

# **2021 Annual Report**

## **Black Cloud Reclamation**

### **Leadville, Colorado**

*Prepared for:*

### **Resurrection Mining Company**

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## **1.0 INTRODUCTION**

According to Paragraph 22 of the Final Consent Decree with Newmont USA Limited and Resurrection Mining Company (Resurrection), which the United States District Court entered for the District of Colorado in Case no. 83-cv-02388-WYD, this report describes Resurrection Mining Company's activities associated with, or at, the Black Cloud Mine in Lake County for 2021.

Under the Consent Decree and approved modifications, 2014 was the last year with unique prescribed reclamation activities before the onset of the 4-year general monitoring, maintenance, and repair activity period. Therefore, 2021 was the seventh year of the general monitoring, maintenance, and repair period. This report summarizes Resurrection Mining Company's (Resurrection) activities associated with the Black Cloud Mine for the year 2021. No Black Cloud related Consent Decree modifications were applied for or occurred, in 2021.

The following photos show the current vegetation of the Black Cloud Mine area in the summer of 2021.



***Black Cloud Tailing Storage Facilities, July 2021***



*Black Cloud Mine Site, July 2021*

## **2.0 2020 GENERAL MONITORING, MAINTENANCE AND REPAIR ACTIVITIES**

Pursuant to Section 6.1 of *Appendix E to the Consent Decree, Black Cloud Mine Reclamation Plan and Schedule, Leadville, Colorado*, the following 2021 general monitoring, maintenance, and repair activities were performed:

### **2.1 General Monitoring**

**Compliance Activities and Status** – *The toe-drain area was inspected daily, and the backup generator for the toe-drain pumps was exercised weekly. The fence built around the discharge pipe from the toe-drain collection pond in 2019 is working well to prevent beavers from plugging the pipe.*

*The Black Cloud Shaft pump was inspected regularly, and biannual stormwater inspections were performed. Annual maintenance on the Black Cloud shaft pump and motor occurred in September 2021. There are two sets of casing, couplings, and bushings*

*that are rotated every year to minimize the pump's downtime. In addition, the site water controls were maintained in good working condition.*

*Ground testing and electrical inspections were performed on the Black Cloud pump and toe-drain facilities. New fuses were installed in the surge protection at the main electrical service to the Black Cloud toe drain facility.*

*On September 24, 2021, a topographic survey of the Black Cloud Tailings Storage Facility (TSF) surface and surrounding areas was performed. The field survey was performed by Wohnrade Civil Engineers of Broomfield, Colorado, using an aerial drone. Development of the topographic surface from the field survey data is in process. Once completed, the topographic surface will be used to evaluate the settlement of the tailings, if any.*

## **2.2 Re-vegetation**

**Compliance Activities and Status** – 2021 was the seventh year of post-reclamation vegetation monitoring. Resurrection employees inspected the re-vegetation on the Eclipse, Julia Fiske, Helena, Black Cloud Mine, and TSF on August 5, 2021. The Eclipse, Julia Fiske, Helena, Black Cloud Mine, and TSF had a few small areas of noxious weeds identified during the inspection that were sprayed on August 17, 2021. The inspection found that percent cover in the reclaimed areas varied from 85 to 100%, with most areas having very good vegetation in excess of 90% vegetative coverage with all areas having greater than 85% vegetative coverage. The Black Cloud Mine area had a few small bare areas that were identified, and reseeding was done in 2021.

*The Annual Revegetation Inspection report is attached as Appendix A.*

## **2.3 Black Cloud Water Treatment Plant**

**Compliance Activities and Status** - The Black Cloud Toe Drain reverse-osmosis (RO) water treatment plant was not operated in 2021, but remains ready if needed.

## **2.4 Water Conveyance Pipeline to Yak Water Treatment Plant (WTP)**

**Compliance Activities and Status** – The 12-inch pipe used to convey water from the Toe Drain to the Yak WTP was visually inspected to evaluate the presence and thickness of pipe scale. Pipeline pigging is planned for 2022 to remove accumulated scale.

*Two locations along the pipeline (at stations 24+08 and 35+23) have air valves that are prone to freezing. At these locations, valve insulation was added to the air valves to reduce the potential for valve freezing. Additionally, solar power systems were installed, which will be used to power heat tracing on the air valves. The heat tracing is scheduled to be installed in late 2021 or early 2022.*

## 2.5 Toe -Drain Pump Building

*In 2020, the new toe-drain pump building, which is located immediately west of the existing building, was substantially completed. In early 2021, final electrical and controls work was completed, and the new pump building was brought online. During the summer of 2021, minor backfilling and grading work was completed around the building. The new toe-drain pump building was constructed under a Lake County permit and provides increased space for redundant pumps and associated piping, improved flow monitoring, and improved electrical service.*

*The system includes a new backup generator to allow pumping during a temporary power loss. The generator is located within the upper water treatment plant (WTP) building. Minor modifications to the upper WTP building were completed in early November 2021 to provide additional ventilation for the new generator. The new generator was commissioned in mid-November 2021.*

*As part of the National Pollutant Discharge Elimination System (NPDES) permit requirements, a sump and pumping system was installed in November 2020 to collect seepage in a low area in the drainage south of the building. The sump and pumping system were upgraded in September 2021 to provide additional pumping capacity during high-flow periods. The upgrades included the installation of a secondary sump pump and a buried 4-inch diameter high-density polyethylene (HDPE) pipe from the sump to the toe building. Magnetic flowmeters will be installed to monitor flows from the sump.*

## 2.6 Stormwater and Flood Control

**Compliance Activities and Status** – Inspections performed in 2021 indicated that all existing stormwater diversion channels are performing as intended.

**Other Activities and Status** - In 2017, Resurrection performed hydrologic and hydraulic modeling along the portion of Iowa Gulch that flows by the existing TSF and water treatment buildings. Modeling indicated that the TSF and the water treatment buildings could potentially flood during a high precipitation event. As a result, construction of flood control structures along Iowa Gulch and the TSF began in 2017 and continued in 2018 and 2019 and were completed in 2021. This work is not required under the Consent Decree but was performed by Resurrection in order to provide additional protection of site facilities.

## 3.0 RECLAMATION COSTS

The reclamation costs are complete since the site is now in the general monitoring, maintenance, and repair period. Therefore no costs are included in this report.

## **4.0 WATER QUALITY**

Quarterly groundwater and surface water samples were collected on March 2, May 4, August 4, and October 20, 2021. The field parameter and analytical results for the quarterly samples are presented in Table 4.0. MW-5 analytical results were below the NPL specified in Table 2 for 2021. Water quality results from 2009-2020 can be found in Appendix B.

## **5.0 SUMMARY**

Since completing reclamation activities in 2014, only minor maintenance of the TSF and the Black Cloud mine areas has been required. The Black Cloud maintenance has primarily consisted of noxious weed spraying, filling in a few low spots on the TSF, and reseeding a few small areas. In addition to requirements under the Consent decree, Resurrection has constructed flood control berms and constructed a new toe-drain building and pumping system; all performed voluntarily.

**Table 4.0 – 2020 Black Cloud Surface and Ground Water Monitoring Results**

SAMPLE LOCATION		Maximum Method	MW-1		MW-1		MW-1		MW-1	
DATE		Detection	3/3/2021		5/5/2021		8/4/2021		10/20/2021	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.000476		0.000476		0.000833		0.000790	
Copper (D)	mg/L	0.0008	<0.0008	U	0.00104	B	0.00105	B	0.00098	B
Lead (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	0.00017	B
Manganese (D)	mg/L	0.0004	<0.0004	U	<0.0004	U	0.00084	B	<0.0004	U
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.0382		0.0407		0.0900		0.0732	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	116		111		123		124	
Nitrate/Nitrite as N	mg/L	0.02	0.183		0.136		0.175		0.150	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	0.289		<0.05	U	<0.05	U
TDS	mg/L	20	128		126		132		128	
Sulfate	mg/L	1	14.2		13.1		24.6		15.8	
Total Alkalinity	mg/L	2	102		118		93.3		102	
Field Parameters	Units		3/3/2021		5/5/2021		8/5/2021		10/20/2021	
pH	std. units	0.01	7.39		7.45		7.42		7.61	
Temperature	°C	0.1	1.5		1.0		7.1		5.8	
Conductivity	umhos/cm	1	228.0		220.7		221.0		228.6	
Depth to Water	Feet	0.1	8.01		7.61		7.24		7.64	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**Table 4.0 – 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method	MW-2		MW-2		MW-2		MW-2	
DATE		Detection	3/3/2021		5/5/2021		8/4/2021		10/20/2021	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	FROZEN	FROZEN	0.000113	B	0.000227	B		
Copper (D)	mg/L	0.0008			<0.0008	U	<0.0008	U		
Lead (D)	mg/L	0.0001			<0.0001	U	<0.0001	U		
Manganese (D)	mg/L	0.0004			0.0125		0.00366			
Mercury (D)	mg/L	0.0002			<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.006			0.0844		0.0940			
Cyanide (T)	mg/L	0.003			<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	0.2			121		124			
Nitrate/Nitrite as N	mg/L	0.02			0.363		0.228			
Nitrogen, ammonia	mg/L	0.05			<0.05	U	<0.05	U		
TDS	mg/L	20			134		124			
Sulfate	mg/L	1			30.8		20.4			
Total Alkalinity	mg/L	2			86.7		99.4			
Field Parameters	Units		3/3/2021		5/5/2021		8/5/2021		10/20/2021	
pH	std. units	0.01	FROZEN	FROZEN			7.92		7.75	
Temperature	°C	0.1					8.2		6.1	
Conductivity	umhos/cm	1					223.6		230.5	
Depth to Water	Feet	0.1					5.84		6.57	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**Table 4.0 – 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method	MW-3		MW-3		MW-3		MW-3	
DATE	Detection		3/3/2021		5/5/2021		8/4/2021		10/20/2021	
PARAMETER	UNITS	LIMIT	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00117		0.00153		0.00126		0.00124	
Copper (D)	mg/L	0.0008	0.00085	B	<0.0008	U	0.00089	B	0.00095	B
Lead (D)	mg/L	0.01	<0.01	U	<0.0001	U	<0.0001	U	0.00011	B
Manganese (D)	mg/L	0.04	12.8		9.60		7.07		7.92	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.6	1.83		1.39		0.846		0.760	
Cyanide (T)	mg/L	0.003	0.0058	B	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	633		717		643		567	
Nitrate/Nitrite as N	mg/L	0.02	0.063	B	0.085	B	0.029	B	0.086	B
Nitrogen, ammonia	mg/L	0.05	0.353		0.944		0.662		0.550	
TDS	mg/L	20	888		1000		810		736	
Sulfate	mg/L	20	498		620		514		396	
Total Alkalinity	mg/L	2	173		129		144		167	
Field Parameters	Units		3/2/2021		5/4/2021		8/4/2021		10/20/2021	
pH	std. units	0.01	6.75		6.87		7.23		7.06	
Temperature	°C	0.1	2.1		2.6		8.2		5.2	
Conductivity	umhos/cm	1	1172		1308		990		905	
Depth to Water	Feet	0.1	4.95		4.79		2.97		4.91	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**Table 4.0 – 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Method	MW-4		MW-4		MW-4		MW-4	
DATE		Detection	3/2/2021		5/4/2021		8/4/2021		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.000770		0.000768		0.00159		0.000761	
Copper (D)	mg/L	0.0008	<0.0008	U	0.00100	B	0.00100	B	0.00092	B
Lead (D)	mg/L	0.0001	<0.0001	U	0.00015	B	<0.0001	U	<0.0001	U
Manganese (D)	mg/L	0.0004	<0.0004	U	<0.0004	U	<0.0004	U	<0.0004	U
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.147		0.150		0.322		0.148	
Cyanide (T)	mg/L	0.003	0.0107		<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	246		251		316		233	
Nitrate/Nitrite as N	mg/L	0.02	0.424		0.641		0.774		0.423	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	324		354		372		268	
Sulfate	mg/L	5	139		156		190		107	
Total Alkalinity	mg/L	2	116		99.4		102		105	
Field Parameters	Units		3/2/2021		5/4/2021		8/4/2021		10/20/2021	
pH	std. units	0.01	7.42		7.47		7.61		7.44	
Temperature	°C	0.1	4.0		3.5		6.2		6.0	
Conductivity	umhos/cm	1	474.6		432.3		640.8		421.1	
Depth to Water	Feet	0.1	17.66		16.99		12.85		17.75	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**Table 4.0 – 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method	MW-5		MW-5		MW-5		MW-5	
DATE		Detection	3/2/2021		5/4/2021		8/4/2021		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.000171	B	0.000224	B	0.000181	B	0.000184	B
Copper (D)	mg/L	0.0008	<0.0008	U	<0.0008	U	<0.0008	U	<0.0008	U
Lead (D)	mg/L	0.0001	0.00025	B	0.00011	B	0.00018	B	0.00036	B
Manganese (D)	mg/L	0.0004	<0.0004	U	<0.0004	U	0.00052	B	0.00067	B
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.0306		0.0382		0.0317		0.0320	
Cyanide (T)	mg/L	0.003	0.0071	B	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	162		184		189		178	
Nitrate/Nitrite as N	mg/L	0.02	0.910		0.786		0.970		1.000	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	200		222		212		196	
Sulfate	mg/L	5	46.5		47.1		59.6		45.0	
Total Alkalinity	mg/L	2	114		132		123		135	
Field Parameters	Units		3/2/2021		5/4/2021		8/4/2021		10/20/2021	
pH	std. units	0.01	6.90		7.15		7.95		7.82	
Temperature	°C	0.1	4.1		4.2		6.1		5.0	
Conductivity	umhos/cm	1	321.4		345.9		339.2		332.0	
Depth to Water	Feet	0.1	15.53		14.64		13.85		15.22	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**Table 4.0 – 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method	MW-6		MW-6		MW-6		MW-6	
DATE		Detection	3/2/2021		5/4/2021		8/4/2021		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.000069	B	<0.00005	U	0.000062	B	0.000052	B
Copper (D)	mg/L	0.0008	<0.0008	U	<0.0008	U	<0.0008	U	<0.0008	U
Lead (D)	mg/L	0.0001	0.00021	B	0.00011	B	0.00015	B	0.00018	B
Manganese (D)	mg/L	0.0004	0.00051	B	<0.0004	U	0.00044	B	0.00081	B
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.0179		0.0255		0.0182		0.0189	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	150		151		167		163	
Nitrate/Nitrite as N	mg/L	0.02	0.584		0.720		0.714		0.690	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	186		188		192		184	
Sulfate	mg/L	5	44.2		41.8		56.4		44.0	
Total Alkalinity	mg/L	2	104		107		107		107	
Field Parameters	Units		3/2/2021		5/4/2021		8/4/2021		10/20/2021	
pH	std. units	0.01	6.00		6.48		7.80		6.55	
Temperature	°C	0.1	5.4		5.8		5.9		6.8	
Conductivity	umhos/cm	1	297.7		314.2		337.5		316.9	
Depth to Water	Feet	0.1	14.62		13.24		13.43		14.80	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**Table 4.1 – 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method	SW-5		SW-5		SW-5		SW-5	
DATE		Detection	3/2/2021		5/5/2021		8/4/2021		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.000581		0.000972		0.000734		0.000570	
Copper (D)	mg/L	0.0008	0.00108	B	0.00205		0.00222		0.00152	B
Lead (D)	mg/L	0.0001	0.00011	B	0.00020	B	0.00146		0.00044	B
Manganese (D)	mg/L	0.0004	0.00170	B	0.00416		0.0129		0.00888	
Mercury (D)	mg/L	0.0002	<0.0002	U	0.00102		<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.155		0.252		0.135		0.132	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	159		140		114		128	
Nitrate/Nitrite as N	mg/L	0.02	0.237		0.253		0.366		0.197	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	0.290		<0.05	U	<0.05	U
TDS	mg/L	20	192		170		126		134	
Sulfate	mg/L	5	52.4		41.2		28.2		21.6	
Total Alkalinity	mg/L	2	102		96.2		83.2		101	
Field Parameters	Units		3/2/2021		5/5/2021		8/5/2021		10/20/2021	
pH	std. units	0.01	7.59		7.92		8.30		8.37	
Temperature	°C	0.1	1.6		3.0		9.6		1.2	
Conductivity	umhos/cm	1	11.90		383.2		216.9		239.7	
Depth to Water	Feet	0.1	NA		NA		NA		NA	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**APPENDIX A**  
**ANNUAL REVEGETATION INSPECTION**

## Black Cloud Mine Site Annual Revegetation Inspection

Date: 8-5-2021

Inspected By: William SANTO S

Weather: 57° HAZY - FIRE SMOKE FROM WEST COAST.

### **1. Eclipse Area**

- What approximate percent cover is the vegetation over the whole area? 100%
- Are there any bare spots (no vegetation or little vegetation) in need of repair? NO
- If there are bare spots, indicate how many approximate square footage and location in the comment section.
- Are there any noxious weeds that need treatment? Yes (minor)

Comments/corrective action: Good Vegetation  
MOUNTAIN VALLEY VENTURES (Don Donahue)  
SPRAYED 8/17/2021

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### **2. Julia Fiske Area**

- What approximate percent cover is the vegetation over the whole area? 90%
- Are there any bare spots (no vegetation or little vegetation) in need of repair? NO
- If there are bare spots, indicate how many approximate square footage and location in the comment section.
- Are there any noxious weeds that need treatment? Yes

Comments/corrective action: Good Veg Cover.  
SPRAYED 8-17-2021

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### **3. Helena Area**

- What approximate percent cover is the vegetation over the whole area? 90%
- Are there any bare spots (no vegetation or little vegetation) in need of repair? NO

- If there are bare spots, indicate how may approximate square footage and location in the comment section.
- Are there any noxious weeds that need treatment? *Yes*
- Comments/corrective action: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Sprayed For Noxious Weeds 8-17-21*

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#### 4. Black Cloud Mine Area

- What approximate percent cover is the vegetation over the whole area? *85%*
- Are there any bare spots (no vegetation or little vegetation) in need of repair? *No*
- If there are bare spots, indicate how may approximate square footage and location in the comment section.
- Are there any noxious weeds that need treatment? *Yes*
- Comments/corrective action: *Good Vegetation Cover*  
\_\_\_\_\_  
\_\_\_\_\_

*8-17-21 Sprayed.*

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#### 5. Black Cloud Tailing Facility Area

- What approximate percent cover is the vegetation over the whole area? *90%*
- Are there any bare spots (no vegetation or little vegetation) in need of repair? *No*
- If there are bare spots, indicate how may approximate square footage and location in the comment section.
- Are there any noxious weeds that need treatment? *No*
- Comments/corrective action: *Vegetation growing good  
Re Seeded some of the bare areas  
Small grass has begun to grow.*  
\_\_\_\_\_  
\_\_\_\_\_

**APPENDIX B**  
**WATER QUALITY**

**2008 - Black Cloud Surface and Ground Water Monitoring Results**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1	MW-1	MW-2	MW-2	
DATE			9/29/2008	10/17/2008	9/29/2008	10/17/2008	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0009	0.001	0.0016	0.0012	
Copper (D)	mg/L	0.0005	0.0009	0.0011	0.0022	0.0018	
Lead (D)	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Manganese (D)	mg/L	0.0005	0.0027	0.0055	0.384	0.376	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.072	0.076	0.148	0.139	
Cyanide (T)	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	
Hardness as CaCO <sub>3</sub>	mg/L	1	111	114	416	403	
Nitrate/Nitrite as N	mg/L	0.02	<0.05	0.14	0.36	0.53	
Nitrogen, ammonia	mg/L	0.005	0.14	<0.05	0.54	0.35	
TDS	mg/L	10	120	120	610	550	
Sulfate	mg/L	10	10	20	370	330	
Total Alkalinity	mg/L	2	100	98	71	74	
Field Parameters	Units		9/29/2008	10/17/2008	9/29/2008	10/17/2008	
pH	std. units	0.01	7.93	9.0	7.96	8.8	
Temperature	°C	0.1		6.69		7.67	
Conductivity	umhos/cm	1	175.2	182.5	478	499	
Depth to Water	Feet	0.1	7.8	7.9	5.8	5.55	

D=Dissolved

T=Total

**2008 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3	MW-3	MW-4	MW-4	
DATE			9/29/2008	10/17/2008	9/29/2008	10/17/2008	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0044	0.0043	0.0017	0.0019	
Copper (D)	mg/L	0.0005	0.0032	0.0033	0.0032	0.0014	
Lead (D)	mg/L	0.0001	0.0001	<0.0001	0.0002	<0.0001	
Manganese (D)	mg/L	0.0005	3.95	2.58	0.0011	0.0023	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	1.55	1.37	0.374	0.363	
Cyanide (T)	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	
Hardness as CaCO <sub>3</sub>	mg/L	1	904	n/a	321	328	
Nitrate/Nitrite as N	mg/L	0.02	1.29	0.04	<0.05	0.63	
Nitrogen, ammonia	mg/L	0.005	0.02	1.44	0.71	<0.05	
TDS	mg/L	10	1400	1370	430	430	
Sulfate	mg/L	10	880	890	220	230	
Total Alkalinity	mg/L	2	124	114	91	90	
Field Parameters	Units		9/29/2008	10/17/2008	9/29/2008	10/17/2008	
pH	std. units	0.01	7.78	8.3	7.89	9.4	
Temperature	°C	0.1		6.99		6.94	
Conductivity	umhos/cm	1	689	786	387	428	
Depth to Water	Feet	0.1	3.9	4.05	12	12.4	

D=Dissolved

T=Total

**2008 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection Limits	MW-5	MW-5	MW-6	MW-6		
DATE				9/28/2008	10/17/2008	9/28/2008	10/17/2008		
PARAMETER	UNITS			Conc.	Conc.	Conc.	Conc.		
Cadmium (D)	mg/L	0.0001	0.005	0.0002	0.0002	<0.0001	<0.0001		
Copper (D)	mg/L	0.0005	0.05	0.0032	<0.0005	0.0014	<0.0005		
Lead (D)	mg/L	0.0001	0.16	0.0012	0.0002	0.0002	0.0003		
Manganese (D)	mg/L	0.0005	4.4	0.0011	0.0013	0.0026	0.0014		
Mercury (D)	mg/L	0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002		
Zinc (D)	mg/L	0.002	0.5	0.047	0.033	0.038	0.031		
Cyanide (T)	mg/L	0.005	0.2	<0.005	<0.005	<0.005	<0.005		
Hardness as CaCO <sub>3</sub>	mg/L	1	Report	173	170	174	172		
Nitrate/Nitrite as N	mg/L	0.02	Report	<0.05	1.43	<0.05	0.96		
Nitrogen, ammonia	mg/L	0.005	Report	1.52	<0.05	1.02	<0.05		
TDS	mg/L	10	1,040	220	210	190	210		
Sulfate	mg/L	10	1,300	60	60	70	70		
Total Alkalinity	mg/L	2	Report	111	110	110	110		
Field Parameters	Units			9/28/2008	10/17/2008	9/28/2008	10/17/2008		
pH	std. units	0.01	Report	8.16	10.3	8.58	10.4		
Temperature	°C	0.1	Report		6.76		6.84		
Conductivity	umhos/cm	1	Report	251	267	245	250		
Depth to Water	Feet	0.1	Report	12	12.3	21.1	13.6		

D=Dissolved

T=Total

**2008 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5	SW-5	
DATE			9/29/2008	10/17/2008	
PARAMETER	UNITS		Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0009	0.0014	
Copper (D)	mg/L	0.0005	0.0017	0.0012	
Lead (D)	mg/L	0.0001	0.0005	0.0005	
Manganese (D)	mg/L	0.0005	0.0331	0.0486	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.235	0.355	
Cyanide (T)	mg/L	0.005	<0.005	<0.005	
Hardness as CaCO <sub>3</sub>	mg/L	1	162	220	
Nitrate/Nitrite as N	mg/L	0.02	<0.05	0.32	
Nitrogen, ammonia	mg/L	0.005	0.27	<0.05	
TDS	mg/L	10	200	270	
Sulfate	mg/L	10	70	120	
Total Alkalinity	mg/L	2	97	99	
Field Parameters	Units		9/29/2008	10/17/2008	
pH	std. units	0.01	8.35	8.8	
Temperature	°C	0.1		6.85	
Conductivity	umhos/cm	1	244	317	
Depth to Water	Feet	0.1	NA	NA	

D=Dissolved

T=Total

**2009 - Black Cloud Surface and Ground Water Monitoring Results**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1	MW-1	MW-1	MW-1	MW-1	
DATE			3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	Varies	0.001	0.0013	0.0003	<0.001	0.0008	
Copper (D)	mg/L	Varies	0.0013	0.0028	<0.0005	<0.0005	<0.0005	
Lead (D)	mg/L	Varies	0.0006	0.0071	0.0006	<0.001	0.0004	
Manganese (D)	mg/L	Varies	0.0095	0.0518	0.175	0.033	0.011	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	Varies	0.058	0.07	0.088	0.07	0.056	
Cyanide (T)	mg/L	Varies	<0.005	<0.005	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	116	116	85	111	110	
Nitrate/Nitrite as N	mg/L	0.02	0.25	0.25	0.10	0.17	0.24	
Nitrogen, ammonia	mg/L	Varies	<0.05	<0.05	<0.05	<0.05	<0.05	
TDS	mg/L	10	120	130	100	110	110	
Sulfate	mg/L	10	30	30	20	20	30	
Total Alkalinity	mg/L	Varies	102	99	80	202	100	
Field Parameters	Units		3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
pH	std. units	0.01	8.33	7.48	7.79	8.48	8.4	
Temperature	°C	0.1	4.0	3.0	7.0	3.5	3.2	
Conductivity	umhos/cm	1	132.6	189.1	335	160.2	208(Lab)	
Depth to Water	Feet	0.1	8.13	7.95	6.80	7.50	5.8	

D=Dissolved

T=Total

**2009 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2	MW-2	MW-2	MW-2	MW-2	
DATE			3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	Varies	0.0013	0.0005	0.0004	<0.001	0.0006	
Copper (D)	mg/L	Varies	0.0013	0.0012	0.0012	<0.005	0.0005	
Lead (D)	mg/L	Varies	0.0001	0.0004	0.0001	<0.001	0.0001	
Manganese (D)	mg/L	Varies	0.297	0.286	0.22	0.299	0.107	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	Varies	0.282	0.189	0.137	0.18	0.102	
Cyanide (T)	mg/L	Varies	<0.005	<0.002	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	469	431	335	473	258	
Nitrate/Nitrite as N	mg/L	0.02	0.95	0.92	0.48	0.50	0.71	
Nitrogen, ammonia	mg/L	Varies	<0.3	<0.5	0.12	0.29	0.15	
TDS	mg/L	10	640	570	480	610	330	
Sulfate	mg/L	10	390	340	270	370	170	
Total Alkalinity	mg/L	Varies	75	75	70	71	95	
Field Parameters	Units		3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
pH	std. units	0.01	8.49	7.56	7.24	8.28	8.31	
Temperature	°C	0.1	4.2	6.4	8.8	4.2	3.8	
Conductivity	umhos/cm	1	285	276	335	414	490(Lab)	
Depth to Water	Feet	0.1	6.25	6.1	5.45	5.90	5.8	

D=Dissolved

T=Total

**2009 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3	MW-3	MW-3	MW-3	MW-3	
DATE			3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	Varies	0.043	0.0045	0.0043	0.003	0.0039	
Copper (D)	mg/L	Varies	0.021	0.002	0.003	<0.005	0.0034	
Lead (D)	mg/L	Varies	0.002	0.0003	<0.0002	<0.001	0.0001	
Manganese (D)	mg/L	Varies	72.9	3.88	4.53	4.22	4.46	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	Varies	<1.0	1.7	1.25	1.18	1.22	
Cyanide (T)	mg/L	Varies	<0.005	0.005	0.004	0.005	0.006	
Hardness as CaCO <sub>3</sub>	mg/L	1	920	983	950	900	876	
Nitrate/Nitrite as N	mg/L	0.02	0.09	0.04	0.03	<0.02	0.03	
Nitrogen, ammonia	mg/L	Varies	2.1	<0.05	2.22	2.07	2.17	
TDS	mg/L	10	1360	1380	1440	1210	1230	
Sulfate	mg/L	10	880	890	930	780	790	
Total Alkalinity	mg/L	Varies	70	63	70	72	83	
Field Parameters	Units		3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
pH	std. units	0.01	7.96	7.28	7.76	7.28	8.07	
Temperature	°C	0.1	6.7	7.2	7.2	7.2	4.1	
Conductivity	umhos/cm	1	370	411	686	411	470(Lab)	
Depth to Water	Feet	0.1	4.55	4.50	3.65	4.50	4.4	

D=Dissolved

T=Total

**2009 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4	MW-4	MW-4	MW-4	MW-4	
DATE			3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	Varies	0.0018	0.0014	0.0019	0.002	0.0015	
Copper (D)	mg/L	Varies	0.0013	0.0018	0.0019	<0.005	0.0036	
Lead (D)	mg/L	Varies	0.0001	0.0002	0.0003	<0.001	0.0001	
Manganese (D)	mg/L	Varies	0.0205	0.0032	0.0054	<0.005	0.0014	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	Varies	0.315	0.254	0.351	0.28	0.278	
Cyanide (T)	mg/L	Varies	<0.005	<0.002	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	332	293	288	296	302	
Nitrate/Nitrite as N	mg/L	0.02	0.81	0.81	0.54	0.55	0.61	
Nitrogen, ammonia	mg/L	Varies	<0.3	<0.05	<0.05	<0.05	<0.05	
TDS	mg/L	10	450	370	380	390	390	
Sulfate	mg/L	10	250	200	190	210	220	
Total Alkalinity	mg/L	Varies	87	93	94	93	94	
Field Parameters	Units		3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
pH	std. units	0.01	8.31	7.62	7.74	7.91	8.16	
Temperature	°C	0.1	4.4	6.6	7.0	4.7	6.0	
Conductivity	umhos/cm	1	240	234	301	342	569(Lab)	
Depth to Water	Feet	0.1	14.20	13.0	10.9	13.35	13.65	

D=Dissolved

T=Total

**2009 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection Limits	MW-5	MW-5	MW-5	MW-5	MW-5		
DATE				3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009		
PARAMETER	UNITS			Conc.	Conc.	Conc.	Conc.	Conc.		
Cadmium (D)	mg/L	Varies	0.005	0.0002	0.0002	0.0003	<0.001	0.0002		
Copper (D)	mg/L	Varies	0.05	0.0006	0.0009	0.0021	<0.005	0.0007		
Lead (D)	mg/L	Varies	0.16	0.0009	0.0012	0.0029	<0.001	0.0007		
Manganese (D)	mg/L	Varies	4.4	0.0014	0.003	0.0034	<0.005	0.0006		
Mercury (D)	mg/L	0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
Zinc (D)	mg/L	Varies	0.5	0.042	0.041	0.045	0.04	0.046		
Cyanide (T)	mg/L	Varies	0.2	<0.005	<0.002	<0.003	<0.003	<0.003		
Hardness as CaCO <sub>3</sub>	mg/L	1	Report	163	168	178	164	168		
Nitrate/Nitrite as N	mg/L	0.02	Report	1.64	1.55	1.25	1.34	1.4		
Nitrogen, ammonia	mg/L	Varies	Report	<0.05	<0.05	<0.05	<0.05	<0.05		
TDS	mg/L	10	1,040	190	190	220	190	190		
Sulfate	mg/L	10	1,300	50	60	70	70	60		
Total Alkalinity	mg/L	Varies	Report	108	106	110	109	112		
Field Parameters	Units			3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009		
pH	std. units	0.01	Report	8.43	8.17	8.13	8.18	8.42		
Temperature	°C	0.1	Report	3.2	4.7	6.1	5.7	4.2		
Conductivity	umhos/cm	1	Report	218	159.3	314	237	326(Lab)		
Depth to Water	Feet	0.1	Report	13.2	12.5	11.7	12.4	12.6		

D=Dissolved

T=Total

**2009 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6	MW-6	MW-6	MW-6	MW-6	
DATE			3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	Varies	0.0001	0.0001	0.0001	<0.001	<0.0001	
Copper (D)	mg/L	Varies	0.0007	<0.0005	0.0012	<0.005	<0.0005	
Lead (D)	mg/L	Varies	0.0005	0.0005	0.0007	<0.001	0.0005	
Manganese (D)	mg/L	Varies	0.0027	0.002	0.0018	<0.005	0.002	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	Varies	0.027	0.037	0.037	0.03	0.023	
Cyanide (T)	mg/L	Varies	<0.005	<0.002	0.004	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	166	169	163	159	167	
Nitrate/Nitrite as N	mg/L	0.02	1.00	1.01	0.84	0.081	0.87	
Nitrogen, ammonia	mg/L	Varies	<0.05	<0.05	<0.05	<0.05	<0.05	
TDS	mg/L	10	190	200	190	170	190	
Sulfate	mg/L	10	60	80	70	60	50	
Total Alkalinity	mg/L	Varies	110	108	110	110	112	
Field Parameters	Units		3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
pH	std. units	0.01	8.46	8.24	78.28	7.24	8.57	
Temperature	°C	0.1	7.1	6.2	6.9	4.7	5.1	
Conductivity	umhos/cm	1	165.3	185.6	170.3	241	319(Lab)	
Depth to Water	Feet	0.1	22.5	22.3	20.5	23.0	21.5	

D=Dissolved

T=Total

**2009 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5	SW-5	SW-5	SW-5	SW-5	
DATE			3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	Varies	0.0013	0.0029	0.0007	<0.001	0.0007	
Copper (D)	mg/L	Varies	0.0013	0.0029	0.0006	<0.005	0.0015	
Lead (D)	mg/L	Varies	0.0002	0.0008	0.0006	<0.001	0.0004	
Manganese (D)	mg/L	Varies	0.043	0.0365	0.01	0.024	0.019	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	Varies	0.37	0.754	0.137	0.17	0.214	
Cyanide (T)	mg/L	Varies	<0.005	<0.002	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	240	194	98	145	167	
Nitrate/Nitrite as N	mg/L	0.02	0.47	0.4	0.2	0.25	0.33	
Nitrogen, ammonia	mg/L	Varies	<0.05	<0.05	<0.05	<0.05	<0.05	
TDS	mg/L	10	310	250	110	210	190	
Sulfate	mg/L	10	140	110	30	40	70	
Total Alkalinity	mg/L	Varies	100	91	77	98	103	
Field Parameters	Units		3/06/2009	4/22/2009	7/15/2009	10/21/2009	11/18/2009	
pH	std. units	0.01	8.42	8.01	8.23	8.13	8.51	
Temperature	°C	0.1	4.9	2.1	6.2	1.7	0.9	
Conductivity	umhos/cm	1	149.6	181.7	132.2	256	318(Lab)	
Depth to Water	Feet	0.1	NA	NA	NA	NA	NA	

D=Dissolved

T=Total

**2010 - Black Cloud Surface and Ground Water Monitoring Results**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1	MW-1	MW-1	MW-1	
DATE			1/20/2010	4/27/2010	7/27/2010	10/20/2010	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0006	0.0005	0.0006	0.0001	
Copper (D)	mg/L	0.0005	0.0008	0.0015	0.0012	<0.0005	
Lead (D)	mg/L	0.0001	0.0002	<0.0001	<0.0001	0.0006	
Manganese (D)	mg/L	0.0005	0.0015	0.0014	0.0011	0.0276	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.045	0.04	0.057	0.042	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	111	104	98	108	
Nitrate/Nitrite as N	mg/L	0.02	0.26	0.23	0.13	0.17	
Nitrogen, ammonia	mg/L	0.005	<0.05	<0.05	<0.05	<0.05	
TDS	mg/L	10	120	100	100	100	
Sulfate	mg/L	10	20	20	30	30	
Total Alkalinity	mg/L	2	101	94	87	96	
Field Parameters	Units		1/20/2010	4/27/2010	7/27/2010	10/20/2010	
pH	std. units	0.01	7.4	7.74	7.52	7.55	
Temperature	°C	0.1	7.4	7.8	11.4	11.3	
Conductivity	umhos/cm	1	228	173	166.9	278	
Depth to Water	Feet	0.1	8.6	8.1	7.3	7.75	

D=Dissolved

T=Total

**2010 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2	MW-2	MW-2	MW-2	
DATE			1/20/2010	4/27/2010	7/27/2010	10/20/2010	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0012	0.002	0.0005	0.0003	
Copper (D)	mg/L	0.0005	0.0018	0.0022	0.0012	<0.0005	
Lead (D)	mg/L	0.0001	<0.0001	<0.0001	<0.0001	0.0001	
Manganese (D)	mg/L	0.0005	0.432	0.708	0.365	0.361	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.161	0.231	0.047	0.06	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	636	636	293	331	
Nitrate/Nitrite as N	mg/L	0.02	0.53	0.55	0.48	0.41	
Nitrogen, ammonia	mg/L	0.005	0.23	0.81	0.2	0.24	
TDS	mg/L	10	770	840	400	450	
Sulfate	mg/L	10	480	510	190	260	
Total Alkalinity	mg/L	2	73	71	78	83	
Field Parameters	Units		1/20/2010	4/27/2010	7/27/2010	10/20/2010	
pH	std. units	0.01	7.18	7.64	7.66	7.73	
Temperature	°C	0.1	7.2	12.2	12.2	11.5	
Conductivity	umhos/cm	1	1000	873	374	792	
Depth to Water	Feet	0.1	7.25	7.25	6	6.2	

D=Dissolved

T=Total

**2010 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3	MW-3	MW-3	MW-3	
DATE			1/20/2010	4/27/2010	7/27/1010	10/20/2010	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0035	0.003	0.0023	0.0017	
Copper (D)	mg/L	0.0005	0.0017	0.0021	0.0012	<0.0005	
Lead (D)	mg/L	0.0001	0.0002	0.0001	0.0001	<0.0001	
Manganese (D)	mg/L	0.0005	4.9	5.92	5.04	4.11	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.945	1.2	1.2	0.927	
Cyanide (T)	mg/L	0.003	<0.003	0.005	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	884	853	915	802	
Nitrate/Nitrite as N	mg/L	0.02	<0.02	0.04	0.02	<0.02	
Nitrogen, ammonia	mg/L	0.005	2.11	1.04	1.8	1.53	
TDS	mg/L	10	1230	1160	1330	1090	
Sulfate	mg/L	10	820	730	780	700	
Total Alkalinity	mg/L	2	65	87	85	85	
Field Parameters	Units		1/20/2010	4/27/2010	7/27/1010	10/20/2010	
pH	std. units	0.01	7.14	7.33	7.55	7.52	
Temperature	°C	0.1	7.8	12.1	13.3	10.7	
Conductivity	umhos/cm	1	1476	1201	1307	1714	
Depth to Water	Feet	0.1	5.05	4.35	4.1	4.4	

D=Dissolved

T=Total

**2010 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4	MW-4	MW-4	MW-4	
DATE			1/20/2010	4/27/2010	7/27/2010	10/20/2010	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0011	0.0025	0.0015	0.0015	
Copper (D)	mg/L	0.0005	0.001	0.0017	0.0011	<0.0005	
Lead (D)	mg/L	0.0001	<0.0001	<0.0001	<0.0001	0.0002	
Manganese (D)	mg/L	0.0005	0.0006	<0.0005	<0.0005	0.006	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.207	.0573	0.291	0.278	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	234	301	274	292	
Nitrate/Nitrite as N	mg/L	0.02	0.58	0.87	0.51	0.51	
Nitrogen, ammonia	mg/L	0.005	<0.05	<0.05	0.05	<0.05	
TDS	mg/L	10	300	390	400	390	
Sulfate	mg/L	10	140	190	170	210	
Total Alkalinity	mg/L	2	98	78	90	97	
Field Parameters	Units		1/20/2010	4/27/2010	7/27/2010	10/20/2010	
pH	std. units	0.01	7.42	7.45	7.76	7.72	
Temperature	°C	0.1	6.8	9.9	9.4	9.3	
Conductivity	umhos/cm	1	449	461	429	749	
Depth to Water	Feet	0.1	14	6.55	13.3	15.6	

D=Dissolved

T=Total

**2010 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection Limits	MW-5	MW-5	MW-5	MW-5		
DATE				1/20/2010	4/27/2010	7/27/2010	10/20/2010		
PARAMETER	UNITS			Conc.	Conc.	Conc.	Conc.		
Cadmium (D)	mg/L	0.0001	0.005	0.0002	0.0002	0.0002	0.0002		
Copper (D)	mg/L	0.0005	0.05	<0.0005	<0.0005	<0.0005	<0.0005		
Lead (D)	mg/L	0.0001	0.16	0.0003	0.0002	0.0002	0.0003		
Manganese (D)	mg/L	0.0005	4.4	0.0005	<0.0005	<0.0005	0.0007		
Mercury (D)	mg/L	0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002		
Zinc (D)	mg/L	0.002	0.5	0.03	0.036	0.035	0.035		
Cyanide (T)	mg/L	0.003	0.2	<0.003	<0.003	<0.003	<0.003		
Hardness as CaCO <sub>3</sub>	mg/L	1	Report	169	192	190	174		
Nitrate/Nitrite as N	mg/L	0.02	Report	1.29	1.2	1.31	1.18		
Nitrogen, ammonia	mg/L	0.005	Report	<0.05	<0.05	<0.05	<0.05		
TDS	mg/L	10	1,040	200	220	260	190		
Sulfate	mg/L	10	1,300	60	60	80	60		
Total Alkalinity	mg/L	2	Report	113	121	113	114		
Field Parameters	Units			1/20/2010	4/27/2010	7/27/2010	10/20/2010		
pH	std. units	0.01	Report	7.78	7.97	8.65	8.27		
Temperature	°C	0.1	Report	8.8	10.7	10	6.3		
Conductivity	umhos/cm	1	Report	327	314	331	335		
Depth to Water	Feet	0.1	Report	14.55	12.85	12.8	13.1		

D=Dissolved

T=Total

**2010 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6	MW-6	MW-6	MW-6	
DATE			1/20/2010	4/27/2010	7/27/2010	10/22/2010	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	<0.0001	<0.0001	0.0002	<0.0001	
Copper (D)	mg/L	0.0005	<0.0005	<0.0005	<0.0005	0.0005	
Lead (D)	mg/L	0.0001	0.0004	0.0005	0.0005	0.0005	
Manganese (D)	mg/L	0.0005	0.0007	0.0007	<0.0005	0.0015	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.02	0.022	0.027	0.024	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	161	168	170	162	
Nitrate/Nitrite as N	mg/L	0.02	0.82	0.93	0.89	0.81	
Nitrogen, ammonia	mg/L	0.005	<0.05	<0.05	<0.05	<0.05	
TDS	mg/L	10	200	190	220	180	
Sulfate	mg/L	10	90	60	70	60	
Total Alkalinity	mg/L	2	112	118	106	108	
Field Parameters	Units		1/20/2010	4/27/2010	7/27/2010	10/22/2010	
pH	std. units	0.01	7.95	8.12	8.12	8.12	
Temperature	°C	0.1	6.9	9.6	7.9	4.7	
Conductivity	umhos/cm	1	303	266	285	458	
Depth to Water	Feet	0.1	24.05	22.4	22.8	23.6	

D=Dissolved

T=Total

**2010 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5	SW-5	SW-5	SW-5	
DATE			1/20/2010	4/27/2010	7/27/2010	10/22/2010	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0012	0.0028	0.0005	0.0007	
Copper (D)	mg/L	0.0005	0.0011	0.0027	0.001	0.0011	
Lead (D)	mg/L	0.0001	<0.0001	0.0009	0.0008	0.0006	
Manganese (D)	mg/L	0.0005	0.117	0.0395	0.0144	0.025	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.445	0.759	0.125	0.201	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	439	223	117	143	
Nitrate/Nitrite as N	mg/L	0.02	0.6	0.39	0.19	0.26	
Nitrogen, ammonia	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	
TDS	mg/L	10	590	280	130	140	
Sulfate	mg/L	10	350	130	30	50	
Total Alkalinity	mg/L	2	100	96	90	101	
Field Parameters	Units		1/20/2010	4/27/2010	7/27/2010	10/22/2010	
pH	std. units	0.01	7.76	8.05	8.47	8.54	
Temperature	°C	0.1	5.8	9.2	8.6	4.3	
Conductivity	umhos/cm	1	747	372	200	286	
Depth to Water	Feet	0.1	NA	NA	NA	NA	

D=Dissolved

T=Total

**2011 - Black Cloud Surface and Ground Water Monitoring Results**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1	MW-1	MW-1	MW-1	MW-1	
DATE			2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0003	0.0005	0.0002		0.0006	
Copper (D)	mg/L	0.0005	0.0007	0.001	0.0013		0.0007	
Lead (D)	mg/L	0.0001	<0.0001	0.0001	0.0003		<0.0001	
Manganese (D)	mg/L	0.0005	0.0056	<0.0005	0.0103		0.0016	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002		<0.0002	
Zinc (D)	mg/L	0.002	0.04	0.42	0.042		0.042	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	H	<0.0003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	101	117	80		112	
Nitrate/Nitrite as N	mg/L	0.02	0.24	0.19	0.09		0.20	
Nitrogen, ammonia	mg/L	0.05	<0.05	<0.05	<0.05		<0.05	
TDS	mg/L	10	140	120	90		130	
Sulfate	mg/L	10	12	20	<10		30	
Total Alkalinity	mg/L	2	104	102	153		92	
Field Parameters	Units		2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
pH	std. units	0.01	8.05	819	7.43	7.43	7.71	
Temperature	°C	0.1	1.7	4	17.6	17.6	8.2	
Conductivity	umhos/cm	1	264	198	191.4	191.4	200	
Depth to Water	Feet	0.1	7.98	7.5	6.45	7.0	7.35	

D=Dissolved

T=Total

**2011 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2	MW-2	MW-2	MW-2	MW-2	
DATE			2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0001	<0.0001	0.0002		0.0008	
Copper (D)	mg/L	0.0005	0.0009	0.0008	0.0012		0.001	
Lead (D)	mg/L	0.0001	<0.0001	<0.0001	<0.0001		<0.0001	
Manganese (D)	mg/L	0.0005	0.0375	0.001	0.0064		0.081	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002		<0.0002	
Zinc (D)	mg/L	0.002	0.042	0.046	0.073		0.115	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	H	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	137	153	332		516	
Nitrate/Nitrite as N	mg/L	0.02	0.68	0.57	0.40		0.46	
Nitrogen, ammonia	mg/L	0.05	<0.05	<0.05	<0.05		0.22	
TDS	mg/L	10	130	180	540		730	
Sulfate	mg/L	10	33	60	280		450	
Total Alkalinity	mg/L	2	98	94	75		76	
Field Parameters	Units		2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
pH	std. units	0.01	8.1	8.05	7.58	7.58	7.69	
Temperature	°C	0.1	2.6	6.1	14.3	14.3	10.2	
Conductivity	umhos/cm	1	346	234	697	697	691	
Depth to Water	Feet	0.1	6.7	6.1	5.35	3.55	4.0	

D=Dissolved

T=Total

**2011 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3	MW-3	MW-3	MW-3	MW-3	
DATE			2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.002	0.002	0.0026		0.002	
Copper (D)	mg/L	0.0005	0.0013	0.0027	0.0015		<0.0005	
Lead (D)	mg/L	0.0001	0.0001	0.0001	0.0002		0.0001	
Manganese (D)	mg/L	0.0005	3.81	3.58	4.63		3.81	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002		<0.0002	
Zinc (D)	mg/L	0.002	0.0904	0.96	0.855		0.718	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	H	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	809	787	895		833	
Nitrate/Nitrite as N	mg/L	0.02	<0.02	0.07	<0.02		<0.02	
Nitrogen, ammonia	mg/L	0.05	1.74	1.52	1.97		2.07	
TDS	mg/L	10	1130	1070	1320		1140	
Sulfate	mg/L	10	660	670	810		740	
Total Alkalinity	mg/L	2	74	72	66		79	
Field Parameters	Units		2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
pH	std. units	0.01	7.79	7.8	7.49	7.49	7.45	
Temperature	°C	0.1	4.2	7.8	16.7	16.7	8.8	
Conductivity	umhos/cm	1	1747	1269	1501	1501	1290	
Depth to Water	Feet	0.1	4.7	4.5	3.4	3.55	4.0	

D=Dissolved

T=Total

**2011 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4	MW-4	MW-4	MW-4	MW-4	
DATE			2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0012	0.0012	0.0022		0.0018	
Copper (D)	mg/L	0.0005	0.001	0.0017	0.0008		0.0008	
Lead (D)	mg/L	0.0001	<0.0001	0.0001	<0.0001		<0.0001	
Manganese (D)	mg/L	0.0005	0.0056	0.0006	<0.0005		<0.0005	
Mercury (D)	mg/L	0.0002	<0.002	<0.0002	<0.0002		<0.0002	
Zinc (D)	mg/L	0.002	0.242	0.227	0.512		0.314	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	H	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	278	247	221		333	
Nitrate/Nitrite as N	mg/L	0.02	0.6	0.63	0.48		0.56	
Nitrogen, ammonia	mg/L	0.05	<0.05	<0.05	<0.05		<0.05	
TDS	mg/L	10	320	310	350		430	
Sulfate	mg/L	10	162	150	140		230	
Total Alkalinity	mg/L	2	94	91	83		88	
Field Parameters	Units		2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
pH	std. units	0.01	7.84	7.91	7.61	7.59	7.53	
Temperature	°C	0.1	3.4	9.6	11.4	14.9	10.2	
Conductivity	umhos/cm	1	670	429	447	594	588	
Depth to Water	Feet	0.1	11.85	16.1	10.5	12.1	13.85	

D=Dissolved

T=Total

**2011 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection Limits	MW-5	MW-5	MW-5	MW-5	MW-5
DATE	PARAMETER			2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011
	UNITS	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.
Cadmium (D)	mg/L	0.0001	0.005	0.0002	0.0002	0.0002		0.0002
Copper (D)	mg/L	0.0005	0.05	<0.0005	0.0014	0.001		0.0008
Lead (D)	mg/L	0.0001	0.16	0.0001	0.0003	0.0002		0.0001
Manganese (D)	mg/L	0.0005	4.4	0.0027	0.0006	<0.0005		<0.0005
Mercury (D)	mg/L	0.0002	0.001	<0.0002	<0.0002	<0.0002		<0.0002
Zinc (D)	mg/L	0.002	0.5	0.033	0.045	0.035		0.033
Cyanide (T)	mg/L	0.003	0.2	<0.003	<0.003	H	<0.003	<0.003
Hardness as CaCO <sub>3</sub>	mg/L	1	Report	172	213	192		186
Nitrate/Nitrite as N	mg/L	0.02	Report	1.37	1.08	1.07		1.23
Nitrogen, ammonia	mg/L	0.05	Report	<0.05	<0.05	<0.05		<0.05
TDS	mg/L	10	1,040	180	250	260		220
Sulfate	mg/L	10	1,300	59	90	70		70
Total Alkalinity	mg/L	2	Report	106	113	109		113
Field Parameters	Units			2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011
pH	std. units	0.01	Report	8.26	11.4	13.4	7.95	8.01
Temperature	°C	0.1	Report	4.6	8.12	8.11	12.4	10.3
Conductivity	umhos/cm	1	Report	457	372	866	340	337
Depth to Water	Feet	0.1	Report	14.6	13.5	11.65	12.05	12.4

D=Dissolved

T=Total

**2011 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6	MW-6	MW-6	MW-6	
DATE			2/16/2011	4/20/2011	8/28/2011	10/24/2011	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	<0.0001	<0.0001	0.0001	<0.0001	
Copper (D)	mg/L	0.0005	<0.0005	<0.0005	0.0005	<0.0005	
Lead (D)	mg/L	0.0001	<0.0001	0.0004	0.0005	0.0004	
Manganese (D)	mg/L	0.0005	0.0035	0.0007	0.0009	<0.0005	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Zinc (D)	mg/L	0.002	0.027	0.022	0.031	0.02	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	165	167	169	168	
Nitrate/Nitrite as N	mg/L	0.02	0.76	0.085	0.83	0.85	
Nitrogen, ammonia	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	
TDS	mg/L	10	210	190	210	210	
Sulfate	mg/L	10	56	60	60	60	
Total Alkalinity	mg/L	2	104	101	103	103	
Field Parameters	Units		2/16/2011	4/20/2011	8/28/2011	10/24/2011	
pH	std. units	0.01	8.13	8.25	8.16	8.15	
Temperature	°C	0.1	5.5	8.8	12.4	7	
Conductivity	umhos/cm	1	410	310	328	303	
Depth to Water	Feet	0.1	14.0	17.8	23.1	18.5	

D=Dissolved

T=Total

**2011 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5	SW-5	SW-5	SW-5	SW-5	
DATE			2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
PARAMETER	UNITS		Conc.	Conc.	Conc.	Conc.	Conc.	
Cadmium (D)	mg/L	0.0001	0.0008	0.0019	0.0006		0.0015	
Copper (D)	mg/L	0.0005	0.0011	0.0014	0.0009		0.001	
Lead (D)	mg/L	0.0001	0.0004	0.0002	0.0011		0.0005	
Manganese (D)	mg/L	0.0005	0.0199	0.021	0.0118		0.0653	
Mercury (D)	mg/L	0.0002	<0.0002	<0.0002	<0.0002		<0.0002	
Zinc (D)	mg/L	0.002	0.218	0.581	0.141		0.492	
Cyanide (T)	mg/L	0.003	<0.003	<0.003	H	<0.003	<0.003	
Hardness as CaCO <sub>3</sub>	mg/L	1	177	226	89		190	
Nitrate/Nitrite as N	mg/L	0.02	0.34	0.37	0.16		0.27	
Nitrogen, ammonia	mg/L	0.05	<0.05	<0.05	<0.05		<0.05	
TDS	mg/L	10	240	280	100		230	
Sulfate	mg/L	10	90	120	20		100	
Total Alkalinity	mg/L	2	94	97	69		99	
Field Parameters	Units		2/16/2011	4/20/2011	7/20/2011	8/28/2011	10/24/2011	
pH	std. units	0.01	8.26	8.33	8.45	8.33	8.34	
Temperature	°C	0.1	4.6	9.7	12.8	14.4	6.9	
Conductivity	umhos/cm	1	457	385	171.6	242	272	
Depth to Water	Feet	0.1	NA	NA	NA	NA	NA	

D=Dissolved

T=Total

### 2012 - Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1		MW-1		MW-1		MW-1		
DATE			1/18/2012		4/23/2012		7/18/2012		10/15/2012		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0006		0.0005		0.0007		0.0007		
Copper (D)	mg/L	0.0005	0.0006	B	0.0013	B	0.0011	B	0.0009	B	
Lead (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	<0.0005	U	0.0027	B	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.039		0.044		0.052		0.047		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	115		104		108		123		
Nitrate/Nitrite as N	mg/L	0.02	0.33		0.2		0.16		0.35		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	100	H	120		110		140		
Sulfate	mg/L	10	30	B	20	B	20	B	30	B	
Total Alkalinity	mg/L	2	98		94		90		94		
Field Parameters	Units		1/18/2012		4/23/2012		7/18/2012		10/15/2012		
pH	std. units	0.01	7.75		7.95		7.42		7.7		
Temperature	°C	0.1	1.6		11		17.2		13.9		
Conductivity	umhos/cm	1	216		212		175		314		
Depth to Water	Feet	0.1	7.4		7		6.9		7.3		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2012 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2		MW-2		MW-2		MW-2		
DATE			1/18/2012		4/23/2012		7/18/2012		10/15/2012		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	FROZEN	FROZEN	0.0004	B	0.0002	B			
Copper (D)	mg/L	0.0005			0.001	B	0.0008	B			
Lead (D)	mg/L	0.0001			<0.0001	U	<0.0001	U			
Manganese (D)	mg/L	0.0005			0.1085		0.0221				
Mercury (D)	mg/L	0.0002			<0.0002	U	0.0002	B			
Zinc (D)	mg/L	0.002			0.07		0.053				
Cyanide (T)	mg/L	0.003			<0.003	U	<0.003	U			
Hardness as CaCO <sub>3</sub>	mg/L	1			247		151				
Nitrate/Nitrite as N	mg/L	0.02			0.39		0.79				
Nitrogen, ammonia	mg/L	0.05			0.15	B	<0.05	U			
TDS	mg/L	10			390		200				
Sulfate	mg/L	10			200		70				
Total Alkalinity	mg/L	2			85		89				
Field Parameters	Units		1/18/2012		4/23/2012		7/18/2012		10/15/2012		
pH	std. units	0.01	FROZEN	FROZEN			7.55		7.76		
Temperature	°C	0.1					18.5		13.1		
Conductivity	umhos/cm	1					373		375		
Depth to Water	Feet	0.1					5.65		5.9		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2012 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3		MW-3		MW-3		MW-3		
DATE			1/18/2012		4/23/2012		7/18/2012		10/15/2012		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0019		0.002	B	0.002		0.002		
Copper (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0002	B	<0.0001	U	0.0002	B	0.0001	B	
Manganese (D)	mg/L	0.0005	2.04		2.5		2.93		4		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	2		2.37		1.87		1.25		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	859		852		887		866		
Nitrate/Nitrite as N	mg/L	0.02	0.03	B	0.05	B	<0.02	U	<0.02	U	
Nitrogen, ammonia	mg/L	0.05	1.21		1.42		1.48		1.64		
TDS	mg/L	10	1130	H	1200		1250		1230		
Sulfate	mg/L	10	760		760		750		760		
Total Alkalinity	mg/L	2	80		80		80		78		
Field Parameters	Units		1/18/2012		4/23/2012		7/18/2012		10/15/2012		
pH	std. units	0.01	7.58		7.48		7.33		7.56		
Temperature	°C	0.1	1.6		9.1		17.4		12.2		
Conductivity	umhos/cm	1	1429		1471		1164		1775		
Depth to Water	Feet	0.1	4.3		4.3		4.25		4.6		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2012 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4		MW-4		MW-4		MW-4		
DATE			1/18/2012		4/23/2012		7/18/2012		10/15/2012		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0012		0.0012		0.0011		0.0011		
Copper (D)	mg/L	0.0005	0.0007	B	0.0007	B	0.0014	B	0.0009	B	
Lead (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.233		0.248		0.205		0.196		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	245		252		240		245		
Nitrate/Nitrite as N	mg/L	0.02	0.54		0.56		0.42		0.6		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	280	H	340		330		330		
Sulfate	mg/L	10	150		170		150		140		
Total Alkalinity	mg/L	2	97		94		90		97		
Field Parameters	Units		1/18/2012		4/23/2012		7/18/2012		10/15/2012		
pH	std. units	0.01	7.8		7.75		7.49		7.66		
Temperature	°C	0.1	1.3		11.3		14.9		9.6		
Conductivity	umhos/cm	1	494		471		366		602		
Depth to Water	Feet	0.1	14.6		14.75		13.95		16.4		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2012 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection Limits	MW-5		MW-5		MW-5		MW-5			
DATE				1/18/2012		4/23/2012		7/18/2012		10/15/2012			
PARAMETER	UNITS			Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual		
Cadmium (D)	mg/L	0.0001	0.005	0.0002	B	0.0002	B	0.0002	B	0.0002	B		
Copper (D)	mg/L	0.0005	0.05	0.001	B	0.0031	<0.0005	<0.0005	U	<0.0005	U		
Lead (D)	mg/L	0.0001	0.16	0.0003	B	0.0002	B	0.0001	B	0.0002	B		
Manganese (D)	mg/L	0.0005	4.4	0.0007	B	<0.0005	U	<0.0005	U	<0.0005	U		
Mercury (D)	mg/L	0.0002	0.001	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.002	0.5	0.035		0.046		0.038		0.04			
Cyanide (T)	mg/L	0.003	0.2	<0.003	U	<0.003	U	<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	1	Report	185		181		175		179			
Nitrate/Nitrite as N	mg/L	0.02	Report	1.14		1.18		1.06		1.09			
Nitrogen, ammonia	mg/L	0.05	Report	<0.05	U	<0.05	U	<0.05	U	<0.05	U		
TDS	mg/L	10	1,040	200	H	210		210		220			
Sulfate	mg/L	10	1,300	70		60		70		70			
Total Alkalinity	mg/L	2	Report	112		119		108		112			
Field Parameters	Units			1/18/2012		4/23/2012		7/18/2012		10/15/2012			
pH	std. units	0.01	Report	8.1		8.08		7.89		8.02			
Temperature	°C	0.1	Report	0.8		9.6		14.3		8.3			
Conductivity	umhos/c	1	Report	364		354		281		440			
Depth to Water	Feet	0.1	Report	12.93		12.5		12.55		12.75			

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2012 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6		MW-6		MW-6		MW-6		
DATE			1/18/2012		4/23/2012		7/18/2012		10/15/2012		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	<0.0001	U	0.0001	B	<0.0001	U	<0.0001	U	
Copper (D)	mg/L	0.0005	<0.0005	U	0.0033		0.0009	B	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0006		0.0007		0.0003	B	0.0003	B	
Manganese (D)	mg/L	0.0005	0.001	B	<0.0005	U	<0.0005	U	0.0006	B	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.023		0.037		0.021		0.022		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	164		161		161		165		
Nitrate/Nitrite as N	mg/L	0.02	0.74		0.93		0.85		0.89		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	170	H	190		200		210		
Sulfate	mg/L	10	60		50		70		60		
Total Alkalinity	mg/L	2	106		108		103		123		
Field Parameters	Units		1/18/2012		4/23/2012		7/18/2012		10/15/2012		
pH	std. units	0.01	8.24		8.19		8.27		8.35		
Temperature	°C	0.1	1.6		11.4		12.3		7.6		
Conductivity	umhos/cm	1	328		265		285		372		
Depth to Water	Feet	0.1	20.9		19.6		20.2		19		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2012 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5		SW-5		SW-5		SW-5		
DATE			1/18/2012		4/23/2012		7/18/2012		10/15/2012		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0014		0.0012		0.0006		0.0006		
Copper (D)	mg/L	0.0005	0.001	B	0.0057		0.0012	B	0.0006	B	
Lead (D)	mg/L	0.0001	0.0003	B	0.0022		0.0005	B	0.0003	B	
Manganese (D)	mg/L	0.0005	0.0497		0.0122		0.0115		0.0174		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.412		0.325		0.13		0.146		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	335		129		122		141		
Nitrate/Nitrite as N	mg/L	0.02	0.48		0.26		0.23		0.45		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	400	H	160		130		180		
Sulfate	mg/L	10	220		50	B	40	B	50	B	
Total Alkalinity	mg/L	2	103		88		89		97		
Field Parameters	Units		1/18/2012		4/23/2012		7/18/2012		10/15/2012		
pH	std. units	0.01	8.15		8.26		8.36		8.47		
Temperature	°C	0.1	0.1		7.1		13		5		
Conductivity	umhos/cm	1	640		263		206		327		
Depth to Water	Feet	0.1	NA		NA		NA		NA		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2013 - Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1		MW-1		MW-1		MW-1		
DATE			1/16/2013		5/14/2013		7/17/2013		10/23/2013		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0006		0.0005		0.0006		0.0005		
Copper (D)	mg/L	0.0005	0.0033		0.0019	B	0.0008	B	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0001	B	<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	0.0015	B	<0.0005	U	0.0006	B	0.0034	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.050		0.041		0.047		0.049		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	116		102		92		117		
Nitrate/Nitrite as N	mg/L	0.02	0.29		0.17		0.16		0.28		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	120		110		110		120		
Sulfate	mg/L	10	30		30	B	20	B	20	B	
Total Alkalinity	mg/L	2	101		87		88		92		
Field Parameters	Units		1/16/2013		5/14/2013		7/17/2013		10/23/2013		
pH	std. units	0.01	7.94		7.86		7.58		7.67		
Temperature	°C	0.1	9.9		9.1		10.1		16.7		
Conductivity	umhos/cm	1	362		194		220		261		
Depth to Water	Feet	0.1	7.6		6.6		7.3		8.0		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2013 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2		MW-2		MW-2		MW-2			
DATE			1/16/2013		5/14/2013		7/17/2013		10/23/2013			
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual		
Cadmium (D)	mg/L	0.0001	<0.0001	U	FROZEN	FROZEN	0.0006		0.0002	B		
Copper (D)	mg/L	0.0005	0.0048				0.0007	B	<0.0005	U		
Lead (D)	mg/L	0.0001	<0.0001	U			<0.0001	U	<0.0001	U		
Manganese (D)	mg/L	0.0005	0.0462				0.12		0.0268			
Mercury (D)	mg/L	0.0002	<0.0002	U			<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.002	0.054				0.126		0.043			
Cyanide (T)	mg/L	0.003	<0.003	U			<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	1	170				369		392			
Nitrate/Nitrite as N	mg/L	0.02	0.81				0.34		0.45			
Nitrogen, ammonia	mg/L	0.05	<0.05	U			0.12	B	0.16	B		
TDS	mg/L	10	230				480		460			
Sulfate	mg/L	10	90				290		290			
Total Alkalinity	mg/L	2	100				78		81			
Field Parameters	Units		1/16/2013		FROZEN	FROZEN	7/17/2013		10/23/2013			
pH	std. units	0.01	7.91				7.54		7.75			
Temperature	°C	0.1	9.9				12.9		10.9			
Conductivity	umhos/cm	1	362				725		793			
Depth to Water	Feet	0.1	6.9				6.3		5.7			

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2013 - Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3		MW-3		MW-3		MW-3		
DATE			1/16/2013		5/14/2013		7/17/2013		10/23/2013		
PARAMETER	Limit		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0020		0.0016		0.0026		0.0018		
Copper (D)	mg/L	0.2	<0.0005	U	0.0006	B	<0.0005	U	<0.0005	U	
Lead (D)	mg/L	0.01	0.0002	B	<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.05	3.42		5.32		6.16		4.77		
Mercury (D)	mg/L	2	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.1	1.65		1.1		1.3		0.89		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	2	833		642		829		818		
Nitrate/Nitrite as N	mg/L	0.02	0.06	B	0.09	B	0.05	B	0.08	B	
Nitrogen, ammonia	mg/L	0.05	1.55		0.58	U	1.08		1.28		
TDS	mg/L	10	1190		890	H	1270		1100		
Sulfate	mg/L	10	750		540		750		720		
Total Alkalinity	mg/L	10	80		114		110		110		
Field Parameters	Units		1/16/2013		5/14/2013		7/17/2013		10/23/2013		
pH	std. units	0.01	7.66		7.5		7.19		7.49		
Temperature	°C	0.1	11.1		8.9		15.4		8.7		
Conductivity	umhos/cm	1	1351		750		1543		1540		
Depth to Water	Feet	0.1	5.1		4.5		4.0		4.7		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2013 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4		MW-4		MW-4		MW-4		
DATE			1/16/2013		5/14/2013		7/17/2013		10/23/2013		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0010		0.0013		0.0012		0.0012		
Copper (D)	mg/L	0.0005	0.0011	B	0.0009	B	0.0006	B	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0001	B	<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.193		0.265		0.254		0.227		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	238		222		193		257		
Nitrate/Nitrite as N	mg/L	0.02	0.54		0.73		0.35		0.45		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	300		270	H	280		310		
Sulfate	mg/L	10	150		130		110		150		
Total Alkalinity	mg/L	2	100		84		97		98		
Field Parameters	Units		1/16/2013		5/14/2013		7/17/2013		10/23/2013		
pH	std. units	0.01	7.76		7.77		7.6		7.81		
Temperature	°C	0.1	9.4		8.3		12.3		9.1		
Conductivity	umhos/cm	1	473		423		443		512		
Depth to Water	Feet	0.1	16.6		11.3		12.7		15.8		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2013 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection Limits	MW-5		MW-5		MW-5		MW-5			
DATE				1/16/2013		5/14/2013		7/17/2013		10/23/2013			
PARAMETER	UNITS			Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual		
Cadmium (D)	mg/L	0.0001	0.005	0.0002	B	0.0003	B	0.0003	B	0.0002	B		
Copper (D)	mg/L	0.0005	0.05	0.0006	B	0.001	B	<0.0005	U	<0.0005	U		
Lead (D)	mg/L	0.0001	0.16	0.0002	B	0.0002	B	0.0001	B	<0.0001	U		
Manganese (D)	mg/L	0.0005	4.4	<0.0005	U	<0.0005	U	0.0012	B	0.0016	B		
Mercury (D)	mg/L	0.0002	0.001	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.002	0.5	0.044		0.054		0.04		0.041			
Cyanide (T)	mg/L	0.003	0.2	<0.003	U	<0.003	U	<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	1	Report	195		213		192		204			
Nitrate/Nitrite as N	mg/L	0.02	Report	1.11		0.26		0.83		0.89			
Nitrogen, ammonia	mg/L	0.05	Report	<0.05	U	<0.05	U	<0.05	U	<0.05	U		
TDS	mg/L	10	1,040	250		240		120		240			
Sulfate	mg/L	10	1,300	90		70		80		90			
Total Alkalinity	mg/L	2	Report	111		141		123		118			
Field Parameters	Units			1/16/2013		5/14/2013		7/17/2013		10/23/2013			
pH	std. units	0.01	Report	8.11		7.88		7.78		7.93			
Temperature	°C	0.1	Report	12.3		8.9		12.2		4.7			
Conductivity	umhos/c	1	Report	413		407		435		390			
Depth to Water	Feet	0.1	Report	13.7		11.5		12.3		13.3			

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2013 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6		MW-6		MW-6		MW-6		
DATE			1/16/2013		5/14/2013		7/17/2013		10/23/2013		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	<0.0001	U	
Copper (D)	mg/L	0.0005	<0.0005	U	0.0024	B	<0.0005	U	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0005	B	0.0003	B	0.0003	B	0.0002	B	
Manganese (D)	mg/L	0.0005	0.0011	B	0.0009	B	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.022		0.037		0.024		0.018		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	162		177		177		182		
Nitrate/Nitrite as N	mg/L	0.02	0.87		0.75		0.84		0.76		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	190		220		250		220		
Sulfate	mg/L	10	60		70		70		70		
Total Alkalinity	mg/L	2	104		102		102		103		
Field Parameters	Units		1/16/2013		5/14/2013		7/17/2013		10/23/2013		
pH	std. units	0.01	8.4		8.15		8.04		8.21		
Temperature	°C	0.1	8.1		9.8		9.7		5.9		
Conductivity	umhos/cm	1	333		363		394		355		
Depth to Water	Feet	0.1	18.3		19.5		15.4		17.3		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2013 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5		SW-5		SW-5		SW-5		
DATE			1/16/2013		5/14/2013		7/17/2013		10/23/2013		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0013		0.0025		0.0008		0.0009		
Copper (D)	mg/L	0.0005	0.0047		0.0069		0.0009	B	0.0009	B	
Lead (D)	mg/L	0.0001	<0.0001	U	0.0011		0.0012		0.0004	B	
Manganese (D)	mg/L	0.0005	0.0574		0.0246		0.0141		0.0196		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.349		0.543		0.205		0.194		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1	355		139		99		148		
Nitrate/Nitrite as N	mg/L	0.02	0.50		0.35		0.22		0.34		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	450		170		120		170		
Sulfate	mg/L	10	240		80		30	B	50	B	
Total Alkalinity	mg/L	2	104		74		82		97		
Field Parameters	Units		1/16/2013		5/14/2013		7/17/2013		10/23/2013		
pH	std. units	0.01	8.17		8.06		8.26		8.29		
Temperature	°C	0.1	6.8		7.7		10.4		4.7		
Conductivity	umhos/c m	1	642		236		227		279		
Depth to Water	Feet	0.1	NA		NA		NA		NA		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2014 - Black Cloud Surface and Ground Water Monitoring Results**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1		MW-1		MW-1		MW-1		
DATE			1/21/2014		4/22/2014		7/16/2014		10/15/2014		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0006		0.0007		0.0005		0.0005		
Copper (D)	mg/L	0.0005	0.0006	B	0.0024	B	0.0013	B	0.0008	B	
Lead (D)	mg/L	0.0001	<0.0001	U	0.0001	B	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	0.0023	B	0.0009	B	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.046		0.061		0.039		0.042		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1 and 0.8 starting 7/16/2014	116		112		89		109		
Nitrate/Nitrite as N	mg/L	0.02	0.26		0.22		0.10		0.38		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	110		120		90	H	116		
Sulfate	mg/L	10	40	B	20	B	30	B	20		
Total Alkalinity	mg/L	2	104		82		82.0		108		
Field Parameters	Units		1/21/2014		4/22/2014		7/16/2014		10/15/2014		
pH	std. units	0.01	7.85		7.64		7.4		7.56		
Temperature	°C	0.1	5.1		9.5		13.7		12.2		
Conductivity	umhos/cm	1	276		267		223		271		
Depth to Water	Feet	0.1	8.25		7.35		7.5		7.9		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL U=Analyte concentration less than MDL H=Analysis exceeded holding time

**2014 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2		MW-2		MW-2		MW-2		
DATE			1/21/2014		4/22/2014		7/16/2014		10/15/2014		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	-	-	-	-	0.0003	B	0.0001	B	
Copper (D)	mg/L	0.0005	-	-	-	-	0.0030		0.0005	B	
Lead (D)	mg/L	0.0001	-	-	-	-	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	-	-	-	-	0.0008	B	0.0015	B	
Mercury (D)	mg/L	0.0002	-	-	-	-	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	-	-	-	-	0.109		0.075		
Cyanide (T)	mg/L	0.003	-	-	-	-	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1 and 0.8 starting 7/16/2014	-	-	-	-	416		256		
Nitrate/Nitrite as N	mg/L	0.02	-	-	-	-	0.19		0.11		
Nitrogen, ammonia	mg/L	0.05	-	-	-	-	<0.05	U	<0.05	U	
TDS	mg/L	10	-	-	-	-	510	H	332		
Sulfate	mg/L	10	-	-	-	-	340		200		
Total Alkalinity	mg/L	2	-	-	-	-	85.0		94.3		
Field Parameters	Units		1/21/2014		4/22/2014		7/16/2014		10/15/2014		
pH	std. units	0.01	-		-		7.54		7.66		
Temperature	°C	0.1	-		-		15		10.7		
Conductivity	umhos/cm	1	-		-		870		642		
Depth to Water	Feet	0.1	-		-		5.5		6		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2014 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3		MW-3		MW-3		MW-3		
DATE			1/21/2014		4/22/2014		7/16/2014		10/15/2014		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0016		0.0017		0.0024		0.0025		
Copper (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	0.0005	B	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0001	B	0.0001	B	0.0001	B	<0.0001	U	
Manganese (D)	mg/L	0.0005	2.32		3.37		3.92		4.57		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.959		0.762		0.735		0.698		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1 and 0.8 starting 7/16/2014	763		759		876		809		
Nitrate/Nitrite as N	mg/L	0.02	0.22		0.17		0.12		0.36		
Nitrogen, ammonia	mg/L	0.05	0.84		0.97		1.55		1.37		
TDS	mg/L	10	1060		1030		1200	H	1150		
Sulfate	mg/L	10	680		670		750		750		
Total Alkalinity	mg/L	2	94		82		106		101		
Field Parameters	Units		1/21/2014		4/22/2014		7/16/2014		10/15/2014		
pH	std. units	0.01	7.48		7.51		7.43		7.51		
Temperature	°C	0.1	4.9		5.4		14.1		9.8		
Conductivity	umhos/cm	1	1492		1512		1789		1727		
Depth to Water	Feet	0.1	5		4.7		4.2		4.8		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2014 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4		MW-4		MW-4		MW-4		
DATE			1/21/2014		4/22/2014		7/16/2014		10/15/2014		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0011		0.0019		0.0014		0.0012		
Copper (D)	mg/L	0.0005	0.0007	B	0.0009	B	0.0010	B	0.0008	B	
Lead (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	0.0006	B	<0.0005	U	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.208		0.531		0.275		0.228		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1 and 0.8 starting 7/16/2014	242		215		206		229		
Nitrate/Nitrite as N	mg/L	0.02	0.53		0.75		0.33		0.25		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	290		280		260	H	280		
Sulfate	mg/L	10	160		140		110		140		
Total Alkalinity	mg/L	2	104		72		117		107		
Field Parameters	Units		1/21/2014		4/22/2014		7/16/2014		10/15/2014		
pH	std. units	0.01	7.66		7.53		7.6		7.65		
Temperature	°C	0.1	4.8		7.1		10.3		7.8		
Conductivity	umhos/cm	1	527		555		509		534		
Depth to Water	Feet	0.1	16.4		12.15		12.92		15.8		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL H=Analysis exceeded holding time

**2014 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection Limits	MW-5		MW-5		MW-5		MW-5			
DATE				1/21/2014		4/22/2014		7/16/2014		10/15/2014			
PARAMETER	UNITS			Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual		
Cadmium (D)	mg/L	0.0001	0.005	0.0002	B	0.0003	B	0.0002	B	0.0001	B		
Copper (D)	mg/L	0.0005	0.05	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U		
Lead (D)	mg/L	0.0001	0.16	0.0002	B	0.0002	B	0.0015		<0.0001	U		
Manganese (D)	mg/L	0.0005	4.4	0.0021	B	<0.0005	U	0.0320		<0.0005	U		
Mercury (D)	mg/L	0.0002	0.001	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.002	0.5	0.034		0.048		0.036		0.034			
Cyanide (T)	mg/L	0.003	0.2	<0.003	U	<0.003	U	<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	1 and 0.8 starting 7/16/2014	Report	200		213		212		195			
Nitrate/Nitrite as N	mg/L	0.02	Report	1.05		0.57		0.99		1.17			
Nitrogen, ammonia	mg/L	0.05	Report	<0.05	U	<0.05	U	<0.05	U	<0.05	U		
TDS	mg/L	10	1,040	240		250		250	H	242			
Sulfate	mg/L	10	1,300	100		80		80		90			
Total Alkalinity	mg/L	2	Report	119		122		130		117			
Field Parameters	Units			1/21/2014		4/22/2014		7/16/2014		10/15/2014			
pH	std. units	0.01	Report	8.02		7.84		7.99		7.98			
Temperature	°C	0.1	Report	3.3		6.6		12.4		5.9			
Conductivity	umhos/cm	1	Report	450		478		509		489			
Depth to Water	Feet	0.1	Report	14.4		11.7		12.3		12.9			

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL H=Analysis exceeded holding time

**2014 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6		MW-6		MW-6		MW-6		
DATE			1/21/2014		4/22/2014		7/16/2014		10/15/2014		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	<0.0001	U	
Copper (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0003	B	0.0003	B	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.016		0.023		0.026		0.016		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1 and 0.8 starting 7/16/2014	177		182		190		170		
Nitrate/Nitrite as N	mg/L	0.02	0.84		0.85		0.87		0.72		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	0.07	B	<0.05	U	
TDS	mg/L	10	210		220		230	H	204		
Sulfate	mg/L	10	80		90		90		80		
Total Alkalinity	mg/L	2	108		89		110		109		
Field Parameters	Units		1/21/2014		4/22/2014		7/16/2014		10/15/2014		
pH	std. units	0.01	8.1		7.99		8.01		8.09		
Temperature	°C	0.1	4.7		8.8		9.5		8.3		
Conductivity	umhos/cm	1	484		418		479		434		
Depth to Water	Feet	0.1	20.7		17.55		18.5		15.9		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2014 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5		SW-5		SW-5		SW-5		
DATE			1/21/2014		4/22/2014		7/16/2014		10/15/2014		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0008		0.0027		0.0006		0.0008		
Copper (D)	mg/L	0.0005	0.0007	B	0.0019	B	0.0012	B	0.0012	B	
Lead (D)	mg/L	0.0001	0.0002	B	0.0008		0.0005		0.0003	B	
Manganese (D)	mg/L	0.0005	0.0210		0.0392		0.0198		0.0339		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.209		0.658		0.136		0.226		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	1 and 0.8 starting 7/16/2014	166		165		94		127		
Nitrate/Nitrite as N	mg/L	0.02	0.34		0.43		0.13		0.25		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	180		200		80		138		
Sulfate	mg/L	10	80		90		30	B	50		
Total Alkalinity	mg/L	2	104		70		82.0		100.0		
Field Parameters	Units		1/21/2014		4/22/2014		7/16/2014		10/15/2014		
pH	std. units	0.01	8.19		7.88		8.21		8.22		
Temperature	°C	0.1	2.4		5.1		10.2		4.8		
Conductivity	umhos/cm	1	353		406		479		303		
Depth to Water	Feet	0.1	NA		NA		NA		NA		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2015 - Black Cloud Surface and Ground Water Monitoring Results**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1		MW-1		MW-1		MW-1		
DATE			1/28/2015		4/24/2015		7/15/2015		10/22/2015		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0009		0.0020		0.0002	B	0.0004	B	
Copper (D)	mg/L	0.0005	0.0008	B	0.0008	B	<0.0005	U	0.0008	B	
Lead (D)	mg/L	0.0001	0.0005		<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	0.0012	B	0.0008	B	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.036		0.043		0.007		0.025		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	116		113		83		109		
Nitrate/Nitrite as N	mg/L	0.02	0.26		0.17		0.13		0.16		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	118		118		92		112		
Sulfate	mg/L	10	40	B	30	B	8.9		12.6		
Total Alkalinity	mg/L	2	105		103		75.7		104		
Field Parameters	Units		1/28/2015		4/24/2015		7/15/2015		10/22/2015		
pH	std. units	0.01	7.67		7.65		7.52		7.74		
Temperature	°C	0.1	5		5.6		11.1		10.1		
Conductivity	umhos/cm	1	258		241		191		213		
Depth to Water	Feet	0.1	8.1		7.93		7.39		8.02		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2015 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2		MW-2		MW-2		MW-2		
DATE			1/28/2015		4/24/2015		7/15/2015		10/22/2015		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	FROZEN	FROZEN	<0.0001	U	0.0001	B			
Copper (D)	mg/L	0.0005			0.0008	B	0.0007	B			
Lead (D)	mg/L	0.0001			<0.0001	U	<0.0001	U			
Manganese (D)	mg/L	0.0005			0.0185		0.0057				
Mercury (D)	mg/L	0.0002			<0.0002	U	<0.0002	U			
Zinc (D)	mg/L	0.002			0.058		0.050				
Cyanide (T)	mg/L	0.003			<0.003	U	<0.003	U			
Hardness as CaCO <sub>3</sub>	mg/L	0.8			113		132				
Nitrate/Nitrite as N	mg/L	0.02			0.31		0.31				
Nitrogen, ammonia	mg/L	0.05			<0.05	U	<0.05	U			
TDS	mg/L	10			136		146				
Sulfate	mg/L	10			33.9		39.5				
Total Alkalinity	mg/L	2			84.1		111				
Field Parameters	Units		1/28/2015		4/24/2015		7/15/2015		10/22/2015		
pH	std. units	0.01	FROZEN	FROZEN			7.48		7.56		
Temperature	°C	0.1					13.2		10.4		
Conductivity	umhos/cm	1					262		269		
Depth to Water	Feet	0.1					4.86		5.36		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2015 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3		MW-3		MW-3		MW-3		
DATE			1/28/2015		4/24/2015		7/15/2015		10/22/2015		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0015		0.0013		0.0017		0.0022		
Copper (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.03	U	
Lead (D)	mg/L	0.0001	<0.0001	U	0.0001	B	0.0001	B	<0.0001	U	
Manganese (D)	mg/L	0.01	3.61		2.58		2.77		4.26		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.622		0.567		0.539		0.7		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	0.003	B	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	817		740		692		763		
Nitrate/Nitrite as N	mg/L	0.02	0.12		0.30		0.31		<0.02		
Nitrogen, ammonia	mg/L	0.05	0.86		1.02		1.33		1.31		
TDS	mg/L	10	1140		990		1020		1070		
Sulfate	mg/L	10	700		630		564		669		
Total Alkalinity	mg/L	2	130		115		97.2		126		
Field Parameters	Units		1/28/2015		4/24/2015		7/15/2015		10/22/2015		
pH	std. units	0.01	7.51		7.6		7.34		7.27		
Temperature	°C	0.1	2.2		6.8		13.7		9.6		
Conductivity	umhos/cm	1	1503		1002		1397		967		
Depth to Water	Feet	0.1	4.96		4.89		4.53		5.07		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2015 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4		MW-4		MW-4		MW-4		
DATE			1/28/2015		4/24/2015		7/15/2015		10/22/2015		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0011		0.0012		0.0016		0.0016		
Copper (D)	mg/L	0.0005	0.0009	B	0.0008	B	0.0008	B	0.0009	B	
Lead (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.186		0.214		0.348		0.295		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	235		241		171		234		
Nitrate/Nitrite as N	mg/L	0.02	0.41		0.70		0.40		0.32		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	282		302		230	H	266		
Sulfate	mg/L	10	150		150		76.5		110		
Total Alkalinity	mg/L	2	105		104		106		110		
Field Parameters	Units		1/28/2015		4/24/2015		7/15/2015		10/22/2015		
pH	std. units	0.01	7.67		7.73		7.5		7.47		
Temperature	°C	0.1	3.2		5.8		11.2		7.6		
Conductivity	umhos/cm	1	505		204		392		419		
Depth to Water	Feet	0.1	16.29		16.02		11.68		14.31		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2015 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection n Limits	MW-5		MW-5		MW-5		MW-5			
DATE				1/28/2015		4/24/2015		7/15/2015		10/22/2015			
PARAMETER	UNITS			Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual		
Cadmium (D)	mg/L	0.0001	0.005	0.0002	B	0.0002	B	0.0001	B	0.0002	B		
Copper (D)	mg/L	0.0005	0.05	0.0006		<0.0005	U	<0.0005	U	<0.0005	U		
Lead (D)	mg/L	0.0001	0.16	0.0002	B	0.0002	B	0.0002	B	0.0002	B		
Manganese (D)	mg/L	0.0005	4.4	0.0019	B	<0.0005	U	<0.0005	U	<0.0005	U		
			<0.000										
Mercury (D)	mg/L	0.0002	0.001	2	U	0.0002	U	<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.002	0.5	0.028		0.035		0.025		0.029			
Cyanide (T)	mg/L	0.003	0.2	<0.003	U	<0.003	U	<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	0.8	Report	189		199		187		177			
Nitrate/Nitrite as N	mg/L	0.02	Report	0.99		0.95		1.02		1.18			
Nitrogen, ammonia	mg/L	0.05	Report	<0.05	U	<0.05	U	<0.05	U	<0.05	U		
TDS	mg/L	10	1,040	230		224		236		206			
Sulfate	mg/L	10	1,300	80		80		70.4		56.3			
Total Alkalinity	mg/L	2	Report	121		132		116		119			
Field Parameters	Units			1/28/2015		4/24/2015		7/15/2015		10/22/2015			
pH	std. units	0.01	Report	8.02		7.91		7.94		7.9			
Temperature	°C	0.1	Report	2.7		5.1		10.2		5.3			
Conductivity	umhos/c m	1	Report	407		419		524		348			
Depth to Water	Feet	0.1	Report	14		13.44		12.62		14.55			

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2015 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6		MW-6		MW-6		MW-6		
DATE			1/28/2015		4/24/2015		7/15/2015		10/22/2015		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	0.0001	B	
Copper (D)	mg/L	0.0005	0.0007	B	<0.0005	U	<0.0005	U	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0002	B	0.0004	B	0.0004	B	0.0005		
Manganese (D)	mg/L	0.0005	0.0010	B	<0.0005	U	<0.0005	U	<0.0005	U	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.018		0.027		0.020		0.018		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	166		169		164		156		
Nitrate/Nitrite as N	mg/L	0.02	0.63		0.75		0.73		0.66		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	198		200		212		182		
Sulfate	mg/L	10	70		90		64.7		52.9		
Total Alkalinity	mg/L	2	109		110		104		108		
Field Parameters	Units		1/28/2015		4/24/2015		7/15/2015		10/22/2015		
pH	std. units	0.01	8.13		8.07		8.02		8.03		
Temperature	°C	0.1	6.9		8.6		7.8		6.4		
Conductivity	umhos/cm	1	344		373		354		335		
Depth to Water	Feet	0.1	16.92		15.86		17.95		20.36		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2015 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5		SW-5		SW-5		SW-5		
DATE			1/28/2015		4/24/2015		7/15/2015		10/22/2015		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0007		<0.0001	U	0.0008		0.0008		
Copper (D)	mg/L	0.0005	0.0011	B	<0.0005	U	0.0013	B	0.0010	B	
Lead (D)	mg/L	0.0001	<0.0001	U	0.0004		0.0010		0.0004	B	
Manganese (D)	mg/L	0.0005	0.0204		<0.0005	U	0.0183		0.0123		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.186		0.026		0.158		0.169		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	169		169		100		137		
Nitrate/Nitrite as N	mg/L	0.02	0.28		0.75		0.16		0.21		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	200		204		114		148		
Sulfate	mg/L	10	80		70		22.1		39.7		
Total Alkalinity	mg/L	2	104		110		77.8		104		
Field Parameters	Units		1/28/2015		4/24/2015		7/15/2015		10/22/2015		
pH	std. units	0.01	8.21		8.17		8.11		8.21		
Temperature	°C	0.1	1.1		3.4		13.3		4.3		
Conductivity	umhos/cm	1	365		354		221		270		
Depth to Water	Feet	0.1	NA		NA		NA		NA		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2016 - Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1		MW-1		MW-1		MW-1		
DATE			1/13/2016		5/3/2016		8/9/2016		10/19/2016		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0006		0.0005		0.0010		0.0006		
Copper (D)	mg/L	0.0005	0.0007	B	0.0007	B	0.0011	B	0.0008	B	
Lead (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	0.0001	B	0.0003	B	
Manganese (D)	mg/L	0.0005	0.0014	B	<0.0005	U	0.0022	B	0.0026	B	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	0.0002	U	
Zinc (D)	mg/L	0.002	0.026		0.027		0.041		0.039		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	115		111		105		115		
Nitrate/Nitrite as N	mg/L	0.02	0.24		0.21		0.17		0.17		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	118		124		116		124		
Sulfate	mg/L	10	14.3	B	11.9		15.8		14.7		
Total Alkalinity	mg/L	2	108		99.7		94.6		98.4		
Field Parameters	Units		1/13/2016		5/3/2016		8/9/2016		10/19/2016		
pH	std. units	0.01	7.78		8.04		7.59		7.76		
Temperature	°C	0.1	3.3		8.4		17.4		6.6		
Conductivity	umhos/cm	1	266		207		225		259		
Depth to Water	Feet	0.1	8.08		7.95		7.6		7.97		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2016 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2		MW-2		MW-2		MW-2		
DATE			1/13/2016		5/3/2016		8/9/2016		10/19/2016		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	FROZEN	FROZEN			0.0002	B	0.0002	B	
Copper (D)	mg/L	0.0005					0.0009	B	0.0006	B	
Lead (D)	mg/L	0.0001					<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.0005					0.0012	B	0.0363		
Mercury (D)	mg/L	0.0002					<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002					0.082		0.071		
Cyanide (T)	mg/L	0.003					<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8					211		229		
Nitrate/Nitrite as N	mg/L	0.02					0.26		0.28		
Nitrogen, ammonia	mg/L	0.05					<0.05	U	<0.05	U	
TDS	mg/L	10					242		248		
Sulfate	mg/L	10					111		124		
Total Alkalinity	mg/L	2					92.8		96.9		
Field Parameters	Units		1/13/2016		5/3/2016		8/9/2016		10/19/2016		
pH	std. units	0.01	FROZEN	FROZEN			7.63		7.71		
Temperature	°C	0.1					14.7		7.4		
Conductivity	umhos/c m	1					464		456		
Depth to Water	Feet	0.1					5.23		5.50		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2016 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3		MW-3		MW-3		MW-3		
DATE			1/13/2016		5/3/2016		8/9/2016		10/19/2016		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0028		0.0018		0.0024		0.0027		
Copper (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	
Lead (D)	mg/L	0.0001	<0.0001	U	0.0002	B	0.0002	B	0.0006		
Manganese (D)	mg/L	0.01	3.47		2.83		3.06		4.86		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.786		0.711		0.749		0.885		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	792		745		796		844		
Nitrate/Nitrite as N	mg/L	0.02	<0.02	U	0.25		0.24		0.12		
Nitrogen, ammonia	mg/L	0.05	1.05		1.06		1.30		1.23		
TDS	mg/L	10	1080		1050		1100		1090		
Sulfate	mg/L	10	763		644		691		786		
Total Alkalinity	mg/L	2	119		102		121		109		
Field Parameters	Units		1/13/2016		5/3/2016		8/9/2016		10/19/2016		
pH	std. units	0.01	7.25		7.41		7.28		7.03		
Temperature	°C	0.1	2.1		7.6		16.1		7.4		
Conductivity	umhos/cm	1	1723		1232		1442		1508		
Depth to Water	Feet	0.1	5.12		5.15		4.73		5.00		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2016 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4		MW-4		MW-4		MW-4		
DATE			1/13/2016		5/3/2016		8/9/2016		10/19/2016		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0014		0.0013		0.0016		0.0012		
Copper (D)	mg/L	0.0005	0.0008	B	0.0904		0.0014	B	0.0051		
Lead (D)	mg/L	0.0001	0.0001	B	0.0002	B	0.0012		0.0007		
Manganese (D)	mg/L	0.0005	0.0007	B	0.0017	B	0.0050		0.0054		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.254		0.242		0.328		0.245		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	246		228		215		210		
Nitrate/Nitrite as N	mg/L	0.02	0.42		0.62		0.30		0.33		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	284		296		254		250		
Sulfate	mg/L	10	137		126		101		102		
Total Alkalinity	mg/L	2	107		98.5		105		103		
Field Parameters	Units		1/13/2016		5/3/2016		8/9/2016		10/19/2016		
pH	std. units	0.01	7.51		7.45		7.43		7.57		
Temperature	°C	0.1	2.8		8.9		14.7		5.9		
Conductivity	umhos/cm	1	548		445		451		454		
Depth to Water	Feet	0.1	15.16		14.75		12.53		14.05		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2016 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection n Limits	MW-5		MW-5		MW-5		MW-5			
DATE				1/13/2016		5/3/2016		8/9/2016		10/19/2016			
PARAMETER	UNITS			Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual		
Cadmium (D)	mg/L	0.0001	0.005	0.0002	B	0.0002	B	0.0002	B	0.0001	B		
Copper (D)	mg/L	0.0005	0.05	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U		
Lead (D)	mg/L	0.0001	0.16	0.0047		0.0007		0.0034		0.0002	B		
Manganese (D)	mg/L	0.0005	4.4	0.0171		0.0026	B	0.0118		0.0011	B		
Mercury (D)	mg/L	0.0002	0.001	<0.0002	U	0.0002	U	<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.002	0.5	0.046		0.033		0.043		0.030			
Cyanide (T)	mg/L	0.003	0.2	<0.003	U	<0.003	U	<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	0.8	Report	177		178		171		168			
Nitrate/Nitrite as N	mg/L	0.02	Report	1.23		1.05		1.26		1.20			
Nitrogen, ammonia	mg/L	0.05	Report	<0.05	U	<0.05	U	<0.05	U	<0.05	U		
TDS	mg/L	10	1,040	206		222		218		204			
Sulfate	mg/L	10	1,300	62.6		52.1		48.4		48			
Total Alkalinity	mg/L	2	Report	116		124		125		111			
Field Parameters	Units			1/13/2016		5/3/2016		8/9/2016		10/19/2016			
pH	std. units	0.01	Report	7.82		7.90		7.83		7.86			
Temperature	°C	0.1	Report	3.5		6.7		13.1		5.3			
Conductivity	umhos/c m	1	Report	439		346		366		381			
Depth to Water	Feet	0.1	Report	15.20		14.35		14.28		15.40			

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2016 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection	MW-6		MW-6		MW-6		MW-6		
DATE			1/13/2016		5/3/2016		8/9/2016		10/19/2016		
PARAMETER	UNITS		Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	<0.0001	U	
Copper (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0005	U	<0.0005	U	
Lead (D)	mg/L	0.0001	0.0026		0.0017		0.0025		0.0007		
Manganese (D)	mg/L	0.0005	0.0030		0.0026	B	0.0033		0.0007	B	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.023		0.028		0.024		0.018		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	162		153		158		156		
Nitrate/Nitrite as N	mg/L	0.02	0.68		0.75		0.75		0.70		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	188		194		204		186		
Sulfate	mg/L	10	58.9		47.8		47.4		48.7		
Total Alkalinity	mg/L	2	107		105		104		102		
Field Parameters	Units		1/13/2016		5/3/2016		8/9/2016		10/19/2016		
pH	std. units	0.01	8.02		8.05		8.00		8.09		
Temperature	°C	0.1	3.9		7.7		11.0		7.1		
Conductivity	umhos/cm	1	402		307		339		247		
Depth to Water	Feet	0.1	18.30		19.70		19.70		18.40		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2016 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection	SW-5		SW-5		SW-5		SW-5		
DATE			1/13/2016		5/3/2016		8/9/2016		10/19/2016		
PARAMETER	UNITS		Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.0001	0.0009		0.0015		0.0007		0.0008		
Copper (D)	mg/L	0.0005	0.0009	B	0.0011	B	0.0010	B	0.0009	B	
Lead (D)	mg/L	0.0001	0.0002	B	0.0008		0.0011		0.0013		
Manganese (D)	mg/L	0.0005	0.0090		0.0083		0.0122		0.0117		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.221		0.424		0.145		0.195		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.8	184		195		113		149		
Nitrate/Nitrite as N	mg/L	0.02	0.32		0.39		0.22		0.23		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	216		248		128		162		
Sulfate	mg/L	10	83.9		92.5		25.9		45.5		
Total Alkalinity	mg/L	2	103		99.5		89.1		96		
Field Parameters	Units		1/13/2016		5/3/2016		8/9/2016		10/19/2016		
pH	std. units	0.01	8.02		8.2		8.13		8.2		
Temperature	°C	0.1	0.44		6.0		13.0		4.0		
Conductivity	umhos/cm	1	444		352		210		320		
Depth to Water	Feet	0.1	NA		NA		NA		NA		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2017 - Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1		MW-1		MW-1		MW-1		
DATE			1/24/2017		4/18/2017		9/05/2017		10/11/2017		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0004	B	0.0008		0.0002	B	0.0021		
Copper (D)	mg/L	0.0005	<0.0005	U	0.0006	B	0.0008	B	0.0014	B	
Lead (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	0.0028		
Manganese (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	0.0257		0.0033		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.034		0.065		0.047		0.061		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	119		130		108		109		
Nitrate/Nitrite as N	mg/L	0.02	0.21		0.08	B	0.12		0.14		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	110		148		112		106		
Sulfate	mg/L	1	12.4		26.2		14.2		15.2		
Total Alkalinity	mg/L	2	104		110		97.5		98.4		
Field Parameters	Units		1/24/2017		4/18/2017		9/05/2017		10/11/2017		
pH	std. units	0.01	7.95		7.79		7.11		7.91		
Temperature	°C	0.1	0.1		8.4		10.9		7.2		
Conductivity	umhos/cm	1	273		249		209		227		
Depth to Water	Feet	0.1	7.95		7.42		7.71		7.79		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2017 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2		MW-2		MW-2		MW-2		
DATE			1/24/2017		4/18/2017		9/05/2017		10/11/2017		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	FROZEN	FROZEN	<0.0001	U	<0.0001	U			
Copper (D)	mg/L	0.0004			0.0006	B	0.0004	B			
Lead (D)	mg/L	0.0001			0.0001	B	<0.0001	U			
Manganese (D)	mg/L	0.0004			0.132		0.0116				
Mercury (D)	mg/L	0.0002			<0.0002	U	<0.0002	U			
Zinc (D)	mg/L	0.002			0.076		0.079				
Cyanide (T)	mg/L	0.003			<0.003	U	<0.003	U			
Hardness as CaCO <sub>3</sub>	mg/L	0.2			130		138				
Nitrate/Nitrite as N	mg/L	0.02			0.22		0.25				
Nitrogen, ammonia	mg/L	0.05			<0.05	U	<0.05	U			
TDS	mg/L	10			140		146				
Sulfate	mg/L	5			31.4		30.3				
Total Alkalinity	mg/L	2			97.0		95.0				
Field Parameters	Units		1/24/2017		4/18/2017		9/05/2017		10/11/2017		
pH	std. units	0.01	FROZEN	FROZEN			7.46		8.01		
Temperature	°C	0.1					10.4		5.5		
Conductivity	umhos/cm	1					260		291		
Depth to Water	Feet	0.1					5.58		5.56		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2017 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3		MW-3		MW-3		MW-3		
DATE			1/24/2017		4/18/2017		9/05/2017		10/11/2017		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	<0.003	U	0.0022		0.0017		0.0019		
Copper (D)	mg/L	0.0005	0.0005	B	<0.0005	U	<0.0004	U	<0.0004	U	
Lead (D)	mg/L	0.0001	<0.003	U	<0.0001	U	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.01	3.76		2.57		2.22		2.35		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.90		0.865		0.636		0.642		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	795		744		707		647		
Nitrate/Nitrite as N	mg/L	0.02	0.04	B	0.13		0.06	B	0.05	B	
Nitrogen, ammonia	mg/L	0.05	1.09		1.01		0.71		0.82		
TDS	mg/L	10	1030		1090		1000		860		
Sulfate	mg/L	20	649		685		545		569		
Total Alkalinity	mg/L	2	116		112		146		118		
Field Parameters	Units		1/24/2017		4/18/2017		9/05/2017		10/11/2017		
pH	std. units	0.01	7.33		7.36		7.15		7.68		
Temperature	°C	0.1	0.5		8.3		10.4		5.9		
Conductivity	umhos/cm	1	1617		1316		299		1228		
Depth to Water	Feet	0.1	5.05		4.8		4.38		4.64		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2017 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4		MW-4		MW-4		MW-4		
DATE			1/24/2017		4/18/2017		9/05/2017		10/11/2017		
PARAMETER	Limit		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0011		0.0013		0.0017		0.0016		
Copper (D)	mg/L	0.0005	0.0007	B	0.0006	B	0.0012	B	0.0008	B	
Lead (D)	mg/L	0.0001	0.0004	B	0.0001	B	0.0028		<0.0001	U	
Manganese (D)	mg/L	0.0005	0.0025	B	0.0008	B	0.0182		0.0005	B	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.260		0.286		0.367		0.329		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	257		225		229		230		
Nitrate/Nitrite as N	mg/L	0.02	0.43		0.65		0.33		0.38		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	278		300		274		260		
Sulfate	mg/L	5	135		133		112		125		
Total Alkalinity	mg/L	2	115		99.6		123		106		
Field Parameters	Units		1/24/2017		4/18/2017		9/05/2017		10/11/2017		
pH	std. units	0.01	7.72		7.61		7.26		7.33		
Temperature	°C	0.1	0.9		9.9		12.8		6.3		
Conductivity	umhos/cm	1	606		441		413		433		
Depth to Water	Feet	0.1	14.86		12.52		12.63		12.92		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2017 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5 Numeric Protection Limits	MW-5		MW-5		MW-5		MW-5			
DATE				1/24/2017		4/18/2017		9/05/2017		10/11/2017			
PARAMETER	UNITS			Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual		
Cadmium (D)	mg/L	0.0001	0.005	0.0001	B	0.0003	B	0.0002	B	0.0002	B		
Copper (D)	mg/L	0.0005	0.05	<0.0005	U	<0.0005	U	0.0014	B	0.0029			
Lead (D)	mg/L	0.0001	0.16	0.0009		0.0002	B	0.0004	B	0.0003	B		
Manganese (D)	mg/L	0.0005	4.4	0.0025	B	<0.0005	U	0.0004	B	0.0006	B		
Mercury (D)	mg/L	0.0002	0.001	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.002	0.5	0.031		0.037		0.030		0.038			
Cyanide (T)	mg/L	0.003	0.2	<0.003	U	<0.003	U	<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	0.2	Report	176		186		163		159			
Nitrate/Nitrite as N	mg/L	0.02	Report	1.26		0.50		1.25		1.09			
Nitrogen, ammonia	mg/L	0.05	Report	<0.05	U	<0.05	U	<0.05	U	<0.05	U		
TDS	mg/L	10	1,040	192		230		190		178			
Sulfate	mg/L	5	1,300	45.3		45.6		47.4		41.1			
Total Alkalinity	mg/L	2	Report	115		148		115		126			
Field Parameters	Units			1/24/2017		4/18/2017		9/05/2017		10/11/2017			
pH	std. units	0.01	Report	8.01		7.84		7.65		6.97			
Temperature	°C	0.1	Report	1.3		9.6		9.7		4.0			
Conductivity	umhos/cm	1	Report	409		358		336		336			
Depth to Water	Feet	0.1	Report	15.05		12.5		14.42		14.54			

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2017 - Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6		MW-6		MW-6		MW-6		
DATE			1/24/2017		4/18/2017		9/05/2017		10/11/2017		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	<0.0001	U	0.0002	B	<0.0001	U	<0.0001	U	
Copper (D)	mg/L	0.0005	<0.0005	U	<0.0005	U	<0.0004	U	0.0004	B	
Lead (D)	mg/L	0.0001	0.0014		0.002		0.0005		0.0001	B	
Manganese (D)	mg/L	0.0005	0.0016	B	0.0026	B	0.0022		0.0007	B	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.017		0.038		0.021		0.013		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	155		149		153		144		
Nitrate/Nitrite as N	mg/L	0.02	0.73		0.70		0.66		0.58		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	170		186		170		162		
Sulfate	mg/L	5	44.3		50.7		44.8		40.3		
Total Alkalinity	mg/L	2	106		109		108		108		
Field Parameters	Units		1/24/2017		4/18/2017		9/05/2017		10/11/2017		
pH	std. units	0.01	8.07		8.07		7.77		7.49		
Temperature	°C	0.1	4.1		7.8		12.7		4.0		
Conductivity	umhos/cm	1	351		306		311		326		
Depth to Water	Feet	0.1	17.63		17.85		19.16		14.74		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2017 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5		SW-5		SW-5		SW-5		
DATE			1/24/2017		4/18/2017		9/05/2017		10/11/2017		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0009		0.0018		0.0008		0.0009		
Copper (D)	mg/L	0.0005	0.001	B	0.0008	B	0.0011	B	0.0013	B	
Lead (D)	mg/L	0.0001	0.0005		0.0003	B	0.0005		0.0003	B	
Manganese (D)	mg/L	0.0005	0.0031		0.0044		0.0115		0.0116		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.002	0.250		0.538		0.163		0.238		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	180		192		128		145		
Nitrate/Nitrite as N	mg/L	0.02	0.35		0.35		0.15		0.24		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	218		250		138		158		
Sulfate	mg/L	5	85.1		99.2		32.6		43.0		
Total Alkalinity	mg/L	2	104		97.5		99.2		100.0		
Field Parameters	Units		1/24/2017		4/18/2017		9/05/2017		10/11/2017		
pH	std. units	0.01	8.13		8.10		8.03		8.48		
Temperature	°C	0.1	0.2		6.7		13.8		0.9		
Conductivity	umhos/cm	1	420		386		257		325		
Depth to Water	Feet	0.1	NA		NA		NA		NA		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2018 - Black Cloud Surface and Ground Water Monitoring Results**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-1		MW-1		MW-1		MW-1		
DATE			2/06/2018		5/30/2018		8/07/2018		10/23/2018		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0009		0.0019		0.0048		0.00156		
Copper (D)	mg/L	0.0008	0.0009	B	0.0019	B	0.0022		0.0013	B	
Lead (D)	mg/L	0.0001	0.0012		0.0024		0.0072		0.0026		
Manganese (D)	mg/L	0.0004	0.0089		0.0055		0.008		0.0054		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.004	0.038		0.066		0.070		0.054		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	114		99		105		113		
Nitrate/Nitrite as N	mg/L	0.02	0.24		0.15		0.11		0.14		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	124		102		94		120		
Sulfate	mg/L	1	11.6		15.9		10.7		17.1		
Total Alkalinity	mg/L	2	118		84.0		95.8		105		
Field Parameters	Units		2/06/2018		5/30/2018		8/07/2018		10/23/2018		
pH	std. units	0.01	7.60		7.65		7.41		7.75		
Temperature	oC	0.1	0.8		3.2		9.0		4.7		
Conductivity	umhos/cm	1	227.1		112		202.7		218.7		
Depth to Water	Feet	0.1	7.95		7.37		7.74		7.90		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2018 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-2		MW-2		MW-2		MW-2		
DATE			2/06/2018		5/31/2018		8/07/2018		10/23/2018		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	FROZEN	FROZEN	0.001		0.00209				
Copper (D)	mg/L	0.0008			0.0022		<0.0008	U			
Lead (D)	mg/L	0.0001			0.0032		0.0147				
Manganese (D)	mg/L	0.0004			0.237		0.391				
Mercury (D)	mg/L	0.0002			<0.0002	U	<0.0002	U			
Zinc (D)	mg/L	0.004			0.141		0.254				
Cyanide (T)	mg/L	0.003			<0.003	U	<0.003	U			
Hardness as CaCO <sub>3</sub>	mg/L	0.2			111		115				
Nitrate/Nitrite as N	mg/L	0.02			0.15		0.21				
Nitrogen, ammonia	mg/L	0.05			0.56		<0.05	U			
TDS	mg/L	10			110		132				
Sulfate	mg/L	1			22.7		26.3				
Total Alkalinity	mg/L	2			95.9		101				
Field Parameters	Units		2/06/2018	5/31/2018	8/07/2018		10/23/2018				
pH	std. units	0.01	FROZEN	FROZEN	7.62		7.75				
Temperature	oC	0.1			8.8		4.4				
Conductivity	umhos/cm	1			218.9		233.3				
Depth to Water	Feet	0.1			5.75		6.08				

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2018 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-3		MW-3		MW-3		MW-3		
DATE			2/07/2018		5/30/2018		8/07/2018		10/23/2018		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0017		0.0011		0.0012		0.00088		
Copper (D)	mg/L	0.0008	0.0006	B	<0.0004	U	<0.0004	U	<0.0008	U	
Lead (D)	mg/L	0.0001	0.0001	B	0.0001	B	<0.0001	U	<0.0001	U	
Manganese (D)	mg/L	0.02	5.67		4.73		6.52		5.02		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.004	1.79		1.00		0.810		0.611		
Cyanide (T)	mg/L	0.003	<0.003	U	0.003	B	0.003	B	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	717		599		665		621		
Nitrate/Nitrite as N	mg/L	0.02	0.11		0.08	B	0.07	B	<0.02	U	
Nitrogen, ammonia	mg/L	0.05	0.58		0.52		<0.05	U	0.44		
TDS	mg/L	10	950		778		902		882		
Sulfate	mg/L	50	516		457		471		460		
Total Alkalinity	mg/L	2	157		138		131		137		
Field Parameters	Units		2/07/2018		5/30/2018		8/07/2018		10/23/2018		
pH	std. units	0.01	6.80		7.33		7.17		7.31		
Temperature	oC	0.1	1.9		5.0		8.7		4.6		
Conductivity	umhos/cm	1	1265		482		1122		1127		
Depth to Water	Feet	0.1	4.88		4.51		4.64		4.94		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2018 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-4		MW-4		MW-4		MW-4		
DATE			2/06/2018		5/30/2018		8/07/2018		10/23/2018		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0022		0.0019		0.001		0.00112		
Copper (D)	mg/L	0.0008	0.0036		0.0041		0.0012	B	0.0027		
Lead (D)	mg/L	0.0001	0.027		0.0376		0.0038		0.0009		
Manganese (D)	mg/L	0.0004	0.192		0.224		0.0324		0.0053		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.004	0.397		0.363		0.202		0.210		
Cyanide (T)	mg/L	0.003	<0.003	U	0.003	B	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	301		233		191		211		
Nitrate/Nitrite as N	mg/L	0.02	0.46		0.43		0.25		0.26		
Nitrogen, ammonia	mg/L	0.05	0.15	B	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	316		262		214		262		
Sulfate	mg/L	5	149		77.2		75.4		87.6		
Total Alkalinity	mg/L	2	102		104		110		113		
Field Parameters	Units		2/06/2018		5/30/2018		8/07/2018		10/23/2018		
pH	std. units	0.01	7.28		7.54		7.61		7.77		
Temperature	oC	0.1	4.0		4.6		6.6		6.1		
Conductivity	umhos/cm	1	443.4		246		351.4		366.4		
Depth to Water	Feet	0.1	14.77		12.14		13.89		15.29		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2018 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-5		MW-5		MW-5		MW-5		
DATE			2/06/2018		5/31/2018		8/07/2018		10/23/2018		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0003	B	0.0003	B	0.0002	B	0.00156		
Copper (D)	mg/L	0.0008	0.001	B	0.001	B	0.0005	B	0.0143		
Lead (D)	mg/L	0.0001	0.0123		0.0105		0.008		0.141		
Manganese (D)	mg/L	0.0004	0.044		0.032		0.0271		0.437		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.004	0.067		0.066		0.053		0.451		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	165		182		162		192		
Nitrate/Nitrite as N	mg/L	0.02	1.27		1.10		1.16		1.08		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	194		202		178		194		
Sulfate	mg/L	5	42.2		46.4		42.1		42.9		
Total Alkalinity	mg/L	2	113		126		128		120		
Field Parameters	Units		2/06/2018		5/31/2018		8/07/2018		10/23/2018		
pH	std. units	0.01	7.47		7.81		7.79		7.81		
Temperature	oC	0.1	4.0		5.0		5.3		4.5		
Conductivity	umhos/cm	1	324.0		218		317.6		318.8		
Depth to Water	Feet	0.1	15.27		13.92		14.72		14.98		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2018 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	MW-6		MW-6		MW-6		MW-6		
DATE			2/06/2018		5/30/2018		8/07/2018		10/23/2018		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	0.00008	B	
Copper (D)	mg/L	0.0004	<0.0004	U	<0.0004	U	<0.0004	U	<0.0008	U	
Lead (D)	mg/L	0.0001	0.0032		0.0015		0.0016		0.0075		
Manganese (D)	mg/L	0.0004	0.0038		0.0018	B	0.0024		0.0061		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.004	0.024		0.026		0.019		0.040		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	151		154		147		145		
Nitrate/Nitrite as N	mg/L	0.02	0.65		0.71		0.69		0.63		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	182		176		158		174		
Sulfate	mg/L	5	39.0		41.0		41.0		42.4		
Total Alkalinity	mg/L	2	107		108		107		110		
Field Parameters	Units		2/06/2018		5/30/2018		8/07/2018		10/23/2018		
pH	std. units	0.01	7.30		7.92		7.50		7.91		
Temperature	oC	0.1	4.9		6.2		6.2		5.6		
Conductivity	umhos/cm	1	301.1		193		295.5		295.4		
Depth to Water	Feet	0.1	15.88		14.50		14.79		14.52		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2018 - Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method Detection Limit	SW-5		SW-5		SW-5		SW-5		
DATE			2/06/2018		5/30/2018		8/07/2018		10/23/2018		
PARAMETER	UNITS		Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	
Cadmium (D)	mg/L	0.0001	0.0009		0.0005		0.0006		0.00074		
Copper (D)	mg/L	0.0008	0.0008	B	0.0014	B	0.0008	B	0.0009	B	
Lead (D)	mg/L	0.0001	0.0002	B	0.0015		0.0009		0.0016		
Manganese (D)	mg/L	0.0004	0.004		0.008		0.0069		0.009		
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U	
Zinc (D)	mg/L	0.004	0.214		0.115		0.121		0.166		
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U	
Hardness as CaCO <sub>3</sub>	mg/L	0.2	187		93		118		137		
Nitrate/Nitrite as N	mg/L	0.02	0.35		0.20		0.11		0.18		
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U	
TDS	mg/L	10	238		96		114		158		
Sulfate	mg/L	5	78.4		13.7		23.9		38.1		
Total Alkalinity	mg/L	2	102		79.4		105		105		
Field Parameters	Units		2/06/2018		5/30/2018		8/07/2018		10/23/2018		
pH	std. units	0.01	7.69		8.21		8.17		8.08		
Temperature	oC	0.1	0.6		7.1		8.6		2.3		
Conductivity	umhos/cm	1	376.5		122		233.9		277.1		
Depth to Water	Feet	0.1	NA		NA		NA		NA		

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2019 Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method	MW-1		MW-1		MW-1		MW-1	
DATE		Detection	2/13/2019		6/11/2019		8/20/2019		11/13/2019	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00199		0.00387		0.00677		0.00112	
Copper (D)	mg/L	0.0008	0.0017	B	0.0049		0.0042		0.001	B
Lead (D)	mg/L	0.0001	0.0057		0.0131		0.0145		0.0004	B
Manganese (D)	mg/L	0.0004	0.0122		0.0169		0.008		0.0028	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.004	0.048		0.136		0.094		0.060	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	117		109		95		111	
Nitrate/Nitrite as N	mg/L	0.02	0.21		0.36		0.06	B	.14	
Nitrogen, ammonia	mg/L	0.05	0.47		<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	126		130		106		126	
Sulfate	mg/L	1	16.0		30.7		13.2		13.8	
Total Alkalinity	mg/L	2	108		79.7		84.4		99.9	
Field Parameters	Units		2/14/2019		6/11/2019		8/20/2019		11/13/2019	
pH	std. units	0.01	7.57		7.4		7.28		7.57	
Temperature	oC	0.1	0.9		3.3		8.2		2.3	
Conductivity	umhos/cm	1	229.1		227.8		187.6		216.3	
Depth to Water	Feet	0.1	8.08		6.80		7.46		7.75	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2019 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

<b>SAMPLE LOCATION</b>		<b>Maximum Method</b>	<b>MW-2</b>		<b>MW-2</b>		<b>MW-2</b>		<b>MW-2</b>	
<b>DATE</b>		<b>Detection</b>	<b>2/13/2019</b>		<b>6/11/2019</b>		<b>8/20/2019</b>		<b>11/13/2019</b>	
<b>PARAMETER</b>	<b>UNITS</b>	<b>Limit</b>	<b>Conc.</b>	<b>Lab Qual</b>	<b>Conc.</b>	<b>Lab Qual</b>	<b>Conc.</b>	<b>Lab Qual</b>	<b>Conc.</b>	<b>Lab Qual</b>
Cadmium (D)	mg/L	0.00005	FROZEN	FROZEN			0.00106		0.00248	
Copper (D)	mg/L	0.0008					0.0025		0.0053	
Lead (D)	mg/L	0.0001					0.0044		0.0128	
Manganese (D)	mg/L	0.0004					0.248		0.649	
Mercury (D)	mg/L	0.0002					<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.004					0.167		0.292	
Cyanide (T)	mg/L	0.003					<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2					117		128	
Nitrate/Nitrite as N	mg/L	0.02					0.14		0.20	
Nitrogen, ammonia	mg/L	0.05					<0.05	U	<0.05	U
TDS	mg/L	20					122		144	
Sulfate	mg/L	1					29.0		27.7	
Total Alkalinity	mg/L	2					86.7		111	
<b>Field Parameters</b>	<b>Units</b>		<b>2/13/2019</b>	<b>6/11/2019</b>			<b>8/20/2019</b>		<b>11/13/2019</b>	
pH	std. units	0.01	FROZEN	FROZEN			7.46		7.61	
Temperature	oC	0.1					8.7		2.1	
Conductivity	umhos/cm	1					227		238	
Depth to Water	Feet	0.1					5.77		6.18	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2019 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

<b>SAMPLE LOCATION</b>		<b>Maximum Method</b>	<b>MW-3</b>		<b>MW-3</b>		<b>MW-3</b>		<b>MW-3</b>	
<b>DATE</b>		<b>Detection</b>	<b>2/13/2019</b>		<b>6/11/2019</b>		<b>8/20/2019</b>		<b>11/13/2019</b>	
<b>PARAMETER</b>	<b>UNITS</b>	<b>Limit</b>	<b>Conc.</b>	<b>Lab Qual</b>	<b>Conc.</b>	<b>Lab Qual</b>	<b>Conc.</b>	<b>Lab Qual</b>	<b>Conc.</b>	<b>Lab Qual</b>
Cadmium (D)	mg/L	0.00005	0.00097		0.00107		0.00084		0.00115	
Copper (D)	mg/L	0.0008	<0.0008	U	<0.0008	U	<0.0008	U	<0.0008	U
Lead (D)	mg/L	0.0001	0.0002	B	<0.0001	U	<0.0001	U	<0.0001	U
Manganese (D)	mg/L	0.02	3.00		2.41		2.42		4.96	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.004	0.587		0.611		0.501		0.543	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	635		612		563		500	
Nitrate/Nitrite as N	mg/L	0.02	0.07	B	<0.02	U	0.05	B	0.03	B
Nitrogen, ammonia	mg/L	0.05	<0.05	U	0.79		0.30		0.41	
TDS	mg/L	20	844		814		738		694	
Sulfate	mg/L	20	487		492		440		369	
Total Alkalinity	mg/L	2	130		106		166		145	
<b>Field Parameters</b>	<b>Units</b>		<b>2/14/2019</b>		<b>6/11/2019</b>		<b>8/20/2019</b>		<b>11/13/2019</b>	
pH	std. units	0.01	7.16		7.10		7.04		7.23	
Temperature	oC	0.1	2.0		4.7		7.0		4.0	
Conductivity	umhos/cm	1	1098		905		1019		937	
Depth to Water	Feet	0.1	5.50		0.70		4.36		4.63	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2019 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method	MW-4		MW-4		MW-4		MW-4	
DATE		Detection	2/14/2019		6/11/2019		8/20/2019		11/12/2019	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00113		0.00172		0.00241		0.00157	
Copper (D)	mg/L	0.0008	0.0019	B	0.0025		0.0047		0.0025	
Lead (D)	mg/L	0.0001	0.0006		0.004		0.0523		0.0006	
Manganese (D)	mg/L	0.0004	0.0043		0.0297		0.266		0.0035	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.004	0.217		0.448		0.477		0.312	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	240		160		233		278	
Nitrate/Nitrite as N	mg/L	0.02	0.43		0.46		0.27		0.38	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	280		194		246		356	
Sulfate	mg/L	10	141		72.6		104		152	
Total Alkalinity	mg/L	2	107		81.5		101		106	
Field Parameters	Units		2/14/2019		6/11/2019		8/20/2019		11/12/2019	
pH	std. units	0.01	7.50		7.51		7.45		7.61	
Temperature	oC	0.1	5.0		4.2		5.8		6.0	
Conductivity	umhos/cm	1	380.4		391.8		370.7		470.8	
Depth to Water	Feet	0.1	15.78		5.19		12.36		15.6	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2019 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method	MW-5		MW-5		MW-5		MW-5	
DATE		Detection	2/13/2019		6/11/2019		8/19/2019		11/12/2019	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00021	B	0.00024	B	0.00208		0.00024	B
Copper (D)	mg/L	0.0008	<0.0008	U	<0.0008	U	0.0258		0.0009	B
Lead (D)	mg/L	0.0001	0.0039		0.001		0.204		0.0056	
Manganese (D)	mg/L	0.0004	0.0115		0.0027		0.722		0.0162	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.004	0.041		0.044		0.657		0.050	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	164		219		224		165	
Nitrate/Nitrite as N	mg/L	0.02	1.34		0.57		1.13		1.11	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	214		276		198		208	
Sulfate	mg/L	5	49.5		91.2		56.5		43.5	
Total Alkalinity	mg/L	2	116		125		114		118	
Field Parameters	Units		2/13/2019		6/11/2019		8/19/2019		11/12/2019	
pH	std. units	0.01	7.63		7.48		7.48		7.28	
Temperature	oC	0.1	5.2		4.9		5.6		5.2	
Conductivity	umhos/cm	1	326.8		410.2		311.2		329.4	
Depth to Water	Feet	0.1	15.42		11.97		14.37		14.80	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2019 Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method	MW-6		MW-6		MW-6		MW-6	
DATE		Detection	2/13/2019		6/11/2019		8/19/2019		11/12/2019	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00007	B	0.00017	B	0.00007	B	0.00009	
Copper (D)	mg/L	0.0008	<0.0008	U	<0.0008	U	<0.0008	U	<0.0008	U
Lead (D)	mg/L	0.0001	0.0025		0.0047		0.0029		0.0035	
Manganese (D)	mg/L	0.0004	0.0029		0.0069		0.0037		0.004	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.004	0.023		0.159		0.027		0.029	
Cyanide (T)	mg/L	0.006	<0.006	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	147		162		154		150	
Nitrate/Nitrite as N	mg/L	0.02	0.82		0.68		0.73		0.65	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	10	176		200		176		190	
Sulfate	mg/L	5	43.6		53.3		42.3		44.0	
Total Alkalinity	mg/L	2	108		113		107		108	
Field Parameters	Units		2/13/2019		6/11/2019		8/19/2019		11/12/2019	
pH	std. units	0.01	7.77		7.49		7.67		7.74	
Temperature	oC	0.1	6.2		5.3		5.7		5.0	
Conductivity	umhos/cm	1	296		265.8		303.1		297.1	
Depth to Water	Feet	0.1	14.81		13.72		12.5		13.39	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

**2019 Black Cloud Surface and Ground Water Monitoring Results (Cont.)**

SAMPLE LOCATION		Maximum Method	SW-5		SW-5		SW-5		SW-5	
DATE		Detection	2/13/2019		6/11/2019		8/19/2019		11/12/2019	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.0008		0.00107		0.00066		0.00081	
Copper (D)	mg/L	0.0008	0.0008	B	0.003		0.0012	B	0.0008	B
Lead (D)	mg/L	0.0001	0.0009		0.0063		0.0035		0.0009	
Manganese (D)	mg/L	0.0004	0.0051		0.0267		0.0117		0.0099	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.004	0.196		0.264		0.138		0.204	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	191		100		107		139	
Nitrate/Nitrite as N	mg/L	0.02	0.31		0.36		0.09	B	0.20	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	228		114		122		178	
Sulfate	mg/L	5	84.9		23.2		22.8		38.3	
Total Alkalinity	mg/L	2	122		86.4		88.6		103	
Field Parameters	Units		2/13/2019		6/11/2019		8/19/2019		11/12/2019	
pH	std. units	0.01	7.75		7.79		7.9		7.92	
Temperature	oC	0.1	3.5		4.0		12.1		1.8	
Conductivity	umhos/cm	1	384.5		188.2		209.2		284.7	
Depth to Water	Feet	0.1	NA		NA		NA		NA	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

## 2020 Black Cloud Surface and Ground Water Monitoring Results

SAMPLE LOCATION		Maximum Method	MW-1		MW-1		MW-1		MW-1	
DATE		Detection	2/18/2020		6/3/2020		8/19/2020		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00077		0.0052		0.00087		0.000685	
Copper (D)	mg/L	0.0008	0.0009	B	0.0041		0.0012	B	<0.0008	U
Lead (D)	mg/L	0.0001	0.0021		0.012		0.0016		<0.0001	U
Manganese (D)	mg/L	0.0004	0.0145		0.0205		0.006		<0.0004	U
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.045		0.078		0.064		0.0596	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	111		89		102		115	
Nitrate/Nitrite as N	mg/L	0.02	0.17		0.27		0.04	B	0.127	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	132		138		112		126	
Sulfate	mg/L	1	13.0		13.1		10.6		17.9	
Total Alkalinity	mg/L	2	102		76.9		102		96.9	
Field Parameters	Units		2/18/2020		6/3/2019		8/19/2020		10/21/2020	
pH	std. units	0.01	7.56		7.48		7.47		7.53	
Temperature	°C	0.1	1.6		2.8		8.3		5.1	
Conductivity	umhos/cm	1	217.7		183.8		203.8		223.2	
Depth to Water	Feet	0.1	7.86		7.10		7.57		7.72	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

## 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)

SAMPLE LOCATION		Maximum Method	MW-2		MW-2		MW-2		MW-2	
DATE		Detection	2/17/2020		6/3/2020		8/19/2020		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	FROZEN	FROZEN	0.00028	B	0.000158	B		
Copper (D)	mg/L	0.0008			0.0011	B	<0.0008	U		
Lead (D)	mg/L	0.0001			0.0005		<0.0001	U		
Manganese (D)	mg/L	0.0004			0.0234		0.0251			
Mercury (D)	mg/L	0.0002			<0.0002	U	<0.0002	U		
Zinc (D)	mg/L	0.006			0.091		0.0907			
Cyanide (T)	mg/L	0.003			<0.003	U	<0.003	U		
Hardness as CaCO <sub>3</sub>	mg/L	0.2			109		125			
Nitrate/Nitrite as N	mg/L	0.02			0.11		0.208			
Nitrogen, ammonia	mg/L	0.05			<0.05	U	<0.05	U		
TDS	mg/L	20			126		124			
Sulfate	mg/L	1			19.4		25.9			
Total Alkalinity	mg/L	2			117		96.0			
Field Parameters	Units		2/17/2020		6/3/2020		8/19/2020		10/21/2020	
pH	std. units	0.01	FROZEN	FROZEN			7.47		7.51	
Temperature	°C	0.1					8.9		5.0	
Conductivity	umhos/cm	1					222.4		235.2	
Depth to Water	Feet	0.1					6.08		6.26	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)

SAMPLE LOCATION		Maximum Method	MW-3		MW-3		MW-3		MW-3	
DATE		Detection	2/17/2020		6/3/2020		8/19/2020		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00099		0.00134		0.00115		0.00136	
Copper (D)	mg/L	0.0008	<0.0008	U	<0.0008	U	<0.0008	U	<0.0008	U
Lead (D)	mg/L	0.0001	<0.0001	U	<0.0001	U	<0.0001	U	<0.0001	U
Manganese (D)	mg/L	0.04	10.4		5.75		8.53		6.77	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.3	0.936		0.9		0.706		0.630	
Cyanide (T)	mg/L	0.003	0.003	B	0.004	B	0.005	B	0.0042	B
Hardness as CaCO <sub>3</sub>	mg/L	0.2	518		612		508		515	
Nitrate/Nitrite as N	mg/L	0.02	0.04	B	<0.02	U	0.07	B	0.045	B
Nitrogen, ammonia	mg/L	0.05	0.37		0.78		0.42		0.571	
TDS	mg/L	20	706		852		734		710	
Sulfate	mg/L	50	396		471		362		392	
Total Alkalinity	mg/L	2	169		130		146		129	
Field Parameters	Units		2/18/2020		6/3/2020		8/19/2020		10/21/2020	
pH	std. units	0.01	7.15		7.21		7.05		6.97	
Temperature	°C	0.1	2.1		4.3		8.4		5.3	
Conductivity	umhos/cm	1	983		983		867		801.1	
Depth to Water	Feet	0.1	4.88		1.78		4.74		4.76	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

## 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)

SAMPLE LOCATION		Maximum Method	MW-4		MW-4		MW-4		MW-4	
DATE		Detection	2/18/2020		6/3/2020		8/19/2020		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00154		0.00102		0.00119		0.000985	
Copper (D)	mg/L	0.0008	0.0041		0.0021		0.001	B	<0.0008	U
Lead (D)	mg/L	0.0001	0.101		0.0037		0.0017		<0.0001	U
Manganese (D)	mg/L	0.0004	0.0494		0.0241		0.0099		<0.0004	U
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.298		0.243		0.227		0.180	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	300		103		198		217	
Nitrate/Nitrite as N	mg/L	0.02	0.43		0.31		0.36		0.405	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	402		150		250		258	
Sulfate	mg/L	20	221		24.4		102		104	
Total Alkalinity	mg/L	2	104		77.7		112		105	
Field Parameters	Units		2/18/2019		6/3/2020		8/19/2020		10/21/2020	
pH	std. units	0.01	7.57		7.63		7.66		7.40	
Temperature	°C	0.1	4.4		3.3		6.2		5.8	
Conductivity	umhos/cm	1	486.3		214.8		391.1		405.5	
Depth to Water	Feet	0.1	16.04		5.96		17.03		17.33	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

### 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)

SAMPLE LOCATION		Maximum Method	MW-5		MW-5		MW-5		MW-5	
DATE		Detection	2/17/2020		6/3/2020		8/19/2020		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00019	B	0.00048		0.00027	B	0.000186	B
Copper (D)	mg/L	0.0008	<0.0008	U	0.0028		0.0062		<0.0008	U
Lead (D)	mg/L	0.0001	0.003		0.026		0.0115		0.00018	B
Manganese (D)	mg/L	0.0004	0.0089		0.0855		0.036		<0.0004	U
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.038		0.132		0.064		0.0308	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	160		212		160		163	
Nitrate/Nitrite as N	mg/L	0.02	0.97		0.89		1.08		1.06	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	208		306		188		196	
Sulfate	mg/L	5	45.4		79.4		41.8		39.8	
Total Alkalinity	mg/L	2	115		134		122		117	
Field Parameters	Units		2/17/2020		6/3/2020		8/19/2020		10/21/2020	
pH	std. units	0.01	7.69		7.42		7.27		7.24	
Temperature	°C	0.1	5.2		4.3		5.0		4.6	
Conductivity	umhos/cm	1	2.41		406.5		322.7		323.5	
Depth to Water	Feet	0.1	15.15		12.98		14.75		15.02	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

## 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)

SAMPLE LOCATION		Maximum Method	MW-6		MW-6		MW-6		MW-6	
DATE		Detection	2/17/2020		6/3/2020		8/19/2020		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00006	B	0.00007	B	0.00006	B	0.000052	B
Copper (D)	mg/L	0.0008	<0.0008	U	<0.0008	U	<0.0008	U	0.00101	B
Lead (D)	mg/L	0.0001	0.0015		0.0025		0.0025		0.00016	B
Manganese (D)	mg/L	0.0004	0.0021		0.0038		0.0026		0.00055	B
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.020		0.034		0.024		0.0175	
Cyanide (T)	mg/L	0.006	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	146		157		144		150	
Nitrate/Nitrite as N	mg/L	0.02	0.55		0.76		0.68		0.662	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	10	186		242		180		162	
Sulfate	mg/L	5	39.2		43.2		41.4		36.5	
Total Alkalinity	mg/L	2	106		111		113		117	
Field Parameters	Units		2/17/2020		6/3/2020		8/19/2020		10/21/2020	
pH	std. units	0.01	7.82		7.17		6.61		6.53	
Temperature	°C	0.1	5.7		5.1		5.3		5.3	
Conductivity	umhos/cm	1	180.6		325.1		302.1		290.0	
Depth to Water	Feet	0.1	13.58		14.98		14.38		13.55	

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time

## 2020 Black Cloud Surface and Ground Water Monitoring Results (Cont.)

SAMPLE LOCATION		Maximum Method	SW-5		SW-5		SW-5		SW-5	
DATE		Detection	2/17/2020		6/3/2020		8/19/2020		10/21/2020	
PARAMETER	UNITS	Limit	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual	Conc.	Lab Qual
Cadmium (D)	mg/L	0.00005	0.00079		0.00072		0.00061		0.000587	
Copper (D)	mg/L	0.0008	<0.0008	U	0.0021		0.0009	B	0.00126	B
Lead (D)	mg/L	0.0001	0.0002	B	0.0044		0.0008		0.00017	B
Manganese (D)	mg/L	0.0004	0.002		0.014		0.0059		0.00737	
Mercury (D)	mg/L	0.0002	<0.0002	U	<0.0002	U	<0.0002	U	<0.0002	U
Zinc (D)	mg/L	0.006	0.204		0.159		0.118		0.140	
Cyanide (T)	mg/L	0.003	<0.003	U	<0.003	U	<0.003	U	<0.003	U
Hardness as CaCO <sub>3</sub>	mg/L	0.2	178		94.0		119		139	
Nitrate/Nitrite as N	mg/L	0.02	0.24		0.32		0.08	B	0.226	
Nitrogen, ammonia	mg/L	0.05	<0.05	U	<0.05	U	<0.05	U	<0.05	U
TDS	mg/L	20	236		136		128		152	
Sulfate	mg/L	5	77.0		19.1		23.7		39.7	
Total Alkalinity	mg/L	2	103		76.0		104		98.9	
Field Parameters	Units		2/17/2019		6/3/2020		8/19/2020		10/21/2020	
pH	std. units	0.01	7.95		7.90		7.77		7.68	
Temperature	°C	0.1	1.6		5.1		8.7		1.8	
Conductivity	umhos/cm	1	370.7		194.5		236.0		277.4	
Depth to Water	Feet	0.1								

D=Dissolved

T=Total

Laboratory Qualifiers:

B=Analyte detected at value between MDL and PQL

U=Analyte concentration less than MDL

H=Analysis exceeded holding time