

**NM1 - \_\_\_\_\_3\_\_\_\_\_**

# **Second Quarter 2019 Progress Report**

**June 28, 2019**

**From:** [Charles Fiedler](#)  
**To:** [Griswold, Jim, EMNRD](#)  
**Cc:** [Arif Mussani](#); ["Andrew L. Wambsganss"](#); [Misty Pratt](#)  
**Subject:** Sundance Services Inc. Second Quarter 2019 Progress Report  
**Date:** Friday, June 28, 2019 6:41:31 AM  
**Attachments:** [2019-02 SSI Quarterly Report-FINAL 062819.pdf](#)  
**Importance:** High

---

Good Morning Jim,  
Attached please find the referenced report.  
Let me know if you have any questions.  
I attached a phot of the East Landfill (east side) showing the final grading ready for final cover.  
Thought you would appreciate a visual of the efforts complete to date.

**Charles W. Fiedler, P.E., LEED AP**  
*Senior Associate*

**GORDON ENVIRONMENTAL | PSC**  
333 Rio Rancho Blvd. NE, Suite 400  
Rio Rancho, New Mexico 87124  
505-867-6990 | [team-psc.com](http://team-psc.com)



333 Rio Rancho Blvd. NE, Suite 400

Rio Rancho, New Mexico 87124

505.867.6990

June 28, 2019

Mr. Jim Griswold, Bureau Chief  
Environmental Bureau  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

EMAIL: Jim.Griswold@state.nm.us

**Reference: Second Quarter 2019 Progress Report  
Sundance Services, Inc. Facility Closure**

Dear Mr. Griswold:

Sundance Services continues their efforts to close the legacy facility represented by Sundance Services, Inc. (SSI). Gordon Environmental/PSC, on behalf of SSI, has compiled the following information related to closure efforts that have been accomplished in the Second Quarter of 2019.

The status of the conditions that modified permit NM1-3 and the approved closure plan are as follows:

**Condition #1** Begin Closure by 12/31/2017:

- Complete.

**Condition #2** Critical Path Schedule:

- Undertaken and updated in this report.
- Sundance has initiated efforts related to Milestone #3 (Item 7.c), closure of the two Jet-out Facilities.
- Sundance has initiated efforts related to Milestone #5 (Item 7.d), the grading of the East Landfill Slopes.

**Condition #3** Closure Completed by 12/31/2022:

- Underway and on schedule.

**Condition #4** Identify each sump location:

- Completed for Produced Water Tanks.
- Completed for Jet-Out Facilities.

**Condition #5** Abandonment of existing wells and the installation of the new vadose zone monitoring (VZM) wells:

- The installation of the new VZM wells was completed in 2017.
- The piezometer abandonment was completed in the 2<sup>nd</sup> Quarter of 2018.

**Condition #6** Quarterly Monitoring events for the vadose zone monitoring wells:

- Based on your direction in our April 2018 meeting, we have discontinued Quarterly sampling.
- Efforts continued to dewater the saturated thickness south of the ponds. Dewatering documentation is provided in **Attachment A**.
- A "Cut-Off" trench was installed last quarter as an additional effort to minimize recharge from the ponds to this saturated zone. Liquids entering this trench are pumped back into the ponds to limit

Mr. Jim Griswold

Page 2 of 5

additional liquids entering the zone of saturation south of the ponds. This effort has been removing approximately 200 barrels daily since it was installed.

**Condition #7** Milestones:

- a) Milestone #1-COMplete.
- b) Milestone #2-COMplete.
- c) Milestone #3-Removal of all jet-out pits on or before December 31, 2019. In order to accomplish this milestone, a replacement facility must be designed and constructed at Sundance West to replace the jet-out functions currently provided by the SSI facilities. The following schedule has been initiated to accomplish this milestone:
  - Design Efforts: Underway
  - Sumps Located: Completed
  - Replacement Commissioned: September 2, 2019
  - Jet-Out decommissioned: September 23, 2019
  - Concrete demolished: October 14, 2019
  - Berms/Sumps excavated: October 31, 2019
  - Confirmation Testing: November 8, 2019
  - Closure Confirmation Report: December 31, 2019
- b) Milestone #4-Draining of all process liquids and decommissioning of facility Ponds 5 and 6 on or before December 31, 2020.
  - SSI initiated the transfer of liquids from Pond 5 on 3/8/2018. Liquid levels were reduced.
  - This effort is continuing with the transfer of liquids from Pond 6 to the four new evaporation ponds which were completed during the last quarter.
- d) Milestone #5-East Landfill Slopes must be at final grades on or before December 31, 2021.
  - SSI has completed earthmoving efforts with the relocation of over 440,000 cubic yards of material from the east side of the landfill and placed to final grades along the south fill boundary.
  - With the approval of the revised Final Grading Plan that provides enough capacity to contain the current volume of material that must be relocated, SSI has proceeded with fill along the south landfill boundary establishing final cover subgrade elevations.
  - In conformance with the conditions provided with the Final Grading Plan approval, SSI provides the following:
    - 1) Sundance Services, Inc. confirms that the previously agreed schedule for closure has not changed,
    - 2) SSI has included with this report an updated estimate of closure/post closure costs (**Attachment B**) that does not require an adjustment in financial assurance given the closure progress that has been accomplished to date,
    - 3) SSI continues to consult with the OCD on closure progress as evidenced by this quarterly report.
- e) Milestone #6- Ponds 2, 3, and 9 must be stabilized, all materials removed, the pond area appropriately remediated, and all remaining landfill slopes must be at final grades on or before December 31, 2022.
  - SSI continued efforts to stabilize and remove materials from Ponds 2 and 3 for permanent disposal in the closure landfill area.

Mr. Jim Griswold

Page 3 of 5

We appreciate your review of this Second Quarter 2019 Progress Report for the Sundance Services, Inc. Facility Closure. Please let us know if you have any questions about this information.

Sincerely,

**GORDON ENVIRONMENTAL/PSC**

A handwritten signature in black ink, appearing to read "Charles W. Fiedler, P.E.", written in a cursive style.

Charles W. Fiedler, P.E., LEED, AP  
Senior Associate

cc: Arif Mussani, Sundance Services, Inc.  
Hon. Andrew L. Wambsganss, Esq.

Attachments: A-Dewatering Documentation  
B- Updated Estimate of Closure/Post Closure Costs

Mr. Jim Griswold

Page 4 of 5

**Second Quarter 2019 Progress Report  
Sundance Services, Inc. Facility Closure**

**Attachment A  
Dewatering Documentation**



# SUNDANCE SERVICES, INC.

Main Office: 575-394-2511

Plant Office: 575-394-3212

Fax: 575-394-2590

1001 6th Street

P.O. Box 1737

Eunice, New Mexico 88231

## PARABO DISPOSAL FACILITY

[www.sundanceservices.com](http://www.sundanceservices.com)
[www.sundanceservices.net](http://www.sundanceservices.net)
[www.sundanceservices.org](http://www.sundanceservices.org)

### MONITOR WELLS

DATE: 5-8-19

WELL #	WELL DIAMETER	Dept. of <del>BRE- Wells</del> <del>PURGING</del>	BEFORE PURGING	AFTER PURGING	COMMENTS
MW-7	3.0	27'	4'6"		
MW-13	3.0	COVER UP			
MW-35	3.0	16'5"	Ø		
MW-36	3.0	42'	23'4"		
MW-37	3.0	39'3	23'		
MW-40	3.0	29'7'	18		
MW-41	3.0	77'	57'2"		
MW-51	3.0	65'5"	54'9"		
MW-69	3.0	50'4'	45'5"		
MW-71	6.0	61'9"	50'9"		WAITING FOR pump
MW-73	2.0	28'	20'1"		
MW-74	3.0	28'	27'5"	4'	NEXT TO POND & South WEST
VZ-1	2.0	27'	6'8"		
VZ-2	2.0	Ø	Ø		
VZ-3	2.0	28'	3"		
VZ-4	2.0	28'	8'2"		
VZ-5	2.0	32'6"	13'8"		
VZ-6	2.0	Ø	Ø		
VZ-7	2.0	49'8"	29'6"		

Mr. Jim Griswold

Page 5 of 5

**Second Quarter 2019 Progress Report  
Sundance Services, Inc. Facility Closure**

**Attachment B  
Updated Estimate of Closure/Post Closure Costs**



**COST ESTIMATE TASK SUMMARY**  
**CLOSURE/POST-CLOSURE**  
SUNDANCE SERVICES, INC.

TASK	COST ESTIMATE
1.0 LANDFILL CLOSURE CONSTRUCTION	\$924,800
2.0 LANDFILL MAINTENANCE (Post-Closure)	\$243,000
3.0 ENVIRONMENTAL MONITORING (Post-Closure)	\$300,000
4.0 POND AND PROCESSING AREA CLOSURE CONSTRUCTION	\$1,892,400
5.0 PROCESS AREA MAINTENANCE (Post-Closure)	\$34,800
<b>TOTAL COST ESTIMATE</b>	<b>\$3,395,000</b>

**TASK 1.0**  
**LANDFILL CLOSURE CONSTRUCTION**  
**CLOSURE COST ESTIMATE**  
**SUNDANCE SWERVICES, INC.**

<b>TASK 1.0</b>	<b>Unit</b>	<b>Unit Quantity</b>	<b>Unit Cost</b>	<b>Total Cost</b>
<b>1.0 Waste Relocation (Current Landfill COMPLETED)</b>	CY	0	\$1.00	\$0
<b>1.1 Final Cover Installation</b>				
1.1.1 Final Grading & Contouring				
1.1.1.1 Current Landfill (Completed w/waste relocation)	AC	27.6	\$0.00	\$0
1.1.1.2 Closed Landfill	AC	16.4	\$1,000.00	\$16,400
1.1.1.3 Containment Ponds 1, 5, & 6 (Completed with relocation)	AC	44.5	\$0.00	\$0
1.1.2 Install and compact 6" Infiltration (Barrier) Layer				
1.1.2.1 Current Landfill	CY	22,500	\$2.00	\$45,000
1.1.2.2 Closed Landfill	CY	13,500	\$2.00	\$27,000
1.1.2.3 Containment Ponds 1, 5, & 6	CY	37,500	\$2.00	\$75,000
1.1.3 Install 24" Erosion (Vegetative) Layer				
1.1.3.1 Current Landfill	CY	90,000	\$2.00	\$180,000
1.1.3.2 Closed Landfill	CY	54,000	\$2.00	\$108,000
1.1.3.3 Containment Ponds 1, 5, & 6	CY	150,000	\$2.00	\$300,000
1.1.4 Vegetative Layer Seeding (Class A)				
1.1.4.1 Current landfill	AC	27.6	\$1,500	\$41,400
1.1.4.2 Closed Landfill	AC	16.4	\$1,500	\$24,600
1.1.4.3 Containment Ponds 1, 5, & 6	AC	44.5	\$1,500	\$66,750
		<b>Task Subtotal</b>		<b>\$884,150</b>
<b>1.2 Final Cover CQA</b>				
1.2.1 Inspection and Testing	LS	1	\$35,000	\$35,000
1.2.2 Certification	LS	1	\$5,650	\$5,650
		<b>Task Subtotal</b>		<b>\$40,650</b>
<b>TOTAL COST</b>				<b>\$924,800</b>
<b>Notes:</b> 1. Closure costs are based on contracting with a qualified third party to complete and certify closure. The activities included in this cost estimate are based on current dollars, previous experience with landfills located in arid climates, and current subcontractor costs. 2. Final cover installation costs assume that: ▶ The greatest area requiring final cover is 88.5 acres ±. ▶ All soils necessary for closure are available on-site. 3. CY = Cubic Yard AC = Acre LS = Lump Sum				

**TASK 2.0**  
**LANDFILL MAINTENANCE**  
**POST-CLOSURE COST ESTIMATE**  
**SUNDANCE SERVICES, INC.**

<b>TASK 2.0</b>	<b>Unit Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Cost Per Year</b>	<b>Total Cost For 30 Years</b>
<b>2.1 Final Cover Inspection and Reporting</b>					
2.1.1 Inspection	2	events/yr	\$500	\$1,000	\$30,000
2.1.2 Recordkeeping and Reporting	2	events/yr	\$500	\$1,000	\$30,000
<b>Task Subtotals</b>				<b>\$2,000</b>	<b>\$60,000</b>
<b>2.2 Final Cover Maintenance</b>					
2.2.1 Cover Maintenance	1	AC/yr	\$1,500	\$1,500	\$45,000
2.2.2 Vegetation	2	AC/yr	\$1,500	\$3,000	\$90,000
<b>Task Subtotals</b>				<b>\$4,500</b>	<b>\$135,000</b>
<b>2.3 Surface Water Management System</b>					
2.3.1 Inspection/Repairs	1	events/yr	\$800	\$800	\$24,000
<b>Task Subtotals</b>				<b>\$800</b>	<b>\$24,000</b>
<b>2.4 Fencing</b>					
2.4.1 Inspection/Repairs	1	events/yr	\$800	\$800	\$24,000
<b>Task Subtotals</b>				<b>\$800</b>	<b>\$24,000</b>
<b>TOTAL COST</b>				<b>\$8,100</b>	<b>\$243,000</b>

**Notes:**

1. Post-closure maintenance costs are based on contracting with a qualified third party to conduct post-closure care maintenance for the landfill. The activities included in this cost estimate are based on current dollars, previous experience with landfills located in arid climates, and current subcontractor costs.
2. AC = Acre  
LS = Lump Sum

**TASK 3.0**  
**ENVIRONMENTAL MONITORING**  
**POST-CLOSURE COST ESTIMATE**  
**SUNDANCE SERVICES, INC.**

<b>TASK 3.0</b>	<b>Unit Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Cost Per Year</b>	<b>Total Cost for 30 Years</b>
<b>3.1 Vadose Zone Monitoring</b>					
3.1.1 Field Services/Lab Analysis/Reporting	1	events/yr	\$10,000	\$10,000	\$300,000
<b>Task Subtotal</b>				<b>\$10,000</b>	<b>\$300,000</b>
<b>TOTAL COST</b>				<b>\$10,000</b>	<b>\$300,000</b>

**Notes:**

1. Closure costs are based on contracting with a qualified third party to conduct post-closure monitoring for the landfill.  
The activities included in this cost estimate are based on current dollars, previous experience with landfills located in arid climates, and current subcontractor costs.
2. Assume monitoring 5 wells (i.e., sampling and analysis costs).
3. LS = Lump Sum

## TASK 4.0

**POND AND PROCESSING AREA CLOSURE CONSTRUCTION  
CLOSURE COST ESTIMATE  
SUNDANCE SERVICES, INC.**

Task 4.0	Units	Unit Cost	Total	
			Quantity	Cost
<b>4.1 Evaporation Pond</b>				
<b>4.1.1 Liquids Transport/Disposal</b>				
4.1.1.1 Transport Liquid	BBL	\$0.03	100,000	\$ 3,000
4.1.1.2 Disposal Liquids	BBL	\$0.60	100,000	\$ 60,000
4.1.1.3 Remove/Transport Sludge (included w/Pond Excavation)	CY	\$2.50	0	\$ -
4.1.1.4 Sludge Solidification	CY	\$1.25	250,000	\$ 312,500
		<b>Task Subtotal</b>		<b>\$ 375,500</b>
<b>4.1.2 Pond Excavation, Backfill and Contouring</b>				
4.1.2.1 Excavate Ponds 2, 3, 4, & 9/Backfill in Ponds 1, 5 & 6	CY	\$0.60	1,374,000	\$ 824,400
		<b>Task Subtotal</b>		<b>\$ 824,400</b>
<b>4.1.3 Sampling</b>	EA	\$1,000	500	\$ 500,000
<b>4.1.3 Seeding Ponds 2, 3, 4, &amp; 9</b>	AC	\$1,500	45	\$ 67,500
		<b>Task Subtotal</b>		<b>\$ 567,500</b>
<b>Pond Closure Subtotal:</b>				<b>\$ 1,767,400</b>
<b>4.2 Site Work</b>				
<b>4.2.1 Tank Removal</b>	LS			\$ 25,000
<b>4.2.2 Building Removal</b>	LS			\$ 25,000
<b>4.2.3 Process Equipment Removal</b>	LS			\$ 25,000
<b>4.2.4 Earthwork</b>	LS			\$ 10,000
<b>Site Work Subtotal:</b>				<b>\$ 85,000</b>
<b>4.3 Engineering</b>				
<b>4.3.1 CQA/Certification</b>	LS			\$ 40,000
<b>Engineering Subtotal:</b>	LS			<b>\$ 40,000</b>
<b>Total:</b>				<b>\$ 1,892,400</b>

**Notes:**

- Closure costs are based on contracting with a qualified third party to complete and certify closure.
- Assumes remaining, unevaporated capacity of ponds is remediated onsite.
- Assumes remaining solids in each pond at closure are solidified and disposed onsite.
- Site Sampling is conducted to a depth confirmed clean.
- CY = Cubic Yard  
AC = Acre  
LS = Lump Sum  
EA = EachAcre  
BBL = Barrell (US)

**TASK 5.0**  
**POND AND TREATMENT PLANT MAINTENANCE**  
**POST-CLOSURE COST ESTIMATE**  
**SUNDANCE SERVICES, INC.**

<b>TASK 5.0</b>	<b>Unit Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Cost Per Year</b>	<b>Total Cost For 3 Years</b>
<b>5.1 Surface Inspection and Reporting</b>					
5.1.1 Inspection	2	events/yr	\$400	\$800	\$2,400
5.1.2 Recordkeeping and Reporting	2	events/yr	\$400	\$800	\$2,400
<b>Task Subtotals</b>				<b>\$1,600</b>	<b>\$4,800</b>
<b>5.2 Surface Maintenance</b>					
5.2.1 Cover Maintenance	1	AC/yr	\$1,000	\$1,000	\$3,000
5.2.2 Vegetation	2	AC/yr	\$1,500	\$3,000	\$9,000
<b>Task Subtotals</b>				<b>\$4,000</b>	<b>\$12,000</b>
<b>5.3 Fencing</b>					
5.3.1 Inspection/Repairs	1	events/yr	\$600	\$600	\$3,600
<b>Task Subtotals</b>				<b>\$600</b>	<b>\$18,000</b>
<b>TOTAL COST</b>				<b>\$6,200</b>	<b>\$34,800</b>

**Notes:**

1. Pond (Ponds 2, 3, 4, & 9) and Treatment Plant closure maintenance costs are based on contracting with a qualified third party to conduct post-closure care maintenance. The activities included in this cost estimate are based on current dollars, previous experience with closures located in arid climates, and current subcontractor costs.
2. AC = Acre  
LS = Lump Sum

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 125191

CONDITIONS

Operator: SUNDANCE SERVICES, INC. P.O. Box 1737 Eunice, NM 88231	OGRID: 149972
	Action Number: 125191
	Action Type: [C-137] Non-Fee SWMF Submittal (SWMF NON-FEE SUBMITTAL)

CONDITIONS

Created By	Condition	Condition Date
bjones	None	7/13/2022