



Sunnyside Operations Associates L.P.

P.O. Box 10, East Carbon, Utah 84520 • (801) 888-4476 • Fax (801) 888-2538

January 3, 2019

Allan Moore
Solid Waste Program Manager
195 North 1950 West
Salt Lake City, Utah 84116

RE: Sunnyside Cogeneration Associates (SCA)
SCA #2 Ash Landfill
CCR Annual Ground Water Report

Dear Mr. Moore:

Please find attached SCA's CCR Annual Ground Water Report. Monitoring wells MW-8, MW-9, MW-10 and MW-11, were sampled on June 4, 2018 and December 3, 2018, in accordance with Federal regulations under 40CFR 257 and State regulations under R315-319.

Water samples were collected at MW-8 only, since MW-9, MW-10 and MW-11 were dry wells. The sampling results from MW-8 were slightly above the established permit protection levels for boron and calcium. SCA will re-sample MW-8 to determine if boron and calcium are still elevated.

Enclosures:

Table 1:

CCR Ground Water Analysis for year 2018

Table 2:

CCR Monitoring Well Parameters for year 2018

SCA #2 Ash Landfill
CCR Annual Ground Water Report
Page 2:

If you have any questions regarding the sampling activities or this report, please contact Rusty Netz or myself at (435) 888-4476.

Thank You,

A handwritten signature in black ink, appearing to read "Gerald Hascall". The signature is fluid and cursive, written over a light blue horizontal line.

Gerald Hascall
Agent for
Sunnyside Cogeneration Associates

Cc: Rusty Netz
Scott Carlson
Plant File

CCR Monitoring Wells

Legend
Wells



Google Earth

© 2008 Google

500 ft

N

TABLE 1

Sunnyside Cogeneration Associates Facility SCA #2 CCR Ash Landfill Groundwater Compliance Sampling

First half of 2018

Sampling Date: June 4, 2018

Sample Location	Field Parameters				Metals(mg/l)					
	Temp. (C)	pH (S.U.)	SC (umhos)	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
Permit Background Values	N.A.	N.A.	N.A.	0.35	422	251	0.6	7.2	6743	11013
Permit Protection Levels	N.A.	N.A.	N.A.	0.46	510.70	394.2	1.42	7.98	7988	12659
MW-8	13	7.10	10940	0.34	417	316	0.5	7.2	6750	10300
MW-9	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MW-10	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MW-11	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW

NW= No water present in well
NA= Non-Applicable
ND=NoN-Detect

TABLE 1

Sunnyside Cogeneration Associates Facility SCA #2 CCR Ash Landfill Groundwater Compliance Sampling

Second half of 2018

Sampling Date: December 3, 2018

Sample Location	Field Parameters					Metals(mg/l)					
	Temp. (C)	pH (S.U.)	SC (umhos)	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	
Permit Background Values	N.A.	N.A.	N.A.	0.35	422	251	0.6	7.2	6743	11013	
Permit Protection Levels	N.A.	N.A.	N.A.	0.46	510.70	394.2	1.42	7.98	7988	12659	
MW-8	12.6	7.66	8523	0.67	518	271	0.5	7.1	6060	9300	
MW-9	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	
MW-10	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	
MW-11	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	

NW= No water present in well
NA= Non-Applicable
ND=NoN-Detect

TABLE 2

Sunnyside Cogeneration Associates Facility SCA #2 CCR Ash Landfill Groundwater Compliance Sampling First Half 2018

Date:	June 4, 2018
GROUND WATER WELLS:	
Casing Diameter (inches)	2
Casing Type:	PVC

LOCATION	Monitoring Well	Personnel	Weather	Static Water Level (ft.)	Total Well Depth (ft.)	Calculated Purge Volume (gals.)	Purge Method	Purge Volume (gals.)	Field Parameters		
									Temp. (C)	pH (su)	SC (um)
SCA #2 Ash Landfill	MW-8	R. Netz	Cloudy	18.6	50.0	10.07	PUMP	15.0	13	7.10	10,094
SCA #2 Ash Landfill	MW-9	R. Netz	Cloudy	NW	50.0	NW	NW	NW	NW	NW	NW
SCA #2 Ash Landfill	MW-10	R. Netz	Cloudy	NW	50.0	NW	NW	NW	NW	NW	NW
SCA #2 Ash Landfill	MW-11	R. Netz	Cloudy	NW	65.0	NW	NW	NW	NW	NW	NW

Purge volume (gallons) = ((well depth-static water level)/25) x (casing dia.)² x 3

NW- NO Water Present in well

NS=No Sample Taken

TABLE 2

Sunnyside Cogeneration Associates Facility SCA #2 CCR Ash Landfill Groundwater Compliance Sampling Second Half 2018

Date:	December 3, 2018
GROUND WATER WELLS:	
Casing Diameter (inches)	2
Casing Type:	PVC

LOCATION	Monitoring Well	Personnel	Weather	Static Water Level (ft.)	Total Well Depth (ft.)	Calculated Purge Volume (gals.)	Purge Method	Purge Volume (gals.)	Field Parameters		
									Temp. (C)	pH (su)	SC (um)
SCA #2 Ash Landfill	MW-8	R. Netz	Cloudy	14.5	50.0	17	PUMP	16.0	12.6	7.66	8,523
SCA #2 Ash Landfill	MW-9	R. Netz	Cloudy	NW	50.0	NW	NW	NW	NW	NW	NW
SCA #2 Ash Landfill	MW-10	R. Netz	Cloudy	NW	50.0	NW	NW	NW	NW	NW	NW
SCA #2 Ash Landfill	MW-11	R. Netz	Cloudy	NW	65.0	NW	NW	NW	NW	NW	NW

Purge volume (gallons) = ((well depth-static water level)/25) x (casing dia.)² x 3
 NW- NO Water Present in well
 NS=No Sample Taken



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Certificate of Analysis

Sunnyside Cogeneration
Rusty Netz
P.O. Box 10
East Carbon, UT 84520

PO#: _____
Receipt: 6/5/18 10:40 @ 18.8 °C
Date Reported: 6/13/2018
Project Name: CCR Detection Monitoring

Sample ID: MW-8

Matrix: Water

Lab ID: 18F0155-01

Date Sampled: 6/4/18 9:00

Sampled By: Client

	<u>Result</u>	<u>Units</u>	<u>Minimum Reporting Limit</u>	<u>Method</u>	<u>Preparation Date/Time</u>	<u>Analysis Date/Time</u>	<u>Flag(s)</u>
Inorganic							
Chloride	316	mg/L	10	EPA 300.0	6/5/18	6/5/18	
Fluoride	0.5	mg/L	0.1	EPA 300.0	6/5/18	6/5/18	
pH	7.2	pH Units	0.1	SM 4500 H-B	6/5/18 13:00	6/5/18 13:00	SPH
Sulfate	6750	mg/L	200	EPA 300.0	6/5/18	6/5/18	
Total Dissolved Solids (TDS)	10300	mg/L	100	SM 2540 C	6/8/18	6/8/18	
Metals							
Boron, Total	0.34	mg/L	0.25	EPA 200.7	6/7/18	6/7/18	
Calcium, Total	417	mg/L	1.0	EPA 200.7	6/7/18	6/7/18	



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Certificate of Analysis

**Sunnyside Cogeneration
Rusty Netz
P.O. Box 10
East Carbon, UT 84520**

PO#:
Receipt: **6/5/18 10:40 @ 18.8 °C**
Date Reported: 6/13/2018
Project Name: **CCR Detection Monitoring**

Report Footnotes

Abbreviations

ND = Not detected at the corresponding Minimum Reporting Limit (MRL).
1 mg/L = one milligram per liter or 1 mg/kg = one milligram per kilogram = 1 part per million.
1 ug/L = one microgram per liter or 1 ug/kg = one microgram per kilogram = 1 part per billion.
1 ng/L = one nanogram per liter or 1 ng/kg = one nanogram per kilogram = 1 part per trillion.

Flag Descriptions

SPH = Sample submitted past method specified holding time.

DRINKING WATER SAMPLES ONLY

CHEMTECH - FORD ANALYTICAL LABORATORY

CHAIN OF CUSTODY

COMPANY: Sunnyside Cogen SCA
 ADDRESS: _____
 CITY/STATE/ZIP: _____
 PHONE #: 435-888-4476 FAX: _____
 CONTACT: Rusty Netz PROJECT: CCR Detection Monitoring
 EMAIL: rusnetz@hotmail.com

BILLING ADDRESS: _____
 BILLING CITY/STATE/ZIP: _____
 PURCHASE ORDER: _____



TURNAROUND TIME REQUIRED: _____
 * Expedited turnaround subject to additional charge

State System Number

Send to State
Yes No

TESTS REQUESTED										Bacteria			
										Total Coliform + E. coli (Present/Absent)	Total Coliform + E. coli (Enumeration)	HPC (Plate Count)	R = Routine I = Investigative TR = Trigger Source RP = Repeat
												REPEAT OR = Original Location UP = Upstream DN = Downstream	
												LAB FAIL Ref #	

Lab Use Only	CLIENT SAMPLE INFORMATION					
	LOCATION	DATE	TIME	FACILITY ID (source code)	POINT CODE (DBP)	Field Residual Chlorine
FD155 01	1 MW - 8	6/4/18	0900	SCA		

Sampled by: [print] _____ Sampled by: [signature] _____

Special Instructions: _____

DNICE NOT ON ICE Temp (C): 18.4

Samples received outside the EPA recommended temperature range of 0-6 C, may be rejected.

Relinquished by: [signature]	Date/Time: <u>6/4/18 1145</u>	Received by: [signature]	Date/Time: <u>6/5/18 1040</u>
Relinquished by: [signature]	Date/Time	Received by: [signature]	Date/Time
Relinquished by: [signature]	Date/Time	Received by: [signature]	Date/Time

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FedEx = 7723 8427 3067
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Certificate of Analysis

Sunnyside Cogeneration
Rusty Netz
P.O. Box 10
East Carbon, UT 84520

PO#: _____
Receipt: 12/4/18 9:10 @ 7.3 °C
Date Reported: 12/11/2018
Project Name: CCR Ash Landfill Sample

Sample ID: MW-8

Matrix: Wastewater

Lab ID: 18L0058-01

Date Sampled: 12/3/18 10:00

Sampled By: Client

	Result	Units	Minimum Reporting Limit	Method	Preparation Date/Time	Analysis Date/Time	Flag(s)
Inorganic							
Chloride	271	mg/L	5	EPA 300.0	12/5/18	12/5/18	
Fluoride	0.5	mg/L	0.2	EPA 300.0	12/6/18	12/6/18	
pH	7.1	pH Units	0.1	SM 4500 H-B	12/4/18 13:45	12/4/18 14:50	SPH
Sulfate	6060	mg/L	100	EPA 300.0	12/5/18	12/5/18	
Total Dissolved Solids (TDS)	9300	mg/L	100	SM 2540 C	12/5/18	12/5/18	
Metals							
Boron, Total	0.67	mg/L	0.25	EPA 200.7	12/6/18	12/6/18	
Calcium, Total	518	mg/L	1.0	EPA 200.7	12/6/18	12/6/18	

