FROM: TLMA – Transportation Department

SUBMITTAL DATE: April 4, 2016

Adoption of Resolution No. 2016-108, Modification to Financial Assurance Mechanism Required by the Surface Mining and Reclamation Act. 1st, 3rd, 4th and 5th Districts; [\$0]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Adopt Resolution No. 2016-108, Modification to Financial Assurance Mechanism required by the Surface Mining and Reclamation Act (SMARA), which amends Resolution No. 97-261 that established a Pledge of Revenue to satisfy requirements of Section 2773.1 of the Public Resources Code (PRC) for Financial Assurance to Reclaim Open Pit Mines.

BACKGROUND:

Summary

FORM APPROVED COUNTY COUNSE!

The Board of Supervisors previously established a Pledge of Revenue as a Financial Assurance Mechanism to Reclaim Surface Mining Operations, as required by the Public Resources Code for County-operated mining sites or borrow pits used by the County of Riverside Transportation Department (Transportation Department) for road construction and maintenance.

Patricia Romo

Assistant Director of Transportation

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Oi	ngoing Cost:	(Per Exec. Office)
COST	\$ 0	\$ 0	\$ 0	\$	0	Consent □ Policy 🖢
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$	0	Consent - Folicy -
SOURCE OF FUNI	DS:				Budget Adjustr	nent: No
There are no General	Funds used in this	project.			For Fiscal Year	: 15/16 -16/17
C.E.O. RECOMME	NDATION:	AF	PPROVE A			

County Executive Office Signature

MINUTES OF THE BOARD OF SUPERVISORS

Positions Added	Change Order
A-30	4/5 Vote

SUBMITTAL TO THE BOARD OF SUPERVISORS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FORM 11: Adoption of Resolution No. 2016-108, Modification to Financial Assurance Mechanism Required by the Surface Mining and Reclamation Act. 1st, 3rd, 4th and 5th Districts; [\$0]

DATE: April 4, 2016

PAGE: 2 of 2

BACKGROUND:

Summary (continued)

The SMARA requires that the Financial Assurances be adjusted annually. The adjustments account for the new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan, PRC 2773.1(a)(3).

The original Resolution No. 97-261, approved by the Board of Supervisors on November 4, 1997 (Agenda Item 3-32), must be modified to adjust for reclamation costs of the individual County of Riverside (County) sites, as contained in the Pledge of Revenue, from \$1,098,250 to \$1,734,072. The actual reclamation cost for each mining site or borrow pit is shown in Attachment A. Resolution No. 2016-108, supersedes any previously approved modification to Resolution No. 97-261 made by Resolution No. 98-323, Resolution No. 2003-178, Resolution No. 2006-118, Resolution No. 2007-388, Resolution No. 2008-196, Resolution No. 2009-184, Resolution No. 2010-157, Resolution No. 2011-163, Resolution No. 2012-142, Resolution No. 2013-070, Resolution No. 2014-110, and Resolution No. 2015-114. There is no current fiscal year cost associated with the future reclamation. A future expense would be incurred at the point the existing mining sites are closed. Currently, no estimated date is known or projected for the closure of any of the County's existing mining sites.

Project No. ZTR9000

Impact on Residents and Businesses

N/A

SUPPLEMENTAL:

Additional Fiscal Information

N/A

Contract History and Price Reasonableness

N/A

ATTACHMENTS:

Resolution No. 2016-108 Attachment A

APPROVED COUNTY COUNSE

RESOLUTION NO. 2016-108

AMENDING RESOLUTION NO. 97-261

ESTABLISHING A PLEDGE OF REVENUE

FOR RECLAMATION OF COUNTY MINED LANDS

WHEREAS, the Board of Supervisors on November 4, 1997, adopted Resolution No. 97-261, which established a pledge of revenue for reclaiming County of Riverside (County) mined lands; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261, was increased by Resolution No. 98-323 on November 11, 1998, for the reclamation of two additional mining sites; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2003-178 on April 29, 2003, for the reclamation of two additional mining sites, and for the removal of two former mining sites; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2006-118 on August 15, 2006, for the reclamation of the expansion of one current mining site; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2007-388 on September 4, 2007, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2008-196 on June 3, 2008, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan; and

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2009-184 on June 23, 2009, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2010-157 on June 8, 2010, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2011-163 on June 28, 2011, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2012-142 on June 26, 2012, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2013-070 on April 9, 2013, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2014-110 on June 17, 2014, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance with the approved reclamation plan; and,

WHEREAS, the pledge of revenue established by Resolution No. 97-261 was increased by Resolution No. 2015-114 on June 2, 2015, to reflect adjustments to account for new lands disturbed, inflation and for reclamation of lands accomplished in accordance

1	with the approved reclamation plan; and,
2	WHEREAS, the pledge of revenue needs to be modified to reflect annual adjustments to
3	account for new lands disturbed, inflation and for reclamation of lands accomplished in
4	accordance with the approved reclamation plan; now therefore,
5	BE IT RESOLVED, FOUND, DETERMINED AND ORDERED by the Board of
6	Supervisors of the County of Riverside, State of California, in regular session assembled on
7	, 2016, that:
8	1. Section 1 of Resolution No. 97-261 is hereby amended to read:
9	Road Fund revenue, located in an account known as Transportation Department
10	Fund 20000, Department ID 3130100000 in the amount of \$1,734,072.00 is hereby
11	pledged to reclaim each mine site identified in Attachment A, dated March 24, 2016,
12	which is incorporated herein by this reference.
13	2. Attachment A to Resolution No 97-261 is hereby replaced by said Attachment A,
14	dated March 24, 2016, which is attached and incorporated herein by this reference.
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County Mining Sites Transportation Department March 24, 2016

Name	California Mine I.D Number	Reclamation Cost Estimates
Bradshaw Pit	91-33-0046	\$91,584.00
Brookside Materials Yard	91-33-0094	\$74,733.00
Bundy Canyon Pit	91-33-0049	\$248,312.00
East Benton Pit	91-33-0052	\$116,381.00
Juniper Flats Pit	91-33-0053	\$248,997.00
Little Lake Pit	91-33-0055	\$141,589.00
Markham Pit	91-33-0054	\$172,140.00
Midland Pit	91-33-0051	\$223,926.00
Mountain View Pit	91-33-0048	\$88,159.00
Terwilliger Pit	91-33-0047	\$89,118.00
Thermal Pit	91-33-0090	\$239,133.00
	TOTAL	\$1,734,072.00

Bradshaw Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0046 3/24/2016

This cost estimate is based on the following assumptions:

1) The existing amount of disturbance (acres) =

15

- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds

to promote revegetation.

- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department
- of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

	Hourly Rate			
Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total	
D-8R Dozer w/operator	206.67	75.85	282.51	
Water Truck w/driver	72.24	60.96	133.20	
CAT 120G Grader w/operator	76.36	76.29	152.65	
5-axle Low Bed Truck & Trailer w/driver	113.21	61.78	174.99	
Foreman		128.83	128.83	
Laborer		56.54	56.54	
Seed Mix @ \$/sf			0.049	

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour area to a gradient no steeper than 4:1

Regrade and finish slopes to blend with surrounding area, including

furrowing of slopes and ripping pit floor.

Methods to be used: A CAT D-8 dozer with a ripper atatchment will traverse the compacted areas to promote plant growth. A dozer and grader will grade available soil over the 15 acres.

Production Rate: 1 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	1	ea	282.51	20	5,650.26
CAT 120G Grader w/operator	1	ea	152.65	20	3,053.09
5-axle Low Bed Truck & Trailer w/driver	1	ea	174.99	8	1,399.88
Water Truck w/driver	1	ea	133.20	20	2,664.09
Task 1 Total				68	12 767 32

Task 1 Total 68 12,767.32

say

12,800

Task 2 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	2	ea	56.54	8	904.60
Water Truck w/driver	1	ea	133.20	8	1,065.64
Seed mix application	653,400	sf	0.049	na	32,016.60

Task 2 Total 24 35,017.48 say 35,000

Bradshaw Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0046 3/24/2016

Task 3 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total		
Report Preparation	4	years	120.00	32	15,360.00		
Task 3 Total				32	15,360.00	say_	15,400

SUBTOTAL 63,200

Pledge of Revenue

Subtotal	63,200
Supervision (5%)	3,160
Mobilization & Demobilization (lump sum)	5,000
Profit & Overhead (12%)	7,584
Contingency (10%)	6,320
Lead Agency Administrative Cost (10%)	6,320

Total Pledge of Revenue 91,584

Brookside Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0094 3/24/2016

This cost estimate is based on the following assumptions:

- 1) The existing amount of disturbance (acres) =
- 10
- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department
- of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

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Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total
D-8R Dozer w/operator	206.67	75.85	282.51
CAT 120G Grader w/operator	76.36	76.29	152.65
Water Truck w/driver	72.24	60.96	133.20
5-axle Low Bed Truck & Trailer w/driver	113.21	61.78	174.99
Foreman		128.83	128.83
Laborer		56.54	56.54
Seed Mix @ \$/sf			0.049

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour area to a gradient no steeper than 3:1

Regrade and finish slopes to blend with surrounding area, including

furrowing of slopes and ripping pit floor. Pit floor to be graded at 1.5% slope for drainage purposes.

Fill in drainage basin.

Methods to be used: A CAT D-8 dozer with a ripper attachment will traverse the compacted areas to promote plant growth. A dozer and grader will grade available soil over the 10 acres. Slopes will be graded to 3:1 ratio.

Production Rate: 1 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	1	ea	282.51	40	11,300.52
5-axle Low Bed Truck & Trailer w/driver	1	ea	174.99	8	1,399.88
Water Truck w/driver	1	ea	133.20	40	5,328.18
Task 1 Total				88	18,028.58

Task 2 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	2	ea	56.54	8	904.60
Water Truck w/driver	1	ea	133.20	8	1,065.64
Seed mix application	435,600	sf	0.049	na	21,344.40
Task 2 Total				24	24,345.28

4

18,000

24,300

say

Brookside Material Site Financial Assurance Calculations for Reclamation

Task 3 Monitoring

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Mix seed into soil by dragging a chain over the area.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total	
Report Preparation	3	years	120.00	24	8,640.00	
Task 5 Total					8.640.00	

say_____8,600

SUBTOTAL 50,900

Pledge of Revenue

Subtotal	50,900		
Supervision (5%)	2,545		
Mobilization & Demobilization (lump sum)	5,000		
Profit & Overhead (12%)	6,108		
Contingency (10%)	5,090		
Lead Agency Administrative Cost (10%)			

Total Pledge of Revenue

Bundy Canyon Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0049 3/24/2016

This cost estimate is based on the following assumptions:

1) The existing amount of disturbance (acres) =

50

- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds

to promote revegetation.

- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department
- of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

Hourly Rate

Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total
D-8R Dozer w/operator	206.67	75.85	282.51
Water Truck w/operator	72.24	60.96	133.20
Motor Grader w/operator	76.36	76.29	152.65
5-axle Low Bed Truck & Trailer w/driver	113.21	61.78	174.99
Foreman		128.83	128.83
Laborer		56.54	56.54
Seed Mix @ \$/sf			0.058

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour area to a gradient no steeper than 2:1, fill in drainage basin, regrade and finish slopes to blend with surrounding area, including furrowing of slopes and ripping pit floor.

Methods to be used: Two (2) CAT D-8 dozers with a ripper attachments will traverse the compacted areas to promote plant growth. Dozers and a grader will grade available soil over the 50 acres. Slopes will be graded to 2:1 ratio.

Production Rate: 2 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	2	ea	282.51	30	16,950.77
Motor Grader w/operator	1	ea	152.65	30	4,579.63
5-axle Low Bed Truck & Trailer w/driver	1	ea	174.99	8	1,399.88
Water Truck w/operator	1	ea	133.20	30	3,996.14

Task 1 Total 42 26,926.43

say 26,900

135,300

Task 2 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	24	3,091.92
Laborer	2	ea	56.54	24	2,713.80
Water Truck w/operator	1	ea	133.20	24	3,196.91
Seed mix application	2,178,000	sf	0.058	na	126,324.00

Task 2 Total 72 135,326.64 say

Bundy Canyon Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0049 3/24/2016

Task 3 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total		
Report Preparation	4	years	120.00	32	15,360.00		
Task 3 Total					15,360.00	say_	15,400

SUBTOTAL 177,600

Pledge of Revenue

Subtotal		177,600
Supervision (5%)		8,880
Mobilization & Demobilization (lump sum)	(c)	5,000
Profit & Overhead (12%)		21,312
Contingency (10%)		17,760
Lead Agency Administrative Cost (10%)		

Total Pledge of Revenue

East Benton Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0052 3/24/2016

This cost estimate is based on the following assumptions:

- 1) The existing amount of disturbance (acres) = 1
- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

	Hourly Rate				
Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total		
D-8R Dozer w/operator	206.67	75.85	282.51		
Water Truck w/driver	72.24	60.96	133.20		
5-axle Low Bed Truck w/driver	113.21	61.78	174.99		
Foreman		128.83	128.83		
Laborer		56.54	56.54		
Seed Mix @ \$/sf			0.058		

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour area to a gradient no steeper than 2:1, fill in existing drainage basins, regrade and finish slopes to blend with surrounding area, including furrowing of slopes and ripping pit floor.

Methods to be used: A CAT D-8 dozer will push material to create 2:1 slopes on any oversteepened slopes, and stockpiles will be rough graded as needed. A water truck will be available for dust control.

Production Rate: 2 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	1	ea	282.51	40	11,300.52
Low Bed Truck w/driver	1	ea	174.99	4	699.94
Water Truck w/driver	1	ea	133.20	40	5,328.18
Tack 1 Total				84	17 328 64

Task 1 Total 84 17,328.64

say 17,300

26,800

Task 2 Construct Drainage Structures

Construct interceptor drain & install rip rap pads.

Labor & Equipment	Qty	Unit	Rate		l otal
Interceptor Drain	1,450	LF	15.00	na	21,750.00
Rip Rap Pad	5	ea	1,000.00	na	5,000.00
Task 2 Total					26,750.00

Task 3 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre (9 acres net total) by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit Rate		No. Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	2	ea	56.54	8	904.60
Water Truck w/driver	1	ea	133.20	8	1,065.64
Seed mix application	392,040	sf	0.058	na	22,738.32

Task 3 Total 24 25,739.20 say 25,700

East Benton Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0052 3/24/2016

Task 4 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	lotal		
Report Preparation	4	years	120.00	24	11,520.00		
Task 4 Total					11,520.00	say	11,500

SUBTOTAL 81,300

Pledge of Revenue

Subtotal	81,300
Supervision (5%)	4,065
Mobilization & Demobilization (lump sum)	5,000
Profit & Overhead (12%)	9,756
Contingency (10%)	8,130
Lead Agency Administrative Cost (10%)	8,130

Total Pledge of Revenue

<u>Juniper Material Site Financial Assurance Calculations for Reclamation</u> California Mine I.D Number 91-33-0053 3/24/2016

This cost estimate is based on the following assumptions:

- 1) The existing amount of disturbance (acres) =
- 32
- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department
- of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

Hourly Rate

Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total
D-8R Dozer w/operator	206.67	75.85	282.51
Water Truck w/driver	72.24	60.96	133.20
Motor Grader w/operator	76.36	76.29	152.65
5-axle Low Bed Truck w/driver	113.21	61.78	174.99
Foreman		128.83	128.83
Laborer		56.54	56.54
Seed Mix @ \$/sf			0.058

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour area to a gradient no steeper than 2:1 (or 1.5:1 per reclamation plan) fill in drainage basins, regrade and finish slopes to blend with surrounding area, including furrowing of slopes and ripping pit floor.

Methods to be used: Two (2) CAT D-8 dozers with a ripper attachments will traverse the compacted areas to promote plant growth. Dozers and a grader will grade available soil over the 32 acres. Slopes will be graded to 2:1 ratio (or 1.5:1 per reclamation plan).

Production Rate: 2 acres/hour

Task 3 Total

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	2	ea	282.51	40	22,601.03
Motor Grader w/operator	1	ea	152.65	40	6,106.18
5-axle Low Bed Truck w/driver	1	ea	174.99	4	699.94
Water Truck w/driver	1	ea	133.20	40	5,328.18
Task 1 Total				124	34,735.33

Task 2 Construct Drainage Structures

Construct interceptor drain & install rip rap pads.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total		
Interceptor Drain	2,300	LF	15.00	na	34,500.00		
Rip Rap Pad	3	ea	1,000.00	na	3,000.00		
Task 2 Total					37,500.00	say	37,500
Task 3 Install Fencing	Qty	Unit	Rate	No. Hrs	Total		
Install 4-strand barb wire fencing	7,200 L	F	5.00	na	36,000.00		

say

say

36,000.00

34,700

Juniper Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0053 3/24/2016

Task 4 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre (19 acres net total) by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	16	2,061.28
Laborer	2	ea	56.54	16	1,809.20
Water Truck w/driver	1	ea	133.20	16	2,131.27
Seed mix application	836,352	sf	0.058	na	48,508.42
Table 4 Tatal				40	E4 E40 47

Task 4 Total 48 54,510.17

say 54,500

Task 4 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Report Preparation	4	years	120.00	32	15,360.00
Task 4 Total					15,360,00

say____15,400

SUBTOTAL 178,100

Pledge of Revenue

Subtotal	178,100
Supervision (5%)	8,905
Mobilization & Demobilization (lump sum)	5,000
Profit & Overhead (12%)	21,372
Contingency (10%)	17,810
Lead Agency Administrative Cost (10%)	17,810

Total Pledge of Revenue

<u>Little Lake Material Site Financial Assurance Calculations for Reclamation</u> California Mine I.D Number 91-33-0055 3/24/2016

This cost estimate is based on the following assumptions:

1) The existing amount of disturbance (acres) =

16

- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds
- to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

	, t	Hourly Rate	
Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total
D-8R Dozer w/operator	206.67	75.85	282.51
Water Truck w/driver	72.24	60.96	133.20
Low Bed Truck w/driver	113.21	61.78	174.99
Foreman		128.83	128.83
Laborer		56.54	56.54
Seed Mix @ \$/sf			0.058

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour area to a gradient varying from 1.5/1 & 4:1, fill drainage basins, regrade and finish slopes to blend with surrounding area, including furrowing of slopes and ripping pit floor.

Methods to be used: A CAT D-8 dozer will push material to create slopes varying from 1.5:1 and 4:1 in accordance with the reclamation plan. Stockpiles will be rough graded as needed. A water truck will be available for dust control.

Production Rate: 1 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total		
D-8R Dozer w/operator		ea	282.51	40	11,300.52		
Low Bed Truck w/driver		ea	174.99	4	699.94		
Water Truck w/driver		ea	133.20	40	5,328.18		
Task 1 Total				84	17,328.64	say	17,300
Task 2 Install Fencing	Qty	Unit	Rate	No. Hrs	Total		
Install 4-strand barb wire fencing	4,800	LF	5.00	42	24,000.00		
				40	24,000.00	say	24,000

Task 3 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	1	ea	56.54	8	452.30
Water Truck w/driver	1	ea	133.20	8	1,065.64
Seed mix application	696,960	sf	0.058	na	40,423.68

Task 3 Total 24 42,972.26 say 43,000

Little Lake Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0055 3/24/2016

Task 4 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Report Preparation	4	years	120.00	32	15,360.00
Task 4 Total	.				15,360.00

15,400

99,700 **SUBTOTAL**

Pledge of Revenue

Subtotal	99,700
Supervision (5%)	4,985
Mobilization & Demobilization (lump sum)	5,000
Profit & Overhead (12%)	11,964
Contingency (10%)	9,970
Lead Agency Administrative Cost (10%)	9,970

Total Bond Amount

Markham Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0054 3/24/2016

This cost estimate is based on the following assumptions:

- 1) The existing amount of disturbance (acres) = 3
- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department
- of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

	Hourly Rate				
Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total		
D-8R Dozer w/operator	206.67	75.85	282.51		
Water Truck w/driver	72.24	60.96	133.20		
Motor Grader w/operator	76.36	76.29	152.65		
Low Bed Truck w/driver	113.21	61.78	174.99		
Foreman		128.83	128.83		
Laborer		56.54	56.54		
Seed Mix @ \$/sf			0.058		

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour area using stockpiled topsoil & fill in existing drainage basins. Regrade and finish slopes to blend with surrounding area, including

furrowing of slopes and ripping pit floor.

Methods to be used: A CAT D-8 dozer with a ripper attachment will traverse the compacted areas to promote plant growth. A dozer and grader will grade available soil over the 6 acres of the expanded area of the pit. Slopes will be graded to 2:1 ratio.

Production Rate: 1 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	1	ea	282.51	40	11,300.52
Motor Grader w/operator	1	ea	152.65	20	3,053.09
Low Bed Truck w/driver	1	ea	174.99	8	1,399.88
Water Truck w/driver	1	ea	133.20	40	5,328.18

Task 1 Total 108 21,081.67 say 21,100

Task 2 Construct Drainage Structures

Construct interceptor drain, down drain & install rip rap.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Interceptor Drain	1,500	LF	15.00	na	22,500.00
Down Drain	60	LF	15.00	na	900.00
Rip Rap Pad	3	ea	1,000.00	na	3,000.00

Task 2 Total 26,400.00 say 26,400

Markham Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0054 3/24/2016

Task 3 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre (22 net acres total) by broadcasting with an automatic pressure sprayer. Area to by hydroseeded includes both new and old sections of pit.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	2	ea	56.54	8	904.60
Water Truck w/driver	1	ea	133.20	8	1,065.64
Seed mix application	967,032	sf	0.058	na	56,087.86
Task 3 Total				24	59,088.73

say

59,100

Task 4 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total		
Report Preparation	4	years	120.00	32	15,360.00		
Task 4 Total					15,360.00	say	15,400

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SUBTOTAL 122,000

Pledge of Revenue

Subtotal	122,000
Supervision (5%)	6,100
Mobilization & Demobilization (lump sum)	5,000
Profit & Overhead (12%)	14,640
Contingency (10%)	12,200
Lead Agency Administrative Cost (10%)	12,200

Total Pledge of Revenue

Midland Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0051 3/24/2016

This cost estimate is based on the following assumptions:

1) The existing amount of disturbance (acres) =

57

- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department
- of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

Hourly Rate

Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total
D-8R Dozer w/operator	206.67	75.85	282.51
Water Truck w/driver	72.24	60.96	133.20
Motor Grader w/operator	76.36	76.29	152.65
Low Bed Truck w/driver	113.21	61.78	174.99
Foreman		128.83	128.83
Laborer		56.54	56.54
Seed Mix @ \$/sf			0.058

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour area to a gradient no steeper than 4:1 Regrade and finish slopes to blend with surrounding area.

Methods to be used: A CAT D-8 dozer with a ripper atatchment will traverse the compacted areas to promote plant growth. A dozer and grader will grade available soil over the 15 acres.

Production Rate: 2 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	1	ea	282.51	40	11,300.52
Motor Grader w/operator	1	ea	152.65	20	3,053.09
Low Bed Truck w/driver	1	ea	174.99	8	1,399.88
Water Truck w/driver	1	ea	133.20	30	3,996.14

Task 1 Total 98 19,749.62

Task 2 Broadcast Seeding

42

19,700

sav

Distribute native plant mix over finished slopes and mine floor. Seed mix will be dist 40 of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	2	ea	56.54	8	904.60
Water Truck w/driver	1	ea	133.20	8	1,065.64
Seed mix application	2,482,920	sf	0.049	na	121,663.08

Task 2 Total 24 124,663.96 say 124,700

Midland Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0051 3/24/2016

Task 3 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total		
Report Preparation		4 years	120.00	32	15,360.00		
Task 3 Total					15,360.00	say_	15,400

SUBTOTAL 159,800

Pledge of Revenue

Subtotal	159,800
Supervision (5%)	7,990
Mobilization & Demobilization (lump sum)	5,000
Profit & Overhead (12%)	19,176
Contingency (10%)	15,980
Lead Agency Administrative Cost (10%)	15,980

Total Pledge of Revenue

Mountain View Road Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0048 3/24/2016

This cost estimate is based on the following assumptions:

1) The existing amount of disturbance (acres) =

- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department
- of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

Hourly Rate

Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total
D-8R Dozer w/operator	206.67	75.85	282.51
Water Truck w/driver	72.24	60.96	133.20
Low Bed Truck w/driver	113.21	61.78	174.99
Foreman		128.83	128.83
Laborer		56.54	56.54
Seed Mix @ \$/sf			0.058

I. Reclamation Tasks

<u>Task 1 Regrade & Finish Slopes</u>
Task description: Regrade and recontour area to a gradient no steeper than 2:1 & and finish slopes to blend with surrounding area.

Methods to be used: A CAT D-8 dozer will push material to create 2:1 slopes on any oversteepened slopes. and stockpiles will be rough graded as needed. A water truck will be available for dust control.

Production Rate: 2 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	1	ea	282.51	8	2,260.10
Low Bed Truck w/driver	1	ea	174.99	4	699.94
Water Truck w/driver	1	ea	133.20	8	1,065.64
Took 1 Total				20	4 005 60

4.000 Task 1 Total say

Task 2 Construct Drainage Structures

Construct interceptor drain & install rip rap pads.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total		
Interceptor Drain	1,500	LF	15.00	42	22,500.00		
Rip Rap Pad	2	ea	1,000.00	40	2,000.00		
Task 2 Total				82	24,500.00	say	24,500

Task 3 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	2	ea	56.54	8	904.60
Water Truck w/driver	1	ea	133.20	8	1,065.64
Seed mix application	304,920	sf	0.058	na	17,685.36

Task 3 Total 24 20,686.24 20,700

Mountain View Road Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0048 3/24/2016

Task 4 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total	
Report Preparation	4	years	120.00	24	11,520.00	
Task 4 Total					11,520.00	

SUBTOTAL 60,700

11,500

Pledge of Revenue

Subtotal	60,700
Supervision (5%)	3,035
Mobilization & Demobilization (lump sum)	5,000
Profit & Overhead (12%)	7,284
Contingency (10%)	6,070
Lead Agency Administrative Cost (10%)	6,070

Total Pledge of Revenue

Terwilliger Road Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0047 3/24/2016

This cost estimate is based on the following assumptions:

1) The existing amount of disturbance (acres) =

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- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 42)

Hourly Rate

Unit Costs for Labor & Equipment & Materials	Equipment	Labor	Total
D-8R Dozer w/operator	206.67	75.85	282.51
Water Truck w/driver	72.24	60.96	133.20
Motor Grader w/operator	76.36	76.29	152.65
Low Bed Truck w/driver	113.21	61.78	174.99
Foreman		128.83	128.83
Laborer		56.54	56.54
Seed Mix @ \$/sf			0.058

I. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Regrade and recontour slopes to a gradient between 1.5:1 and 2:1, regrade and finish slopes, fill drainage basin, furrowing slopes and ripping pit floor.

Methods to be used: A CAT D-8 dozer with a ripper attachment will traverse the compacted areas to promote plant growth. A dozer and grader will grade available soil over the 9 acres. Slopes will be graded to between 1.5:1 and 2:1 in accordance with the reclamation plan.

Production Rate: 1 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	1	ea	282.51	30	8,475.39
Motor Grader w/operator	1	ea	152.65	30	4,579.63
Low Bed Truck w/driver	1	ea	174.99	4	699.94
Water Truck w/driver	1	ea	133.20	30	3,996.14

Task 1 Total 94 17,751,10

Task 2 Construct Drainage Structures

42

Construct interceptor drain, down drain & install rip rap.

40

say

17,800

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Interceptor Drain	200	LF	15.00	na	3,000.00
Down Drain	10	LF	15.00	na	150.00
Rip Rap Pad	1	ea	1,000.00	na	1,000.00

Task 2 Total 4,150.00 say 4,200

<u>Terwilliger Road Material Site Financial Assurance Calculations for Reclamation</u> California Mine I.D Number 91-33-0047 3/24/2016

Task 3 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	2	257.66
Laborer	2	ea	56.54	4	452.30
Water Truck w/driver	1	ea	133.20	4	532.82
Seed mix application	392,040	sf	0.058	na	22,738.32
Task 3 Total	0			10	23,981.10

Task 4 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Report Preparation	4	years	120.00	32	15,360.00
Task 4 Total					15,360,00

SUBTOTAL 61,400

say

24,000

15,400

Pledge of Revenue

Subtotal		61,400
Supervision (5%)		3,070
Mobilization & Demobilization (lump sum)		5,000
Profit & Overhead (12%)		7,368
Contingency (10%)		6,140
Lead Agency Administrative Cost (10%)		6,140

Total Pledge of Revenue

New Thermal Canyon Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0090 3/24/2016

This cost estimate is based on the following assumptions:

1) The existing amount of disturbance (acres) =

32

- 2) Slopes will be recontoured and graded to blend with the surrounding area.
- 3) The finished slopes and floor of the material site will be furrowed to retain rainfall and seeds to promote revegetation.
- 4) The finished slopes and floor of the site will be reseeded by pressure spraying with a seed mix of plants native to the area.
- 5) Labor & equipment rates were based on current general prevailing wage rates issued by California Department of Industrial Relations, and Caltrans Labor Surcharge and Equipment Rental Rates for 2016.
- 6) Production rates were obtained from the Caterpillar Performance Handbook (Edition 34)

I. Unit costs for equipment, material and labor to be used for reclamation: (equipment hourly rate includes driver/operator)

Hourly Rate

	Equipment	Labor	Total
D-8R Dozer w/operator	206.67	75.85	282.51
Water Truck w/driver	72.24	60.96	133.20
Motor Grader w/operator	76.36	76.29	152.65
Low Bed Truck w/driver	113.21	61.78	174.99
Foreman		128.83	128.83
Laborer		56.54	56.54
Seed Mix @ \$/sf			0.080

II. Reclamation Tasks

Task 1 Regrade & Finish Slopes

Task description: Regrade and recontour slopes to a gradient no steeper than 4:1. Grade pit floor to 2% grade.

Methods to be used: Two (2) CAT D-8 dozers with a ripper atatchment will traverse the compacted areas to promote plant growth. A dozer and grader will grade available soil over the 32 acres.

Production Rate: 2 acres/hour

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
D-8R Dozer w/operator	2	ea	282.51	42	23,731.08
Motor Grader w/operator	1	ea	152.65	40	6,106.18
Low Bed Truck w/driver	1	ea	174.99	8	1,399.88
Water Truck w/driver	1	ea	133.20	40	5,328.18
Task 1 Total				130	36 565 33

Task 2 Remove Structure in Compound Area

Disassemble wooden building within compound area.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	2	ea	56.54	8	904.60
Remove Concrete Foundation	1	ea	2,500.00	na	2,500.00
					THE REAL PROPERTY.

Task 2 Total 4,435.24 say 4,400

New Thermal Canyon Material Site Financial Assurance Calculations for Reclamation California Mine I.D Number 91-33-0090 3/24/2016

Task 3 Broadcast Seeding

Distribute native plant mix over finished slopes and mine floor. Seed mix will be distributed at a rate of 30 pounds per acre by broadcasting with an automatic pressure sprayer.

Labor & Equipment	Qty	Unit	Rate	Hrs	Total
Foreman	1	ea	128.83	8	1,030.64
Laborer	2	ea	56.54	8	904.60
Water Truck w/driver	1	ea	133.20	8	1,065.64
Seed mix application	1,393,920	sf	0.080	na	111,513.60
Task 4 Total	Ō			24	114,514.48

say 114,500

Task 3 Monitoring

Perform a field investigation of the site each spring to monitor revegetation. Monitoring will take place for up to four years following reclamation to verify the success standards are being met.

Labor & Equipment	Qty	Unit	Rate	No. Hrs	Total		
Report Preparation	4	years	120.00	32	15,360.00		
Task 5 Total					15,360.00	say	15,400

SUBTOTAL 170,900

Pledge of Revenue

Subtotal	170,900
Supervision (5%)	8,545
Mobilization & Demobilization (lump sum)	5,000
Profit & Overhead (included in Hrly rates for Labor & Eq	uipment) 20,508
Contingency (10%)	17,090
Lead Agency Administrative Cost (10%)	17,090

Total Pledge of Revenue