



Sunnyside Operations Associates L.P.

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

January 4, 2022

Doug Taylor
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. Taylor:

Please find attached SCA's CCR Annual Ground Water Report. Monitoring wells MW-8, MW-9, MW-10 and MW-11, were sampled on May 20, 2021 and November 18, 2021, 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. MW-8 sampling results were well within permit protection limits.

Enclosures:

Table 1:

CCR Ground Water Analysis for year 2021

Table 2:

CCR Monitoring Well Parameters for year 2021

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 blue ink, appearing to read "Gerald Hascall".

Gerald Hascall
Agent for
Sunnyside Cogeneration Associates

Cc: Rusty Netz
Plant File

CCR Monitoring Wells

Legend

Wells



Google Earth

© 2017 Google



500 ft

TABLE 1

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

First half of 2021
Sampling Date: 5/20/21

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
MMW-8	13.0	6.92	7719	0.27	293	214	0.5	7.1	5120	7600
MMW-9	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MMW-10	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MMW-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 2021

Date: May 20, 2021

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	MMW-8	R. Netz	Clear	16.5	50.0	16.05	PUMP	16.0	13	6.92	7719
SCA #2 Ash Landfill	MMW-9	R. Netz	Clear	NW	50.0	NW	NW	NW	NW	NW	NW
SCA #2 Ash Landfill	MMW-10	R. Netz	Clear	NW	50.0	NW	NW	NW	NW	NW	NW
SCA #2 Ash Landfill	MMW-11	R. Netz	Clear	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 1

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

Second half of 2021
Sampling Date: 11/18/21

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
MMW-8	12.3	6.13	8203	0.24	248	176	0.2	7.1	4860	7900
MMW-9	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MMW-10	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MMW-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
Second Half 2021

Date: November 18, 2021

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	Cold	15.2	50.0	16.7	PUMP	16.0	12.3	6.13	8203
SCA #2 Ash Landfill	MW-9	R. Netz	Cold	NW	50.0	NW	NW	NW	NW	NW	NW
SCA #2 Ash Landfill	MW-10	R. Netz	Cold	NW	50.0	NW	NW	NW	NW	NW	NW
SCA #2 Ash Landfill	MW-11	R. Netz	Cold	NW	65.0	NW	NW	NW	NW	NW	NW

Purge volume (gallons) = ((well depth-static water level)/25) x (casing dia.)² x3

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: 5/21/21 10:24 @ 13.4 °C
Date Reported: 5/28/2021
Project Name: CCR Ash Landfill

Sample ID: MW-8

Matrix: Wastewater

Lab ID: 21E1221-01

Date Sampled: 5/20/21 10:00

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	214	mg/L	5.0	EPA 300.0	5/25/21	5/25/21	
Fluoride	0.5	mg/L	0.5	EPA 300.0	5/25/21	5/25/21	
pH	7.1	pH Units	0.1	SM 4500 H-B	5/21/21 15:18	5/21/21 15:46	SPH
Sulfate	5120	mg/L	100	EPA 300.0	5/25/21	5/25/21	
Total Dissolved Solids (TDS)	7600	mg/L	20	SM 2540 C	5/24/21	5/24/21	
Metals							
Boron, Total	0.27	mg/L	0.05	EPA 200.7	5/26/21	5/26/21	
Calcium, Total	293	mg/L	0.2	EPA 200.7	5/26/21	5/26/21	



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Certificate of Analysis

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

PO#:
Receipt: 5/21/21 10:24 @ 13.4 °C
Date Reported: 5/28/2021
Project Name: CCR Ash Landfill

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.



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Certificate of Analysis

Sunnyside Cogeneration
Rusty Netz
PO Box 10
East Carbon, UT 84520

PO#:
Receipt: 11/19/21 11:25 @ 5.6 °C
Date Reported: 12/2/2021
Project Name: CCR Ash Landfill Sampling

Sample ID: MW-8

Matrix: Wastewater

Lab ID: 21K1168-01

Date Sampled: 11/18/21 9:30

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	176	mg/L	100	EPA 300.0	11/22/21	11/22/21	
Fluoride	0.2	mg/L	0.1	EPA 300.0	11/19/21	11/19/21	
pH	7.1	pH Units	0.1	SM 4500 H-B	11/19/21 14:43	11/19/21 17:12	SPH
Sulfate	4860	mg/L	500	EPA 300.0	11/22/21	11/22/21	
Total Dissolved Solids (TDS)	7900	mg/L	20	SM 2540 C	11/22/21	11/22/21	
Metals							
Boron, Total	0.24	mg/L	0.05	EPA 200.7	12/1/21	12/1/21	
Calcium, Total	248	mg/L	0.2	EPA 200.7	12/1/21	12/1/21	



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Certificate of Analysis

Sunnyside Cogeneration
Rusty Netz
PO Box 10
East Carbon, UT 84520

PO#:
Receipt: 11/19/21 11:25 @ 5.6 °C
Date Reported: 12/2/2021
Project Name: **CCR Ash Landfill Sampling**

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.

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