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APR 23 2019

## Sunnyside Operations Associates L.P.

DIV OF OIL, GAS & MINING

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

April 19, 2019

Daron Haddock  
Utah Division of Oil, Gas & Mining  
1594 W. North Temple, Suite 1210  
Salt Lake City, Utah 84116

RE: 1st Quarter 2019 Inspection Report  
Sunnyside Refuse Pile C/007/035

Dear Daron:

Please find enclosed a copy of the First Quarter 2019 Inspection Report for Sunnyside Cogeneration Associates' impoundments, refuse pile and excess spoil areas.

Should you have any questions, please contact Rusty Netz or myself at (435)888-4476.

Thank You,

Gerald Hascall  
Agent For  
Sunnyside Cogeneration Associates

c.c. Rusty Netz  
Plant File

**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

Permit Number: C/007/035  
Mine Name: Sunnyside Refuse and Slurry  
Mine Operator (Permittee): Sunnyside Cogeneration Associates  
MSHA ID Number: N/A  
Impoundment Name: RailCut Sediment Pond #007  
UPDES Permit Number: UT024759

Inspection Date: March 28, 2019  
First Quarter 2019  
Inspector: Rusty Netz  
Signature: *Rusty Netz*

**IMPOUNDMENT INSPECTION**

**1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None

**a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Total Pond Volume = 4.8 Acre-feet  
Pond bottom elevation = 6206.0  
100% Sediment Storage Volume = 0.34 acre-feet at Elevation 6209  
60% Sediment Storage Volume = 0.2 acre feet at Elevation = 6207.7  
Existing Sediment Elevation = 6207.6 +/-

**b. Principle and emergency spillway elevations.**

Primary Dewatering Pipe = 6209.07  
Emergency Spillway Elevation = 6212.34

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on out slopes of embankments, etc.*

Pond had little to no water. No samples were taken Pond did not require decanting  
Sediment levels were acceptable  
Embankment conditions were good. Vegetation on out slopes was adequate.  
Inlet / Outlet conditions were good. No structural or hazardous conditions were observed.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

No recent changes in the geometry of the structure have been observed  
No water was impounded  
No other aspects of the impounding structure were observed that could affect its stability or functionality.

**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

**Rail Cut Sediment Pond**

**CERTIFIED REPORT  
IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

- 1. Is impoundment designed and constructed in accordance with the approved plan? YES
- 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? YES
- 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? YES

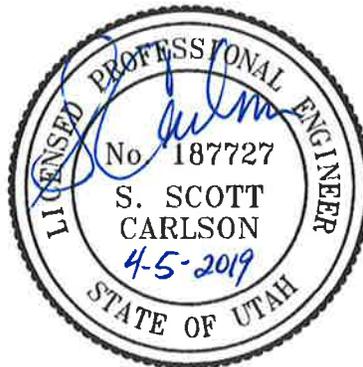
**COMMENTS/ OTHER INFORMATION**

**CERTIFICATION STATEMENT:**

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
P.E. Number & State: 187727 UTAH

Affix Signature, Stamp and Date



# QUARTERLY INSPECTION FORM – IMPOUNDMENT

Permit Number: C/007/035 Inspection Date: March 28, 2019  
Mine Name: Sunnyside Refuse and Slurry First Quarter 2019  
Mine Operator (Permittee): Sunnyside Cogeneration Associates Inspector: Rusty Netz  
MSHA ID Number: N/A Signature: Rusty Netz  
Impoundment Name: Old Coarse Refuse Road Sediment Pond #008  
UPDES Permit Number: UT024759

## IMPOUNDMENT INSPECTION

### 1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

None

#### a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Total Pond Volume = 0.9 Acre-feet  
Pond bottom elevation = 6394.0  
100% Sediment Storage Volume = 0.08 acre-feet at Elevation 6395.1  
60% Sediment Storage Volume = 0.05 acre feet at Elevation = 6394.75  
Existing Sediment Elevation = 6394.6 +/-

#### b. Principle and emergency spillway elevations.

Primary Dewatering Pipe = 6395.75  
Emergency Spillway Elevation = 6399.4

## 2. Field Information

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.*

Pond had little water. No samples were taken Pond did not require decanting.  
Sediment level was acceptable.  
Embankment conditions were good. Vegetation on outslopes was adequate.  
Inlet / Outlet conditions were good. No structural or hazardous conditions were observed.

## 3. Field Evaluation.

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

No recent changes in the geometry of the structure have been observed  
Some water was impounded. Sediment level was good.  
No other aspects of the impounding structure were observed that could affect its stability or functionality.

**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

**Old Coarse Refuse Road Sediment Pond**

**CERTIFIED REPORT  
IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

- 1. Is impoundment designed and constructed in accordance with the approved plan? YES
- 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? YES
- 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? YES

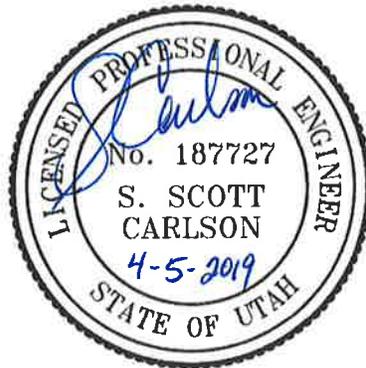
**COMMENTS/ OTHER INFORMATION**

**CERTIFICATION STATEMENT:**

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
P.E. Number & State: 187727 UTAH

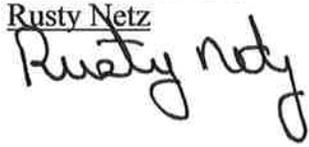
Affix Signature, Stamp and Date



# QUARTERLY INSPECTION FORM – IMPOUNDMENT

Permit Number: C/007/035  
Mine Name: Sunnyside Refuse and Slurry  
Mine Operator (Permittee): Sunnyside Cogeneration Associates  
MSHA ID Number: N/A  
Impoundment Name: Pasture Sediment Pond #009  
UPDES Permit Number: UT024759

Inspection Date: March 28, 2019  
First Quarter 2019

Inspector: Rusty Netz  
Signature: 

## IMPOUNDMENT INSPECTION

### 1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

None

#### a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.

Total Pond Volume = 3.2 Acre-feet  
Pond bottom elevation = 6484.5  
100% Sediment Storage Volume = 0.42 acre-feet at Elevation 6486.2  
60% Sediment Storage Volume = 0.25 acre feet at Elevation = 6485.5  
Existing Sediment Elevation = 6484.9 +/-

#### b. Principle and emergency spillway elevations.

Primary Dewatering Pipe = 6486.6  
Emergency Spillway Elevation = 6490.6

## 2. Field Information

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on out slopes of embankments, etc.*

Pond had little to no water. No samples were taken. Pond did not require decanting.  
Sediment level was good.  
Embankment conditions were good. Vegetation on out slopes was adequate.  
Inlet / Outlet conditions were good. No structural or hazardous conditions were observed.

## 3. Field Evaluation.

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

No recent changes in the geometry of the structure have been observed.  
No water was impounded. Sediment level was good.  
No other aspects of the impounding structure were observed that could affect its stability or functionality.

**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

**Pasture Sediment Pond**

**CERTIFIED REPORT  
IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

- 1. Is impoundment designed and constructed in accordance with the approved plan? YES
- 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? YES
- 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? YES

**COMMENTS/ OTHER INFORMATION**

**CERTIFICATION STATEMENT:**

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
P.E. Number & State: 187727 UTAH

Affix Signature, Stamp and Date



**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

Permit Number: C/007/035 Inspection Date: March 28, 2019  
Mine Name: Sunnyside Refuse and Slurry First Quarter 2019  
Mine Operator (Permittee): Sunnyside Cogeneration Associates Inspector: Rusty Netz  
MSHA ID Number: N/A Signature: Rusty Netz  
Impoundment Name: Coarse Refuse Toe Sediment Pond #012  
UPDES Permit Number: UT024759

**IMPOUNDMENT INSPECTION**

**1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None

**a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Total Pond Volume = 1.6 Acre-feet  
Pond bottom elevation = 6176.0  
100% Sediment Storage Volume = 0.07 acre-feet at Elevation 6177.8  
60% sediment Storage Volume = 0.03 acre feet at Elevation = 6177.0  
Existing Sediment Elevation = 6176.8 +/-

**b. Principle and emergency spillway elevations.**

Primary Dewatering Pipe = 6178.2  
Emergency Spillway Elevation = 6183.63

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on out slopes of embankments, etc.*

Pond had little to no water. No samples were taken Pond did not require decanting  
Sediment level was acceptable  
Embankment conditions were good. Vegetation on out slopes was adequate.  
Inlet / Outlet conditions were good. No structural or hazardous conditions were observed.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

No recent changes in the geometry of the structure have been observed  
No water was impounded. Sediment level was good.  
No other aspects of the impounding structure were observed that could affect its stability or functionality.

**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

**Coarse Refuse Toe Sediment Pond**

**CERTIFIED REPORT  
IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

- 1. Is impoundment designed and constructed in accordance with the approved plan? YES
- 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? YES
- 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? YES

**COMMENTS/ OTHER INFORMATION**

None

**CERTIFICATION STATEMENT:**

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
P.E. Number & State: 187727 UTAH

Affix Signature, Stamp and Date



**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

Permit Number: C/007/035  
Mine Name: Sunnyside Refuse and Slurry  
Mine Operator (Permittee): Sunnyside Cogeneration Associates  
MSHA ID Number: N/A  
Impoundment Name: Coal Pile Sediment Pond #014  
UPDES Permit Number: UT024759

Inspection Date: March 28, 2019  
First Quarter 2019  
Inspector: Rusty Netz  
Signature: *Rusty Netz*

**IMPOUNDMENT INSPECTION**

**1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None

**a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Total Pond Volume = 1.65 Acre-feet  
Pond bottom elevation = 6471.5  
100% Sediment Storage Volume = 0.65 acre-feet at Elevation 6476.0  
60% Sediment Storage Volume = 0.45 acre feet at Elevation = 6474.7  
Existing Sediment Elevation = 6472.5 +/-

**b. Principle and emergency spillway elevations.**

Primary Dewatering Pipe = 6476.0  
Secondary Dewatering Orifice = 6477.2  
Primary Spillway Elevation = 6477.9  
Emergency Spillway Elevation = 6479.0

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on outslopes of embankments, etc.*

Pond had little to no water. No samples were taken Pond did not require decanting.  
Sediment level was good.  
Embankment conditions were good. Vegetation on outslopes was adequate.  
Inlet / Outlet conditions were good. No structural or hazardous conditions were observed.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

No recent changes in the geometry of the structure have been observed  
No water was impounded. Sediment level was good.  
No other aspects of the impounding structure were observed that could affect its stability or functionality.

# QUARTERLY INSPECTION FORM – IMPOUNDMENT

## Coal Pile Sediment Pond

### CERTIFIED REPORT IMPOUNDMENT EVALUATION

*If you answer NO to these questions, please explain under comments*

1. Is impoundment designed and constructed in accordance with the approved plan? YES
2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? YES
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? YES

### COMMENTS/ OTHER INFORMATION

#### CERTIFICATION STATEMENT:

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
P.E. Number & State: 187727 UTAH

Affix Signature, Stamp and Date



**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

Permit Number: C/007/035  
Mine Name: Sunnyside Refuse and Slurry  
Mine Operator (Permittee): Sunnyside Cogeneration Associates  
MSHA ID Number: N/A  
Impoundment Name: **Borrow Area Sediment Pond #016**  
UPDES Permit Number: UT024759

Inspection Date: March 28, 2019  
First Quarter 2019  
Inspector: Rusty Netz  
Signature: *Rusty Netz*

**IMPOUNDMENT INSPECTION**

**1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.**

None

**a. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and estimated average elevation of existing sediment.**

Total Pond Volume = 8.3 Acre-feet  
Pond bottom elevation = 6510.0  
100% Sediment Storage Volume = 2.3 acre-feet at Elevation 6514.3  
60% Sediment Storage Volume = 1.4 acre feet at Elevation = 6513.3  
Existing Sediment Elevation = 6510 +/-

**b. Principle and emergency spillway elevations.**

Primary Dewatering Pipe = 6514.3  
Emergency Spillway Elevation = 6517.03

**2. Field Information**

*Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/ instrumentation information, inlet/ outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/ repairs, monitoring information, vegetation on out slopes of embankments, etc.*

Pond had little water. No samples were taken  
Sediment level was good. Pond did not require decanting.  
Embankment conditions were good. Vegetation on out slopes was adequate.  
Inlet / Outlet conditions were good. No structural or hazardous conditions were observed.

**3. Field Evaluation.**

*Describe any changes in the geometry of the impounding structure, average and maximum depths and elevation of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period*

No recent changes in the geometry of the structure have been observed  
Some water was impounded. Sediment level was good.  
No other aspects of the impounding structure were observed that could affect its stability or functionality.

**QUARTERLY INSPECTION FORM – IMPOUNDMENT**

**Borrow Area Sediment Pond**

**CERTIFIED REPORT  
IMPOUNDMENT EVALUATION**

*If you answer NO to these questions, please explain under comments*

- 1. Is impoundment designed and constructed in accordance with the approved plan? YES
- 2. Is impoundment free of instability, structural weakness, or any other hazardous conditions? YES
- 3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection? YES

**COMMENTS/ OTHER INFORMATION**

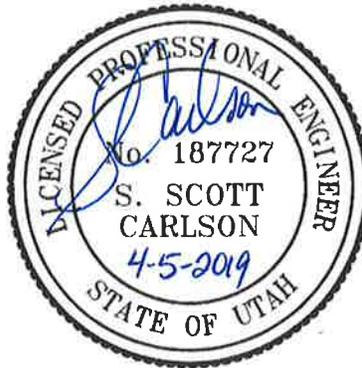
None

**CERTIFICATION STATEMENT:**

I hereby certify that: I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved designs and meets or exceeds the minimum design requirements under all applicable federal, state and local regulations; and that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
P.E. Number & State: 187727 UTAH

Affix Signature, Stamp and Date



**QUARTERLY INSPECTION FORM – REFUSE PILE**

Permit Number: C/007/035  
 Mine Name: Sunnyside Refuse and Slurry  
 Mine Operator (Permittee): Sunnyside Cogeneration Associates  
 MSHA ID Number: 1211-UT-09-02093-01  
 Facility Name: Coarse Refuse Pile

Inspection Date: March 28, 2019  
First Quarter 2019  
 Inspector: Rusty Netz  
 Signature: *Rusty Netz*

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes): **Refuse material is actively being excavated and removed from various locations across the top of the pile**
2. Lift Height / Thickness Avg 15 Maximum 25 Elevation of Active Benches: **approximately 6400, 6425, 6450**
3. Vertical angle of outslope(s) / Location(s) where measured **max 2:1 NW face**
4. Current estimated volume: **approx 2.6-3.1 Million Tons** Volume removed during year: 2019 ytd: apx. 13,675tons
5. Describe foundation preparation, (including the removal of vegetation, stumps, topsoil, and all organic material): NA
6. Describe Placement and compaction of fill materials (including an explanation of how compaction is confirmed): N/A -  
**Activities occurring at this time are associated with removal of refuse material**
7. Is there any evidence of fires or burning on the structure? (if Yes, specify extent, location, and abatement / extinguishment of such fires): **No evidence of fires observed**
8. Describe placement of underdrains and protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow): **No underdrains exist. Current surface drainage is in place. No seepage is visible**
9. Describe any appearances of instability, structural weakness, and other hazardous conditions **No aspects of the Fill structure were observed that could affect its stability or functionality or which indicated hazardous conditions**
10. Please provide any other information pertaining to the stability of the structure (attach any photos taken during the inspection)
  - a. Are there any cracks or scarps in crest? **NO none observed**
  - b. Is there any detectable sloughing or bulging? **NO none observed**
  - c. Do slope erosion problems exist? **NO none observed**
  - d. Cracks or scarps in slope? **NO none observed**
  - e. Surface movements? (valley bottom, hillsides) **NO none observed**
  - f. Erosion of Toe? **NO none observed**
  - g. Water impounded by structure? **NO none observed**
  - h. Are diversion ditches stable? **YES appear reasonable**
  - i. Is drainage positive? **YES surface runoff flows to collection ditches**
  - j. Could failure of structure create an impoundment (provide description)? **No surface water flows exist in the vicinity**
  - k. Are design standards established within the mining and reclamation plan for the disposal facility being met? **Yes**
  - l. Proctor Determination: **none required**

I hereby certify that: I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the approved design and meets or exceeds the minimum design requirements under all applicable federal, state, and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
 P.E. Number & State: 187727 UTAH



**QUARTERLY INSPECTION FORM – EXCESS SPOIL DISPOSAL AREA**

Permit Number: C/007/035  
 Mine Name: Sunnyside Refuse and Slurry  
 Mine Operator (Permittee): Sunnyside Cogeneration Associates  
 MSHA ID Number: 1211-UT-09-02093-04  
 Facility Name: Excess Spoil Disposal Area #1

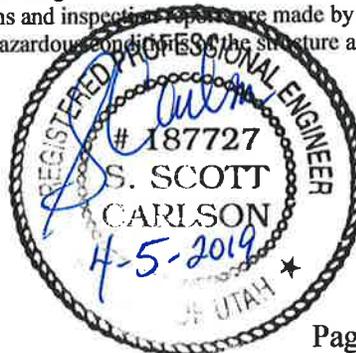
Inspection Date: March 28, 2019  
 First Quarter 2019  
 Inspector: Rusty Netz  
 Signature: *Rusty Netz*

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes): **No material was placed in this disposal area during the year**
2. Lift Height / Thickness Avg 2-4 ft Maximum 4 ft Elevation of Active Benches: **approx 6500-6520**
3. Vertical angle of outslope(s) / Location(s) where measured **max 2.5:1 North face**
4. Total storage capacity: **400K-500K cuyd** Remaining storage capacity **estimated 50K-100K cuyd** Volume placed during year: **2019 ytd: none**
5. Describe foundation preparation, (including the removal of vegetation, stumps, topsoil, and all organic material): **Organic material was removed. No topsoil existed since this was a previously disturbed location**
6. Describe Placement and compaction of fill materials (including an explanation of how compaction is confirmed): **Material is generally granular by nature so it is placed, spread by dozer and compacted by wheel rolling**
7. Is there any evidence of fires or burning on the structure? (if Yes, specify extent, location, and abatement / extinguishment of such fires): **No evidence of fires observed**
8. Describe placement of underdrains and protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow): **No underdrains exist. Surface drainage is collected on terrace ditches and diverted off of pile. No seepage is visible**
9. Describe any appearances of instability, structural weakness, and other hazardous conditions **No aspects of the Fill structure were observed that could affect its stability or functionality or which indicated hazardous conditions**
10. Please provide any other information pertaining to the stability of the structure (attach any photos taken during the inspection)
  - a. Are there any cracks or scarps in crest? **NO none observed**
  - b. Is there any detectable sloughing or bulging? **NO none observed**
  - c. Do slope erosion problems exist? **NO erosion conditions are minimal**
  - d. Cracks or scarps in slope? **NO none observed**
  - e. Surface movements? (valley bottom, hillsides) **NO none observed**
  - f. Erosion of Toe? **NO none observed**
  - g. Water impounded by structure? **NO none observed**
  - h. Are diversion ditches stable? **YES appear reasonable**
  - i. Is drainage positive? **YES surface runoff flows to collection ditches**
  - j. Could failure of structure create an impoundment (provide description)? **No surface water flows exist in the vicinity**
  - k. Are design standards established within the mining and reclamation plan for the disposal facility being met? **Yes**
  - l. Proctor Determination: **none required**
11. Provide copies of sample analysis for material placed in the fill. **Sample analysis was provided in December 2012 for most recent material placed in fill.**

I hereby certify that: I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the approved design and meets or exceeds the minimum design requirements under all applicable federal, state, and local regulations; and, that inspections and inspection reports were made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
 P.E. Number & State: 187727 UTAH

Affix Signature, Stamp and Date



**QUARTERLY INSPECTION FORM – EXCESS SPOIL DISPOSAL AREA**

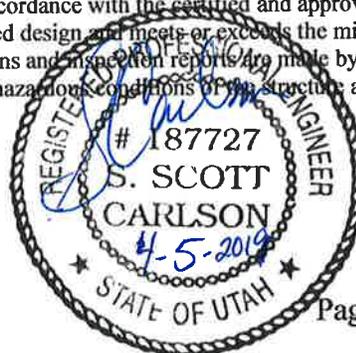
Permit Number: C/007/035  
 Mine Name: Sunnyside Refuse and Slurry  
 Mine Operator (Permittee): Sunnyside Cogeneration Associates  
 MSHA ID Number: 1211-UT-09-02093-05  
 Facility Name: Excess Spoil Disposal Area #2

Inspection Date: March 28, 2019  
First Quarter 2019  
 Inspector: Rusty Netz  
 Signature: *Rusty Netz*

1. Describe any changes in the geometry of the structure (as well as instrumentation, if any, used to monitor changes): **Approx 7,805 tons of material placed in the Phase II area during the quarter**
2. Lift Height / Thickness Avg 2-4 ft Maximum 4 ft Elevation of Active Benches: **approx 6550**
3. Vertical angle of outslope(s) / Location(s) where measured **approx. 5:1**
4. Total storage capacity Phase II Area: **300K cuyd** Remaining storage capacity **estimated 30K-70K cuyd**  
 Volume placed during year: **2019 ytd: 7,805 tons**
5. Describe foundation preparation, (including the removal of vegetation, stumps, topsoil, and all organic material): **Organic material was removed. Subsoil was removed for reclamation on Phase 1 area.**
6. Describe Placement and compaction of fill materials (including an explanation of how compaction is confirmed): **Material is generally granular by nature so it is placed, spread by dozer and compacted by wheel rolling**
7. Is there any evidence of fires or burning on the structure? (if Yes, specify extent, location, and abatement / extinguishment of such fires): **No evidence of fires observed**
8. Describe placement of underdrains and protective filter systems, and final surface drainage systems (report any seepage, including location, color, flow): **No underdrains exist. A permanent culvert routes surface water from the east side to west side of the Phase 1 area. Surface drainage is collected in perimeter ditches and diverted to sediment pond. No seepage is visible**
9. Describe any appearances of instability, structural weakness, and other hazardous conditions **No aspects of the Fill structure were observed that could affect its stability or functionality or which indicated hazardous conditions**
10. Please provide any other information pertaining to the stability of the structure (attach any photos taken during the inspection)
  - a. Are there any cracks or scarps in crest? **NO none observed**
  - b. Is there any detectable sloughing or bulging? **NO none observed**
  - c. Do slope erosion problems exist? **NO erosion conditions are minimal**
  - d. Cracks or scarps in slope? **NO none observed**
  - e. Surface movements? (valley bottom, hillsides) **NO none observed**
  - f. Erosion of Toe? **NO none observed**
  - g. Water impounded by structure? **NO none observed**
  - h. Are diversion ditches stable? **YES appear reasonable**
  - i. Is drainage positive? **YES surface runoff flows to collection ditches**
  - j. Could failure of structure create an impoundment (provide description)? **No surface water flows exist in the vicinity**
  - k. Are design standards established within the mining and reclamation plan for the disposal facility being met? **Yes**
  - l. Proctor Determination: **none required**
11. Provide copies of sample analysis for material placed in the fill. **Sample analyses for material placed during 2018 is attached. Also, attached is sample analysis for proposed Phase II reclamation cover material**

I hereby certify that: I am experienced in the construction of earth and rock fills; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of earth and rock fills in accordance with the certified and approved designs for this structure; that the fill structure has been maintained in accordance with the approved design and meets or exceeds the minimum design requirements under all applicable federal, state, and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

By: S. Scott Carlson, PE, Twin Peaks, P.C.  
 P.E. Number & State: 187727 UTAH  
 Affix Signature, Stamp and Date



# BRIGHAM YOUNG UNIVERSITY

Environmental Analytical Laboratory

244 WIDB

Provo, UT 84602

801-422-2147

**Plant and Wildlife Sciences**

**Department**

## SAMPLE TEST REPORT AND RECOMMENDATIONS

Name SCA  
 Street One Power Plant Rd  
Sunnyside UT 84539  
 City State Zip

Date: 15-Mar-19  
 Telephone: 435.888.4476  
 Fax: 1788

Sample Identification	Crop to be grown	pH	% Sand	% Silt	% Clay	Soil Texture	Cation Exchange meq/100g	% Organic Carbon
Rejects material: date sampled 12/3/18		6.65						

Test	Results	Very Low	Low	Medium	High	Very High	Recommendations
Nitrate-Nitrogen ppm N	3.98	X					
Phosphorus ppm P	15.8	X					
Potassium ppm K	84.5	X					
Salinity-ECE dS/m	3.50			X			no salinity problem
Boron ppm B	3.65					X	no fertilizer needed
Selenium ppm Se	<MDL						
SAR-Sodium Absorption Ratio	0.54	X					no sodium hazard
Calcium-SAR ppm Ca	33.7						
Potassium SAR ppm K	25.3						
Magnesium SAR ppm Mg	28.9						
Sodium SAR ppm Na	70.7						
Sulfur % pyritic S	0.59	X					
Acid Potential tons CaCO <sub>3</sub> /1000 tons	18.4						
Ca Carbonate %CaCO <sub>3</sub>	BDL						
Neutralization Pot. tons CaCO <sub>3</sub> /1000 tons	BDL						
Acid Base Potential tons CaCO <sub>3</sub> /1000 tons	NA						

Rejects MATERIAL in XS2 Ph2

Notes:

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 Street One Power Plant Rd  
Sunnyside UT 84539  
 City State Zip

Date: 15-Mar-19  
 Telephone: 435.888.4476  
 Fax: 1788

Sample Identification	Crop to be grown	pH	% Sand	% Silt	% Clay	Soil Texture	Cation Exchange meq/100g	% Organic Carbon
Soil: date sampled 2/7/19		7.46						

Test	Results	Very Low	Low	Medium	High	Very High	Recommendations
Nitrate-Nitrogen ppm N	2.36	X					
Phosphorus ppm P	2.34	X					
Potassium ppm K	43.8	X					
Salinity-Ec dS/m	2.60		X				no salinity problem
Boron ppm B	2.95					X	no fertilizer needed
Selenium ppm Se	<MDL						
SAR-Sodium Absorption Ratio	0.98	X					no sodium hazard
Calcium-SAR ppm Ca	33.1						
Potassium SAR ppm K	4.94						
Magnesium SAR ppm Mg	13.2						
Sodium SAR ppm Na	6.62						
Sulfur % pyritic S	0.02	X					
Acid Potential tons CaCO <sub>3</sub> /1000 tons	0.48						
Ca Carbonate %CaCO <sub>3</sub>	11.7						
Neutralization Pot. tons CaCO <sub>3</sub> /1000 tons	117						
Acid Base Potential tons CaCO <sub>3</sub> /1000 tons	117						Good

Soil for RECLAMATION COVER  
ON XS 2 Ph 2

Notes: