1 N+	mg/L	1	1/8/2018 1:41:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	5380	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	4090	5	mg/L	1	1/2/2018

AB 1/20/18

Date: 23-Jan-18

Adirondack Environmental Services, Inc

CLIENT:	Lockwood Hills LLC	Client Sample ID: 24," Inlet To Pond
Work Order:	171229039	Collection Date: 12/28/2017 1:35:00 PM
Reference:	Lockwood Ash Landfill / Quarterly	Lab Sample ID: 171229039-018
PO#:		Matrix: GROUNDWATER

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	11.5	0.10	mg/L		12/28/2017 1:35:00 PM
Flow, GPD	30.0		gal/day L/m	Nin	12/28/2017 1:35:00 PM
pH (É150.1)	8.2		S.U.		12/28/2017 1:35:00 PM
Temperature (E170.1)	7		deg C Incor	rect	12/28/2017 1:35:00 PM
Turbidity (E180.1)	24.2	1.0	NTU Unite	s per 10	12/28/2017 1:35:00 PM
ICP METALS - EPA 200.7			(AB)	311118	Analyst: KH
(Prep: SW3010A - 1/	2/2018)				Analysi. KH
		100		1	1/10/0010 1.50.00 DM
Aluminum	ND	100	μg/L 	1	1/12/2018 1:50:00 PM
Arsenic	20.9	5.00	μg/L σ/l	1	1/12/2018 1:50:00 PM 1/12/2018 1:50:00 PM
Boron	20400	50.0	μg/L	1	1/12/2018 1:50:00 PM
Cadmium	ND 577000	5.00	μg/L ug/l	10	1/12/2018 2:19:00 PM
Calcium	577000	500 5.00	μg/L μg/L	1	1/12/2018 1:50:00 PM
Copper	ND 2400	50.0		1	1/12/2018 1:50:00 PM
Iron	2420	50.0	μg/L μg/L	1	1/12/2018 1:50:00 PM
Magnesium	89000 553	20.0	μg/L	1	1/12/2018 1:50:00 PM
Manganese Potassium	87100	50.0	μg/L	1	1/12/2018 1:50:00 PM
Selenium	22.6	5.00	μg/L	1	1/12/2018 1:50:00 PM
Sodium	249000	500	μg/L	10	1/12/2018 2:19:00 PM
		000	<u>на, –</u>		
LOW LEVEL MERCURY - EPA 163 (Prep: 1631E - 12					Analyst: SM
Mercury	ND	0.5	ng/L	1	1/2/2018
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	1806	5	mg/L CaCO3	1	1/12/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/2	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 1:25:28 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	208	20.0	mg/L	20 20	1/5/2018 7:41:10 PM
Sulfate	1240	40.0	mg/L	20	1/5/2018 7:41:10 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC



CLIENT:	Lockwood Hills LLC	Client
Work Order:	171229039	Colle
Reference:	Lockwood Ash Landfill / Quarterly	Lab S
PO#:		

Client Sample ID: 24" Inlet To Pond Collection Date: 12/28/2017 1:35:00 PM Lab Sample ID: 171229039-018 Matrix: GROUNDWATER

Date: 23 Jan-18

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
ALKALINITY TO PH 4.5 -SM 2320B-97	7,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	380	10	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EPA 3	50.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	0.4	0.1	mg/L	1	1/8/2018 1:47:00 PM
CONDUCTANCE AT 25C - SM 2510B-	97,-11				Analyst: CA
Specific Conductance	3220	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM 254	0C-97,-11				Analyst: CS
TDS (Residue, Filterable)	2530	5	mg/L	1	1/2/2018

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: Keuka Upstream Collection Date: 12/27/2017 2:35:00 PM Lab Sample ID: 171229039-019 Matrix: GROUNDWATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	9.8	0.10	mg/L		12/27/2017 2:35:00 PM
pH (E150.1)	8.3		S.U.		12/27/2017 2:35:00 PM
Temperature (E170.1)	0		deg C		12/27/2017 2:35:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		12/27/2017 2:35:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/2	2/2018)				
Aluminum	ND	100	μg/L	1	1/12/2018 2:25:00 PM
Arsenic	ND	5.00	μg/L	1	1/12/2018 2:25:00 PM
Boron	ND	50.0	μg/L	1	1/12/2018 2:25:00 PM
Cadmium	ND	5.00	μg/L	1	1/12/2018 2:25:00 PM
Calcium	73300	50.0	μg/L	1	1/12/2018 2:25:00 PM
Copper	7.16	5.00	μg/L	1	1/12/2018 2:25:00 PM
Iron	77.5	50.0	μg/L	1	1/12/2018 2:25:00 PM
Magnesium	20500	50.0	μg/L	1	1/12/2018 2:25:00 PM
Manganese	ND	20.0	μg/L	1	1/12/2018 2:25:00 PM
Potassium	4260	50.0	μg/L	1	1/12/2018 2:25:00 PM
Selenium	ND	5.00	μg/L	1	1/12/2018 2:25:00 PM
Sodium	38900	50.0	μg/L	1	1/12/2018 2:25:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	267	5	mg/L CaCO3	1	1/12/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1//	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 2:02:14 PM
ANIONS BY ION CHROMATOGRAI	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	79.8	2.00	mg/L	2	1/5/2018 8:32:36 PM
Sulfate	42.9	4.00	mg/L	2	1/5/2018 8:32:36 PM
ALKALINITY TO PH 4.5 -SM 2320B	8-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	190	10	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/4/2018 2:33:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

Client Sample ID:Keuka UpstreamCollection Date:12/27/2017 2:35:00 PMLab Sample ID:171229039-019Matrix:GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	745	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM 2540C-97,-11					Analyst: CS
TDS (Residue, Filterable)	415	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: Keuka Downstream Collection Date: 12/27/2017 2:45:00 PM Lab Sample ID: 171229039-020 Matrix: SURFACE WATER

Analyses	Result	PQL Qu	ual Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	11.8	0.10	mg/L		12/27/2017 2:45:00 PM
pH (E150.1)	8.9		S.U.		12/27/2017 2:45:00 PM
Temperature (E170.1)	0		deg C		12/27/2017 2:45:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		12/27/2017 2:45:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/2	2/2018)				
Aluminum	ND	100	μg/L	1	1/12/2018 2:28:00 PM
Arsenic	ND	5.00	μg/L	1	1/12/2018 2:28:00 PM
Boron	ND	50.0	μg/L	1	1/12/2018 2:28:00 PM
Cadmium	ND	5.00	μg/L	1	1/12/2018 2:28:00 PM
Calcium	75000	50.0	μg/L	1	1/12/2018 2:28:00 PM
Copper	5.34	5.00	μg/L	1	1/12/2018 2:28:00 PM
Iron	66.8	50.0	μg/L	1	1/12/2018 2:28:00 PM
Magnesium	21000	50.0	μg/L	1	1/12/2018 2:28:00 PM
Manganese	ND	20.0	μg/L	1	1/12/2018 2:28:00 PM
Potassium	4140	50.0	μg/L	1	1/12/2018 2:28:00 PM
Selenium	ND	5.00	μg/L	1	1/12/2018 2:28:00 PM
Sodium	40600	50.0	μg/L	1	1/12/2018 2:28:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	274	5	mg/L CaCO3	1	1/12/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/2	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 2:03:49 PM
ANIONS BY ION CHROMATOGRAPHY - EPA 300.0 F		REV 2.1			Analyst: CS
Chloride	81.7	2.00	mg/L	2	1/5/2018 8:49:41 PM
Sulfate	44.1	4.00	mg/L	2	1/5/2018 8:49:41 PM
		4.00	iiig/ L	L	
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	190	10	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/4/2018 2:34:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

Client Sample ID:Keuka DownstreamCollection Date:12/27/2017 2:45:00 PMLab Sample ID:171229039-020Matrix:SURFACE WATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	752	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SM 2540C-97,-11					Analyst: CS
TDS (Residue, Filterable)	390	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: Surface Water DUP Collection Date: 12/27/2017 2:55:00 PM Lab Sample ID: 171229039-021 Matrix: SURFACE WATER

Analyses	Result	PQL Qu	ual Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	RE NOT ELAP CE	RTIFIABLE			Analyst: FLD
Dissolved Oxygen (E360.1)	9.8	0.10	mg/L		12/27/2017 2:55:00 PM
pH (E150.1)	8.3		S.U.		12/27/2017 2:55:00 PM
Temperature (E170.1)	0		deg C		12/27/2017 2:55:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		12/27/2017 2:55:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/	2/2018)				
Aluminum	ND	100	μg/L	1	1/12/2018 2:31:00 PM
Arsenic	ND	5.00	μg/L	1	1/12/2018 2:31:00 PM
Boron	ND	50.0	μg/L	1	1/12/2018 2:31:00 PM
Cadmium	ND	5.00	μg/L	1	1/12/2018 2:31:00 PM
Calcium	72100	50.0	μg/L	1	1/12/2018 2:31:00 PM
Copper	ND	5.00	μg/L	1	1/12/2018 2:31:00 PM
Iron	60.3	50.0	μg/L	1	1/12/2018 2:31:00 PM
Magnesium	20500	50.0	μg/L	1	1/12/2018 2:31:00 PM
Manganese	ND	20.0	μg/L	1	1/12/2018 2:31:00 PM
Potassium	3950	50.0	μg/L	1	1/12/2018 2:31:00 PM
Selenium	ND	5.00	μg/L	1	1/12/2018 2:31:00 PM
Sodium	39900	50.0	μg/L	1	1/12/2018 2:31:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	264	5	mg/L CaCO3	1	1/12/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1/	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 2:05:25 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	EV 2.1			Analyst: CS
Chloride	80.2	2.00	mg/L	2	1/5/2018 9:06:46 PM
Sulfate	43.4	4.00	mg/L	2	1/5/2018 9:06:46 PM
ALKALINITY TO PH 4.5 -SM 2320E	8-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	190	10	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/8/2018 1:49:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 Surface Water DUP

 Collection Date:
 12/27/2017 2:55:00 PM

 Lab Sample ID:
 171229039-021

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	740	1	µmhos/cm	1	1/12/2017
TOTAL DISSOLVED SOLIDS - SN	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	415	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID: Pond Grab Collection Date: 12/28/2017 3:07:00 PM Lab Sample ID: 171229039-022 Matrix: SURFACE WATER

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A	Analyst: FLD				
Dissolved Oxygen (E360.1)	6.5	0.10	mg/L		12/28/2017 3:07:00 PM
pH (E150.1)	6.9		S.U.		12/28/2017 3:07:00 PM
Temperature (E170.1)	1		deg C		12/28/2017 3:07:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		12/28/2017 3:07:00 PM
CP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1	/2/2018)				
Aluminum	ND	100	μg/L	1	1/12/2018 2:38:00 PM
Arsenic	ND	5.00	μg/L	1	1/12/2018 2:38:00 PM
Boron	20100	50.0	μg/L	1	1/12/2018 2:38:00 PM
Cadmium	ND	5.00	μg/L	1	1/12/2018 2:38:00 PM
Calcium	443000	500	μg/L	10	1/12/2018 2:49:00 PM
Copper	ND	5.00	μg/L	1	1/12/2018 2:38:00 PM
Iron	222	50.0	μg/L	1	1/12/2018 2:38:00 PM
Magnesium	94900	50.0	μg/L	1	1/12/2018 2:38:00 PM
Manganese	265	20.0	μg/L	1	1/12/2018 2:38:00 PM
Potassium	81400	50.0	μg/L	1	1/12/2018 2:38:00 PM
Selenium	ND	5.00	μg/L	1	1/12/2018 2:38:00 PM
Sodium	232000	500	μg/L	10	1/12/2018 2:49:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	1498	5	mg/L CaCO3	1	1/12/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1,	/2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 2:07:01 PM
ANIONS BY ION CHROMATOGRA	PHY - EPA 300.0 F	REV 2.1			Analyst: CS
Chloride	197	20.0	mg/L	20	1/5/2018 9:23:52 PM
Sulfate	1240	40.0	mg/L	20	1/5/2018 9:23:52 PM
ALKALINITY TO PH 4.5 -SM 23201	3-97,-11				Analyst: CC
Alkalinity, Total (As CaCO3)	300	10	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EP	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/8/2018 1:51:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 Pond Grab

 Collection Date:
 12/28/2017 3:07:00 PM

 Lab Sample ID:
 171229039-022

 Matrix:
 SURFACE WATER

Analyses	Result	PQL Qua	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 251	0B-97,-11				Analyst: CA
Specific Conductance	3180	1	µmhos/cm	1	1/12/2018
TOTAL DISSOLVED SOLIDS - SM	2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	2500	5	mg/L	1	1/2/2018

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

Client Sample ID:Field BlankCollection Date:12/28/2017 3:25:00 PMLab Sample ID:171229039-023Matrix:GROUNDWATER

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/	2/2018)				
Aluminum	ND	100	μg/L	1	1/12/2018 2:53:00 PM
Arsenic	ND	5.00	μg/L	1	1/12/2018 2:53:00 PM
Boron	ND	50.0	μg/L	1	1/12/2018 2:53:00 PM
Cadmium	ND	5.00	μg/L	1	1/12/2018 2:53:00 PM
Calcium	ND	50.0	μg/L	1	1/12/2018 2:53:00 PM
Copper	ND	5.00	μg/L	1	1/12/2018 2:53:00 PM
Iron	ND	50.0	μg/L	1	1/12/2018 2:53:00 PM
Magnesium	ND	50.0	μg/L	1	1/12/2018 2:53:00 PM
Manganese	ND	20.0	μg/L	1	1/12/2018 2:53:00 PM
Potassium	186	50.0	μg/L	1	1/12/2018 2:53:00 PM
Selenium	ND	5.00	μg/L	1	1/12/2018 2:53:00 PM
Sodium	638	50.0	μg/L	1	1/12/2018 2:53:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	ND	5	mg/L CaCO3	1	1/12/2018
MERCURY - EPA 245.1 REV 3.0					Analyst: AVE
(Prep: E245.1 - 1/	2/2018)				
Mercury	ND	0.0002	mg/L	1	1/2/2018 2:08:38 PM
ANIONS BY ION CHROMATOGRAI	PHY - EPA 300.0 F	EV 2.1			Analyst: CS
Chloride	ND	2.00	mg/L	2	1/5/2018 9:40:57 PM
Sulfate	ND	4.00	mg/L	2	1/5/2018 9:40:57 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11		-		Analyst: CC
Alkalinity, Total (As CaCO3)	2	1	mg/L CaCO3	1	1/8/2018
AMMONIA (NON-DISTILLED) - EPA	A 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/8/2018 1:53:00 PM
CONDUCTANCE AT 25C - SM 2510			č		Analyst: CA
5012001ANOL AT 250 - 5M 2510	,u-∂/,-11				
Specific Conductance	9540	1	µmhos/cm	1	1/12/2018
TOTAL DISSOLVED SOLIDS - SM	2540C-9711				Analyst: CS

			ne				
CLIENT:	Lockwood Hills LLC		Client Sample	ID: Field E	Field Blank		
Work Order:	171229039		Collection D	2017 3:25:00 PM			
Reference:	Lockwood Ash Landf	ill / Quarterly	Lab Sample ID: 171229039			0039-023	
PO#:		Matrix			trix: GROU	NDWATER	
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed	
TOTAL DISSOL	VED SOLIDS - SM 2540	C-97,-11				Analyst: CS	
TDS (Residue, F	ilterable)	15	5	mg/L	1	1/2/2018	

Date: 23-Jan-18

Aunonuac	K Elivii oliillelitai Selvices, I	.IIC			-
CLIENT:	Lockwood Hills LLC		Client Sample	ID: LLHg	Field Blank
Work Order:	171229039		Collection D	ate: 12/28/2	2017 3:35:00 PM
Reference:	Lockwood Ash Landfill / Quarterly		Lab Sample ID: 171229039-024		
PO#:			Mat	rix: FIELD	BLANK
Analyses	Result	PQL	Qual Units	DF	Date Analyzed
	ERCURY - EPA 1631E Prep: 1631E - 12/29/2017)				Analyst: SM
Mercury	ND	0.5	ng/L	1	1/2/2018

Date: 23-Jan-18

CLIENT:	Lockwood Hills LLC
Work Order:	171229039
Reference:	Lockwood Ash Landfill / Quarterly
PO#:	

Date: 23-Jan-18

 Client Sample ID:
 8401

 Collection Date:
 12/26/2017 5:00:00 PM

 Lab Sample ID:
 171229039-025

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP A		Analyst: FLD			
pH (E150.1)	7.7		S.U.		12/26/2017 5:00:00 PM
Temperature (E170.1)	15		deg C		12/26/2017 5:00:00 PM
Turbidity (E180.1)	< 1	1.0	NTU		12/26/2017 5:00:00 PM
ICP METALS - EPA 200.7					Analyst: KH
(Prep: SW3010A - 1/2	2/2018)				
Aluminum	ND	100	μg/L	1	1/12/2018 4:00:00 PM
Arsenic	ND	5.00	μg/L	1	1/12/2018 4:00:00 PM
Boron	823	50.0	μg/L	1	1/12/2018 4:00:00 PM
Cadmium	ND	5.00	μg/L	1	1/12/2018 4:00:00 PM
Calcium	82700	50.0	μg/L	1	1/12/2018 4:00:00 PM
Copper	ND	5.00	μg/L	1	1/12/2018 4:00:00 PM
Iron	218	50.0	μg/L	1	1/12/2018 4:00:00 PM
Magnesium	23800	50.0	μg/L	1	1/12/2018 4:00:00 PM
Manganese	64.7	20.0	μg/L	1	1/12/2018 4:00:00 PM
Potassium	2720	50.0	μg/L	1	1/12/2018 4:00:00 PM
Selenium	ND	5.00	μg/L	1	1/12/2018 4:00:00 PM
Sodium	90400	500	μg/L	10	1/12/2018 4:04:00 PM
HARDNESS - EPA 200.7 REV 4.4					Analyst: KH
Total Hardness (As CaCO3)	304	5	mg/L CaCO3	1	1/12/2018
MERCURY - EPA 245.1 REV 3.0 (Prep: E245.1 - 1//	2/2018)				Analyst: AVB
Mercury	ND	0.0002	mg/L	1	1/2/2018 2:10:16 PM
ANIONS BY ION CHROMATOGRAI	PHY - EPA 300.0 R	EV 2.1			Analyst: CS
Chloride	53.2	2.00	mg/L	2	1/8/2018 5:33:40 PM
Sulfate	83.3	4.00	mg/L	2	1/8/2018 5:33:40 PM
ALKALINITY TO PH 4.5 -SM 2320B	-97,-11		-		Analyst: CC
Alkalinity, Total (As CaCO3)	360	10	mg/L CaCO3	1	1/3/2018
AMMONIA (NON-DISTILLED) - EPA	350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	1.0	0.1	mg/L	1	1/4/2018 1:45:00 PM

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 8401

 Collection Date:
 12/26/2017 5:00:00 PM

 Lab Sample ID:
 171229039-025

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
CONDUCTANCE AT 25C - SM 25	I0B-97,-11				Analyst: CA
Specific Conductance	960	1	µmhos/cm	1	1/12/2018
TOTAL DISSOLVED SOLIDS - SM	I 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	505	5	mg/L	1	12/29/2017

CLIENT:	Lockwood Hills LLC	20 		(Client Sample							
Work Order:	171229039			Collection Date: 12/27/2017 11:35:00 AM								
Reference:	Lockwood Ash Landfil	ll / Quarterly		Lab Sample ID: 171229039-026								
PO#:					Mati	rix: GROUN	NDWATER					
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed					
FIELD-PH, RES	CL2, AND TEMP ARE N	OT ELAP CER	TIFIABLE				Analyst: FLD					
Dissolved Oxyge	en (F360.1)	2.2	0.10		mg/L		12/27/2017 11:35:00 AM					
Flow, GPD		0.84			-gal/day ~/n	and	12/27/2017 11:35:00 AM					
pH (E150.1)		7.2			SIL		12/27/2017 11:35:00 AM					
Temperature (E	170.1)	5			dog inco	screct	12/27/2017 11:35:00 AM					
Turbidity (E180.		< 1	1.0		NTH UNY	ts per	12/27/2017 11:35:00 AM					
			1.0.5		lab	(13)						
ICP METALS - E						110 31	א Analyst: KH					
(Pre	ep: SW3010A - 1/2/2018	в)										
Aluminum		ND	100		μg/L	1	1/12/2018 4:07:00 PM					
Arsenic		ND	5.00		μg/L	1	1/12/2018 4:07:00 PM					
Boron		155	50.0		µg/L	1	1/12/2018 4:07:00 PM					
Cadmium		ND	5.00		μg/L	1	1/12/2018 4:07:00 PM					
Calcium		261000	500		µg/L	10	1/12/2018 4:13:00 PM					
Copper		5.30	5.00		μg/L	1	1/12/2018 4:07:00 PM					
Iron		ND	50.0		μg/L	1	1/12/2018 4:07:00 PM					
Magnesium		42800	50.0		μg/L	1	1/12/2018 4:07:00 PM					
Manganese		96.8	20.0		μg/L	1	1/12/2018 4:07:00 PM					
Potassium		2970	50.0		μg/L	1	1/12/2018 4:07:00 PM					
Selenium		ND	5.00	Ν	μg/L	1	1/12/2018 4:07:00 PM					
Sodium		18000	50.0		μg/L	1	1/12/2018 4:07:00 PM					
HARDNESS - EF	PA 200.7 REV 4.4						Analyst: KH					
Total Hardness (As CaCO3)	827	5		mg/L CaCO3	1	1/12/2018					
MERCURY - EP/	A 245.1 REV 3.0 Prep: E245.1 - 1/2/2018	3)					Analyst: AVB					
Mercury		ND	0.0002		mg/L	1	1/2/2018 2:11:53 PM					
ANIONS BY ION	CHROMATOGRAPHY -	EPA 300.0 RE	V 2.1				Analyst: CS					
Chloride		6.73	5.00		mg/L	5	1/8/2018 5:50:45 PM					
Sulfate		284	10.0		mg/L	5	1/8/2018 5:50:45 PM					
			10.0		ing/L	U						
ALKALINITY TO	PH 4.5 -SM 2320B-97,-1	1					Analyst: CC					
Alkalinity, Total (/	As CaCO3)	310	10		mg/L CaCO3	1	1/8/2018					
AMMONIA (NON	I-DISTILLED) - EPA 350.	1 REV 2.0					Analyst: PL					

Date: 23-Jan-18

Adirondack Environmental Services, Inc

CLIENT:Lockwood Hills LLCWork Order:171229039Reference:Lockwood Ash Landfill / QuarterlyPO#:PO#:

Date: 23-Jan-18

 Client Sample ID:
 GW Dep Drain 3

 Collection Date:
 12/27/2017 11:35:00 AM

 Lab Sample ID:
 171229039-026

 Matrix:
 GROUNDWATER

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
AMMONIA (NON-DISTILLED) - EF	PA 350.1 REV 2.0				Analyst: PL
Nitrogen, Ammonia (As N)	ND	0.1	mg/L	1	1/8/2018 1:55:00 PM
CONDUCTANCE AT 25C - SM 25	10B-97,-11				Analyst: CA
Specific Conductance	1150	1	µmhos/cm	1	1/12/2018
TOTAL DISSOLVED SOLIDS - SM	1 2540C-97,-11				Analyst: CS
TDS (Residue, Filterable)	785	5	mg/L	1	12/29/2017

Adirondac	k Environmental Ser	vices, I	nc	23-Jan	-18			
CLIENT:	Lockwood Hills LLC		Client Samp	le ID:	GW D	ep Drain 2		
Work Order:	171229039		Collection	2017 11:28:00 AM				
Reference:	Lockwood Ash Landfill / Q	uarterly	Lab Sample ID: 171229039-027					
PO#:			Matrix: GROUNDWATER					
Analyses	Re	sult	PQL Qual Units		DF	Date Analyzed		
FIELD-PH, RES		Analyst: FLD						
Observation		Dry	NA			12/27/2017 11:28:00 AM		

Adirondac	k Environmental Ser	vices, I	nc	Date	1-18			
CLIENT:	Lockwood Hills LLC		С	lient Sample ID	: GW D	ep Drain 4		
Work Order:	171229039			Collection Date	2017 11:30:00 AM			
Reference:	Lockwood Ash Landfill / Q	uarterly	Lab Sample ID: 171229039-028					
PO#:			Matrix: GROUNDWATER					
Analyses	Re	sult	PQL Qual	Units	DF	Date Analyzed		
FIELD-PH, RES	Analyst: FLD							
Observation		Dry		NA		12/27/2017 11:30:00 AM		

Adirondac	k Environmental Servi	ices, Inc		23-Jan	-18				
CLIENT:	Lockwood Hills LLC		Client Sa	mple ID:	Under	Drain 5			
Work Order:	171229039		Collect	2017 11:35:00 AM					
Reference:	Lockwood Ash Landfill / Qua	arterly	Lab Sample ID: 171229039-029						
PO#:				Matrix:	GROU	NDWATER			
Analyses	Resu	ılt PQL	Qual Units		DF	Date Analyzed			
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE									
Observation	D	ry	NA			12/27/2017 11:35:00 AM			

Adirondac	k Environmental Serv	vices, l	nc	Da	23-Jan-18		
CLIENT: Work Order:	Lockwood Hills LLC 171229039			lient Sample I Collection Da		8910-S	SH
Reference:	Lockwood Ash Landfill / Qu	uarterly	·]	Lab Sample I	D:	171229	9039-030
PO#:				Matr	ix:	GROU	NDWATER
Analyses	Res	sult	PQL Qual	Units		DF	Date Analyzed
FIELD-PH, RES	CL2, AND TEMP ARE NOT EL	AP CER	TIFIABLE				Analyst: FLD
Observation	-	Dry-		NA			

In adequate Recovery per field crow 1/31/18

Adirondac	k Environmental Ser	vices, I	nc	Date:	23-Jan	-18			
CLIENT:	Lockwood Hills LLC		Cl	ient Sample ID:	8405				
Work Order:	171229039			Collection Date:	12/27/2	2017 3:17:00 PM			
Reference:	Lockwood Ash Landfill / (Quarterly	Lab Sample ID: 171229039-031						
PO#:				Matrix:	GROU	NDWATER			
Analyses	R	esult	PQL Qual	Units	DF	Date Analyzed			
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE Analys									
Observation		Dry		NA		12/27/2017 3:17:00 PM			



314 North Pearl StreetAlbany, New York 12207518-434-4546 ♦ Fax: 518-434-0891

CHAIN OF CUSTODY RECORD

AES Work Order#: 171229039

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Client Nat		Address:								
Lockw	ood Hills LLC									
Send Repo	ort to:	Project Name	e (Location	i):				Samplers]		
Dale Îr		т. 1	. 1 . 1	тъ	Oracte	.1		PM	rvisse	
Client Pho	one No:	Lockwoo	od Ash	LF	Quarter	iy				
		PO #:	PO #: Samplers							
Client Fax	(No:		Time						1 X	·
AES Sample	Client Sample ID:	Date	A=am		Sample			# of Cont's		Analysis on only PB
ID		Sampled	<u>P</u> ≔pm							
1001	7842			A P						od Ash LF Quarterly
DUL	8404	12/27/17	1433	A P	GW		G	4	Field p	H, Temp, Turbidity
003	8908-D	12/27/17	1120	A P	GW		G	4		
004	8908-SH	12/27/17	1215	A P	GW		G	4		
005	8909-D	12/27/17	1312	A P	GW		G	4		
006	8909-SH	12/27/17	1355	A P	GW		G	4		
20 7	8910-D	12/27/17	1440	A P	GW		G	4		
208	8911-D	12/27/17	1525	A P	GW		G	4		
209	8911-SH	12/27/17	1030	A P	GW		G	4		
010	8942-D	12/27/17	1532	A P	GW		G	4		
011	9306-SH	12/27/17	1121	A P	GW		G	4		
012	GW Dup <u>8909</u> _D	12/27/17	1445	A P	GW		G			· ··
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CHAIN	OF	CUSTODY	RECORD

AES Work Order#:

Constraints of

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Client Nam	A TUIL SERVICE analytic	Address:	114001			<u> </u>						
Lockwo	ood Hills LLC											
Send Repo		Project Name	e (Location	n):				Samplers 1				
Dale Irv Client Phot		Lockwood Ash LF Quarterly							lovrisse			
		PO #: Sampler							Ignature:			
Client Fax	No:		Time	T		_		# of	e			
AES Sample ID	Client Sample ID:	Date Sampled	A=an P=pn	1	Sampl <u>Matrix</u>	е Туре <u>С</u>	; <u>G</u>	# 01 Cont's		alysis		
013	GW Dep Drain 1	12/27/17	1530	A P	GW		G	4	Lockwood Q Field pH, Ten Turb, Field Flow Reading,			
514	Leak Detection Syst.	12/27/17	1200	A P	GW		G	4		66		
015	Under Drain 1	12/28/17	1500	A P	GW		G	5		"		
016	Under Drain 2	12/28/17	1245	A P	GW		G	4		66		
017	Under Drain 3	12/28/17	1200	A P	GW		G	4		"		
018	21" Inlet to Pond	12/28/17	1335	A P	GW		G	5				
019	Keuka Upstream	12/27/17	1435	A P	GW		G	4	Lockwood Quarterly +D			
220	Keuka Downstream	12/27/17	1445	A P	SF		G	4	Lockwood Quarterly +DO			
021	Surface Water Dup	12/27/17	1455	A P	SF		G		Lockwood Quarterly +D			
622	Pond Grab	12/28/17	1507	A P	SF		G	4		Quarterly +DO		
023	Field Blank	12/28/17	1525	A P	GW		G	4		Quarterly +DO		
Ody	LLHg Field Blank	12/28/17	1535	A P	GW		G		EP	A 1631		
Shipmen	t Arrived Via:			Sp	ecial Instru	ictions	s/Ren	narks:				
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314 North Pearl Street Albany, New York 12207 518-434-4546♦ Fax: 518-434-0891 CHAIN OF CUSTODY RECORD

AES Work Order#:

171229039

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Client Na		Address:									
Lockw	vood Hills LLC										
Send Rep		Project Nam	e (Location	n):				Samplers			
Dale In Client Pho		Lockwo	od Ash	LF	Quarter	rly		P.Mo	rrisse	4	
Chent Pho	UIIC 110.	PO #:						Sampleps	VVISSE Signature:		
Client Fa:	x No:							per	7	7	
AES Sample	Client Sample ID:	Date	Time A=an		Sampl			# of Cont's		Analysis	
ID		Sampled	P=pn	1	Matrix	<u>C</u>	<u>G</u>				
h 1	8401	12/26/17	1700	A	GW			4		wood Ash LF Quarterly	
092	N	10/05/15	1125	P	CIT					d pH, Temp, Turbidity	
b26_	GW Dep Drain 3	12/27/17	1135	A P	GW			4	+ F)	ield Flow Reading, DO	
027	GW Dep Drain 2	12/27/17	1128	A P	GW			0		Observation Only	
028	GW Dep Drain 4	12/27/17	1130	A P	GW			0		Observation Only	
029	Under Drain 5	12/27/17	1135	A P	GW			0		Observation Only	
030	8910-SH			A P	GW			0		Observation Only	
031	8405	12/27/17	1517	A P	GW			0		Observation Only	
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_		-									



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TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services**, Inc. are undertaken and all rates are based upon the following terms:

- (a) Neither Adirondack Environmental Services, Inc., nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of Adirondack Environmental Services, Inc.'s performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against Adirondack Environmental Services, Inc. arising out of its work.
- (b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.
- (c) Adirondack Environmental Services, Inc. reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an Adirondack Environmental Services, Inc. report by other than our customer does not constitute a representation of Adirondack Environmental Services, Inc. as to the accuracy of the contents thereof.
- (d) In no event shall Adirondack Environmental Services, Inc., its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.
- (e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**
- (f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.
- (g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

ATTACHMENT 5

Time-Series Plots

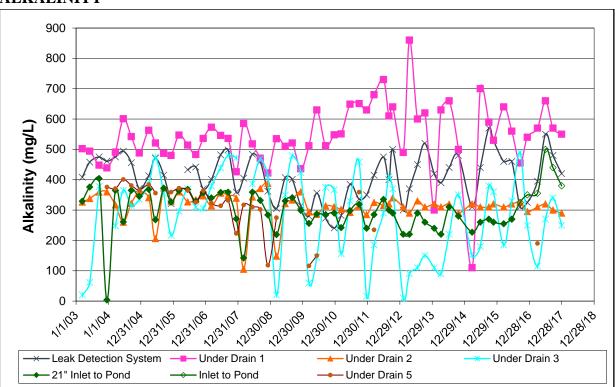
Baseline Parameters in the Leachate and Monitoring Wells

Updated Through 4th Quarter 2017

Table of Contents:

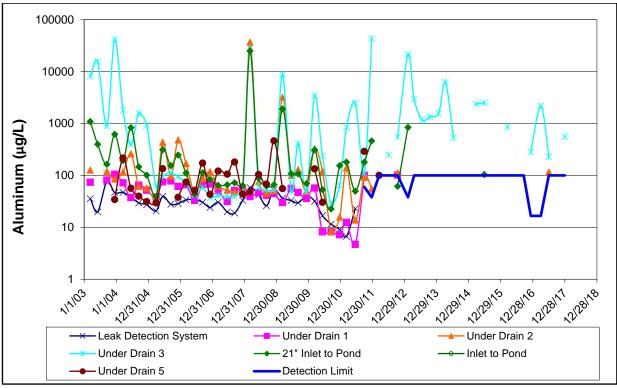
Leachate Time-Series Plots (alphabetical order)	A2-2 thru A2-16
Monitoring Well Time-Series Plots (alphabetical order)	A2-17 thru A2-45
Static Groundwater Level Time-Series Plots	A2-46 thru A2-47

LEACHATE TIME-SERIES PLOTS

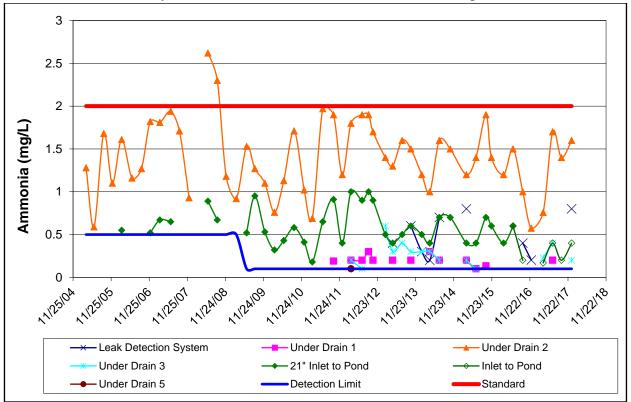


ALKALINITY

ALUMINUM

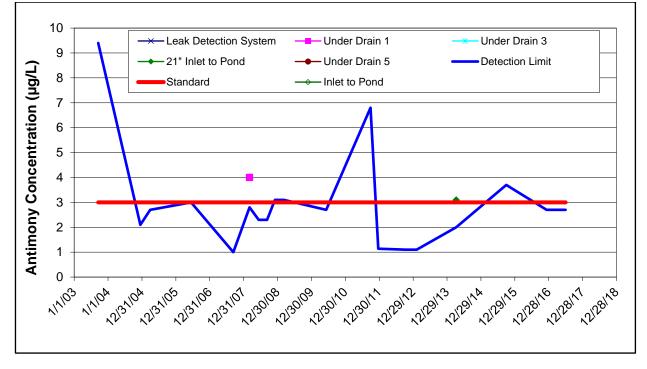


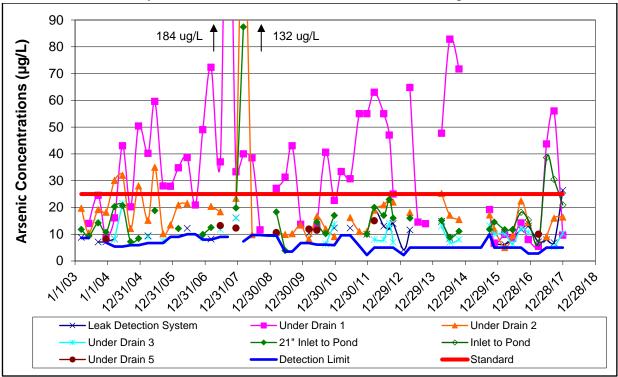
Q:\Lockwood Hills LLC\31-0118 Environmental Monitoring\01 Annual 2017 & Q4 EMR\Att 5 Time Series Plots.docx Date: 2/28/2018; Rev 0



AMMONIA (Note: Only data above detection has been included in this plot)

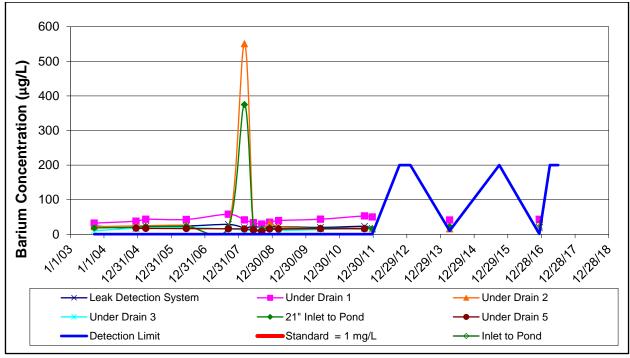
ANTIMONY (Note: Only data above detection has been included in this plot)



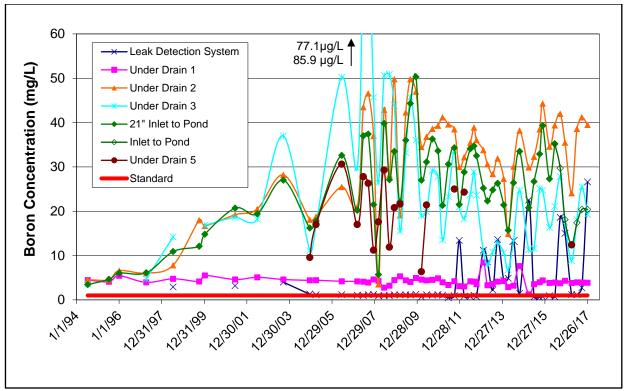


ARSENIC (Note: Only data above detection has been included in this plot)

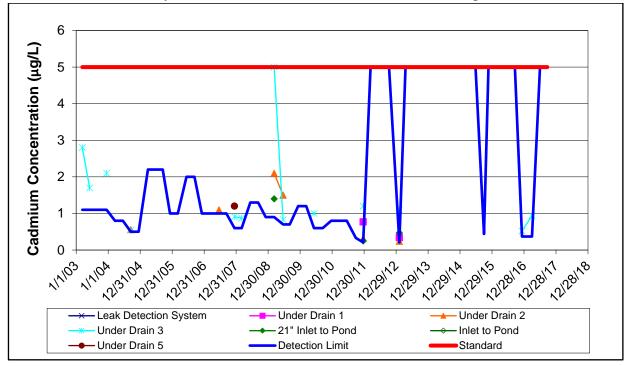
BARIUM

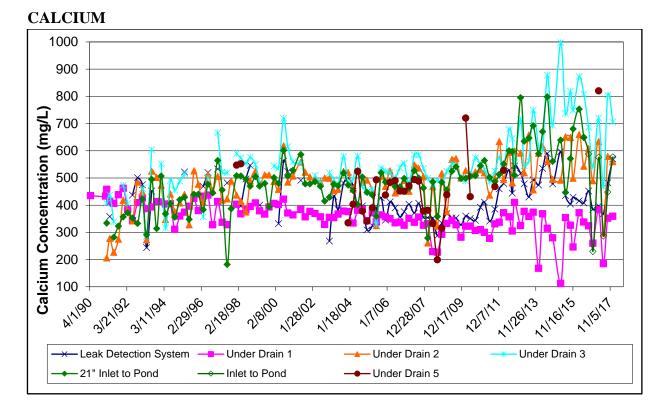


BORON

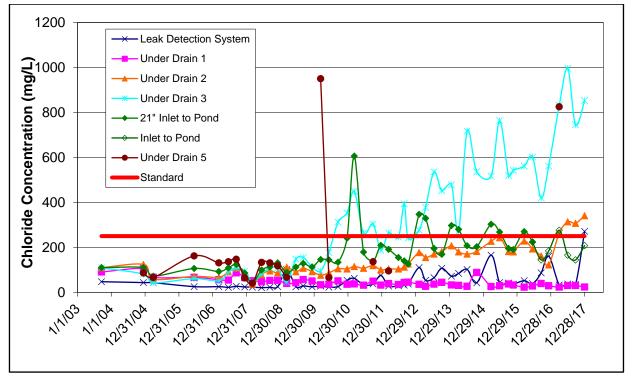


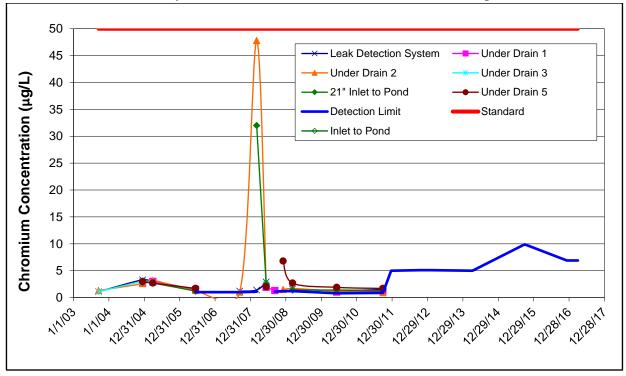
CADMIUM (Note: Only data above detection has been included in this plot)





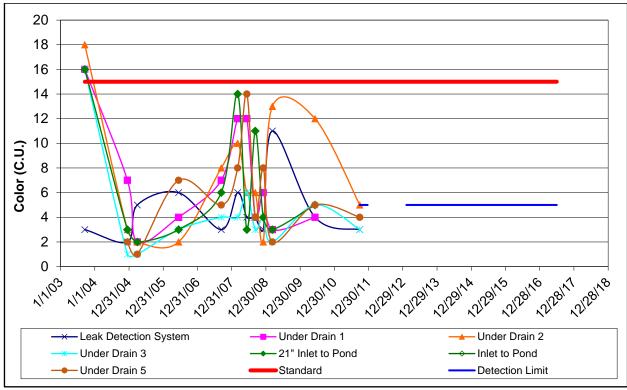
CHLORIDE

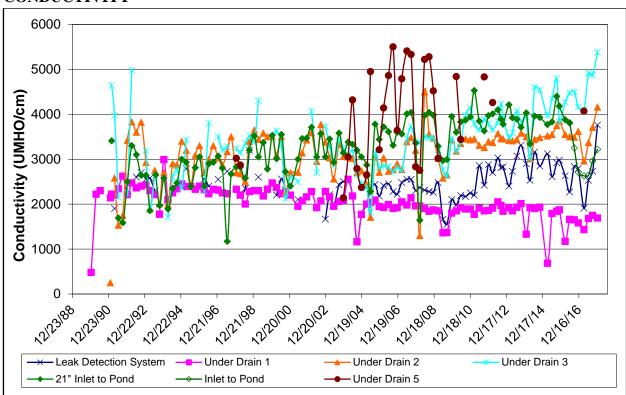




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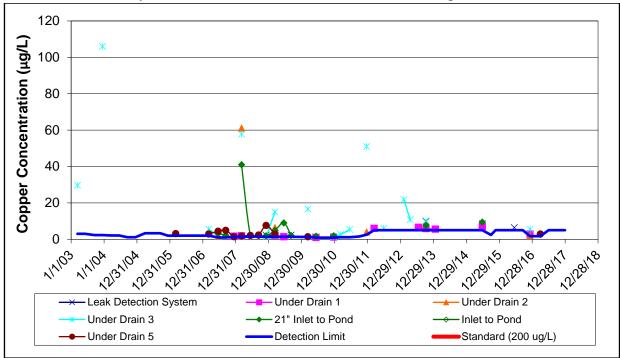
COLOR

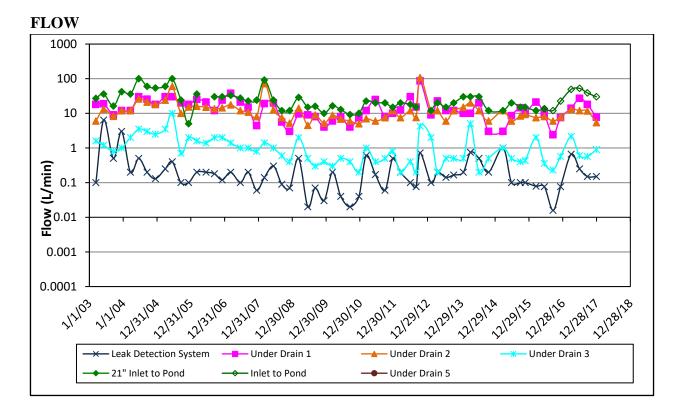




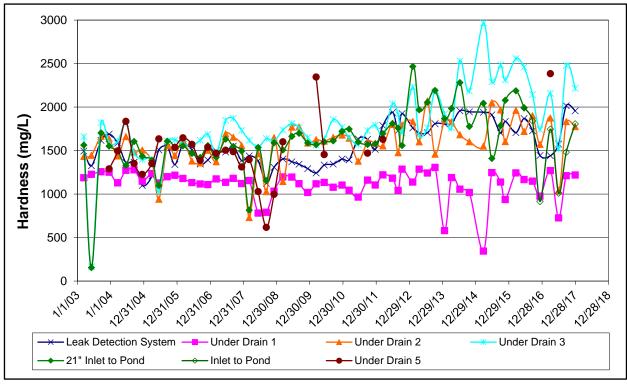
CONDUCTIVITY

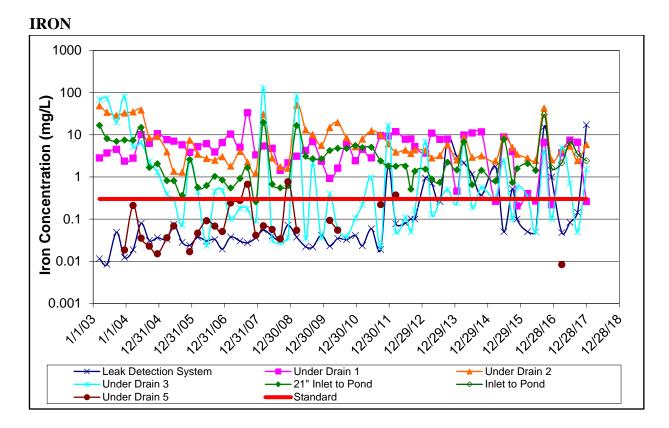
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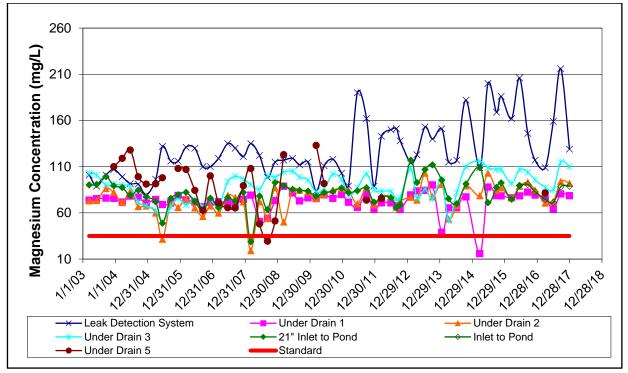


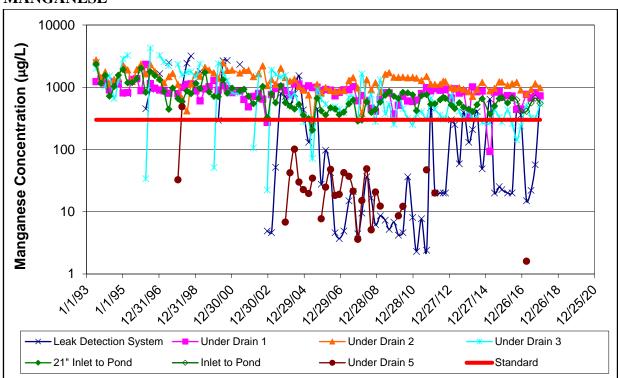
HARDNESS





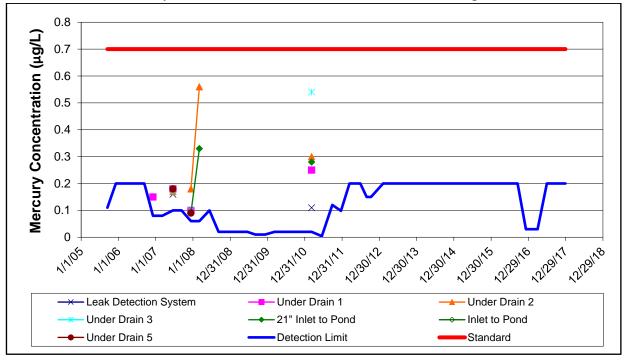
MAGNESIUM



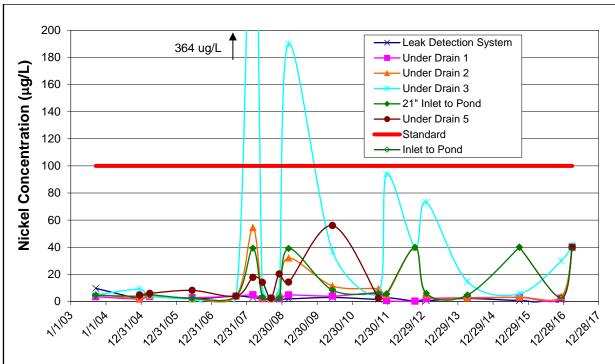


MANGANESE

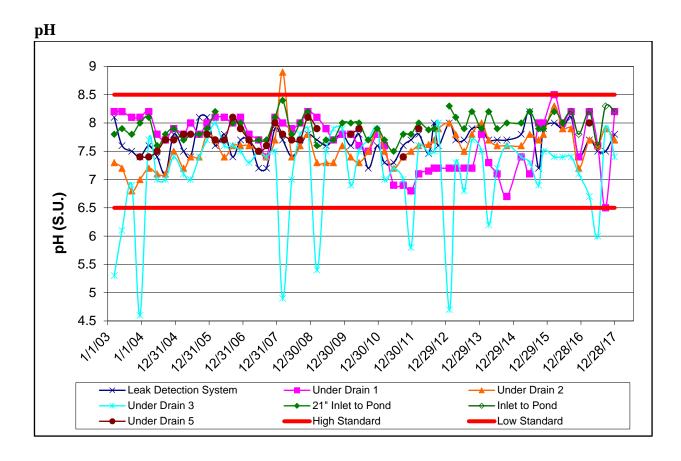
MERCURY (Note: Only data above detection has been included in this plot)



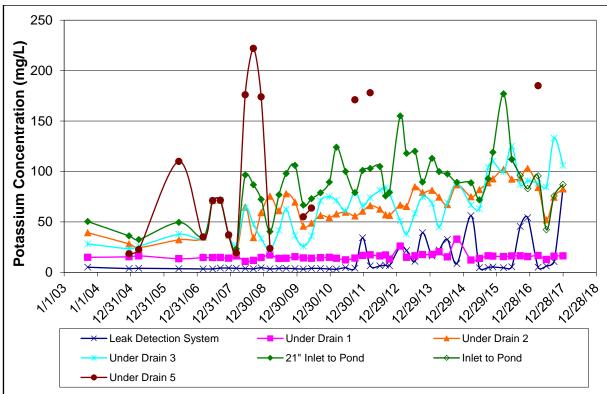






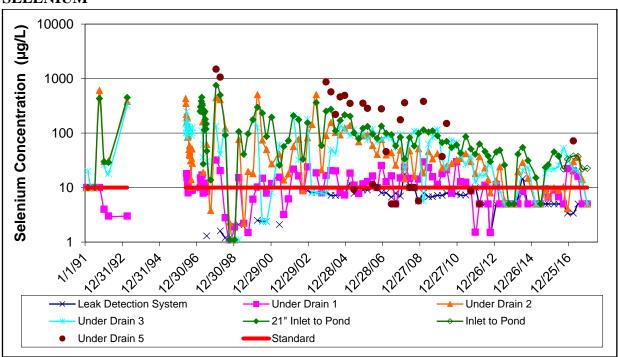


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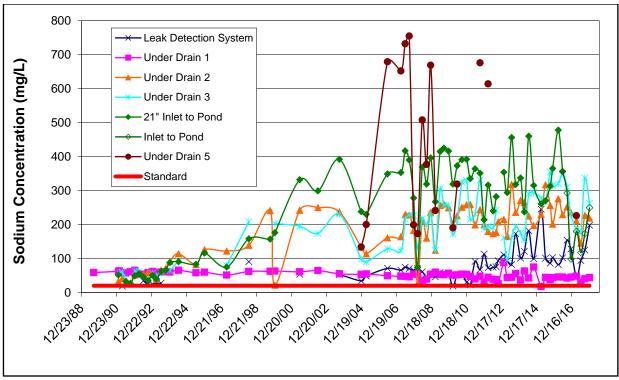


POTASSIUM

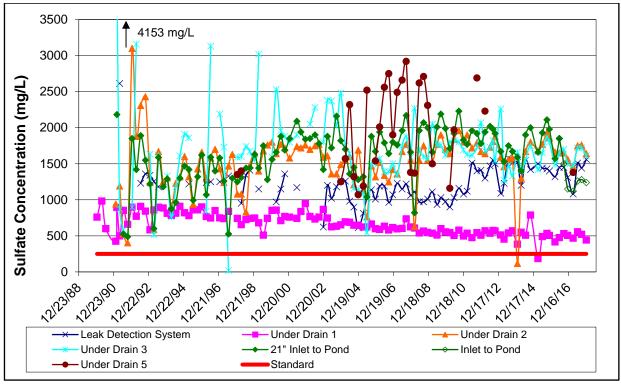
SELENIUM

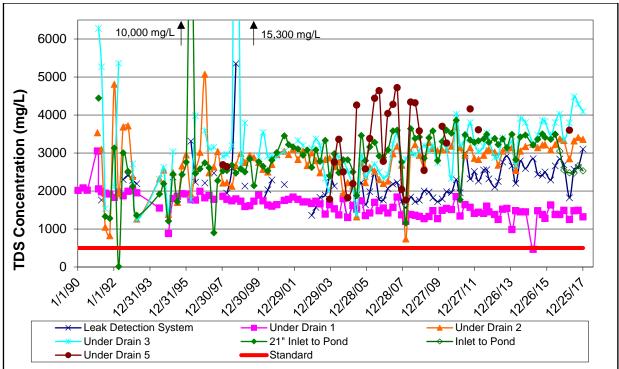


SODIUM



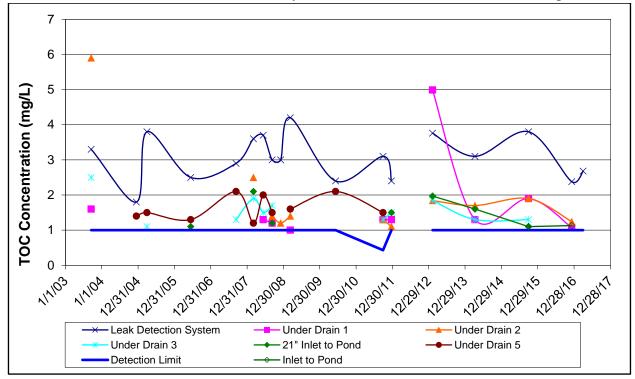
SULFATE



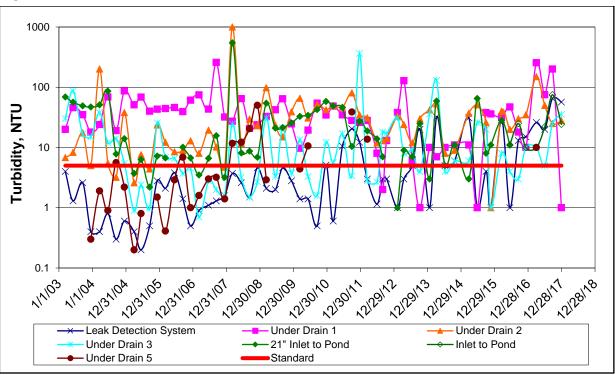


TOTAL DISSOLVED SOLIDS

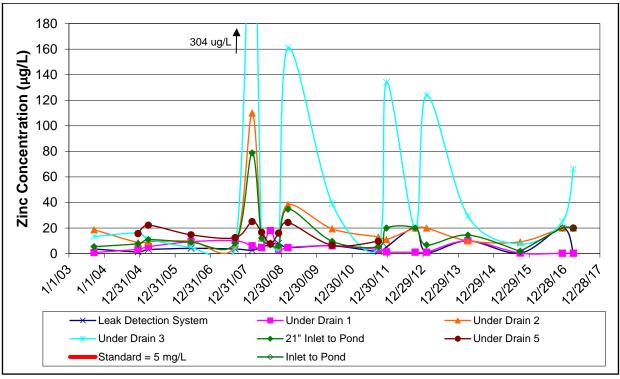
TOTAL ORGANIC CARBON (Note: Only data above detection is included in this plot)



TURBIDITY

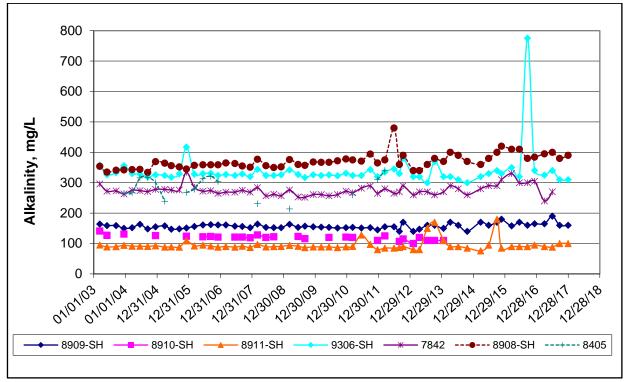


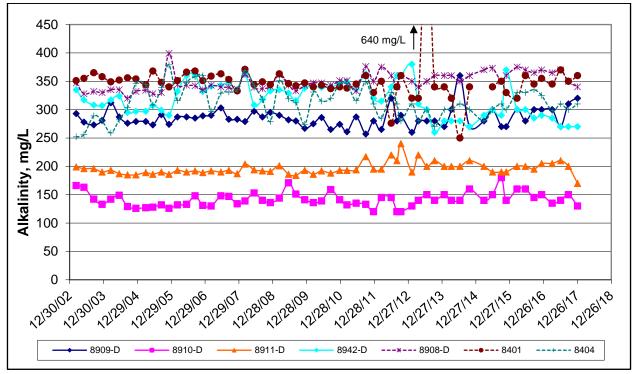




MONITORING WELL TIME-SERIES PLOTS ALKALINITY

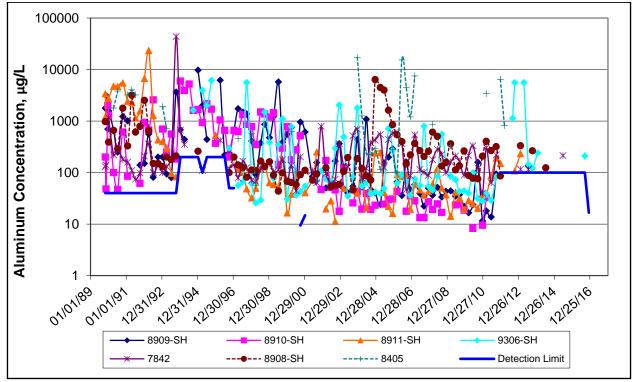
GLACIAL TILL

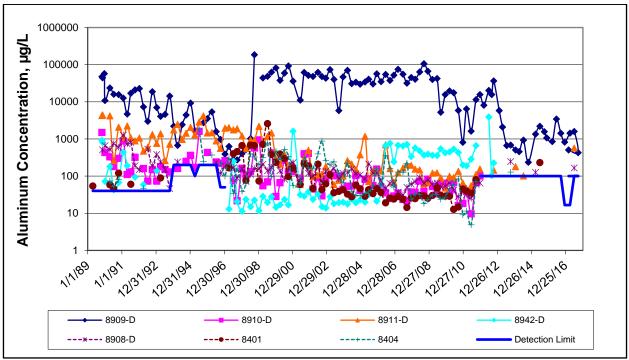




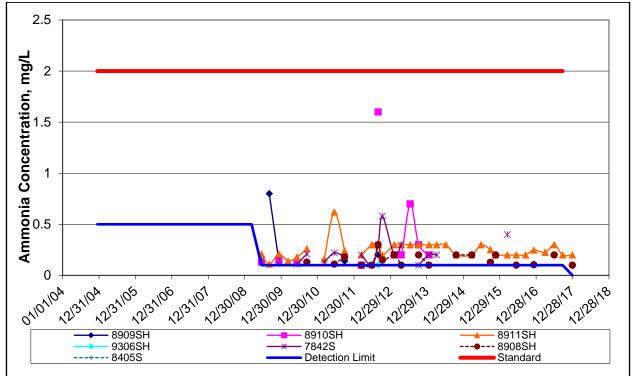
MONITORING WELL TIME-SERIES PLOTS, CONT. ALUMINUM

GLACIAL TILL



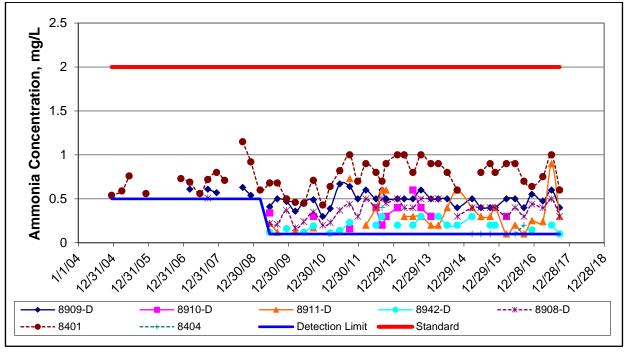


MONITORING WELL TIME-SERIES PLOTS, CONT. AMMONIA

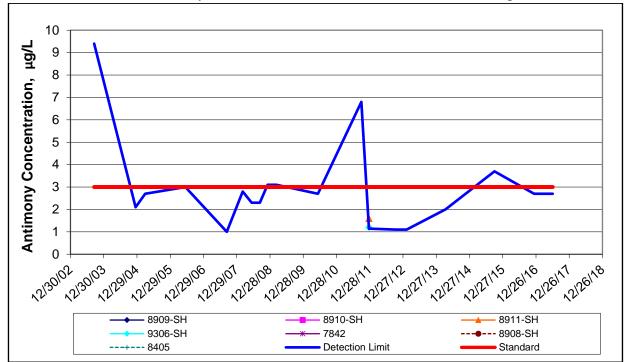


GLACIAL TILL (Note: Only data above detection has been included in this plot)

BEDROCK (Note: Only data above detection has been included in this plot)

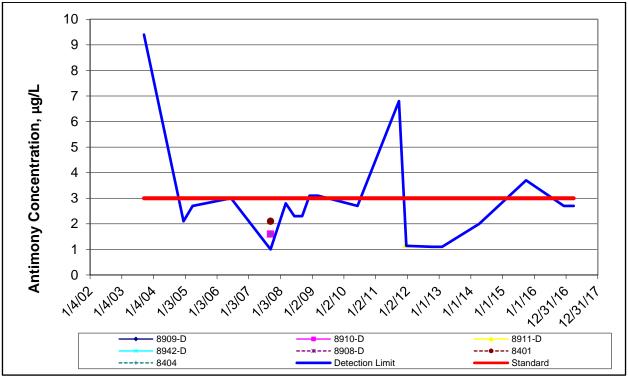


MONITORING WELL TIME-SERIES PLOTS, CONT. ANTIMONY

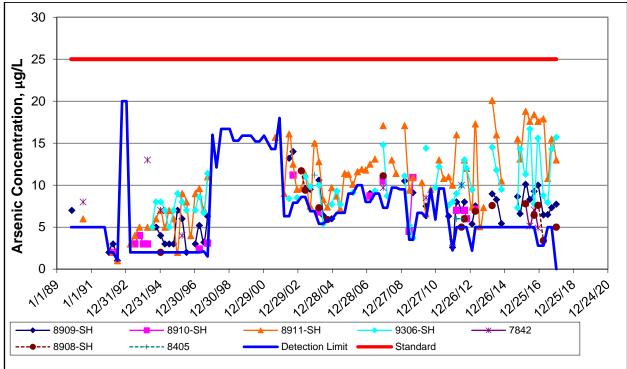


GLACIAL TILL (Note: Only data above detection has been included in this plot)

BEDROCK (Note: Only data above detection has been included in this plot)

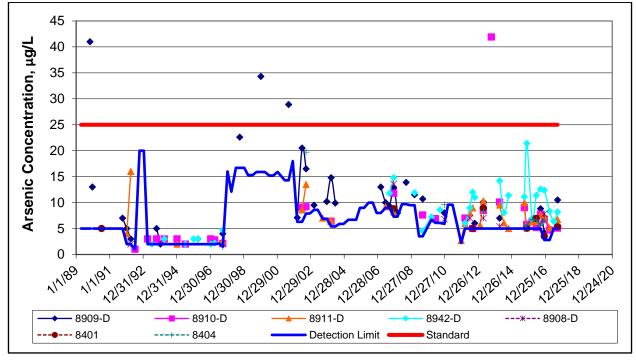


MONITORING WELL TIME-SERIES PLOTS, CONT. ARSENIC



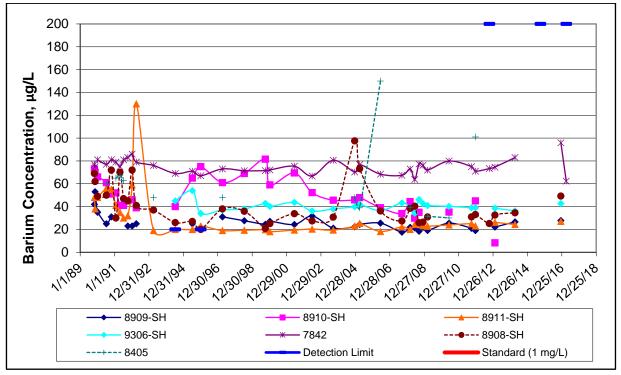
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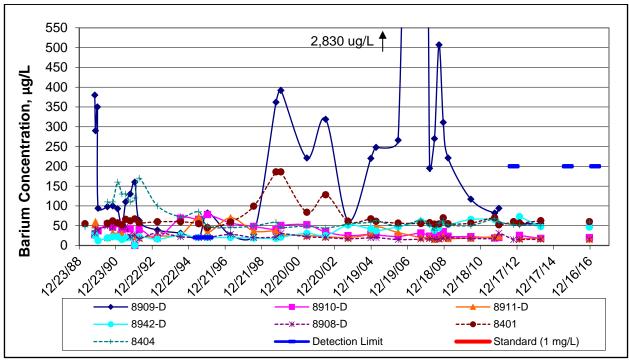
BEDROCK (Note: Only data above detection has been included in this plot)



MONITORING WELL TIME-SERIES PLOTS, CONT. BARIUM

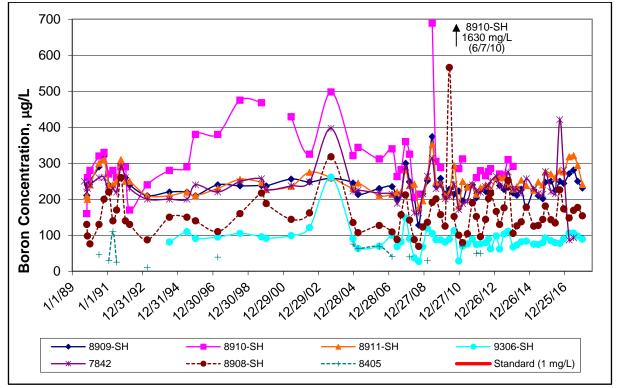
GLACIAL TILL

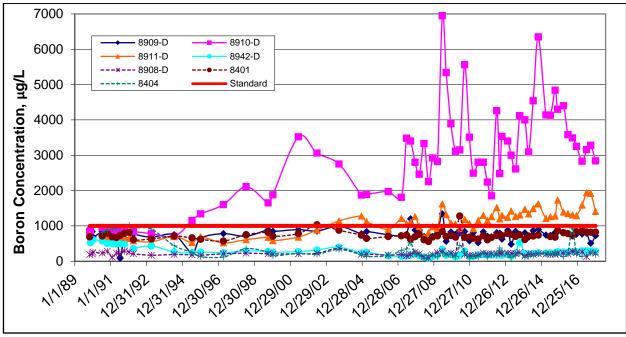




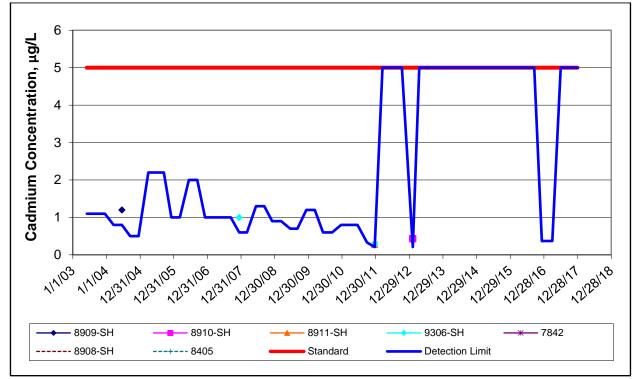
MONITORING WELL TIME-SERIES PLOTS, CONT. BORON

GLACIAL TILL



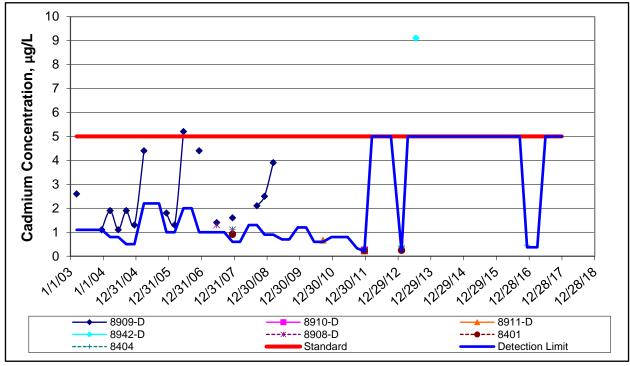


MONITORING WELL TIME-SERIES PLOTS, CONT. CADMIUM



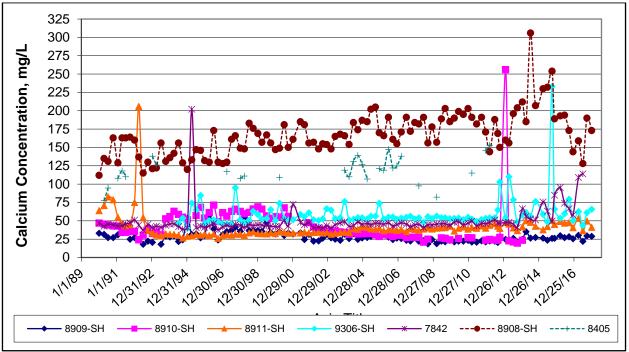
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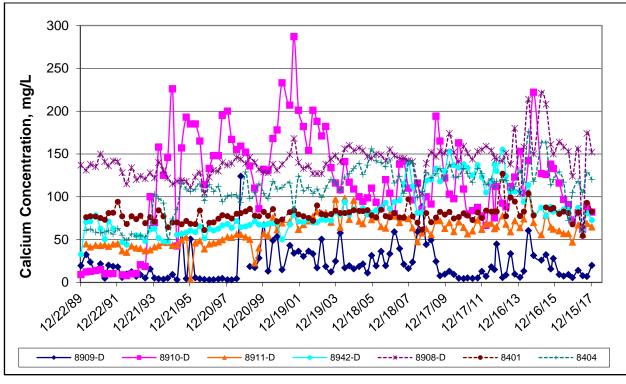
BEDROCK (Note: Only data above detection has been included in this plot)



MONITORING WELL TIME-SERIES PLOTS, CONT. CALCIUM

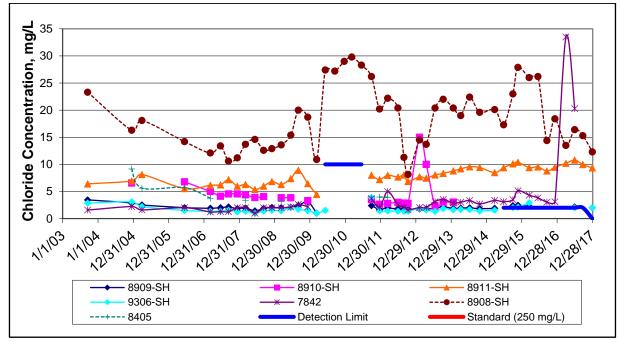
GLACIAL TILL

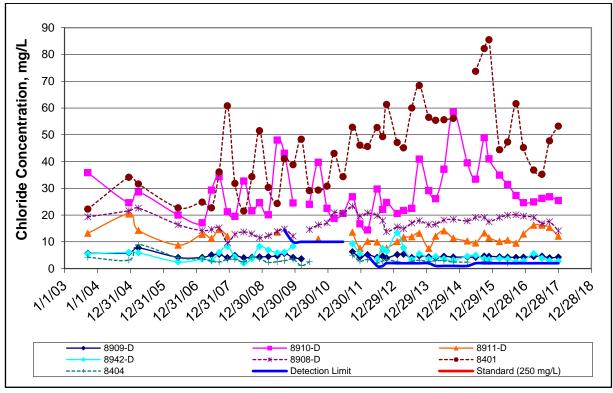




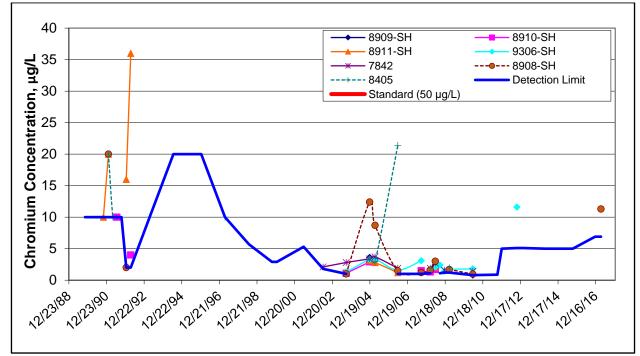
MONITORING WELL TIME-SERIES PLOTS, CONT. CHLORIDE

GLACIAL TILL



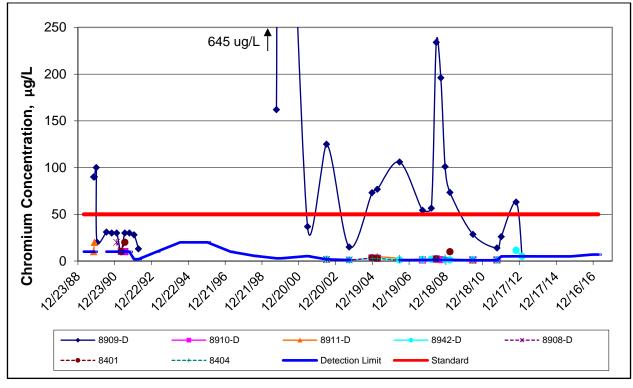


MONITORING WELL TIME-SERIES PLOTS, CONT. CHROMIUM



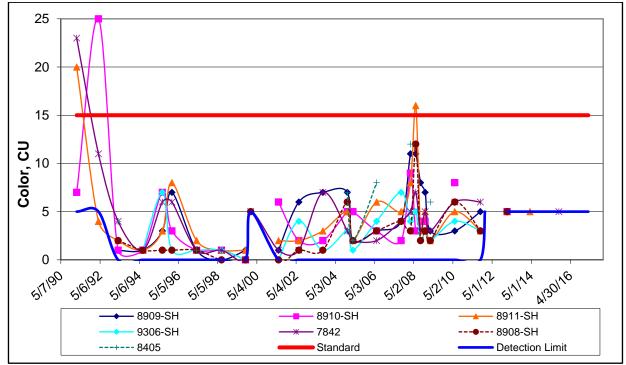
GLACIAL TILL (Note: Only data above detection has been included in this plot)

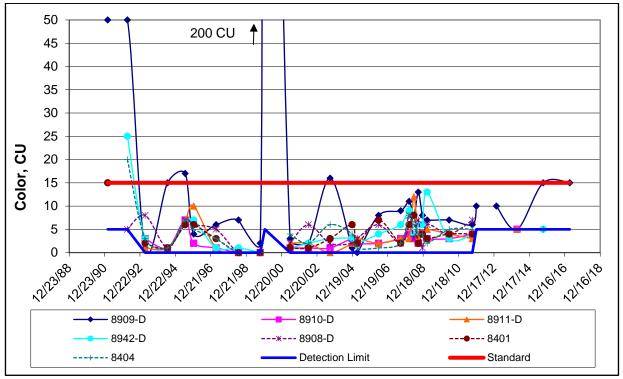
BEDROCK (Note: Only data above detection has been included in this plot)



MONITORING WELL TIME-SERIES PLOTS, CONT. COLOR

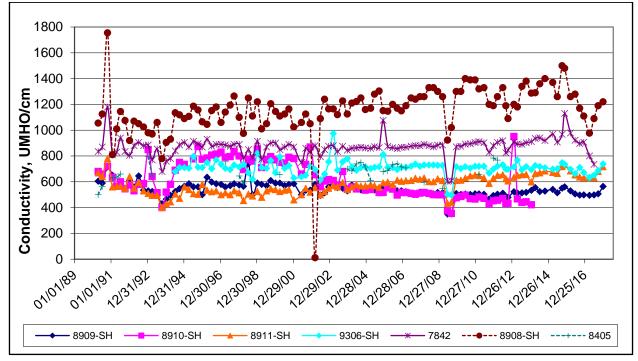
GLACIAL TILL

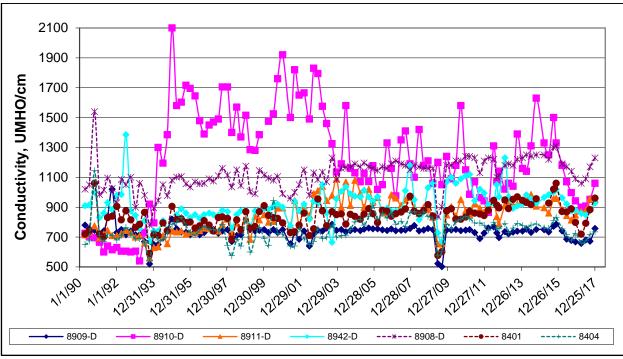




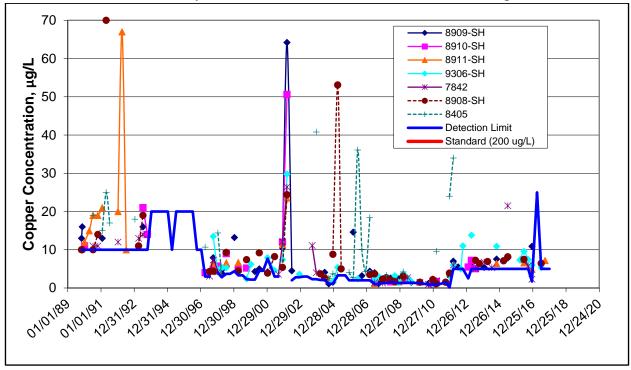
MONITORING WELL TIME-SERIES PLOTS, CONT. CONDUCTIVITY

GLACIAL TILL



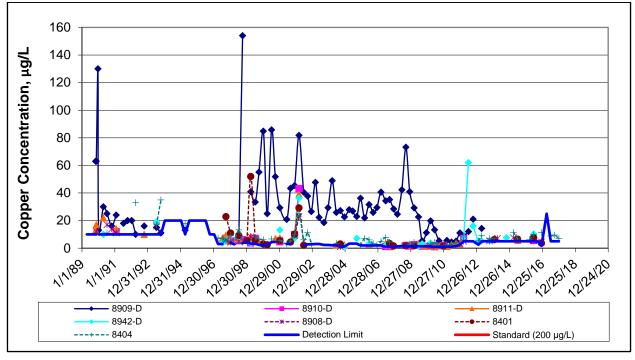


MONITORING WELL TIME-SERIES PLOTS, CONT. COPPER



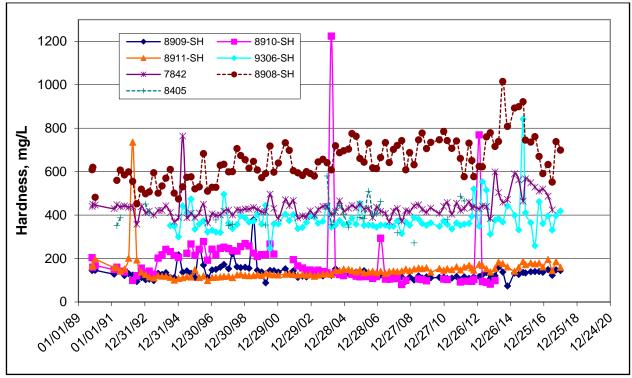
GLACIAL TILL (Note: Only data above detection has been included in this plot)

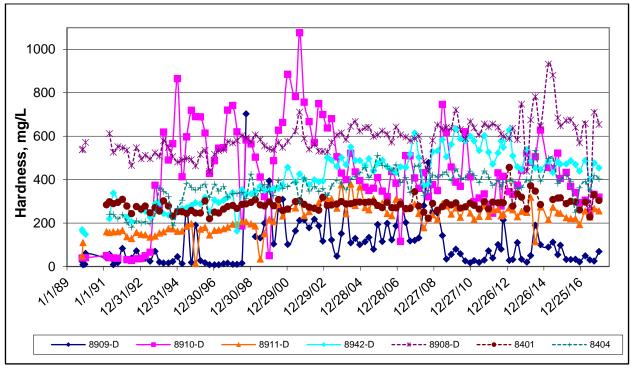
BEDROCK (Note: Only data above detection has been included in this plot)



MONITORING WELL TIME-SERIES PLOTS, CONT. HARDNESS

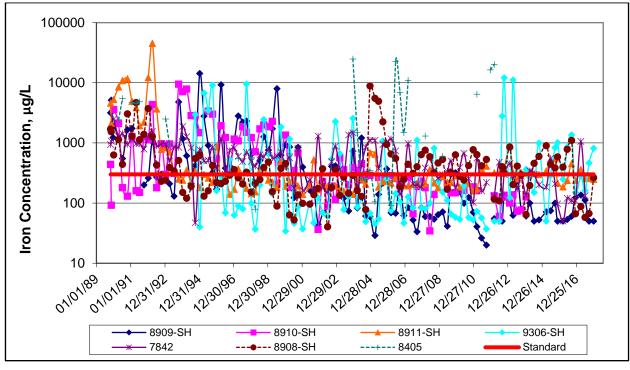
GLACIAL TILL

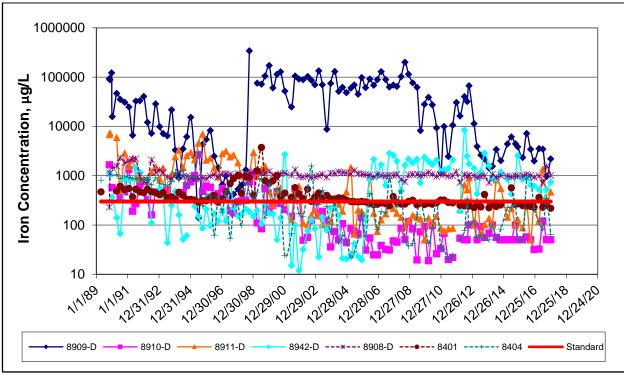




MONITORING WELL TIME-SERIES PLOTS, CONT. IRON

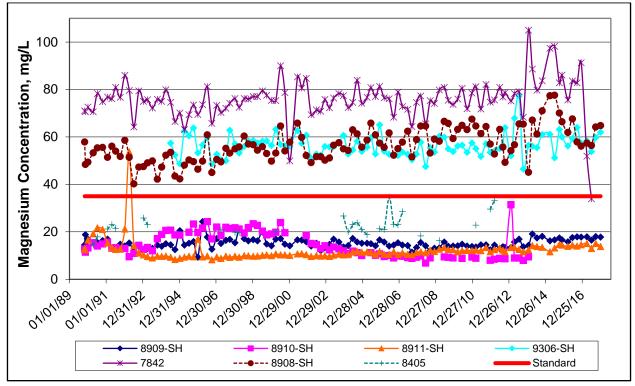
GLACIAL TILL

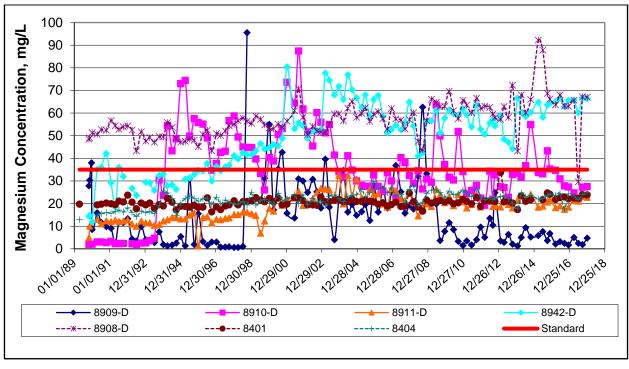




MONITORING WELL TIME-SERIES PLOTS, CONT. MAGNESIUM

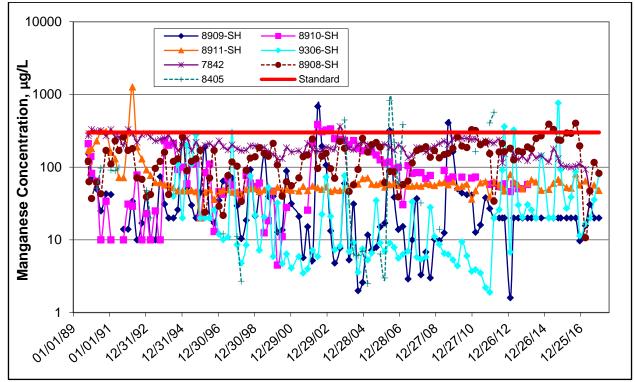
GLACIAL TILL





MONITORING WELL TIME-SERIES PLOTS, CONT. MANGANESE

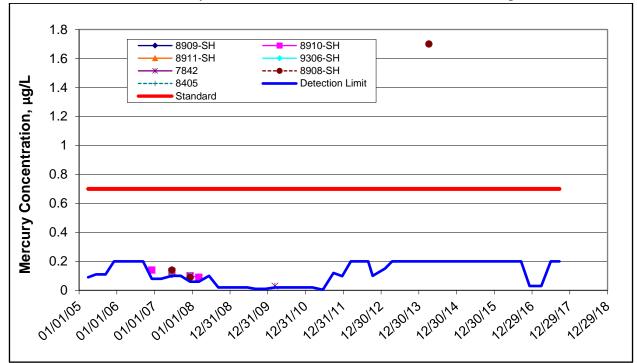
GLACIAL TILL



10000 Manganese Concentration, μg/L 1000 100 10 1 12/31/92 12/31/94 12129102 12128104 12128106 12127108 12125118 11/189 12130196 12130198 12129100 12127110 12126112 12126114 12125116 12124120 1/1/91 8942-D - 8909-D **----** 8910-D - 8911-D ---*--- 8908-D ----- 8401 ---+--- 8404 Standard

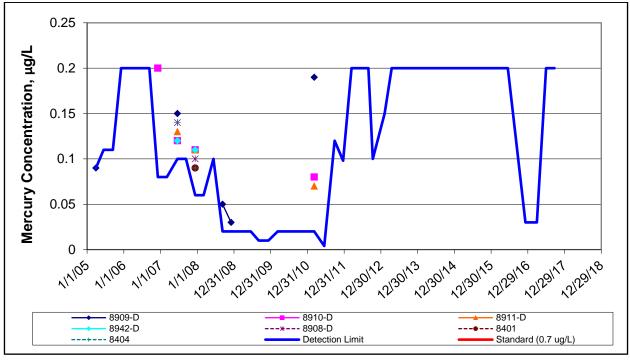
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MONITORING WELL TIME-SERIES PLOTS, CONT. MERCURY

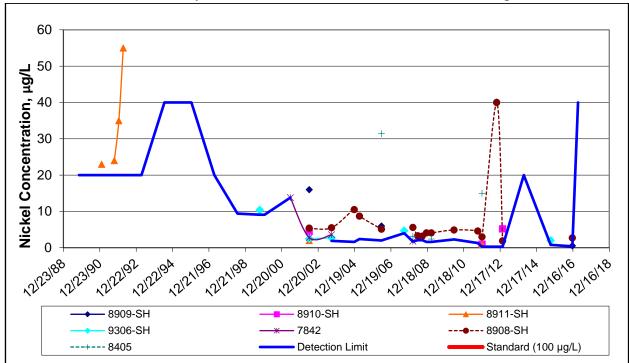


GLACIAL TILL (Note: Only data above detection has been included in this plot)

BEDROCK (Note: Only data above detection has been included in this plot)

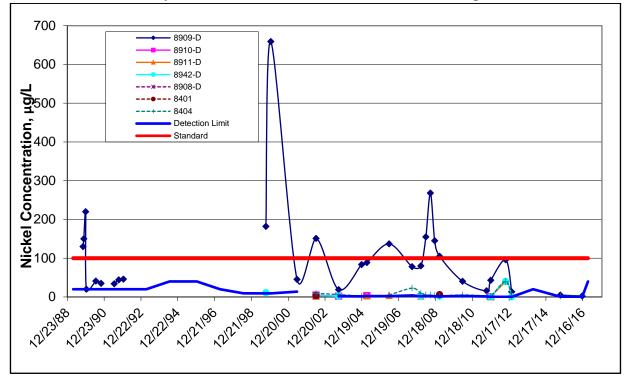


MONITORING WELL TIME-SERIES PLOTS, CONT. NICKEL



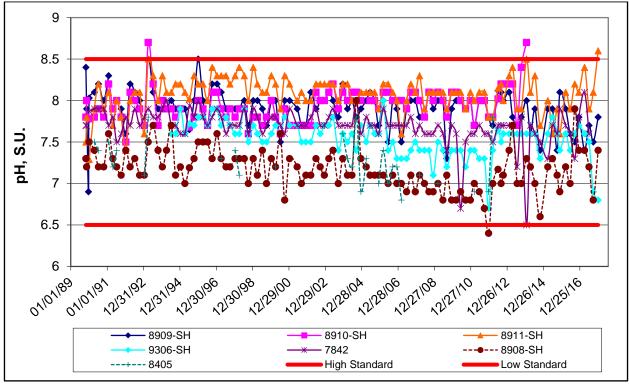
GLACIAL TILL (Note: Only data above detection has been included in this plot)

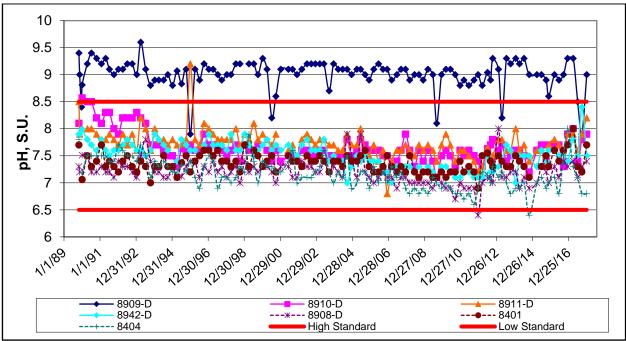
BEDROCK (Note: Only data above detection has been included in this plot)



MONITORING WELL TIME-SERIES PLOTS, CONT. pH

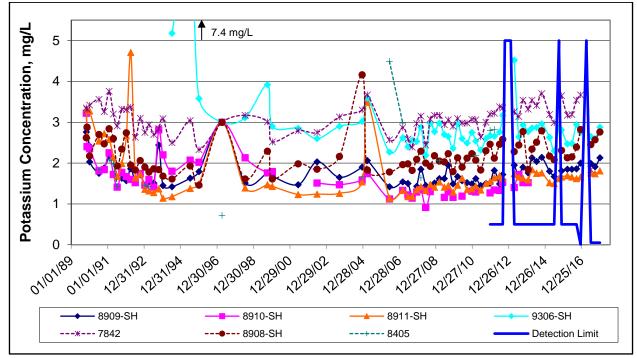
GLACIAL TILL

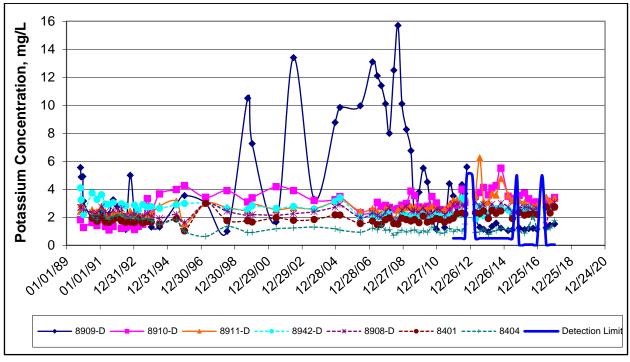




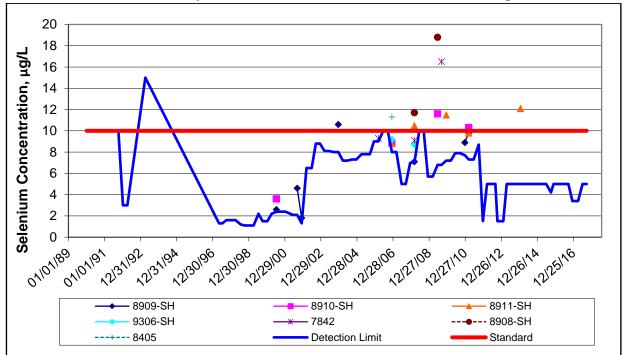
MONITORING WELL TIME-SERIES PLOTS, CONT. POTASSIUM

GLACIAL TILL



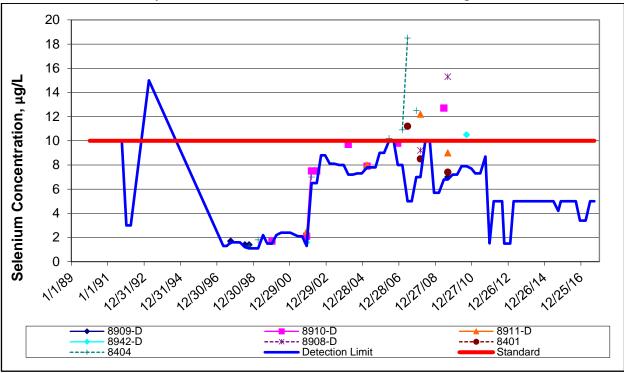


MONITORING WELL TIME-SERIES PLOTS, CONT. SELENIUM



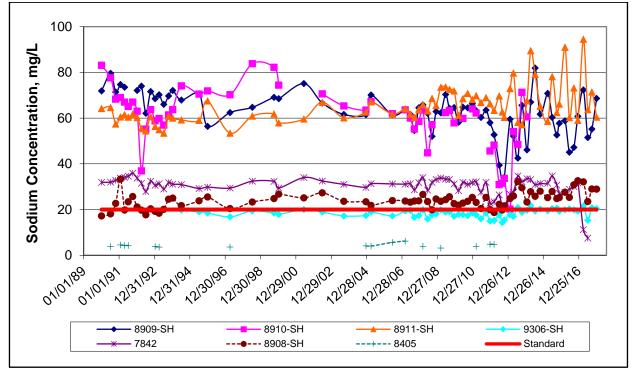
GLACIAL TILL (Note: Only data above detection has been included in this plot)

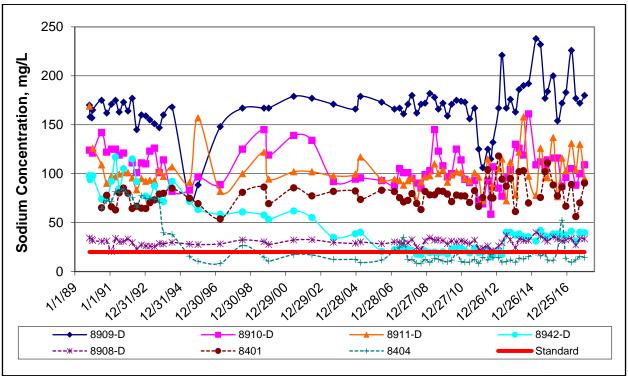
BEDROCK (Note: Only data above detection has been included in this plot)



MONITORING WELL TIME-SERIES PLOTS, CONT. SODIUM

GLACIAL TILL

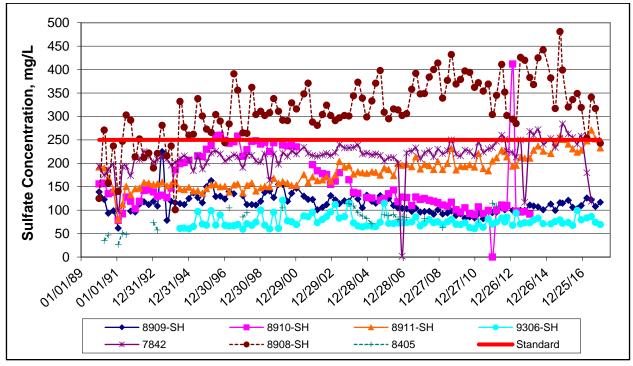


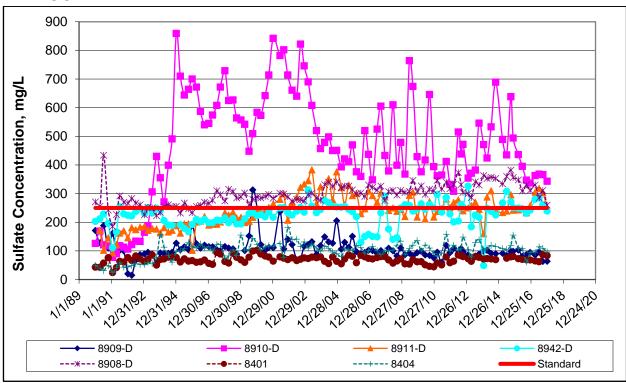


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MONITORING WELL TIME-SERIES PLOTS, CONT. SULFATE

GLACIAL TILL

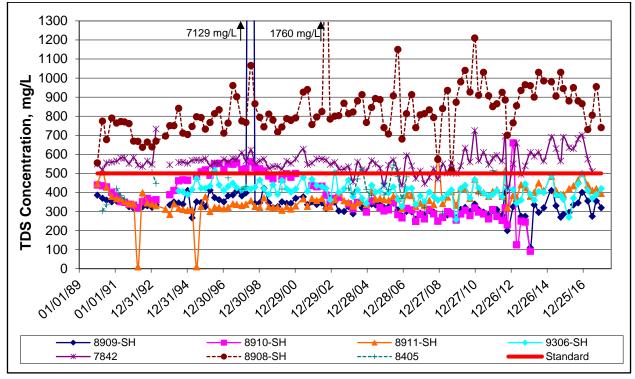


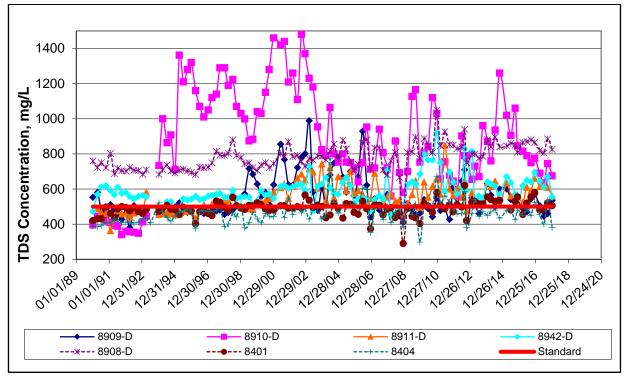


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MONITORING WELL TIME-SERIES PLOTS, CONT. TOTAL DISSOLVED SOLIDS

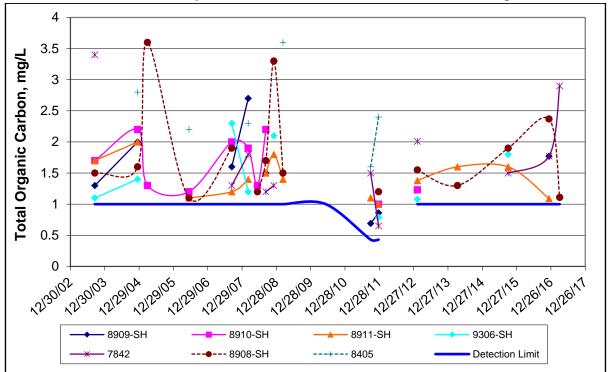
GLACIAL TILL





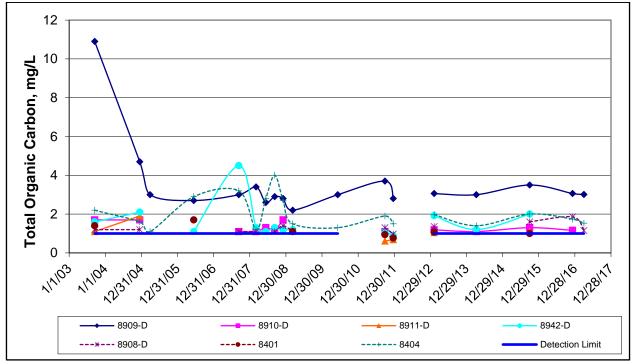


MONITORING WELL TIME-SERIES PLOTS, CONT. TOTAL ORGANIC CARBON



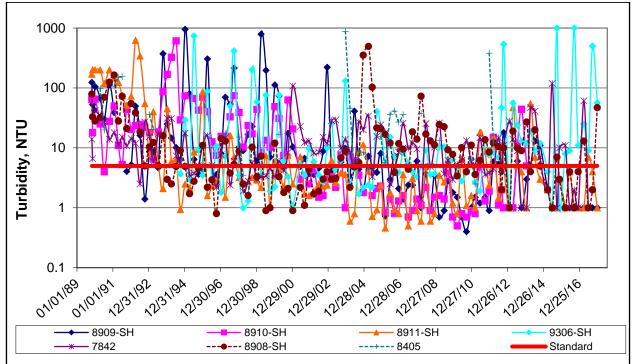
GLACIAL TILL (Note: Only data above detection has been included in this plot)

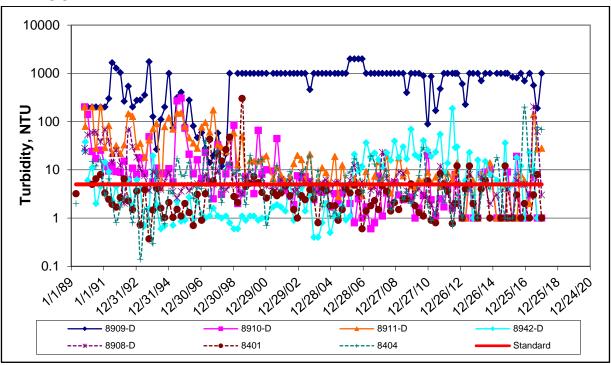
BEDROCK (Note: Only data above detection has been included in this plot)



MONITORING WELL TIME-SERIES PLOTS, CONT. TURBIDITY

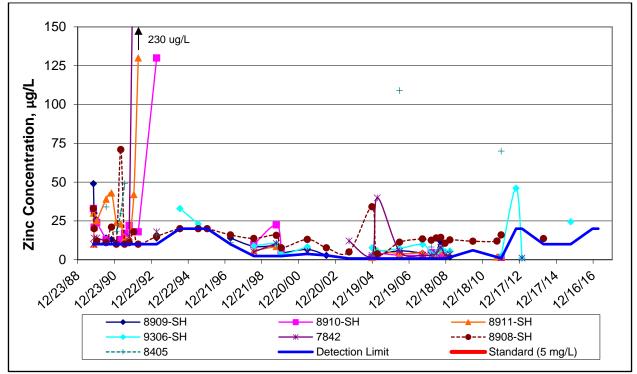
GLACIAL TILL

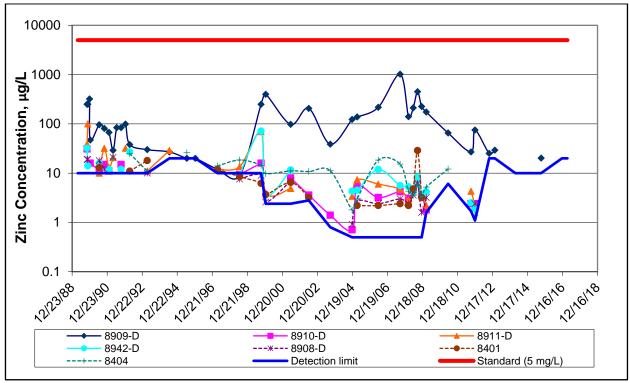




MONITORING WELL TIME-SERIES PLOTS, CONT. ZINC

GLACIAL TILL

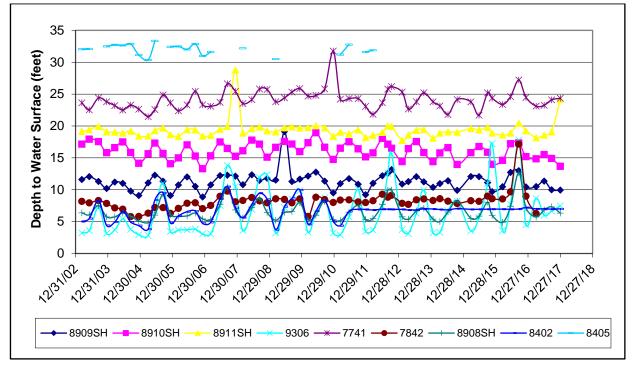




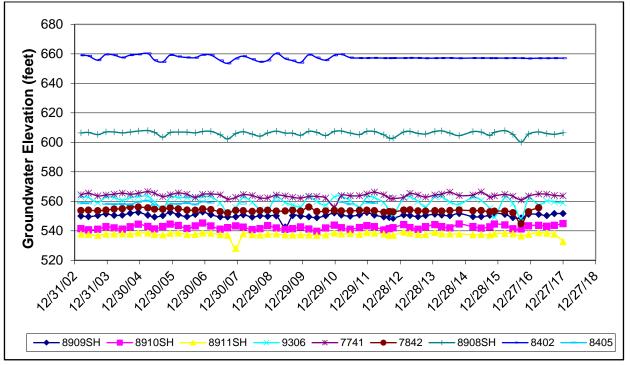
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STATIC GROUNDWATER LEVEL TIME-SERIES PLOTS GLACIAL TILL

DEPTH TO WATER SURFACE

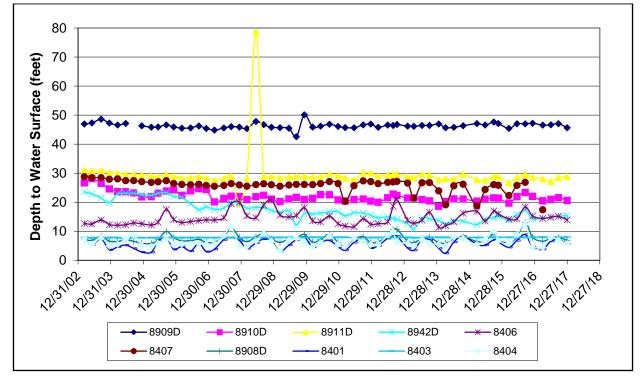


GROUNDWATER ELEVATION



STATIC GROUNDWATER LEVEL TIME-SERIES PLOTS BEDROCK

DEPTH TO WATER SURFACE



GROUNDWATER ELEVATION

