Leslie Heppler <lheppler@utah.gov>

Rio Tinto Kennecott 2014 Presentation to Board of Oil Gas and Mining

1 message

Heaton, Trevor (RTKC) <Trevor.Heaton@riotinto.com> Thu, Mar 5, 2015 at 10:10 AM
To: "lheppler@utah.gov" <lheppler@utah.gov>, "JULIECARTER@utah.gov" <JULIECARTER@utah.gov>
Cc: "Lindsay, Thiess (RTKC)" <Thiess.Lindsay@riotinto.com>, "Schnoor, Steve (RTKC)" <Steve.Schnoor@riotinto.com>

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MAR 05 2015
Div. of Oil, Gas & Mining

Leslie, Julie Ann

Attached for your records is an electronic copy of Rio Tinto Kennecott's presentation to the Board of Oil Gas and Mining on February 25, 2015. Kennecott appreciates the opportunity to present to the board each year to discuss reclamation activities that are taking place. Feel free to contact me if you have any questions.

Regards,

Trevor Heaton, P.E.

Senior Project Engineer

Rio Tinto Kennecott

4700 Daybreak Parkway, South Jordan UT 84095

T: (801) 563-1514 M: (801) 557-3192 F: (801) 569-6585

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RT Kennecott 2014 BOGM Presentation.pdf
6683K

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Kennecott Utah Copper LLC

Bingham Canyon Mine

Annual Presentation
to
Board of Oil, Gas and Mining

February 25, 2015

E-Mail
015
Div. of Oil, Gas & Mining

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Agenda

- Purpose of the Presentation
- 2014 Reclamation Related Activities
- 2014 Performance vs Contract Obligation
- 2015 Tentative Plan

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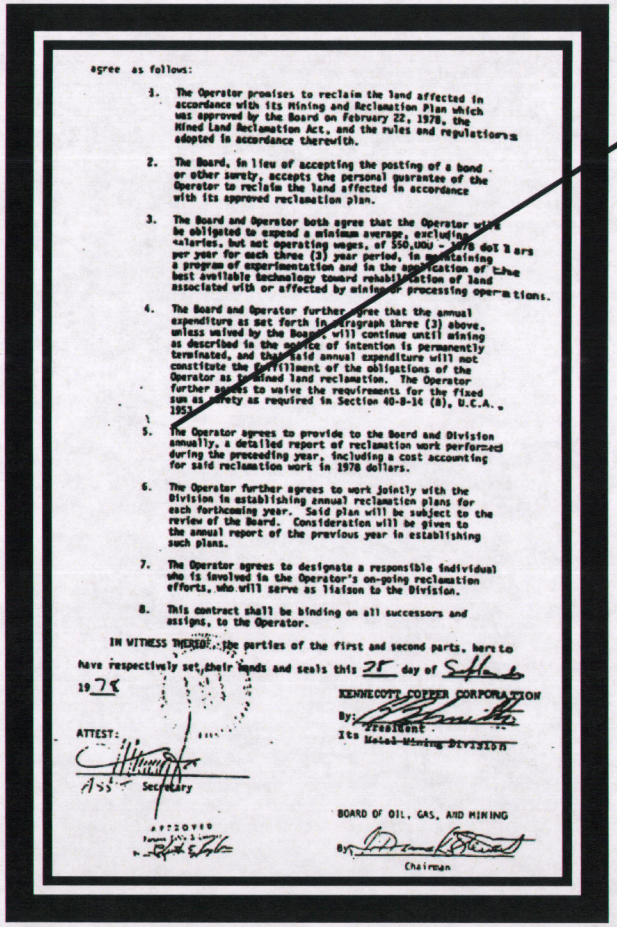
Purpose of Presentation – 1978 Reclamation Contract



agree as follows:

1. The Operator promises to reclaim the land affected in accordance with its Mining and Reclamation Plan which was approved by the Board on February 22, 1978, the Mined Land Reclamation Act, and the rules and regulations adopted in accordance therewith.

2. The Board, in lieu of accepting the posting of a bond or other surety, accepts the personal guarantee of the Operator to reclaim the land affected in accordance with its approved reclamation plan.

3. The Board and Operator both agree that the Operator will be obligated to expend a minimum average, excluding salaries, but not operating wages, of $50,000 - 1978 dollars per year for each three (3) year period, in maintaining a program of experimentation and in the application of the best available technology toward rehabilitation of land associated with or affected by mining or processing operations.

4. The Board and Operator further agree that the annual expenditure as set forth in paragraph three (3) above, unless waived by the Board, will continue until mining as described in the notice of intention is permanently terminated, and that said annual expenditure will not constitute the fulfillment of the obligations of the Operator as to mined land reclamation. The Operator further agrees to waive the requirements for the fixed sum as surety as required in Section 40-8-14 (8), U.C.A., 1953.

5. The Operator agrees to provide to the Board and Division annually, a detailed report of reclamation work performed during the preceding year, including a cost accounting for said reclamation work in 1978 dollars.

6. The Operator further agrees to work jointly with the Division in establishing annual reclamation plans for each forthcoming year. Said plan will be subject to the review of the Board. Consideration will be given to the annual report of the previous year in establishing such plans.

7. The Operator agrees to designate a responsible individual who is involved in the Operator's on-going reclamation efforts, who will serve as liaison to the Division.

8. This contract shall be binding on all successors and assigns, to the Operator.

IN WITNESS THEREOF, the parties of the first and second parts, hereto have respectively set their hands and seals this 25 day of February 1978

KENNECOTT COPPER CORPORATION

By: President

Its Metal Mining Division

ATTEST:

Asst Secretary

APPROVED

BOARD OF OIL, GAS, AND MINING

By: Chairman

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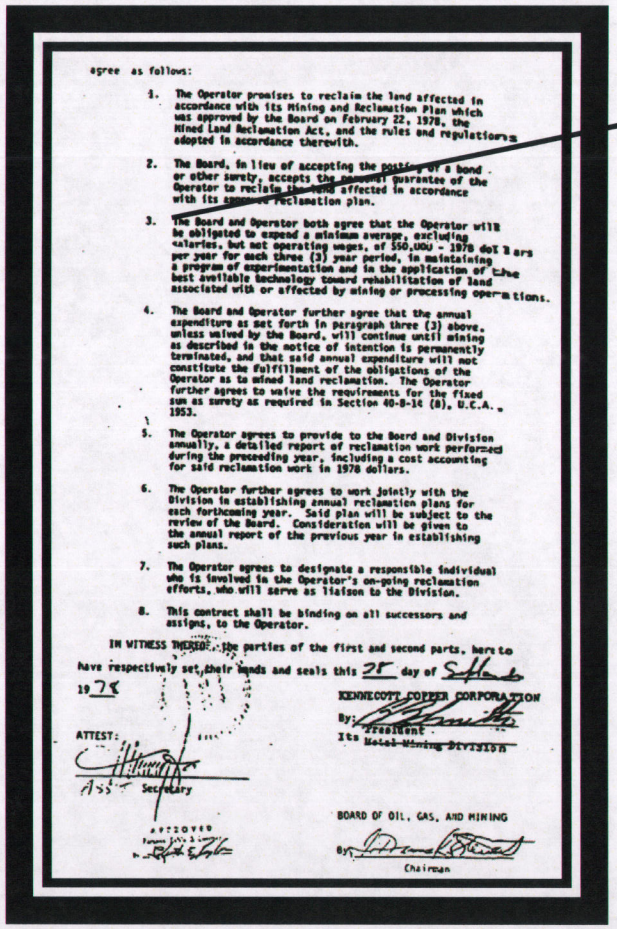

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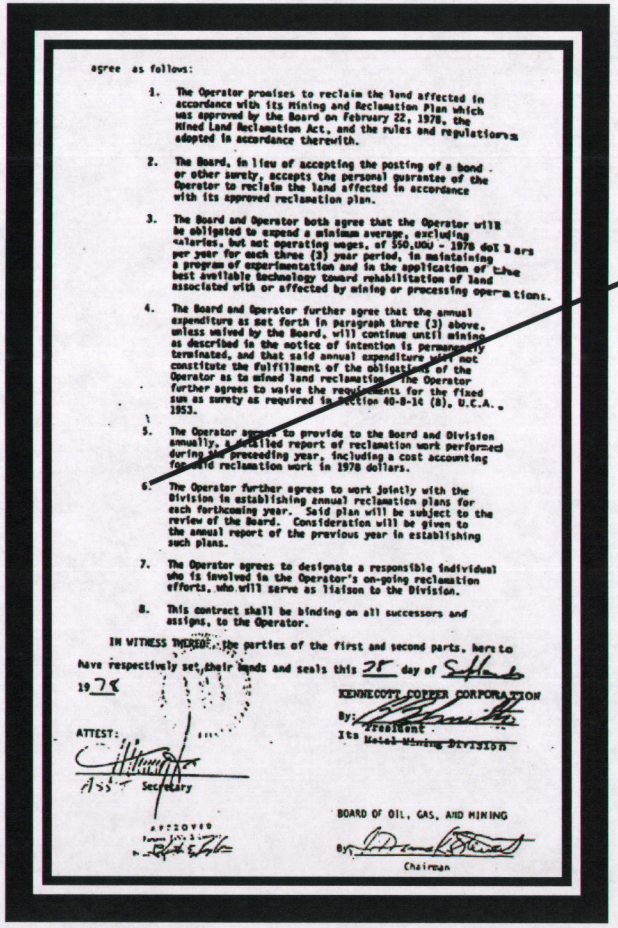
Purpose of Presentation – 1978 Reclamation Contract



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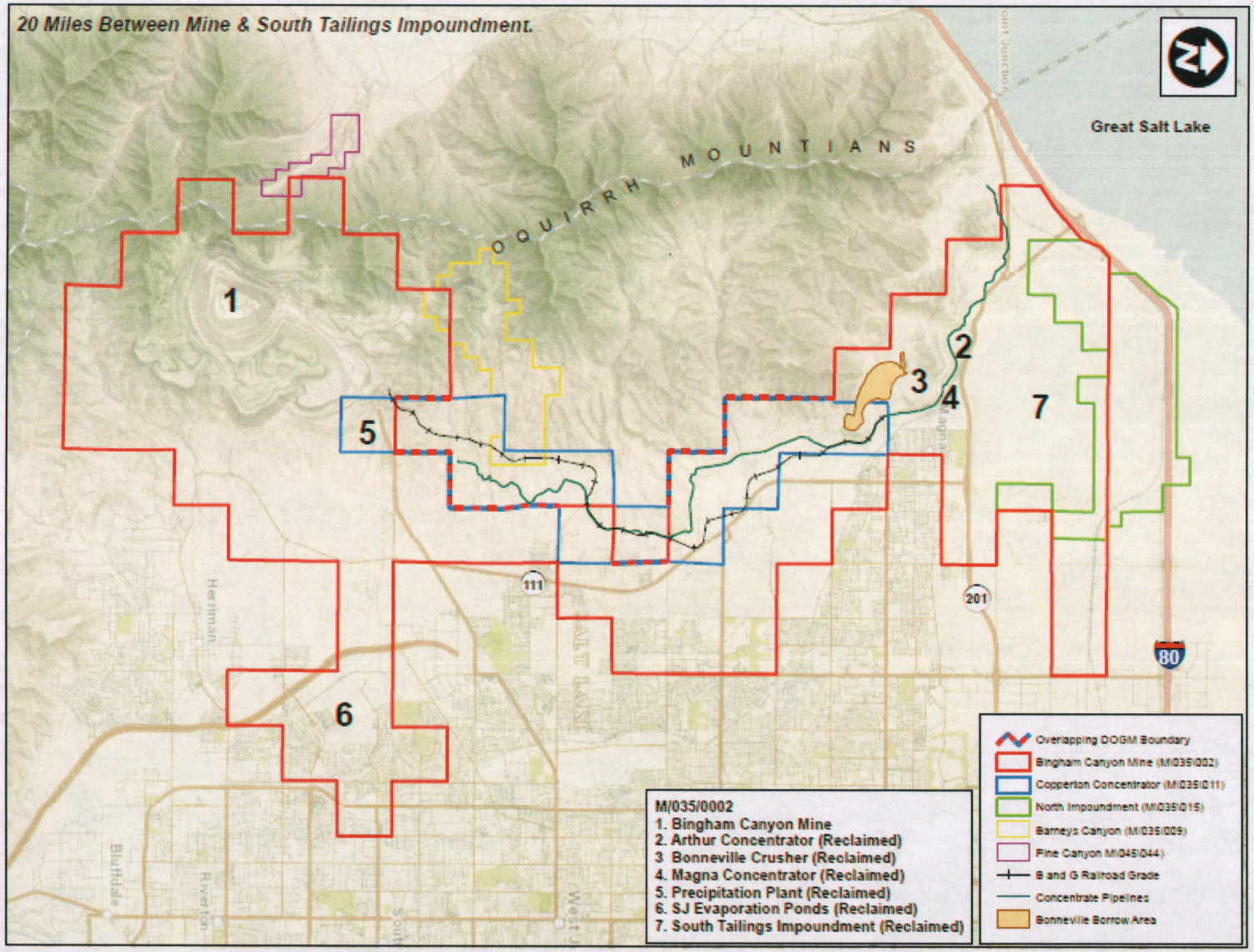
20 Miles Between Mine & South Tailings Impoundment.
Great Salt Lake
O Q U I R R H M O U N T I A N S
1
2
3
4
5
6
7
111
201
80
Herriman
Bluffdale
Riverton
Magna
Overlapping DOGM Boundary
Bingham Canyon Mine (M/035/002)
Copperton Concentrator (M/035/011)
North Impoundment (M/035/015)
Barneys Canyon (M/035/009)
Pine Canyon M/045/044)
B and G Railroad Grade
Concentrate Pipelines
Bonneville Borrow Area
M/035/0002
1. Bingham Canyon Mine
2. Arthur Concentrator (Reclaimed)
3 Bonneville Crusher (Reclaimed)
4. Magna Concentrator (Reclaimed)
5. Precipitation Plant (Reclaimed)
6. SJ Evaporation Ponds (Reclaimed)
7. South Tailings Impoundment (Reclaimed)

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Summary of Significant Activities - 2014

Rail Road - Demolition & Reclamation	• Final reclamation of 1.5 miles of rail road • Restoration of four drainages • Enhancement of 11 acres of existing reclamation
Soil Salvage East Waste Rock Project	• 406 acres of soil salvage • 300,000 CY of soil stockpiled
Soil Salvage South Dumps	• 112 acres of soil salvage • 546,000 CY of soil stockpiled
South Dump Storm Water Basin Construction	• Constructed enhanced storm water basins in 4 of 6 drainages and completed engineering for final 2 • Provide additional storm water capacity

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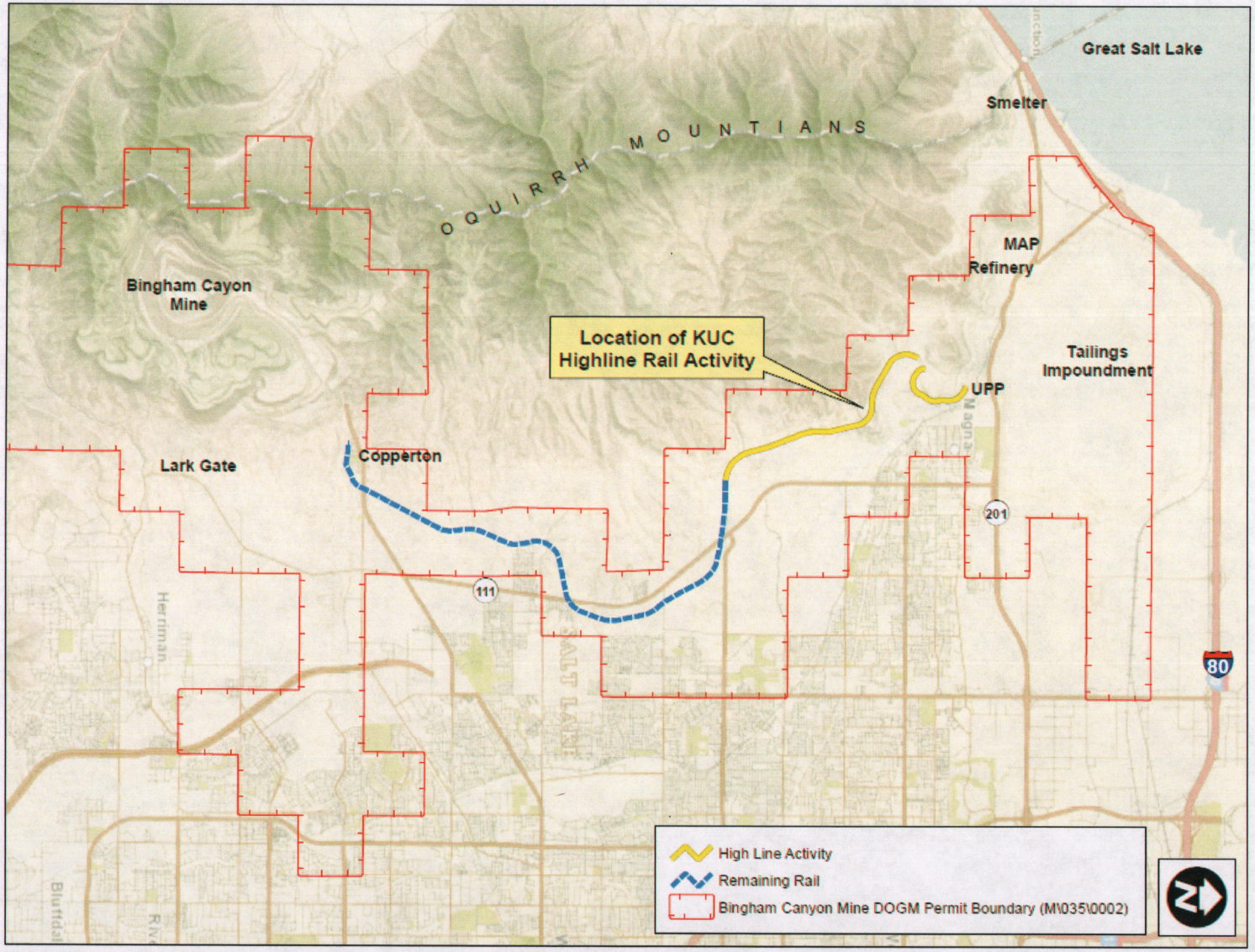
Great Salt Lake
Smelter
O Q U I R R H M O U N T I A N S
MAP
Refinery
Bingham Cayon
Mine
Location of KUC
Highline Rail Activity
Tailings
Impoundment
UPP
Lark Gate
Copperton
201
111
80
Herriman
High Line Activity
Remaining Rail
Bingham Canyon Mine DOGM Permit Boundary (M\035\0002)

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0 0.1 0.2 0.3 0.4 0.5 MI
0 1,000 2,000 3,000 FT
LEGEND
COPPERTON HIGHLINE RECLAMATION
M\035\0002 PERMIT BOUNDARY
CENTRAL LAB
UPP
ENHANCEMENT OF EXISTING RECLAMATION
FINAL RECLAMATION
INTERMITTENT SEEDING
2014 RECONTOURING AND RESEEDING

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Demolition of Railway

Before

After

1) Reclaimed 1.5 miles along the Copperton High Line
2) Removed culverts
3) Re-established natural drainages and restored natural landscape

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Soil Salvage – East Waste Rock Project

1) ~ 406 acres of disturbance
2) Stockpiled ~300,000 CY of growth media
3) Placed temporary seed mix for weed control

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South End Dumps Location

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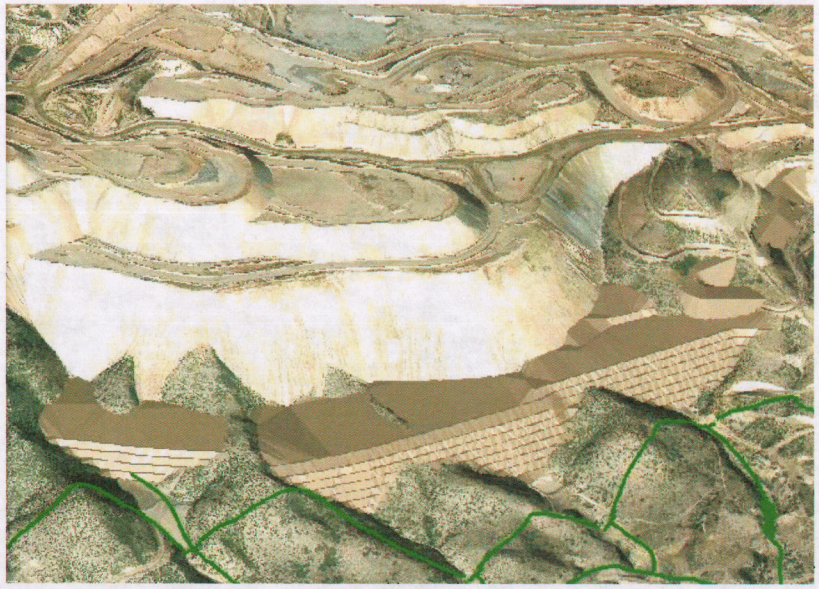
Enhancement of South Dump Storm Water Controls



- Top Soil Salvage (2014 -15)
- Place a bench of material across the face of the first four drainages (2015-16)
- Permanent storm water control in first four basins (2014 -15)
- Additional stormwater control on the new bench (2015 -16)
- Relax bench face to 2.5H:1V (2016-17)
- Place vegetated soil cover on bench face (2017)

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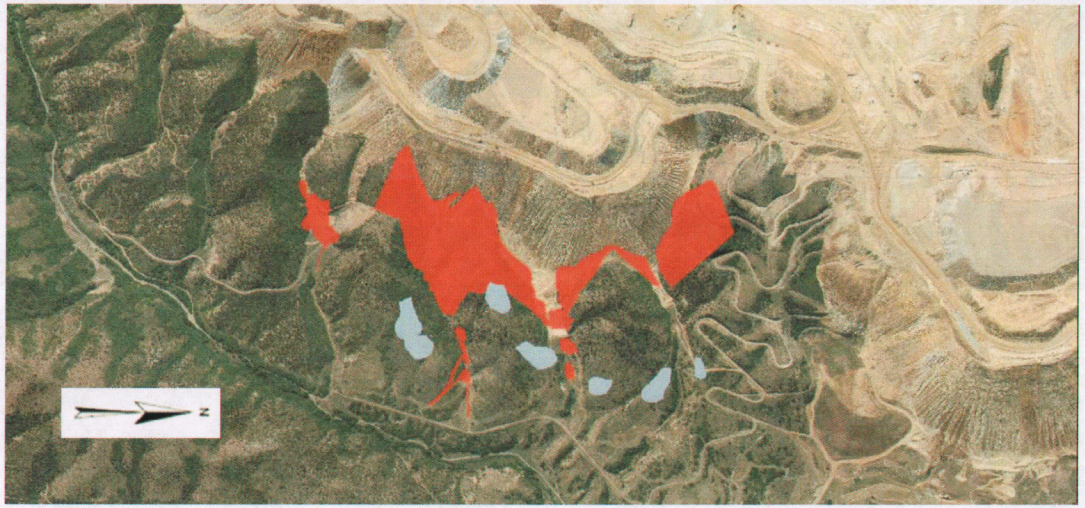
South Dump 2014 Soil Salvage

1) ~ 112 acres of disturbance
2) Stockpiled ~546,000 CY of growth media
3) Placed temporary seed mix for weed control



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South Dump 2014 Storm Water System Improvements

1. Constructed enhanced storm water basins in four drainages
2. Provide additional storm water capacity

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Expenditures 2014

BAT and Experimentation[1]	$ 9,953,471
Demolition	$ 0
Total (2014)	$ **9,953,471**
Total[2,3](1978)	$ 2,741,308

[1]Mine BAT includes reclamation expenditures for equipment rental, maintenance and operation, seed/seedling, fertilizer/mulch/limestone application and purchase, and demolition contractors. Mine BAT does not include operating salaries or experimental costs associated with waste rock segregation or the ARD technologies.

[2]Expend a minimum average, of **$50,000 in $US 1978 dollars per year** for each three year period, in maintaining a program of experimentation and in the application of BAT toward rehabilitation of land.

[3]Consumer Price Index (CPI) Inflation Calculator (Bureau of Labor Statistics)

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KUC anticipates the following 2015 activities:

- Construction of shelf at the base of the South Dumps
- Salvage of additional growth media from base of South Dumps
- Construction of additional storm water controls at South Dumps
- Re-seed burn area (~50 acres) on South Tailings Impoundment
- Data collection from rehabilitated and experimental areas:
  - Store and release cover system modeling and field trials
  - Vegetation monitoring of reclamation areas
  - Fertilizer test plots
- Additional BAT and/or experimental projects as warranted and as funding allows

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Questions?

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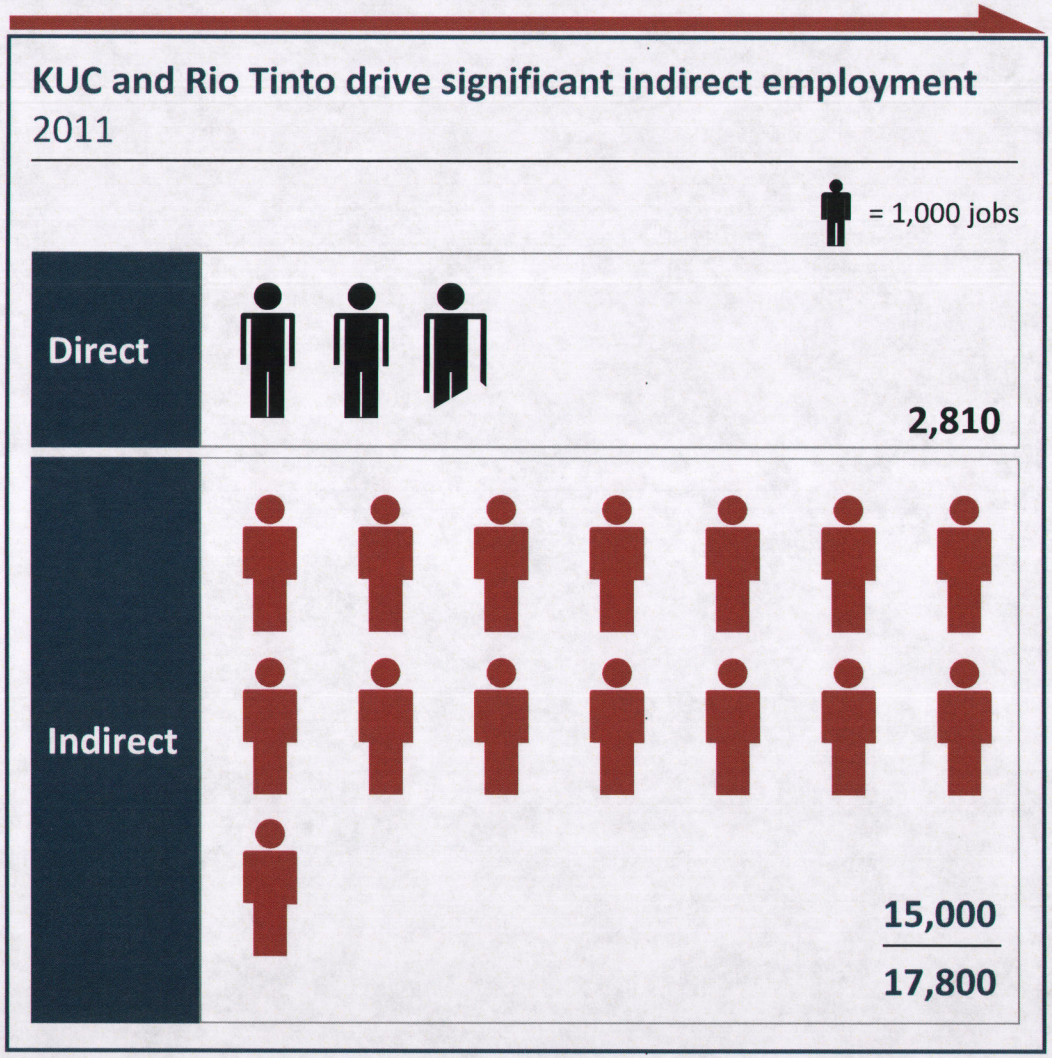
KUC and Rio Tinto jobs are important to the community



Source: Bureau of Economic and Business Research, University of Utah analysis of Rio Tinto data using the REMI model.

Together KUC and Rio Tinto supports

- 27,500 Utah residents or about 8,800 households
- Roughly equivalent to a population the size of
  - 50% of South Jordan
  - 15% of Salt Lake City